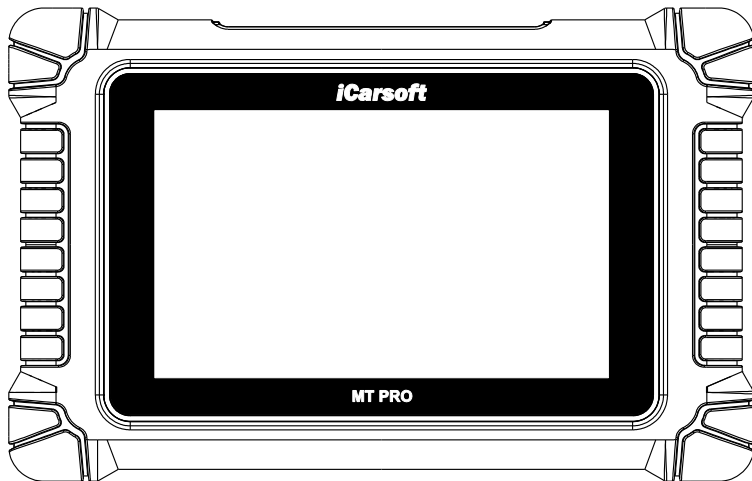


iCarsoft

User Manual

MT PRO

Motorcycle Diagnostic Tool



PROFESSIONAL. FAST. SMART. POWERFUL

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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



[Http://www.icarsoft.us](http://www.icarsoft.us)

[Http://www.icarsoft.com](http://www.icarsoft.com)



Support@icarsoft.us

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 iCarsoft is aware of. iCarsoft 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.

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, for exhaust gases are poisonous.
- Put the transmission in PARK (for automatic transmission) or NEUTRAL (for manual transmission) and make sure the parking brake is engaged.
- Put blocks in front of the drive wheels and never leave the vehicle unattended while testing.
- Be extra cautious when working around the ignition coil, distributor cap, ignition wires and spark plugs. These components create hazardous voltages when the engine is running.
- Keep a fire extinguisher suitable for gasoline, chemical, and electrical fires nearby.
- Do not connect or disconnect any test equipment while the ignition is on or the engine is running.
- Keep the test equipment dry, clean, free from oil, water or grease. Use a mild detergent on a clean cloth to clean the outside of the equipment as necessary.
- Do not drive the vehicle and operate the test equipment at the same time. Any distraction may cause an accident.
- Refer to the service manual for the vehicle being serviced and adhere to all diagnostic procedures and precautions. Failure to do so may result in personal injury or damage to the test equipment.
- To avoid damaging the test equipment or generating false data, make sure the vehicle battery is fully charged and the connection to the vehicle DLC is clean and secure.
- Do not place the test equipment on the distributor of the vehicle. Strong electro-magnetic interference can damage the equipment.
- Please ensure that the distance between the device and the human body is at least 20cm, otherwise personal injury may be caused.

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1 Using this Manual

This manual contains device usage instructions.

Some illustrations shown in this manual may contain modules and optional equipment that are not included in your system.

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 which, if not avoided, may result in damage to the tablet or vehicle.

Example:

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, 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 Operation

Welcome to using the scan tool of iCarsoft, you should do something before using the scan tool.

- At first, please check production list such as scan tool and accessories already when you open the package, read the user's manual and connect the OBDII cable to scan tool.
- Don't open the scan tool in a rainy environment or in the absence of training. Don't soak the scan tool as the keypad and port are not waterproof, also no solvents such as alcohol are allowed to clean the keypad or display.
- Make sure the ignition is ON when you connected the scan tool already.

WARNING

For vehicles manufactured by different vendors, it is possible that it has different diagnostic menus. For details, please follow the instructions on the screen to proceed. Some functions need to be used under the guidance of professional technicians.

2 General Introduction

When it comes to ultra-portability, MT PRO is your perfect companion. Installed with a fast quad-core processor, MT PRO offers maximum convenience and swift diagnosis. The intuitive user screen makes using the device effortless through a 7-inch LCD touchscreen that displays at 1024 x 600 quality. Together with the ability to quickly read and clear DTCs for all available modules of the majority of the makes and models on the market, MT PRO provides you with superior diagnostic functions.

This manual describes the construction and operation of the device and how it works to deliver diagnostic solutions.

2.1 MT PRO Display Tablet

2.1.1 Functional Description

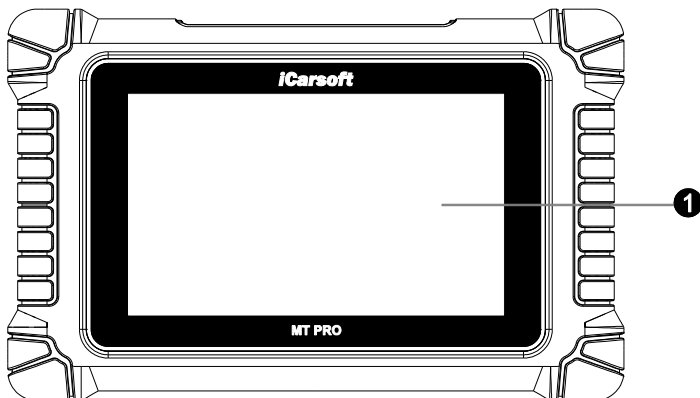


Figure 2-1 Display Tablet Front View

1. 7.0" LCD Capacitive Touchscreen.

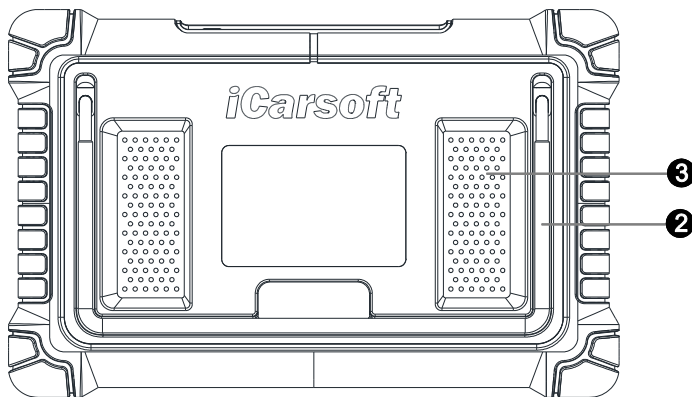


Figure 2-2 MT PRO Display Tablet Back View

2. Collapsible Stand – extends from the back to allow hands-free viewing of the Display Tablet.

- Heat Sink or Speaker.

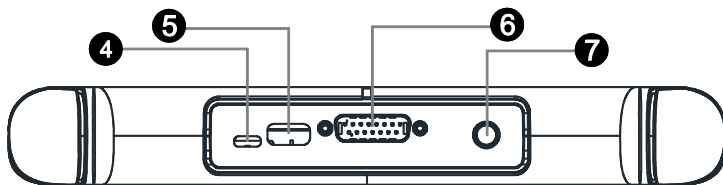


Figure 2-3 MT PRO Display Tablet Top View

- USB Port -- for connects the Display Tablet to the PC or DC external power adapter.
- USB Port.
- DB15-Pin Port -- connects the main cable.
- Lock/Power Button -- long press button to turn tablet off and on. Quick press button to lock screen.

2.1.2 Power Sources

The Display Tablet can receive power from any of the following sources:

- **Internal Battery Pack**
- **Vehicle Power**
- **External Power Supply**

Internal Battery Pack

The Display Tablet can be powered with the internal rechargeable battery, which if fully charged can provide sufficient power for about 5 hours of continuous operation.

Vehicle Power

When the Display Tablet is connected to the test vehicle via the main cable, the Display Tablet automatically receives power from the vehicle.

External Power Supply

The Display Tablet can be powered from a wall socket using the USB cable and USB external power adapter. The external power supply also charges the internal battery pack.

2.1.3 Technical Specifications

Table 2-1 Specifications

Item	Description
Recommended Use	Indoor
Operating System	Android 8.1.0
Processor	Quad Core 1.3 GHz
Memory	32GB
Display	7-inch LCD capacitive touchscreen with 1024x600 resolution
Connectivity	<ul style="list-style-type: none"> • USB 2.0 • Wi-Fi (2.4GHz) • Bluetooth • OBDII
Body Color	Black
Audio Input/ Output	<ul style="list-style-type: none"> • Input: N/A • Output: Buzzer & Speaker
Power and Battery	<ul style="list-style-type: none"> • OBD DLC Voltage Range:9-18V • 3.7V/5000mAh lithium-polymer battery • Type C Input : 5V= 2A
Tested Battery Life	Around 5 hours of continuous use
Power Consumption	500mA (LCD on with default brightness, Wi-Fi on) @3.7 V
Operating Temp.	0 to 50°C (32 to 122°F)
Storage Temp.	-20 to 70°C (-4 to 158°F)
Operating Humidity	5% - 95% non-condensing
Dimensions (W x H x D)	252mm X 160mm X 34.4mm (9.92inch X 6.3inch X 1.35inch)
Net Weight	≈812g

Supported Automotive Protocols

ISO9141-2, ISO14230-2, ISO15765, K/L-Line, Flashing Code, SAE-J1850 VPW, SAE-J1850 PWM, ISO11898 (Highspeed, Middlespeed, Lowspeed and Singlewire CAN), CAN FD, SAE J2610, GM UART, UART Echo Byte Protocol, Honda Diag-H Protocol, TP2.0, TP1.6

Power

Wireless	Frequency band of operation	Maximum transmit power
Bluetooth	2402MHz to 2480MHz	$\leq -0.03\text{dBm}$
Bluetooth Low Energy	2402MHz to 2480MHz	$\leq 0.07\text{dBm}$
2.4G WIFI	802.11b/g/n(HT20): 2412MHz~2472 MHz 802.11n(HT40): 2422MHz~2462 MHz	$\leq 0.99\text{dBm}$

2.2 Accessory Kit

2.2.1 Main Cable

The Main Cable connects the Display Tablet to the vehicle's data link connector (DLC).

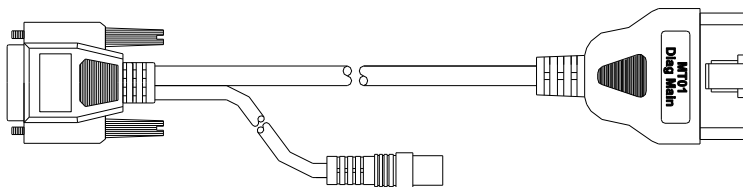
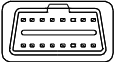
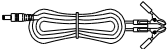
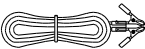
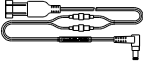




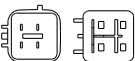
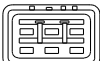






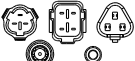





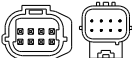


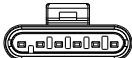


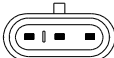



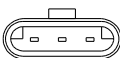








Figure 2-4 Main Cable


2.2.2 Other connector cables

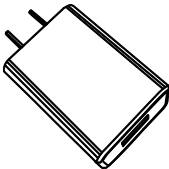



Other connectors are used to connect to non-OBD II vehicle diagnostic sockets. Select the appropriate connector according to the brand and model of the vehicle being tested. Different product models have different connector combinations. Common connectors are as follows:

 <p>MT01 DIAG MAIN</p>	 <p>MT02-1 POWER-GND</p>	 <p>MT02-2 GND</p>	 <p>MT02-3 MV AGUSTA POWER</p>
 <p>MT03 MULTI-JUMPER</p>	 <p>MT04-1 OBD-6</p>	 <p>MT04-2 OBD-6(Optional)</p>	 <p>MT05-1 KAWASAKI-4+8</p>
 <p>MT05-2 KAWASAKI-4+4</p>	 <p>MT05-3 KAWASAKI-6(Optional)</p>	 <p>MT05-4 KAWASAKI-4(Optional)</p>	 <p>MT05-5 KAWASAKI-8(Optional)</p>
 <p>MT06-1 SUZUKI-6</p>	 <p>MT06-2 SUZUKI-4(Optional)</p>	 <p>MT06-3 SUZUKI-8(Optional)</p>	 <p>MT06-4 SUZUKI-4(Optional)</p>
 <p>MT07 YAMAHA-3+4+3</p>	 <p>MT08 HONDA-4</p>	 <p>MT09 KTM-6</p>	 <p>MT10 BMW-10</p>

 <p>MT11 DUCATI-4</p>	 <p>MT12 VESPA-5+5(Optional)</p>	 <p>MT13 APRILIA-8+8(Optional)</p>	 <p>MT14 ROYAL ENFIELD-6(Optional)</p>
 <p>MT15 BENELLI-ABS-4(Optional)</p>	 <p>MT16-1 BENELLI/BENELLI DSK-6</p>	 <p>MT16-2 AEON/BENELLI/QJBENELLI/ BENELLI DSK-6</p>	 <p>MT16-3 AEON/BENELLI/ BENELLI DSK-6(Optional)</p>
 <p>MT17 MULTI-3</p>	 <p>MT18 HARLEY-4+6</p>	 <p>MT19 POLARIS/INDIAN/ VICTORY-8</p>	 <p>MT20-1 SYM-3(Optional)</p>
 <p>MT20-2 SYM-3</p>	 <p>MT21 KYMCO/KAWASAKI-3</p>	 <p>MT22 PGO-6+6(Optional)</p>	 <p>MT23 HARTFORD-6(Optional)</p>
 <p>MT24 SHINERAY-6(Optional)</p>	 <p>MT25 MV AGUSTA-4</p>	 <p>MT26 BRP-6</p>	

2.2.3 Other Accessories

	<p>USB Cable Connects the Display Tablet to the PC or DC external power adapter.</p>
---	---

	<p>USB External Power Adapter</p> <p>Together with the USB cable, connects the Display Tablet to the external DC power port for power supply.</p>
	<p>User Manual</p> <p>Tool operations instructions.</p>
	<p>Quick Guide</p> <p>Device connection and product unpacking list, product description, etc.</p>
	<p>Packing list</p>

NOTE: Before connecting the main cable to your vehicle, please connect the cable to the unit first and tighten the screws.

3 Getting Started

Ensure the tablet is sufficiently charged or is connected to the external power supply (see *Power Sources* on section 2.1.2).

NOTE

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

3.1 Powering Up

Press the Lock/Power button on the top right side of the tablet to power the unit on. The system boots up, and displays the lock screen. Slide the lock icon up and down to access the MT PRO job menu.

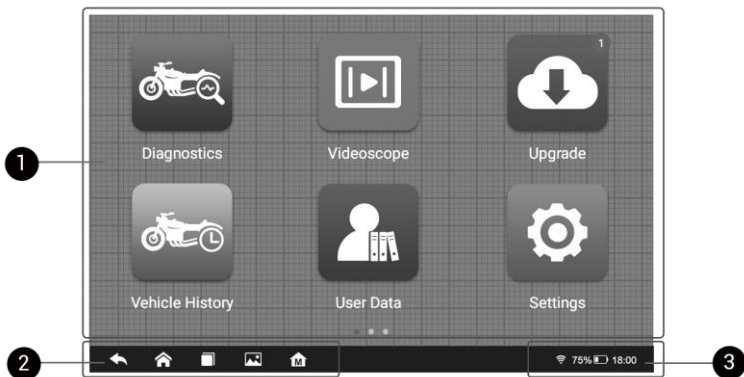


Figure 3-1 Sample MT PRO Job Menu

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

NOTE









The tablet screen is locked by default upon startup. It is recommended to lock the screen when not in use to protect the information in the system and conserve the power.






Almost all operations on the tablet are controlled through the touchscreen. The touchscreen navigation is menu driven, which allows you to quickly locate the test procedure, or data that you need, through a series of choices and questions. Detailed descriptions of the menu structures are found in the chapters for each application.

3.1.1 Application Buttons

The tablet below briefly describes each of the applications in the MT PRO system.

Table 3-1 Applications



Button	Name	Description
	Diagnostics	Accesses diagnostic functions menu. See Diagnostics Operations on chapter 4.
	Videoscope (Optional)	By using an videoscope, the Technicians can observe hard-to-reach or invisible areas. See Videoscope Operations on chapter 5.
	Upgrade	Checks for the latest update available for the MT PRO system, and performs updates. See Upgrade Operations on chapter 6.
	Vehicle history	Records the vehicle's historical diagnostic data, allowing the user to quickly access the diagnostic next time. See Vehicle history Operations on chapter 7.
	User Data	Accesses the organization system for saved data files. See User Data Operations on chapter 8.
	Settings	Accesses MT PRO system settings menu and general tablet menu. See Settings Operations on chapter 9.
	Uninstall	Manage the application and database installed on the MT PRO tablet. See Uninstall Operations on chapter 10.
	Shop Information	Accesses the workshop information service program, including customer information records and test vehicle history records. See Shop Manager Operations on chapter 11.





	Quick Link	Provides associated website bookmarks to allow quick access to product update, service, support and other information. See Quick Link Operations on chapter 12.
	Fault Code	Allows the user to query the fault information of the vehicle model according to the fault code. See Fault Code Operations on chapter 13.
	Support	Feedback and get on-line service from iCarsoft with the MT PRO tablet. See Support Operations on chapter 14.
	About	Access MT PRO system information about the machine. See About Operations on chapter 15.
	Remote desk	Configures the unit to receive remote support using the TeamViewer application program. See Remote Desk Operations on chapter 16.

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

Button	Name	Description
	Locator	Indicates the location of the screen. Swipe the screen left or right to view the 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 applications that are currently in use. Tap an app icon to launch. To remove an app, swipe it to the top or bottom.
	Screenshot	Takes a screenshot when you want to save the displayed information.
	MT PRO Home	Returns to MT PRO Job Menu.

3.2 Powering Down

All vehicle communications must be terminated before shutting down the Display Tablet. Forcing a shutdown while the tablet is communicating may lead to ECM problems on some vehicles. Please exit the Diagnostics application before shutting off the tablet.

➤ **To power down the display tablet**

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

3.2.1 Reboot System

In case of system crash, long press the Lock/Power button and tap Reboot option to restart the system.

4 Diagnostics

The Diagnostics application can access the electronic control unit (ECU) of various vehicle control systems, such as engine, anti-lock brake system (ABS), Meter, Chassis management system and more.

4.1 Getting Started

The Diagnostics operations require connecting the MT PRO to the test vehicle's DLC using the main cable.

4.1.1 Vehicle Model Menu Layout

When the tablet is properly connected to the vehicle, the platform is ready to start vehicle diagnosis. Tap on the Diagnostics application button on the MT PRO Job Menu, the Vehicle Menu then displays.





Figure 4-1 Sample Vehicle Menu






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

Button	Name	Description
	Home	Returns to the MT PRO Job Menu.
	All	Displays a menu of vehicle manufacturers.

	History	Displays stored test vehicle history records.
	USA	Displays the USA vehicle menu.
	Europe	Displays the European vehicle menu.
	Asia	Displays the Asian vehicle menu.
	Search	Searches for a specific vehicle make.

Manufacturer Buttons

The vehicle manufacturer buttons display the vehicle brands currently compatible with the tool. After establishing communication with the vehicle. Tap the desired manufacturer button to start a diagnostic session.

4.2 Vehicle Identification

The MT PRO diagnostic system supports two methods for Vehicle Identification.

1. VIN identify or Auto identify
2. Vehicle select

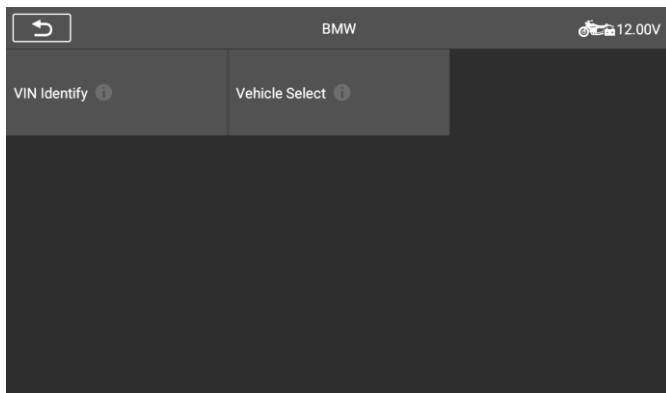


Figure 4-2 Sample Vehicle identification

NOTE

Whether "VIN identify" or "Auto identify" is displayed on the screen depends on the vehicle type.

4.2.1 Auto Identify

The MT PRO diagnostic system features the latest VIN-based Auto VIN Scan function to identify vehicles with just one touch, enabling the technician to quickly identify the vehicle, scan all the diagnosable ECUs on the vehicle and perform diagnostics on the selected system.

The "VIN identify" can automatically parse the motorcycle model, eliminating the cumbersome program manually input by the user.

The device diagnostic system has the latest automatic identification function based on the vehicle identification number. It stores all the diagnosable electronic control units of Scan on the vehicle and performs the diagnosis on the selected system. Perform automatic VIN recognition. For some vehicles that do not support the automatic vehicle identification number scanning function, the diagnostic tool allows you to manually enter the vehicle identification number. Recognize the VIN first. If the VIN cannot be recognized, you need to enter it manually.

● Automatic VIN identification

➤ To perform VIN Identify

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

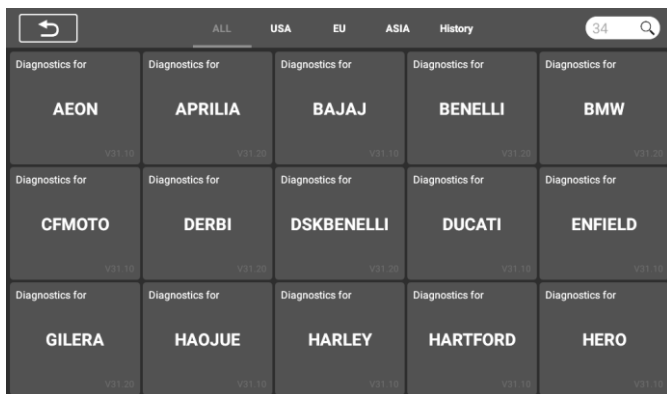


Figure 4-3 Sample VIN Identification Screen 1

2. Select **vehicle brand**. Tap the “Auto Identify”, Wait for the vehicle to communicate.

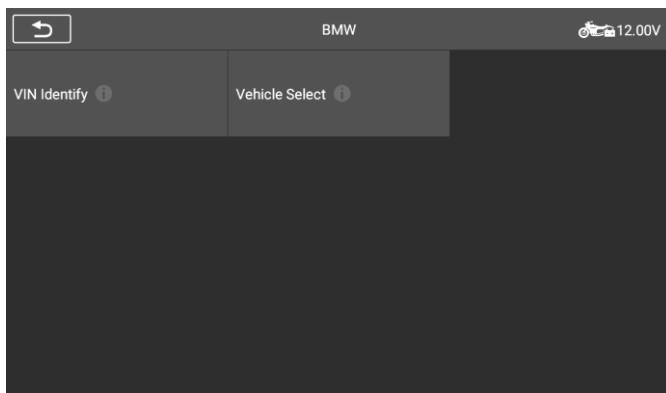


Figure 4-4 Sample VIN Identification Screen 2

3. Once the test vehicle is successfully identified, the screen will show the Vehicle information: include VIN, model code, brand etc., then tap OK to enter the diagnosis.

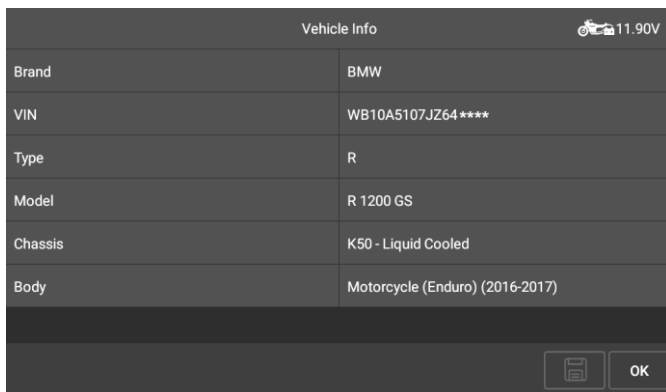


Figure 4-5 *Sample Vehicle information Screen 3*

EN

● Manual VIN Input

For some vehicles that not supporting the Auto VIN Scan function, the MT PRO diagnostic system allows you to enter the vehicle VIN manually.

➤ To perform Manual VIN Input

1. Tap the **Diagnostics** application button from the MT PRO Job Menu. The Vehicle Menu displays.
2. Select **vehicle brand**. If some vehicles do not support automatic VIN code recognition, you need to enter the VIN code manually.

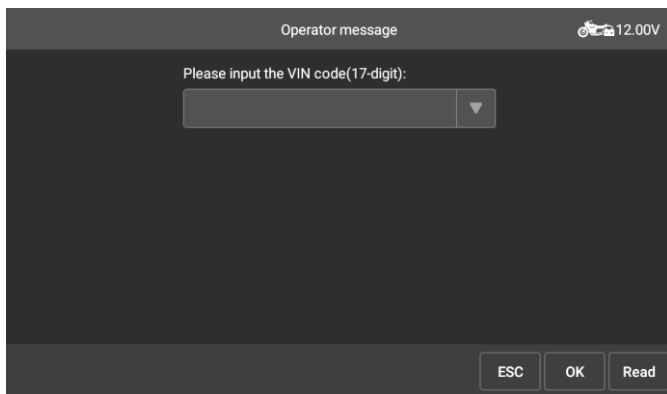


Figure 4-6 *Sample VIN input Screen 1*

3. Tap the input box and enter the correct VIN.

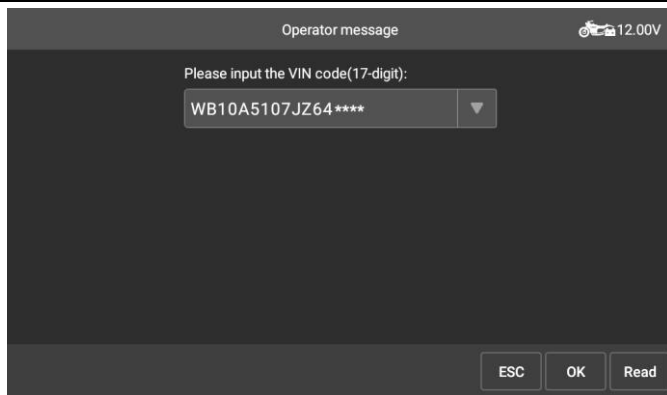


Figure 4-7 Sample VIN input Screen 2

4. Tap OK. The vehicle will be identified and the Vehicle Diagnostics screen will display.
5. Tap ESC to exit Manual Input.

4.2.2 Vehicle select

In some cases, when the user selects the vehicle brand without performing an automatic vehicle identification number scan, the system can provide vehicle selection to enter the vehicle diagnosis system.

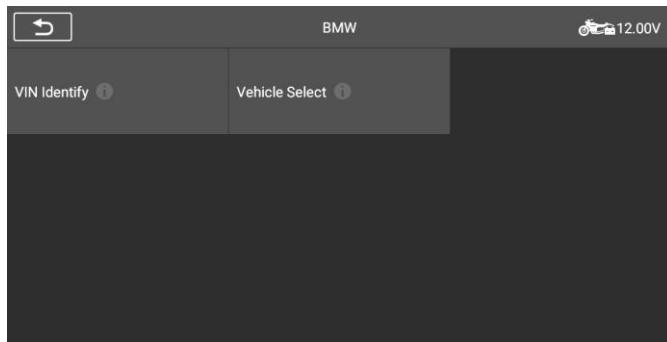


Figure 4-8 Sample Vehicle Select Screen 1

EN

➤ **To perform Vehicle Select**

1. Tap the Diagnostics application button from the MT PRO Job Menu. The Vehicle Menu displays.
2. Tap the vehicle brand of the test vehicle.
3. Tap the "Vehicle Select" option to make a series of selections according to the on-screen prompts, select the correct vehicle model, model year, etc..



Figure 4-9 Sample Vehicle Select Screen 2

4. Select step by step according to the screen prompts, and finally enter the list of menu.

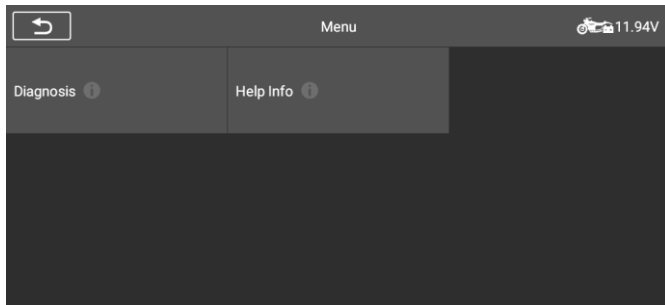


Figure 4-10 Sample Vehicle Select Screen 3

4.3 Navigation

This section describes how to operate the Diagnostics screen and select test options.

4.3.1 Diagnostics Screen Layout

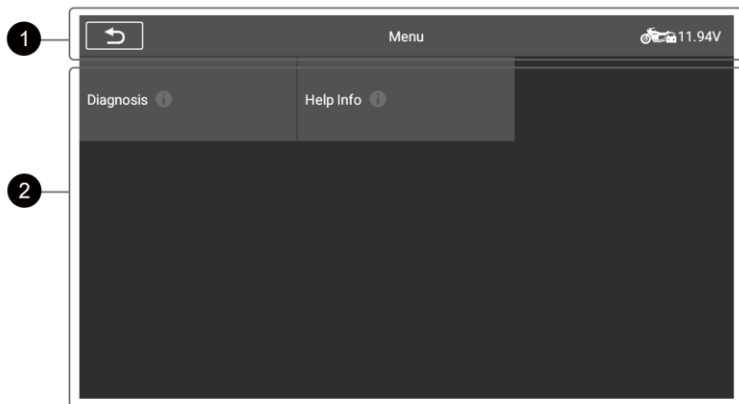


Figure 4-11 Sample Diagnosis mode Screen 1

The diagnostic screens typically include two sections.

1. Status Information Bar
2. Main Section

Status Information Bar

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

- 1) Back button – Returns to the MT PRO Job Menu.
- 2) Menu Title – displays the menu heading of the Main Section.
- 3) Voltage Icon – displays the vehicle's voltage status.

Main Section

The main section displays the diagnostic mode of the vehicle, depending on the vehicle type; or it may vary depending on the operation stage, displaying vehicle

identification selection, main menu, test data, messages, instructions and other diagnostic information.

4.3.2 Screen Messages

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

Confirmation Messages

This type of messages usually displays as an “Information” screen that informs you 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 to continue, the message displays briefly.

Warning Messages

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

Error Messages

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

4.3.3 Making Selections

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

4.4 Diagnosis

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

According to the menu driven program, the user manually selects the specified control unit to be detected and directly performs diagnosis of the specified system.

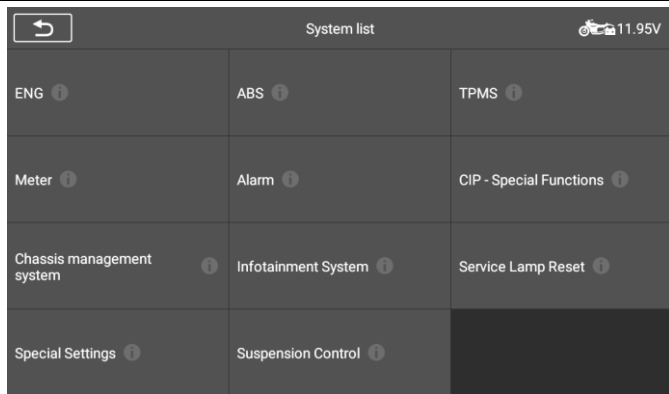


Figure 4-12 Sample Diagnosis Screen 2

Diagnostic operation

This option allows you to manually locate a required control system for testing through a series of choices. Follow the menu driven procedures and make proper selection each time; the program will guide you to the diagnostic function menu after selections are made.

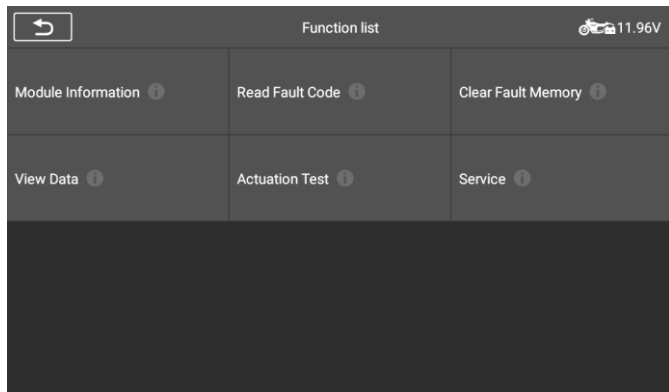


Figure 4-13 Sample Diagnostic Operation Screen

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

include:

1. **Module Information** – Read full electronic system module information, such as VIN, part number, version, supplier, production date of ECU.
2. **Read fault code** – Read full electronic system module fault code, show state and description of fault code.
3. **Clear fault Memory** – Erase full electronic system module fault code and diagnostic related freeze frame information.
4. **View data** – Read full electronic system module live data by text value or waveform.
5. **Actuation Test** – This function provides access to vehicle specific subsystem tests and component tests.
6. **Service--** The motorcycle diagnostic tool provides multiple service functions. Different models have different service functions. Users can select corresponding service functions to perform corresponding operations according to their needs, such as resetting the oil service light and calibrating different systems.

➤ **To perform a diagnostic function**

1. Establish communication with the test vehicle.
2. Select “Diagnostic” icon.
3. Select Vehicle Manufacturer.
4. Select “Vehicle Select” and select vehicle model, model year, etc. according to the on-screen prompts.
5. Select the diagnosis mode and guide the selection through the menu of any diagnosis mode to locate the required test system.
6. Select the test to be performed on the function list.

◆ **Module Information**

This function retrieves and displays the specific information for the tested control unit, including unit type, version numbers and other specifications. Also you can save these data by press save button. The sample Module Information screen displays as below:

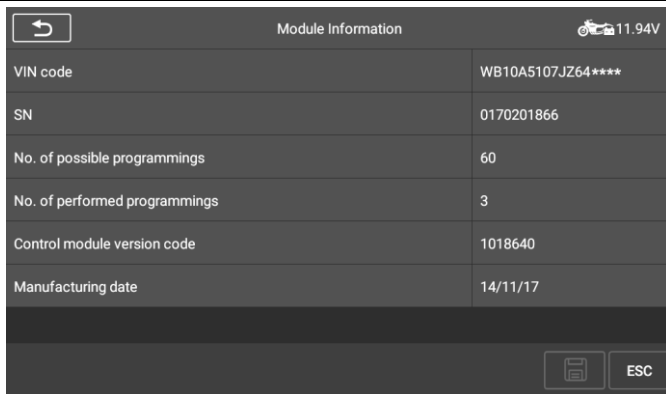


Figure 4-14 Sample Module Information Screen

◆ Read Fault Codes

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

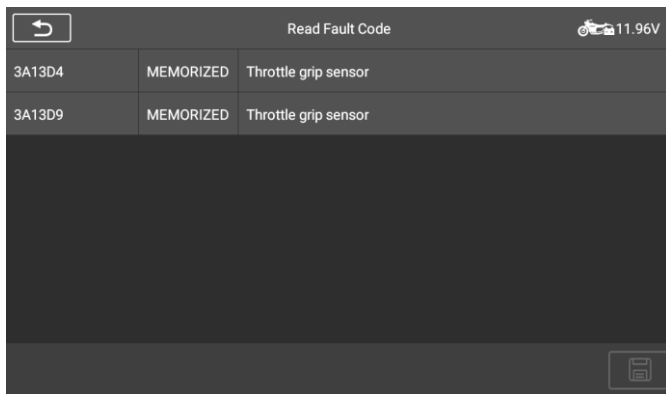


Figure 4-15 Sample Read Fault Codes Screen 1

◆ Clear Fault Codes

After reading the retrieved codes from the vehicle and certain repairs have been carried out, 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) Select the **[Clear fault code]** on the "function menu"
- 2) At this time, a warning message will appear on the screen, indicating that the fault code and frozen data information will be cleared.
 - a) Select **[OK]** to continue. After the operation is successful, an complete information will be displayed on the screen.
 - b) Select **[Cancel]** to exit.
- 3) Re-enter the **[Read fault code]** function to retrieve the fault code to ensure the successful code clearing operation.

◆ View Data

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

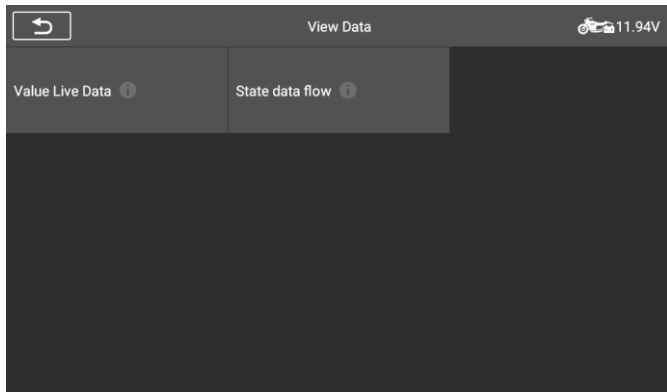


Figure 4-16 Sample View Data Screen 1

Select any module manually, and you will enter the specific data flow list. Gesture scrolling allows you to quickly move through the data list. Simply swipe the screen up or down to locate the data you want. The figure below shows a typical Live Data screen:

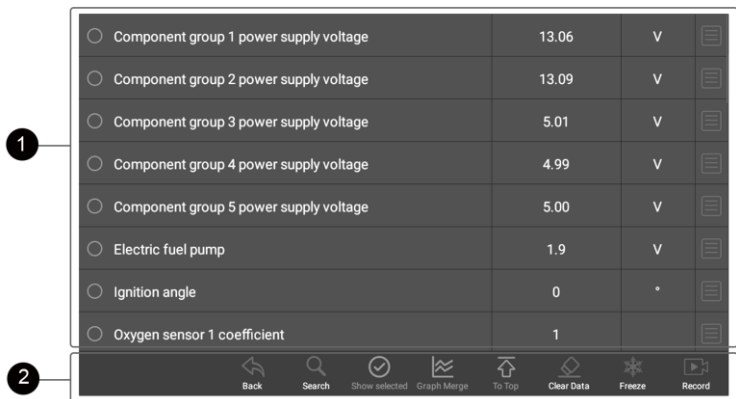



Figure 4-17 Sample View Data Screen 2

1. Main Section

- Name Column – displays the parameter names.
 - a) Check Box – tap the check box on the left side of the parameter name to make item selection. Tap the check box again to de-select the item.
 - b) Drop-down Button – tap the drop-down button on the right side of the parameter name to open a sub menu that provides various choices for data display mode.
- Value Column – displays the values of the parameter items.
- Unit Column – displays the unit for the parameters.
-  --- Tap this button to display a pop-up window to switch the data stream display mode.

To change the unit mode, return to the “Settings” button and select the desired mode.

Display Mode

There are four types of display modes available for data viewing, allowing you to view various types of parameters in the most suitable way.

Tapping the drop-down button on the right side of the parameter name to open a sub menu. There are four buttons to configure the data display mode, and a Help button for access to additional information.

Each parameter item displays the selected mode independently.

- 1) **Analog Gauge Mode** – displays the parameters in form of an analog meter graph.
- 2) **Text Mode** – this is the default mode that displays the parameters in texts and displays in list format.

NOTE

Reading of status parameters, such as a switch reading, which are mostly in word form, such as ON, OFF, ACTIVE, and ABORT, can only be displayed in Text Mode. Whereas reading of value parameters, such as a sensor reading, can be displayed in text mode and other graph modes.

- 3) **Waveform Graph Mode** – displays the parameters in waveform graphs. When this mode is applied, you can use two fingers to zoom in or out.
- 4) **Digital Gauge Mode** – displays the parameters in form of a digital gauge graph.

2. Functional Buttons

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

- **Back** – returns to previous screen or exits the function.
- **Record** – starts recording the retrieved live data; the recorded data is then stored as a video clip in the Data Manager application for future reviews.
- **Freeze frame** – displays the retrieved data in freeze frame mode.
 - 1) **Previous Frame** – moves to the previous frame in the freeze frame data.
 - 2) **Next Frame** – moves to the next frame in the freeze frame data.
- **Clear Data** – clears all previously retrieved parameter values at a selected point.
- **To Top** – moves a selected data item to the top of the list.

- **Graph Merge** – tap this button to merge selected data graphs (for Waveform Graph Mode only). This function is useful when making a comparisons between parameters.

**NOTE**

This mode supports up to 4 "graphics merge" parameters.

To cancel Graph Merge mode, tap the ☒ button in the upper right corner.

- **Show** – tap this option to switch between the two options; one displays the selected parameter items, the other displays all the available items.
- **Search**–Quickly search for relevant data streams

◆ Actuation Test

The "Actuation Test" function accesses vehicle specific subsystem tests and performs component tests. The available test functions vary according to the manufacturer, year and model, and the menu will only show the available test options.

When performing the actuation test, the tester inputs the command to the ECU to drive the actuator. This test can monitor the operation of the actuator by reading the ECU data of the engine. For example, by repeatedly switching the two working states of the solenoid valve, relay and switch, it can determine whether the system or components are working normally.

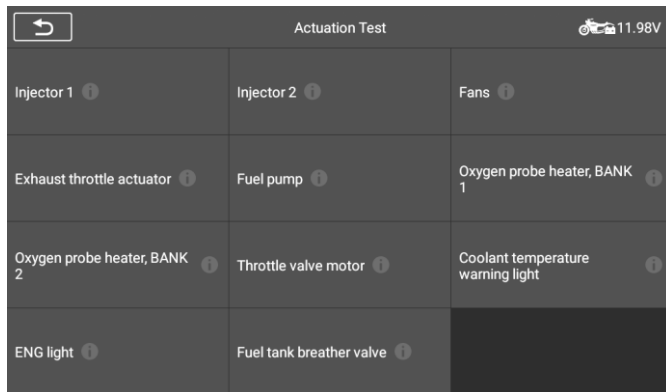


Figure 4-18 Sample Actuation Test Screen

➤ Fans

The cooling fan is activated by the injection control module when the ENG exceeds 105 °C / 221 °F and is deactivated when the temperature reaches approximately 95 °C / 203 °F. Through the Fans test item, you can control the cooling fan rotation to test whether the fan works normally.

➤ Fuel pump

The fuel pump is built into the fuel tank and is controlled by the injection control unit. The amount of fuel that needs to be supplied is calculated based on the driver's operating behavior and engine status, and then the fuel pump is controlled to extract fuel. This action test can actively activate the fuel pump to work, and judge whether the component is working normally by hearing whether there is a sound of the motor working.

➤ ABS Pump

The ABS pump is the main execution component of the anti-lock braking system, which ensures that the wheels will not lock due to the brakes during emergency braking, resulting in serious safety accidents such as sideslip and rollover. This action test can actively activate the ABS pump to determine whether the component is working properly.

➤ Self-test

The instrument has various status display information of the vehicle and mechanical pointers and other components. Whenever the key is turned to the ignition switch, the vehicle will perform a self-check program on the instrument to ensure vehicle and driving safety. This action test can actively activate the self-check program. When the program is running, the indicators in the Dashboard will be alternately positioned to zero and to full scale. Moreover, all the check warning lights and LCD components will be activated. We can observe the entire Check whether the process is normal to check whether a component failure has occurred.

◆ Service

The iCarsoft multi-system motorcycle diagnostic tool line provides Oil Reset, Electronic throttle, ABS bleeding, Electronic suspension, Engine speed limitation and more service functions for most modern vehicles on the road today. Whether a vehicle has service features depends on the vehicle make.

The service function can quickly connect to the vehicle system and match various special functions. A typical maintenance operation interface contains a series of menu-guided execution commands. Select the appropriate operation option

according to the on-screen prompts, enter the correct values or data, and perform various necessary operations. By completing these operations, the system will guide the user through various operational procedures for vehicle maintenance and repair.

4.5 Service functions

4.5.1 Oil Reset

Different vehicles may have different methods to do the oil maintenance, generally, oil change is required whenever oil lamp is on and the recommended maintenance period is reached. The Oil Reset function can reset the maintenance period and distance and turn off the lamp when you really change the oil.

4.5.2 Electronic Throttle

Electronic Throttle Control system (ETC), reset of the throttle valve adaptation values while clear or replace the throttle valve (Take BMW as a sample). As the same time we need to reset the accelerator grip adaptation values. Then start the engine and let the positions of the throttle valve and accelerator handle self-learn to restore the best matching values.

4.5.3 ABS Bleeding

When the ABS contains air, or the ABS computer / ABS pump / brake master cylinder / brake cylinder / brake line / brake fluid is replaced, the ABS bleeding function must be performed to bleed the brake system to restore ABS brake sensitivity

4.5.4 Electronic suspension

Electronic suspension: In the following cases: before delivery(after the factory assembly), after replacing the control module, after repairs to the ESA system.(for example after replacing the spring/shock absorber module),this function needs to be executed for suspension and calibration.

4.5.5 Engine speed limitation

New motorcycles will go through a running-in period, where the various components adapt to each other to achieve optimal driving conditions. During this running-in period, there is often a speed limit setting for engine protection. After the running-in period, this speed limit can be released to enjoy riding. These two function "Apply/Remove the engine speed limitation for the run-in" are used to do the job.

NOTE

Different models will have different menu modes. This manual is for reference. Everything in kind shall prevail. If there is any increase or decrease in the function of the product, the actual product shall prevail.

4.6 Help Info

This item is provided to users to help information so that users can use this product more conveniently.

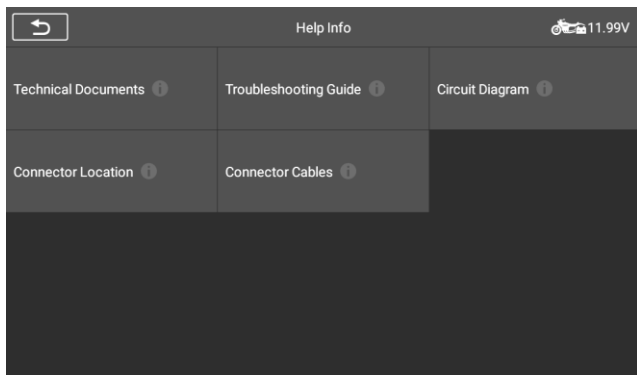


Figure 4-19 Sample Help Info Screen

Different help information menus may be slightly different, mainly including the following: Technical Documents. Troubleshooting Guide. Circuit Diagram. Connector Location. Connector Cables.

◆ Technical Documents

This option provides technical documents for various modules. Users can find relevant documents through menu guidance to solve certain related technical problems. As shown in the figure below, this document supports multi-language translation when connected to the Internet. Users can select the language according to the language on the screen.

Analysis of emission values

CAUTION

Do not allow air-cooled or air/oil-cooled engines to run at high speed when the vehicle is stopped. There is a risk of overheating and damage to the exhaust system, equipment and the engine itself.

1. All BMW motorcycles with more than one exhaust pipe must be checked for only one of them, as there is sufficient fuel correction in the exhaust system.
2. For all devices equipped with **Regulated catalytic converters** of BMW, applying the target values shown in the table below.
3. For all BMW motorcycles without catalytic converters or equipped with non-regulated catalytic converters, the emission limits set by law apply.
4. On motorcycles in neutral (N) or on motorcycles **without catalytic converter** or with **unregulated catalytic converter**: min 800 1/min, max 1600 1/min.
5. All models **have an oil temperature of 80°C minimum** measured using an infrared thermometer on the engine housing near the oil pan cover.

Emission code	Test Speed - Motorcycle in neutral (N)	characteristics	CO % content (max)

Figure 4-20 Sample Technical Documents Screen

◆ Troubleshooting Guide

This option provides a troubleshooting guide for fault codes. Through the fault code guide, users can quickly understand the cause of the fault and how to solve it.

Cylinder 1 Electromagnetic injector (fault code P0201)

The following table shows the errors that occur when a fault occurs.

fault code	connotation
P0201	Cylinder 1 Injector [Fault]

WARNING

This information is for the reader's information only, and the company is not responsible for any accidents or injuries resulting from the use of this information!

All tests must be performed with the engine off.

Solution for Error Code P0201

Check the condition of components and connectors.

Using a multimeter, perform electrical tests as directed.

Figure 4-21 Sample Troubleshooting Guide Screen

◆ Circuit Diagram

The circuit diagram clearly shows the component connections of the motorcycle engine control unit, etc.

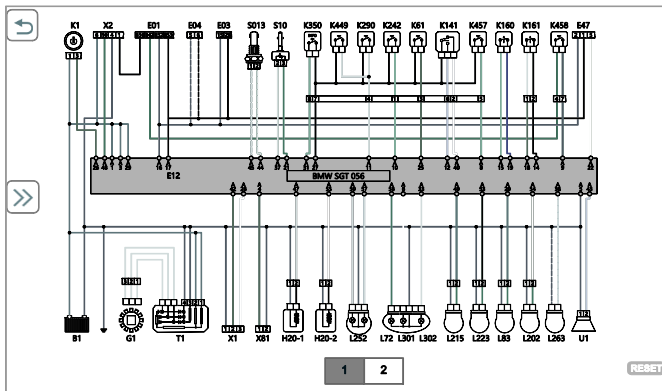



Figure 4-22 Sample Circuit Diagram Screen

1. Tap a single component (such as B4, etc.), and a pop-up window will appear on the screen to display the relevant information of this component.
2. Tap the  button, and a list of hidden component names will appear on the left. Tap the name, and the component on the circuit diagram on the right will flash, so that users can quickly locate it.
3. Tap the connection line on the circuit diagram, and the connection relationship will flash.

◆ Connector Location

The connector location varies for different models or diagnostic functions, and the specific location is based on the actual location of the vehicle. Users can use this item to understand the approximate location of the motorcycle connector. According to the on-screen menu instructions, select the relevant diagnostic function to view the connector diagram.



Figure 4-23 Sample connector location Screen

◆ Connector cables

Different models or different diagnostic functions have different wiring heads. This item shows the connection diagram of the main line and other wiring heads, as well as the wiring head model. According to the on-screen menu instructions, select the relevant diagnostic function to view the connection wiring head diagram.

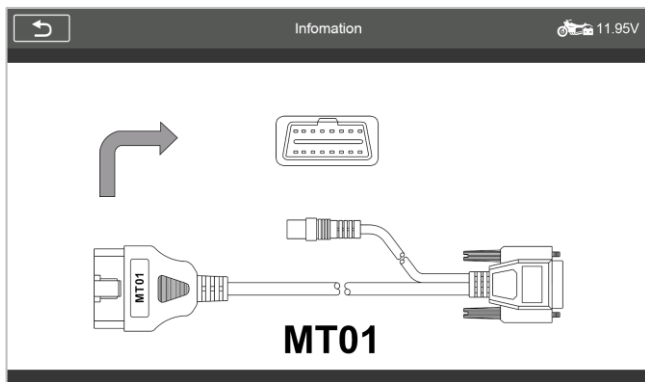


Figure 4-24 Sample connector cables Screen

4.7 Generic OBD Operations

A fast-access option for OBDII/EOBD vehicle diagnosis is available on the Vehicle Menu screen. This option presents a quick way to check for DTCs, isolate the cause of an illuminated malfunction indicator lamp (MIL), check monitor status prior to emissions certification testing, verify repairs, and perform a number of other services that are emissions-related.

4.7.1 General Procedure

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

1. Tap the **Diagnostics** application button from the MT PRO Job Menu. The Vehicle Menu displays.
2. Tap the **EOBD** button. The device will automatically establish communication with the vehicle, as shown in the figure below:



Figure 4-25 Sample OBDII Screen 1

3. When the communication is complete, vehicle protocol information will be displayed. Tap OK to proceed to the next step.

Monitor Overview		11.94V
MIL Status	OFF	
Codes Found	14	
Monitor Completed	5	
Monitor Not Completed	2	
Monitor Not Supported	3	
Ignition Type	Spark	
Protocol Type	CAN	
		ESC OK

Figure 4-26 Sample OBDII Screen 2

4. Select a specific protocol under the **Protocol** option. Wait for the OBDII Diagnostic Menu to display.



		Diagnostic Menu		 11.94V	
Read Codes ⓘ		Erase Codes ⓘ		I/M Readiness ⓘ	
Live Data ⓘ		Freeze Frame ⓘ		Vehicle Information ⓘ	
O2 Monitor Test ⓘ		On-Board Monitor ⓘ		Evap System(mode\$8) ⓘ	

Figure 4-27 Sample OBDII Diagnostic Menu



NOTE

Tapping ⓘ button beside the function name to display additional function information.

Select a function option to continue.

- Read Codes
- Erase Codes
- I/M Readiness
- Live Data
- Freeze Frame
- Vehicle Information
- O2 Monitor Test
- On-Board Monitor
- Evap System(mode\$8)

NOTE

Some functions are supported only on certain vehicle manufacturers.

4.7.2 Function Descriptions

This section describes the various functions of each diagnostic option:

Read Codes

When this function is selected, the screen displays all the Stored, Pending and Permanent Codes. You can save the fault code information of the current page through the save button in the lower right corner.



read Codes			 11.94V
P2323	Stored	Ignition Coil H Secondary Circuit	
P2122	Stored	Throttle/Pedal Position Sensor/Switch D Circuit Low	
P0102	Stored	Mass or Volume Air Flow Sensor A Circuit Low	
P0304	Stored	Cylinder 4 Misfire Detected	
P0506	Stored	Idle Control System RPM - Lower Than Expected	
P0711	Stored	Transmission Fluid Temperature Sensor A Circuit Range/Performance	
			

Figure 4-28 Sample Read Codes Screen

Stored codes are the current emission related DTCs from the ECM of the vehicle. OBDII/EOBD Codes have a priority according to their emission severity, with higher priority codes overwriting lower priority codes. The priority of the code determines the illumination of the MIL and the codes erase procedure. Manufacturers rank codes differently, so expect to see differences between makes.

Erase Codes

This option is used to clear all emission related diagnostic data such as, DTCs, freeze frame data and manufacturer specific enhanced data from the vehicle's ECM.

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

I/M Readiness

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

- **Since Codes Cleared** – displays the status of monitors since the last time the codes are erased.
- **This Drive Cycle** – displays the status of monitors since the beginning of the current drive cycle.

Live Data

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

Live data can be displayed in various modes, see **View Data** on section 4.5 for detailed information.

Freeze Frame

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

Vehicle Information

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

O2 Monitor Test

This option allows you access and show the Oxygen Monitor Sensor value, which indicates the motorcycle emission status.

On-Board Monitor

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

Evap System

This item is used to issue the EVAP system test command.

4.8 Exiting Diagnostics

The Diagnostics application remains open as long as there is active communication with the vehicle. You must exit the diagnostics operation to stop all communications with the vehicle before closing the Diagnostics application.

NOTE

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

➤ To exit the Diagnostics application

1. From an active diagnostic screen, tap the **Back** or **ESC** functional button to exit a diagnostic session step-by-step.
2. From the Vehicle Menu screen, tap the **Back** button on the top toolbar; or tap the **Back** button on the navigation bar at the bottom of the screen.
3. Or tap the **Home** button on the diagnostics toolbar to exit the application directly and return to the MT PRO Job Menu.

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

5 Videoscope(Optional)

A videoscope is a device utilized by automotive repair technicians to examine an engine and its various components in order to aid in problem identification.

By employing an endoscope, technicians are able to visually inspect areas that are difficult to access or not readily visible, such as engine blocks, valves, pistons, and crankshafts.

This facilitates the process of identifying and rectifying faults.

The videoscope diagram is shown below.

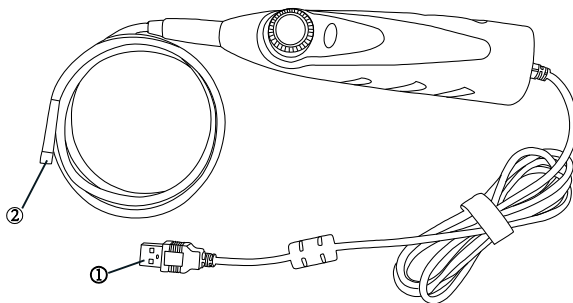


Figure 5-1 Sample videoscope 1

- 1、Number ① is USB interface, connect USB with the product device.
- 2、Number ② is the videoscope lens, view the impact through the lens.

➤ **To check the MT PRO product information in Videoscope:**

1. Tap the **Videoscope** application on the MT PRO Job Menu.

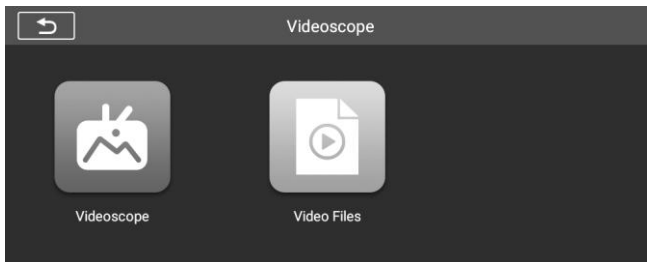


Figure 5-2 Sample videoscope 2

2. Continue to tap the **Videoscope**, If it is not connected to the videoscope, it is

displayed to the not detected page. Tap “video files” button, The screen will go to the “video files” page.

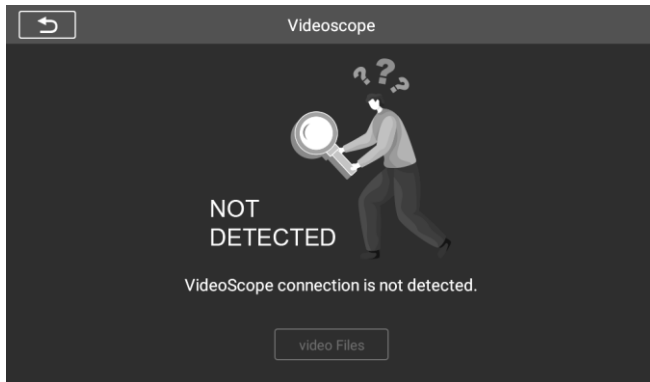


Figure 5-3 Sample videoscope 3

3. If the videoscope is connected to the product, a prompt window is displayed to allow the device to connect to the USB device, Tap OK, then enter the page. At this time, you can take pictures or video.

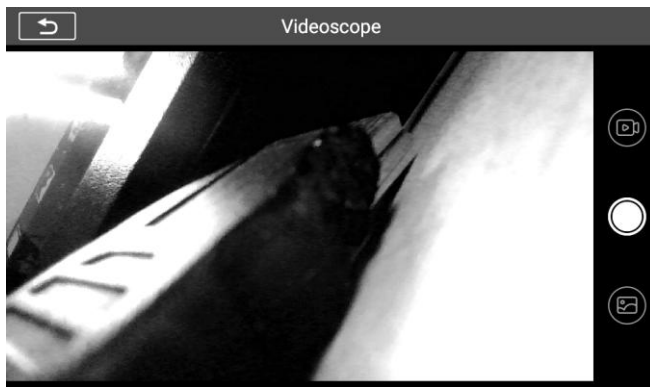


Figure 5-4 Sample videoscope 4

4. Image files and video files are viewed in the "video files" application.

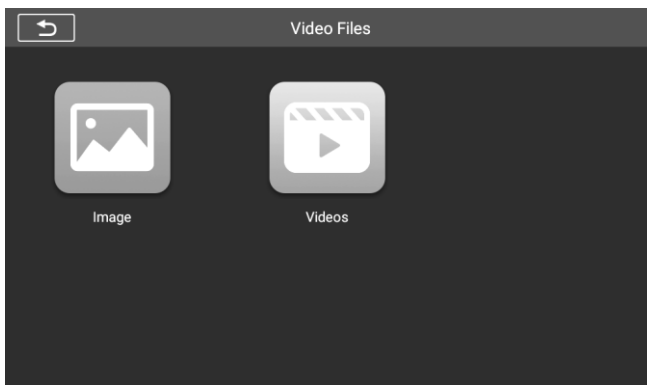


Figure 5-5 Sample videoscope 5

6 Upgrade

The Update application allows you to download the latest released software. The updates can improve the MT PRO applications' capabilities, typically by adding new tests, new models, or enhanced applications.

The tablet automatically searches for available updates for the MT PRO software 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 MT PRO System.

Registration is required when using the tablet update for the first time

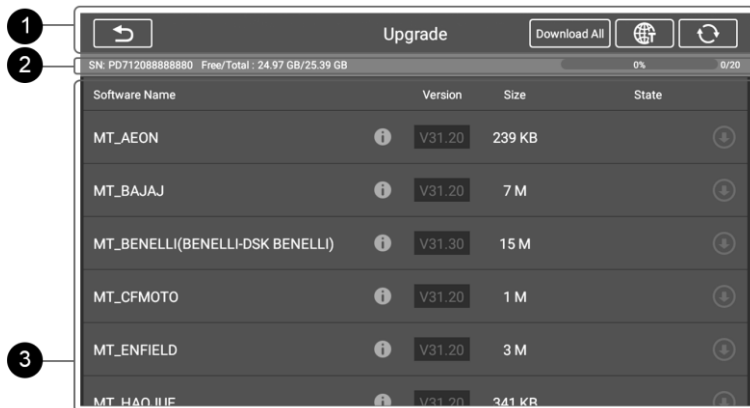


Figure 6-1 Sample Update Screen – for MT PRO

① Navigation and Controls

- Home Button – returns to the MT PRO Job Menu.
- Update All – downloads all available updates.
- Search Bar – search specific update item by inputting the file name.
- For example: a vehicle make.

② Status Bar

- Left Side – displays the MT PRO device model information and serial number.
- Right Side – displays an update progress bar indicating the completion status.

③ Main Section

- Left Column –displays the diagnostic function icon and service function icon and the name of the software;
- Middle Column –displays a summary of software changes, including software version, detailed information, and size. Tap ① button to open the information screen to view detailed information. Tap the (X) button to turn it off.
- Right Column – controls software update. According to the status of the software download, a different titled button displays.

- a) Tap the download icon to update the item you want to update.
- b) Tap **Pause** to suspend the software update.
- c) Tap **Continue** to resume updating the software.

➤ **To update the software and database**

1. Make sure the Display Tablet is connected to a power source with stable access to the internet.
2. Tap the **Upgrade** application button from the MT PRO Job Menu; or tap the update notification message when received; or tap the **Upgrade** icon on Vehicle Menu in Diagnostics application. The Update application screen displays.
3. Check all available updates:
 - If you decide to update all items of the software, please tap the "Download All" button.
 - If you only want to update one or some of the item(s), tap the **Update** button on the right column of the specific item(s).
4. Tap the **Pause** button to suspend the update. Tap **Continue** to resume the update. The update will resume from the point at which it was paused.
5. The software will be installed automatically once its download has completed. The previous version will be replaced.

7 Vehicle History

This function stores test vehicle history records, including vehicle information and the retrieved DTCs from previous diagnostic sessions. All information is displayed in summarized details. Tap on a record to resume a diagnostic session on a "stored vehicle".

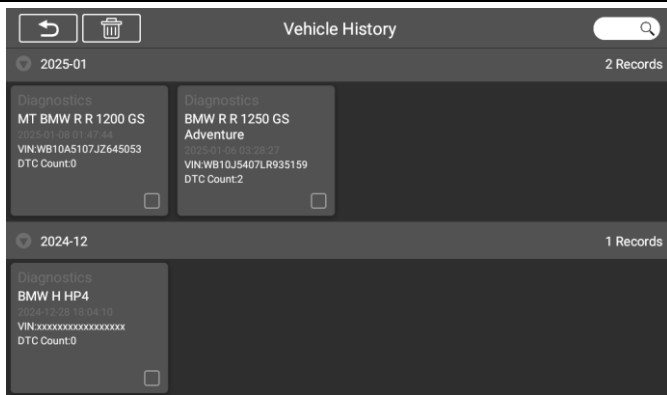


Figure 7-1 Sample Vehicle History Screen

➤ **To activate a test session for the recorded vehicle**

1. Select **Vehicle History** application on the MT PRO Job Menu..
2. The drop-down button to the left of the list shows or hides the Historical Diagnostic Records thumbnail. Tap on the thumbnail to go to the next level of historical diagnostic data detail page. The Diagnostics button in the upper right corner provides quick access to diagnostics.
3. To delete the historical diagnostic records, tap on the tick box in the lower right corner of the thumbnail to select it, and then tap on the Delete button in the upper left corner of the navigation bar.

8 User Data

The **User Data** application is used to store, print, and review the saved files. Most operations are controlled through the toolbar.

Selecting the User Data application opens the file system menu. Different file types are sorted separately under different options, there are six types of information files to be viewed or played back.

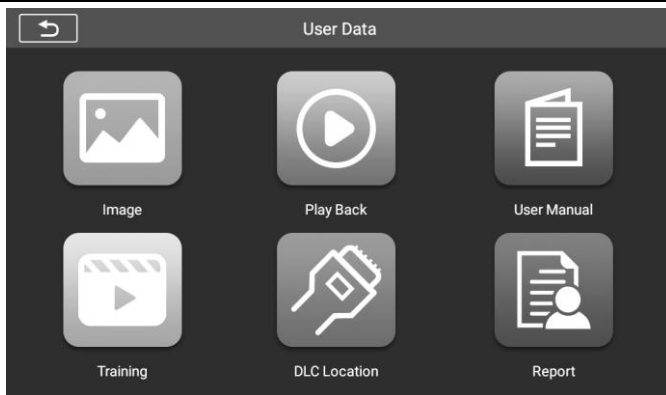


Figure 8-1 Sample User Data Main Screen

User Data Operations are based on toolbar controls. Details are explained in the following sections.

8.1 Image Files

The Image section contains all captured screenshot images. The image section allows you to view all the screenshots.

8.2 Play Back

The playback section allows you to view diagnostic data, live data, and fault codes on the system.

➤ To view live data:

1. Tap the **Play back** icon on the User Data application. The screen display the data list of diagnostic data, live data, and fault codes.

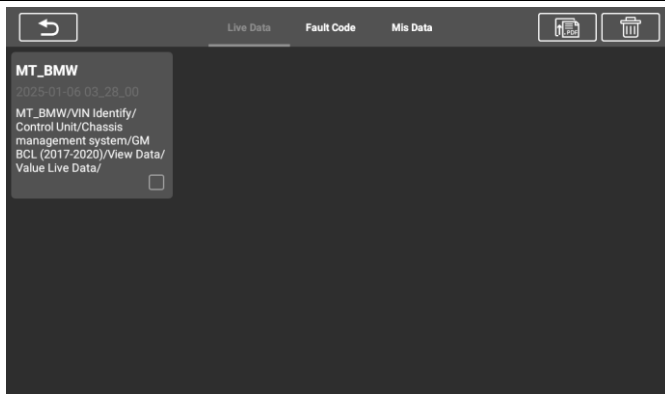


Figure 8-2 Sample Play Back Screen 1

2. Select a list, the screen will enter the data flow recording interface.

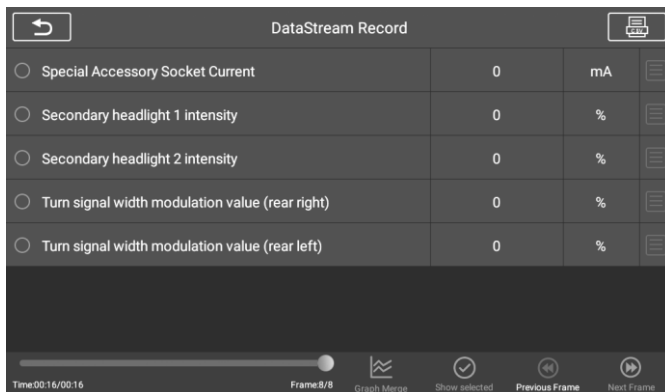


Figure 8-3 Sample Play Back Screen 1

3. Select the check box in the lower right corner of each list, tap the button in the upper right corner to execute PDF output function or delete.

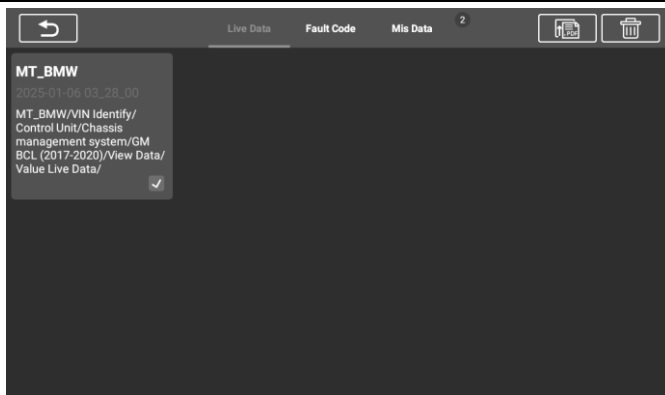



Figure 8-4 Sample Play Back Screen 2

Perform PDF output function:

- 1) Select one or more data lists and tap the button  to enter the interface as shown in the figure below. In this interface, you can still move up, down, and delete.

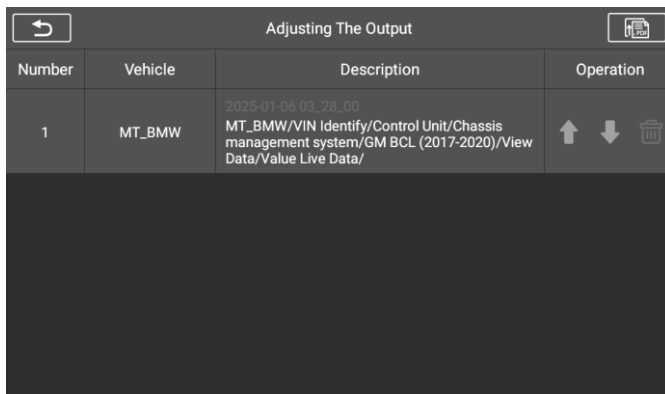



Figure 8-5 Sample Play Back Screen 3

- 2) After the adjustment is completed, tap the button  in the upper right corner, and an interface for outputting the report to PDF appears. Fill in the file name, vehicle, customer, and operator, and press the save button.

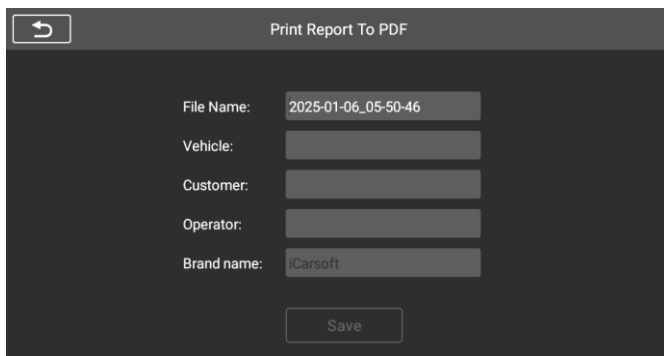


Figure 8-6 Sample Play Back Screen 4

- 3) Wait for the program to execute. After the save is complete, the screen will show a message indicating that the save is successful, and inform the user of the save path of the report.

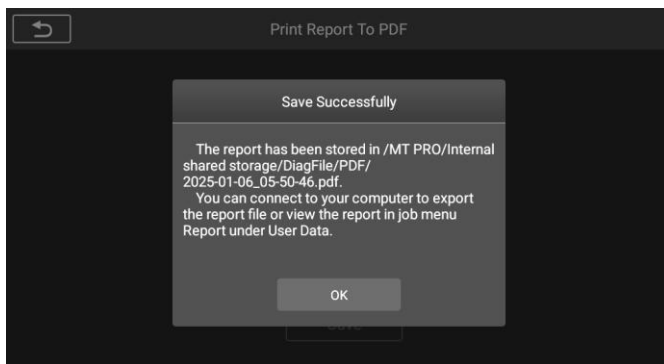


Figure 8-7 Sample Play Back Screen 5

- 4) The specific steps can refer to the reference file in the User Manual: MT PRO_HowToCreateReport.pdf.

8.3 User Manual

The user manual section provides users to view the MT PRO user manual, quick operation guide, how to create a report, how to perform feedback, etc.

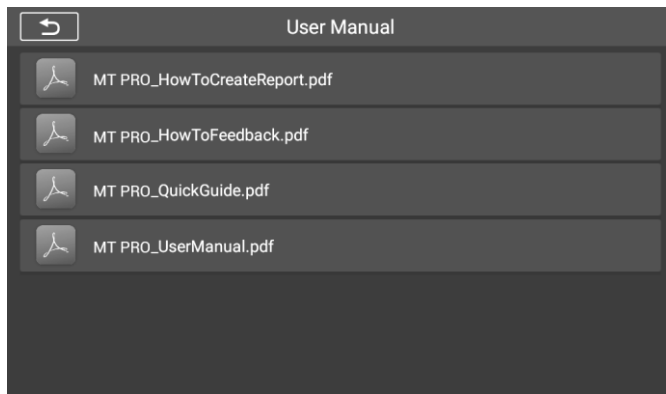


Figure 8-8 Sample User Manual Screen

8.4 Training

The training section provides videos of operating applications to facilitate customers to quickly understand the operating functions of MT PRO.

8.5 Report

In the Report option, view the report of the vehicle data in Play Back after the PDF is output.

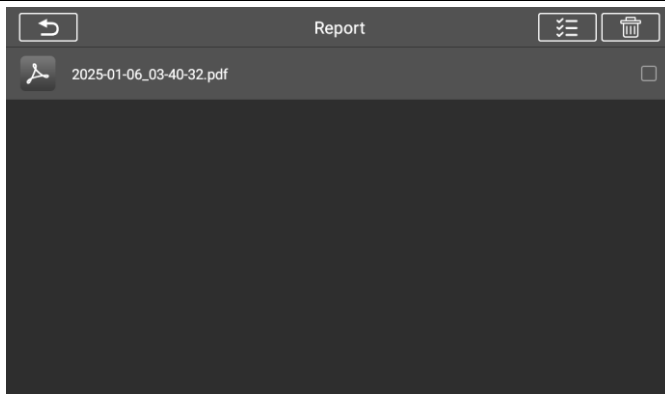


Figure 8-9 Sample FAQ Screen

8.6 Data Link Connector (DLC) Location

This function is to provide the location of the data link connector (DLC), represented by A, B, C, D, E respectively.

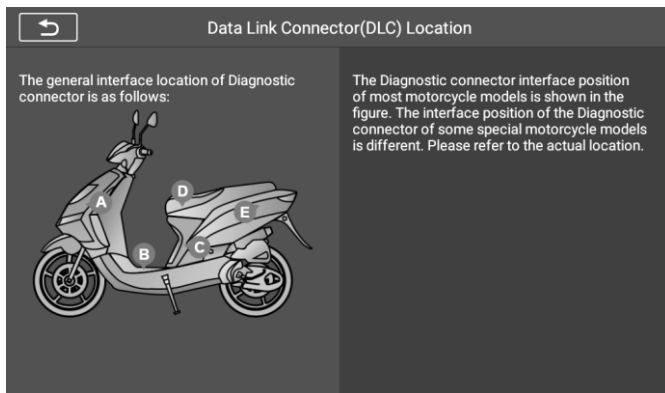


Figure 8-10 Sample DLC Location Screen

9 Settings

Selecting Settings application opens a setup screen to adjust the default setting and view information about the MT PRO system.

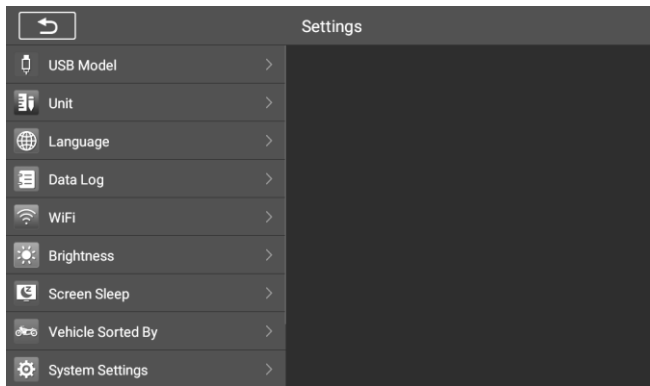


Figure 9-1 Sample Settins Screen

This section describes the operation procedures for the settings.

9.1 USB Model

This option allows you to select the USB model: Host or Device. The host model is used to connect external devices such as endoscopes via the USB interface. The device model is used to connect this device to a PC computer in order to use it as a media device.

➤ To adjust to USB Model

1. Tap the **Settings** application on the CR MAX Job Menu.
2. Tap the **USB Model** option on the left column.
3. Select "Host" or "Device".
4. Tap the **Back** button in the top left corner to return to the CR MAX home screen or select another setting.

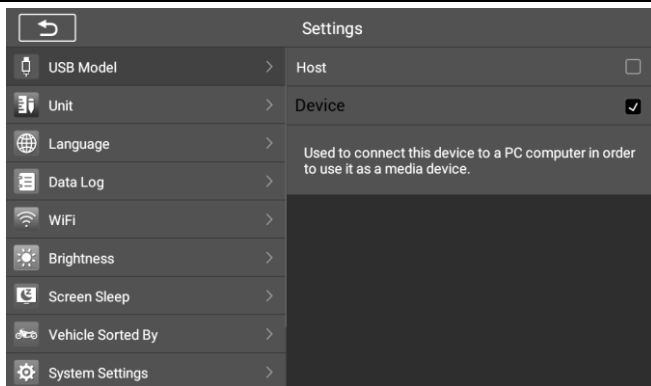


Figure 9-2 Sample USB Model Setting Screen

9.2 Unit

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

- **To adjust the unit setting**
 1. Tap the **Settings** application on the MT PRO Job Menu.
 2. Tap the **Unit** option on the left column.
 3. Select the required measurement unit, Metric or Imperial. A check mark will display on the right of the selected unit.
 4. Tap the **Back** button on the top left corner to return to the MT PRO home screen or select another setting.

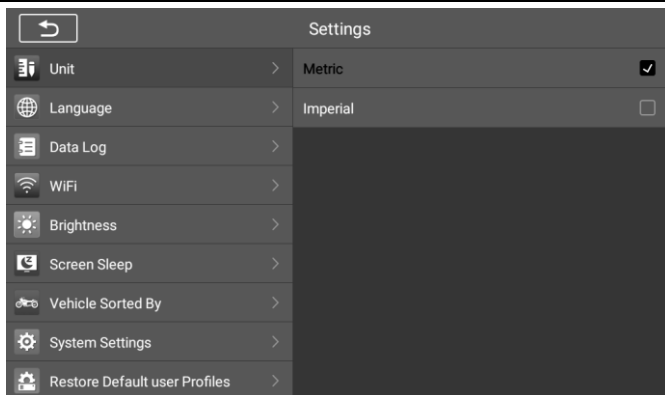


Figure 9-3 Sample Unit Setting Screen

9.3 Language

This option allows you to adjust the display language for the MT PRO application.

➤ To adjust the language setting

1. Tap the **Settings** application on the MT PRO Job Menu.
2. Tap the **Language** option on the left column.
3. Tap the check box on the right to select the desired language option.
4. Tap the **Back** button on the bottom left corner to return to the MT PRO settings menu or select another setting.

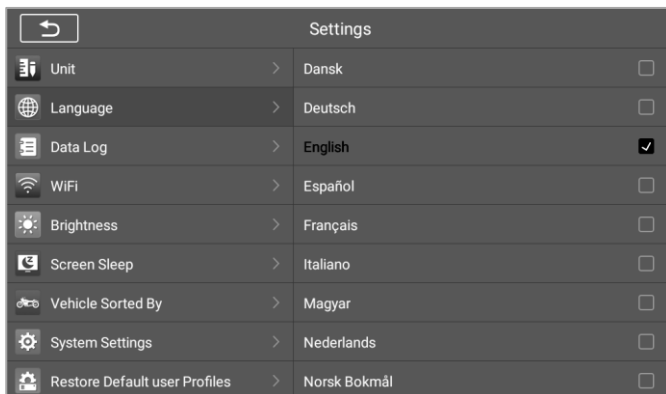


Figure 9-4 Sample Language Setting Screen

9.4 Data log

This option allows you to access the diagnostic system log. It's controlled by a slide switch. Turn on the switch, the diagnostic equipment will automatically backup the diagnostic files of the diagnostic system.

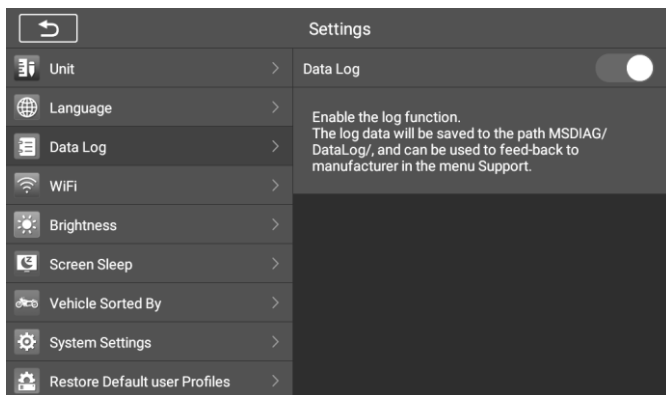


Figure 9-5 Sample Data Log Screen

➤ **To adjust the data log Settings**

1. Tap the **Settings** application on the MT PRO Job Menu.
2. Tap the **Data log** option on the left column.
3. Select the desired state, on or off.
4. Tap the **Back** button on the top left corner to return to the MT PRO home screen or select another setting.

9.5 WIFI

This option allows you to enter the Android background WiFi option settings and select the available network settings.

➤ **To adjust the WIFI setting**

1. Tap the **Settings** application on the MT PRO Job Menu.
2. Tap the **WIFI** option on the left column.
3. Skip to the WiFi Settings interface of Android and select the available network to set up the network.
4. Tap the **Back** button in the bottom left corner to return to the MT PRO settings menu or select another setting.

9.6 Brightness

This option allows you to modify the brightness setting of the diagnostic system.

➤ **To adjust the brightness setting**

1. Tap the **Settings** application on the MT PRO Job Menu.
2. Tap the **brightness** option on the left column.
3. Slide the small points measured on the right by hand to select the appropriate height.
4. Tap the **Back** button in the top left corner to return to the MT PRO home screen or select another setting.

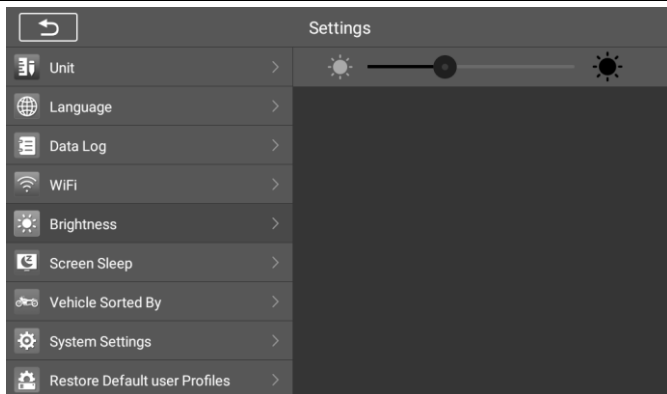


Figure 9-6 Sample brightness Setting Screen

9.7 Screen Sleep

This option allows you to modify the screen lock time setting for the diagnostic system.

➤ To adjust the Screen Sleep setting

1. Tap the **Settings** application on the MT PRO Job Menu.
2. Tap the **Screen Sleep** option on the left column.
3. Select the required screen sleep time. There are 8 options, namely 1 minute, 2 minutes, 5 minutes, 10 minutes, 15 minutes, 20 minutes, 30 minutes and 45 minutes. A check mark appears to the right of the selected cell.
4. Tap the **Back** button in the top left corner to return to the MT PRO home screen or select another setting.

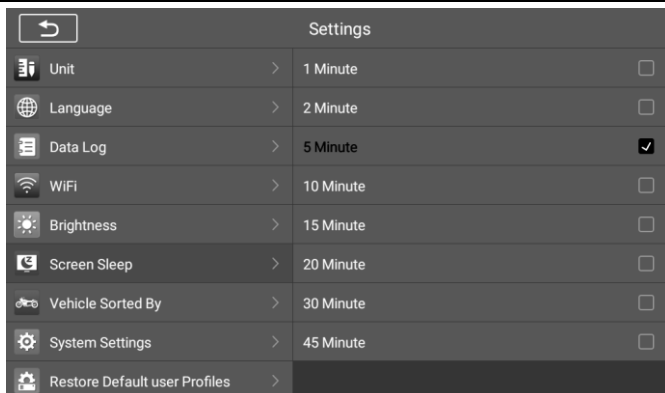


Figure 9-7 Sample screen sleep Setting Screen

9.8 Vehicle Sorted By

This option allows you to modify the vehicle classification settings.

➤ To adjust the Screen Sleep setting

1. Tap the **Settings** application on the MT PRO Job Menu.
2. Tap the **Vehicle Sorted By** option on the left column.
3. Select the vehicle classification type you want, alphabetically or by frequency of use. A check mark appears to the right of the selected cell.
4. Tap the **Back** button in the top left corner to return to the MT PRO home screen or select another setting.

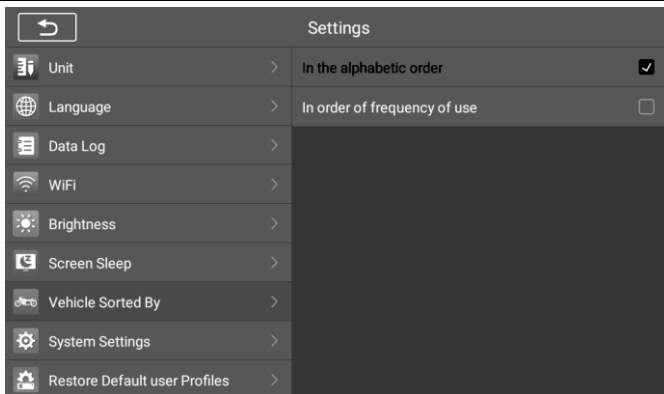


Figure 9-8 Sample Vehicle Sorted By Setting Screen

9.8 System Settings

Access the Android background system setting screen to adjust operating system settings including wireless and network settings, sound and display and system security settings. Android device information is also displayed.

➤ To enable the App Switcher function

1. Tap the **Settings** application on the MT PRO Job Menu.
2. Tap the **System settings** option on the left column.
3. Enter the Android background system settings screen and adjust the operating system settings, including setting screen lock, network settings, associated devices, applications and notifications, battery, display, sound, storage, fast bully, security and location information, users and accounts, accessibility, about the system, etc.
4. Tap the **Back** button in the bottom left corner to return to the MT PRO **settings** menu or select another setting.

Short pressing the App Switcher icon to open a control panel:

- Tap a specific app shortcut button to be directed to the selected application screen.
- Long press a specific app shortcut button displays the app menu, on which you can select and change the app shortcut.

- Press and drag the App Switcher icon to another position alongside the edge of the screen.

Refer to Android documentation for information about Android system settings.

9.9 Restore Factory Settings

This option allows you to return to factory settings.

➤ To adjust to factory settings

1. Tap the **Settings** application on the MT PRO Job Menu.
2. Tap the **Restore Factory Settings** option on the left column.
3. This operation will initialize all data in the application settings, including unit, brightness, data switch, screen sleep and vehicle logo sorting.
4. Tap the **Back** button in the top left corner to return to the MT PRO home screen or select another setting.

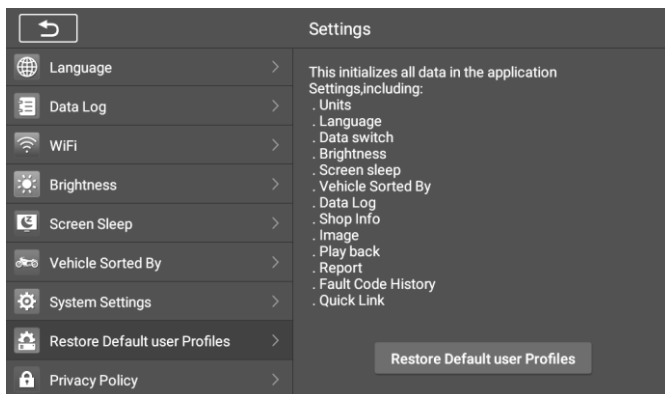


Figure 9-9 Sample Restore Factory Setting Screen

9.10 Privacy Policy

This option allows you to view the privacy policy of this product.

10 Uninstall

This section allows you to manage the software applications installed on the MT PRO Diagnostics System. Select this section to open a management screen, on which you can check all the available vehicle diagnostic applications.

By clicking on each line of motorcycle brand to select the motorcycle software to be removed, the selected item displays a blue check in the check box on the right. Tap the **Delete** button on the top bar to remove the software from the system database.

Describe each button from left to right:




-  **Back Button** – returns to the MT PRO home screen.
-  **Select All Button** – press to select all the software that the page displays.
-  **Delete Button** – Remove the selected software.



Figure 10-1 Sample Uninstall Screen

11 Shop Information






The Shop Manager application manages the workshop information including customer information records and test vehicle history records. There are three main functions available:

- **Workshop Information**

● Customer Information

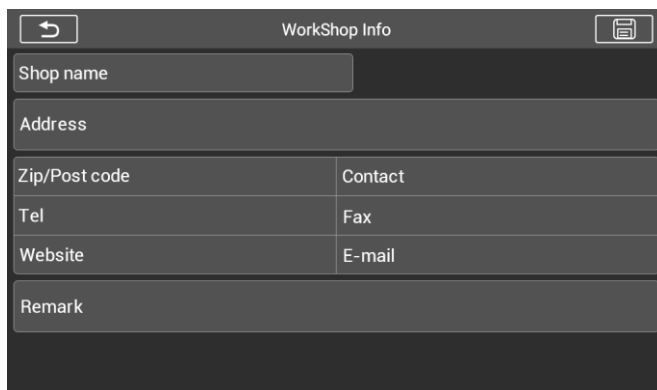
The operations of these functions of the Shop Manager application are controlled by the toolbar buttons, which are listed and described in the table below:

Table 11-1 Top Toolbar Buttons in Shop Manager

Button	Name	Description
	Back	Cancel the current operation and return to the previous screen.
	Add Account	Tap this button to create a new customer account file.
	Save	Complete editing and save the file.
	Delete	Tap this button to delete the selected customer information and vehicle record.
	Add Customer Notes	Tap this button to open a note form. New customer notes can be added.

11.1 Workshop Info

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






WorkShop Info


Figure 11-1 *Sample Workshop Information Sheet*

EN


➤ **To edit the Workshop Information sheet**

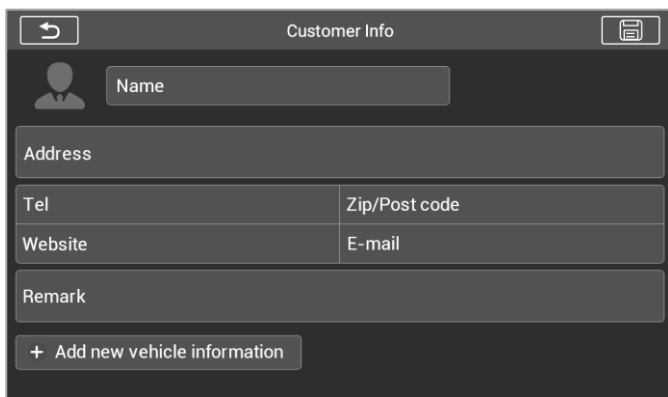
1. Tap the **Shop Info** application on the MT PRO Job Menu.
2. Select **Workshop Information**.
3. Tap on each field to input the appropriate information.
4. Tap the Save button in the upper right corner to save the updated workshop information table, or tap the back button in the upper left corner to exit without saving.

11.2 Customer Info

Use the Customer Manager function to create and edit customer accounts and correlate with the associated test vehicle history records.

➤ **To create a customer account**

1. Tap the **Shop Info** application on the MT PRO Job Menu.
2. Select **Customer Info**.
3. If a customer adds customer information, tap the  **Add Account** button in the upper right corner. An empty information form displays, then tap each field to input the appropriate information. Tap the back button to cancel.





The screenshot shows a mobile application interface for 'Customer Info'. At the top, there is a title bar with a back arrow on the left and a save icon on the right. Below the title bar, there is a profile icon and a 'Name' input field. Underneath, there is a large 'Address' input field. Below the address field, there are two input fields side-by-side: 'Tel' and 'Zip/Post code'. Below these, there are two more input fields side-by-side: 'Website' and 'E-mail'. At the bottom, there is a large 'Remark' input field. At the very bottom, there is a button with a plus sign and the text '+ Add new vehicle information'.

Figure 11-2 Sample Customer Info Sheet 1

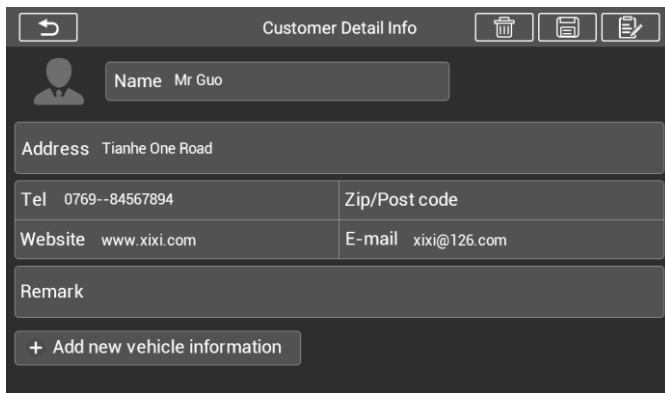
**NOTE**

Required fields are noted.

4. Tap the  **Save** button in the upper right corner to save the updated workshop information table, or tap the  **Back** button in the upper left corner to exit without saving.


➤ **To edit a customer account**

1. Tap the **Shop Info** application on the MT PRO Job Menu.
2. Select **Customer Info**.
3. Select a customer account by tapping the corresponding name card. A Customer Information sheet displays.



Customer Detail Info	
Name	Mr Guo
Address Tianhe One Road	
Tel	0769--84567894
Zip/Post code	
Website	www.xixi.com
E-mail	xixi@126.com
Remark	
+ Add new vehicle information	


Figure 11-3 Sample Customer Info Sheet 2

4. Tap on the input field that needs to be altered or supplemented, and enter updated information.
5. Tap the  **Modify edit and save** button on the top toolbar to save the updated information, or tap the  **Back** button on the top toolbar to exit

without saving.

EN


➤ To delete a customer account

1. Tap the **Shop Info** application on the MT PRO Job Menu.
2. Select **Customer Info**.
3. Select a customer account by tapping the corresponding name card. A Customer Information sheet displays.
4. Tap the  **Delete** button on the top toolbar. A confirmation message displays.
5. Tap **Yes** to confirm the command, and the account is deleted. Tap **Cancel** to cancel the request.

11.2.1 Customer Notes

Use the Customer Note function to add customer text record.

➤ To access Customer Note

1. Tap the **Shop Info** application on the MT PRO Job Menu.
2. Select **Customer Info** or **Vehicle History**.
3. Select a customer account by tapping the corresponding name card. A Customer Information sheet displays (if **Customer Info** is selected). Or, select a vehicle history record item to open the Historical Test record sheet (if **Vehicle History** is selected).
4. Tap the  **Add Customer Notes** button on the top bar. Now the **Customer Note** interface is displayed.

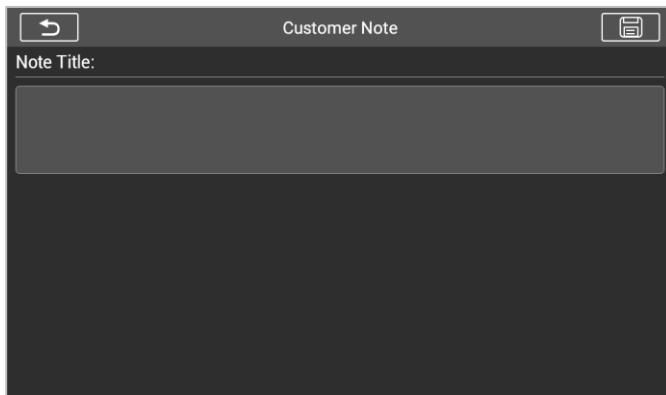





Figure 11-4 Sample Customer Note Screen

➤ **To add a note in Customer Notes**

1. Access Customer Notes. An edit window displays.
2. Tap on the Title bar to input a note title.
3. Tap on the blank space below to edit a text note or remark.
4. Tap  **Save** to save the note; tap the  **Back** button to exit without saving.
5. Select historical notes and tap  to delete. Or modify the note information

12 Quick Link

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

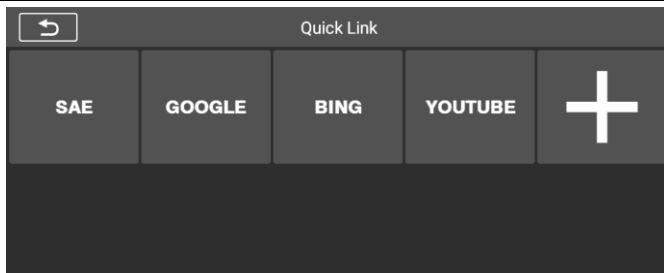






Figure 12-1 Sample Quick Link Screen

- **To open a quick link**
1. Tap the **Quick Link** application on the MT PRO Job Menu. The Quick Link application screen displays.
 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 Fault Code

Fault code allows you to query the fault history and information description according to the model fault code. Slide up and down to select the required model and code.

- **To access fault code**
1. Tap the **Fault Code** application on the MT PRO Job Menu. The **Fault Code** application screen displays.
 2. Slide up and down to select the required model and code.
 3. Tap the **lookup button** in the upper right corner,  button is for searching web pages.  button is to search in the local folder, and the query results will be displayed in the box below.
 4. Tap the  **history button** to view the relevant history.
 5. Tap the  **information button** to pop up the description of fault code information

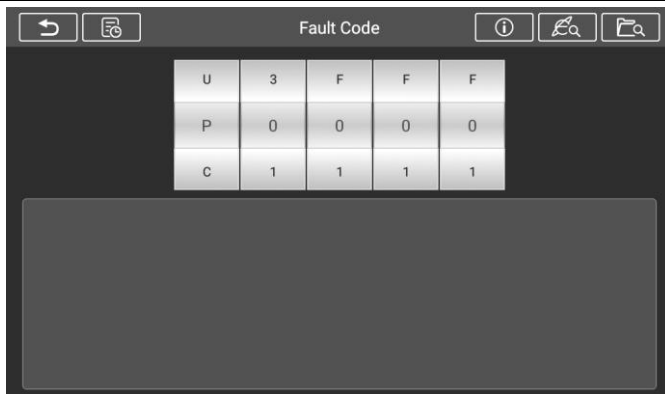


Figure 13-1 Sample Fault Code Screen

14 Support

This application launches the Support platform which synchronizes iCarsoft's on-line service base station with the Display Tablet. In order to synchronize the device to your on-line account, you need to register the product through the Internet when you use it for the first time. The Support application is connected to iCarsoft's service channel and on-line communities which provides the quickest way for problem solutions, allowing you to submit complaints or sent help requests to obtain direct services and supports.

When the log switch in the "Settings" option is turned on, data logs will be automatically stored on this page. Select the checkbox after the log to delete or provide feedback..

1. Select the check box behind the log, you can select multiple logs at the same time, tap the delete button in the upper right corner to delete.
2. Select the check box behind the log, you can select multiple logs at the same time,












tap the  feedback button in the upper right corner. The interface for information feedback will appear.

Figure 14-1 Sample Data log Screen

- 3 Enter the title, description, vehicle information, etc. in the input box, "*" is required.
Then tap the  Upload button to submit feedback. You can also tap the "⊕" button to add up to 3 photos to submit together.

15 About

The About screen lists the MT PRO's version, hardware, and serial number and so on. Tap the "About" icon to view it.

	About
	Product Name MT Pro
	Serial Number PD712088888880
	Register Code 4236
	VCI Version Boot:H22.07; Firmware:H24.10
	iMSDiag DiagLib App V10.02
	iMSDiag System App V10.02
	System Version V1.08
	Storage Total/Free:26.16 GB/25.24 GB

16 Remote Desk

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

Make sure the tablet is connected to the Internet before launching the Remote Desk application.

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

1. Tap the **Remote Desk** application on the MT PRO Job Menu.
2. Your partner must install the Remote Control software to his/her computer by downloading the TeamViewer full version program online (<http://www.teamviewer.com>), and then start the software on his/her computer at the same time, in order to provide support and take control of the Display Tablet remotely.
3. Provide your ID to the partner, and wait for him/her to send you a remote control request.
4. A popup will display to ask for your confirmation to allow remote control on your device.
5. Tap **Allow** to accept, or tap **Deny** to reject.

Refer to the associated TeamViewer documents for additional information.

17 Maintenance and Service

17.1 Maintenance Instructions

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

- Use a soft cloth and alcohol or a mild window cleaner to clean the touch screen on the tablet.
- Do not use any abrasive cleansers, detergent, or automotive chemicals to the tablet.
- Only use the device in dry conditions within normal 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.
- Before and after use, check the housing, wiring, and connectors for dirt and damage before and after each use.
- At the end of each work day, wipe the device housing, wiring, and connectors clean with a damp cloth.
- Do not attempt to disassemble your tablet or the VCI unit.
- Take care not drop the device or allow anything heavy to drop on the device.
- Use only authorized battery chargers and accessories. Any malfunction or damage caused by the use of unauthorized battery charger and accessories will void the limited product warranty.
- Ensure that the battery charger does not come in contact with conductive objects.
- Do not operate the tablet next to anything such as microwave oven, cordless phones and some medical or scientific instruments that might interfere with or prevent signal interference.

17.2 Troubleshooting Checklist

A. When the Display Tablet does not work properly:

- Make sure the tablet has been registered online.
- Make sure the system software and diagnostic application software are properly updated.
- Make sure the tablet is connected to the Internet.
- Check all cables, connections, and indicators to see if the signal is being received.

B. When battery life is shorter than usual:

- This may happen when you are in an area with low signal strength. Turn off your device when not in use.

C. When 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. Try changing the charging environment.
- Your device may have not been connected to the charger properly. Check the connector.

**NOTE**

If your problems persist, please contact iCarsoft's technical support personnel or your local selling agent.

17.3 About Battery Usage

Your tablet is powered by a built-in Lithium-ion Polymer battery. This means that, unlike other forms of battery technology, you can recharge your battery while some charge remains without reducing your tablet's autonomy due to the "battery memory effect" inherent in those technologies.

**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 or open crush, bend or deform, puncture or shred.
- Do not modify or remanufacture, attempt to insert foreign objects into the battery, expose to fire, explosion or other hazard.
- Make sure to use the charger and USB cables only that come together in the package. If you use the other charger and USB cables, you might incur malfunction or failure of the device.
- Only use the charging device that has been qualified with device per the standard. Use of an unqualified battery or charger may present a risk of fire, explosion, leakage, or other hazard.
- Avoid dropping the tablet. If the tablet is dropped, especially on a hard surface, and the user suspects damage, take it to a service center for inspection.
- The closer you are to your network's base station, the longer your tablet usage time because less battery power is consumed for the connection.
- The battery recharging time varies depending on the remaining battery capacity.
- Battery life inevitably shortens over time.
- Since over charging may shorten battery life, remove the tablet from its charger once it is fully charged. Unplug the charger, once charging is complete.
- Leaving the tablet in hot or cold places, especially inside a car in summer or winter, may reduce the capacity and life of the battery. Always keep the battery within normal temperatures.

17.4 Service Procedures

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

17.4.1 Technical Support

If you have any question or problem on the operation of the product, please contact us (see the following contact info) or your local distributor.

ICARSOFT USA HQ

- Website: www.icarsoft.us
www.icarsoft.com
- Email: support@icarsoft.com

17.4.2 Repair Service

If it becomes necessary to return your device for repair, please download the repair service form from www.iCarsoft.com, and fill it in. 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, please contact your dealer.

17.4.3 Other Services

You can purchase the optional accessories directly from iCarsoft'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
- Purchase quantity

18 Compliance Information

FCC Compliance

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

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.



WARNING

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



NOTE

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

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

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

RF WARNING STATEMENT

The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction.

RoHS COMPLIANCE

This device is declared to be in compliance with the European RoHS Directive 2011/65/EU&2015/863/EU.

CE COMPLIANCE

EN This product is declared to conform to the essential requirements of the following Directives and carries the CE mark accordingly:

EMC Directive

RED Directive

Low Voltage Directive

19 Warranty

Limited One Year Warranty

iCarsoft Technology Inc. (the Company) warrants to the original retail purchaser of this MT PRO Diagnostic Device, that should this product or any part thereof during normal consumer usage and conditions, be proven defective in material or workmanship that results in product failure within one (1) year 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).

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.

! 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.

iCarsoft Technology Inc.

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