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www.foxwelltech.us

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support@foxwelltech.com

One-Year Limited Warranty

Subject to the conditions of this limited warranty, Shenzhen Foxwell Technology Co., Ltd (“FOXWELL”) warrants its customer that this product is free of defects in material and workmanship at the time of its original purchase for a subsequent period of one (1) year.

In the event this product fails to operate under normal use, during the warranty period, due to defects in materials and workmanship, FOXWELL will, at its sole option, either repair or replace the product in accordance with the terms and conditions stipulated herein.

Terms and Conditions

1 If FOXWELL repairs or replaces the product, the repaired or replaced product shall be warranted for the remaining time of the original warranty period. No charge will be made to the customer for replacement parts or labor charges incurred by FOXWELL in repairing or replacing the defective parts.

2 The customer shall have no coverage or benefits under this limited warranty if any of the following conditions are applicable:

a) The product has been subjected to abnormal use, abnormal conditions, improper storage, exposure to moisture or dampness, unauthorized modifications, unauthorized repair, misuse, neglect abuse, accident, alteration, improper installation, or other acts which are not the fault of FOXWELL, including damage caused by shipping.

b) The Product has been damaged from external causes such as collision with an object, or from fire, flooding, sand, dirt, windstorm, lightning, earthquake or damage from exposure to weather conditions, an Act of God, or battery leakage, theft, blown fuse, improper use of any electrical source, or the product was used in combination or connection with other product, attachments, supplies or consumables not manufactured or distributed by FOXWELL.

3 The customer shall bear the cost of shipping the product to FOXWELL. And FOXWELL shall bear the cost of shipping the product back to the customer after the completion of service under this limited warranty.

4 FOXWELL does not warrant uninterrupted or error-free operation of the product. If a problem develops during the limited warranty period, the consumer shall take the following step-by-step procedure:

a) The customer shall return the product to the place of purchase for repair or replacement processing, contact your local FOXWELL distributor or visit our website www.foxwelltech.us to get further information.

b) The customer shall include a return address, daytime phone number and/or fax number, complete description of the problem and original invoice specifying date of purchase and serial number.

c) The customer will be billed for any parts or labor charges not covered by this limited warranty.

d) FOXWELL will repair the Product under the limited warranty within 30 days after receipt of the product. If FOXWELL cannot perform repairs covered under this limited warranty within 30 days, or after a reasonable number of attempts to repair the same defect, FOXWELL at its option, will provide a replacement product or refund the purchase price of the product less a reasonable amount for usage.

e) If the product is returned during the limited warranty period, but the problem with the product is not covered under the terms and conditions of this limited warranty, the customer will be notified and given an estimate of the charges the customer must pay to have the product repaired, with all shipping charges billed to the customer. If the estimate is refused, the product will be returned freight collect. If the product is returned after the expiration of the limited warranty period, FOXWELL' normal service policies shall apply and the customer will be responsible for all shipping charges.

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6. Some states do not allow limitation of how long an implied warranty lasts, so the one-year warranty limitation may not apply to you (the Consumer). Some states do not allow the exclusion or limitation of incidental and

consequential damages, so certain of the above limitations or exclusions may not apply to you (the Consumer). This limited warranty gives the Consumer specific legal rights and the Consumer may also have other rights which vary from state to state.

Safety Information

For your own safety and the safety of others, and to prevent damage to the equipment and vehicles, read this manual thoroughly before operating your tool. The safety messages presented below and throughout this user's manual are reminders to the operator to exercise extreme care when using this device. Always refer to and follow safety messages and test procedures provided by vehicle manufacturer. Read, understand and follow all safety messages and instructions in this manual.

Safety Message Conventions Used

We provide safety messages to help prevent personal injury and equipment damage. Below are signal words we used to indicate the hazard level in a condition.

⚠ 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.

⚠ CAUTION

Indicates a potentially hazardous situation which, if not avoided, may result in moderate or minor injury to the operator or to bystanders.

Important Safety Instructions

And always use your tool as described in the user's manual, and follow all safety messages.

⚠ WARNING

- Do not route the test cable in a manner that would interfere with driving controls.
- Do not exceed voltage limits between inputs specified in this user's manual.
- Always wear ANSI approved goggles to protect your eyes from propelled objects as well as hot or caustic liquids.
- Fuel, oil vapors, hot steam, hot toxic exhaust gases, acid, refrigerant and other debris produced by a malfunction engine can cause serious injury or death. Do not use the tool in areas where explosive vapor may collect,

such as in below-ground pits, confined areas, or areas that are less than 18 inches (45 cm) above the floor.

- Do not smoke, strike a match, or cause a spark near the vehicle while testing and keep all sparks, heated items and open flames away from the battery and fuel / fuel vapors as they are highly flammable.
- Keep a dry chemical fire extinguisher suitable for gasoline, chemical and electrical fires in work area.
- Always be aware of rotating parts that move at high speed when an engine is running and keep a safe distance from these parts as well as other potentially moving objects to avoid serious injury.
- Do not touch engine components that get very hot when an engine is running to avoid severe burns.
- Block drive wheels before testing with engine running. Put the transmission in park (for automatic transmission) or neutral (for manual transmission). And never leave a running engine unattended.
- Do not wear jewelry or loose fitting clothing when working on engine.
- Don't connect or disconnect the equipments while the ignition is on or the engine is running.

Table of Contents

ONE-YEAR LIMITED WARRANTY **2**

SAFETY INFORMATION **5**

SAFETY MESSAGE CONVENTIONS USED 5
IMPORTANT SAFETY INSTRUCTIONS 5

1 USING THIS MANUAL **10**

1.1 BOLD TEXT 10
1.2 SYMBOLS AND ICONS 10
1.2.1 Solid Spot 10
1.2.2 Arrow Icon 10
1.2.3 Note and Important Message 10

2 INTRODUCTION **11**

2.1 SCANNER DESCRIPTIONS 11
2.2 ACCESSORIES 12
2.3 TECHNICAL SPECIFICATIONS 13

3 GETTING STARTED **14**

3.1 POWERING UP THE SCANNER 14
3.1.1 Internal Battery Pack 14
3.1.2 External Power Supply 14
3.2 SHUTTING DOWN THE SCANNER 14
3.3 SCREEN LAYOUT OF HOME SCREEN 15
3.3.1 Application Menu 15
3.3.2 Diagnostic Menu 16

4 MY ACCOUNT **17**

4.1 REGISTRATION 17
4.2 SIGN IN 19
4.2.1 Product activate 20
4.3 MY ACCOUNT 21
4.4 MY PRODUCTS 21
4.5 FEEDBACK AND SUGGESTIONS 22

5 UPDATE **23**

5.1 AUTOMATIC UPDATE 23
5.2 MANUAL UPDATE 24

6 VCI MANAGER **25**

7 FIRMWARE UPDATE **27**

8 VEHICLE IDENTIFICATION 28

8.1 VEHICLE CONNECTION 28
8.2 VIN READING 29
8.2.1 Automatic Read 29
8.2.2 Manual Entry 30
8.3 MANUAL SELECTION 30
8.3.1 Smart VIN 31
8.3.2 Manual Vehicle Selection 32
8.4 VEHICLE HISTORY 33

9 DIAGNOSIS 33

9.1 VEHICLE IDENTIFICATION 34
9.1.1 Quick Scan 34
9.1.2 Control Modules 36
9.2 DIAGNOSTIC OPERATIONS 37
9.2.1 Read Codes 38
9.2.2 Clear Codes 39
9.2.3 Live Data 40
9.2.3.1 All Data 40
9.2.3.2 Custom List 44
9.2.3.3 Record data 45
9.2.4 ECU Information 46
9.3 COMPLAINTS 47

10 DATA MANAGER 48

10.1 IMAGE 49
10.1.1 How to Save an Image 49
10.1.2 Review Image 50
10.2 PDF REPORT 51
10.2.1 How to Create a PDF Report 51
10.2.2 Review PDF Report 52
10.3 DATA PLAYBACK 53

11 SETTINGS 55

11.1 UNIT 55
11.2 LANGUAGE 56
11.3 FONT SIZE 56
11.4 MODULE SORTING 56
11.5 SORT TILES 58
11.6 REMOTE CONTROL 58
11.7 AUTOMATIC UPDATE 59
11.8 SYSTEM SETTINGS 59
11.9 GENERAL 59
11.10 UNINSTALL VEHICLE SOFTWARE 59

11.11 CLEAR APP DATA 60
11.12 PRINT SETTINGS 60
11.13 ABOUT 62
12 REMOTE SUPPORT 63

1 Using This Manual

We provide tool usage instructions in this manual. Below are the conventions we used in the manual.

1.1 Bold Text

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

Example:

Select **Diagnostic** from the Home screen of the i53 application.

1.2 Symbols and Icons

1.2.1 Solid Spot

Operation tips and lists that apply to specific tool are introduced by a solid spot.

Example:
When VIN hotkey is selected, a menu that lists all available options displays. Menu options include:

- Automatic Read
- Scan VIN
- Manual Entry

1.2.2 Arrow Icon

▶An arrow icon indicates a procedure.

Example:

▶To connect to wall plug:

1. Connect the USB Type-C charge cable to scanner and plug it to the wall socket.
2. Press the power switch of the scan tool to power it on; meanwhile the scanner tool starts charging automatically also.

1.2.3 Note and Important Message

Note

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

Example:

NOTE
Test results do not necessarily indicate a faulty component or system.

Important

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

Example:

IMPORTANT

Do not soak scanner as water might find its way into the scanner.

2 Introduction

i53 is newly developed diagnostic scanner with 5.5 inch TFT touch screen and Android 9.0 operating system that delivers OE-level diagnosis for different car brands and supports the most commonly required service and coding features. Through hardware and software upgrades, technical staff and enthusiasts can now approach problems with greater speed and accuracy.

2.1 Scanner Descriptions

This section illustrates external features, ports and connectors of the scanner.

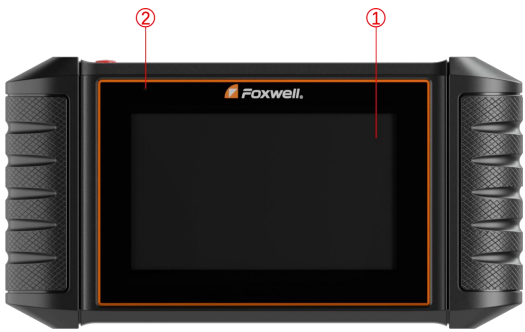

Figure 2-1 Front View

① **5.5" TFT LCD Touch Screen**- shows menus, test results and operation tips.

② **Power Status Indicator** - indicates the power status of the scanner.

Figure 2-2 Top View

③ **Power Switch** - turns on the scanner, goes to sleep mode or wake up the scanner from sleep mode. Press and hold for 3 seconds for start or emergency shutdown. Double click to screenshot.

④ **USB Type-C Port** - connects to wall plug to charge the scanner and can be used for data transfer.

⑤ **USB Type-A Port** - provides a USB connection for the external storage devices.

⑥ **Diagnostic Port** -provides connection between vehicle and the scanner.

IMPORTANT

Do not use solvents such as alcohol to clean display. Use a mild nonabrasive detergent and a soft cotton cloth.

2.2 Accessories

This section lists the accessories that go with the scanner. If you find any of the following items missing from your package, contact your local dealer for assistance.

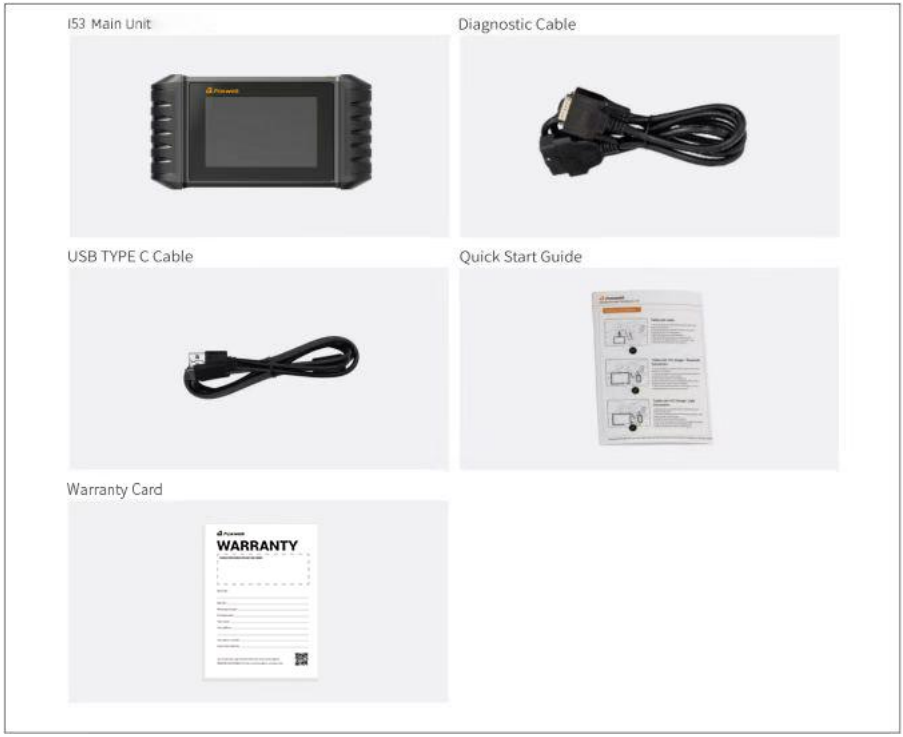

Table 2-1 Accessories

2.3 Technical Specifications

Item	Description
Screen	5.5'' TFT Capacitive LCD screen; 1280*720 pixel
Operation System	Android 9.0
Processor	Quad-core, 1.3GHz
Memory	1GB
SSD Hard drive	32GB
Communication interface	Built-in WIFI 802.11 b/g/n Wireless LAN USB2.0 OTG/standard USB 2.0 HOST Bluetooth specification v2.1+EDR; Bluetooth 4.0 Low Energy (LE) (10-20 m)
Built-in Battery	4000mAh, Lithium-polymer battery, chargeable via 5V USB power supply
Protocols	ISO9141-2, ISO14230-2, ISO15765-4, K/L lines, Double K Line SAE-J1850 VPW,SAE-J1850PWM,CAN ISO 11898, High-speed, Middle-speed, Lows-peed and Single wire CAN,

	KW81, KW82, GM UART, UART Echo Byte Protocol, Honda Diag-H Protocol, TP2.0, TP1.6, SAE J1939, SAE J1939, SAE J1708,Fault-Tolerant CAN,CAN FD, DOIP
Working Temperature	-10 to 70°C
Storage Temperature	-20 to 80°C
Operating Humidity	5%-95% Non-Condensing
Dimensions	236*124*38mm (L*W*H)
Weight	0.87kg (Main unit)

Table 2-2 Technical Specifications

3 Getting Started

This section describes how to power on/down the scanner, provides brief introductions of applications loaded on the scanner and display screen layout of the scan tool.

3.1 Powering up the Scanner

Before using the i53 applications (including updating the scanner), please make sure to provide power to the scanner.

The unit operates on any of the following sources:

- Internal Battery Pack
- External Power Supply

3.1.1 Internal Battery Pack

The tablet scanner can be powered with the internal rechargeable battery. The fully charged battery is capable of providing power for 5 hours of continuous operation.

NOTE

Please turn off the tablet to save power when not use.

3.1.2 External Power Supply

The tablet can also be powered from a wall socket using the USB charging adapter. The tablet also charges its internal battery pack through USB Type-C cable.

3.2 Shutting Down the Scanner

All vehicle communication must be terminated before shutting down the scanner. Exit the Diagnostic application before powering down.

To shut down the scanner:

1. Press and hold the Power button of the scanner for 3 seconds.
2. Click the **Power off** to shut down or **Reboot** to restart.

3.3 Screen Layout of Home Screen

After the scanner turning on, the screen show main menu of the application.

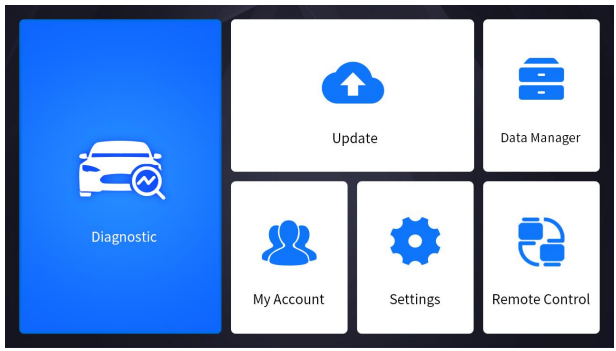

Figure 3-2 Sample Home Screen

3.3.1 Application Menu

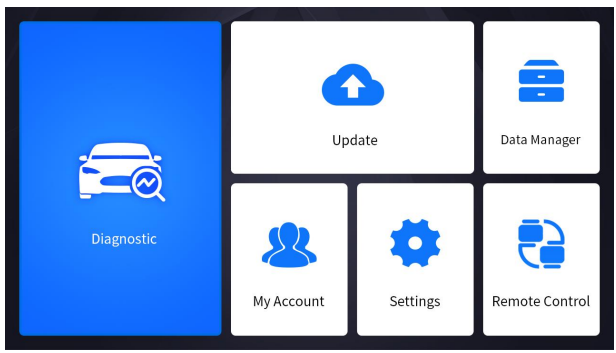

Figure 3-3 Sample Main Menu of Application

This section briefly introduces the applications that are preloaded into the scanner:

- **Diagnostic** - leads to test screens for diagnostic trouble code information, freeze frame, live data and ECU information.
- **Update** - leads to screens for Foxwell ID registration and updating the scanner.
- **Data Manager** - leads to screens for saved screenshots, pictures and test reports, and playing back live data, as well as debug logging data.

- **My Account** - displays your Foxwell ID information like registered products and personal information and allows for sending us feedback about the scanner.
- **Settings** - leads to screens for adjusting default settings to meet your own preference and view information about the scanner.
- **Remote Control** - leads to TeamViewer to get remote support from Foxwell team or remote vehicle diagnostic.
- **Functions** - Query the functions of model supported by the scanner.
- **Firmware Update** – VCI firmware update.
- **VCI Manager** – VCI manage (VCI binding, unbinding, re-scan vehicle software).

3.3.2 Diagnostic Menu

Touch **Diagnostic** at the i53 application menu, and the Diagnostic menu will display. The operations of the buttons of Diagnostic menu are described in the below table.

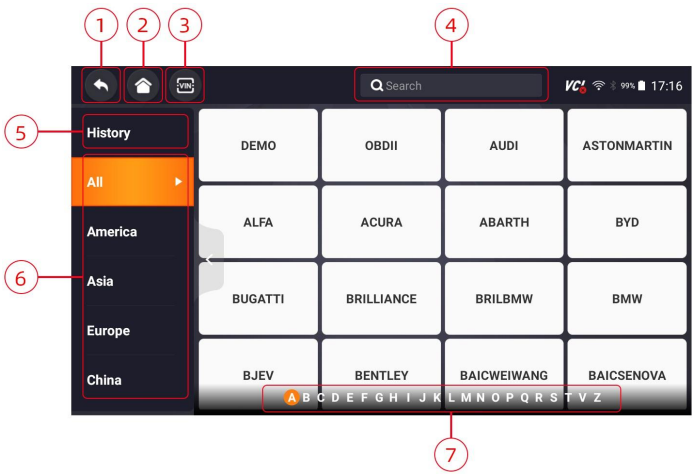

Figure 3-4 Sample Diagnostic Menu Screen

No.	Name	Description
1	Back	Back to the previous screen.
2	Home	Back to the Application Menu.
3	VIN	Shortcut for VIN reading menu, which typically includes Automatic Read, Scan VIN and Manual Entry.
4	Search	Lets you search a vehicle make quickly.
5	History	Displays the tested vehicle records.

6	Area	Displays car makes from different origins like America, Asia, Europe and Chinese.
7	Quick Location	Allows you to find a vehicle by initials.

Table 3-5 Title Bar of Diagnostic Menus

4 My Account

This section introduces user account registration, login, device activation and other information.

When **My Account** application is selected, a menu with available options displays.

My Account Menu options typically include:

- My Account
- My Products
- Feedback and Suggestions

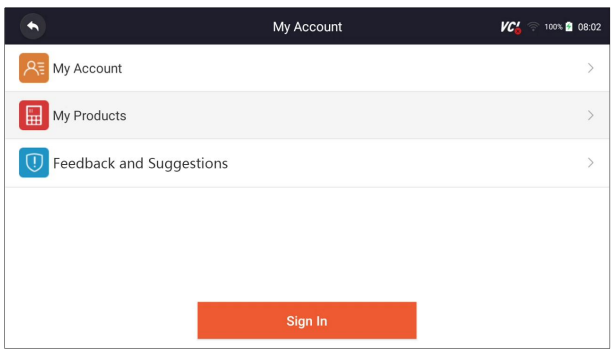

Figure 4-1 Sample My Account Screen

4.1 Registration

You are allowed to create a Foxwell ID with the built-in client.

To register with built-in client:

1. Press **My Account** or **Update** from home screen of i53 diagnostic application, the user login page will show, then press **Free registration** button to register an account.

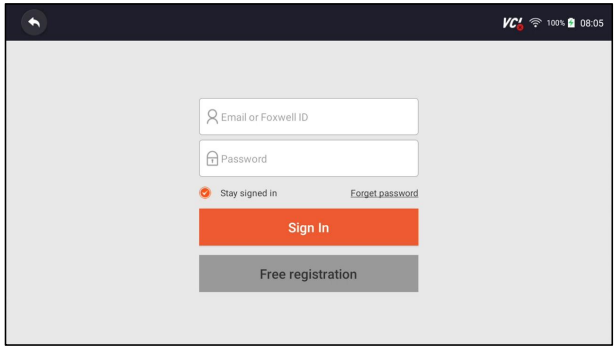

Figure 4-2 Sample Update Client Main Screen

2. Enter the User Name (use one of your existing mail addresses as user name), and press **Send Code** button for get a verification code, Foxwell will send a 4-digit verification code to the email you just entered.

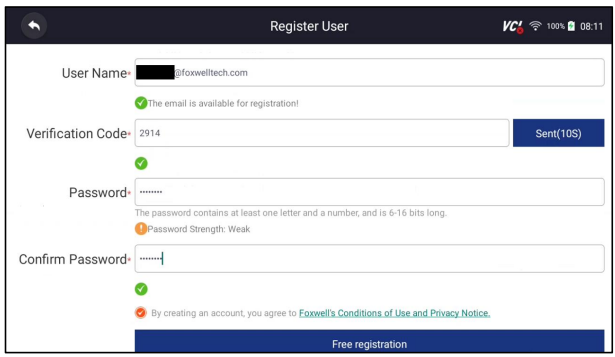

Figure 4-3 Sample ID Registration Screen

3. Get the security code in your mailbox, input the code as verification code. Then create a password and click **Free Registration** to complete.

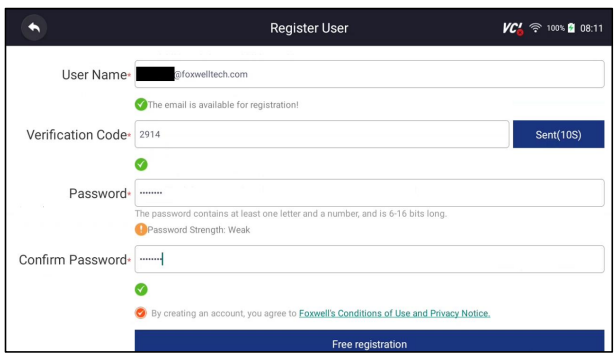

Figure 4-4 Sample ID Registration Screen

4. “The account has been created successfully” message will appear if you registered successfully.

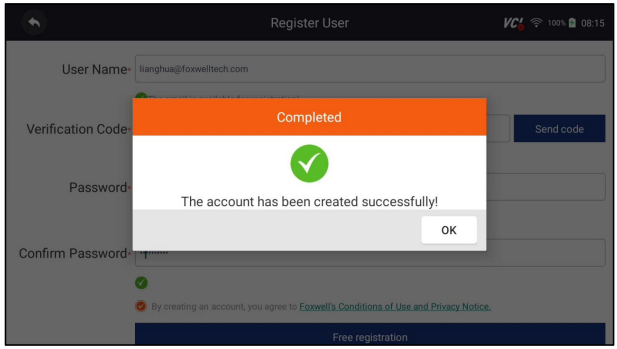

Figure 4-5 Sample Registration Done Screen

5. The serial number will show after registration. Click **Submit** to activate the product or press to back.

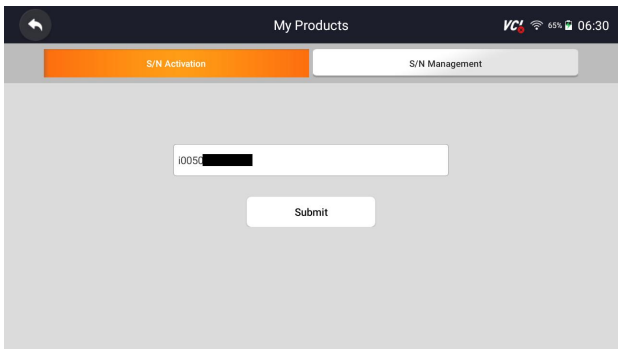

Figure 4-6 Sample Product Activation Screen

4.2 Sign in

Press **My Account** or **Update** from home screen of i53 diagnostic application, the user login page will show, enter your FOXWELL ID and password, and press **Sign in** button to sign in.

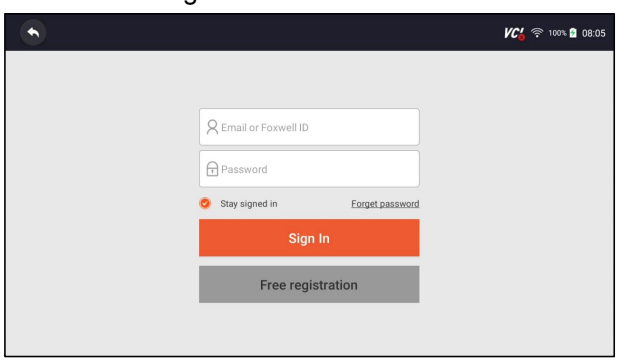

Figure 4-7 Sample Sign in Screen

4.2.1 Product activate

If you are logging in for the first time, it will prompt and guide you to activate the current device while sign in successfully.

▶ To activate product

1. Press **OK** button to activate product and press **Cancel** to back.

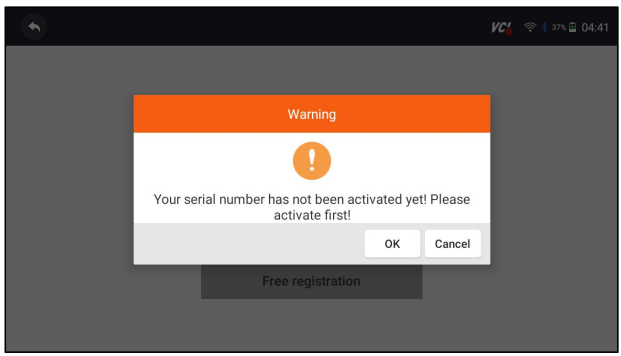

Figure 4-8 Sample Product Activation Screen

2.Click Submit to continue the activation and press to give up activation.

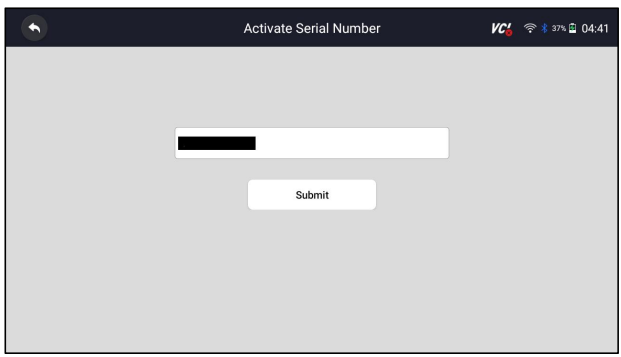

Figure 4-9 Sample Product Activation Submit Screen

3. “Product is activated successfully” message will appear if activate successfully.

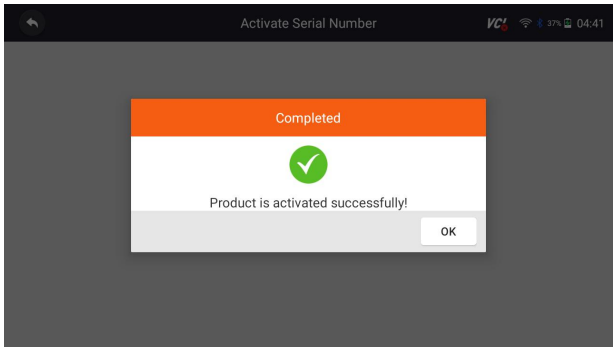

Figure 4-10 Sample activate success Screen

4.3 My Account

My Account option allows you to check and modify or complete your account information including user name, e-mail, telephone, address and so on.

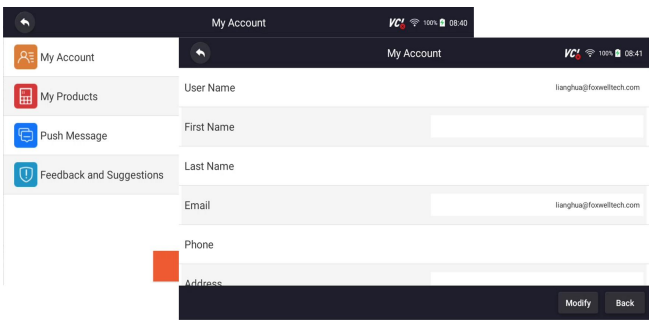

Figure 4-11 Sample My Account Screen

4.4 My Products

This option let you activate a new product and manage activated products including serial number and expiration date.

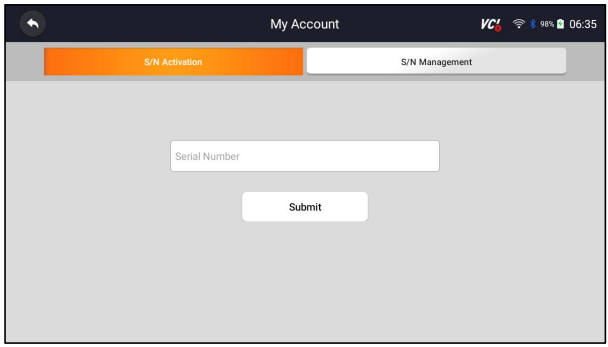

Figure 4-12 My Product Screen

4.5 Feedback and Suggestions

This option allows you to log on your e-mail and send feedback and suggestions about Foxwell products.

To send feedback and suggestions about Foxwell products:

1. Press **My Account** from home screen of the i53 diagnostic application.
2. Press **Feedback and Suggestions** option to show Feedback page, there are two options--Diagnosis Feedback and General Feedback.

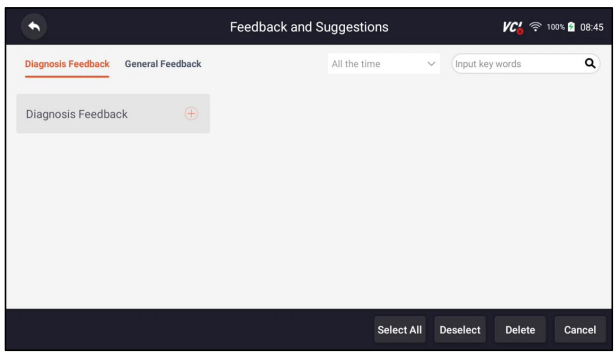

Figure 4-13 Sample feedback record Screen

3. Select **Diagnosis Feedback** or **General Feedback** for creating a feedback. Select the type of error and some necessary content and problem description or attachments. Press **Save** button to save the feedback. Or press Email button to send if you have an email account.

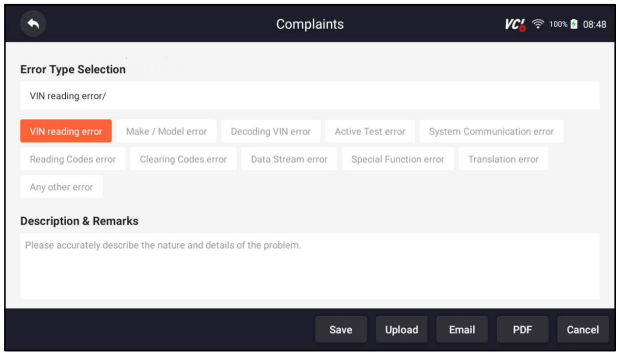

Figure 4-14 Sample Feedback Edit Screen

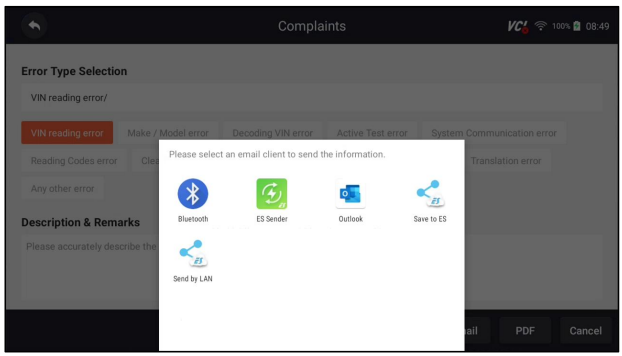

Figure 4-15 Sample Email Select Screen

5 Update

The scanner can be updated to keep you stay current with the latest development of diagnosis. This section illustrates how to register and update your scan tool. You can register both on Foxwell website or by the built-in update client.

NOTE

Before registration and updating, please make sure your network works correctly and the tablet is fully charged or connect to external power supply.

5.1 Automatic Update

When the automatic update is enabled, an update symbol is displayed in the upper right corner if any software version is released.

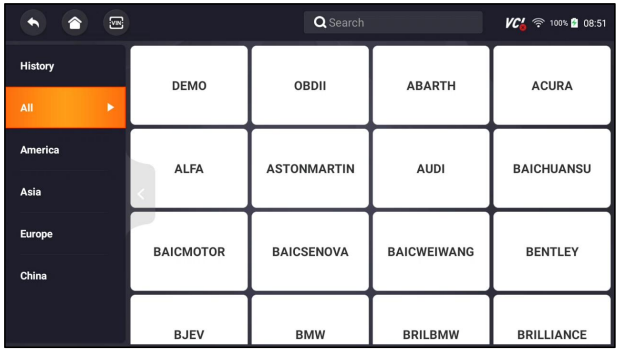

Figure 5-1 Sample Automatic Update Screen

To automatic update or refer to 11.7 Automatic Update:

1. Press **Settings** from home screen of the i53 diagnostic application.
2. Select **Automatic Update**, then set automatic update notice enable.

5.2 Manual Update

To update the diagnostic application:

1. Press **Update** of i53 diagnostic application, and the update client starts up automatically.
2. The available updates display. Click the check box(s) in front of the software you wish to update and then click the **Update** button to download.
3. When all the items are updated, an “Update Done” message displays.

NOTE

Please make sure your network works correctly and the tablet is fully charged or connect to external power supply.

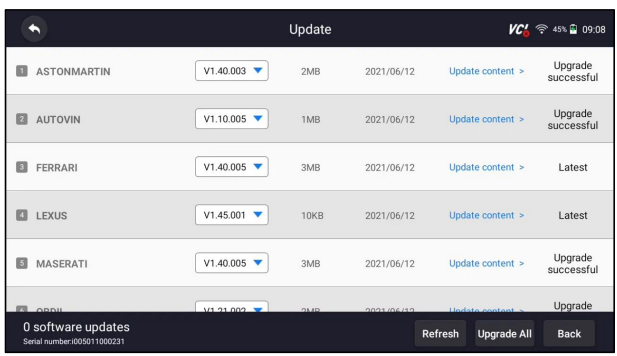

Figure 5-2 Sample Update Screen

6 VCI Manager

VCI Manager is used to unbind and bind the built-in VCI. When the built-in VCI needs to be replaced, you need to use this function to unbind the old VCI and re-bind the replaced built-in VCI.

Even if the VCI is not replaced, the existing VCI device will be automatically unbound when unbinding, and then the existing VCI will be automatically bound, and the software of all vehicles in the device will be rescanned and refreshed, and finally the APP will be restarted.

NOTE

This function cannot be bound to an external VCI, but can only be bound to a built-in VCI.

VCI unbind & rebind：

1. Click **VCI Manager** application on the i53 home screen.
2. After clicking Unbind a VCI dongle, it will display whether to unbind the current VCI. When clicking OK, it will execute unbind, rebind, and refresh the vehicle.

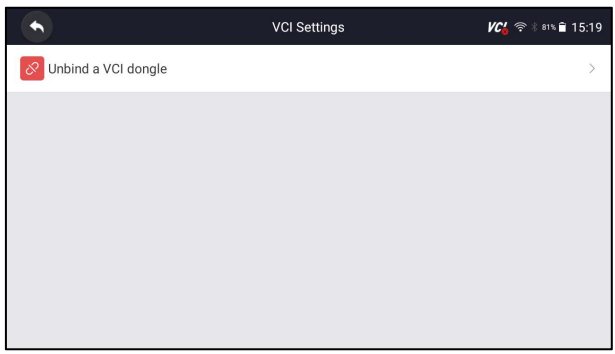

Figure 6-1 Sample Unbind a VCI dongle

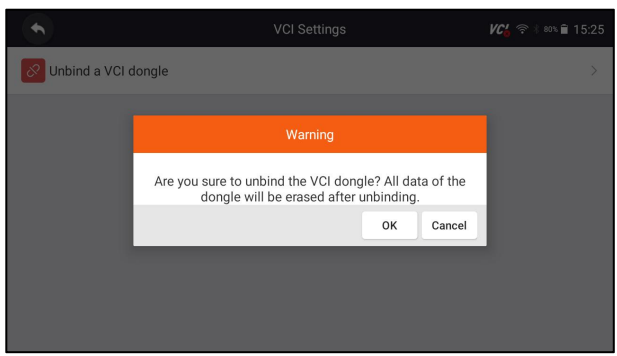

Figure 6-2 Sample Unbinding Confirmation Prompt

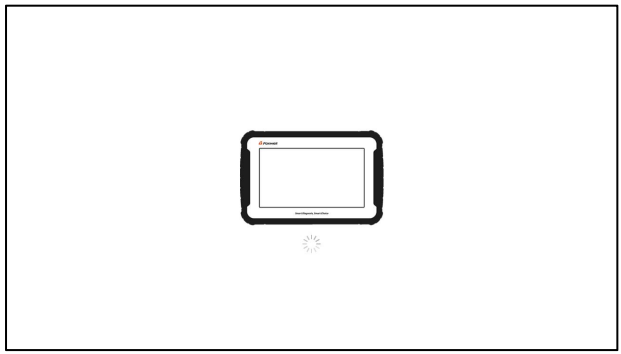

Figure 6-3 Sample Unbinding Current VCI

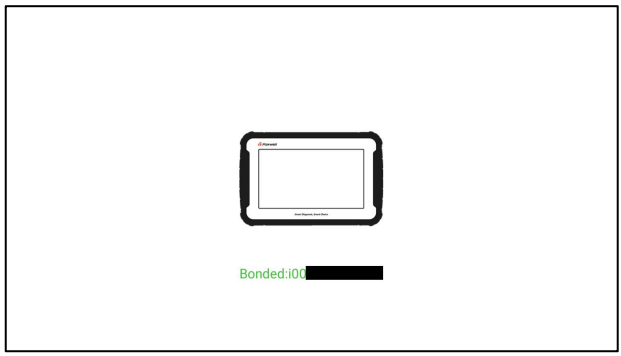

Figure 6-4 Sample Bind New VCI Successfully

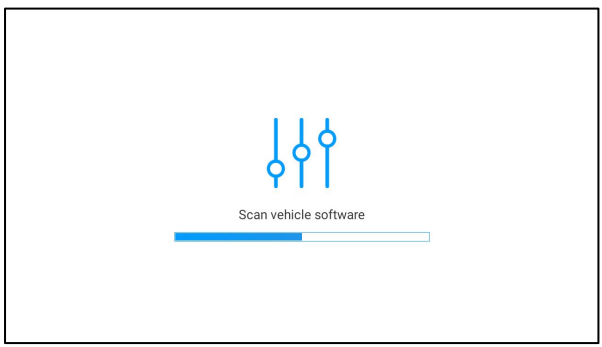

Figure 6-5 Sample Rescan Vehicle Software

7 Firmware Update

This application allows you to update the firmware of i53.

To update the firmware:

1. Click the **Update** application on the i53 home screen.
2. Check and download the firmware package.
3. After the download is completed, it will automatically jump to the **Firmware Update** function module.
4. Check the battery level to ensure that the battery level should be greater than 20%.
5. It will start update automatically if there is an update available. If update failed, please follow the on-screen instructions to troubleshoot and repeat the update.

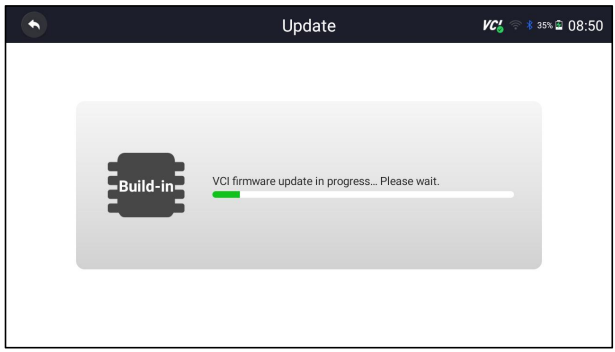

Figure 7-1 Sample Firmware Update Screen

6. "VCI firmware successfully message" will appear if update successfully.

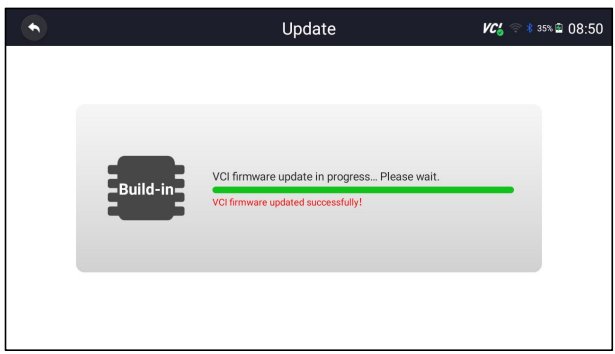

Figure 7-2 Sample Firmware Update Successfully Screen

NOTE

If there is a firmware update available, the update file will be downloaded and saved automatically when you try to update the diagnostic software. And you will be prompted to upgrade the firmware.

8 Vehicle Identification

This section illustrates how to use the scanner to identify the specifications of the vehicle under test.

The vehicle identification information presented is provided by the ECM of the vehicle being tested. Therefore, certain attributes of the test vehicle must be entered into the scan tool to ensure the data displays correctly. The vehicle identification sequence is menu driven. Simply follow the screen prompts and make a series of choices. Each selection you make advances you to the next screen. Exact procedures may vary somewhat by vehicle.

It typically identifies a vehicle by any of the following means:

- VIN Reading
- Manual Selection

NOTE

Not all identification options listed above are applicable to all vehicles. Available options may vary by vehicle manufacturer.

8.1 Vehicle Connection

▶ To connect to vehicle:

1. Locate the data link connector (DLC). The DLC is generally located under the dash on the driver side of the vehicle.

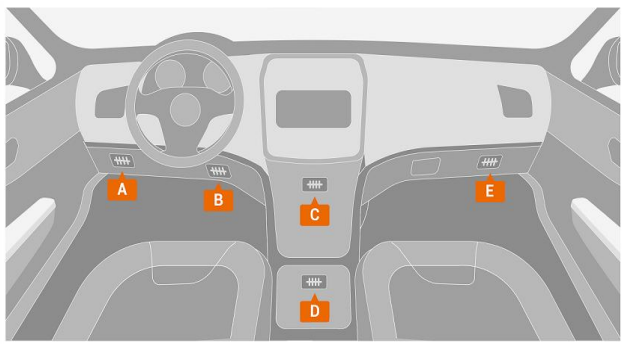

Figure 8-1 Sample Vehicle Connection Screen

2. Attached the diagnostic cable to the scanner and tighten the captive screws to ensure good connection.
3. Connect a correct adapter to the data cable according to the vehicle being serviced and plug it into the vehicle DLC.
4. Switch the ignition key to the ON position.

8.2 VIN Reading

VIN button on the title bar is a shortcut for VIN reading menu, which includes **Automatic Read**, **Manual Entry**, eliminating the need for navigating through complicated car identification process.

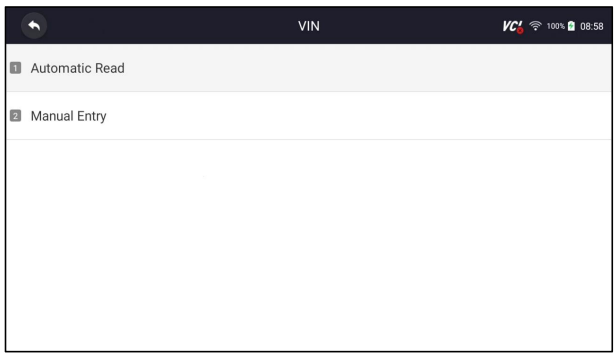

Figure 8-2 Sample VIN Hotkey Screen

8.2.1 Automatic Read

Automatic Read allows to identify a vehicle by automatically reading the vehicle identification number (VIN).

To identify a vehicle by Automatic Read:

1. Select **Diagnostic** from home screen of the i53 application.
2. Click **VIN** and choose **Automatic Read** from the option list.
3. When the scan tool builds connection with the vehicle, the VIN number displays. If the Vehicle Specification or VIN code is correct, press the **OK** to continue.

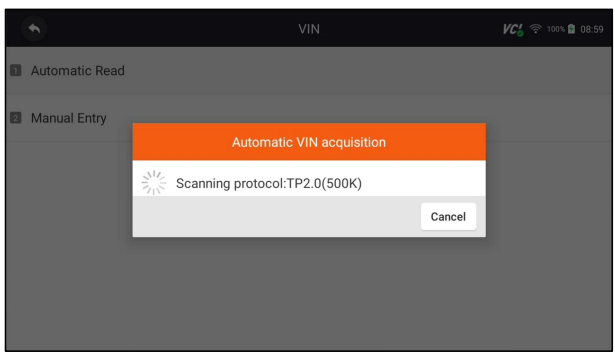

Figure 8-3 Sample Automatic Read Screen

4. If it takes too long to get the VIN code, press **Cancel** to stop and input the VIN manually. Or if failed to identify the VIN, please input the VIN manually or click **Cancel** to quit.

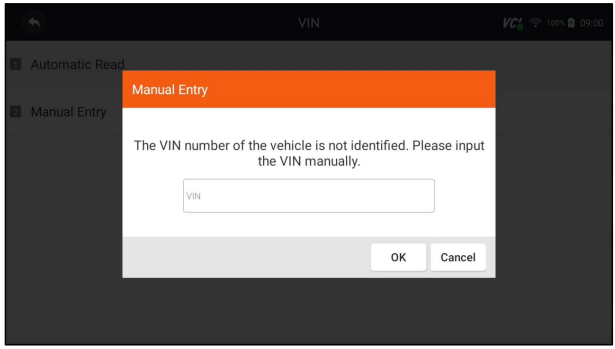

Figure 8-4 Sample Manual Entry Screen

8.2.2 Manual Entry

Manual Entry allows to identify a vehicle by inputting VIN manually.

To identify a vehicle by Manual Entry:

1. Select **Diagnostic** from home screen of the i53 application.
2. Click **VIN** and choose **Manual Entry** from the option list.
3. Press Keyboard button to input a valid VIN code and press **OK** to continue.

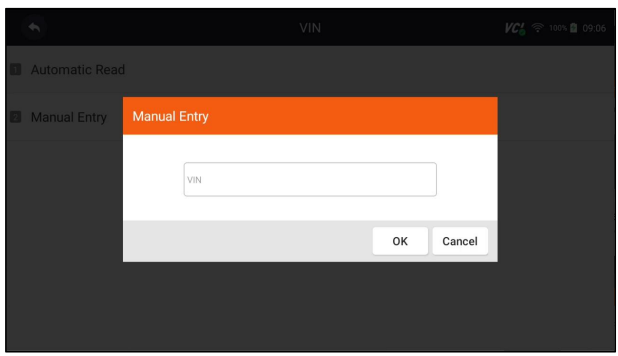

Figure 8-5 Sample Manual Entry Screen

8.3 Manual Selection

Select vehicle brand you are to test, and two ways of getting to the diagnostic operations are available.

- Smart VIN
- Manual Selection

Figure 8-6 Sample Vehicle Entry Screen

8.3.1 Smart VIN

Smart VIN allows to identify a vehicle by automatically reading the vehicle identification number (VIN).

To identify a vehicle by Smart VIN:

1. Select **Diagnostic** from home screen of the i53 application.
2. A screen with vehicle manufacturers displays. Select the area where the vehicle manufacturer from. A menu of all vehicle manufacturers displays. Or tap the **Search** box to search the car you are to test.

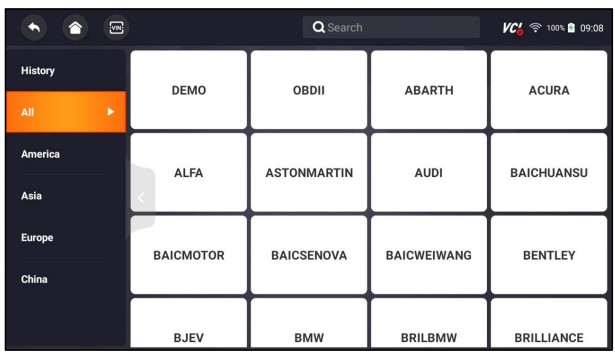

Figure 8-7 Sample Vehicle Selection Screen

3. Choose **SmartVIN** option to start reading the VIN automatically.

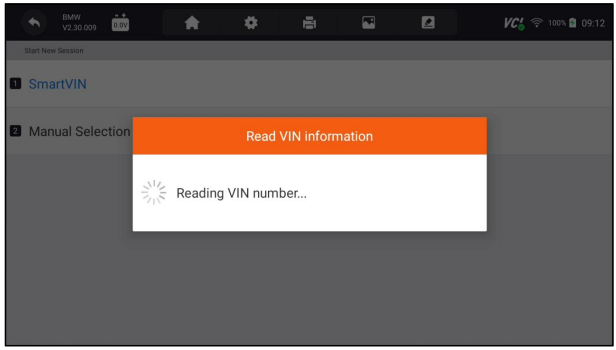

Figure 8-8 Sample Smart VIN Screen

4. After the scan tool builds connection to the vehicle, the VIN number displays. If the Vehicle Specification or VIN code is correct, press the **OK** to continue. If incorrect, please enter a valid VIN number manually.

8.3.2 Manual Vehicle Selection

Manual Selection identifies a vehicle by making several selections according to certain VIN characters, such as model year, and engine type.

To identify a vehicle by manual vehicle selection:

1. Select **Diagnostic** from home screen of the i53 application.
2. A screen with vehicle manufacturers displays. Select the area where the vehicle manufacturer is from. A menu of all vehicle manufacturers displays. Or tap the **Search** box to search the car you are to test.
3. Choose **Manual Selection** option from the list.
4. On each screen that appears, select the correct option until the complete vehicle information is entered and the menu of controller selection displays.

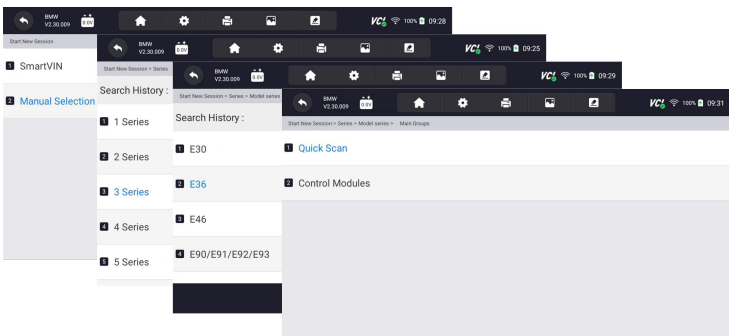

Figure 8-9 Sample Manual Vehicle Selection Screen

8.4 Vehicle History

Vehicle History keeps records of tested vehicles and allows restarting the diagnosis of a vehicle without the need to do vehicle identification again.

To identify a vehicle by Vehicle History:

1. Select **Diagnostic** from home screen of the i53 application.
2. Select **History** button at the top of the diagnostic page and the diagnostic records will display.

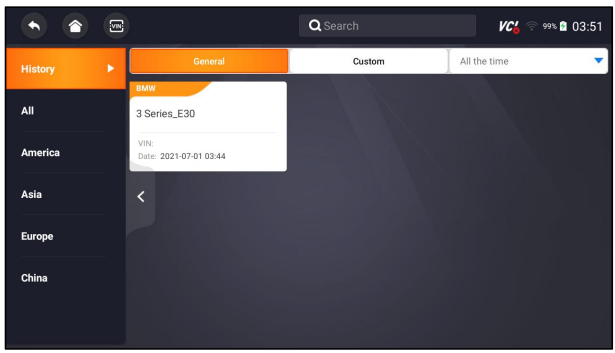

Figure 8-10 Sample History Record Screen

3. Choose the vehicle model you want to test from the list.
4. Click the Diagnostic button at the bottom bar to go to vehicle test page.

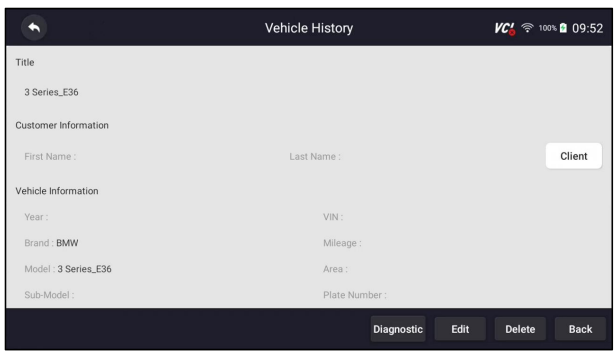

Figure 8-11 Sample History Record Screen

9 Diagnosis

This section illustrates how to use the scanner to read and clear diagnostic trouble codes, view live data readings and ECU information on controllers installed, perform special functions such as actuation and coding, and perform vehicle services and maintenance on Asia, European, China and USA vehicle brands.

9.1 Vehicle Identification

When you completed the identification of vehicle, you have to identify the control modules installed in the vehicle. There are two ways to identify the controllers installed in a car:

- Quick Scan
- Control Modules

Figure 9-1 Sample Diagnosis Screen

NOTE

Not all identify options listed above are applicable to all vehicles. Available options may vary by the year, model, and make of the test vehicle.

9.1.1 Quick Scan

Quick Scan performs an automatic system test to determine which control modules are installed on the vehicle and provides diagnostic trouble codes (DTCs) overview. Depending on the number of control modules, it may take a few minutes to complete the test.

To perform an automatic system scan:

1. Press **Quick Scan** option to start.
2. To pause the scan, press the **Pause** button on the screen.

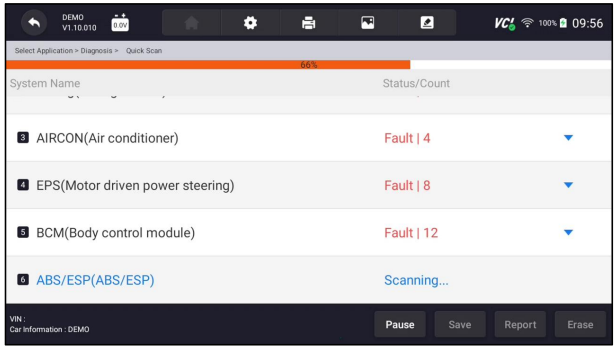

Figure 9-2 Sample Quick Scan Screen

3. At the end of successful automatic controller scan, a menu with a list of **DTC** displays and click ▼ button to the right to view DTC descriptions.

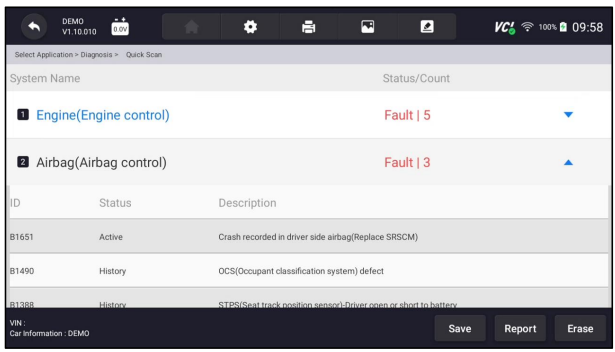

Figure 9-3 Sample Quick Scan Complete Screen

4. Press **Report** to create an overview of installed control units and their system status, or press **Save** to save the report. Press **Erase** to clear the information.

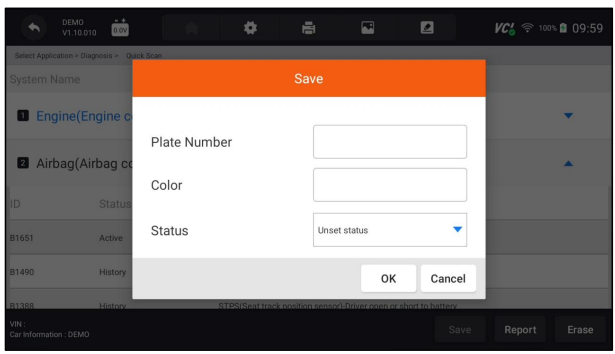

Figure 9-4 Sample DTC Save Screen

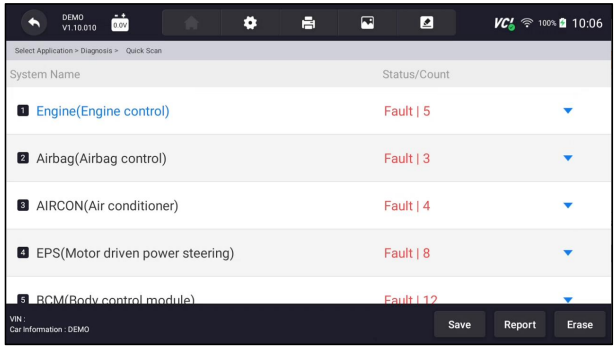

Figure 9-5 Sample Report Screen

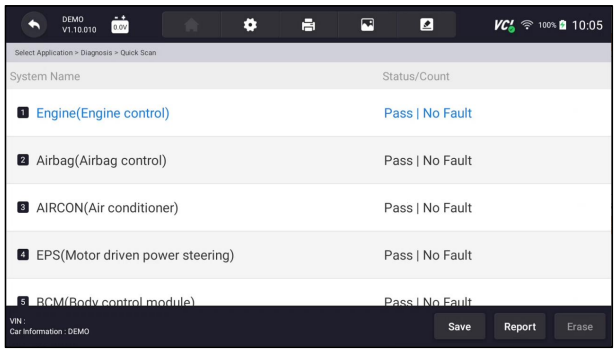

Figure 9-6 Sample Erase Screen

5. When running auto scanning, you can press **Pause** and select the system you would like to test. When the scanner has established connection with the vehicle, the Function Menu displays.

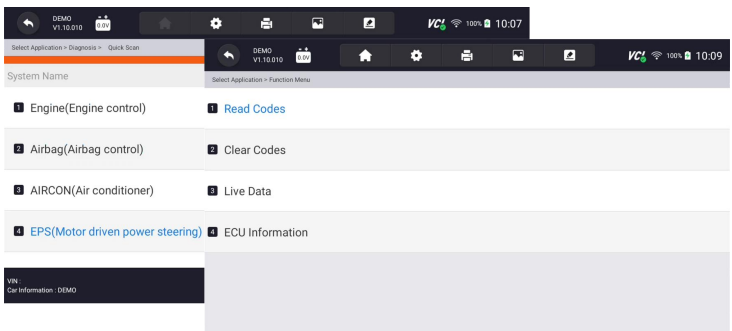

Figure 9-7 Sample System's Function Menu Screen

9.1.2 Control Modules

Control Modules displays all controllers available of the vehicle manufacturer. The controllers listed on the menu do not mean that they are installed on the vehicle. It is useful for technicians who are familiar with the vehicle specifications.

To select a system to test:

1. Press **Control Modules** from the menu and a controller menu displays.

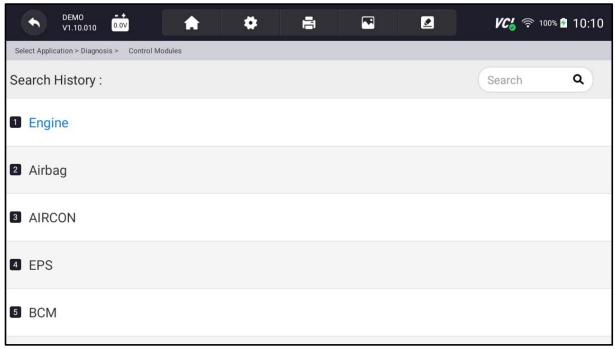

Figure 9-8 Sample Control Modules Screen

2. Select a system to test. When the scanner has established connection with the vehicle, the **Function Menu** displays.

Figure 9-9 Sample Function Menu Screen

9.2 Diagnostic Operations

After a system is selected and the scanner establishes communication with the vehicle, the Function Menu displays. Generally the menu options are:

- Read Codes
- Clear Codes
- Live Data
- ECU Information

NOTE

Not all function options listed above are applicable to all vehicles. Available options may vary by the year, model, and make of the test vehicle.

9.2.1 Read Codes

Read Codes menu lets you read trouble codes found in the control unit. There are 4 types of code status:

- Present/Permanent/Current
- Pending
- History

Present/Permanent/Current codes stored in a control module are used to help identify the cause of a trouble or troubles with a vehicle. These codes have occurred a specific number of times and indicate a problem that requires repair.

Pending codes are also referred to as maturing codes that indicate intermittent faults. If the fault does not occur within a certain number of drive cycles (depending on vehicle), the code clears from memory. If a fault occurs a specific number of times, the code matures into a DTC and the MIL illuminates or blinks.

History codes are also referred to as past codes that indicate intermittent DTCs that are not currently active. Code history is number of engine starts since DTC(s) were first detected (to see if they are current or intermittent).

To read codes from a vehicle:

1. Press **Read Codes** from Select Diagnostic Function menu. A code list including code number and its description displays. The red icon ⓘ means there is help information available for the code. The green icon ❄ means there is freeze frame available.

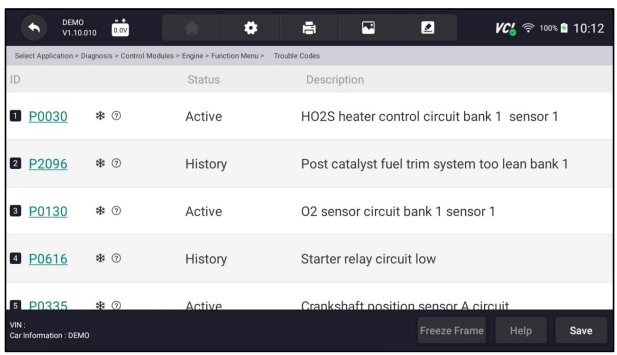

Figure 9-10 Sample Trouble Code Screen

- **Freeze Frame** - select one fault code from the code list and click **Freeze Frame** button at the bottom bar. The screen will display freeze frame detail data, a snapshot of critical vehicle operating conditions automatically recorded by the on-board computer at the time of the DTC set. It is a good function to help determine what caused the fault.

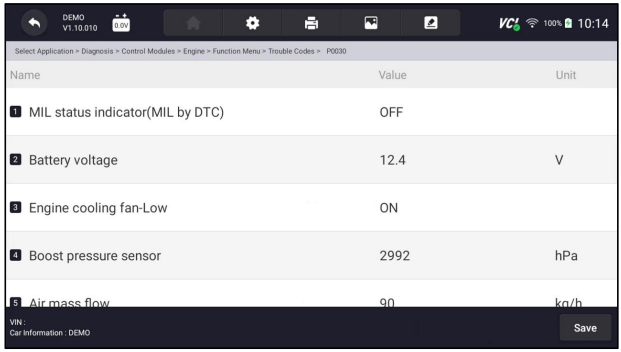

Figure 9-11 Sample Freeze Frame Screen

- **Help** - select one fault code from the code list and click **Help** button on the screen. The screen will display the detailed descriptions about the fault code and repair guide.

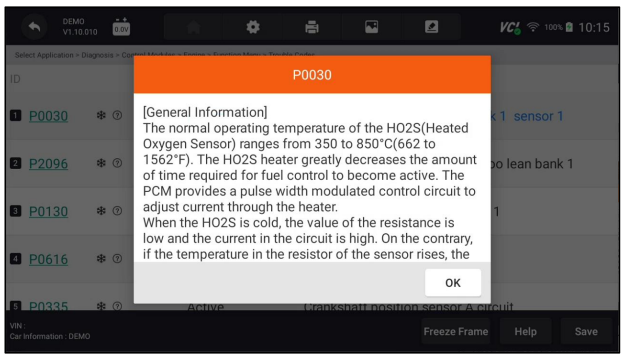

Figure 9-12 Sample DTC Help Screen

2. Slide up and down to view additional information when necessary.
3. Press **Save** to store DTC information. Press to print the information if need be. Press to exit.

9.2.2 Clear Codes

Clear Codes menu lets you to clear all current and stored DTCs from a selected control module. Also it erases all temporary ECU information, including freeze frame, so make sure that the selected system is completely checked and serviced by technicians and no vital information will be lost before clearing codes.

NOTE

- To clear codes, make sure that the ignition key is switched to ON with the engine off.
- Clear Codes does not fix the problem that caused the fault! DTCs should only be erased after correcting the condition(s) that caused them.

To clear codes:

1. Press **Clear Codes** from Select Diagnostic Function menu.

Figure 9-13 Sample Function Menu Screen

2. Follow the on-screen instructions and answer questions about the vehicle being tested to complete the procedure.
3. Check the codes again. If any codes remain, repeat the Clear Codes steps.

9.2.3 Live Data

Live Data menu lets you view real time PID data in text and plot formats, learn good sensor data and compare them with faulty data, and record live data from a selected vehicle electronic control module.

There are two ways to select the PID data of control module:

- All Data
- Custom List

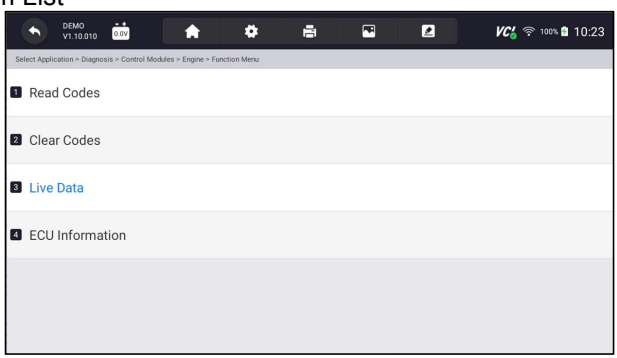

Figure 9-14 Sample Function Menu Screen

9.2.3.1 All Data

All Data menu lets you view all live PID data from a selected control module.

To view all live PID data:

1. Press **Select ALL** for select all live PID data and press **Deselect ALL** to deselect all items.

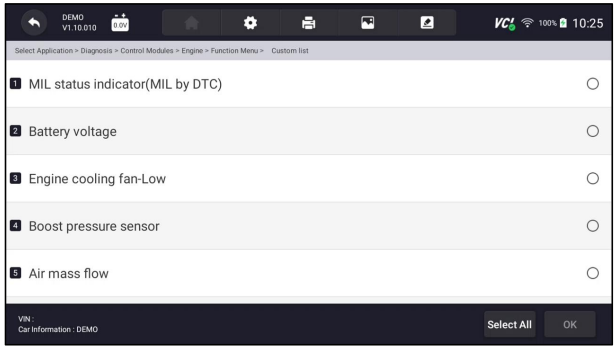

Figure 9-15 Sample Function Menu Screen

2. Press **OK** to complete the selection and all readings will be displayed in text format by default.

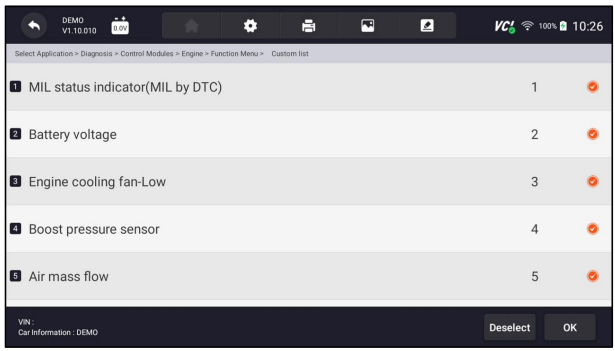

Figure 9-16 Sample Live Data Selection Screen

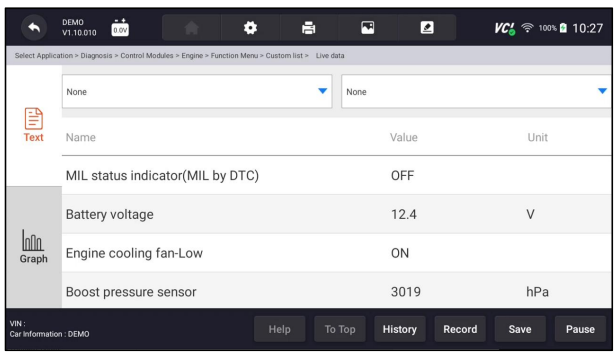

Figure 9-17 Sample Live Data Screen

Name	Description
Help	To provide help information of a PID
To Top	To move a data line to the top of Data List screen

History	To view the previous live data records or test reports
Record	To make record of live data
Save	To save live data of current frame
Pause	To stop recording live data

Table 8-1 Live Data Screen Button Screen

- **Learn Mode:** gives you the ability to learn good live sensor data values during idle, KEKO, acceleration, deceleration, part load and heavy load on each vehicle comes into your shop and records them for future reference. Click the dropdown list at the upper left of the screen to enter to choose a working condition to learn.

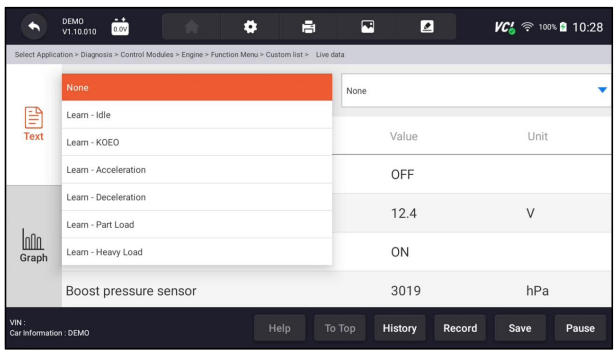

Figure 9-18 Sample Learn Mode Screen

- **Compare Mode** - If that vehicle comes in is with a problem, you can easily compare the faulty sensor and parameter readings to the good readings, and you will be alarmed when a faulty sensor reading is detected.

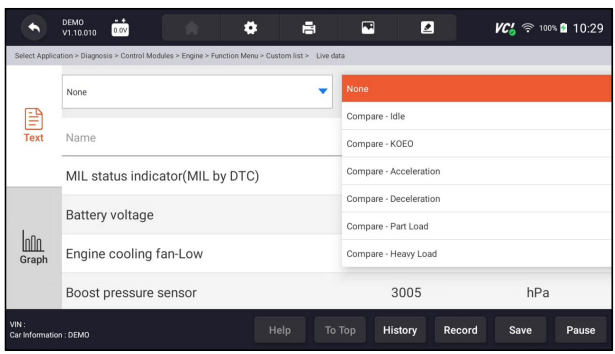

Figure 9-19 Sample Live Data Screen

3. Swipe the screen up and down to view additional information when necessary.

4. To move a data line to the top of Data List screen, just tap the line to select and then press the button **To Top**. To view data records or test reports, and press the button **History**. To make records of live data, just tab the button **Record**, and press **Pause** to stop recording at any time. To save the data, tap the **Save** icon.
5. To view live PID in graph format, press the tab **Graph**, and the plot displays. To view another PID plot, tab the name of a plot and a list of available PIDs display. Select one from the dropdown box and the plot changes to the newly selected PID.

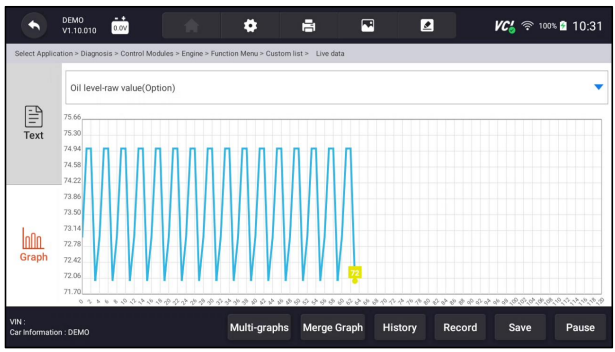

Figure 9-20 Sample PID Graph Screen

- **Multi-graphs:** displays the parameters in waveform graphs, giving you the 'real picture' of what's going on in the vehicle. You can view up to 4 parameter graphs simultaneously.

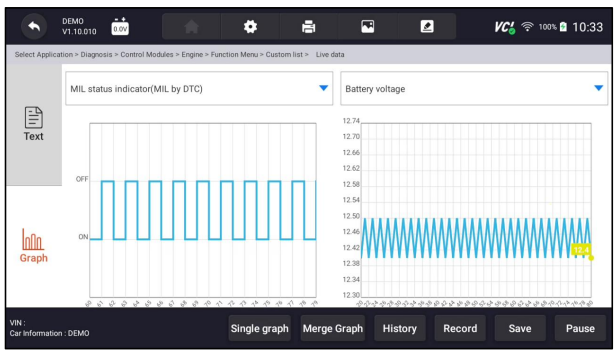

Figure 9-21 Sample Multi-graphs Screen

- **Merge Graph:** merges multiple PID plots into one coordinate, so you can easily see how they affect each other, providing you with the most comprehensive and functional look at live data possible.

Figure 9-22 Sample Merge Graph Screen

9.2.3.2 Custom List

Custom List menu lets you to minimize the number of PIDs on the data list and focus on any suspicious or symptom-specific data parameters.

To create a custom data list:

1. Press **Custom List** from the menu to display all available parameters from the selected control module.
2. The custom data stream selection screen displays. Tap the lines you wish to select. The numbers showing on the right side indicates the order of selection and the live data will show as this order.

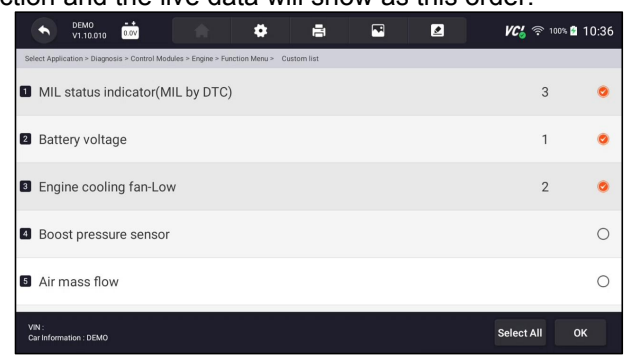

Figure 9-23 Sample Custom List Selection Screen

3. To deselect an item, tap the line again. Alternatively, tap **SELECT ALL** or **Deselect ALL** to select or deselect all items at once.
4. Press **OK** to complete the selection, and all selected items display.

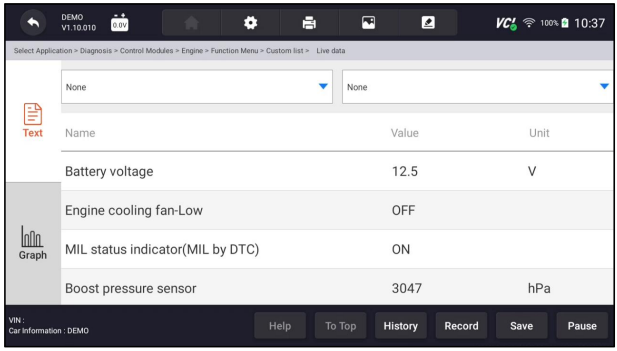

Figure 9-24 Sample Live Data Screen

9.2.3.3 Record data

Data Record is for recording the running data of the current control module.

▶ To Record Data

1. Press **Record** button to record all selected live data, then it will show the record time and frames.

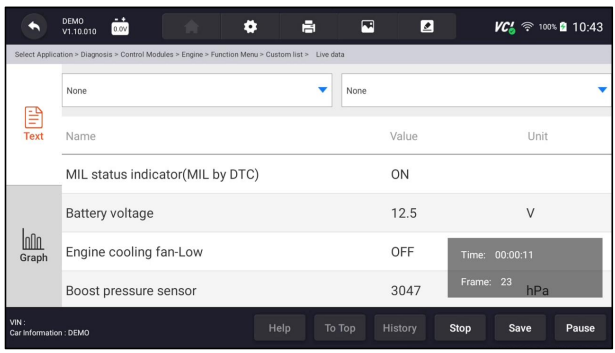

Figure 9-25 Sample Live Data Record Screen

2. Press **Stop** button to create a record, then press **OK** to save the record into Data Playback of Data Manager.

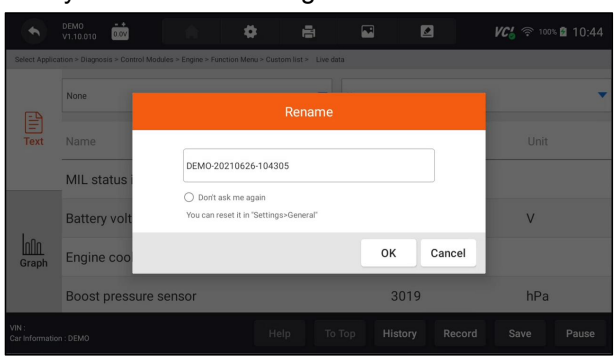

Figure 9-26 Sample To Stop Live Data Record Screen

9.2.4 ECU Information

ECU Information screen displays the identification data of the control module under test, such as the control module identification string and the control module coding.

To read ECU information:

1. Press **ECU Information** from Select Diagnostic Function menu.

Figure 9-27 Sample Function Menu Screen

2. A screen with detailed information of the selected control module displays.

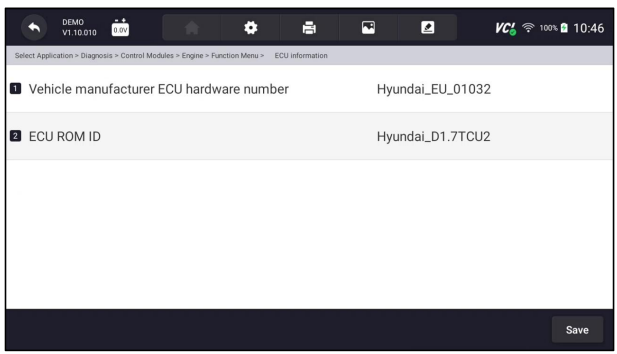

Figure 9-28 Sample ECU Information Screen

3. Press to print the information if need be. Press to exit.
4. Press **Save** to store ECU information screen and Press **OK** to complete save or Press **Cancel** to give up.

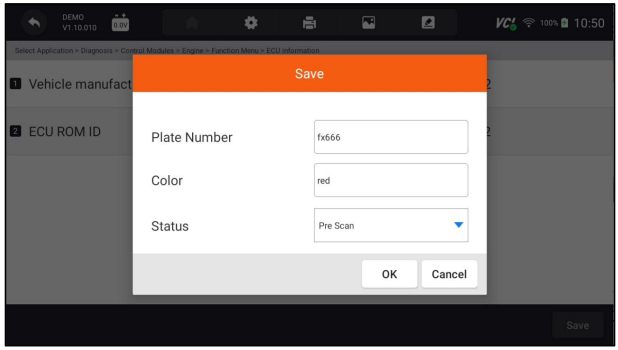

Figure 9-29 Sample ECU Information save Screen

9.3 Complaints

This function lets the customers sending back the complaints or feedback to Foxwell server with one touch during the diagnostic process and allows for quicker and more accurate fixes for diagnostic troubles and bugs.

To make a complaint:

1. Click during the diagnostic process when face a failure.

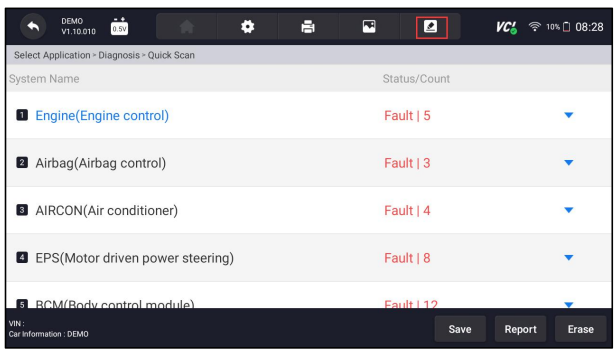

Figure 9-30 Sample Compliant Button Screen

2. Input the necessary information in the complaint sheet. And the data logging file will be collected automatically.

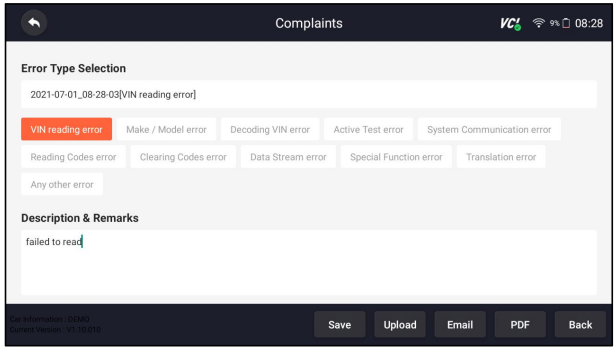

Figure 9-31 Sample Compliant Sheet Screen

3.Press **Upload** to send to Foxwell server directly when connecting with Wifi or Press **Save** to save the complaint and send to us later.(The saved complaint can be found at **Data Manager--Data Record** menu.) Press **Email** to share or **PDF** to print. And press **Back** to cancel.

10 Data Manager

Data Manager menu let you review stored screenshots and test reports, playback recorded live data and other saved files.

Typical menu options include:

- Image
- PDF
- Data Playback
- Data Record
- Report

Figure 10-1 Sample Data Manager Screen

10.1 Image

Image option leads to screens for review of stored screenshots. In case a failure of i53 application or the Android system occurs, please just take a screenshot and send it to our team to help with the troubleshooting.

Typical menu options include:

- Diagnostic Screenshot
- System Screenshot

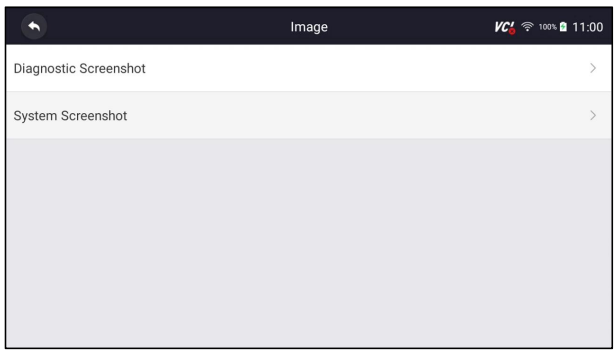

Figure 10-2 Sample Screenshots type

10.1.1 How to Save an Image

To take a screenshot:

1. If want to save data of current screen, press at the title bar to take a screenshot.

Figure 10-3 Sample Screenshot Screen

2. Add a description of the image, and press the OK to save or press cancel button to give up.

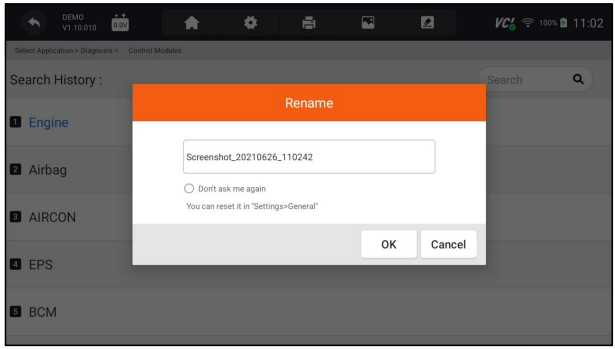

Figure 10-4 Sample Screenshot Screen

10.1.2 Review Image

To review the screenshots:

1. Press **Data Manager** from home screen of i53 diagnostic application.
2. Press **Image** from Data Manager.
3. Press **Diagnostic Screenshot** for application menu screenshot or Press **System Screenshot** for system menu screenshot, then all available pictures will be displayed.

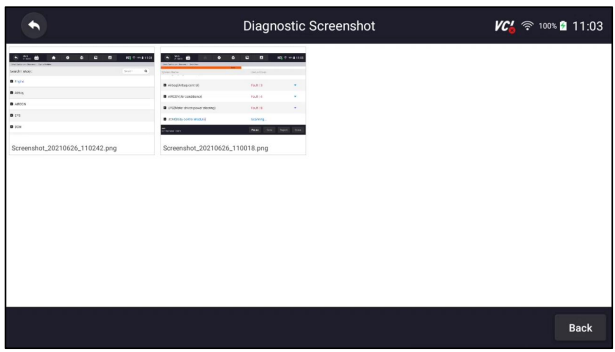

Figure 10-5 Sample Browse Picture Screen

4. Press any available picture for review.
5. To delete a picture, tap button **Delete** and answer **OK** to delete. Press **Print** to print the pictures and press **Rename** to change the picture name.

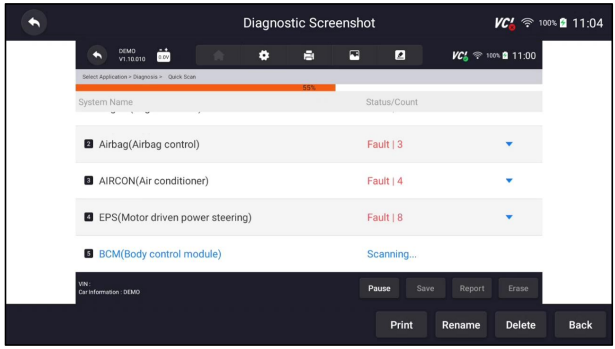

Figure 10-6 Sample Edit Picture Screen

6. Long press one of the pictures to edit all pictures like **Rename** or **Delete**.

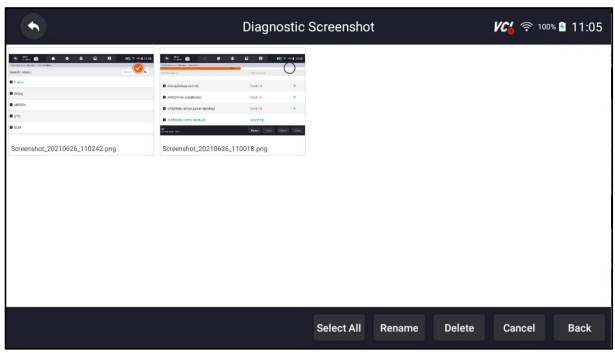

Figure 10-7 Sample All Pictures Edit Screen

10.2 PDF Report

PDF option leads to screens for review of the vehicle test reports. You just need to press the PDF icon on the test screen, add a description and press **OK** button to save.

10.2.1 How to Create a PDF Report

To create a PDF report:

1. Press **Data Manager** from home screen of i53 diagnostic application.
2. Press Report from Data Manager.
3. Press any reports saved.

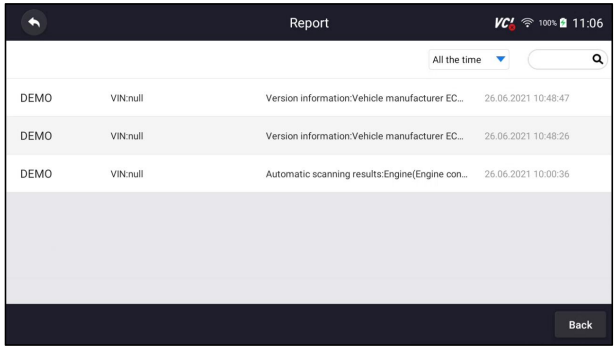

Figure 10-8 Sample of Reports Screen

4. Press Save to save changes. Press PDF to create PDF file.

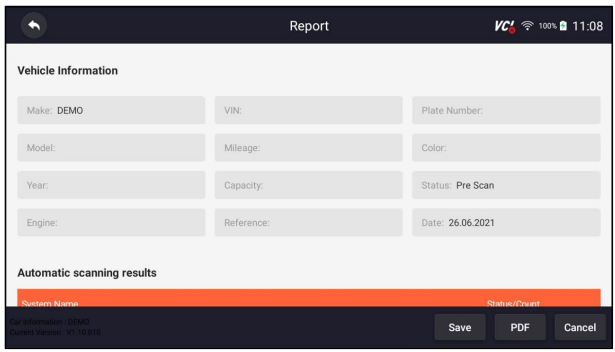

Figure 10-9 Sample of Report edit Screen

5. If press PDF, the PDF review screen will be displayed. Press **Print** to print the report or press **Email** to share the report.

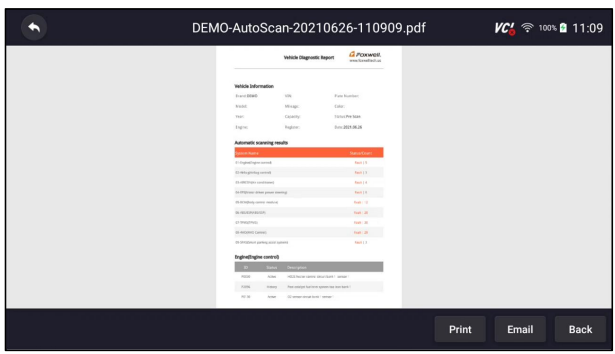

Figure 10-10 Sample of Report edit Screen

10.2.2 Review PDF Report

To review the PDF reports:

1. Press **Data Manager** from home screen of i53 diagnostic application.
2. Press **PDF** and all available PDF files will be displayed.

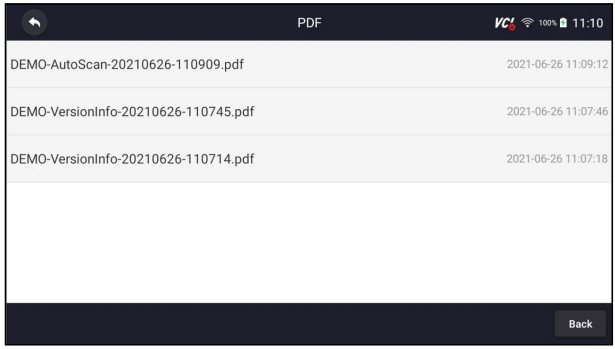

Figure 10-11 Sample Browse PDF Screen

3. Long press the screen to edit all PDF files like **Rename** or **Delete** the files.

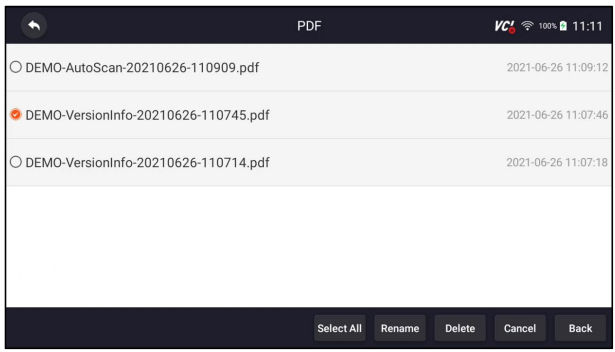

Figure 10-12 Sample Edit PDF Screen

10.3 Data Playback

The **Data Playback** option leads to screens for review of recorded live data. Playing back a recording is just like using the scan tool on a live vehicle. It let you review live data in text, graph and graph merging formats. Playback speed and direction (forward or reverse) can also be controlled.

To review recorded live data:

1. Press **Data Manager** from home screen of i53 diagnostic application.
2. Press **Data Playback** and all available records display.

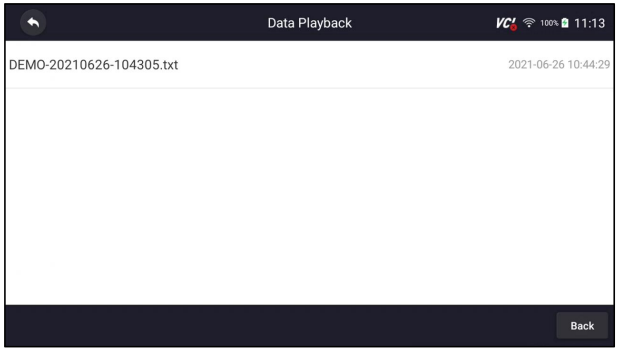

Figure 10-13 Sample Data Playback Records Screen

3. Press any records to view the details.

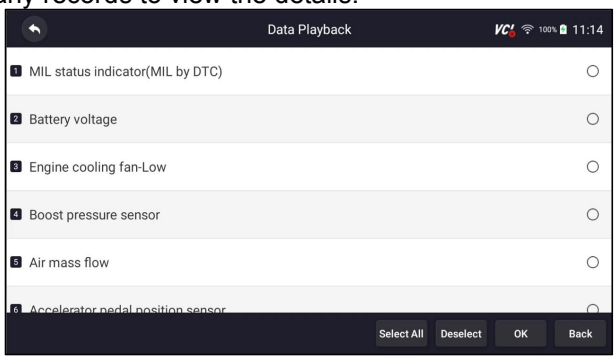

Figure 10-14 Sample Data Playback Selections Screen

4. To view parameter graphs, press the **Graph** tab. And to merge the graphs, press the tab **Merge Graph** or press the tab **Multi Graph** to view multiple plots.

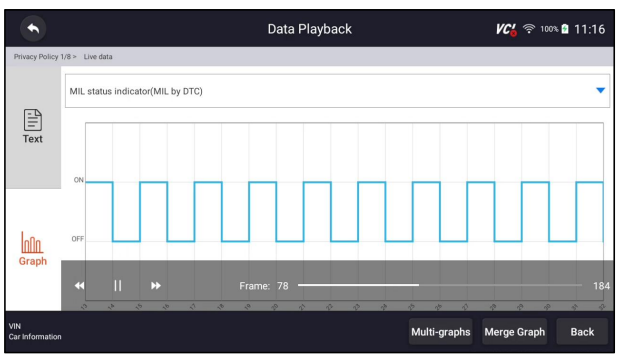

Figure 10-15 Sample Graph Screen

5. To move forward or reverse back of the playing, just drag the progress bar forward or reverse. Press the ⏸ button to stop.
6. Long press the record to **Rename** or **Delete** the records.

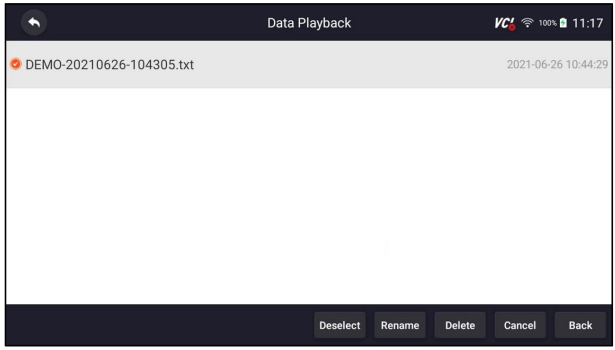

Figure 10-16 Sample Edit Data Playback Screen

11 Settings

This section illustrates how to program the scanner to meet your specific needs.

When Settings application is selected, a menu with available service options displays. Menu options typically include:

- Unit
- Language
- Font Size
- Module Sorting
- Sort Tiles
- Remote control
- Automatic Update
- System Settings
- General
- Uninstall Vehicle Software
- Clear app data
- Print Settings
- About

11.1 Unit

Selecting **Unit** opens a dialog box that allows you to choose between Imperial customary or metric units of measure.

To change the unit setup:

1. Press **Settings** from home screen of the i53 diagnostic application.
2. Press **Unit** and available unit system display.
3. Select a unit system.

11.2 Language

Select **Language** opens a screen that allows you to choose system language.

To configure system language:

1. Press **Settings** from home screen of the i53 diagnostic application and select **Language**. Then all available language options display.
2. Select your preferred language to change.

11.3 Font Size

This option allows you to change the font size of application.

To change font size:

1. Press **Settings** from home screen of the i53 diagnostic application, and then select **Font Size**.
2. Select your preferred font size, then press **Confirm** to change, or press **Back** to give up.

11.4 Module Sorting

This option allows you to modify the display order of other modules except the diagnostic module in the home screen of i53 diagnostic application.

To change module sorting:

1. Press **Settings** from home screen of the i53 diagnostic application, and then select **Module Sorting**.

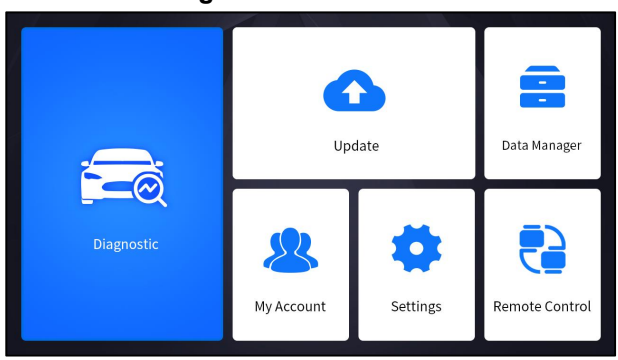

Figure 11-1 Sample Before the modification,
the Data Manager Module is displayed behind the Update module

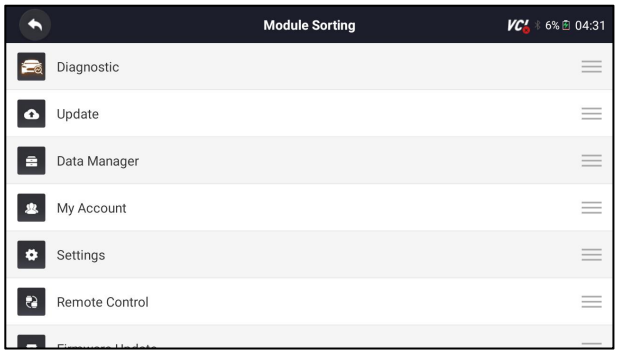

Figure 11-2 Sample Before the modification,
the Data Manager is displayed behind the Update module

2.Long press the icon ☰ on the right side of the module that needs to be modified for about 2 seconds, and then drag it up and down. The final position of the module is the same as the display order of the home screen.

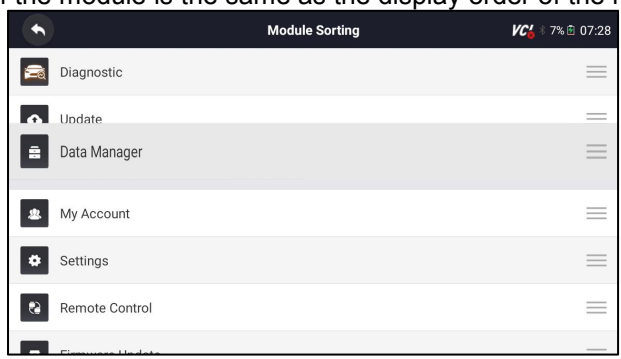

Figure 11-3 Sample Drag the Data Manager module to the front of the Update module

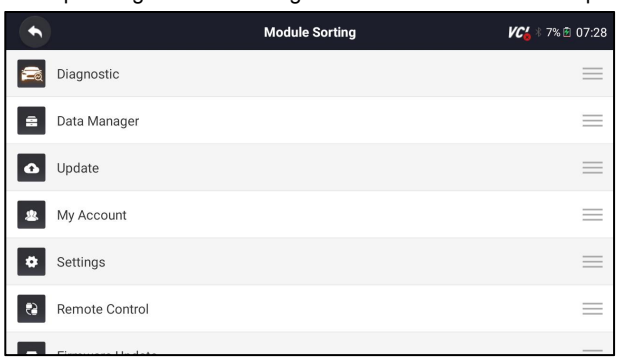

Figure 11-4 Sample Release and Dwell Data Manager Module

3. Click ↩ to display whether to apply the current settings interface, click OK to apply the current changes, click Cancel to discard the current changes.

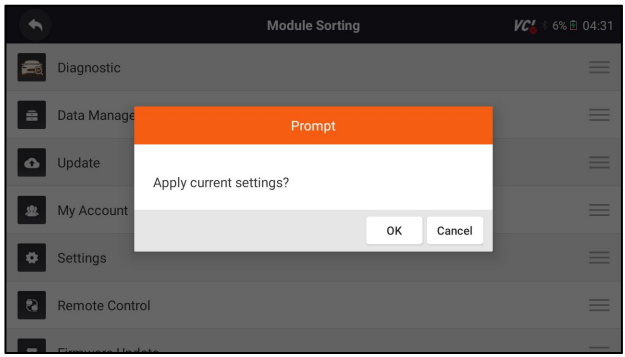

Figure 11-5 Sample Click OK to apply the current changes

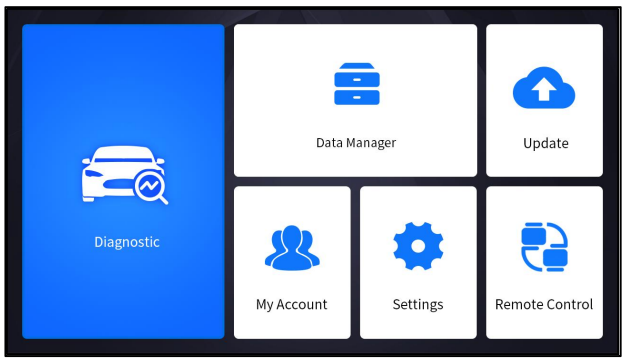

Figure 11-6 Sample After the modification,
the Data Manager module is displayed in front of the Update module

11.5 Sort Tiles

This option allows you to change the sort for Brand of vehicles. There are two sorting methods available by alphabet or by frequency of use.

▶ To change sort

1. Press **Settings** from home screen of the i53 diagnostic application, and select **Sort Tiles**.
2. Select your preferred sort order.

11.6 Remote Control

This option allows you to select a tool of remote control. There are two remote tools available TeamViewer QuickSupport or AnyDesk.

▶ To change remote control

1. Press **Settings** from home screen of the i53 diagnostic application, then select **Remote control**.
2. Select your preferred tool.

11.7 Automatic Update

This option allows you to enable/disable automatic update notice. If it is enabled, an orange update mark will show on the upper right of the diagnostic software icon whenever there is a new version available.

11.8 System Settings

This option provides you a direct access to the Android system settings, like sound, display, system security and etc. Refer to Android documentation for more information.

11.9 General

This option lets you to turn on/off the prompt when saving a file or login & registration when started the scanner.

11.10 Uninstall Vehicle Software

This option allows you to uninstall the vehicle software installed in the scanner.

To uninstall a vehicle software:

1. Tap **Settings** application on home screen of i53.
2. Tap the **Uninstall Vehicle Software** option on the option list.
3. Choose the vehicle software you want to delete or choose **Select All**.

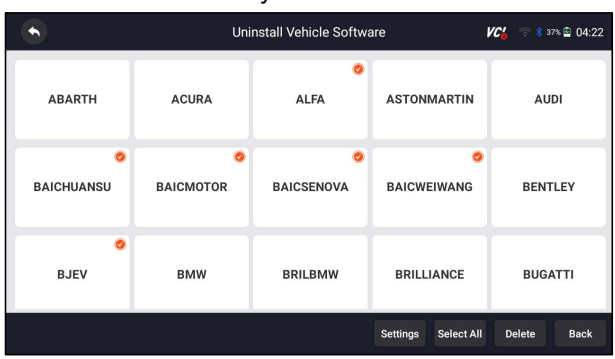

Figure 11-7 Sample Uninstall Vehicle Software Screen

4. Press **Cancel** to quit or and press **OK** to uninstall.

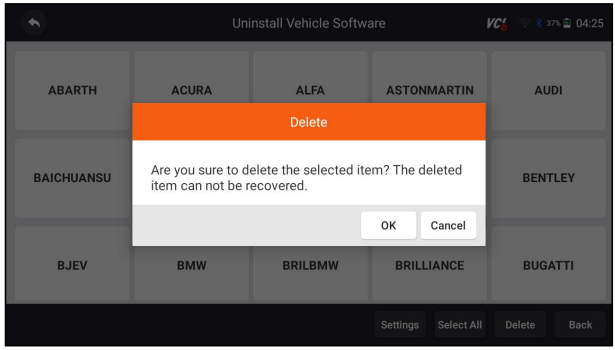

Figure 11-8 Sample Uninstall Vehicle Software Screen

11.11 Clear App Data

Generally, after the application running for a period of time, some cache data will be generated. As time goes by, the cached data will become larger and larger, which will affect the operation of the device. This option allow you to clear the cache data of the app.

11.12 Print Settings

This option allows you to print any data or information anywhere and anytime either via PC network or Wi-Fi.

To setup the printer connection:

1. Tap the **Settings** application on home screen of i53.
2. Tap the **Printing Settings** option on the option list.

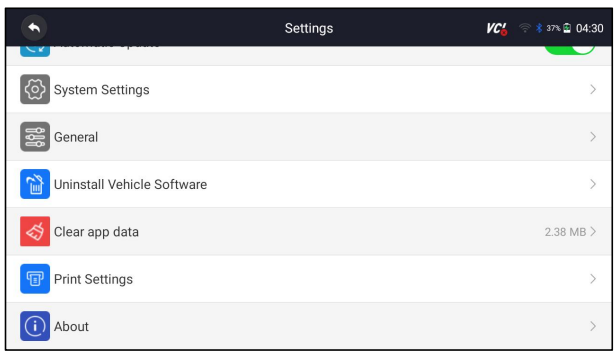

Figure 11-9 Sample Print Settings Screen

3. Tap **Print Plugin Manager** and turn on the Mopria Print Service, then i53 will search for available printers automatically.

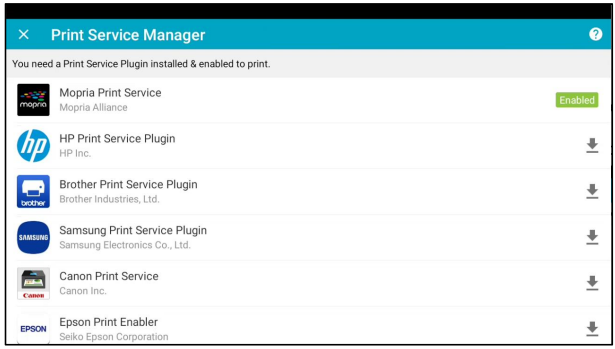

Figure 11-10 Sample Print Service Manager Screen

4. Select Mopria Print Service. Press ○ for return.

Figure 11-11 Sample Setting of Print Service Manager Screen

5. Choose the right printer. Press ○ for return.

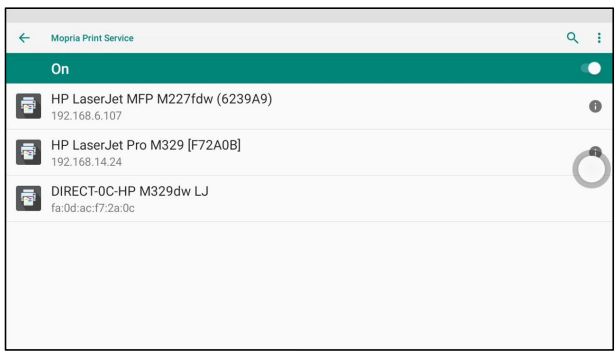

Figure 11-12 Sample of Printer Screen

6. Select a available printer, then press **PRINT TEST PAGE** button at the right-bottom. Press ○ for return.

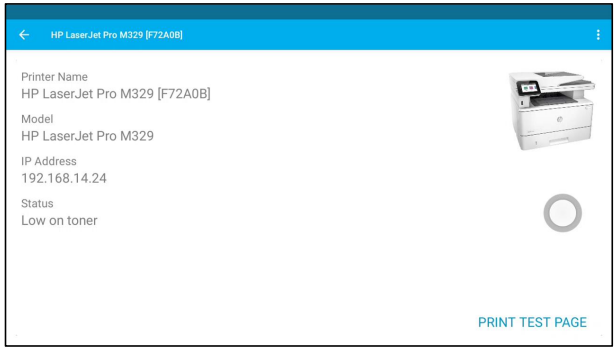

Figure 11-13 Sample of Printer test

7. Choose the file or report you want to print and press the print icon . Click on the red marked part to select an available printer. Click the blue marked part to make more settings for the printer, such as paper size, number of copies, etc.

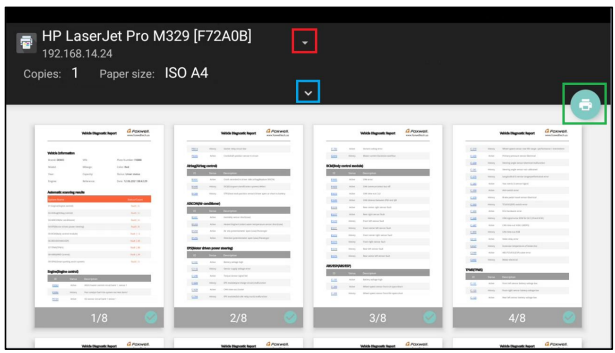

Figure 11-14 Sample of File Printing Screen

NOTE

1. Please make sure the printer and the i53 in the same Wi-Fi or Network when printing.
2. If Mopria Print Service driver can't workable for your printer, please download the driver to work for your printer on Print Service Manager.

11.13 About

Selecting **About** option opens a screen that shows information about the i53, such as serial number, hardware and software version and etc.

▶ To view information of your scan tool:

1. Press **About** from home screen of the i53 diagnostic application.
2. A screen with detailed information of the scanner displays.

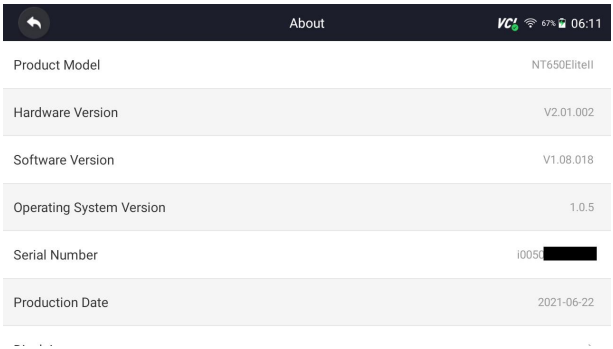

Figure 11-15 Sample Tool Information Screen

12 Remote Support

Remote Control enables you to get remote support from Foxwell with TeamViewer when you have issues with Foxwell products.

There are two remote control tools TeamViewer QuickSupport and AnyDesk. About how to set the tool of default, please refer to 11.6 Remote control.

To use QuickSupport for to remote control:

1. Click the **Remote Control** icon on the main menu of the i53 to start TeamViewer QuickSupport. Press ○ for return.

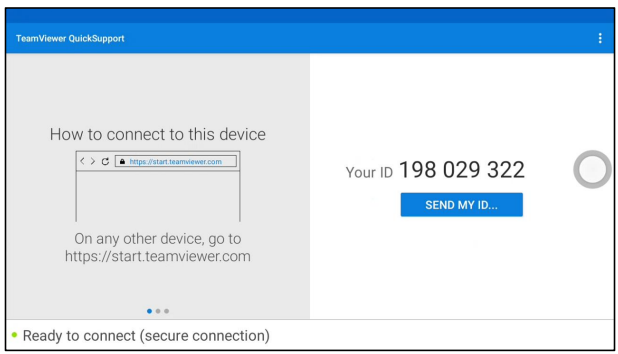

Figure 12-1 Sample QuickSupport Screen

2. Send your ID to us to let our team to take control your tablet.