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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.

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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:

Press the **ENTER** button to select.

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 System Setup is selected, a menu that lists all available options displays. Menu options include:

- Languages
- Display Mode
- Unit
- User Information
- Resetting

1.2.2 Arrow Icon

▶ An arrow icon indicates a procedure.

Example:

- ▶ To connect to wall plug:
 1. Connect the 19V power adapter 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

GT90 Automotive Diagnostic Platform Generation III from Foxwell is IP65 rated and built to resist the impact and damage of even the toughest workshop environment. With a 12.2 inch large capacitive LCD touch screen, GT90 brings the technicians more broad vision and easier operation. And equipped with INTEL QUAD-core processor and super-sensitive multi-touch screen that responds to glove use and greasy fingers and genuine WINDOWS 10 operating system, GT90 delivers faster and much more reliable diagnosis for workshops and technicians. In addition, it provides professional diagnosis on more than 67 American, Asian and European vehicle makes and has access to a vast range of controllers (ABS, airbags, instrument cluster, etc.), live sensor data, and system/component-level bi-directional controls.

There are two main components:

- GT90 Tablet
- Vehicle Communication Interface (VCI)

2.1 Scanner Descriptions

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

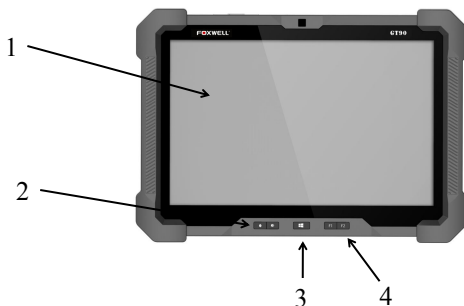


Figure 2-1 Front View

- 1 **12.2" LED IPS Capacitive Touch Screen** - shows menus, test results and operation tips.
- 2 **VOL + / VOL-** -Short press to adjust the volume.
- 3 **Home Button** - exits a screen and returns to the home screen of the tablet.
- 4 **F1/F2** - shortcut button, F1 is used to enter the diagnostic software quickly. F2 is used to screen shot.

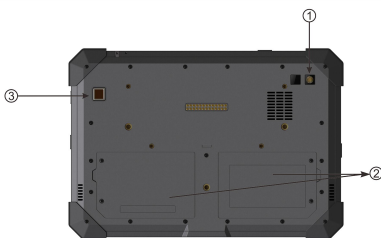


Figure 2-2 Back View

- 1 **Rear-Facing Camera** - takes pictures of VIN number, faulty parts and plates and shoots test videos.
- 2 **Battery Compartment** - installs lithium-polymer battery to provide power to the scanner when disconnected from vehicle.
- 3 **Fingerprint Recognition**- avoids repetitive password entry and just need you put your finger on the induction zone to enter the system within 5 seconds.



Figure 2-3 Top View

- 1 **USB Port**- provides a USB connection for the VCI or other devices.
- 2 **SIM Card Port**--provides 3/4G network for the tablet.(optional function)
- 3 **SD Card Port**- provides storage space expansion via TF card

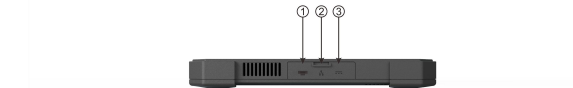


Figure 2-4 Left View

- 1 **HDMI (high-definition multimedia interface) Port** - outputs display of the scanner for demonstration and training of the products.
- 2 **Ethernet port**- connects with the Internet.
- 3 **DC Power Input Jack** - connects to wall plug to provide power to the scanner and to charge the scanner.

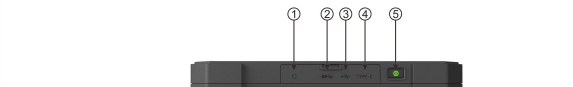


Figure 2-5 Right View

- 1 **Headset Jack**- provides a headset connection.

2 /3/4 USB Port - provides a USB connection for the PC or laptop or other devices.

5 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 emergency shutdown.

NOTE

4G network, Fingerprint Recognition are optional facilities and not included in the standard version.

IMPORTANT

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

2.2 VCI Descriptions

The Vehicle Communication Interface is a device used to connect the vehicle's diagnostic connector (DLC) with the Display Tablet for vehicle data transmission.



Figure 2-6 Front View of VCI

- 1 Error Light** - turns to red when hardware failure occurs or no communication
- 2 USB Light** - turns to green when the VCI is properly connected and communicating with GT90 tablet via USB cable.
- 3 Bluetooth Light** -turns to green when the VCI is properly connected with GT90 tablet via Bluetooth communication.
- 4 Power Light** - turns to green when powered on



Figure 2-7 Top View of VCI

5 Vehicle Data Connector-provides connection between vehicle and the and VCI through the 16 pin diagnostic cable.



Figure 2-8 Bottom View of VCI

6 USB Port-provides connection between VCI and GT90 through a USB cable.

2.3 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.

Item	Item
Main Unit 	VCI 
DB15 Data Cable 	USB Cable for VCI 
AC/DC External Power Adapter 	AC/DC External Power Cord 
Audi 4 Pin Adapter 	Mercedes Benz 38 Pin Adapter 
Clip Cable 	Cigarette Lighter 
Toyota 22 Pin Adapter 	Fiat 3 Pin Adapter 
GM/Daewoo 12 Pin Adapter 	PSA 2 Pin Adapter 
Kia 20 Pin Adapter 	Honda 3 Pin Adapter 
Nissan 14 Pin Adapter 	Mitsubishi 12+16 Pin Adapter 
BMW 20 Pin Adapter 	Toyota 17 Pin Adapter 
Mazda 17 Pin Adapter 	OBDII Adapter 

Table 2-1 Accessories

2.4 Technical Specifications

Item	Description
Touch Screen	12.2" diagonal color LCD screen
Operation System	WINDOWS 10
Processor	Intel® Celeron® Processor N3060, 2M Cache, up to 2.48 GHz
Memory	2GB DDR3L (1333MHz)
SSD Hard drive	64GB(optional 128G/256G)
System Type	32-bit operating Systems, x64-based processor
Display	Backlit 1280*800 pixel 12.2"LED capacitive touch screen
Communication interface	Built-in WIFI 802.11 b/g Wireless LAN USB2.0 OTG/standard USB 2.0 HOST Bluetooth 4.0 (0-50 m)
Camera	5 megapixels rear-facing
Audio Input /Output	Microphone and dual Speaker
Working Temperature	0 to 50°C
Storage Temperature	-20 to 60°C
Humidity	95% Non-Condensing
External Power	8-20 Volts powered by vehicle battery
Built-in Battery	8000 mAh, Lithium-polymer battery, chargeable via 19V AC/DC power supply
Protocols	ISO9141-2, ISO14230-2, ISO15765-4, K/L lines,Double K lines, Double K Line, SAE-J1850 VPW, SAE-J1850PWM, CAN ISO 11898, High-speed, Middle-speed, Low-speed and Single-wire CAN, KW81, KW82, GM UART, UART Echo Byte Protocol, TP2.0, TP16, SAE J1939, SAE J1708, Fault-Tolerant CAN.
Dimensions	320*260*25mm
Weight	Net Weigh: 1.4KG

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 GT90 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
- 19V AC/DC 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 6.5 hours of continuous operation.

For the first three times charging the battery, please make sure the charging time should be 8-10 hours at least. After it, the battery can be fully charged in about 4 hours. These make lithium battery achieved its best performance in the future.

NOTE

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

3.1.2 19V AC/DC Power Supply

The scan tool can also be powered from a wall socket using the AC/DC power supply. The AC/DC power supply also powers the internal battery pack charging.

▶ To connect to wall plug:

- 1.Connect the 19V power adapter 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.

3.2 Shutting Down the Scanner

All vehicle communication must be terminated before shutting down the scanner. Forcing a shut down while communicating may lead to ECM problems on some vehicles. Exit the Diagnostic application before powering down.

▶ To shut down the scanner:

1. Swipe the rightmost side of the display and you will see the Settings icon of the Windows system.
2. Press the Settings icon and you will see the Power switch.
3. Press the Power switch and select the shut down option to power the scanner off.

NOTE

In case of emergency, press and hold the Power button of the scanner for 5 seconds to force shutdown.

3.3 Screen Layout of Home Screen

When the scan tool boots up, press the Desktop tab from the Home screen of the tablet. Then press the GT90 desktop icon twice to launch the diagnostic application.

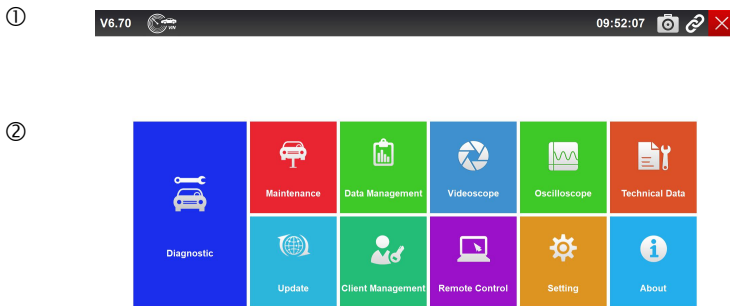


Figure 3-1 Sample Home Screen

1. Title Bar
2. Application Buttons

3.3.1 Title Bar

Operation of the buttons located on the title bar are described in the table below:







Name	Button	Description
Time		Displays current time
Data Logging		Records the communication data between the scan tool and the vehicle under test to help with troubleshooting of diagnostic failures. The logs will be saved to the scanner and sent to our server via internet.
Camera		Captures the screens of errors or faults.
VCI Communication Status Indicator		Indicates the communication status between the VCI (Vehicle Communication Interface) and the GT90 tablet. Green icon indicates the communication with the VCI has connected successfully, while a white icon indicates the communication has not built yet.
Exit		Exits the Diagnostic application or exits a function.
VIN Scan		Touching this button opens a selection Menu; tap Automatic VIN acquisition for auto VIN detection; tap Manually Input VIN to enter VIN manually

Table 3-1Title Bar

3.3.2 Application Buttons

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

- **Diagnostic** – leads to test screens for diagnostic trouble code information, live datastream, ECU information, active tests, coding and other functions.
- **Oscilloscope** – leads to oscilloscope OS100 software to perform electrical and electronic circuit tests.
- **Videoscope** – leads to videoscope software connecting GT90 to videoscope with an Imager head cable for close vehicle inspection.
- **Data Management** – leads to screens for saved screenshots and pictures and playing back recorded live datastream, as well as stored logging data.
- **Update** – leads to screens for registration and updating of the scanner and managing your scanner serial numbers and sending us feedbacks about the scanner.

- **Setting** – leads to screens for adjusting default settings to meet your own preference and view information about the scanner.
- **About** – leads to screen of product information such as serial number and password, which is required for product registration.
- **Customer Management** – leads to screens for logging and managing the client information of the workshop.
- **Remote Control**– leads to the application TeamViewer for remote control when you need any support from Foxwell support team.
- **Technical Data** – stores some guided operation information etc.

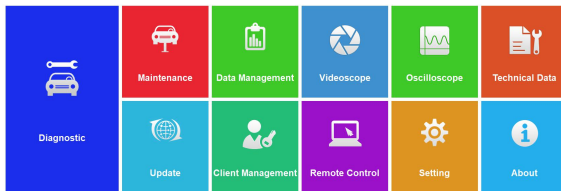


Figure 3-2 Sample Application Screen

3.3.3 Windows Toolbar

This is the standard Windows 10 toolbar. GT90 is a fully functional personal computer based on the Windows 10 operating system.

NOTE

In case of the display mode of GT90 application is set to full screen display, the Windows toolbar will not be displayed.

4 Diagnostic Operations

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, preform special functions such as actuation and coding, and perform vehicle services and maintenances on 145 vehicle brands.

4.1 Establishing Vehicle Communication

In order to establish proper vehicle communication to GT90 Tablet, you need to perform the following steps:

1. Connect the VCI device to the vehicle’s DLC for both communication and power source.



Figure 4-1 Sample VCI with DLC Connection

2. Connect the VCI device to the GT90 Tablet via Bluetooth or USB Connection.

Please refer to **Chapter 4.1.2.1** about the details of how to connect via Bluetooth.



Figure 4-2 Sample Bluetooth Connection

Please refer to **Chapter 4.1.2.2** about the details of how to connect via USB cable.



Figure 4-3 Sample USB Connection

3. Check the VCI Communication Status Indicator button at the title bar, if the button turns green, the GT90 is ready to start vehicle diagnosis.

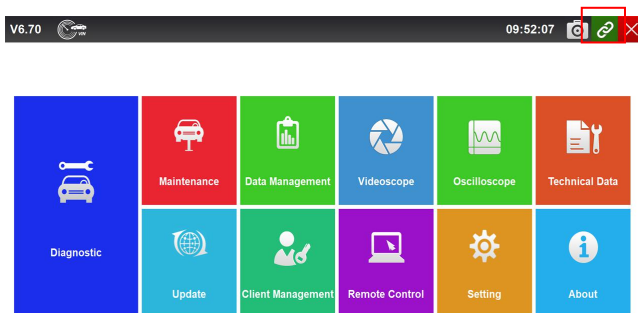


Figure 4-4 Sample Connection Status Indicator

4.1.2 VCI Connection

The VCI (Vehicle Communication Interface) supports two communication methods with the GT90 tablet:

- Bluetooth Communication
- USB Communication.

4.1.2.1 Bluetooth Communication

Bluetooth Communication is recommended as the first choice of communication between the GT90 Tablet and the VCI device. The working range for Bluetooth communication is about 0-50m, so you can perform diagnosis freely around the workshop with greater convenience.

To use Bluetooth communication, the procedures as below:

1. Power up the Display Tablet.
2. Slide the right side of screen to the left, then a menu will show.(as Figure 4-5).Then click the Bluetooth button and the VCI will automatically connect with the GT90 Tablet.

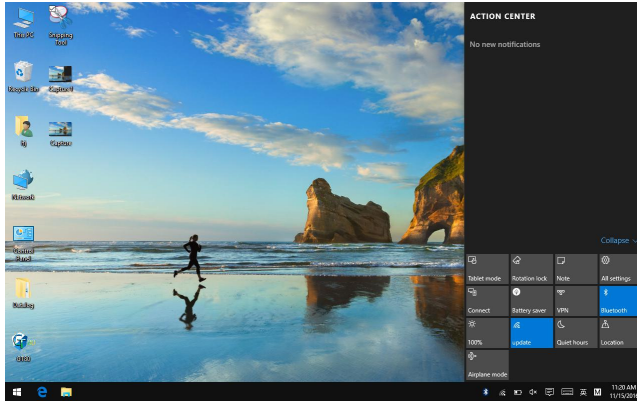


Figure 4-5 Sample Bluetooth Icon Screen

- 3.Go to the diagnostic menu to check the USB Connection Status. Indicator button at the title bar. If turns to green, it means it's ready to start diagnosis.

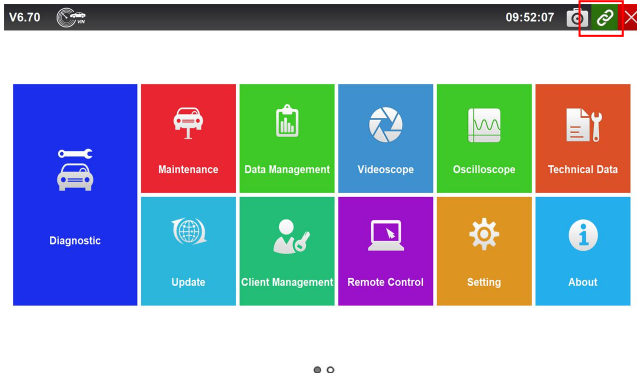


Figure 4-6 Sample Communication Screen

NOTE

Please wait for about 3s before USB Connection Status turning to green.Once exit the Diagnostic Software, the bluetooth will disconnect

automatically and you need to wait about 15s to let the device reconnect to the bluetooth.

- 4.If VCI Communication Status Indicator does not turn to green, please turn on Bluetooth in “ Settings ” . The unit will search for Bluetooth devices automatically, then select the right VCI (Bluetooth Name listed in About page as Figure4-7) to pair. Once the pairing screen showing Connected (as Figure4-8), it means GT90 has connected with the VCI successfully and the VCI Communication Status Indicator turns to green.

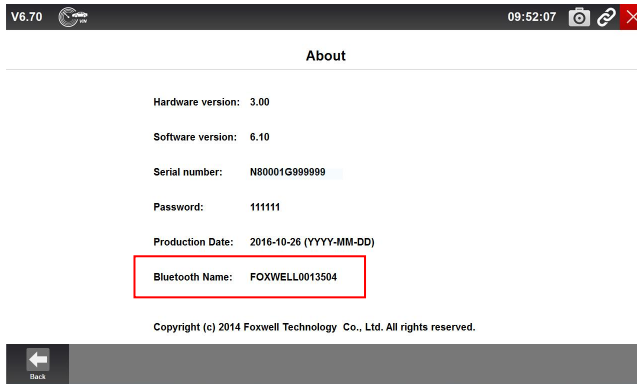


Figure 4-7 Sample Bluetooth Name Screen

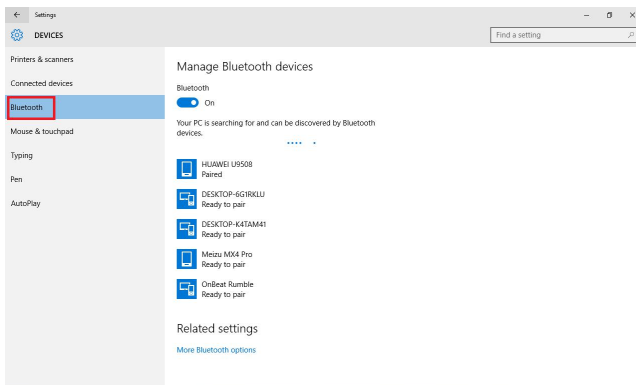


Figure 4-8 Sample Bluetooth Pairing Screen

NOTE

If the VCI Communication Status Indicator button light isn't green, it indicates that the signal strength of the transmitter is too weak to be detected. In this

case, try to get closer to the device, or check the connection of VCI device, and remove all possible objects that cause signal interference.

4.1.2.1 USB Communication

The USB cable connection is a simple and quick way to establish communication between the Display Tablet and the VCI. After properly connecting the USB cable between the tablet and the VCI device, the VCI Communication Status Indicator button will turn to green, indicating the connection between the GT90 tablet and the VCI device is successful.



Figure 4-9 Sample Bluetooth Communication Screen

4.2 Screen Layout of Diagnostic Screens

The diagnostics screens typically include four sections.

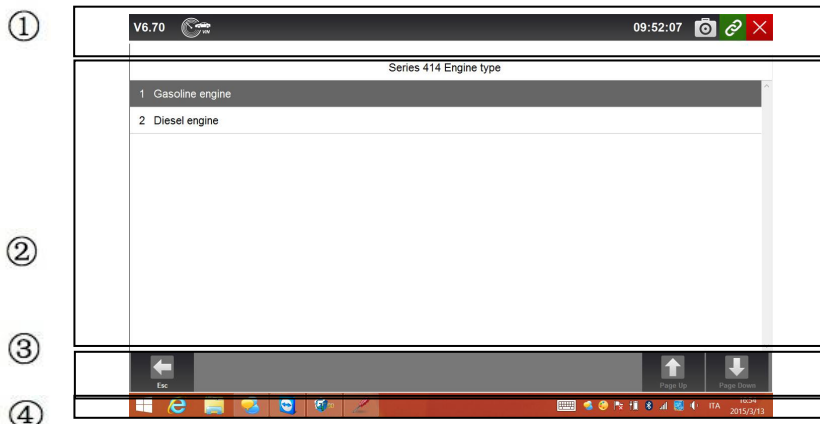


Figure 4-10 Title Bar

1. Title
2. Main Body
3. Diagnostic Function Buttons
4. Windows Tool Bar

4.2.1 Title Bar

Refer to [3.3.1 Title Bar](#) for details.

4.2.2 Main Body

Screens of the Main Body may vary depending on different operations. Main Body displays menus options, test results, messages, instructions and other diagnostic information.

4.2.3 Diagnostic Function Buttons

Diagnostic Function Buttons are used to execute commands and operations. Buttons displayed in each screen may vary depending on different operations.

4.2.4 Windows Tool Bar

Refer to [3.3.3 Windows Tool Bar](#) for details.

4.3 Vehicle Identification

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, you simply follow the screen prompts and make a series of choices. Each selection you make advances you to the next screen. A Back button in the upper left corner of the screen

returns to the previous screen. Exact procedures may vary somewhat by vehicle.


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

- VIN Scan Hotkey
- Automatic VIN acquisition
- Manual VIN entry
- Manual vehicle selection

NOTE

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

4.3.1 VIN Scan Hotkey

VIN Scan Hotkey button  on the title bar is a shortcut for Automatic VIN Acquisition and Manual VIN input, which features the latest VIN-based Auto VIN Scan function to identify vehicles in just one touch and allows the technician to quickly detect vehicles and scan all systems. For some vehicles that do not support Auto VIN Scan function, choose Manually input VIN to let GT90 to scan your vehicle.

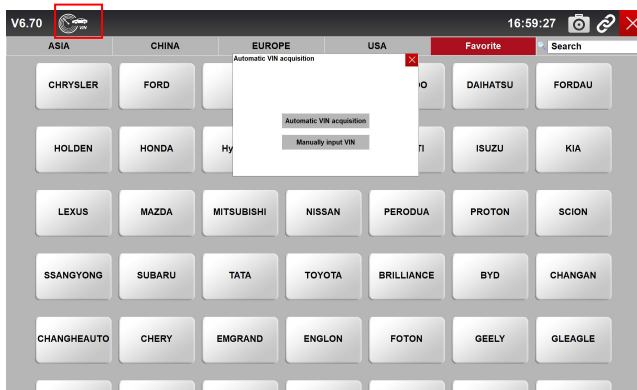


Figure 4-11 Sample VIN Scan Hotkey

4.3.2 Automatic VIN Acquisition

Automatic VIN Acquisition allows to identify a vehicle by automatically requesting the vehicle identification number (VIN).



To identify a vehicle automatic VIN acquisition:

1. Select **Diagnostic** from the Home screen of the GT90 application.

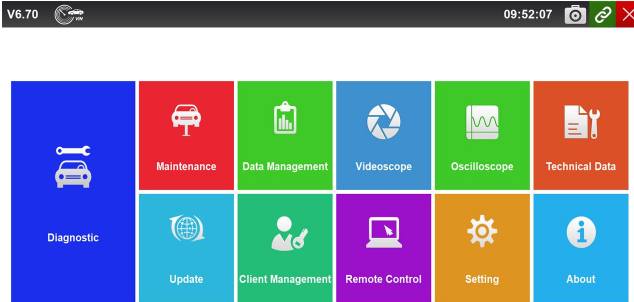


Figure 4-12 Sample Home Screen

2. A screen with vehicle manufacturers displays. Select the area where the vehicle manufacturer is from. A menu of all vehicle manufacturers from this area displays. Or tap the **Search Vehicle** box to input the vehicle brand to search.



Figure 4-13 Sample Vehicle Selection Screen

3. Select the manufacturer of the test vehicle from the list, and the following screen displays.

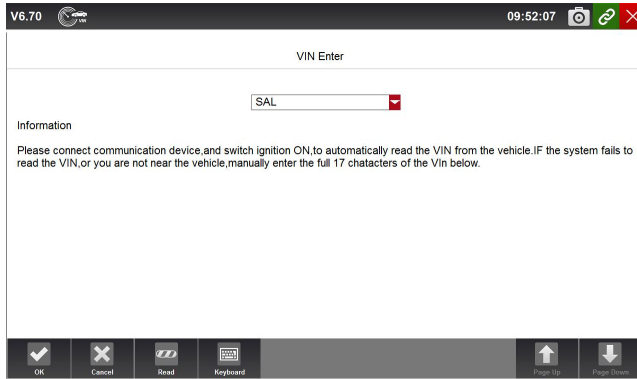


Figure 4-14 Sample Vehicle Selection Screen

4. Press Read button to start reading the Vehicle Specification or VIN Code automatically.

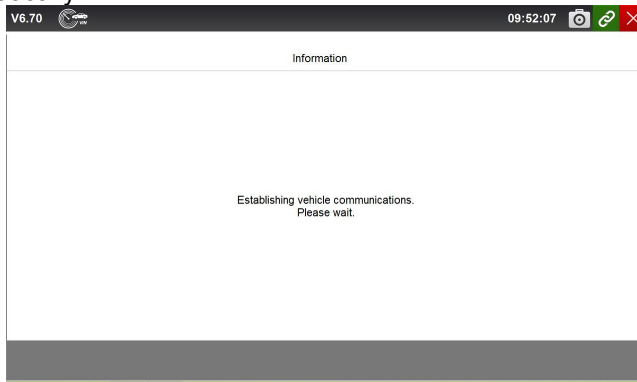


Figure 4-15 Sample Vehicle Selection Screen

5. 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 it is incorrect, you are required to enter the correct VIN number manually.

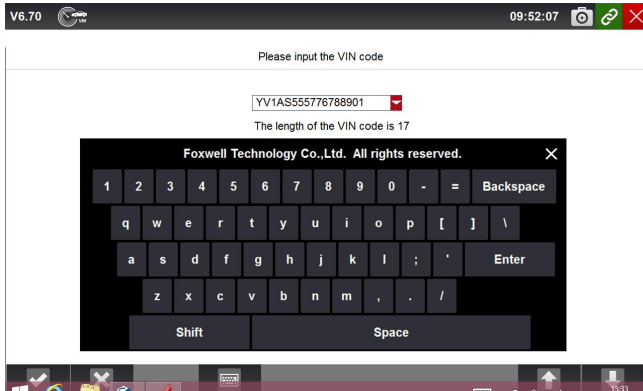


Figure 4-16 Sample VIN Reading Screen

4.3.3 Manual VIN Entry

Manual VIN Entry identifies a vehicle by manually inputting a 17-digit VIN code.

- ▶ To identify a vehicle by manual VIN entry:
 - 1.Refer to Step 1-3 of 4.3.2 Automatic VIN Acquisition.
 - 2.Press **Keyboard** button to input a valid VIN code and press **OK** to continue. The scan tool starts to identify the vehicle.

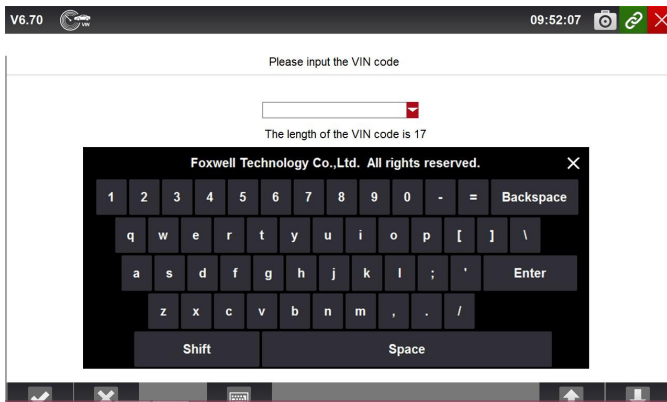


Figure 4-17 Sample Manual VIN Entry with Keyboard

4.3.4 Manual Vehicle Selection

Manual Vehicle 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.Refer to Step 1-3 of 4.3.2 Automatic VIN Acquisition.
 - 2.On each screen that appears, select the correct option and then press the **OK** button. Do this until the complete vehicle information is entered and the menu of controller selection displays.

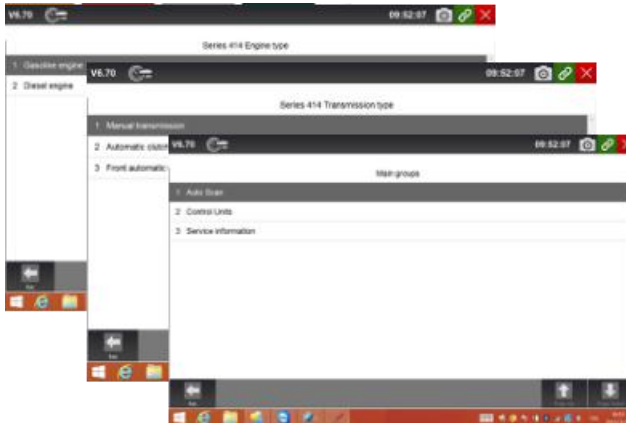


Figure 4-18 Sample Manual Vehicle Selection Screen

4.4 System Selection

When you have completed the identification of vehicle, a menu for selecting system to test displays. Menu options typically include:

- Auto Scan
- Control Unit

4.4.1 Auto Scan

Auto Scan performs an automatic system test to determine which control modules are installed on the vehicle and obtain 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 **Auto Scan** option to start.

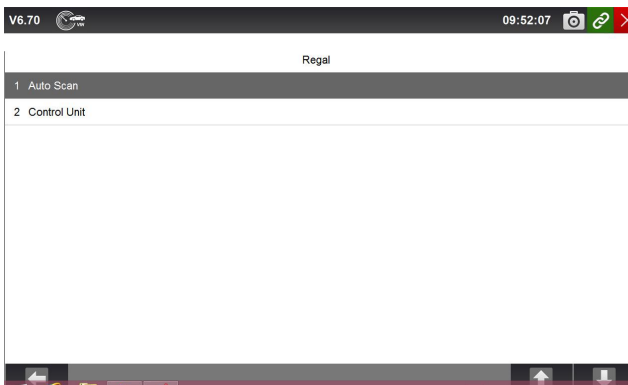


Figure 4-19 Sample Select System Scan Screen

2. To pause the scan, press the **Pause** button on the screen.

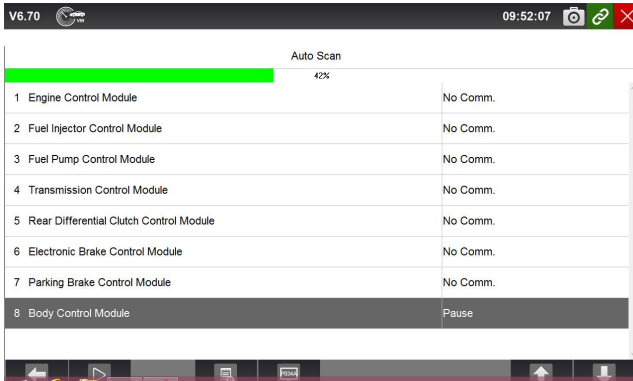


Figure 4-20 Sample Auto System Scan Screen

3. At the end of successful automatic controller scan, a menu with a list of installed controllers together with their **DTC overview** displays.

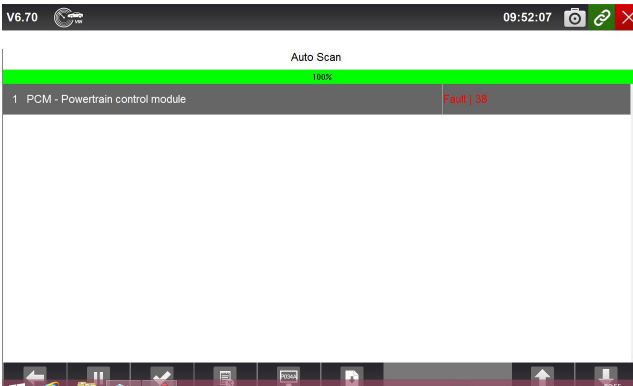


Figure 4-21 Sample Auto Scan Complete screen

4. If there is diagnostic trouble code(s) detected in a control unit, press the **Report** button on the screen to view details of code information, and press **Quick Erase** button to clear them.

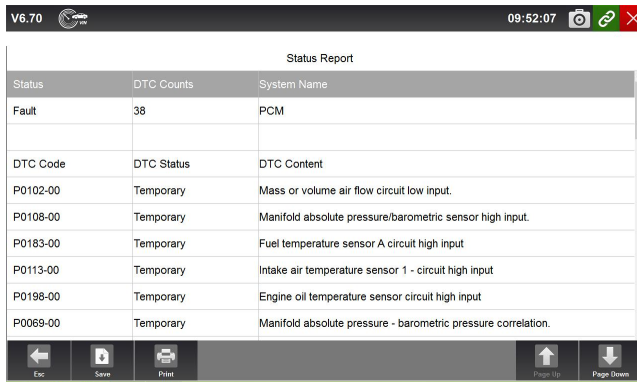


Figure 4-22 Sample Status Report screen

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

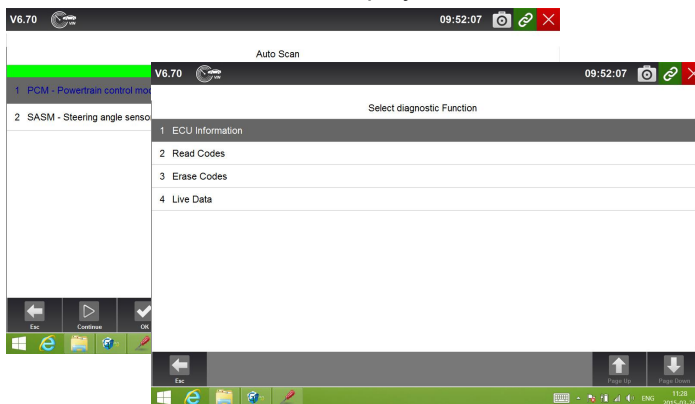


Figure 4-23 Sample Function Menu screen

4.4.2 Control Unit

Control Unit screen 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 for testing:

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

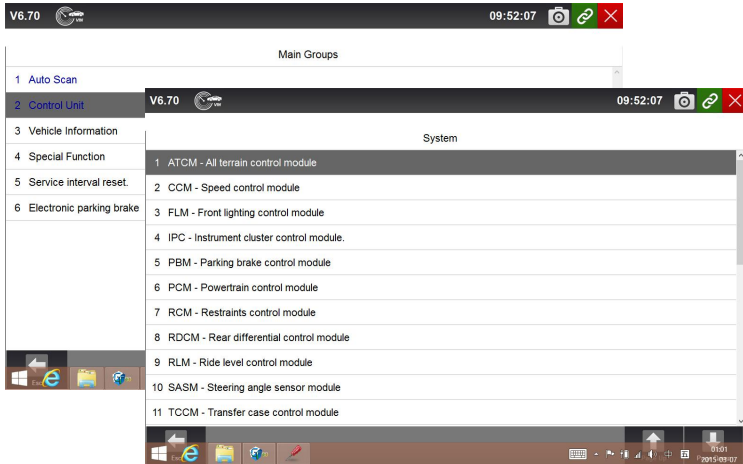


Figure 4-25 Sample Control Unit Menu Screen

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

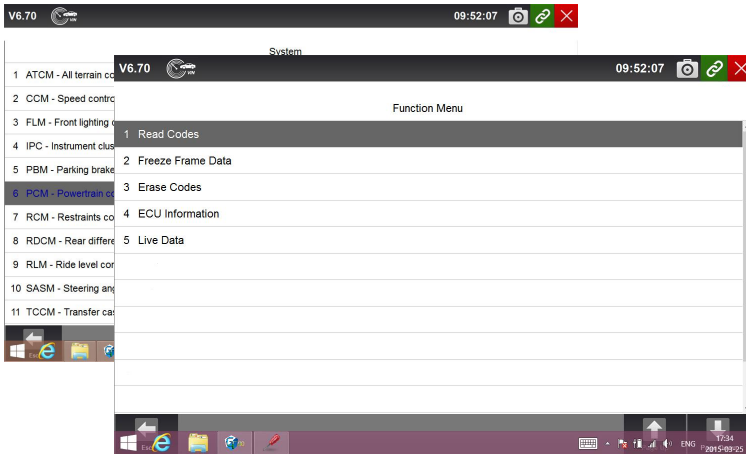


Figure 4-26 Sample Common menu screen

4.5 Diagnostic Operations

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

- ECU Information
- Read Codes
- Freeze Frame Data
- Erase Codes
- Live Data

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. A “The selected mode is not supported!” message displays if the option is not applicable to the vehicle under test.

4.5.1 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.

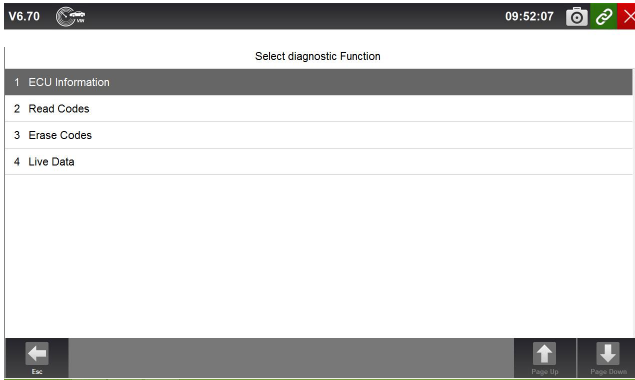


Figure 4-27 Sample Function Menu Screen

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

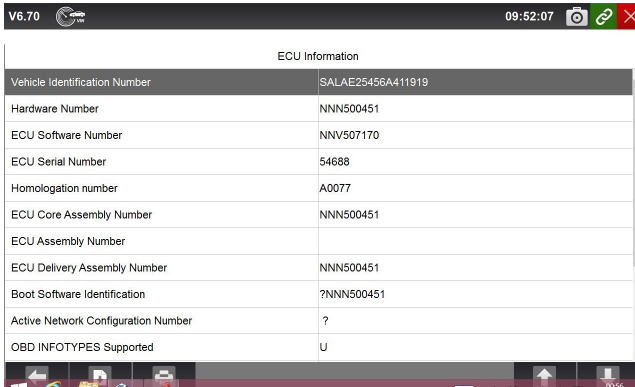


Figure 4-28 Sample ECU Information Screen

3. Press function key **Save** to store ECU information, and press **Print** to print the information. Or use the **ESC** button to exit.

4.5.2 Read Codes

Read Codes menu lets you read trouble codes found in the control unit. Typical menu options include:

- Present/Permanent/Current Codes
- Pending Codes
- History Codes
- Code History
- Self Diagnostic

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 the DTC(s) were first detected (to see if they are current or intermittent).

Self diagnostic lets you manually activate system tests that check for DTCs. Usually it includes a KOEO (Key-on, engine-off) test and a KOER (key-on, engine-running) test.

- ▶ 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.

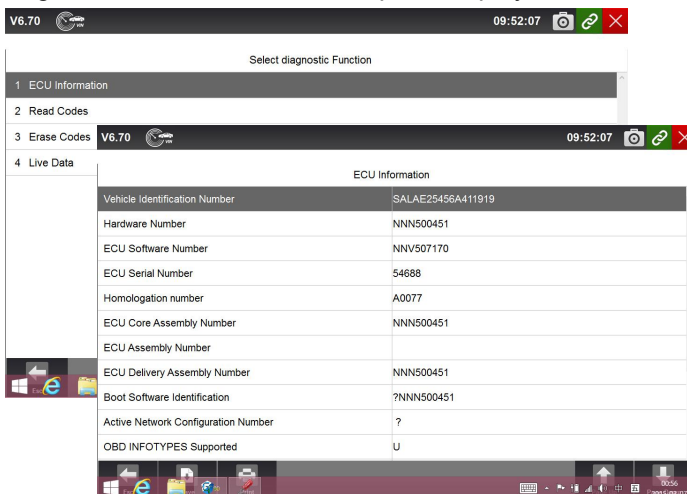


Figure 4-29 Sample Function menu screen

- 2.Slide up and down to view additional information when necessary.
- 3.Press **Save** to store DTC information, and press **Print** to print the code information. Or use the **ESC** button to exit.

4.5.3 Freeze Frame Data

Freeze Frame Data menu displays freeze frame 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.

- ▶ To view freeze frame data:
- 1.Select **Freeze Frame Data** from Select Diagnostic Function menu. Details of freeze frame data displays.

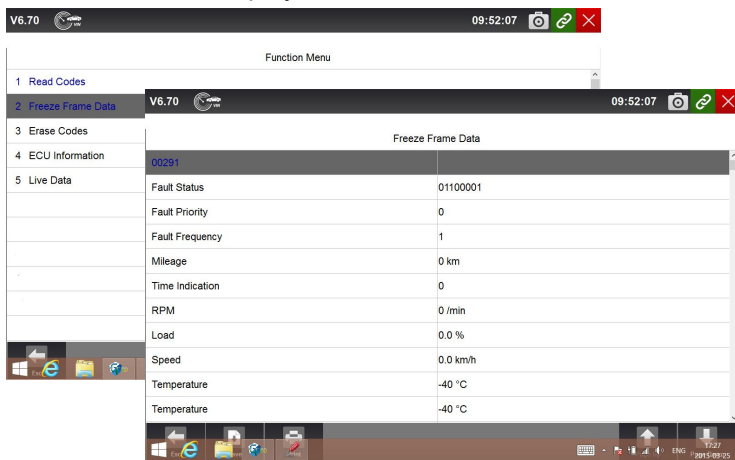


Figure 4-30 Sample function menu screen

- 2.Slide the screen up and down or use the **PAGE UP** and **PAGE DOWN** button to view additional information when necessary.
- 3.Press function key **Save** to store freeze frame information, and press **Print** to print the freeze frame data. Or use the **ESC** button to exit.

4.5.4 Erase Codes

Erase 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 are 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.

- Erase 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 **Erase Codes** from Select Diagnostic Function menu.

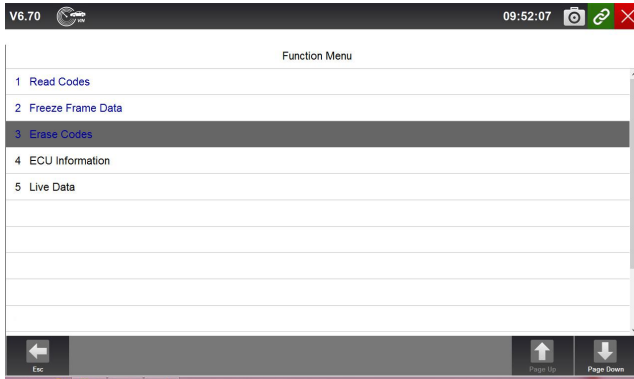


Figure 4-31 Sample Function Menu Screen

2. Follow the on-screen instructions and answer questions about the vehicle being tested to complete the procedure.

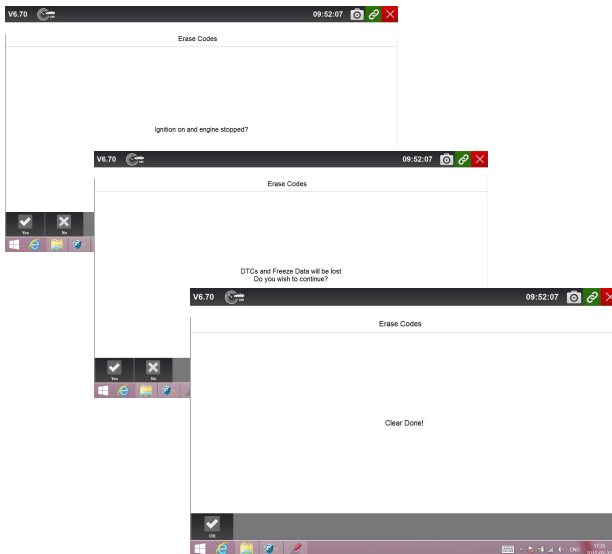


Figure 4-32 Sample Erase Codes Screen

3. Check the codes again. If any codes remain, repeat the Erase Codes steps.

4.5.5 Live Data

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

Menu options typically include:

- All Data
- Custom List

4.5.5.1 All Data

All Data menu lets you view all live PID data from a selected control module. GT90 allows you to view live data information in 6 different types of display modes.

- **Text Mode** - this is the default mode which displays the parameters in texts.
- **Graph Mode** - 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 and easily find and zoom in on a particular string of data.
- **Merged Graph Mode** - 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.
- **Gauge Mode** - displays the parameters in the form of an analog meter.
- **Study 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.
- **Comparison 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.

NOTE

- Study and Comparison modes are available for viewing of parameter readings in text mode ONLY.
 - In case no learned value is stored in the scan tool, the Comparison Mode will not be available.
-



To view all live PID data:

1. Press **Live Data** from Select Diagnostic Function menu to display the live data menu.

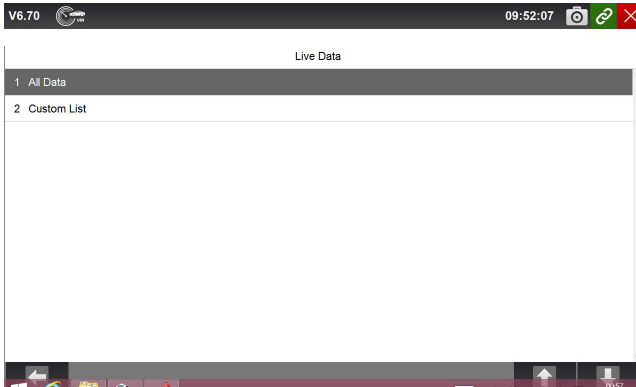


Figure 4-33 Sample Live Data Selection Screen

2. Press **All Data** from the menu to display the data stream screen. All readings will be displayed in text format by default.

Index	Name	Reference	Value	Unit
162	Cylinder 4 - Misfire counter		0	
163	Cylinder 5 - Misfire counter		0	
164	Cylinder 6 - Misfire counter		0	
165	High speed CAN network management state - latest state		Expulsion mode - silent	
166	High speed CAN network management state - 2nd latest state		Operation mode	
167	High speed CAN network management state - 3rd latest state		CAN initialization	
168	High speed CAN network management state - 4th latest state		Start-up	
169	High speed CAN network management state - 5th latest state		Start-up	

Figure 4-34 Sample Complete List Screen

3. Swipe the screen up and down or use the **PAGE UP** and **PAGE DOWN** button to view additional information when necessary.

Index	Name	Reference	Value	Unit
001	Accelerator pedal position D		0.00	%
002	Accelerator pedal position E		0.00	%
003	Throttle position sensor		0.00	%
004	Oxygen sensor current, bank 1 - sensor 1 (wide range oxygen sensor)		0	uA
005	Oxygen sensor current, bank 2 - sensor 1 (wide range oxygen sensor)		0	uA
006	Barometric pressure		102	kpa
007	Calculated load value		0.00	%

Figure 4-35 Sample Live Data Screen

- 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 record live data to memory of the scanner for offline review, just tap the button **Record**, and press **Stop** to stop recording at any time. To print the data through computer, tap the **Print** icon.
- To view live PID in graph format, press the tab **Graph**, and 4 PID plots display. To view another PID plot, tap 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. To view the plots with more details, use the **Zoom in** button; instead, use the **Zoom out** button.

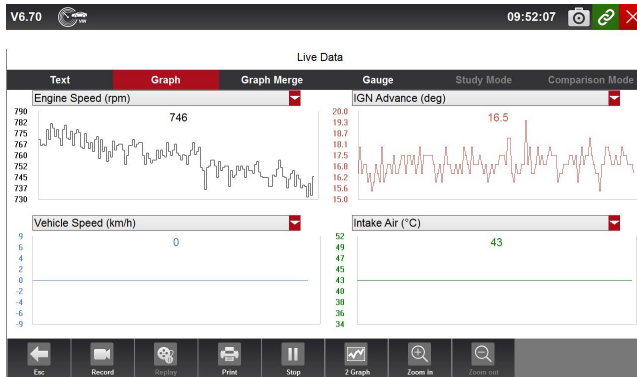


Figure 4-36 Sample PID Graph Screen

- To see how the PIDs affect each other, press the **Graph Merge** tab to merge them into one coordinate for easy and intuitive diagnosis.



Figure 4-37 Sample Graph Merge Screen

- To view parameters in the form of an analog meter, press the **Gauge** tab.

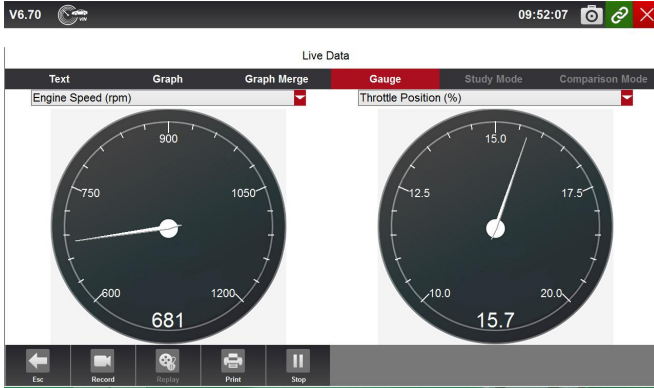


Figure 4-38 Sample PID Gauge Screen

4.5.5.2 Custom Data List

Custom Data 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.

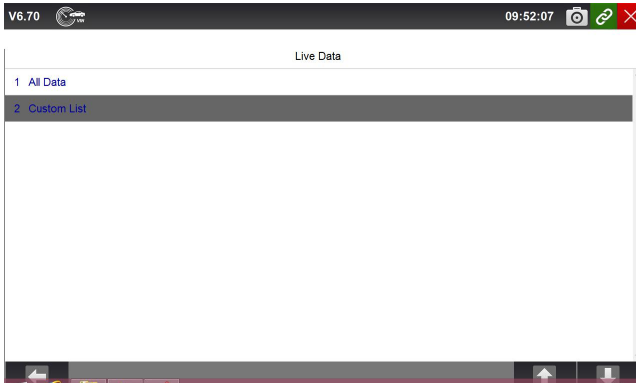


Figure 4-39 Sample Live Data Screen

2. The custom data stream selection screen displays. Tap the lines you wish to select.

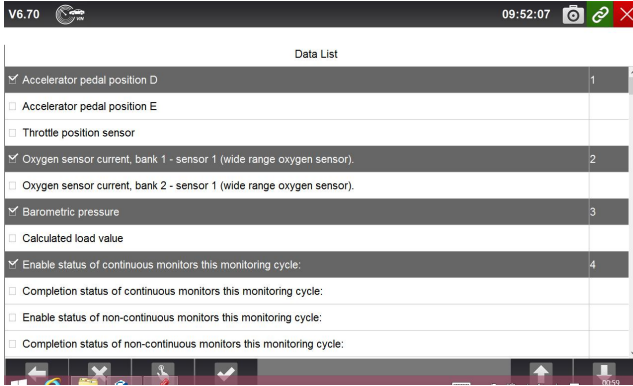


Figure 4-40 Sample Custom List Selection Screen

NOTE

To deselect an item, tap the line again. Alternatively, tap **SELECT ALL** or **CLEAR ALL** to select or deselect all items at once.

3. Press the **OK** button to complete the selection, and all selected parameters display.

Index	Name	Graph	Graph Merge	Gauge	Study Mode	Comparison Mode
001	Accelerator pedal position D				0.00	%
002	Oxygen sensor current, bank 1 - sensor 1 (wide range oxygen sensor).				0	uA
003	Barometric pressure				102	kpa
004	Enable status of continuous monitors this monitoring cycle:				7	

Figure 4-41 Sample Live Data Screen

4.5.5.3 Study And Comparison Mode of Live Data

GT90 is able to learn and record good live sensor data values, compares with the faulty sensor and parameter readings to the good readings and warns the technician of the faulty sensor data.

- ▶ To learn and record good sensor value:
 1. Connect GT90 to a good vehicle and turn ignition on to build communication with the car.
 2. Identify the car, select a system to test and then select **Live Data** as described above.

3. Press **All Data** to display all available parameters from the selected control module. Press **Study Mode**, and a dropdown list of working conditions display.

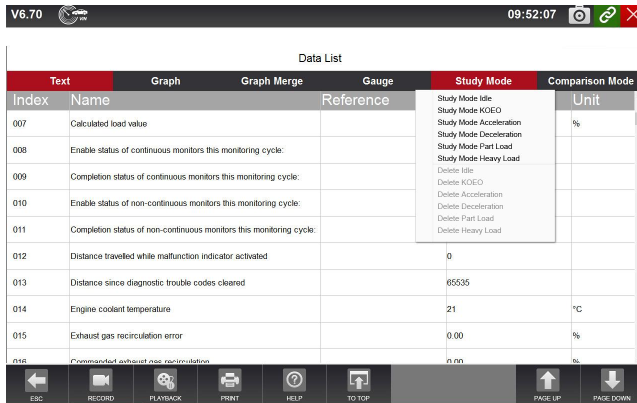


Figure 4-42 Sample Study Mode Screen

5 Bi-directional Test Operations

GT90 allows you to use the scan tool temporarily to activate or control a vehicle system or component. With GT90, the check of electronic components such as switches, sensors, relays, & actuators is made a simple task. It allows you to recalibrate, adapt or configure certain components after making repairs or replacement. It gives you the ability to 'flash' a control unit with new program data. Provided that a module can be re-coded, GT90 allows for the coding and programming of a replacement control module or changing previously stored incorrect coding as expensive factory tools do. In addition, it lets you recode the transponder in a mechanical key or key fob. When a key for a modern vehicle is replaced, the new unit will often turn the mechanical switch but fail to initialize the system or start the vehicle. If this occurs, it is typically because the transponder inside the key has not been coded to that particular system.

5.1 Active Tests

Active Tests, also known as Actuator Tests, are bi-directional diagnostic tests on vehicle systems and component. The tests let you to use the scanner temporarily activate or control a vehicle system or component, and when you exit the test, the system/component returns to normal operation.

Some tests display a command to the operator. For example, if "Press Brake Pedal" displays, the operator has to press and hold the brake pedal and then continue. The sequence, number, and type of tests are dictated by the control module.

On some systems, the actuator tests cannot be restarted until the ignition key is switched off for some time. Alternatively, briefly start and run the engine, shut down, turn the ignition to the run position, then re-initiate the actuator tests.

IMPORTANT

The tests activate a component, but they do not check if the component is working correctly. Make sure the components to be tested are in good condition and correctly mounted.

NOTE

Available tests depend on the control module under test and the vehicle itself.

- ▶ To start a test:
1. Press **Active Test** from the menu and a list of available options displays.

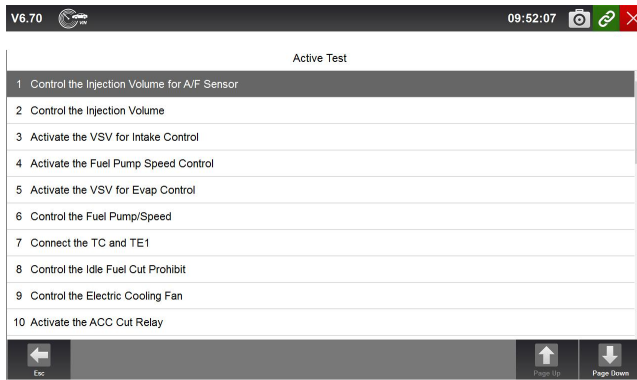


Figure 5-1 Sample Active Test Screen

2. Select an option to start the test and live data of the selected test displays.

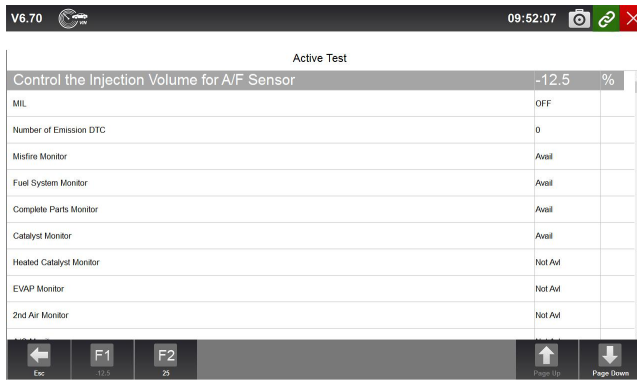


Figure 5-2 Sample Active Test Screen

3. Follow on-screen instructions to make proper selections and operations to complete the tests.

4. To exit the test, tap the **Back** button or the **Close** button at the top right of the screen.

WARNING

- Before running any tests, always observe the safety instructions provided in this manual and the warnings provided by the vehicle manufacturer. In addition, follow any warnings and descriptions provided on the scanner screens.
- Never run the tests while the vehicle is moving.

5.2 Adaptation

Adaptation menu let you change adaptation values from the control module and allows you to alter certain values and/or settings in control modules that support it.

WARNING

You should refer to the Service Manual for your particular car before attempting to use the Adaptation function.



To set an adaptation:

1. Select **Adaptation** from Function Menu and press the **ENTER** key.

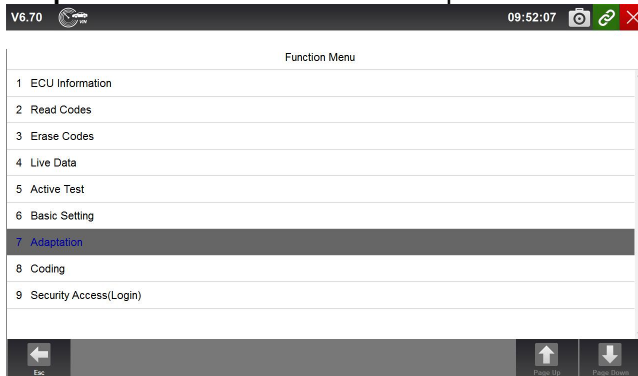


Figure 5-3 Sample Adaptation Screen

2. Follow on-screen instructions to make proper selections and operations to complete the tests.

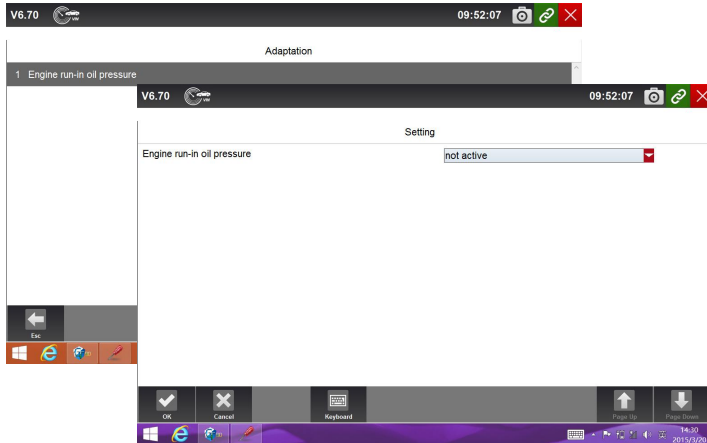


Figure 5-4 Sample Adaptation Setting Screen

3. To exit the test, tap the **Close** button at the top right of the screen.

5.3 Coding and Programming

GT90 allows for the coding and programming of a replacement control module or changing previously stored incorrect coding.

Coding also known as Teach-in Program or Component Adaptation. It is the process of selecting and activating one program for a specific vehicle from a set of programs that the factory installed in the control module. This allows one control module to be used for different models, countries, and emission applications.

Programming is the process of taking a blank control module and then adding the correct vehicle program to memory.

6 Service and Maintenance Operations

This section gives brief instructions of the most commonly required service and maintenance operations. Typical service operation screens are a series of menu driven executive commands. Follow on-screen instructions to complete the operation.

Available service and maintenance options include:

- Oil Light Reset
- EPB Service
- TPMS Programming Service
- ABS/SRS Services
- SAS Calibration
- DPF Regeneration

6.1 Oil Light Reset

Oil Light Reset menu allows you to reset the service lamps on the instrument cluster. The Service Indicator System is designed to alert the driver when the vehicle is due for a service.

Oil service reset methods are determined by the vehicle being tested. Depending on the vehicle being tested, any of the following means displays:

- Oil Reset With One Button
- Manual Reset
- Auto Reset

6.1.1 Oil Reset With One Button

Oil Reset With One Button is applicable to GM models only. It offers quick and simple oil service reset with the click of one button.

▶ To do Oil Reset With One Button on a year 2010 Chevrolet passenger car model:

1. Click **Oil Life Reset** from the Engine Control Module menu. An Information screen displays. Press the function key **OK** to continue or **Cancel** key to return to the Oil Reset menu.

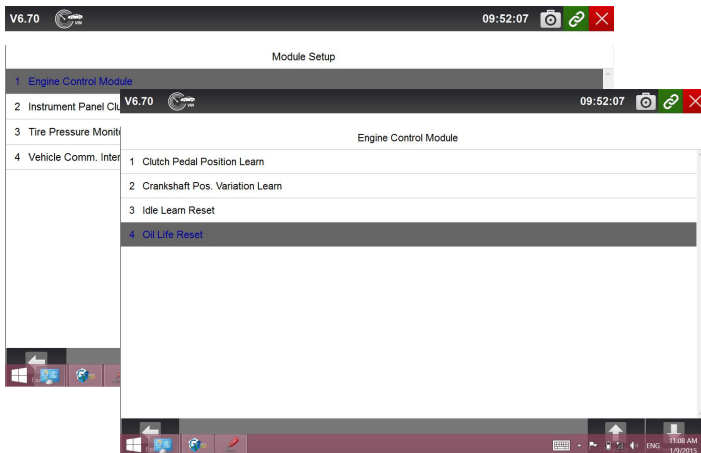


Figure 6-1 Sample Oil Reset Menu Screen

2. Follow on-screen instruction and send a command to reset oil service. A screen with “Success” message displays once the lamp has been reset. Press any key to return.

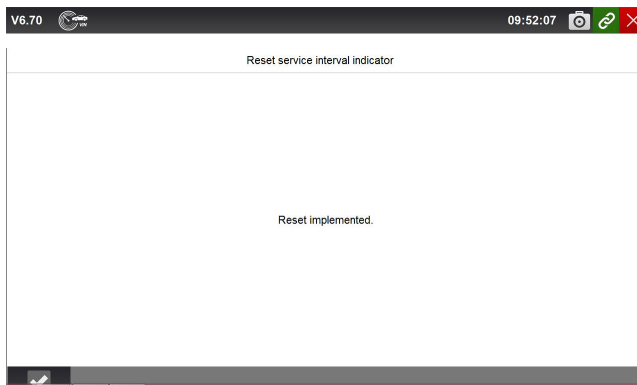


Figure 6-2 Sample Oil Reset With One Button Success Screen

6.1.2 Manual Reset

Almost all Asian vehicles and most American and European vehicles have mechanical oil service indicator reset. The service tool does not have to communicate with the vehicle being tested, but guides you to complete the service manually by providing step-by-step on-screen instructions.

When Manual Reset is selected and the vehicle being tested identified, a procedure opens on the screen. Click to read the entire procedure and performing the necessary steps as directed by the on-screen instructions. The exact order of the test operation steps may vary depending on the test vehicle. Be sure to follow all on-screen instructions.

This manual reset procedure can be interrupted and aborted if the ignition key position is changed.

▶ To do oil reset manually:

1. Enter vehicle information by certain VIN characters, such as model, and year to identify the vehicle being tested and press **OK** key to confirm. Select Engine Control Module and follow the on-screen menu to select Oil Life Reset.

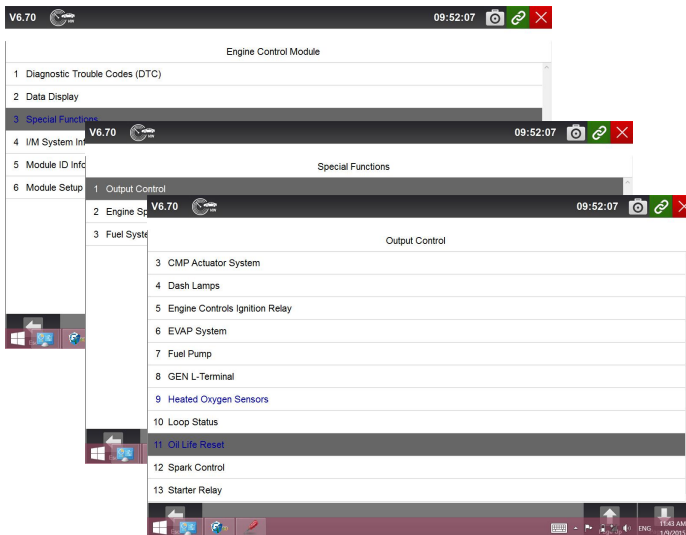


Figure 6-3 Sample Vehicle Identification Screens

2. When Oil Life Reset is selected, a procedure screen displays.

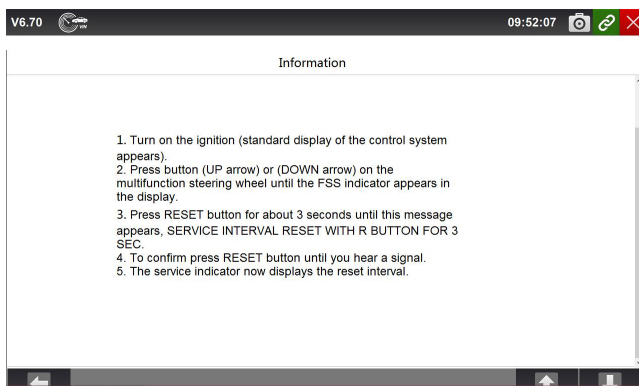


Figure 6-4 Sample Manual Reset Instructions Screen

3. Follow all on-screen instructions to perform the manual mechanical reset.

4. Press **OK** key to return.

6.1.3 Auto Reset

Auto Reset is a bi-directional communication procedure directed by the service tool. The service tool displays guides for you through the process. A number of instructions that require a response to continue display, including an option to clear any stored codes once the interval has been reset. Follow the on-screen instructions.

6.2 Electronic Parking Brake (EPB) Service

EPB Service menu allows you to perform the service and maintenance of brake systems, including deactivation and activation of the brake control system, bleeding brake fluid, opening and closing brake pads, and setting brakes after disc or pad replacement, on multiple brands of vehicles where electronic brake systems are fitted.

Some tests display a command to the operator. For example, if “Pressing Brake Pedal” displays, the operator has to press and hold the brake pedal and then continue. Actual tests vary by vehicle manufacturer, year, make.

Typical special test options include:

- **Deactivate/Activate SBC/EPB systems** – allows to deactivate brakes for further service or maintenance work on brake systems or activate brakes when service or maintenance work on brake systems are completed.
- **Adaptation on Audi A8** – allows to set new pad thickness of rear brakes calipers after changing brake discs & pads on Audi A8 models.
- **Replace hydraulic brake systems fluid/bleed brake system on Mercedes SBC vehicles** – allows to change brake fluid/bleed brake system.
- **Perform service reset and service position on BMW EPB vehicles** – allows to do the CBS reset and CBS correction for front brake and rear brake.
- **Perform activation/service work on Volvo PBM vehicles** – allows to perform installation check, applying parking brake, releasing parking brake, activating service mode and exiting service mode.
- **Reset memory on Toyota EPB vehicles** – allows to clear the learned memory of the EPB ECU.
- **Perform brake cable replacement and electric parking brake replacement** – allows to fit in or remove the brake cable safely, adjust brake cable’s tension and calibrate the electric parking brake replacement.
- **Save and write clutch pedal programming on Renault EPB vehicles** – allows to save clutch pedal programming on Renault vehicles fitted with

manual gearbox. After this command is activated, the tool allows to "flash" the electric parking brake unit with the saved clutch data.

- **Perform control function and reset function on Opel EPB vehicles** – allows to apply/release park brake cable service, provide park brake cable service replacement procedures and calibrate the parking brake systems after brake service.
- **Sensor calibration on Honda EPB vehicles** – allows to program the current output value of each sensor into the electric parking brake unit.
- **Provides parking brake unjam procedure and perform longitudinal accelerometer calibration on Land Rover EPB vehicles** – allows to drive the electronic park brake so it is unjammed in the releasing direction and then drive it into mounting position or the latching position; also allows to perform longitudinal accelerometer calibration.

WARNING

- EPB systems must be deactivated before carrying out any maintenance/service work on the brakes such as changing of pads, discs and calipers.
- Use proper tools to avoid the risk of body injuries of mechanics and technicians and damage to the brake system.
- Make sure the vehicle is properly blocked after deactivation of the systems.

6.3 Tire Pressure Monitoring System (TPMS)

Programming

TPMS Service menu allows you to check the tire sensor IDs from the vehicle ECU and to perform TPMS programming and reset after tires and/or TPM sensors are replaced and/or tires are rotated.

6.4 ABS/Airbag Services

ABS/Airbag Services menu let you use the scanner temporarily to activate or control anti-lock brake systems and air bags or components.

Typical test options include:

- ABS Manual Control Tests—allows to manually control the actuators in order to test ABS motors, solenoids, solenoid enable relays, EMBs, and more.
- ABS Motor Test—allows to manually control the ABS pump motor.
- ABS Version Test—displays the name of the brake system and the ABS controller version number, software ID, and sequence value.
- Actuator Tests—allows to manually control the actuators in order to test AYC valves, inlet valves, outlet valves, pump motors, and TRACS valves.
- Autobleed Test, Automated Bleed, or Service Bleed - removes air from the internal brake fluid chambers after servicing the brakes.

6.5 Steering Angle Sensor (SAS) Calibration

SAS Calibration menu let you perform calibration of the Steering Angle Sensor, which permanently stores the current steering wheel position as straight-ahead in the sensor EEPROM. On successful calibration of the sensor, its fault memory is automatically cleared.

6.6 Diesel Particulate Filter (DPF) Regeneration

DPF Regeneration menu let you perform the DPF cleaning to clear the blockage through continuous burning of the particulates captured in the DPF filter. When a DPF regeneration cycle is completed, the DPF light automatically goes off.

6.7 CVT

This function is used to reset the compensation code and initialize the ECT after a solenoid valve or valve body assembly has been replaced.

6.8 Gear Learning

1.Crankshaft position sensor adaptive learning. The crankshaft position sensor learns crankshaft tooth machining tolerance and save to the computer to more accurately diagnose engine misfires. If tooth learning is not performed for a car equipped with Delphi engine, the MIL turns on after the engine is started. The diagnostic device detects the DTC P 1336 'tooth not learned'. In this case, you must the diagnostic device to perform tooth learning for the car. After tooth learning is successful, the MIL turns off.

2.After the engine ECU, crankshaft position sensor, or crankshaft flywheel is replaced, or the DTC 'tooth not learned' is present, tooth learning must be performed

6.9 ODOMETER

This function allows you to revise the date of odometer and write the original date into new odometer.

6.10 INJECTOR CODING

This function is to reset and match the date after injector is replaced.

6.11 Throttle Body Alignment (TBA/TPS)

It's very common to see a customer pull into the shop with a Volkswagen or Audi that just will not idle correctly. One of the possible causes is that the throttle position is not known. When the motion range is not known, the ECU simply has no idea where to set the throttle. The ECU must know the full range of motion of the throttle in order for it to properly control the engine. Using the throttle position sensors in the throttle body, the ECU learns the full open and full closed positions through various states (idle, part throttle, WOT) known as a Throttle Body Alignment (TBA)

When one of the following conditions came up, a TBA is needed.

1. The vehicle's battery has been disconnected and re-connected.
2. The ECU has been removed and reinstalled.
3. The Throttle Body has been cleaned or removed and reinstalled.
4. The Accelerator Pedal has been removed and reinstalled.

7 Data Management Operations

Data Management menu let you review stored screenshots and playback recorded live data.

Typical menu options include:

- Browse Picture
- Playback
- Stored Data Management

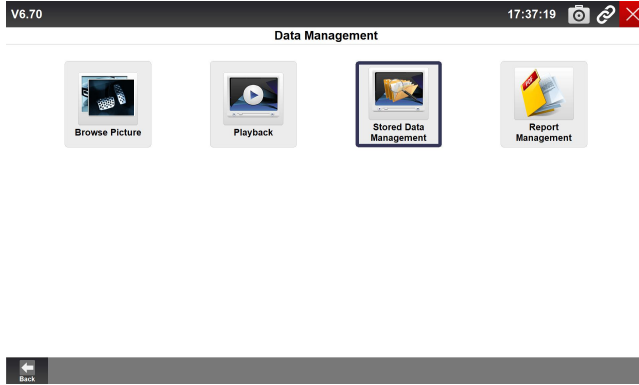


Figure 7-1 Sample Data Management Screen

7.1 Browse Picture

Browse Picture option leads to screens for review of stored screenshots. In case a failure of the GT90 applications occurs, please just take a screenshot and send it to our team to help with the troubleshooting of system faults.

7.1.1 How to Take a Screenshot

- ▶ To take a screenshot:
 - 1.If need save the data quickly, just press the **Camera** button at the title bar of the screen to take capture for later analysis.
 - 2.Add a description of the screenshot, and press the **OK** button to save.

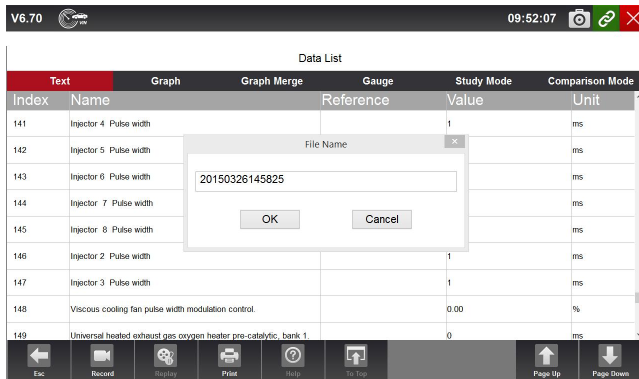


Figure 7-2 Sample Screenshot Screen

7.1.2 Review Screenshot

- ▶ To review the screenshot:

1. Press the **Data Management** icon from the Home screen of GT90 diagnostic application.
2. Press **Browse Picture** and all available pictures will be displayed as slideshow automatically.

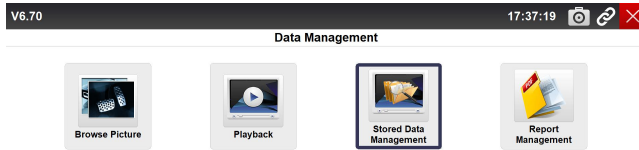


Figure 7-3 Sample Browse Picture Screen

3. To stop the slideshow playing, just press the **Pause** button. Use **Next** or **Previous** button to review the pictures one by one.
4. To delete a picture, tap button **Delete** and answer **Yes** to delete. Or press **Delete All** to delete all the pictures.

7.2 Playback Data

The 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 format. Playback speed and direction (forward or reverse) can also be controlled.

- ▶ To review recorded live data:
 1. Press the **Data Management** icon from the Home screen of GT90 diagnostic application.
 2. Press **Playback** and all available records display.

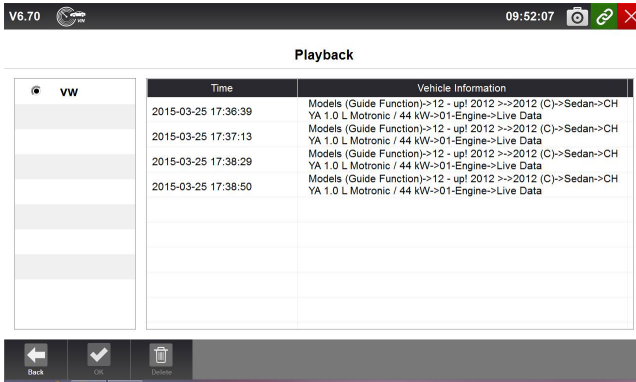


Figure 7-4 Sample Playback Screen

3. Tap a record once and press the **OK** button or tap the record twice to review. All recorded parameters display in text format by default.

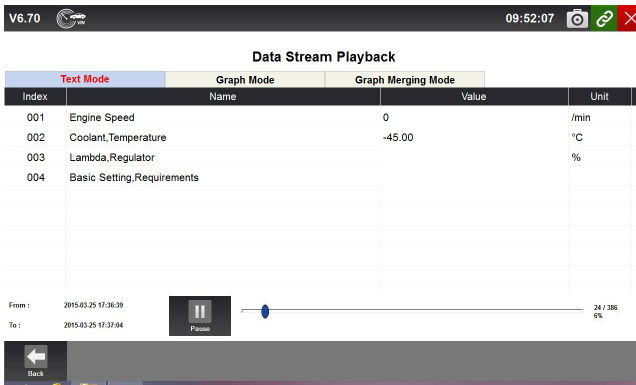



Figure 7-5 Sample Data Stream Playback Screen

4. To view parameter graphs, press the **Graph** tab. And to merge the graphs, press the tab **Graph Merging**.
5. To move forward or reverse back of the playing, just drag the progress bar forward or reverse. To stop the playing of live data, press the **Pause** button.
6. To exit playback, press the **Back** button.
7. To delete a record, tap a record to select and then press the **Delete** button. Answer **Yes** to delete or answer **No** to quit.

7.3 Data Logging & Stored Data Management

Data Logging is a tool to record the communication data between the scanner and the vehicle under test to help with troubleshooting of diagnostic

failures. The logs will be saved to the tablet and sent to our server via internet. The logging icon  displays on the upper right side of the diagnostic screen whenever the scanner builds communication with the vehicle.

▶ To use Data Logging, the procedures is as below:

1. Click the data logging icon to start record the communication data between the tablet and the vehicle.

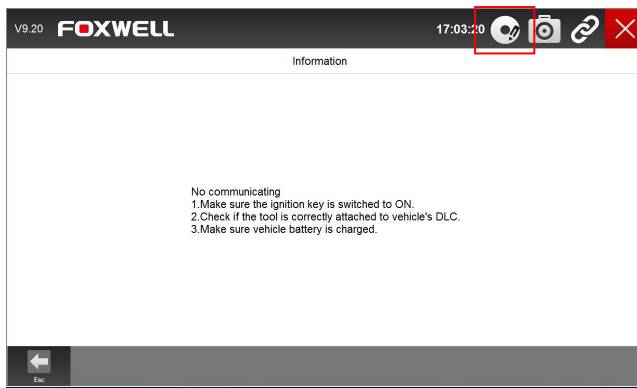


Figure 7-6 Sample Data Logging Screen

2. Please re-click the data logging icon when the data record is finished.

3. Fill in the information showing on the screen.

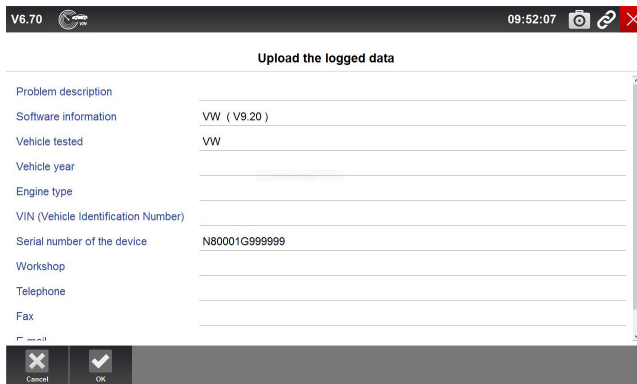


Figure 7-7 Sample Data Logging Information Screen

4. Click OK icon to upload the data to our server.

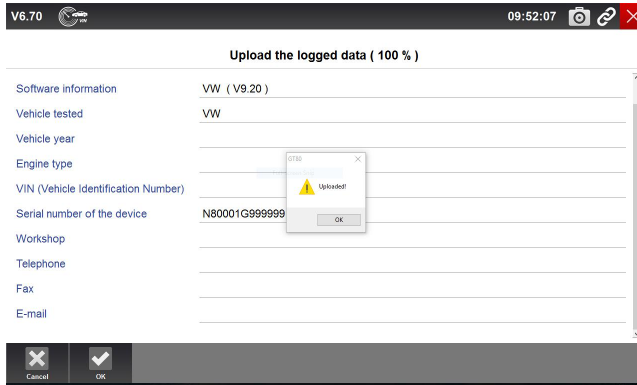


Figure 7-8 Sample Data Upload Screen

5.If failed to upload the data due to without network, please select **Stored Data Management** from **Data Management** and click the Upload button to send them to our server again when the network available.

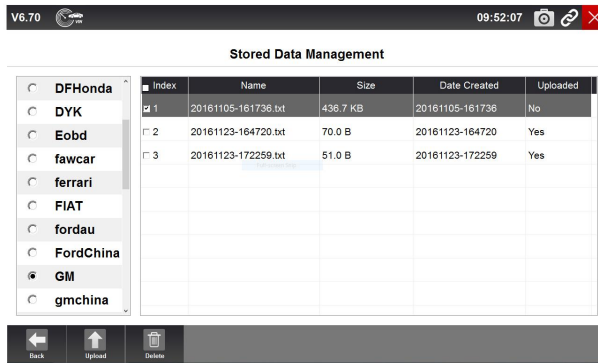


Figure 7-9 Sample Stored Data Management Screen

After uploading a piece of record successfully , please send an e-mail to support@foxwelltech.com or submit a support ticket on our website with the serial number of your GT90, the date the record is uploaded, and a brief description of the problem you have.We will get back to you with a solution.

8 Client Management

The Client Management allows every workshop to record and manage their clients' vehicle information. When the plate and VIN of a vehicle is recorded,

GT90 will recognize the car automatically so technicians do not have to make a lot of selections to identify the car. It makes it much easier for technicians to determine the car configurations and helps them focus on servicing the car.

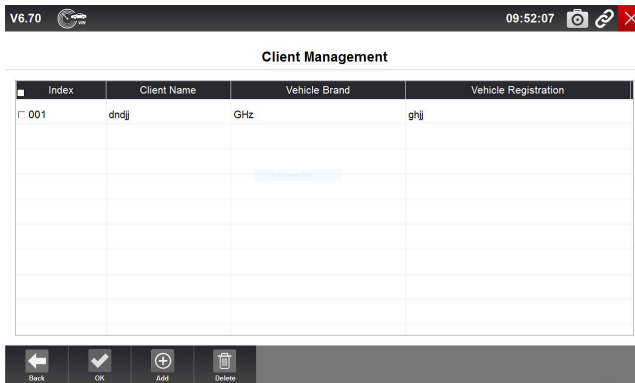


Figure 8-1 Sample Data Stream Playback Screen

9 Print Operations

The print functions of GT90 enables the technicians printing the data and information conveniently for later analysis and diagnostic.



To print the data, the procedures as following:

1.Go to the data page, there is a print icon on the left bottom side.

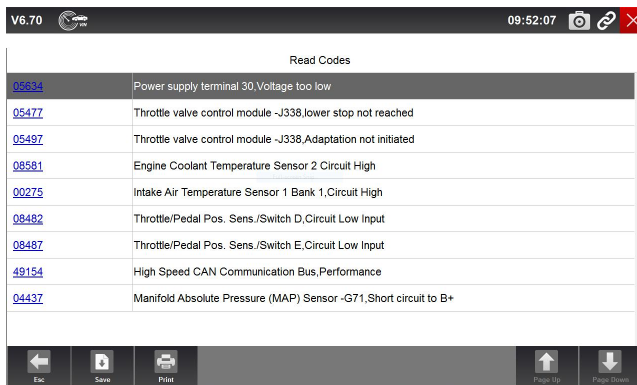


Figure 9-1 Sample Print Icon Screen

2.2.Click Print icon and choose an available printer..

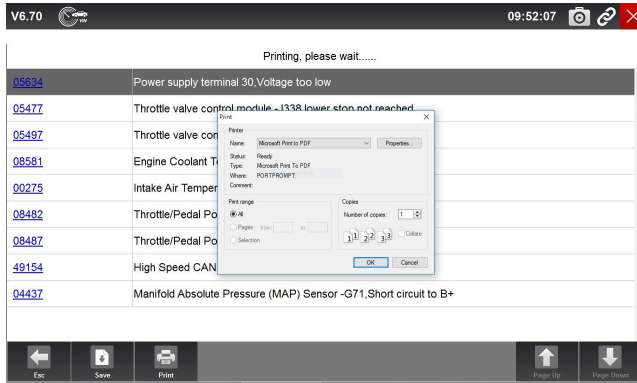


Figure 9-2 Sample Printer Screen

3.If not connected, save the file on your desk and print it out later.

4.Besides, you can click Save icon and review the data on **Playback of Data Management**.

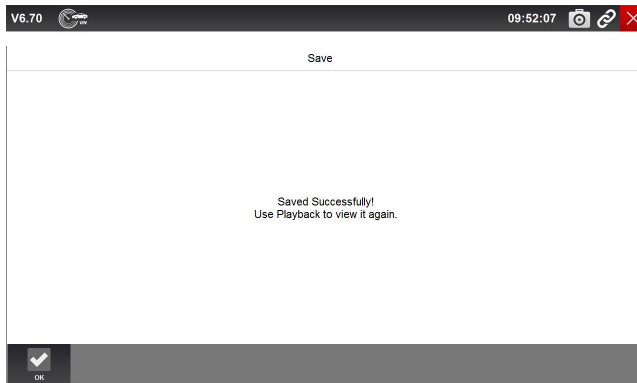


Figure 9-3 Sample Save Screen

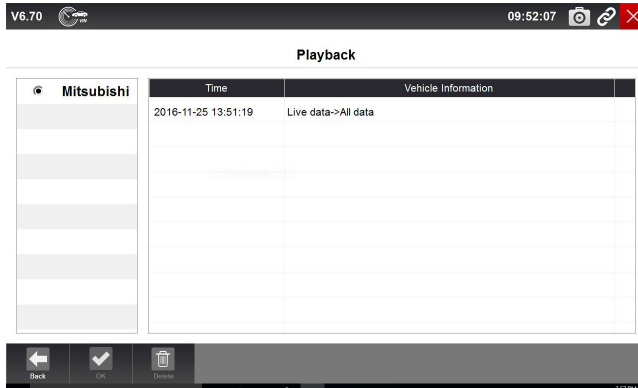


Figure 9-4 Sample Playback Screen

10 Remote Control

Remote Control enables you to start TeamViewer for remote control when you need any supports from Foxwell support team.

▶ If you need Foxwell support team to remote control GT90, please do as follow:

1. Click the Remote Control icon on the main menu of GT90 to start TeamViewer.

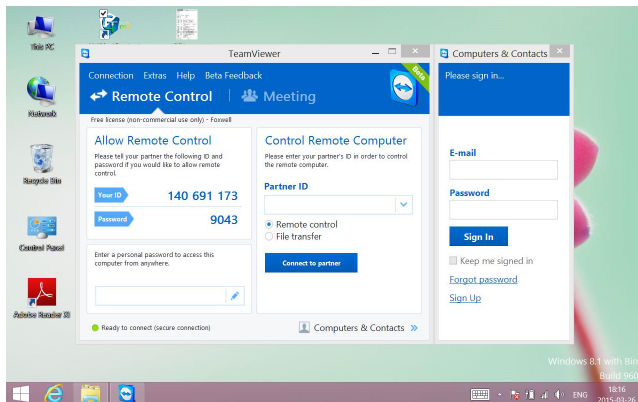


Figure 10-1 Sample Remote Control Screen

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

11 Setting

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

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

- Language
- Display Mode
- Unit
- User Information
- Reset Setting

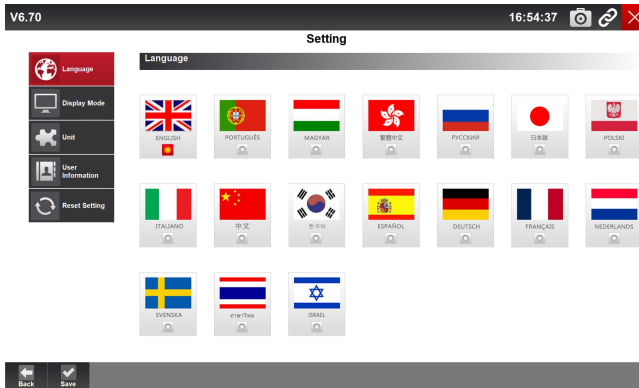


Figure 11-1 Sample Setting Screen

11.1 Language

Select Language opens a screen that allows you to choose system language. The scan tool is set to display English menus by default.

- ▶ To configure system language:
 1. Press the **Setting** icon from the Home screen of GT90 diagnostic application and select Language. Then all available language options display.
 2. Select your local language.

NOTE

The language need our authorization except for default language -English. If you need another language, please contact us for authorization.

11.2 Change Display Mode

Selecting Display Mode opens a screen that allows you to toggle the display mode between full-screen view and display with Windows tool bar. The scan tool is set to display with full-screen view by default. We suggest you set Display Mode as Show taskbar.

- ▶ To configure display mode:
 1. Press the **Setting** icon from the Home screen of GT90 diagnostic application.
 2. Press **Display Mode** and available modes display.
 3. Select a display mode.

11.3 Change Units

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

- ▶ To change the unit setup:
 1. Press the **Setting** icon from the Home screen of GT90 diagnostic application.
 2. Press **Unit** and available unit system display.
 3. Select a unit system.

11.4 User Information

Selecting User Information option opens a screen to input and manage your workshop information. Your workshop information will be displayed on your test reports that are presented to your customers.

- ▶ To input your workshop information:
 1. Press the **Setting** icon from the Home screen of GT90 diagnostic application.
 2. Select **User Information** option.
 3. Input your workshop name, phone and fax number and email address with the keypad.

11.5 Reset Setting

Selecting Reset Setting option lets you to reset your scan tool to factory defaults. This option will also clear the workshop information.

- ▶ To reset your scan tool to factory defaults:
 1. Press the **Setting** icon from the Home screen of GT90 diagnostic application.
 2. Select **Reset Setting** option.

3. Press the **Reset** button. The scan tool reboots automatically and the reset is completed.

12 About

Selecting **About** option opens a screen that show information about your scan tool, such as serial number and register password which may be required for product registration.



To view information of your scan tool:

1. Press the **About** icon from the Home screen of GT90 diagnostic application.
2. A screen with detailed information of the scanner displays.

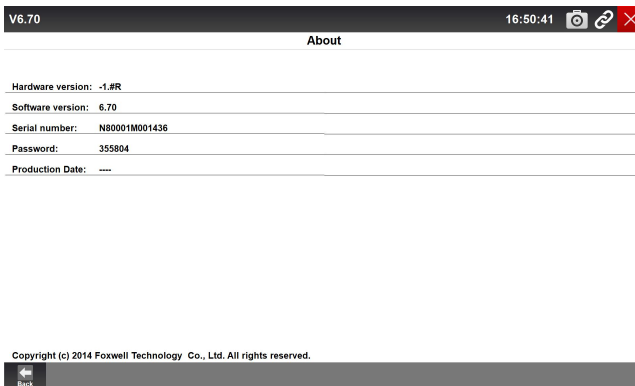


Figure 12-1 Sample Tool Information Screen

3. Press the **Back** button to exit.

13 Optional Facility

13.1 4G Wireless Network

The GT90 can support the mobile network connection to enable you access internet outdoors.



The SIM card slot is in below picture(Mark No.2).



Figure 13-1 Sample Battery Screen.

NOTE

This function is only available for some countries. Please contact your distributor for the details.

13.2 Fingerprint Recognition

GT90 has an optional fingerprint recognition function. It's equipped with a built-in fingerprint reader that you can use to scan and authenticate your fingerprints for security purposes. Instead of entering a password, you can simply swipe a finger on the fingerprint reader and log on to Windows.

- ▶ To input your fingerprint, please follow the steps here below:
1. Go to Windows Setting page and choose Accounts.

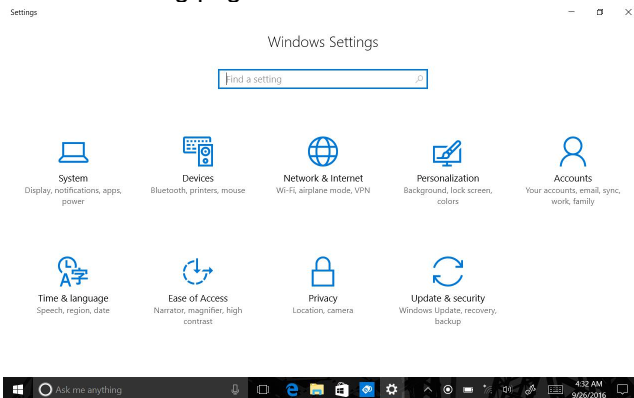


Figure 13-2 Sample Windows Settings Screen

2. Choose Sign-in options and click Set Up in the Fingerprint section. If you don't have a PIN, you'll need to create one to set up the fingerprint reader.

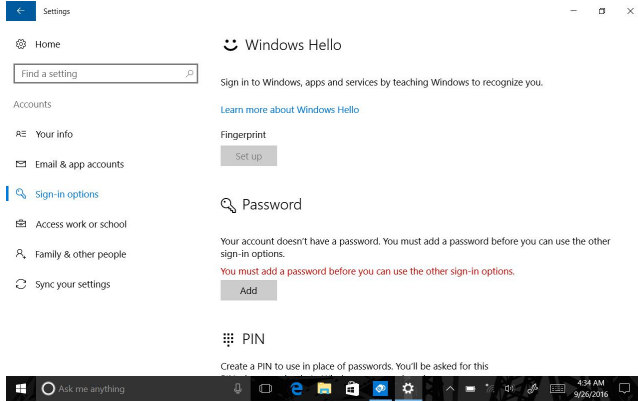


Figure 13-3 Sample Sign-in Screen

3. Click Get Started

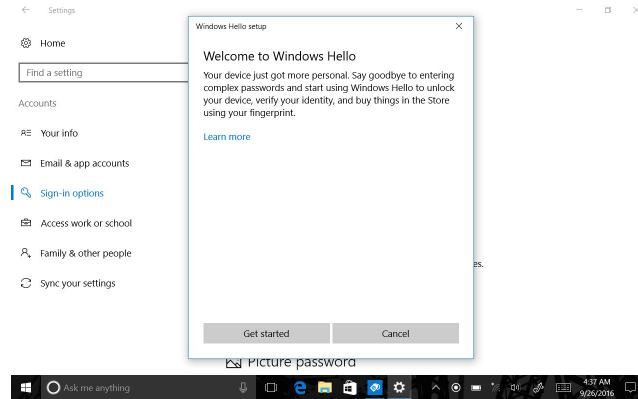


Figure 13-4 Sample Get Started Screen

4. Enter your PIN.

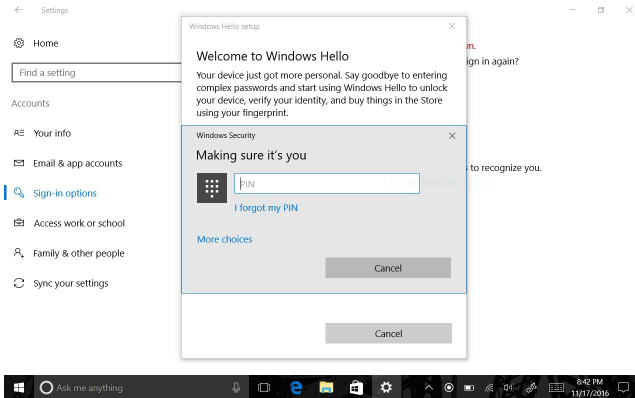


Figure 13-5 Sample Enter PIN Screen

5. Scan your finger on the fingerprint reader.

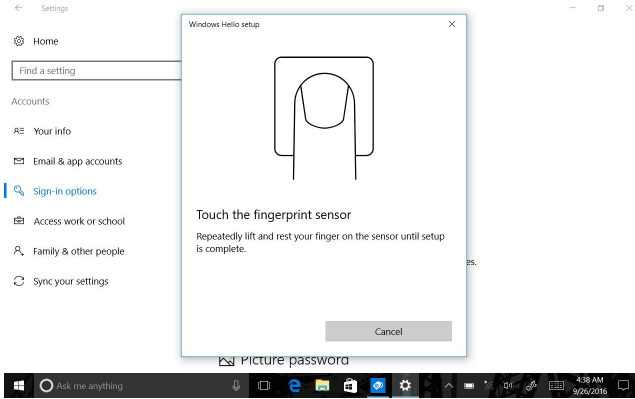


Figure 13-6 Sample Scan Screen

6. Click Add Another if you want to repeat the process with another finger, or close the program.

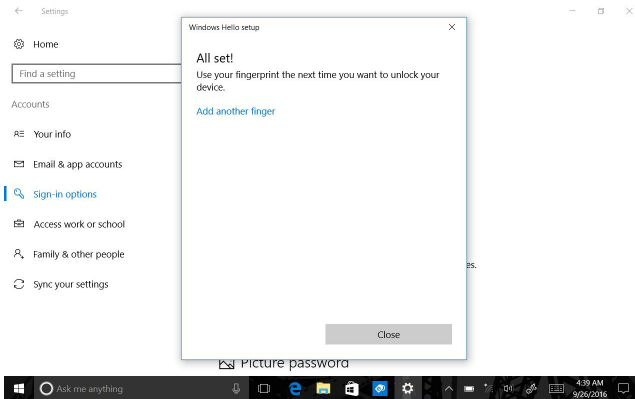


Figure 13-7 Sample Add Another Screen

13.3 GPS Location

With a global positioning system (GPS) satellite receiver, it enables you to pinpoint your location down to the street level. Use location-based application such as Google Maps to find your current location, get directions to your destination, and find other location-based information.

14 Registration and 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 update client Foxscanner.

- ▶ To update your scanner, please follow the three steps here below:
1. Obtain a FOXWELL ID.
 2. Register the product with the product serial number and product password.
 3. Update the product by the update application FoxScanner.

To be able to use FoxScanner, PC or laptop must meet the following minimum requirements:

- Operation System: Win98/NT, Win ME, Win2000, Win XP, VISTA and Windows 7 and Windows 8.
- CPU: Intel PIII or better
- RAM: 64MB or better
- Hard Disk Space: 30MB or better
- Display: 800*600 pixel, 16 byte true color display or better
- Internet Explorer 4.0 or newer

NOTE

Before registration and updating, please make sure your network works correctly.

14.1 Create a Foxwell ID

If you are new to FOXWELL, please register with FOXWELL and obtain a FOXWELL ID first. There are two methods to register an ID.

- Register with the built-in update client Foxscanner on GT90
- Register through our website. Please click the URL below:

http://www.foxwelltech.com/register/step_two.html

14.1.1 Register with Built-in Update Client FoxScanner

You are allowed to register and create a Foxwell ID with the built-in update client FoxScanner.

- ▶ To register with FoxScanner:
1. Press the **Update** icon from the Home screen of GT90 diagnostic application, and the update client starts up automatically.



Figure 14-1 Sample FoxScanner Main Screen

2. Click **Register** button, a Register window will pop up.

The 'Register' window contains the following fields and validation rules:

- User Name:** (Less than 30 characters)
- Password:** (6-16 characters)
- Confirm Password:** (The passwords must match.)
- First Name:**
- Middle Name:**
- Last Name:**
- Email:**
- Telephone:** (Numbers only)
- Address:**
- Country:**
- State/Province:**
- City:**
- Zip Code:**

At the bottom, there is a note: "By creating an account, you agree to Foxwell's conditions of use and privacy notice." and two buttons: "Register" and "Reset".

Figure 14-2 Sample Register Screen

3. Create a unique user ID and password, complete the following registration form and click **Register** to confirm.

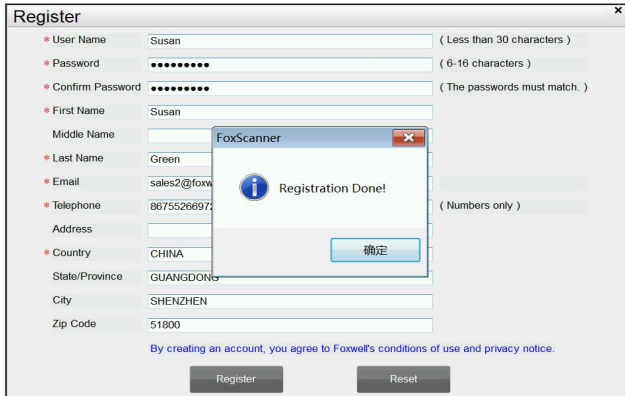
The 'Register' window shows the following filled-in data:

- User Name:** Susan (Less than 30 characters)
- Password:** •••••• (6-16 characters)
- Confirm Password:** •••••• (The passwords must match.)
- First Name:** Susan
- Middle Name:**
- Last Name:** Green
- Email:** sales2@foxwelltech.com
- Telephone:** 8675526697229 (Numbers only)
- Address:**
- Country:** CHINA
- State/Province:** GUANGDONG
- City:** SHENZHEN
- Zip Code:** 51800

At the bottom, there is a note: "By creating an account, you agree to Foxwell's conditions of use and privacy notice." and two buttons: "Register" and "Reset".

Figure14-3 Sample Register Screen

4.A **Registration Done** message will appear if you registered successfully, and an email will be sent to your registered email address containing a link with which you can activate the Foxwell ID. Please log in your email and activate the account.



The screenshot shows a registration form titled "Register" with the following fields: User Name (Susan), Password (masked), Confirm Password (masked), First Name (Susan), Middle Name, Last Name (Green), Email (sales2@foxwell.com), Telephone (8675526697), Address, Country (CHINA), State/Province (GUANGDONG), City (SHENZHEN), and Zip Code (51800). A modal dialog box titled "FoxScanner" with the message "Registration Done!" and a "确定" (OK) button is overlaid on the form. Below the form are "Register" and "Reset" buttons.

Figure 14-4 Sample Registration Done Screen

5.Click **OK**. It skips to the log in page automatically. You can input your Foxwell ID and password to sign in.



The screenshot shows the Foxwell login page. On the left, there is a product image of a Foxwell diagnostic tool. On the right, there is a login form with fields for "Email" (ygg7812088@163.com) and "Password" (masked). Below the password field is a checkbox for "Stay signed in" and a link for "Forgot password". At the bottom are "Sign in" and "Register" buttons.

Figure 14-5 Sample Log in Screen

14.1.2 Register through Website

- ▶ To register through our website:
 - 1.To create a Foxwell ID and register your scan tool
 - a. Visit our site www.foxwelltech.com and then select **Support>Register**.

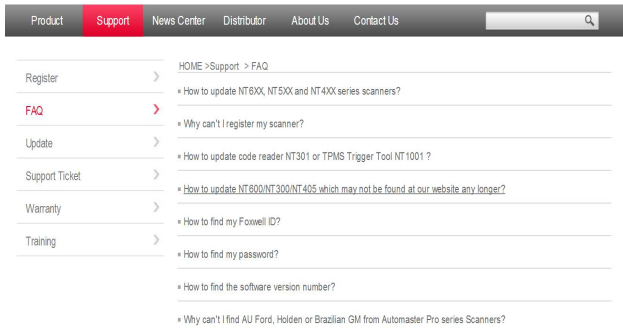


Figure 14-6 Sample Support Screen

b. Click **Register** link at the top right of the website or at the lower side of home page.

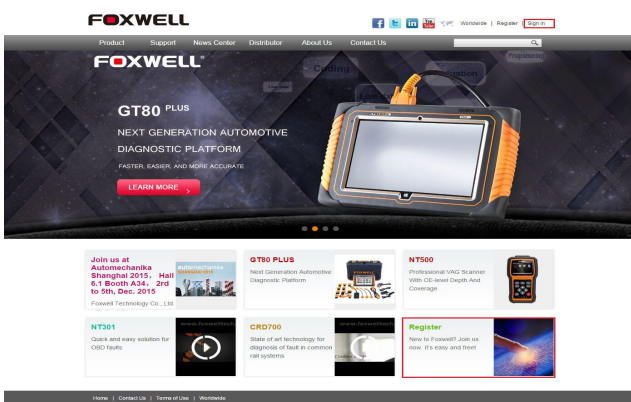


Figure 14-7 Sample Register Screen

2. Create a unique user ID and password, complete the following registration form and then click Submit to confirm. When your ID has been created, you are allowed to view all programs associated with your tool, download updates, edit your profile, submit feedback and join our community to share your ideas and your stories about our products.

Figure 14-8 Sample Registration Form Screen

IMPORTANT

Please always remember your FOXWELL ID and Password as it's important for you to manager your product and updates.

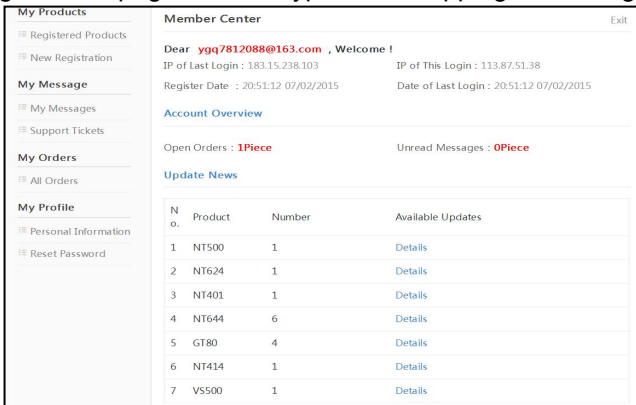
- 3.A **Submit OK** message will appear if you registered successfully and an email will be sent to your registered email address containing a link with which you can activate the Foxwell ID. Please log in your email and activate the account.

Figure 14-9 Sample Successful Registration Screen

IMPORTANT

Before activating and confirming your email address by clicking the activation link in your email, your account will still be invalid and you are not be allowed to sign in.

4. The registration page will be bypassed, skipping to the log in page. Just



input your FOXWELL ID/email address and Password to sign in.

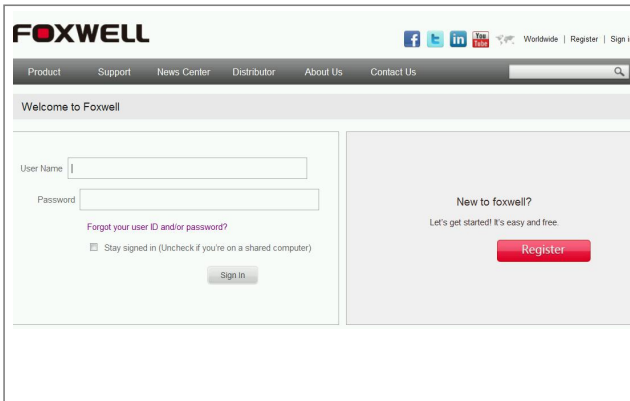


Figure 14-10 Sample Sign in Screen

5. When log in successfully, the **Member Center** will show as below. This platform enables you to review the registered products, register new products, modify personal information or reset the password.

Figure 14-11 Sample Member Center Screen

6. If you forget your register ID or password, just click **Sign in** at the top right of the website, then click **Forgot your user ID and/or password?** . You are required to either input the serial number and register password or your registered email address. Then our system will send a password reset link to your registered email address.

Figure 14-12 Sample Password Retrieval Screen

7. Please log in your email and click the link to go to the following **Reset Password** page. Input your new password and submit it. Now you are able to log in with your ID and the new password. If you want to change the password, please sign in with your user name and password, then select **My Profile/Reset Password**.

Figure 14-13 Sample Password Retrieval Screen

NOTE

If the user name is different with the email you filled when registering, please input the registered email to find your password back, but not user name.

Figure 14-14 Sample Different Email Address

14.2 Register Your Scanner

To register a scanner, you can either register on www.foxwelltech.com or by the built-in update client FoxScanner. Before registering your scanner, please make sure you have already created your Foxwell ID.

14.2.1 Register Through Website

1. Visit our website www.foxwelltech.com and click **Sign in** at the top right corner of home page. Input your FOXWELL ID/registered email and password to sign in.

Figure 14-15 Sample Log in Screen

2. When log in successfully, the **Member Center** will show as below.

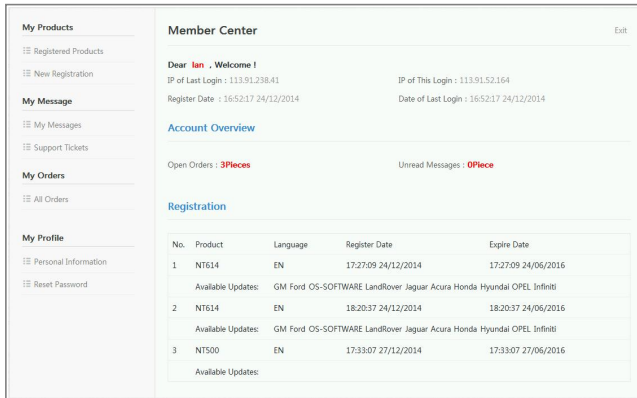


Figure 14-16 Sample Member Center Screen

3. To register a product, please click **My Products>New Registration**. Select the right part number, input serial number and password and click the **Submit** button to complete product registration.

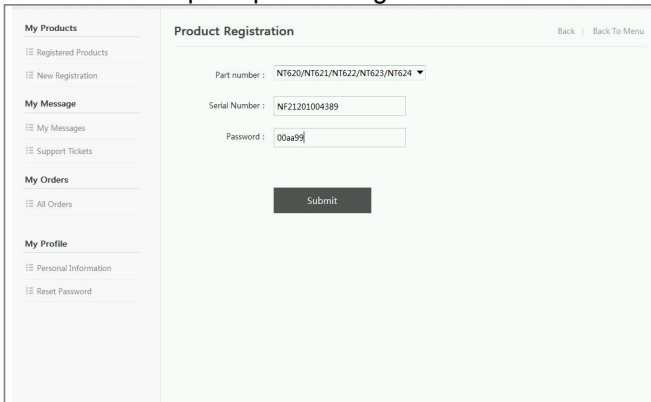


Figure 14-17 Sample New Product Registration Screen

NOTE

To check the serial number and password of GT90, please select **About** on the GT90 main menu.

14.2.2 Register With Built-in Update Client FoxScanner

- ▶ To register with FoxScanner:
 1. Press the **Update** icon from the Home screen of GT90 diagnostic application, and the update client starts up automatically. Log in with your Foxwell ID/ registered email and password.

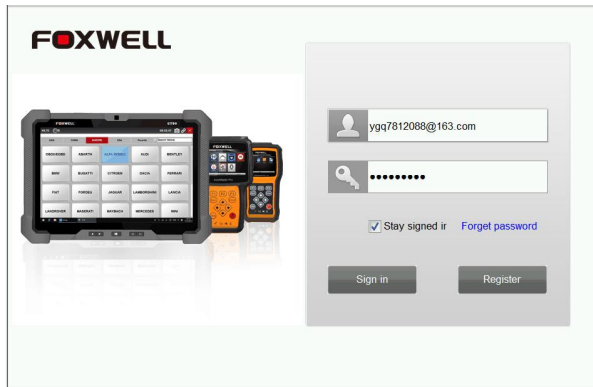


Figure 14-18 Sample Log In Screen

2. Please select Register Products to register it. Select the right part number input serial number and password to complete product registration.

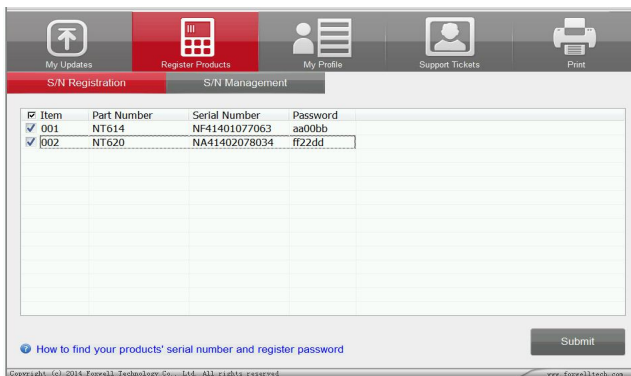


Figure 14-19 Sample New Product Registration Screen

14.3 Update the Scanner

NOTE

- Before updating, please make sure your network works correctly.
- Before updating, please make sure you have already created a Foxwell ID.

- ▶ To update your scanner:
1. Press the Update icon from the Home screen of GT90 diagnostic application, and the update client starts up automatically. Log in with your Foxwell ID/ registered email and password.



Figure 14-20 Sample Sign in FoxScanner Screen

2. Click My Updates-> Available Updates and all updates applicable to your scanner display.

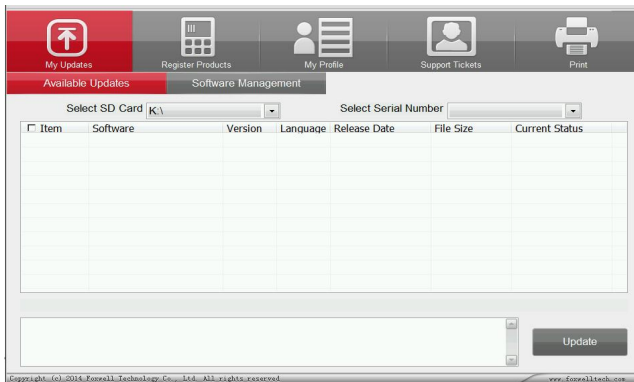


Figure 14-21 Sample My Update Screen

3. Click the check box(s) in front of the software(s) you wish to update and then click the Update button to download.

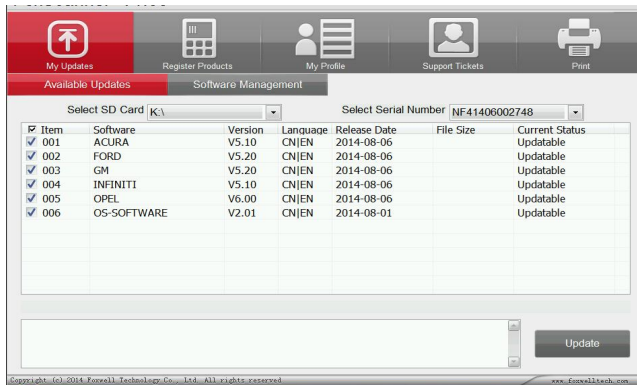


Figure 14-22 Sample Update Check Screen

4. When Update button is clicked, it begins to download. And you can check the Current Status. If the Current Status shows Downloading, please do not close the update application.



Figure 14-23 Sample Updating Screen

5. When all the items are updated, an “Update Done!” message displays and the Available Update items will be blank.



Figure 14-24 Sample Update Completed Screen

6. Please click Software Management to review all the updated software.

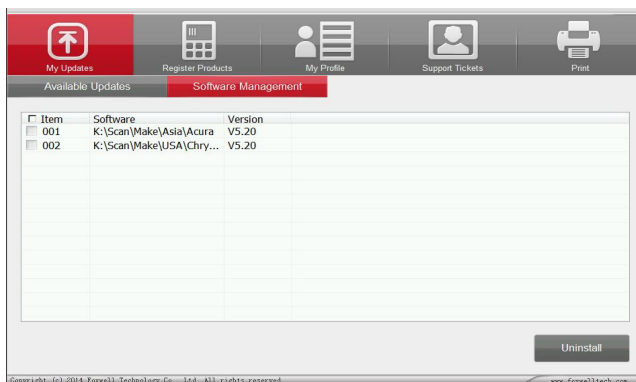


Figure 14-25 Sample Software Management Screen

NOTE

If “Update Failed” dialog comes up, it indicates that the software updates failed. Please check your network connection or SD card. If the problem still exists, please contact support@foxwelltech.com or your local dealer for assistance.

7. To uninstall a software or all software select them and click the Uninstall button. And the uninstalled items can be found in the Updates screen.

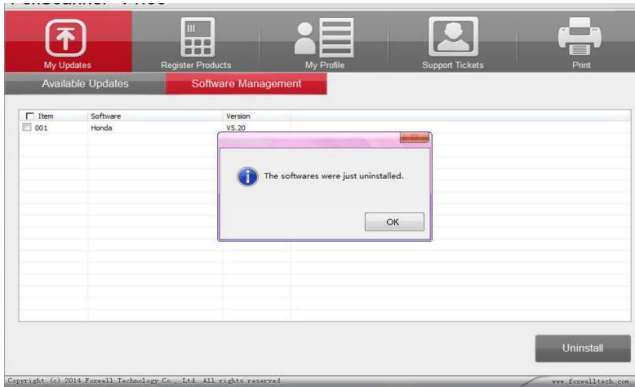


Figure 14-26 Sample Software Uninstallation Screen

8. Please click **My Profile** to view your personal information. To modify your personal information, just type in the message box and click **Submit**. To help us provide better service, please make sure that the telephone, email and country are correctly entered.

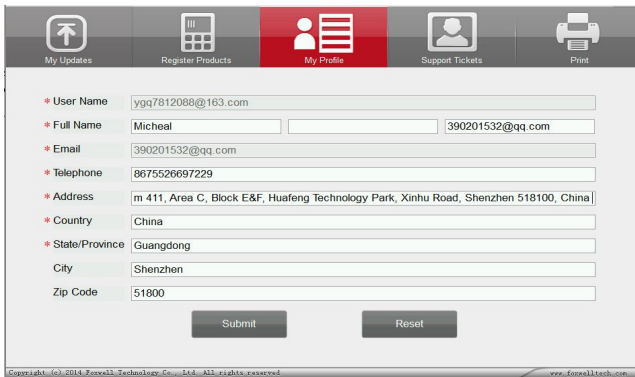


Figure 14-27 Sample My Profile Screen

9. Should you have any questions regarding the product, please click Support Tickets. Fill in all required information and click Submit to send us your issue.

The screenshot shows a web application interface for creating a support ticket. At the top, there is a navigation bar with five items: 'My Updates', 'Register Products', 'My Profile', 'Support Tickets' (highlighted in red), and 'Print'. Below the navigation bar is a form with the following fields:

- * Subject:** NT644 09 Audi A5 TFSi
- * Scanner:** NT644
- * Software:** (empty)
- * Version:** V5.2
- * VIN:** WAUZZZ8T99A055468
- * Year:** 1999
- * Engine Size:** (empty)
- * Problem Description:** When analysing direct via the System Menu - Cent Elec the NT500 freezes at "Communicating with vehicle please wait"

At the bottom of the form are two buttons: 'Submit' and 'Reset'. The footer of the page reads: 'Copyright (c) 2014 Fenwell Technology Co., Ltd. All rights reserved. www.fenwelltech.com'.

Figure 14-28 Sample Support Ticket Screen