

ZURICH™

Professional Automotive Scanner



Owner's Manual

⚠ WARNING

Read this material before using this product.
Failure to do so can result in serious injury.

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IMPORTANT SAFETY INFORMATION

⚠ WARNING

Read all safety warnings and instructions.

Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

Save all warnings and instructions for future reference.

Work Area Safety

1. Keep work area clean and well lit. Cluttered benches and dark areas may cause accidents.
2. Do not connect or disconnect the Scanner while the ignition is on or the engine is running.
3. **DO NOT attempt to operate the Scanner while driving the vehicle. Have a passenger operate the Scanner.**
4. Before testing a vehicle, put the transmission in PARK (for automatic transmission) or NEUTRAL (for manual transmission). Engage the parking brake and chock the tires.
5. NEVER smoke or allow a spark or flame in vicinity of battery or engine.
6. **Operating a vehicle indoors CAN KILL YOU IN MINUTES.** Engine exhaust contains carbon monoxide. This is a poison you cannot see or smell. NEVER operate vehicle inside a home or garage, EVEN IF doors and windows are open. Only use OUTSIDE and far away from windows, doors, and vents.
7. Do not operate the Scanner in explosive atmospheres, such as in the presence of flammable liquids, gases, or heavy dust.

8. Never leave the vehicle unattended while running tests.
9. Keep a fire extinguisher suitable for gasoline/chemical/electrical fires nearby.
10. Use extreme caution when working around the ignition coil, distributor cap, ignition wires and spark plugs. These components create hazardous voltages when the engine is running.
11. Keep bystanders, children and visitors away while operating the Scanner.
12. This product is not a toy. Do not allow children to play with or near this item.
13. Use as intended only. Do not modify.
14. Inspect before every use; do not use if parts are loose or damaged.
15. Do not place the Scanner on any unstable surface.
16. Handle the Scanner with care. If the Scanner is dropped, check for breakage and any other conditions that may affect its operation.
17. Keep the Scanner dry, clean, free from oil, water or grease. Use a mild detergent on a clean cloth to clean the outside of the Scanner when necessary.
18. Store the Scanner and accessories in a locked area out of the reach of children.
19. Maintain product labels and nameplates. These carry important safety information. If unreadable or missing, contact Harbor Freight Tools for a replacement.

Electrical Safety

1. Do not use the Scanner while standing in water.
2. Avoid body contact with grounded surfaces such as pipes, radiators, ranges and refrigerators.
3. **Do not expose the Scanner Tablet or Power Adapter to rain or wet conditions.** Water entering the Scanner or Power Adapter increases the risk of electric shock.

Personal Safety

1. Wear ANSI-approved safety goggles during use.
2. Do not wear loose clothing or jewelry. Keep hair, clothing, hands, tools, and test equipment away from moving or hot engine parts. Loose clothes, jewelry, or long hair can be caught in moving parts.
3. Do not use the Scanner while tired or under the influence of drugs, alcohol, or medications. A moment of interruption can result in serious personal injury.
4. People with pacemakers should consult their physician(s) before use. Electromagnetic fields in close proximity to heart pacemaker could cause pacemaker interference or pacemaker failure.
5. The warnings, precautions, and instructions discussed in this instruction manual cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.

Service

There are no user serviceable parts. Have the Scanner serviced by a qualified repair person using only identical replacement parts. This will ensure that the safety of the equipment is maintained.



SAVE THESE INSTRUCTIONS.

Specifications

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Scanner Tablet	
Operating System	Android 7.1
Processor	Quad-core 1.4GHz processor
Battery	4850mAh rechargeable Li-Polymer
Memory	2 GB
Storage	16 GB
Display	8-inch (1280x800) LCD IPS touch screen
Connectivity	Wi-Fi 802.11 b/g/n
	Bluetooth 4.0
Operating Temperature	32°– 113° F
Storage Temperature	-4° – 158° F

Vehicle Communication Interface	
Working Voltage	DC 9–18V
Average Working Current	About 95mA
Standby Current	About 60mA
Operating Temperature	-4°– 131° F
Storage Temperature	-22° – 158° F
Operating Humidity	<60%
Storage Humidity	<80%

ZURICH™

OBD II On-Board Diagnostics

It is required by the EPA that all 1996 and newer vehicles sold in the United States be equipped with an OBD II computer system.

OBD II is an early warning system designed to monitor engine, transmission, and emissions control components by performing specific diagnostic tests.

When a fault condition is detected, the system captures important data and activates the “Check Engine” light.

If the light comes on, the vehicle might have a condition that wastes fuel, shortens engine life, or causes excessive air pollution. If the problem that caused the light to come on is addressed, for instance a loose gas cap is tightened, the light will go out.

If the light comes on and stays on, a minor engine fault condition is occurring and should be addressed as soon as possible

If the light is blinking, a severe engine fault condition is occurring and should be addressed immediately.

The Scanner connects to the vehicle’s computer system and captures information that can help identify the fault condition.

Vehicle Coverage

This Scanner is designed to work with all OBD II compliant vehicles, including those equipped with a CAN bus.

OBD II was installed in some 1994 and 1995 model year gasoline vehicles.

To verify if a 1994 or 1995 vehicle is OBD II compliant, check the Vehicle Emissions Control Information label, which is located in the engine compartment.

Definitions

- **EOBD: European On-Board Diagnostics**
Essentially the same as OBD II, with the same Data Link Connector and Communication Protocols.
- **Communication Protocol:** Allows different systems and sensors in a vehicle to communicate. There are currently five Protocols:
 - **CAN Bus**
 - **J1850 VPW**
 - **ISO 9141-2**
 - **J1850 PWM**
 - **ISO 14230 KWP**
- **CAN: Controller Area Network**
Message-based Communication Protocol serial bus.
- **CAN Vehicle**
2008 and newer.
- **Pre-CAN Vehicle**
2007 and older.
- **DLC: Data Link Connector**
The 16-cavity connector on the vehicle that allows communication between the computer system and the Scanner.
- **Drive Cycle**
A set of driving procedures that, when met, provide the Enabling Criteria for the I/M Monitors to run and complete their diagnostic tests.
- **Enabling Criteria**
Operating conditions that must occur during a Drive Cycle to cause the I/M Monitors to run and complete their diagnostic tests.
- **MIL: Malfunction Indicator Lamp**
The vehicle’s “Check Engine” warning light that activates when a DTC is stored.
- **DTC: Diagnostic Trouble Code**
A code stored in the computer system’s memory, which helps to identify the fault condition that is causing the MIL to activate.
- **Freeze Frame Data**
Operating conditions that are stored when a DTC is stored.
- **PID - Parameter Identification Data**
Data returned by the vehicle’s Control Modules to the Scan Tool.

Control Modules

Control Modules are individual computers that operate and monitor different systems in the vehicle. Control Modules vary depending on manufacturer.

ID codes are assigned to each Control Module, which are defined by the vehicle's Communication Protocol. For example, a vehicle may use ID code \$7E8 for the PCM and \$7E9 for the TCM.

Control Module	Control Module Definition
PCM/ECU	Powertrain Control Module/Engine Control Unit
TCM	Transmission Control Module

Common Control Modules

I/M Monitors

Inspection and Maintenance diagnostic tests that the Control Modules perform on specific sub-systems of the vehicle.

There are two types of Monitors:

- **Continuous:** Monitors that perform tests all the time while the engine is running.
- **Non-Continuous:** Monitors that require specific operating conditions to be met during a Drive Cycle in order for the Monitors to run their testing sequences.

Note: Not all Monitors are supported by all vehicles.

Gasoline Engine Monitors

Continuous

- MIS** – Misfire
- FUEL** – Fuel System
- CCM** – Comprehensive Components

Non-Continuous

- CAT** – Catalyst
- HCAT** – Heated Catalyst
- EVAP** – Evaporative System
- AIR** – Secondary Air System
- O2S** – Oxygen Sensors
- HTR** – Oxygen Sensor Heater
- EGR** – EGR System

Diesel Engine Monitors

Continuous

- MIS** – Misfire
- FUEL** – Fuel System
- CCM** – Comprehensive Components

Non-Continuous

- HCCAT** – NMHC Catalyst
- NCAT** – NOx Aftertreatment
- BP** – Boost Pressure System
- EGS** – Exhaust Gas Sensor
- PM** – PM Filter
- EGR** – EGR System

Diagnostic Test Modes

Diagnostic Test Modes as described in the latest OBD II standard SAE J1979.

Note: Not all Modes are supported by all vehicles.

- \$01** - Request Current Powertrain Diagnostic Data
- \$02** - Request Powertrain Freeze Frame Data
- \$03** - Request Emission-Related Stored DTCs
- \$04** - Clear/Reset Emission-Related Diagnostic Information
- \$05** - Request Oxygen Sensor Monitoring Test Results (2007 and older vehicles only)

- \$06** - Request On-Board Monitoring Test Results for Specific Monitored Systems
- \$07** - Request Emission-Related Stored DTCs Detected During Current or Last Completed Driving Cycle
- \$08** - Request Control of On-Board System, Test or Component
- \$09** - Request Vehicle Information
- \$0A** - Request Emission-Related Permanent DTCs

Diagnostic Trouble Code

A five digit alphanumeric identifier for a fault condition identified by the OBD II system. There are three types of Diagnostic Trouble Codes:

1. **Pending** - When a fault condition is identified during a Drive Cycle, but does not meet enough criteria to activate the MIL.
If the fault condition occurs during two consecutive Drive Cycles, it will turn into a Stored DTC and the MIL will activate.
2. **Stored** - A Diagnostic Trouble Code is stored when a fault condition has occurred that meets enough criteria to activate the MIL.
3. **Permanent** - A stored DTC that can only be cleared by the OBD II system, after repairs are made, and a set number of Driving Cycles have been completed.

Example Code: P0303 – Cylinder 3 Misfire

Systems

- B - Body
- C - Chassis
- P - Powertrain**
- U - Network

Code Types*

- 0 - Generic**
- 1 - Manufacturer Specific
- 2 - Generic Powertrain/Manufacturer Specific
- 3 - Generic Powertrain/Manufacturer Specific

Sub-Systems

- 1 - Fuel and Air Metering
- 2 - Fuel and Air Metering (injector circuit malfunction only)
- 3 - Ignition Malfunction or Engine Misfire**
- 4 - Auxiliary Emission Controls
- 5 - Vehicle Speed or Idle Controls
- 6 - Computer Output Circuits
- 7 - Transmission Controls
- 8 - Transmission Controls

03 - Cylinder 3

P 0 3 0 3

* The Scanner supports the following Code Types:

Generic (SAE):
B0, B3
C0, C3
P0, P2, P34-P39
U0, U3

Manufacturer Specific:
B1, B2
C1, C2
P1, P30-P33
U1, U2

Components and Controls



Read the **ENTIRE IMPORTANT SAFETY INFORMATION** section at the beginning of this manual including all text under subheadings therein before set up or use of this product.

SAFETY

Tablet Top and Front Panel

OVERVIEW



SETUP

Tablet Back Panel

OPERATION

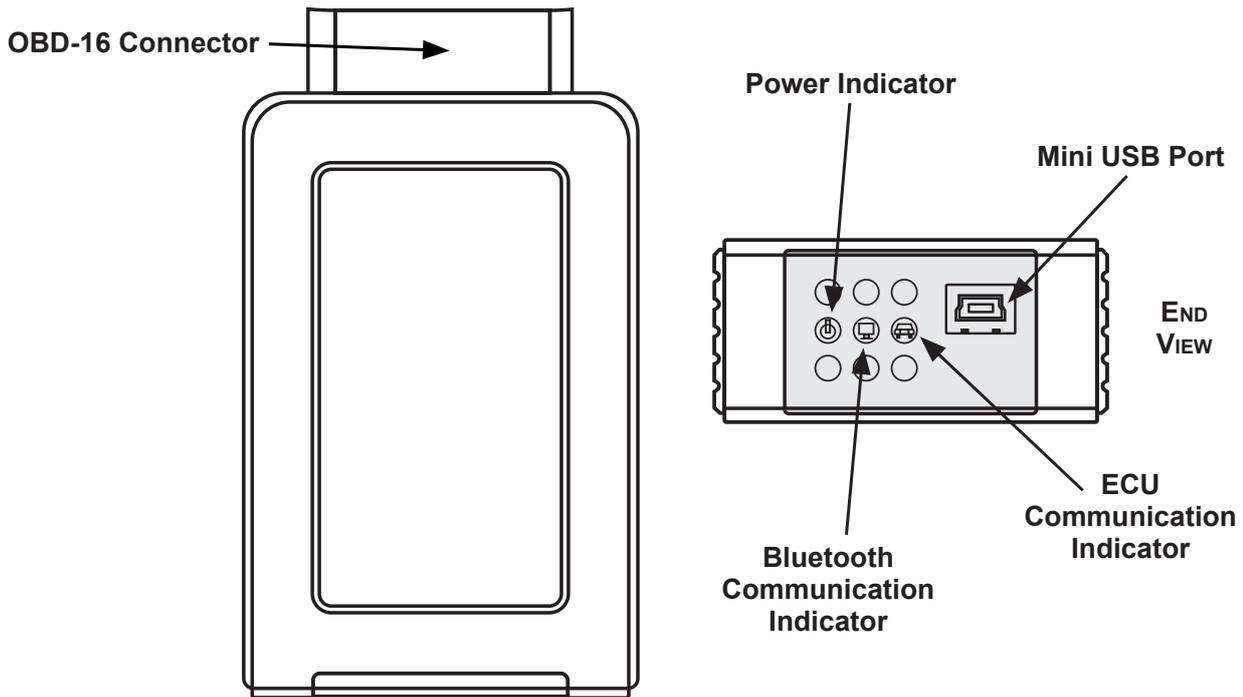


MAINTENANCE

- | | |
|-----------------------|-------------------------|
| 1. Volume Control | 6. USB/Charging Port |
| 2. Power Button | 7. Stereo Headset Jack |
| 3. LCD Display Screen | 8. Adjustable Kickstand |
| 4. Speaker | 9. Stylus |
| 5. Rear Camera | |

Vehicle Communication Interface

The Vehicle Communication Interface (VCI) is used to read vehicle data and send it to the Tablet via Bluetooth.



OBD-16 Diagnostic Connector:
Connects to vehicle's OBD II DLC.

Power Indicator:
Lights up when the VCI Connector is plugged into the vehicle's Data Link Connector (DLC).

ECU Communication Indicator: Flashes when the VCI Connector is communicating with the vehicle.

Bluetooth/USB Communication Indicator:
Indicates Bluetooth mode if the connector is energized and it illuminates blue (default mode).

Mini USB Port:
For manufacturer use only. Not used for Scanner function.

Scanner Components





Read the **ENTIRE IMPORTANT SAFETY INFORMATION** section at the beginning of this manual including all text under subheadings therein before set up or use of this product.

Charging the Battery

NOTICE: Only use the Power Adapter included with the Scanner. Use of any other adapter will damage the unit. Always charge on a non-flammable surface in a well-ventilated area.

1. To check the battery power level, press and hold the Power Button about one second to turn on the Scanner Tablet.
2. Power level is indicated as a percentage (%) in the upper right-hand corner of the screen.

Note: If the power level drops below 10% while the Tablet is on a *Connect Charger* notification will appear on the screen. If the power level becomes very low the unit will shut itself off.

120VAC Charging

1. Insert the large plug on the USB Cable into the connector on the Power Adapter.
2. Insert the small plug on the USB Cable into the USB/Charging Port on the side of the Scanner Tablet.
3. Plug the Adapter into a 120VAC outlet.
4. The charging symbol  will appear briefly on the Tablet screen, indicating the battery is charging.
5. When charging is finished the charging complete symbol  replaces the charging symbol. Unplug the 120VAC Power Adapter from its outlet and disconnect the USB Cable from the Tablet.

Charging with a Computer

1. Insert the large plug on the USB Cable into a USB port on the computer.
2. Insert the small plug on the USB Cable into the USB/Charging Port on the side of the Scanner Tablet.
3. The charging symbol  will appear briefly on the Tablet screen, indicating the battery is charging.
4. When charging is finished the charging complete symbol  replaces the charging symbol. Disconnect the USB Cable from the Tablet and the computer.

Power ON/OFF

1. Press and hold the Power Button about one second to turn on the Tablet. The system starts initializing and then enters the **Home** screen.
2. To turn the Tablet off, press and hold the Power Button until an option menu appears. Touch **Power Off** and then **OK**.

Screen Layout

On-Screen Buttons

There are four on-screen controls located at the bottom of the Tablet screen:

Back—Touch the  symbol to return to the previous screen.

Home—Touch the  symbol to return to the Tablet home screen.

Recent App—Touch the  symbol to view recently launched applications and any applications currently running.

Screenshot—Touch the  symbol to capture the current screen.

Screen Preview

On the **Home** screen, touch and hold any blank area. A function menu will appear at the bottom of the screen displaying wallpapers, widgets, settings, applications, etc.

Desktop

Desktop Configuration

For information on desktop setup, refer to the Lenovo user manual for model TB-8504F available online.

Adjusting Screen Brightness

1. On the **Home** screen, touch **Settings > Display > Brightness Level**.
2. Move the slider left or right to adjust screen brightness.

Note: Reducing the brightness of the screen will help conserve battery power.

Setting Standby Time

If the Scanner Tablet is on but not used within the defined standby period, the screen will be locked automatically and the system enters sleep mode to save power. To set the standby time interval:

1. On the **Home** screen, touch **Settings > Display > Sleep**.
2. Select the desired standby time from the **Sleep** menu.

Changing Language

The Zurich Scanner Tablet supports multiple languages. Use the following procedure to change the language of the Tablet:

1. On the **Home** screen, touch **Settings > Languages & Input > Languages**.
2. Touch **Add a Language** and choose the desired language from the list.
3. Touch and hold the desired language, drag it to the top of the screen and release. The system will change to the chosen language.

File Transfer Setup

Connect the small plug on the USB Cable to the USB Port of the Tablet, and the other end to a computer. The Tablet is in charging mode by default. Use the following procedure to change mode to media device and enable file transfer:

1. On the **Home** screen, swipe down from the top to display **System Notifications**.
2. Touch **USB Computer Connection**.
3. Touch the check box next to **Media Device (MTP)**. The Tablet is now ready to transfer files to the computer.

Wi-Fi Setup

Connect to a Wi-Fi Network

1. On the **Home** screen, touch the **Settings** icon  and then **WLAN** to configure the Wi-Fi setting.
2. Move the Wi-Fi switch to ON—the unit searches for available wireless LANs.
3. Select the desired Wi-Fi network from the list. If the chosen network is open, you can connect directly. A password may be required for secured networks.

Note: To add a new network select **Add Network** from the list.

4. When **Connected** appears on the screen, it indicates that the unit is properly connected to the network. Touch on the connected network from the list to view its name, status, signal strength, link speed, security type, etc.

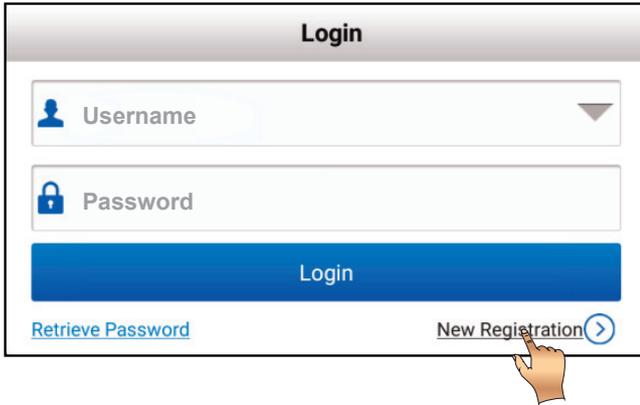
Note: Turning OFF the Wi-Fi switch when not in use will help conserve battery power.

Disconnect from a Wi-Fi Network

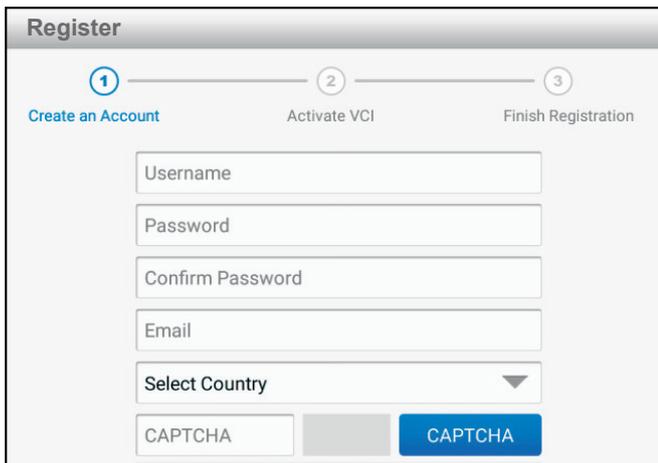
1. On the **Home** screen, touch **Settings > WLAN**.
2. Touch on the network with a **Connected** status, then touch **Forget**.

User Registration/Download Diagnostic Software

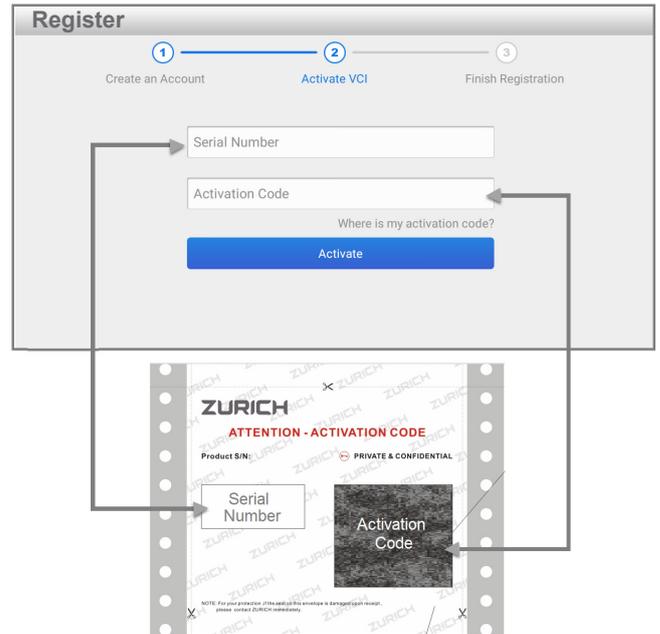
1. Turn on the Scanner Tablet and touch the Zurich application icon on the **Home** screen. Touch the **Settings** icon  in the **Job Menu** and then **Login** to enter the *Login* screen.



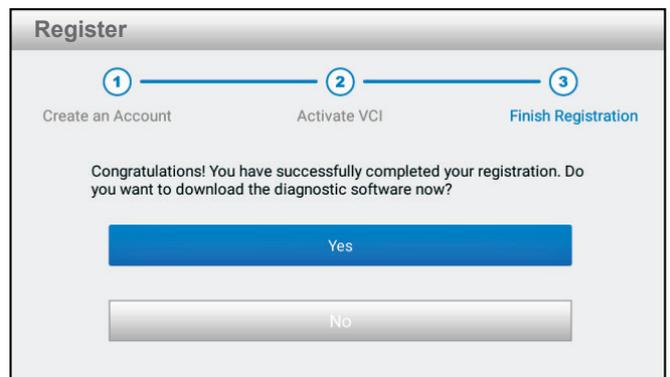
2. Touch **New Registration** in the *Login* screen to enter the *Registration* page. Input the information to create a new account. All fields must be completed. When finished touch **Register**.



3. Input the Product Serial Number and Activation Code which can be found in the supplied password envelope. Touch **Activate** to complete registration. To exit and activate later, touch **Skip**. To activate later, touch **Activate Connector** in **Settings** on the **Job Menu**.



4. To download the diagnostic software, touch **Yes** on the *Finish Registration* screen to enter the *Vehicle Software Download* screen. Touch **Update** to start downloading. To pause downloading, touch **Stop**. To resume, touch **Continue**. When downloading is complete, the system will install the software package automatically.



Note: When downloading the diagnostic software or checking for updates, make sure the Scanner Tablet has a strong Wi-Fi connection.

5. To download and install the software later, touch **No**. In this case, enter the **Job Menu** and touch **Software Upgrade** to download the diagnostic software.

Existing Account

1. For an existing account, turn on the Scanner Tablet and touch the Zurich application icon on the *Home* screen. Touch the **Settings** icon  and then **Login** to enter the *Login* screen.

2. Touch **Login** to log into the system directly.

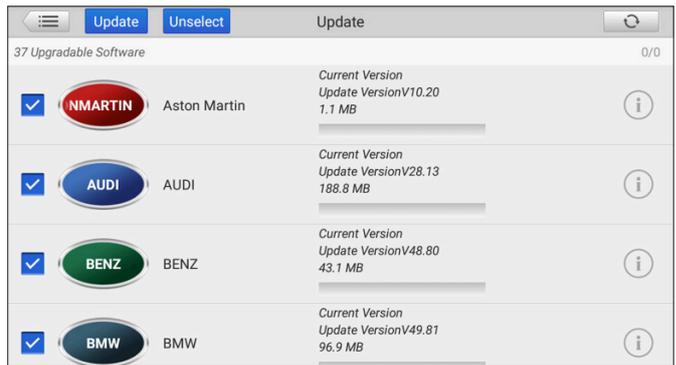
Note: After the username and password are entered the first time, the system's auto-save function automatically stores it. After initial set up it is no longer necessary to input the account information manually to log in.

Software Upgrade

Before diagnosing a vehicle, the corresponding vehicle diagnosis software must be downloaded. It is also recommended to check for updates on a regular basis to keep current with the latest available software.

Note: When downloading the diagnostic software or checking for updates, make sure the Scanner Tablet has a strong Wi-Fi connection.

1. Touch the **Software Upgrade** icon in the **Job Menu** to enter the *Update* screen where a list of diagnostic software will be displayed.
2. All diagnostic software that is upgradable will be selected by default. To select particular vehicle software, touch **Unselect** and then check the box next to the desired vehicle make(s).



3. Touch **Update** to start downloading. When downloading is complete, the system will install the software packages automatically.

Vehicle Connections

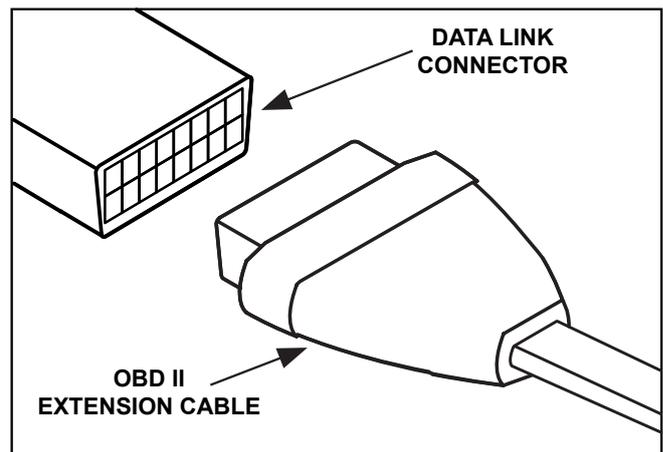
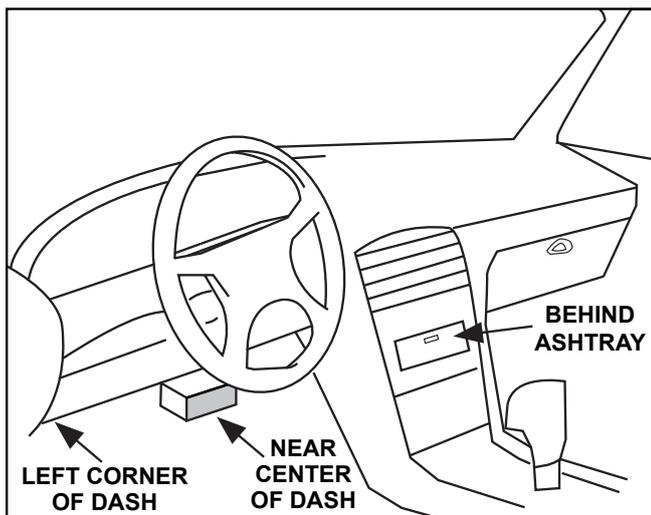
OBD II Vehicle Connection

Directly plug the VCI into vehicle's DLC using supplied OBD II extension cable.



Installing the Vehicle Communication Interface Connector

1. Locate the vehicle's Data Link Connector (DLC). The 16-pin DLC is usually located under the dashboard, within 12 inches of the center of the panel, on the driver's side of most vehicles. Check the vehicle's service manual for the exact location.
2. Plug the VCI Connector into the vehicle's Data Link Connector. Use the included OBD II extension cable to connect the DLC and the VCI. Once connected, the Power Indicator on the VCI will light up.



Bluetooth Setup

1. Power is provided to the VCI connector in either of the following ways:
 - a. Plug the VCI Connector into the vehicle's Data Link Connector. Once connected, the Power Indicator on the VCI will light up.
 - b. Connect one end of a USB cable (not included) to the Mini USB port of the VCI connector. Connect the other end to the USB port of a PC. The Power Indicator on the VCI will light up.
2. On the Scanner Tablet **Home** screen, enter Bluetooth setting screen by touching **Settings > Bluetooth**. Slide the Bluetooth switch to ON to search for available Bluetooth devices.
3. Touch the desired VCI connector to pair and match. The default Bluetooth name of the connector is 98*****00 (where ***** stands for 8 digits.).
4. If the Bluetooth pair request appears on the screen, enter the request pin code (default code: 0000 or 1234).
5. Once the connector is paired with the Scanner Tablet, *Paired* appears and the connector will be shown under the paired device tab.

Diagnostics Toolbar

The diagnostics toolbar contains a number of buttons that enable various procedures. It is displayed at the top of the vehicle diagnostic screens throughout the diagnostic session. Refer to the table below for a brief description of the functions of the diagnostics toolbar buttons.

NAME	ICON	FUNCTION
Home		Return to Job Menu screen.
Exit		Exit the diagnostic application.
Settings		Quick access to Settings.
Save		Saves the current report or diagnostic record.
Record		Records diagnostic data for future playback and analysis.
Print		Prints the current diagnostic report.
Share		Share the diagnostic report with others.
Delete		Delete the selected item.

Diagnostics Toolbar Chart

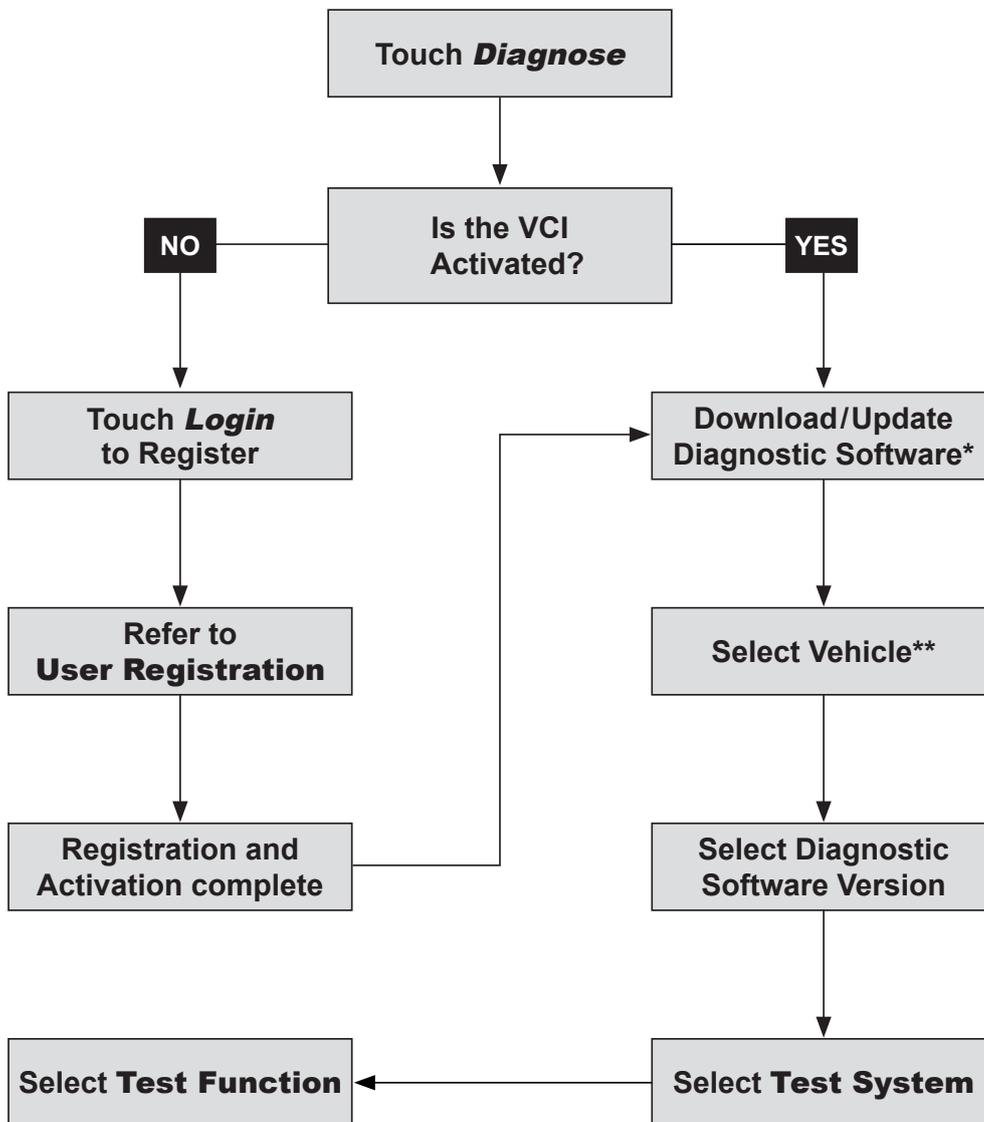


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Settings	22
Other Modules	23

Basic Operation Chart

New users should follow the operation chart shown below to get familiar with Scanner operation and functions. To prevent serious injury, read all safety warnings and instructions to ensure proper usage.

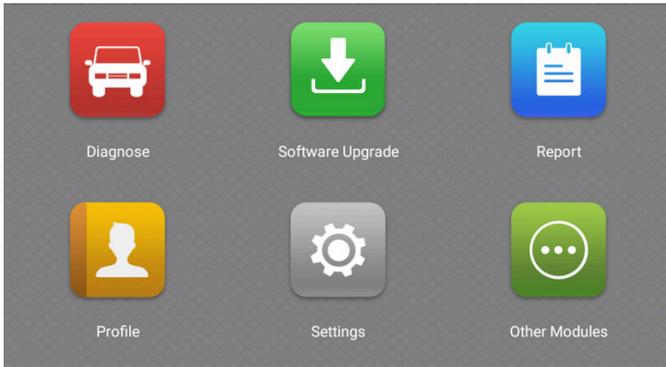


* It is recommended to check for updates on a regular basis to keep current with the latest available software.

** If **VINScan** is selected to diagnose a vehicle, this step does not apply.

Job Menu

Turn on the Scanner Tablet and touch the Zurich application icon on the **Home** screen to enter the **Job Menu**.



Diagnose:
Start a diagnostic session.

Software Upgrade:
Update vehicle diagnostic software.

Report:
View and manage reports.

Profile:
Configure personal information.

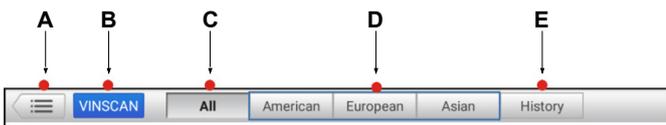
Settings:
Manage Login, My Connector, Activate VCI, Shop Information, Logout etc.

Other Modules:
Manage screenshots, feedback, diagnostic reports, etc.

Diagnose

Diagnostic Preparation

1. Touch the **Diagnose** icon in the **Job Menu** to enter the **Vehicle Selection** screen.

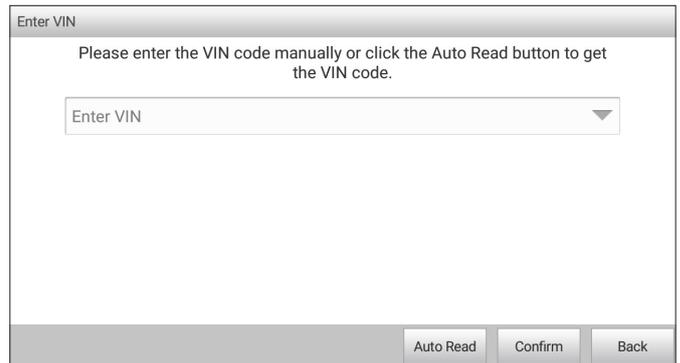


Vehicle Selection Screen Toolbar

- A. Touch to navigate to the **Job Menu**.
 - B. Touch to scan the Vehicle Identification Number (VIN) code of your vehicle. Auto Read and INPUT VIN are included.
- Note:** Before using this function, the corresponding diagnostic software and Auto search file need to be downloaded first when downloading the diagnostic software.
- C. Displays all the vehicle makes in the vehicle menu.
 - D. Touch regional buttons to switch to corresponding vehicles.
 - E. When a vehicle diagnosis is performed, the Scanner Tablet records the detailed diagnostic information. Touch **History** to access diagnostic reports from previously tested vehicles. Testing can be resumed from the previous operation without starting from scratch.

2. Two methods are available to access the vehicle diagnostic software:

a. From the **Vehicle Selection** screen, touch **VINSCAN** to access the **Enter VIN** screen.



For this method, automatic scan (Auto Read) and manual input (INPUT VIN) are available.

- For **Auto Read** mode, plug the VCI connector into the vehicle's DLC first, then establish Bluetooth communication between Scanner Tablet and vehicle. Touch **Auto Read** to scan the vehicle VIN. When scanning is complete the Scanner will enter the diagnostic software of the vehicle.
 - For **INPUT VIN** mode, input the VIN manually and touch **Confirm** to enter the diagnostic software of the vehicle. A vehicle's VIN is often in the top left corner on the dashboard. Other possible locations include the driver's door or post, and the firewall under the hood.
- b. From the **Vehicle Selection** screen, touch the appropriate vehicle logo, then follow the on-screen instructions to access the diagnostic software.

Diagnostic System Demonstration

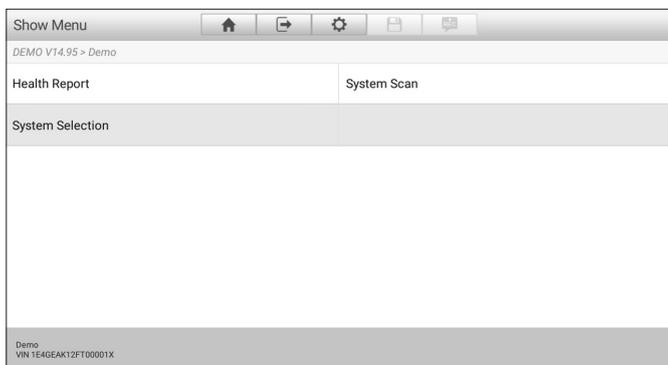
The following information demonstrates the basic procedures on how to diagnose a vehicle:

1. Touch the **Diagnose** icon in the **Job Menu** to enter the *Vehicle Selection* screen, then touch the **DEMO** icon to display the following window.



Note: Bluetooth connection is not required to run the DEMO program.

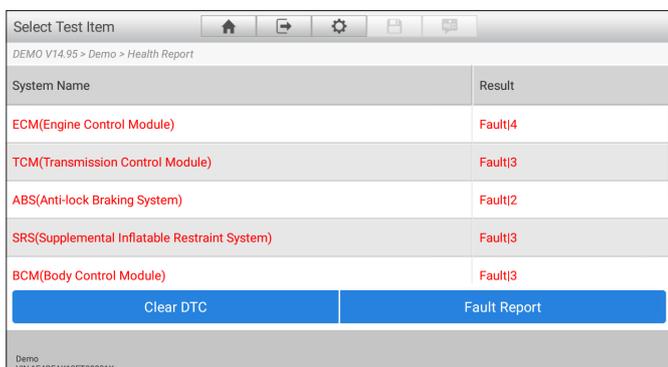
2. Touch the **DEMO** button to enter the *Test Selection* screen.



Health Report Demo

This function varies from vehicle to vehicle. Allows quick access to all the electronic control units of the vehicle and generates a detailed report about vehicle health.

1. Touch **Health Report** to scan the vehicle control modules. When scanning is complete, the following screen appears:

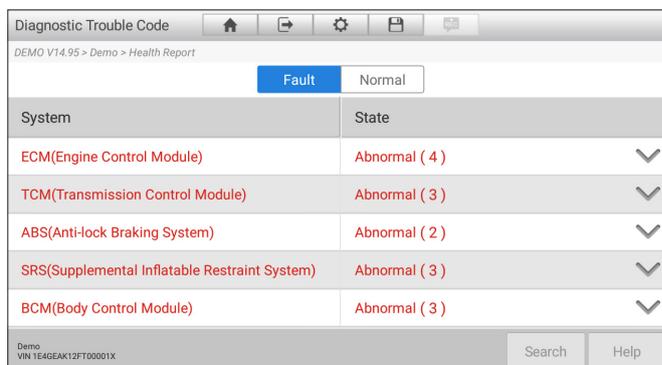


2. Systems with fault codes are displayed in red. Systems functioning normally are displayed in black.

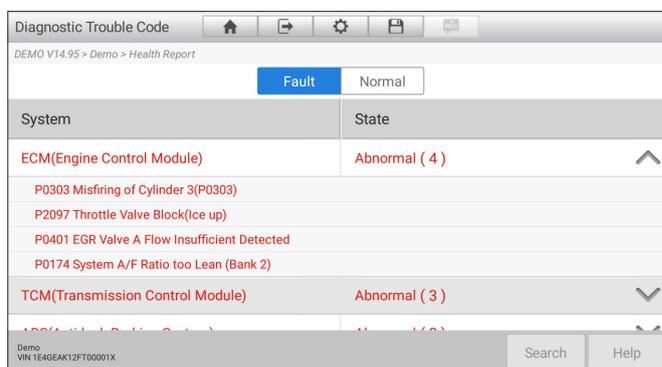
Note: For step by step manual selection of the individual test systems and functions, touch the desired system to enter the *Test Function Selection* screen. Refer to the *System Selection* section on page 18 for further information.

On-Screen Buttons

- **Clear DTC:** Touch to clear existing diagnostic trouble codes.
- **Fault Report:** Touch to enter the *Diagnostic Trouble Code* screen to view report details.

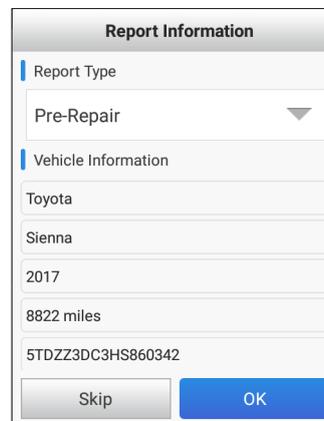
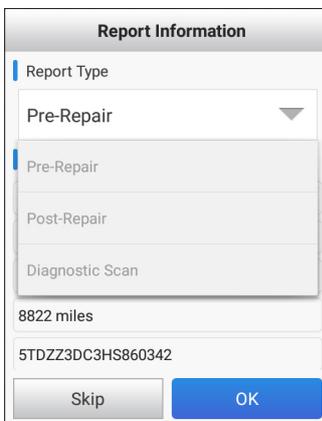


3. Touch on desired systems to view detailed Diagnostic Trouble Code information.



On-Screen Buttons

- **Search:** Highlight a Diagnostic Trouble Code and touch this button to search online for detailed information about the selected DTC.
- **Save:** Touch to save a report of the current data in text format.



4. Choose the report type from the drop-down menu: Pre-Repair, Post-Repair, or Diagnostic Scan. Input the required information in the *Report Information* window and touch **OK**.

More Information

Technician

Customer Name

Inspection Organization

Shop Name:

Address:

Zip Code:

- Input the technician and customer name in the *More Information* window. For workshop information, touch the *Inspection Organization Pencil* icon to revise it, then touch **OK** to save. To skip the workshop information, touch **Skip** to go to the next step.

Note: Workshop information can also be revised from the **Job Menu** in **Settings > Shop Information**.

- Configured information is automatically generated each time the diagnostic report is saved. All vehicle and workshop information is included on the diagnostic report, permitting easy report retrieval using the Diagnostic Report *Search* function.
- All reports are saved under the *Diagnostic Report* tab in **Job Menu > Report**. Refer to the *Report* section on page 21 for further information on report operations.

System Scan Demo

Use this option to quickly scan and identify which systems are installed on the vehicle.

- From the *Test Selection* screen, touch **System Scan** to scan the vehicle control modules. When scanning is complete, the following screen appears:

System Name	Result
ECM(Engine Control Module)	Equipped
TCM(Transmission Control Module)	Equipped
ABS(Anti-lock Braking System)	Equipped
SRS(Supplemental Inflatable Restraint System)	Equipped
BCM(Body Control Module)	Equipped
IMM(Immobilizer)	Equipped

Demo
VIN 1E4GEAK12FT00001X

- Touch the desired system to enter the *Test Function Selection* screen. Refer to the *System Selection* section which follows for further information.

System Selection Demo

Use this option for step by step manual selection of the individual test systems and functions.

- From the *Test Selection* screen, touch **System Selection** to enter the following screen:

Show Menu	
DEMO V14.95 > Demo > System Selection	
ECM(Engine Control Module)	TCM(Transmission Control Module)
ABS(Anti-lock Braking System)	SRS(Supplemental Inflatable Restraint System)
BCM(Body Control Module)	IMM(Immobilizer)
BMS(Battery Manager System)	TPMS(Tire Pressure Monitoring System)
SAS(Steering Angle System)	

Demo
VIN 1E4GEAK12FT00001X

- Touch the desired system (ECM for example) to enter the following screen.

Note: On this screen different vehicles will display different diagnostic menus.

Show Menu	
DEMO V14.95 > Demo > System Selection > ECM(Engine Control Module)	
Version Information	Read Fault Code
Clear Fault Code	Read Data Stream
Actuation Test	Special Function
Program	

Demo
VIN 1E4GEAK12FT00001X

- Touch **Version Information** for information on system mode, vehicle VIN, software and ECU. Touch **OK** to exit.

Version Information

System Mode:0001
 VIN:1E4GEAK12FT00001X
 Software Ver.:V1.0.0
 ECU Detection:Pass

- Touch **Read Fault Code** to display detailed information on Diagnostic Trouble Codes retrieved from the vehicle's control system. The following screen will appear showing the diagnostic results.

Diagnostic Trouble Code			
DEMO V14.95 > Demo > System Selection > ECM(Engine Control Module)			
P0303	Misfiring of Cylinder 3(P0303)	P2097	Throttle Valve Block(ice up)
<input type="button" value="Freeze Frame"/>	<input type="button" value="Help"/>	<input type="button" value="Code Search"/>	<input type="button" value="Freeze Frame"/>
P0401	EGR Valve A Flow Insufficient Detected	P0174	System A/F Ratio too Lean (Bank 2)
<input type="button" value="Freeze Frame"/>	<input type="button" value="Help"/>	<input type="button" value="Code Search"/>	<input type="button" value="Freeze Frame"/>

Demo
VIN 1E4GEAK12FT00001X

On-Screen Buttons

- **Freeze Frame:** When an emission-related fault occurs, certain vehicle conditions are recorded by the on-board computer. This information is referred to as freeze frame data and includes a snapshot of critical parameter values at the time the DTC is set.
- **Help:** Touch to access help information.
- **Code Search:** Touch to search online for detailed information about the current Diagnostic Trouble Code online.
- **Save:**  Touch to save a report of the current data in text format. All reports are saved under the *Diagnostic Report* tab in **Job Menu > Report**.

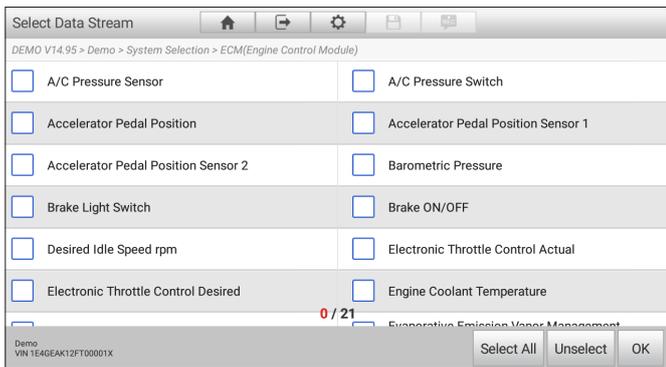
5. Touch **Clear Fault Code** to erase retrieved Diagnostic Trouble Codes from the vehicle after repairs have been made. The following confirmation window will appear on the screen.

Note: When using this function turn the vehicle ignition ON but DO NOT START THE ENGINE.



Touch **Yes** to delete the existing trouble codes for the current selected system (ECM in this example).

6. Touch **Read Data Stream** to retrieve and display live data and parameters from the vehicle's ECU.



On-Screen Buttons

- **Select All:** Touch to select all items on the current screen. To select individual items check the box before the name.
- **Unselect:** Touch to deselect all selected data stream items.
- **OK:** Touch to confirm selections and enter the next screen.

Note: If the value of the data stream is out of the standard range, the value is shown in red.

Name	Value	Standard Range	Unit
A/C Pressure Sensor	111.9748	0.0 - 145.0	psi
A/C Pressure Switch	Open (OK)		
Accelerator Pedal Position	21.96	0-100	%
Accelerator Pedal Position Sensor 1	14.43	0-5	V
Accelerator Pedal Position Sensor 2	14.43	0-10	V

Combine

On-Screen Buttons

Three types of display modes are available for viewing the various parameters.

- **Value:** The default mode displays the parameters as text in a list format.
- **Graph:** Displays parameters in waveform graphs. Touch  to view the waveform:



- **Combine:** Use to merge graphs for data comparison. Different items are coded in different colors. Touch **Combine** to enter the following screen:

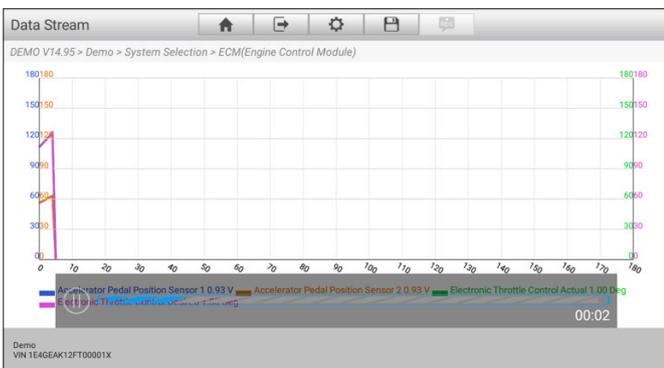
Name	Value	Standard Range	Unit
Brake Light Switch	On		
Brake ON/OFF	On		
Desired Idle Speed rpm	2404	600-1400	rpm
Electronic Throttle Control Actual	59.50	1-100	Deg
Electronic Throttle Control Desired	59.50	0-100	Deg

OK

Select a maximum of four items at a time and touch **OK** to view the merged waveforms as shown below.



- **Save:** Touch to save the current data in text format. All reports are saved under the *Diagnostic Report* tab in **Job Menu > Report**.
- **Record:** Touch to record diagnostic data for playback and analysis later as shown below.



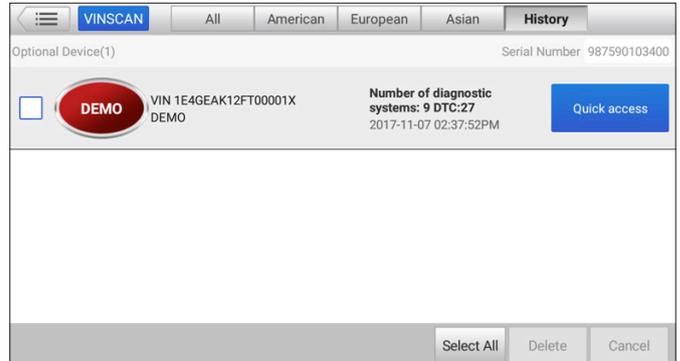
Touch the **Stop** button to stop recording the data stream and save the file.

The system uses the following saved file naming convention: File name includes vehicle type, product S/N, date, and record starting time. Make sure the record starting time is accurate to help identify files.

All files are saved under the *Diagnostic Record* tab in **Job Menu > Report**. Refer to the *Report* section on page 21 for further information on playback operations.

Viewing Diagnostic History Demo

1. When a vehicle diagnosis is performed, the Scanner Tablet records the detailed diagnostic information. The History function allows access to previously tested vehicle records. Testing can be continued from the previous operation without starting from scratch.
2. Touch *History* on the *Vehicle Selection Screen Toolbar* to display all the diagnostic records from previously tested vehicles listed by date.



Touch on the desired record to view the details of the last *Vehicle Diagnostic Report*.

On-Screen Buttons

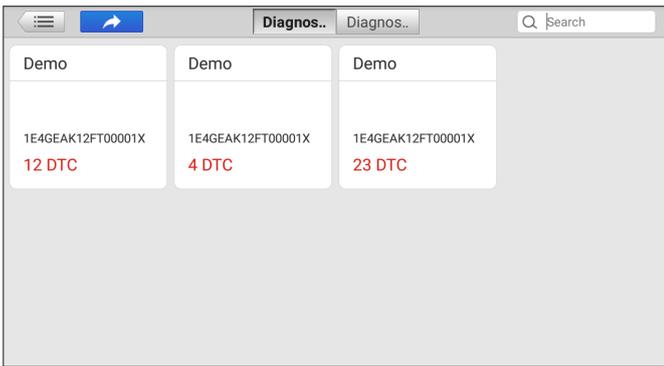
- **Delete:** To delete any particular diagnostic record, select its check box and touch **Delete**.
- **Select All:** To delete all diagnostic records, touch **Select All** and then **Delete**.
- **Quick Access:** Touch this button on the desired record to enter the *Test Selection* screen of that record's last diagnostic operation. Select the desired option to continue from the previous operation.

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Report

This function is used to view, delete or share saved diagnostic reports.

1. Touch the **Report** icon in the **Job Menu** to enter. Reports are categorized under one of two tabs, *Diagnostic Report* or *Diagnostic Record*.
2. Diagnostic Trouble Code results saved on the *Diagnostic Trouble Code* screen will be listed under the *Diagnostic Report* tab. Touch on the individual reports to view their details.



Touch for access to more options. To select a particular report, touch the check box on the lower right corner of the report. Touch the **Select All** button to select all listed reports. Touch **Unselect** to unselect all reports.

On-Screen Buttons

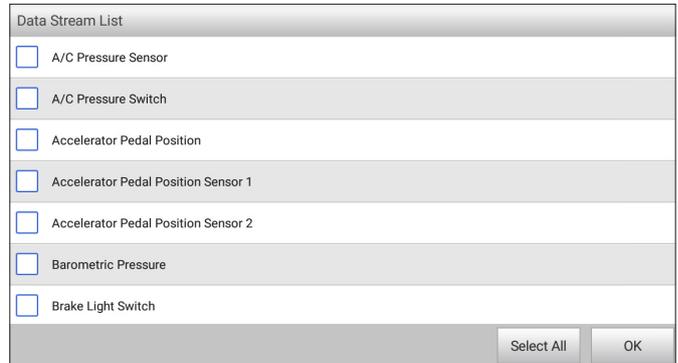
- **Search:** Touch the **Search Bar**, enter the search term and touch **OK** to start searching. All of the diagnostic reports containing the search term will appear on the screen.
 - **Print:** Touch to print the selected report.
 - **Share:** Touch to share the selected report with others.
 - **Delete:** Touch to delete the selected report.
 - **Select All:** To delete all diagnostic records, touch **Select All** and then **Delete**.
3. Diagnostic live data and parameters recorded from the *Read Data Stream* screens will be listed under the *Diagnostic Record* tab. To select a particular report, touch the check box to the left of the report.



On-Screen Buttons

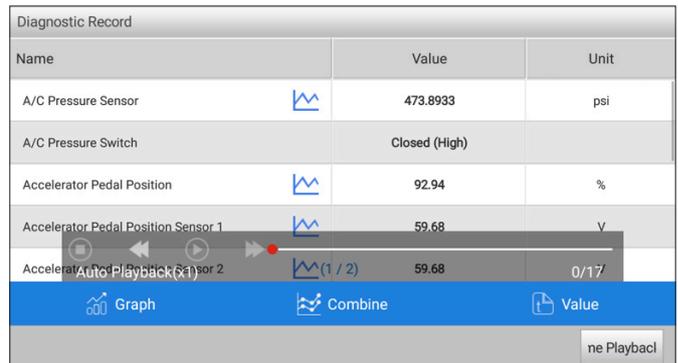
- **Share:** Touch to share the selected report with others.
- **Delete:** Touch to delete the selected report.

Touch on the desired report name to enter the Data Stream List screen:



To select a particular report, touch the check box to the left of the report. To select all reports touch **Select All**.

Touch **OK** to enter the *Diagnostic Record* playback screen:



On-Screen Buttons

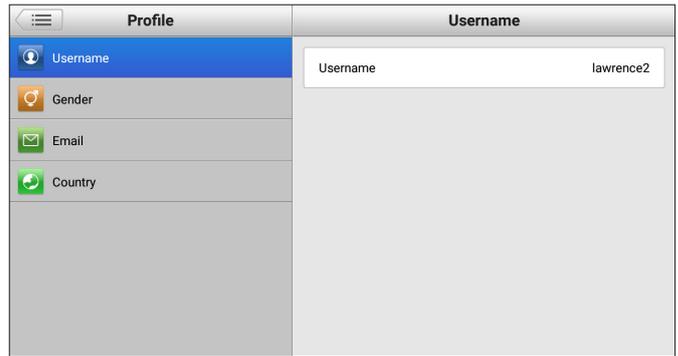
- **Value:** The default mode displays the parameters as text in a list format.
- **Graph:** Displays parameters in waveform graphs. Touch to view the waveform:
- **Combine:** Use to merge graphs for data comparison. Different items are coded in different colors.
- **Frame Playback:** Use for frame-by-frame playback of the selected data stream items. When in Frame Playback mode, this button changes to *Auto Playback*.
- **Auto Playback:** Use for automatic playback of the selected data stream items. When in Auto Playback mode, this button changes to *Frame Playback*.
- **Stop Playback:** Touch the **Stop** button to stop the playback.

Profile

This function is used to view and enter or modify personal information.

1. Touch the **Profile** icon in the **Job Menu** to enter the *Profile* screen.
2. Touch the desired selection in the *Profile* column on the left to make modifications.

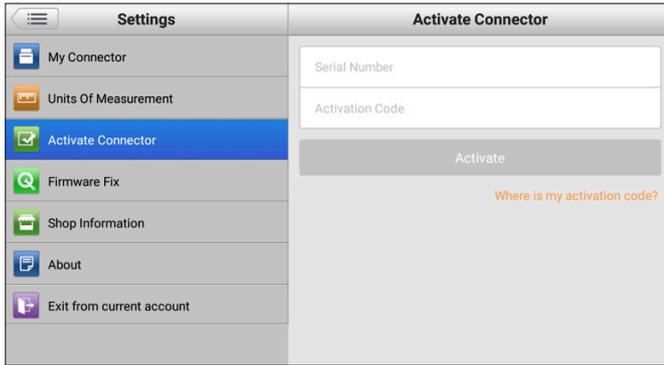
Note: The Username cannot be altered.



Settings

Use this function to manage the Vehicle Communication Interface connector, select units of measurement, upgrade firmware, enter or modify shop information, and log in or out of the system.

1. Touch the **Settings** icon in the **Job Menu** to enter the *Settings* screen.



2. Touch the desired selection in the *Settings* column on the left to make modifications.

- **My VCI:** Use to manage all activated VCI connectors. If more than one VCI connector is activated on the unit, a list of connectors will display on the screen. If a connector linked to another account is selected, it will be necessary to log out and input the correct account to continue.

- **Units of Measurement:** Use to set the measurement unit, Metric System or English System.
- **Activate VCI:** Input the Serial Number and Activation Code, then touch **Activate** to activate the connector.
- **Firmware Fix:** Use to upgrade and fix diagnostic firmware. During upgrade, do not perform other operations, switch to other interfaces, or cut off power to the VCI connector.
- **Shop Information:** Use to view and enter or modify workshop information. Saved information is automatically generated each time the diagnostic report is saved.
- **About:** Displays information on the product name and software version.
- **Exit from Current Account/Login:** To log out of the current login ID, touch **Exit from current account**. Touch **Login** to log back into the system.



Other Modules

Image Module

1. All screenshots created during vehicle diagnosis are saved in the *Image* module.
2. Touch the **Other Modules** icon in the **Job Menu**, then touch the **Image** icon to access all saved screenshots.
3. Touch  for access to more options. To select a particular screenshot, touch the check box on the lower right corner of the screenshot.

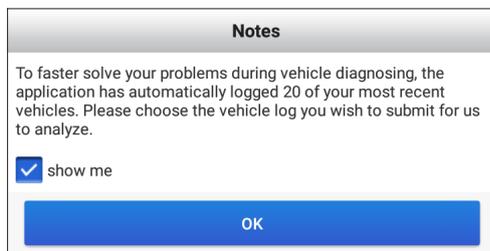
On-Screen Buttons

- **Print:**  Touch to print the selected screenshot.
- **Share:**  Touch to share the selected screenshot with others.
- **Delete:**  Touch to delete the selected screenshot.

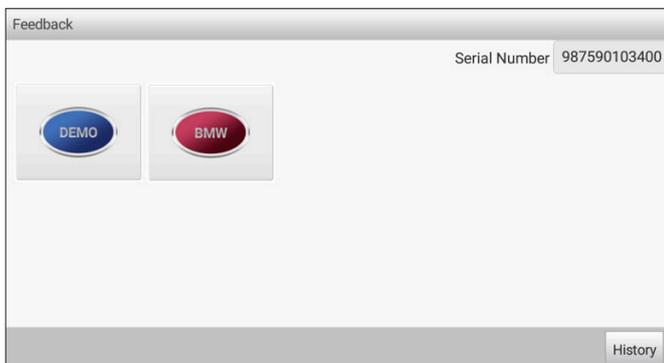
Feedback Module

Use this function to submit diagnostic problems to us for analysis.

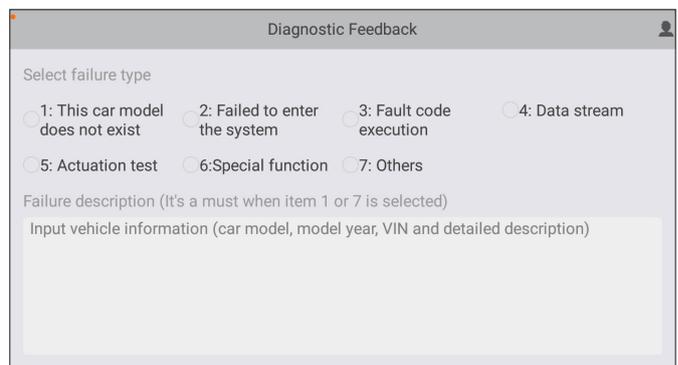
1. Touch the **Other Modules** icon in the **Job Menu**, then touch the **Feedback** icon. The following window will appear on the screen.



2. Touch **OK** to enter the vehicle diagnostic record screen.



3. Touch the desired vehicle icon to open the diagnostic log selection screen. To select a particular diagnostic record, touch the check box to the left of the record. To select all records touch **Select All**. When selection is complete touch **Submit**. A screen will open similar to the following:



4. Fill in the following required information:
 - a. Touch the check box to the left of the failure type in question to select it.
 - b. In the text box enter vehicle model and year, the VIN, and a detailed, complete description of the failure.
 - c. Telephone or email address.
5. When information is complete, touch **Submit Result** to send.

Help Module

Touch the **Other Modules** icon in the **Job Menu**, then touch the **Help** icon for access to a digital version of this product user manual available on the Tablet.

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Maintenance



There are no user serviceable parts. Have the Scanner serviced by a qualified repair person using only identical replacement parts. This will ensure that the safety of the equipment is maintained.

Maintenance

⚠️WARNING

TO PREVENT SERIOUS INJURY FROM ELECTRIC SHOCK:

Shut down the Scanner Tablet and unplug the Power Adapter from its electrical outlet before inspection, maintenance, or cleaning.

1. **PERIODICALLY**, inspect the general condition of the Scanner components. Check for:
 - loose hardware
 - damaged cord/electrical wiring
 - cracked or broken parts
 - any other condition that may affect its safe operation.
2. **PERIODICALLY**, wipe external surfaces with clean cloth. Clean the Scanner Tablet screen with soft cloth and mild glass cleaner.
Note: Do not use harsh chemicals or abrasive cleansers on any Scanner components.
3. Store Scanner components in the Carry Case in a dry, locked area out of the reach of children.

PLEASE READ THE FOLLOWING CAREFULLY

THE MANUFACTURER AND/OR DISTRIBUTOR HAS PROVIDED THE PARTS LIST IN THIS MANUAL AS A REFERENCE TOOL ONLY. NEITHER THE MANUFACTURER OR DISTRIBUTOR MAKES ANY REPRESENTATION OR WARRANTY OF ANY KIND TO THE BUYER THAT HE OR SHE IS QUALIFIED TO MAKE ANY REPAIRS TO THE PRODUCT, OR THAT HE OR SHE IS QUALIFIED TO REPLACE ANY PARTS OF THE PRODUCT. IN FACT, THE MANUFACTURER AND/OR DISTRIBUTOR EXPRESSLY STATES THAT ALL REPAIRS AND PARTS REPLACEMENTS SHOULD BE UNDERTAKEN BY CERTIFIED AND LICENSED TECHNICIANS, AND NOT BY THE BUYER. THE BUYER ASSUMES ALL RISK AND LIABILITY ARISING OUT OF HIS OR HER REPAIRS TO THE ORIGINAL PRODUCT OR REPLACEMENT PARTS THERETO, OR ARISING OUT OF HIS OR HER INSTALLATION OF REPLACEMENT PARTS THERETO.

Parts List

Part	Description	Qty
1	Scanner Tablet	1
2	Vehicle Communication Interface	1
3	OBD II Cable	1
4	USB Cable	1
5	AC Power Adapter	1
6	Stylus	2
7	Carry Case	1

Record Product's Serial Number Here: _____

Note: If product has no serial number, record month and year of purchase instead.

Note: Some parts are listed and shown for illustration purposes only, and are not available individually as replacement parts. Specify UPC 193175425430 when ordering parts.

FCC STATEMENT

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

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

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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

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Limited 90 Day Warranty

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To take advantage of this warranty, the product or part must be returned to us with transportation charges prepaid. Proof of purchase date and an explanation of the complaint must accompany the merchandise. If our inspection verifies the defect, we will either repair or replace the product at our election or we may elect to refund the purchase price if we cannot readily and quickly provide you with a replacement. We will return repaired products at our expense, but if we determine there is no defect, or that the defect resulted from causes not within the scope of our warranty, then you must bear the cost of returning the product.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

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