Version: V1.00.000

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Copyright Information

Trademark Information

Important Safety Precautions

Important: To avoid personal injury, property damage, or accidental damage to

the product, read all of the information in this section before using the product.

- Never collide, throw, or puncture the tool, and avoid falling, extruding and bending it.
- Do not insert foreign objects into or place heavy objects on your device. Sensitive components inside might cause damage.
- Do not use the tool in exceptionally cold or hot, dusty, damp or dry environments.
- In places using the tool may cause interference or generate a potential risk, please turn it off.
- This tool is a sealed unit. There are no end-user serviceable parts inside. All internal repairs must be done by an authorized repair facility or qualified technician. If there is any inquiry, please contact the dealer.
- Never place the tool into apparatus with strong electromagnetic field.
- Keep the tool far away from magnetic devices because its radiations can damage the screen and erase the data stored on the tool.
- DANGER: Do not attempt to replace the internal rechargeable lithium battery. Contact the dealer for factory replacement.
- CAUTION: Please use the included battery and charger. Risk of explosion if the battery is replaced with an incorrect type.

Precautions on Using This Tool

Before using this tool, please read the following safety information carefully.

- Always perform automotive testing in a safe environment.
- If the VCI (Vehicle Communication Interface) device is not in use for a long period of time, it is suggested to unplug the connector from vehicle's DLC to conserve battery power.
- Wear an ANSI-approved eye shield when testing or repairing vehicles.
- The vehicle shall be tested in a well-ventilated work area, as engines produce various poisonous compounds (hydrocarbon, carbon monoxide, nitrogen oxides, etc.)
- Do not connect or disconnect any test equipment while the ignition is on or the engine is running.
- Put blocks in front of the drive wheels and never leave the vehicle unattended while testing.
- Keep the tool dry, clean, free from oil, water or grease. Use a mild detergent on a clean cloth to clear the outside of the equipment as necessary.

- Do not drive the vehicle and operate the tool at the same time. Any distraction may cause an accident.
- Keep clothing, hair, hands, tools, test equipment, etc. away from all moving or hot engine parts.
- Before starting the engine, put the gear lever in the Neutral position (for manual transmission) or in the Park (for automatic transmission) position to avoid injury.
- To avoid damaging the tool or generating false data, please make sure the vehicle battery is fully charged and the connection to the vehicle DLC (Data Link Connector) is clear and secure.
- Automotive batteries contain sulfuric acid that is harmful to skin. In operation, direct contact with the automotive batteries should be avoided. Keep the ignition sources away from the battery at all times.

Precautions on Operating Vehicle's ECU

- Do not disconnect battery or any wiring cables in the vehicle when the ignition switch is on, as this could avoid damage to the sensors or the ECU.
- Do not place any magnetic objects near the ECU. Disconnect the power supply to the ECU before performing any welding operations on the vehicle.
- Use extreme caution when performing any operations near the ECU or sensors. Ground yourself when you disassemble PROM, otherwise ECU and sensors can be damaged by static electricity.
- When reconnecting the ECU harness connector, be sure it is attached firmly, otherwise electronic elements, such as ICs inside the ECU, can be damaged.

Table of Contents

1 Introduction

1.1 Product Profile

Featuring customized Android operating system, 2.0GHz 8-core CPU and 10.1" sunlight readable capacitive display screen with a resolution of 1920 x 1200 pixels, X-431 EURO TAB II has functions of vehicle diagnosis, oscilloscope, ignition, sensor, multimeter, browser and battery test etc.

It supports WLAN connection, which enables you to surf the Internet, update App and diagnostic software online, search repair information anytime and anywhere, getting your job faster and easier.

Through the wireless communication between the VCI device and display tablet, it achieves full car model and full system vehicle trouble diagnosis, which include Reading DTCs, Clearing DTCs, Reading Data Stream, Actuation Test and Special Functions.

Moreover, taking advantage of the mobile Internet, it also integrates One-click Update, Remote Diagnosis, Repair Data and TeamViewer, which helps to diagnose vehicle issues more efficiently, and greatly increase customer's retention and boost shop revenue.

1.2 Features

1. Diagnose:
   - Intelligent Diagnosis: This module allows you to use the VIN information of the currently identified vehicle to access its data (including vehicle information, historical diagnostic records) from the cloud server to perform quick test.
   - Local Diagnosis: VINscan quick test and manual diagnosis are available. Diagnosis functions include: Read DTCs, Clear DTCs, Read Data Stream, Special Functions etc.
   - Remote Diagnosis: This option aims to help repair shops or technicians launch instant messaging and remote diagnosis, making the repair job getting fixed faster.
   - Reset: All kinds of common maintenance and reset items including Oil lamp reset, DPF regeneration, ABS bleeding can be done.

- One-click Update: Lets you update your diagnostic software online.
- Diagnostic History: This function provides a quick access to the tested vehicles and users can choose to view the test report or resume from the last operation, without the necessity of starting from scratch.
- Diagnostic Feedback: Enables you to submit the vehicle issue to us for analysis and troubleshooting.
- Pre- and Post- Repair Result Comparison: By comparing the pre-repair and post-repair report, you can clearly determine which vehicle issues have been fixed and which remained unsolved.
- Diagnostic Feedback: Enables you to submit the vehicle issue to us for analysis and troubleshooting.
- Vehicle Coverage: Quick dial to view the vehicle models that the tool covers.

2. WLAN connection is supported.

3. ADAS calibration: Optional. This function needs to be activated before normal use and only works with the LAUNCH-specific ADAS calibration tool.

4. Web browser: Users can make online search and visit any website.

5. File Manager: Lets you manage files or downloaded files stored in memory card efficiently.

6. Settings: To configure your personalized tablet.

1.3 Technical Specifications

1.3.1 Display tablet

CPU	8-core Processor, 2.0GHz
Display	10.1 inch touch screen with a resolution of 1920 x 1200P
Memory	4GB
Hard disk	64GB
Connectivity	• WLAN (802.11 b/g/n/ac) • Universal serial BUS Ports (1 x Type-C + 1 x Type-A)

	• BT 2.1 + EDR & 4.0 BLE
Camera	8MP front-facing camera + 13MP rear-facing camera
Sensor	• Gravity Accelerometer • 3-Axis Acceleration Sensor
Operating Temp.	-10℃ ~ 50℃(14 ~122℉)
Storage Temp.	-20℃~ 70℃(-4 ~158℉)

1.3.2 VCI device

Working Voltage	DC 9V ~ 36V
Memory	256MB
ROM	8GB

2 Knowledge of X-431 EURO TAB II

There are two main components to the X-431 EURO TAB II system:

- Display Tablet – the central processor and monitor for the system (See Chapter "2.1").

Fig. 2-1 Display tablet

- Docking Station – the device for accessing vehicle data (See Chapter "2.2").

Fig. 2-2

- VCI Device – the device for accessing vehicle data (See Chapter "2.3").

Fig. 2-3

2.1 Display Tablet
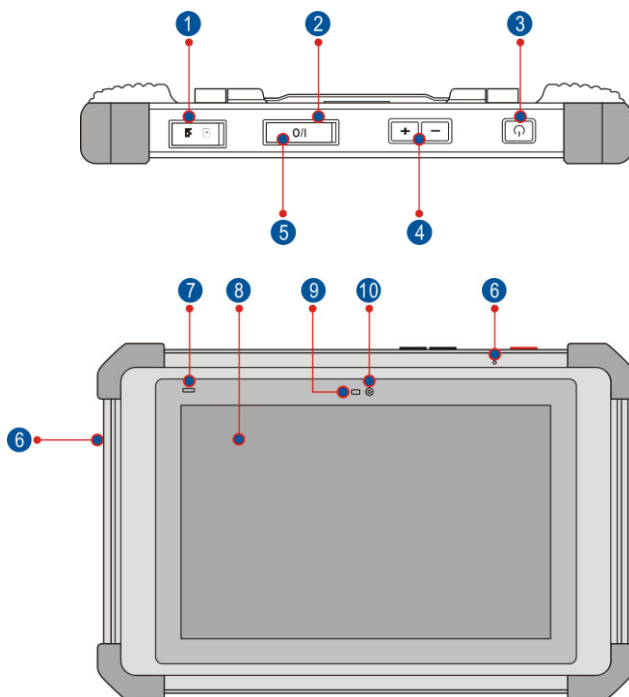
Fig. 2-4 Top & Front Views

1	**Memory Card Slot**	To store the memory card for storage expansion.
2	**Type C Charging Port**	Reserved for charging the tablet.
3	**Power/Screen Lock Button**	To turn the tablet on/off with long press, or lock the screen with short press.
4	**Volume Buttons**	To adjust the volume. *Note: Press and hold [POWER] and [VOL -]

key to capture the current screenshot.

5	**Data I/O Port**	Reserved for add-on modules (such as Batterybox, Scopebox and Sensorbox), and other devices with similar port.
6	**Microphone**	
7	**Charging LED**	It illuminates red while the tablet is charging. Once charging is finished, it will illuminate solid green.
8	**10.1" Capacitive Touch Screen**	
9	**Ambient Light Sensor**	
10	**Front View**	
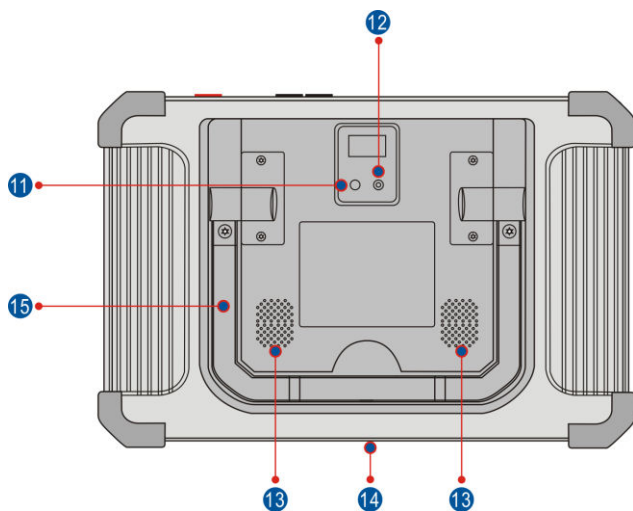
Fig. 2-5 Rear View

11	**Rear Camera**	
12	**Camera Flash**	
13	**Audio Speaker**	
14	**Charging Slot**	
15	**Adjustable kickstand**	Flip out it to any angle and work comfortable at your desk, or hang it on automotive part.

2.2 Docking Station (Optional)

Fig. 2-6

1	**Charging Slot** -- To charge the tablet.
2	**OBD16 Socket** -- To store the VCI device to avoid loss.
3	**DC 5V OUT Port** -- (Reserved for charging other USB devices only.)
4	**Type C Charging Port** -- Use the power adaptor to supply power to the docking station through connection to AC outlet.
5	**Power LED** -- Illuminates solid green when it is powered up.

2.3 VCI Device
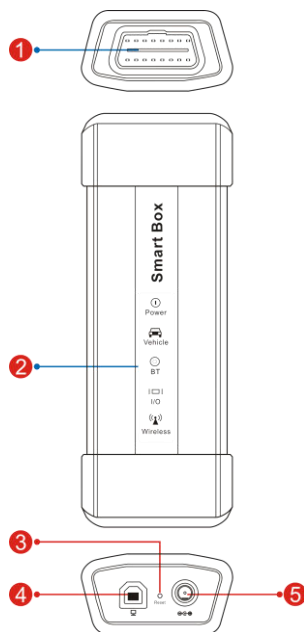
Fig. 2-7

1   **Diagnostic socket** -- For connecting the diagnostic cable.

2

LEDs -- Enables users to easily identify the working status of the VCI device. It is defined as follows (From the top to the bottom):

- Power: It illuminates solid red when the device is powered on.

- Vehicle: While communicating with the vehicle, the indicator lights up and flashes. Otherwise, it will not illuminate.

- BT: Blue indicates the device is working in Bluetooth mode.

- I/O: It lights up when the device is connected to the diagnostic tool via data cable.

- Wireless: It lights up when the device works in wireless communication mode.

3	**Reset hole** -- For resetting the VCI device.

4	**Data I/O port** -- For connecting it to the handset via data cable (optional) to perform vehicle diagnosis.

5	**DC-IN power jack** -- For connecting the power adaptor.

2.3 Package List

Common accessories are same, but for different destinations, the accessories may vary. For detailed accessory items, please consult from the local agency or check the packing list supplied with the package box together.

No.	Item	Description	Qt.
1	Display tablet	For analyzing the vehicle data and indicating the test results.	1
2	VCI device	For connecting to vehicle's OBD II DLC to access vehicle's live data.	1
3	Docking station	(Optional. To charge the tablet.)	1
4	OBD II extension cable	For connecting the VCI device for extension purpose.	1
5	OBD I adaptor	For connecting the non-16pin connector to the VCI device.	1
6	Cigarette lighter cable	Optional. To supply power to the non-16pin connector through connection to the vehicle's cigarette lighter receptacle.	1
7	Battery clamps cable	Optional. To supply power to the non-16pin connector through connection to the vehicle's battery.	1
8	Power adaptor	For charging the tablet.	1
9	Password envelope	A piece of paper bearing Product S/N and Activation Code, which is needed for	1

product registration.

10	Non-16pin adaptor cable kit	Optional. For connecting to Non-OBD II vehicle DLC.	1

3 Initial Setup

3.1 Charging The Tablet

*Notes:

- Only use the included power adaptor to recharge the tablet. Use of any other adaptor will damage the tool. We assume no responsibility for damage or loss resulting from using other similar adaptors other than the specified one.
- Always charge on a non-flammable surface in a well-ventilated area.

To check the battery power level, press and hold the Power button about 3 seconds to turn on the tablet. Power level is indicated as a percentage in the upper right corner of the screen. If the power level drops below 10% while the tablet is on, a "Connect Charger" notification will appear on the screen.

1. Connect one end of the power adaptor to DC IN port of the tablet, and the other end to the AC outlet.
2. If 🔋 appears on the screen, it indicates it is being charged. If the logo changes into 🔋, it indicates that the battery is fully charged.
3. Disconnect the power adaptor from the AC outlet.

3.2 Power On/Off

1. Press and hold the POWER button for about 3 seconds 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. Tap "Power Off".

3.3 Screen Layout

On-screen keys and status bar are as follows:

Fig. 3-1

1	Tap 🔵 to visit the official website.
2	Tap 📷 to capture the current screen and all captured screenshots are stored in the Screenshots folder.
3	🖲 shows whether the VCI device is connected properly or not.
4	Tap ▣ to display a list of applications that are currently running or recently used. To open an application, tap it. To remove an application, swipe it upwards.
5	Tap 🏠 to jump to the Home screen.
6	Tap ↩ to return to the previous screen or exit the application.

3.4 Adjusting Screen Brightness

The tablet is equipped with a built-in light intensity sensor. It can adjust the screen brightness according to the ambient light intensity automatically. Alternatively, you can also adjust it manually.

1. On the Home screen, tap **Tablet Settings -> Display -> Brightness**.

2. Drag the slider to adjust it.

Alternatively, user may also slide the "Automatically brightness" switch to ON, and the system will automatically adjust the screen brightness.

*Tips: Reducing the brightness of the screen is helpful to save the power of the tablet.

3.5 Changing Language

The handset supports multiple languages. To change the language of the tablet, please do the following:

1. On the Home screen, tap **Tablet Settings -> Language**.

2. Tap the desired language from the list and the system will change to the chosen language.

3.6 Network Setup

The tablet has built-in wireless communication module that can be used to get online. Once you're online, you can register the tablet, browse the Internet, get and update apps and send email on your network.

*Note: Once WLAN is set as ON, the tablet will consume more power. While WLAN keeps unused, please turn it off to conserve battery power.

1. On the Home screen, tap **Tablet Settings** -> **WLAN**.
2. Tap or slide the WLAN switch to ON, the tablet starts searching for all available wireless LANs.
3. Choose the desired access point / network,
   - If the network you chose is open, you can connect directly;
   - If the selected network is encrypted, you have to enter the right security key (network password).

When this tool is in range, it will connect to the previously linked network automatically.

4 Getting Started

4.1 Diagnostic Flowchart

For new users, please follow the operation chart shown in Fig. 4-1 to start using this tool.

```
                        ┌──────────────────┐
                        │  Tap "Diagnose"  │
                        └──────────────────┘
                                 │
                          ╱──────────────╲
                         ╱   Is VCI       ╲
            No          │    connector     │        Yes
        ┌───────────────│    activated ?   │───────────────┐
        │                ╲                ╱                │
        │                 ╲──────────────╱                 │
        ▼                                                   ▼
┌──────────────────┐              ┌──────────────────┐
│ Tap "Login" to   │      ┌──────▶│ Download/Update  │
│     register     │      │       │diagnostic software│
└──────────────────┘      │       └──────────────────┘
        │                 │                │
        ▼                 │                ▼
┌──────────────────┐      │       ┌──────────────────┐
│ …… (Refer to     │      │       │  Select vehicle  │
│   Chapter 4.2)   │      │       │   (See Note*)    │
└──────────────────┘      │       └──────────────────┘
        │                 │                │
        ▼                 │                ▼
┌──────────────────┐      │       ┌──────────────────┐
│Register & Activate│─────┘       │ Select diagnostic│
│       OK         │              │ software version │
└──────────────────┘              └──────────────────┘
                                           │
┌──────────────────┐              ┌──────────────────┐
│Select test function│◀───────────│Select test system│
└──────────────────┘              └──────────────────┘
```
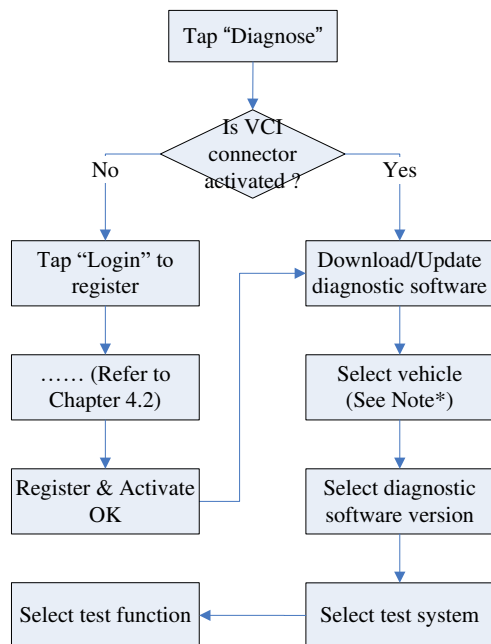
Fig. 4-1

*Note: If "VIN Scan" or "Intelligent Diagnosis" is selected to diagnose a vehicle, this step shall not apply.

4.2 Register & Download Diagnostic Software

4.2.1 User registration

After the tablet is initialized, a screen similar to the following appears.
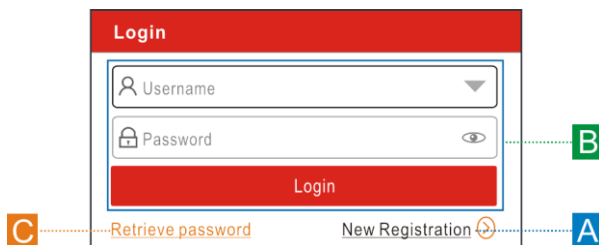
Fig. 4-2

(If you are a new user, follow A to proceed.)

(If you have registered to be a member, go to B to login the system directly.)

(In case you forgot password, refer to C to reset a new password.)

A. If you are a new user, tap "New Registration" to enter sign-up page. See Fig. 4-3.

Fig. 4-3

In Fig. 4-3, fill in the information in each field (Items with * must be filled). After inputting, tap "Register", a screen similar to the following will appear:

Fig. 4-4

In Fig. 4-4, input the Serial Number and Activation Code, which can be found in the password envelope.

Fig. 4-5

*Note: To exit and activate it later, tap "Skip". In this case, you can activate your VCI by tapping "Activate VCI" in "User Info". For details, please refer to Chapter 14.3.

Tap "Activate" to finish your registration. A popup displays to ask you to update the diagnostic software.

Fig. 4-6

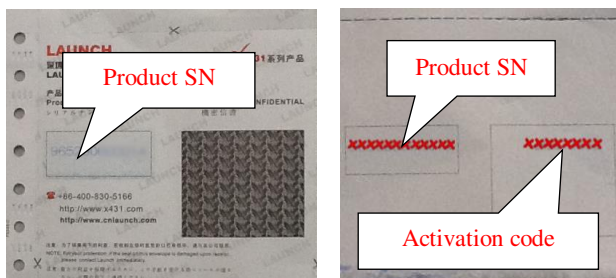To update the diagnostic software, tap "Yes" to enter the vehicle software download screen. Tap "Update" to start downloading. To pause downloading, tap "Stop". To resume, tap "Continue". When download is complete, the system will install the software package automatically.

*Note: When downloading the diagnostic software or checking for updates, make sure the tablet has a strong WLAN connection. It may take several minutes to finish it, please be patient to wait.

To download and install the software later, tap "No". In this case, enter the Home screen and tap "Software Upgrade" to download the diagnostic software.

B. If you have registered to be a member, input your name and password, and then tap the "Login" button to enter the main menu screen directly.

*Note: The tablet has an auto-save function. Once the username and password are correctly entered, the system will automatically store it. After initial setup, it is no longer necessary to input the account information manually to log in.

C. If you forgot the password, tap "Retrieve password" and then follow on-screen instructions to set a new password.

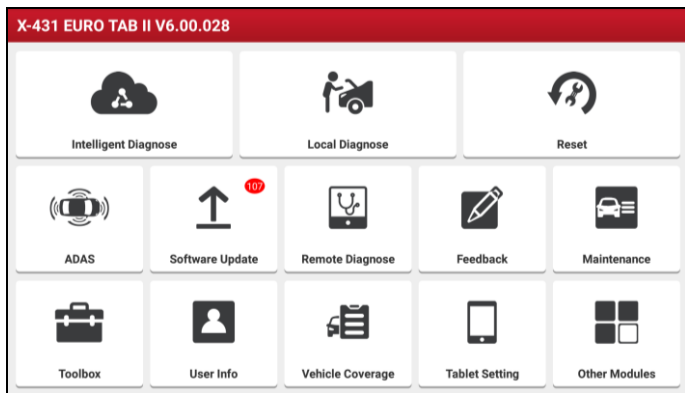**4.2.2 Home screen**

It mainly includes the following items:

Fig. 4-7

Name	Description
Intelligent Diagnose	This module allows you to obtain vehicle data from the cloud server to perform quick test via reading VIN, which provides a perfect solution to various defects resulting from step-by-step menu selection. In addition, user can also check the historical repair records online through this module.
Local Diagnose	To diagnose a vehicle manually.
Reset	To perform all kinds of common repair & maintenance items, including electronic throttle position reset, ABS bleeding, DPF regeneration, oil lamp reset etc. *Note: This module only applies to Passenger Vehicle /Gasoline & Diesel Version.
ADAS	This module provides quick access to the ADAS calibration function of different vehicle models. This function only works with the X-431 ADAS PRO calibration tool (sold separately). *Note: To ensure a normal use, this function needs to be activated using the ADAS Activation Card.
Software Update	To update vehicle diagnostic software and APK.
Remote Diagnose	This option aims to help repair shops or technicians launch instant messaging and remote diagnosis, making the repair job getting fixed faster.
Feedback	To feed back the recent 20 diagnostic logs to us for issue analysis.
Maintenance	Abundant maintenance data are available, which helps repair professionals diagnose and repair vehicles efficiently, accurately and profitably.
Toolbox	Includes Camera, Browser, Oscilloscope, Ignition, Sensor, Multimeter, Battery etc.
User Info	To manage VCI, diagnostic reports & records, change password, configure printer, sample data and logout /

	login etc.
Vehicle Coverage	To check the vehicle models supported on the X-431 EURO TAB II.
Tablet Setting	Configures the system setting of the tablet.
Other Modules	Includes TeamViewer, Email, Browser, and product manual etc.

4.2.3 Vehicle menu layout

After downloading the diagnostic software, you can go to "Local Diagnosis" to check if all software are completely downloaded and installed.

Tap "Local Diagnosis", a screen similar to the following figure appears:

Fig. 4-8

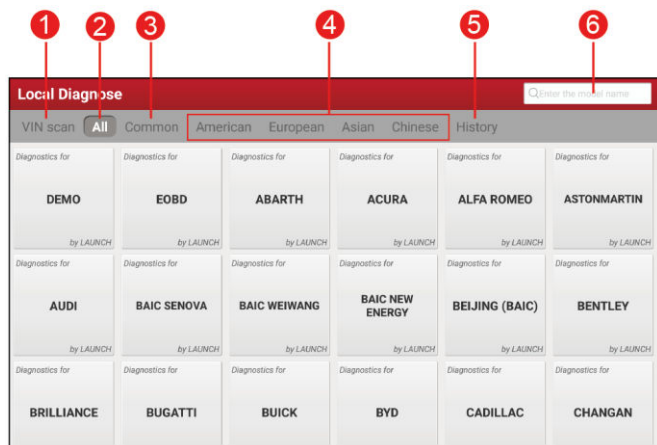| 1	**VIN Scan** button: Tap it to scan the Vehicle Identification Number (VIN) code of your vehicle. OBD VIN and INPUT VIN are included. This function does not apply to the commercial vehicles. *Note: Before using this function, the corresponding diagnostic software and Auto search file need to be downloaded on your tool first while downloading the diagnostic software.

2	**All** Tab: Displays all the vehicle makes in the vehicle menu.
3	**Common** Tab: Displays all frequently-used vehicle makes.
4	Regional buttons: Tap different buttons to switch to corresponding vehicles. If you have purchased a Gasoline & Diesel Version, a Heavy-duty tab will appear next to the regional button.
5	History Button: Generally once a vehicle diagnosis is performed, the tablet will record the every details of diagnostic process. This function provides a quick access to the previously tested vehicles. Testing can be resumed from the previous operation without starting from scratch.
6	Search bar: Input the desired vehicle model to quickly locate it.

4.2.4 Diagnostics toolbar

The diagnostics toolbar contains a number of buttons that enable various procedures. It is displayed at the top of the vehicle diagnostic screen throughout the whole 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 the Home screen.
Print		Tap to print the current screen. To perform printing, you need to purchase an extra MINI printer manufactured by LAUNCH separately and then properly configure the wireless printer following the steps described in Chapter 14.12.3.
Exit		Exit the diagnostic application.

4.3 Diagnosis Methods

The tablet supports 2 communication methods with the VCI device: WLAN (wireless) and wired (data cable). You may choose any one of the methods to diagnose a vehicle.

*Notes:

- To obtain stable communication, you are strongly recommended to perform the vehicle diagnosis via data cable. In this case, the data cable is required to connect the VCI device and the tablet.

- When all communication methods are applied at the same time, the system will use the wired communication as the default priority.

4.4 Connections

4.4.1 Preparation

Normal testing conditions

- Turn on the vehicle power supply.
- Throttle should be in a closed position.

4.4.2 DLC location

The DLC (Data Link Connector) is typically a standard 16 pin connector where diagnostic code readers interface with the vehicle's on-board computer. The DLC is usually located 12 inches from the center of the instrument panel (dash), under or around the driver's side for most vehicles. If Data Link Connector is not located under dashboard, a label should be there telling location. For some Asian and European vehicles, the DLC is located behind the ashtray and the ashtray must be removed to access the connector. If the DLC cannot be found, refer to the vehicle's service manual for the location.
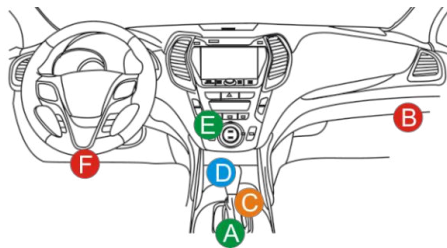

Fig. 4-9

4.4.3 Vehicle connection (For Passenger Vehicle Version)

The method used to connect the diagnostic connector to a vehicle's DLC depends on the vehicle's configuration as follows:

- A vehicle equipped with an OBD II management system supplies both communication and 12V power through a standardized DLC.

- A vehicle not equipped with an OBD II management system supplies communication through a DLC connection, and in some cases supplies 12V power through the cigarette lighter receptacle or a connection to the vehicle battery.

Follow the steps mentioned below to connect <u>OBD II vehicle</u>:

1. Locate vehicle's DLC socket.
2. Plug the VCI device into the vehicle's DLC socket (It is suggested to use the OBD II extension cable to connect the VCI device and DLC socket).

Fig. 4-10

3. Choose one of the two ways to obtain power from:
   A. Power adaptor: Connect one end of the included power adaptor to charging port of the tablet, and the other end to AC outlet.
   B. Internal battery pack

<u>For non-OBDII vehicle</u>, proceed as follows:

1. Locate vehicle's DLC socket.
2. Select the corresponding non-16pin connector.
3. Plug the non-16pin end of the connector into the DLC socket, and the other end to the OBD I adaptor, and then tighten the captive screws.
4. Connect the other end of the adaptor to the included VCI device.
5. To supply power to OBD I adaptor from:

<u>A. Cigarette Lighter</u>: Connect one end of the cigarette lighter cable to vehicle's cigarette lighter receptacle, and the other end to the DC-IN jack of the VCI device.
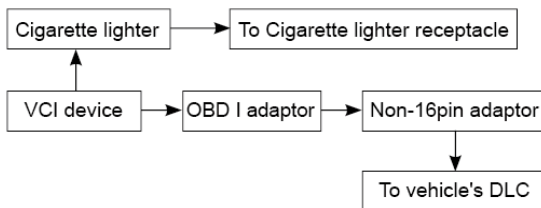

Fig. 4-11

   <u>B. Battery Clamps Cable</u>: Connect one end of the battery clamps cable to

vehicle's battery, and the other end to the power jack of OBD I adaptor.

Fig. 4-12

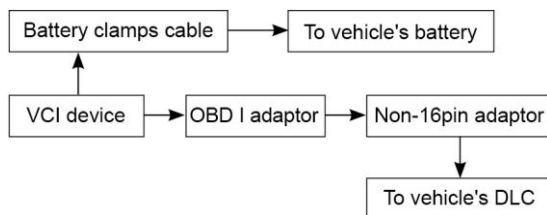**4.4.3 Vehicle connection (For Commercial Vehicle/ Gasoline & Diesel Version)**

The method used to connect the VCI device to a vehicle's DLC depends on the vehicle's configuration as follows:

A. <u>For OBD II vehicle</u>, directly plug the VCI device into the vehicle's DLC (OBD II extension cable is recommended).

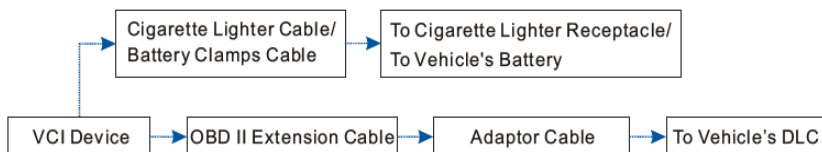B. <u>For non-OBD II vehicle</u>, follow either of the ways to proceed:

Fig. 4-11

5 Diagnosis

5.1 Intelligent Diagnosis

Through simple wireless communication between the tablet and VCI device, you can easily get the VIN (Vehicle Identification Number) information of the currently identified vehicle. Once the VIN is successfully identified, the system will retrieve it from the remote server and then guide you to vehicle information page without performing the step-by-step manual menu selection.

The vehicle information page lists all historical diagnostic records of the vehicle, which lets the technician have a total command of the vehicle faults. In addition, a quick dial to local diagnosis and diagnostic function are also available on this page for reducing the roundabout time and increasing productivity.

*Notes:

- Before using this function, please make sure the VCI device is properly connected to the vehicle's DLC. For detailed connection, see Chapter 4.3.3.
- A stable network connection is required for this function.

Follow the steps below to proceed.
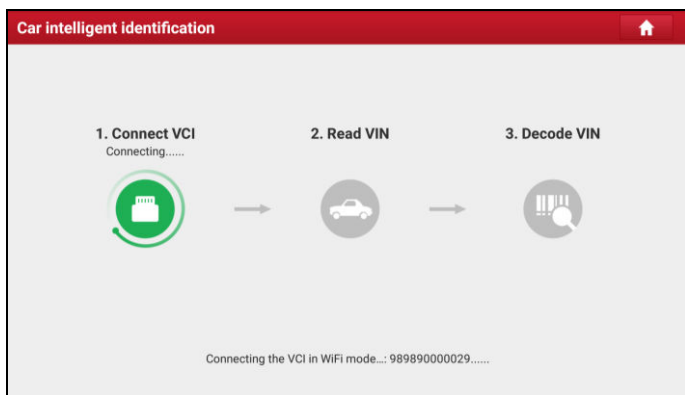
1. Tap "Intelligent Diagnose" on the home screen.

Fig. 5-1

2. The system starts connecting the VCI and decoding the VIN.

A. <u>If the VIN can be found from the remote server database</u>, a screen similar to Fig. 5-2 displays:
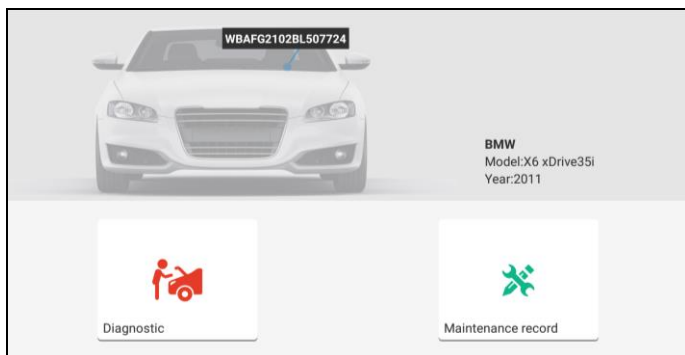
Fig. 5-2

- Tap "Diagnostic" to start a new diagnostic session.
- Tap "Maintenance record" to view its historical repair record. If there are records available, it will be listed on the screen in sequence of date. If no records exist, the screen will show "No Record".

Fig. 5-3

- Tap "View record" to view the details of the current diagnostic report.
- To perform other functions, tap "Quick access" to directly go to the function selection screen. Choose the desired one to start a new diagnostic session.

B. If the handset failed to access the VIN information, the screen will display as below:

Fig. 5-4

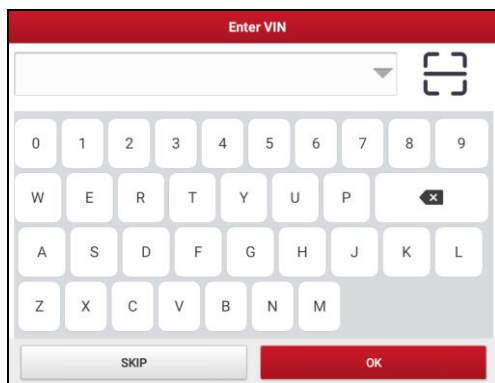In this mode, you need to input the VIN manually or tap 🔲 to scan it.
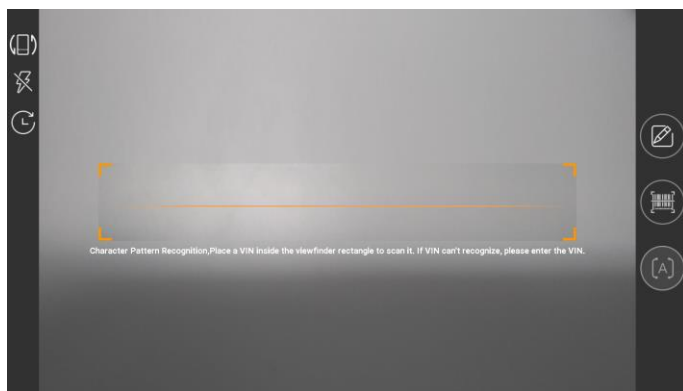
1) Tap "🔲" to launch the VIN recognition module.

Fig. 5-5

Place the VIN inside the viewfinder rectangle to scan it. The most recognizable location for this number is in the top left corner on the vehicle's dashboard. Other locations include the driver's door or post, and the firewall under the hood.

- If you have scanned the VIN of the vehicle, tap 🕒 to choose it from the record list.
- In case the handset failed to detect it, tap ✏️ to enter it manually.
- To turn the flash on, tap 🔦.

After scanning, the screen automatically displays the result.

Fig. 5-6

- If the VIN scanned is incorrect, tap the result field to modify it and then tap "OK". If the VIN exists on the remote server, the system will enter the vehicle information screen. See Fig. 5-2.
- To scan it again, tap "REPEAT".

2) Input the VIN, and tap "OK", the system will automatically identify the vehicle model and directly navigate to the vehicle information page.

In general, vehicle identification numbers are standardized - all contain 17 characters. VIN characters may be capital letters A through Z and numbers 1 through 0; however, the letters I, O and Q are never used in order to avoid mistakes of misreading. No signs or spaces are allowed in the VIN.

Tap "SKIP" to go to Diagnostics main menu screen.

5.2 Local Diagnosis

Tap "Local Diagnose" to enter the vehicle selection page.
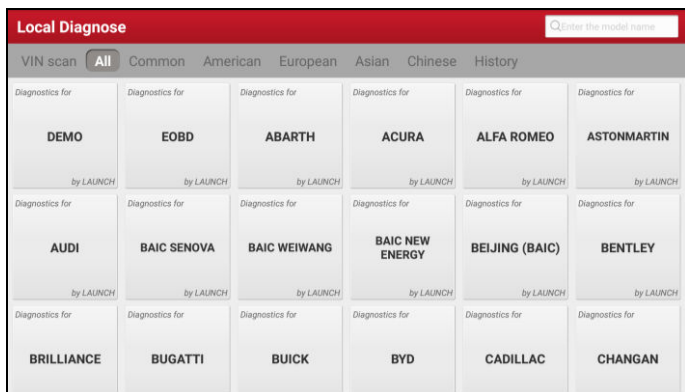
Fig. 5-7

2 approaches are provided for you to access the vehicle diagnostic software. Choose either one of the following ways:

A) VIN Scan

VINSCAN enables you to access it more quickly. In this case, automatic scan (Camera Scan) and manual input (INPUT VIN) are available.

In Fig. 5-7, tap "VINScan", the screen displays as follows:

Fig. 5-8

Camera Scan: In this mode, you need to place the VIN inside the viewfinder rectangle to scan it.
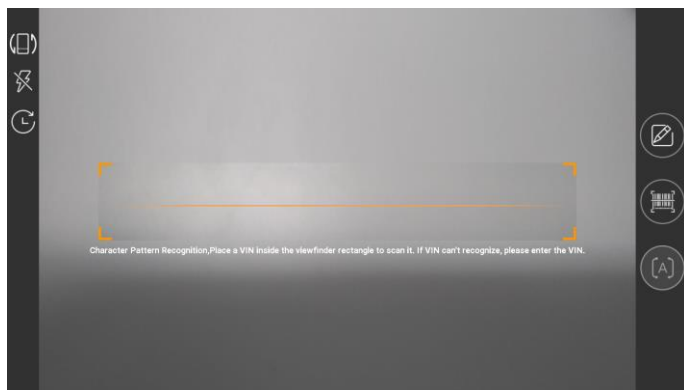
Fig. 5-9

Place the VIN inside the viewfinder rectangle to scan it. The most recognizable location for this number is in the top left corner on the vehicle's dashboard. Other locations include the driver's door or post, and the firewall under the hood.

- [A] indicates the camera is in character pattern recognition mode (default mode).

- Tap ▥ to switch the camera to barcode pattern recognition mode.

- If the ambient light is too weak, please turn the camera flash ✗ on.

- If you have scanned the VIN of the vehicle, tap VIN record icon ⟲ to select it from the record list.

- In case the handset failed to identify it, tap ✎ to enter it manually.

- Tap ⬚ to toggle between the different display mode.

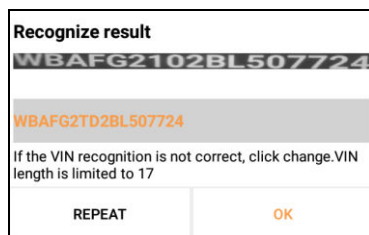After scanning, the screen automatically displays the result.
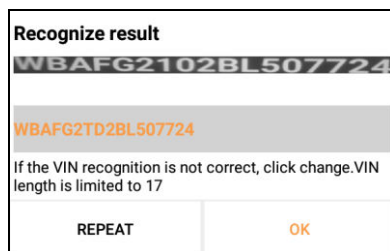
Fig. 5-10

- If the VIN scanned is incorrect, tap the result field to modify it and then tap "OK". If the VIN exists on the remote server, the system will enter the vehicle information screen.

- To scan it again, tap "REPEAT".

INPUT VIN: In this mode, you need to input the VIN manually. In general, vehicle identification numbers are standardized - all contain 17 characters. VIN characters may be capital letters A through Z and numbers 1 through 0; however, the letters I, O and Q are never used in order to avoid mistakes of misreading. No signs or spaces are allowed in the VIN.

Tap "INPUT VIN", input the VIN and tap "Confirm". The system will automatically identify the vehicle model and directly navigate to the function selection page.
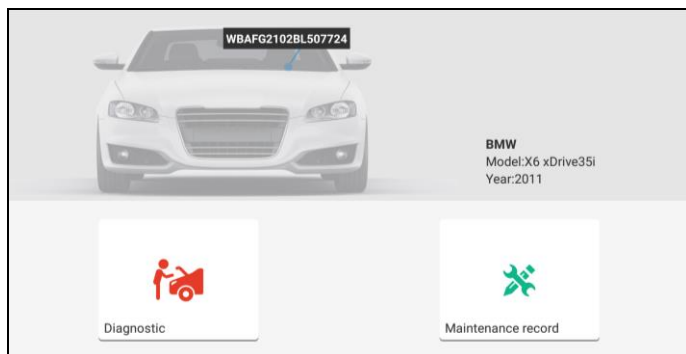
Fig. 5-11

B) Manual Selection

Tap a corresponding diagnostic software logo, and then follow the on-screen

instruction to access the diagnostic software.

Take Demo as an example to demonstrate how to diagnose a vehicle.

1).Select diagnostic software version: Tap the "DEMO" to go to Step 2. (*Note: If more than one version is available on this handset, it will be listed on the screen.)

Vehicle Version Information				
Software ID	Version #			
DEMO	V15.11			

Demo & Self-test V15.11

This software is used to demonstrate how to diagnose with X431 product family and perform IO test.

| e Coverage | What's new | Introduction | Note | OK |
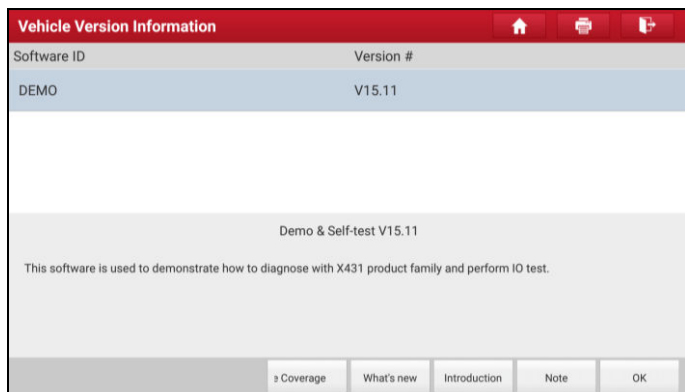
Fig. 5-12

On-screen Buttons:

Vehicle Coverage: Tap to view the vehicle models that the current diagnostic software covers.

What's new: Tap to view the optimized items and enhancements.

Introduction: Tap to check the software function list.

Note: Tap to read some precautions on using the current diagnostic software.

Confirm: Tap it to go to next step.

2). Select test item: Select the desired test item to proceed.

Fig. 5-13

5.2.1 Health Report (Quick Test)

This function varies from vehicle to vehicle. It enables you to quickly access all the electronic control units of the vehicle and generate a detailed report about vehicle health.

Tap "Health Report", the system starts scanning the ECUs. Once the scanning is complete, a screen similar to the following appears:
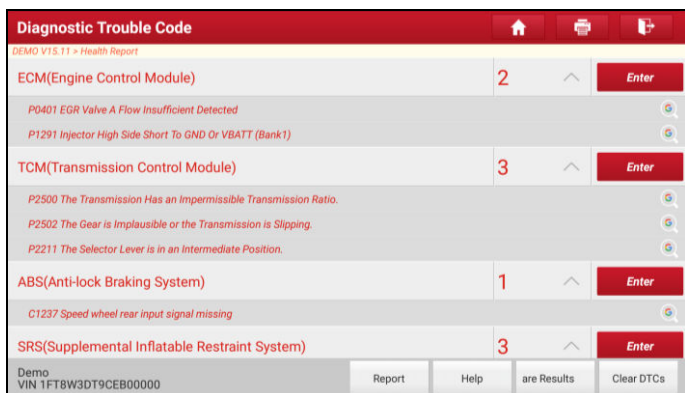
Fig. 5-14

In the above figure, the tested system with fault code appears in red and the

system with OK displays in white (normally).

*Note: Diagnostic Trouble Codes or Fault Codes can be used to identify which engine systems or components that are malfunctioning. Never replace a part based only on the DTC definition. Retrieving and using DTCs for troubleshooting vehicle operation is only one part of an overall diagnostic strategy. Follow testing procedures (in vehicle's service manual), instructions and flowcharts to confirm the locations of the problem.

On-screen Buttons:

∨: Tap to display the details of DTCs existing in the current system. Tap ∧ to hide it.

Highlight certain DTC item, and tap 🅖 to open the browser to retrieve it in Google engine.

Enter: Tap to select other test functions.
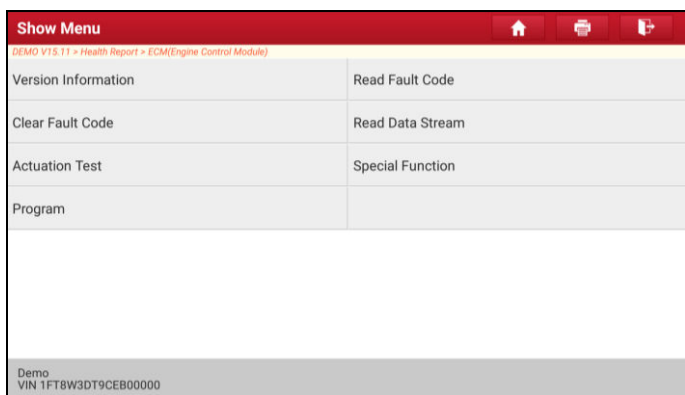
Fig. 5-15

Report: To save the current data in text format.

*Note: Diagnostic report is classified into three categories: **Pre-Repair** report, **Post-Repair** report and **Diagnostic Scan**. No matter which type you saved the report as, the report type will be appended as a tag on the upper right corner of the diagnostic report for easier identification.
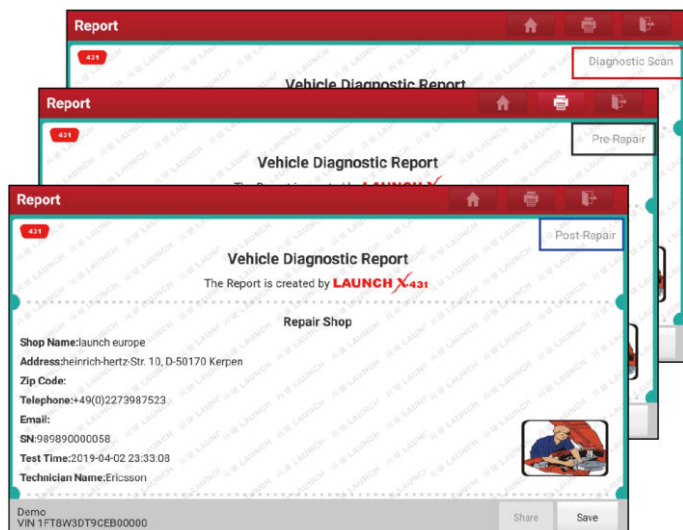
Fig. 5-16

Tap ∨ to select the report type from the option list and input the required information, and then tap "OK".

*Note: To facilitate the comparison of the pre-repair and post-repair reports and get accurate test result, please make sure you saved the right type of the diagnostic report.

To save the report as a common diagnostic report, select "Diagnostic Scan".
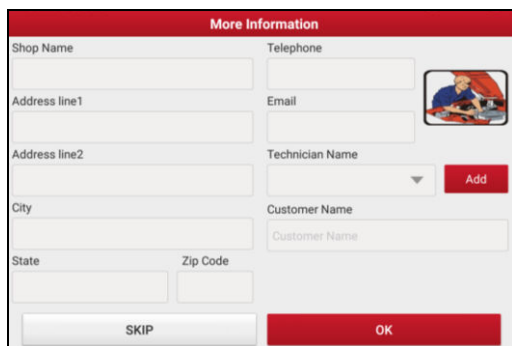
Fig. 5-17

Enter the shop name, address line, technician (tap "Add" to create a pull-down list) and customer name and then tap "OK" to confirm and navigate to the report details page.

*Note: Alternatively you can also set the workshop information in "User Info" -> "Settings" -> "Print Information".

Once you configured the information, it will be automatically generated every time you saved the diagnostic report. All vehicle and workshop information will be appended as tags on the diagnostic report.

To ignore the workshop information, tap "Skip" to go to the report details page.

On the report details page, tap "Save" to save it. All diagnostic reports can be accessed from "User Info" -> "My Reports" -> "Diagnostic Report".

Help: Tap to view the help information of the selected DTC item.

Compare Results: Tap to select the pre-repair report to compare. By comparison of the pre- and post- repair reports, you can easily identify which DTCs are cleared and which remain unfixed.

*Note: Before performing this function, please make sure that:

• You have saved a pre-repair report of the currently tested vehicle, and

• You have already made some repairs and service and cleared the DTCs after the pre-repair reported is generated. Otherwise, no differences exist between the pre- and post- repair reports.

Fig. 5-18

Clear DTCs: Tap to clear the existing diagnostic trouble codes.

*Note: Clearing DTCs does not fix the problem(s) that caused the code(s) to be set. If proper repairs to correct the problem that caused the code(s) to be set are not made, the code(s) will appear again and the check engine light will illuminate as soon as the problem that cause the DTC to set manifests itself.

5.2.2 System Scan

This option allows you to quickly scan which systems are installed on the vehicle.

In Fig. 5-13, tap "System Scan", the system start scanning the systems. Once the scanning is complete, the screen will display the result.

Fig. 5-19

Tap the desired system to advance to the test function selection page. For detailed operations on test function, please refer to Chapter 5.2.3.

5.2.3 System Selection

This option allows you manually select the test system and function step by step.

In Fig. 5-13, tap "System Selection", the screen displays as follows:

Fig. 5-20

Swipe the screen from the bottom to view the vehicle system on the next page.

Tap the desired system (take "ECM" for example) to jump to the test function

page.
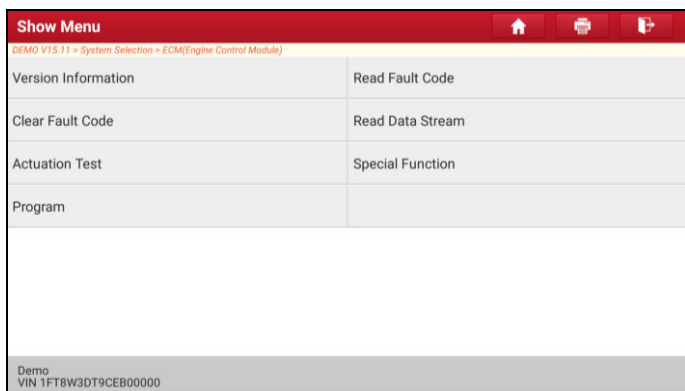
Fig. 5-21

*Note: Different vehicle has different diagnostic menus.

A. Version Information

This function is used to read the version information of system mode, vehicle VIN, software and ECU.

In Fig. 5-21, tap "Version Information", the screen displays the ECU information.

B. Read Fault Code

This function displays the detailed information of DTC records retrieved from the vehicle's control system.

*Note: Retrieving and using DTCs for troubleshooting vehicle operation is only one part of an overall diagnostic strategy. Never replace a part based only on the DTC definition. Each DTC has a set of testing procedures, instructions and flow charts that must be followed to confirm the location of the problem. This information can be found in the vehicle's service manual.

In Fig. 5-21, tap "Read Fault Code", the screen will display the diagnostic result.
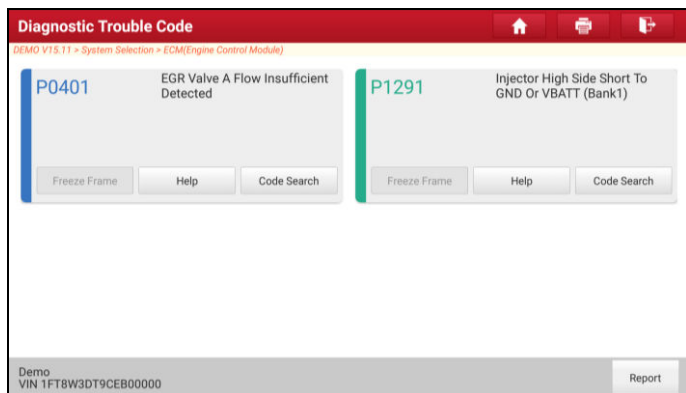
Fig. 5-22

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. Freeze frame data includes a snapshot of critical parameter values at the time the DTC is set.

Help: Tap to view the help information.

Code Search: Tap it to search for more information about the current DTC online.

Report: To save the current data in text format. All reports are saved under the tab "Diagnostic Report" in "My Report" from "User Info" menu. For details on report operations, please refer to Chapter 9.1 "My Report".

C. Clear Fault Code

After reading the retrieved codes from the vehicle and certain repairs have been carried out, you can use this function to erase the codes from the vehicle. Before performing this function, please be sure the vehicle's ignition key is in the ON position with the engine off.

Clearing DTCs does not fix the problem(s) that caused the code(s) to be set. If proper repairs to correct the problem that caused the code(s) to be set are not made, the code(s) will appear again and the check engine light will illuminate as soon as the problem that cause the DTC to set manifests itself.

In Fig. 5-21, tap "Clear Fault Code", a confirmation dialog box pops up on the screen.

Tap "Yes", the system will automatically delete the currently existing trouble code.

*Note: After clearing, you should retrieve trouble codes once more or turn ignition on and retrieve codes again. If there are still some trouble codes in the system, please troubleshoot the code using a factory diagnosis guide, then clear the code and recheck.

D. Read Data Stream

This option lets you view and capture (record) real-time Live Data. This data including current operating status for parameters and/or sensor information can provide insight on overall vehicle performance. It can also be used to guide vehicle repair.

*Note: If you must drive the vehicle in order to perform a troubleshooting procedure, ALWAYS have a second person help you. Trying to drive and operate the diagnostic tool at the same time is dangerous, and could cause a serious traffic accident.

In Fig. 5-21, tap "Read Data Stream", the system will display data stream items.
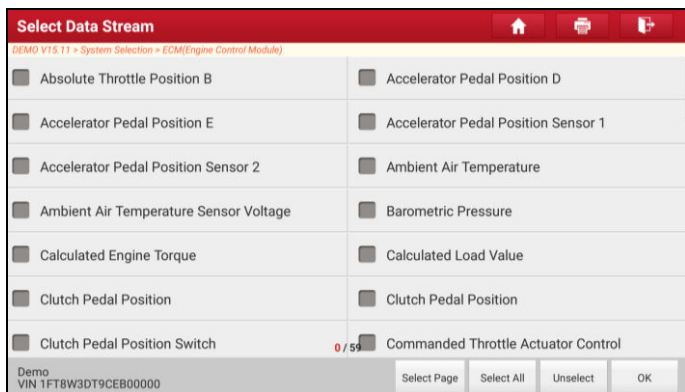
Fig. 5-23

On-screen Buttons:

Select Page: Tap it to select all items of the current page. To select certain data stream item, just check the box before the item name.

Select All: Tap it to select all items of the current page. To select certain data

stream item, just check the box before the item name.

Unselect: Tap it to deselect all data stream items.

OK: Tap it to confirm and jump to the next step.

After selecting the desired items, tap "Confirm" to enter the data stream reading page.

Fig. 5-24

Notes:

1. If the value of the data stream item is out of the range of the standard (reference) value, the whole line will display in red. If it complies with the reference value, it displays in blue (normal mode).

2. The indicator 1/X shown on the bottom of the screen stands for the current page/total page number. Swipe the screen from the right/left to advance/return to the next/previous page.

There are 3 types of display modes available for data viewing, allowing you to view various types of parameters in the most suitable way.

✓ <u>Value</u> – this is the default mode which displays the parameters in texts and shows in list format.

✓ <u>Graph</u> – displays the parameters in waveform graphs.

✓ <u>Combine</u> – this option is mostly used in graph merge status for data comparison. In this case, different items are marked in different colors.

On-screen Buttons:

: Tap it to view the waveform graph of the current data stream item.

Fig. 5-25

- <u>Min/Max</u>: Tap to define the maximum/minimum value. Once the value goes beyond the specified value, the system will alarm.

*Note: The real time (Live Data) vehicle operating information (values/status) that the on-board computer supplies to the tool for each sensor, actuator, switch, etc. is called Parameter Identification Data (PID).

Graph: Tap it to view the waveform.
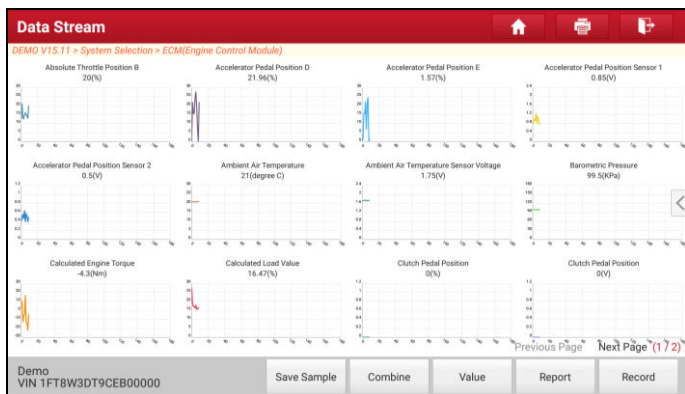
Fig. 5-26

- <u>Combine</u>: This option is mostly used in graph merge status for data

comparison.

- <u>Value</u>: Tap to display the parameters in texts.
- <u>Customize</u>: Tap ◁, a pull-down list of the data stream items appears on the screen. Select (Maximum 4 data stream items can be selected) /deselect the desired items and then screen will display/remove the waveforms corresponding to these items immediately.
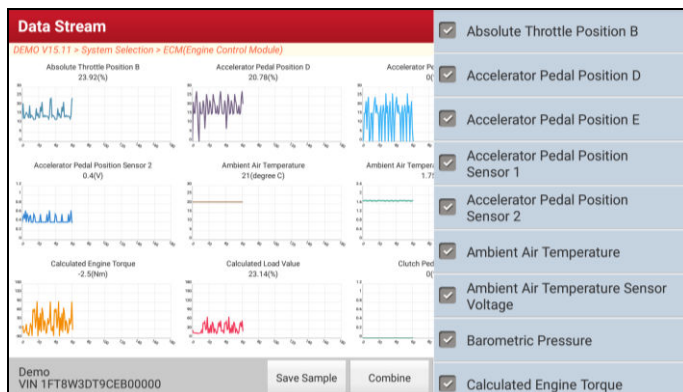
Fig. 5-27

Compare Sample: Tap it to select the sample DS file, the values you customized and saved in process of DS sampling will be imported into the "Standard Range"(See below) column for your comparison.

*Note: Before executing this function, you have to sample the values of data stream items and save it as a sample DS file.

Fig. 5-28

Report: To save the current data as a diagnostic report. All diagnostic reports can be accessed from "User Info" -> "My Reports" -> "Diagnostic Report".

Record: Tap to start recording diagnostic data. Recorded live data can serve as valuable information to help you in troubleshooting of vehicle problems. All diagnostic records can be replayed from "User Info" -> "My Reports" -> "Diagnostic Record".

*Note: The saved file follows the naming rule: It begins with vehicle type, and then the product S/N and ends with record starting time (To differentiate between files, please configure the accurate system time).

Help: Tap to view the help information.

Save Sample: This item enables you to customize the standard range of live data stream items and save it as DS sample file. Each time you run the data stream items, you can call out the corresponding sample data to overwrite the current standard range.

Tap it to start recording the sample data (*Only data stream items with measurement units will be recorded), and the screen displays as below:

Fig. 5-29

Once recording is complete, tap (■) to stop it and navigate to the data revision screen.

Fig. 5-30

Tap the Min./Max. value to change it. After modifying all desired items, tap "Save" to save it as a sample DS file. All DS files are stored under the "Data Stream Sample" file in "User Info."

E. Actuation Test

This option is used to access vehicle-specific subsystem and component tests.

Available test vary by vehicle manufacturer, year, and model.

During the actuation test, the tablet outputs commands to the ECU in order to drive the actuators, and then determines the integrity of the system or parts by reading the ECU data, or by monitoring the operation of the actuators, such as switching a injector between two operating states.

In Fig. 5-21, tap "Actuation Test", the system will display the actuation test item.

Simply follow the on-screen instructions and make appropriate selections to complete the test. Each time when an operation is successfully executed, "Completed" displays.

5.3 Remote Diagnosis

This option aims to help repair shops or technicians launch instant messaging and remote diagnosis, making the repair job getting fixed faster.

Tap "Remote Diagnosis" on the Home screen, the screen appears blank by default.

5.3.1 Interface layout
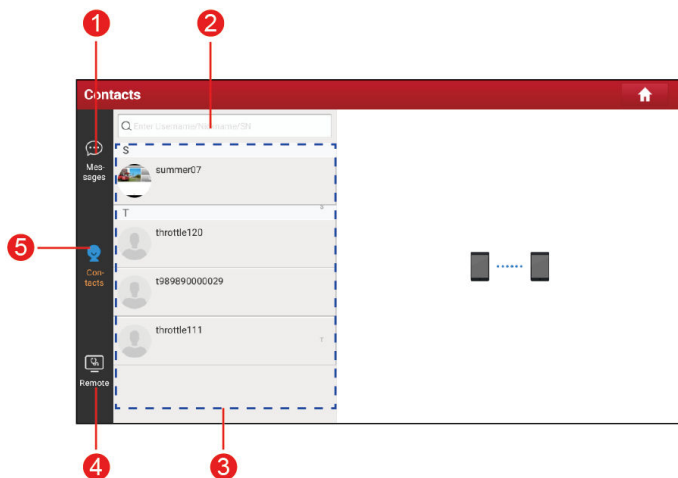
Fig. 5-31

1	Search bar	Directly input the username of the X-431 EURO TAB II to

		start searching, and then tap the desired one to add it into your friend list.
2	Home button	Tap it to navigate to the Home screen.
3	Message tab	Once an incoming message reaches, a red dot will appear on the upper right corner of the tab.
4	Contact tab	Tap to enter the friend list.
5	Remote switch	Tap to slide the switch to ON, the tablet keeps online and becomes accessible on the web client. In this case, inform the technician of your product S/N, and he/she will control your device remotely.

5.3.2 Add friends

Tap "Contact" to enter the contact page. By default it appears blank.

In the search bar, input the partner's username and tap "Search" button next to the search bar to starts searching from Launch's golo business database.

The partner must be the users who have registered their Launch's diagnostic tools. They may be the following:

• Workshop
• Technician
• golo users

Once the result matches the keyword, a screen similar to the following will appear:
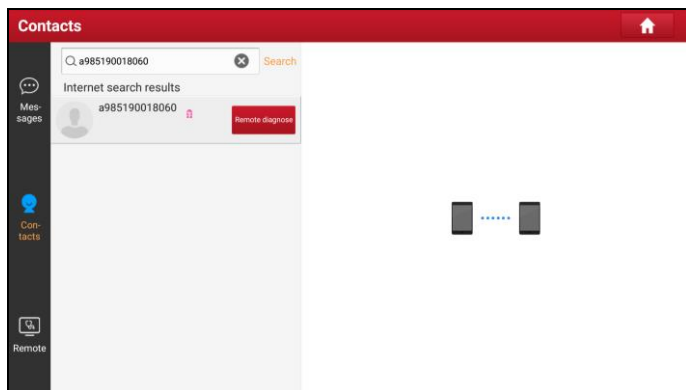
Fig. 5-32

Tap the user avatar, the following screen displays.
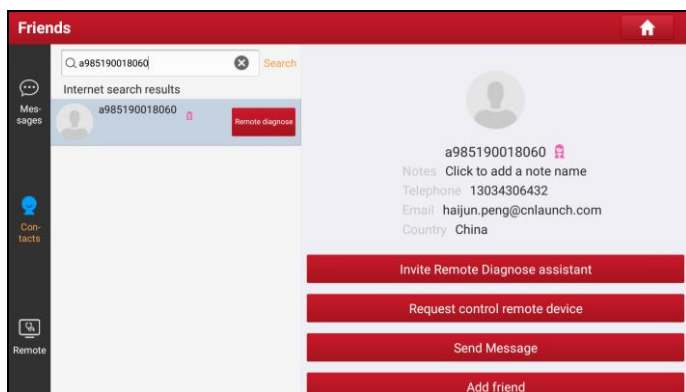
Fig. 5-33

Tap "Add friend" to send your request.

Once the partner receives the request, a beep will sound. Tap the "Message" tab:

• Once the partner agreed your request, he/she will automatically be listed in the Contact tab.

• If a technician sent you a friend request, you can tap "Agree" to confirm and his/her name will appear in the friend list (Contact). Or tap "Ignore" to ignore

this request.

5.3.3 Start instant messaging

*Note: The I/M (Instant Messaging) function is open to all users who had Launch's diagnostic tool equipped with this module.

After adding your friends, tap the desired one's photo to enter a screen similar to the following:
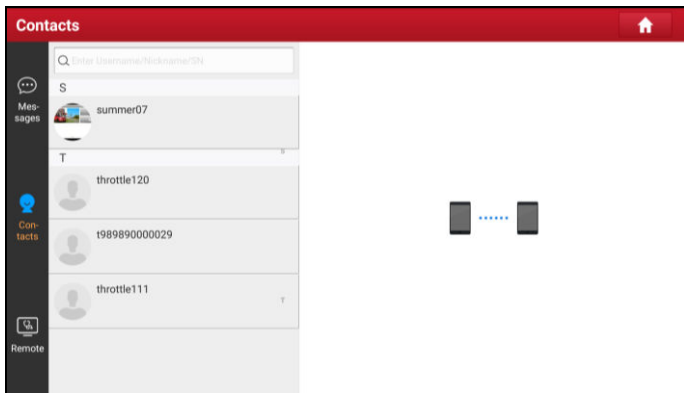
Fig. 5-34

Tap the input field and use the on-screen keyboard to enter the text message, and then tap "Send" to send it.

Tap ⊙ to send the voice message.

Tap ☺ to send the emoj.

Tap ⊕ to call out more function options.
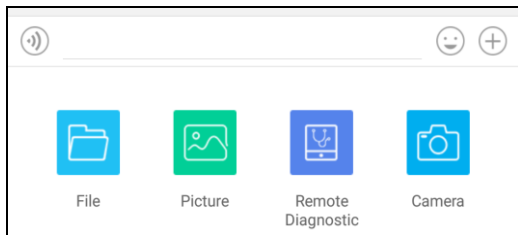
Fig. 5-35

<u>File</u>: Choose diagnostic reports or local files to send.

<u>Picture</u>: Choose screenshots or pictures to send.

<u>Remote Diagnostic</u>: To start a remote diagnostic session. For details, refer to Chapter 5.3.4.

<u>Camera</u>: Open camera to take pictures.

5.3.4 Launch remote diagnosis (Device-To-Device)

The tablet is allowed to launch remote diagnosis with other diagnostic tools (including but not limited to the X-431 EURO TAB II) of Launch family, which are equipped with this module.

* Note: Before performing this operation, please make sure the following no matter which side sends the remote request:

• Turn on the vehicle power supply.

• Throttle should be in a closed position.

• The VCI device should be properly connected to the vehicle's DLC and a successful communication is required.

In Fig. 5-35, tap "Remote Diagnostic", a pull-down menu including the following options appears:
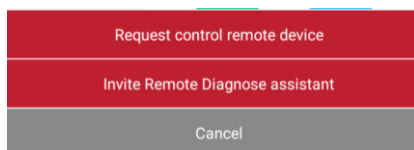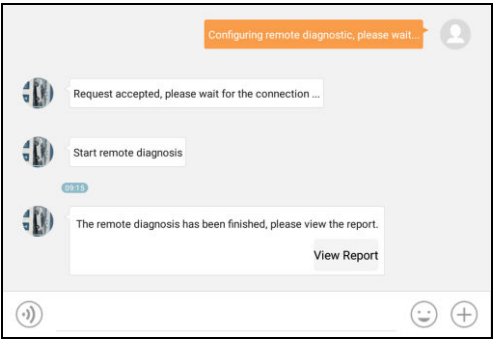
Fig. 5-36

These options are defined as follows:

Actions	Results
Send remote diagnostic reservation	Tap it and input the reservation title or scheduled date of the remote diagnosis, and then tap "Confirm" to send.
Request control remote device	Request to control the partner's device remotely to help him diagnose the vehicle. *Notes: • Remote diagnosis has the same diagnostic steps as

manual diagnosis.

- In process of remote diagnosis, tap the 🎤 button to send a voice message.
- Once vehicle diagnosis is complete, a report will be created. Input your comments on this report, and then tap "Send Report" to send it to the partner.

```
┌─────────────────────────────────────────┐
│  Tap "Request control remote device"    │
└─────────────────────────────────────────┘
                    │
                    ▼
┌─────────────────────────────────────────┐
│      Wait for partner's confirmation     │
└─────────────────────────────────────────┘
                    │
                    ▼
┌─────────────────────────────────────────┐
│  Start connecting after request confirmed │
└─────────────────────────────────────────┘
                    │
                    ▼
┌─────────────────────────────────────────┐
│              Start Diagnosis             │
└─────────────────────────────────────────┘
                    │
                    ▼
┌─────────────────────────────────────────┐
│        Generate diagnostic report        │
└─────────────────────────────────────────┘
```

Invite remote diagnostic assistant	If you need support, just use this option to invite a technician to perform a remote control on your tool. *Notes: - Remote diagnosis has the same diagnostic steps as manual diagnosis. - In process of remote diagnosis, tap the 🎤 button to send voice message. - Once you received the report from the partner, tap "View Report" to view details. All diagnostic reports are saved under the "Remote Diagnostic Reports" tab of "My Reports" in "Personal Center".

	Tap "Invite remote diagnostic assistant"
	Choose the desired diagnostic software
	Wait for partner's confirmation
	Start connecting after request confirmed
	Start Diagnosis
	Generate diagnostic report
Cancel	To cancel this operation.

5.3.5 Launch remote diagnosis (Device-To-PC)

Except that the remote diagnosis can be done between different Launch's diagnostic tools that come loaded with the module, user also can ask for remote control from PC client technician.

```
┌─────────────────────────────────────────────┐
│            Slide the switch to ON            │
└─────────────────────────────────────────────┘
                       │
                       ▼
┌─────────────────────────────────────────────┐
│  Notify the partner of the remote diagnostic web link │
└─────────────────────────────────────────────┘
                       │
                       ▼
┌─────────────────────────────────────────────┐
│  Input the partner's official account and password │
└─────────────────────────────────────────────┘
                       │
                       ▼
┌─────────────────────────────────────────────┐
│      Input the Serial Number of your handset │
└─────────────────────────────────────────────┘
                       │
                       ▼
┌─────────────────────────────────────────────┐
│               Start Diagnosis                │
└─────────────────────────────────────────────┘
                       │
                       ▼
┌─────────────────────────────────────────────┐
│          Generate diagnostic report          │
└─────────────────────────────────────────────┘
```
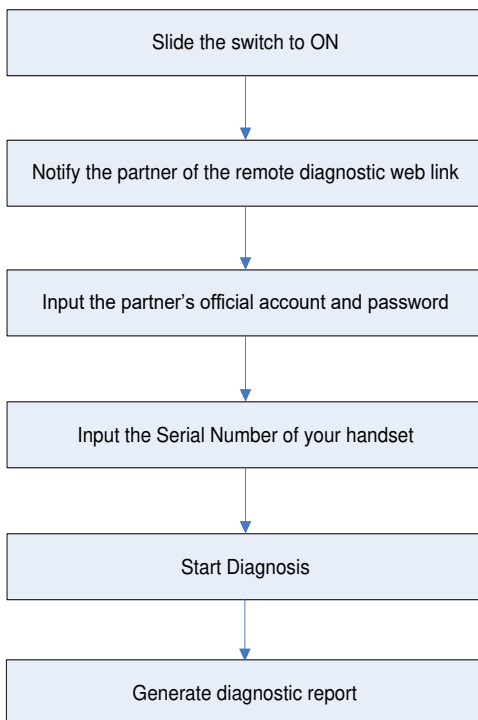
Fig. 5-37

Tap the "Web Remote" tab, the screen displays as follows:
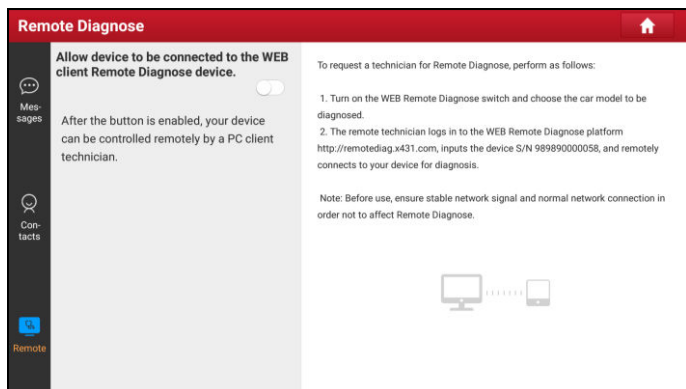
Fig. 5-38

1. Slide the switch "Allow device to be connected to the WEB client remote diagnostic device" to ON so that the partner can find and access to this device while using the PC.

2. Notify the partner of the PC client website http://remote.x431.com/cn/. When the partner opens the link, the PC displays as below:

   *Note: Before processing remote diagnosis, please make sure the tablet is properly connected to the vehicle.
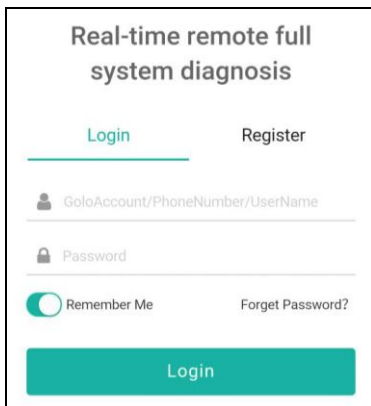
Fig. 5-39

3. Tell the partner to input his own official technician account and password, and then tap "Login" to navigate to the following figure.

Fig. 5-40

4. Tell the partner to check the box "Serial number" and enter the Serial Number provided by you, and then tap "Start remote diagnosis".

5. A popup displays to ask for your confirmation to allow remote control on your device.

6. Tap "Allow" to accept, or tap "Deny" to reject.

In process of remote diagnosis, please note the following things:

1) You are not suggested to execute any actions.

2) The partner is not allowed to save any diagnostic reports or records on your handset.

The operations in remote diagnosis are same as those in local diagnosis. Once the session is complete, a remote diagnostic report will be automatically generated.

5.4 How to View Diagnostic History?

Generally once a vehicle diagnosis is performed, the tablet will record the every

details of diagnostic process. The History function provides a quick access to the tested vehicles and users can resume from the last operation, without starting from scratch.

Tap "History", all diagnostic records will be listed on the screen in date sequence.
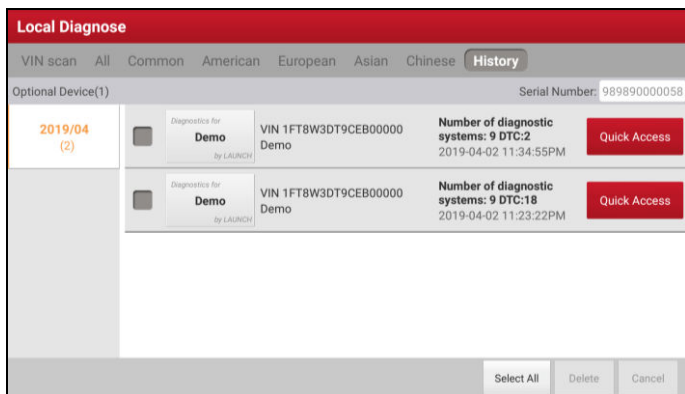
Fig. 5-41

- Tap certain vehicle model to view the details of the last diagnostic report.
- To delete certain diagnostic history, select it and then tap "Delete". To delete all historical records, tap "Select All" and then tap "Delete".
- Tap "Quick access" to directly navigate to the function selection page of last diagnostic operation. Choose the desired option to proceed.

5.5 How to Feedback Diagnostic Logs?

This item allows you to feedback your diagnostic problems to us for analysis and troubleshooting.

Tap "Feedback", the following 3 options will be displayed on the left column of the screen.

A. Feedback

Tap a tested vehicle model to enter the feedback screen.

1) Tap "Choose File" to open the target folder and choose the desired diagnostic logs.

2) Choose the failure type and fill in the detailed failure description in the blank text box and telephone or email address. After inputting, tap "Submit Result" to send it to us.

B. History

Tap it to view all diagnostic feedback records. Different process states are marked with different colors.

C. Offline list

Tap it to display all diagnostic feedback logs which have not been submitted successfully due to network failure. Once the handset gets a stable network signal, it will be uploaded to the remote server automatically.

6 Special (Reset) Function (Only for Passenger Vehicle/Gasoline & Diesel Version)

In addition to amazing & powerful diagnostic function, the tablet also features various service functions. The most commonly performed service functions contain:

• Oil Reset Service

• Electronic Parking Brake Reset

• Steering Angle Calibration

• ABS Bleeding

• TPMS (Tire Pressure Monitor System) Reset

• Gear Learning

• IMMO Service

• Injector Coding

• Battery Maintenance System

• Diesel Particulate Filter (DPF) Regeneration

• Electronic Throttle Position Reset

• Gearbox Matching

• AFS (Adaptive Front-lighting System) Reset

• Sunroof Initialization

• Suspension Calibration

There are two methods to reset service lamp: Manual reset or Auto reset. Auto reset follows the principle of sending command from the tool to vehicle's ECU to do resetting. While using manual reset, users just follow the on-screen instructions to select appropriate execution options, enter correct data or values, and perform necessary actions, the system will guide you through the complete performance for various service operations.
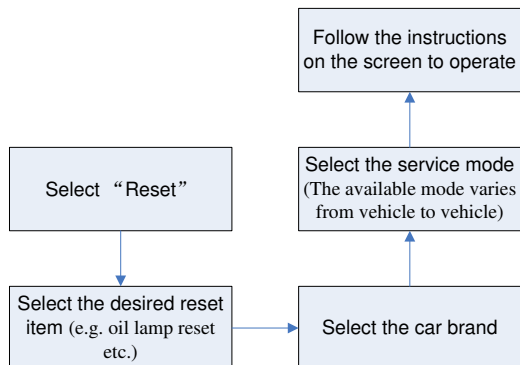
Figure 6-1

6.1 Oil Reset Service

This function allows you to perform reset for the engine oil life system, which calculates an optimal oil life change interval depending on the vehicle driving conditions and climate.

This function can be performed in the following cases:

1. If the service lamp is on, you must provide service for the car. After service, you need to reset the driving mileage or driving time so that the service lamp turns off and the system enables the new service cycle.

2. After changing engine oil or electric appliances that monitor oil life, you need to reset the service lamp.

6.2 Electronic Parking Brake Reset

1. If the brake pad wears the brake pad sense line, the brake pad sense line sends a signal sense line to the on-board computer to replace the brake pad. After replacing the brake pad, you must reset the brake pad. Otherwise, the car alarms.

2. Reset must be performed in the following cases:

   a) The brake pad and brake pad wear sensor are replaced.
   b) The brake pad indicator lamp is on.
   c) The brake pad sensor circuit is short, which is recovered.
   d) The servo motor is replaced.

6.3 Steering Angle Calibration

To reset the steering angle, first find the relative zero point position for the car to drive in straight line. Taking this position as reference, the ECU can calculate the accurate angle for left and right steering.

After replacing the steering angle position sensor, replacing steering mechanical parts (such as steering gearbox, steering column, end tie rod, steering knuckle), performing four-wheel alignment, or recovering car body, you must reset the steering angle.

6.4 ABS Bleeding

This function allows you to perform various bi-directional tests to check the operating conditions of Anti-lock Braking System (ABS).

1. When the ABS contains air, the ABS bleeding function must be performed to bleed the brake system to restore ABS brake sensitivity.

2. If the ABS computer, ABS pump, brake master cylinder, brake cylinder, brake line, or brake fluid is replaced, the ABS bleeding function must be performed to bleed the ABS.

6.5 Tire Pressure Monitor System Reset

This function allows you to quickly look up the tire sensor IDs from the vehicle's ECU, as well as to perform TPMS replacement and sensor test.

1. After the tire pressure MIL turns on and maintenance is performed, the tire pressure resetting function must be performed to reset tire pressure and turn off the tire pressure MIL.

2. Tire pressure resetting must be performed after maintenance is performed in the following cases: tire pressure is too low, tire leaks, tire pressure monitoring device is replaced or installed, tire is replaced, tire pressure sensor is damaged, and tire is replaced for the car with tire pressure monitoring function.

6.6 Gear Learning

The crankshaft position sensor learns crankshaft tooth machining tolerance and saves 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 P1336 'tooth not learned'. In this case, you must use the diagnostic device to perform tooth

learning for the car. After tooth learning is successful, the MIL turns off.

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.

6.7 IMMO Service

An immobilizer is an anti-theft mechanism that prevents a vehicle's engine from starting unless the correct ignition key or other device is present. Most new vehicles have an immobilizer as standard equipment. An important advantage of this system is that it doesn't require the car owner to activate it since it operates automatically. An immobilizer is considered as providing much more effective anti-theft protection than an audible alarm alone.

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

To prevent the car being used by unauthorized keys, the anti-theft key matching function must be performed so that the immobilizer control system on the car identifies and authorizes remote control keys to normally use the car.

When the ignition switch key, ignition switch, combined instrument panel, ECU, BCM, or remote control battery is replaced, anti-theft key matching must be performed.

6.8 Injector Coding

Write injector actual code or rewrite code in the ECU to the injector code of the corresponding cylinder so as to more accurately control or correct cylinder injection quantity.

After the ECU or injector is replaced, injector code of each cylinder must be confirmed or re-coded so that the cylinder can better identify injectors to accurately control fuel injection.

6.9 Battery Maintenance System Reset

This function enables you to perform a resetting operation on the monitoring unit of vehicle battery, in which the original low battery fault information will be cleared and battery matching will be done.

Battery matching must be performed in the following cases:

a) Main battery is replaced. Battery matching must be performed to clear original low battery information and prevent the related control module from detecting false information. If the related control module detects false information, it will invalidate some electric auxiliary functions, such as automatic start & stop function, sunroof without one-key trigger function, power window without automatic function.

b) Battery monitoring sensor. Battery matching is performed to re-match the control module and motoring sensor to detect battery power usage more accurately, which can avoid an error message displaying on the instrument panel.

6.10 Diesel Particulate Filter (DPF) Regeneration

DPF regeneration is used to clear PM (Particulate Matter) from the DPF filter through continuous combustion oxidation mode (such as high temperature heating combustion, fuel additive or catalyst reduce PM ignition combustion) to stabilize the filter performance.

DPF regeneration may be performed in the following cases:

a) The exhaust back pressure sensor is replaced.

b) The PM trap is removed or replaced.

c) The fuel additive nozzle is removed or replaced.

d) The catalytic oxidizer is removed or replaced.

e) The DPF regeneration MIL is on and maintenance is performed.

f) The DPF regeneration control module is replaced.

6.11 Electronic Throttle Position Reset

This function enables you to make initial settings to throttle actuators and returns the "learned" values stored on ECU to the default state. Doing so can accurately control the actions of regulating throttle (or idle engine) to adjust the amount of air intake.

6.12 Gearbox Matching

1. This function can complete the gearbox self-learning to improve gear shifting quality.
2. When the gearbox is disassembled or repaired (after some of the car battery is powered off), it will lead to shift delay or impact problem. In this case, this function needs to be done so that the gearbox can automatically compensate according to the driving conditions so as to achieve more comfortable and better shift quality.

6.13 AFS (Adaptive Front-lighting System) Reset

This feature is used to initialize the adaptive headlamp system. According to the ambient light intensity, the adaptive headlamp system may decide whether to automatically turn on the headlamps, and timely adjust the headlamp lighting angle while monitoring the vehicle speed and body posture.

6.14 Sunroof Initialization

This function can set the sunroof lock off, closed when it rains, sliding / tilting sunroof memory function, temperature threshold outside the car etc.

6.15 Suspension Calibration

1. This function can adjust the height of the body.
2. When replacing the body height sensor in the air suspension system, or control module or when the vehicle level is incorrect, you need to perform this function to adjust the body height sensor for level calibration.

7 Software Update

This module allows you to update the diagnostic software & App and set frequently used software.

If you did not download the software in process of product registration or a pop-up message prompting you that some new software can be updated, you may use this option to download it or keep it synchronized with the latest version.

7.1 Update Diagnostic Software & APP

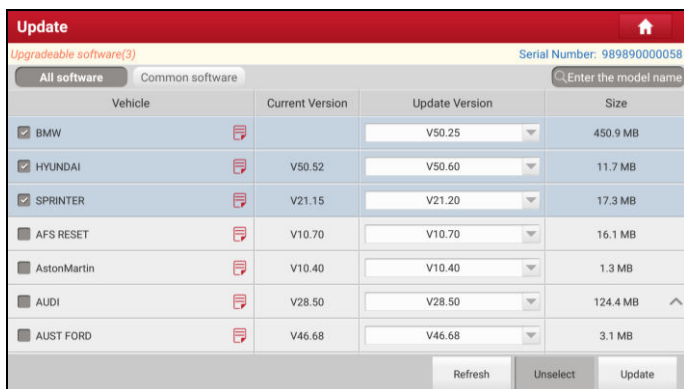Tap "Software Update" on the Home screen to enter the update center.

Fig. 7-1

By default, all diagnostic software is selected. To deselect certain software, tap "Unselect", and then check the box next to vehicle model. Tap "Update" to start downloading. It may take several minutes to finish it, please be patient to wait. To pause downloading, tap "Stop". To resume it, tap "Continue". If network connection failure occurs, tap "Retry" to try again.

Once download is finished, the software packages will be installed automatically.

7.2 Set Frequently Used software

To easily locate and quickly update some frequently used software, you can use

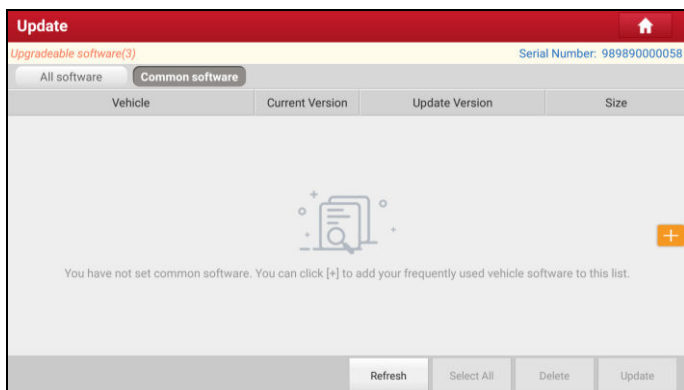the "Common Software" option to create a frequently used software list.

Fig. 7-2

Tap "Common software" tap "+", a pop-up window appears. Select the checkbox before the software name and tap "SAVE", the software will be displayed in the Common software list. Next time you want to update it, just go to "Common Software".

7.3 Renew Subscription

If the software subscription is due or expires, the system will prompt you to renew your subscription and a "Renewal" button will appear on the bottom of the update page.

There are two ways available for you to make payment: PayPal and Subscription Renewal Card (*need to buy it from the local dealer where you purchased the X-431 EURO TAB II).

A. Using PayPal

1. Tap "Renewal" on the update page to navigate to the renewal type selection screen.
2. Select "PayPal", and then follow the on-screen instructions to finish the transaction.
3. After payment, go to update center to update the diagnostic software.

B. Using Subscription Renewal Card

1. Tap "Renewal" to navigate to the renewal type selection screen.

2. Select "Subscription Renewal Card".

3. Input the 24-digit password of Subscription Renewal Card and then   tap "Submit" to finish the renewal.

4. Go to the update center to update the diagnostic software.

8 ADAS

By default, the ADAS calibration feature of the pre-installed diagnostic software is disabled. To ensure normal use of the calibration function of the diagnostic software, you need to activate the pin card to unlock the calibration function on the X-431 EURO TAB II tablet first.
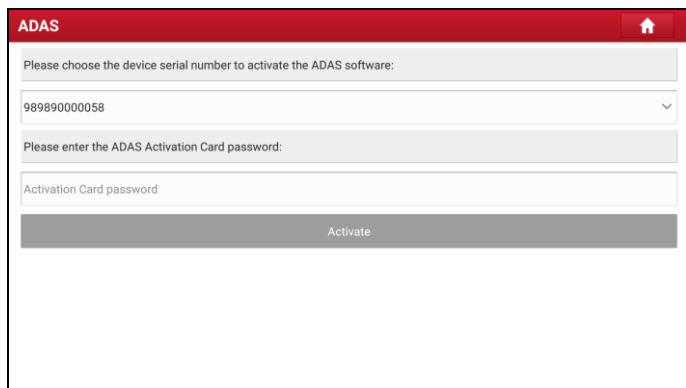
Follow the steps below to activate it.

1. Tap "ADAS" on the home screen. If the ADAS is not activated, the following prompt screen displays.

Fig. 8-1

2. Tap "Activate" to enter the ADAS activation screen.

Fig. 8-2

3. Scratch or scrap the designated area on the included Activation Card to reveal the password, and input the 24-digit password to activate it.

4. Now the ADAS function becomes accessible and is ready for use.

9 User Info

This function allows users to manage personal information and VCI device.

9.1 My Report

This option is used to view, delete or share the saved reports.

Tap "**My Report**", there are total 3 options available.

In case the DTC result is saved on Read Trouble Code page, the files will be listed under **Diagnostic Report** tab.
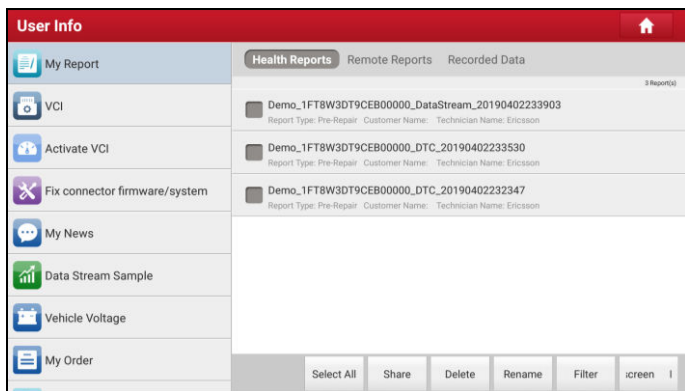

Fig. 14-1

- To select certain report, check the box before the report. To select all reports, tap "Select All". To deselect all, tap "Unselect".

- To share the report with others, select the desired one and then tap "Share".

- Select the desired report and then tap "Delete" to delete it.

- To change the filename of report, tap "Rename".

If user records the running parameters while reading data stream, it will be saved as .x431 file and appear under **Diagnostic Record** tab.
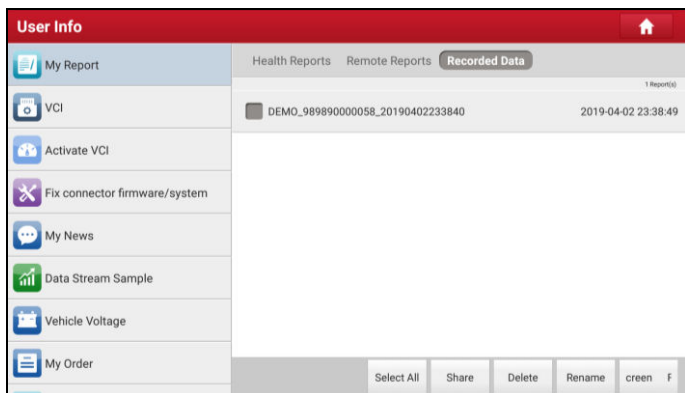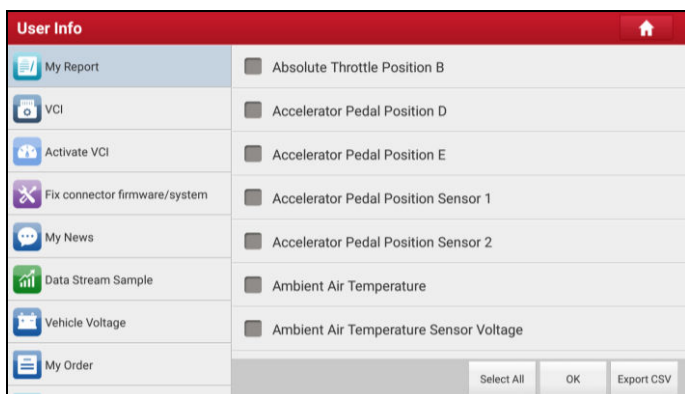
Fig. 14-2

Tap the desired one to enter:

Fig. 14-3

Select the desired data stream items and tap "Confirm" to jump to the playback page:

Fig. 14-4

On-screen Buttons:

Graph – displays the parameters in waveform graphs.

Value – this is the default mode which displays the parameters in texts and shows in list format.

Combine – this option is mostly used in graph merge status for data comparison. In this case, different items are marked in different colors.

Frame Playback – plays back the recorded data stream items frame by frame. Once it is in frame playback mode, this button changes into "Auto Playback".

Remote Diagnostic Report lists all diagnostic reports generated in process of remote diagnosis.

9.2 VCI

This option allows you to manage all your activated VCI devices.

If several VCI devices are activated on this tool, a list of devices will be displayed on the screen. Once you choose the VCI device that belongs to other account, you have to log out, and then input the right account to continue.

9.3 Activate VCI

This item lets you activate a new VCI device.
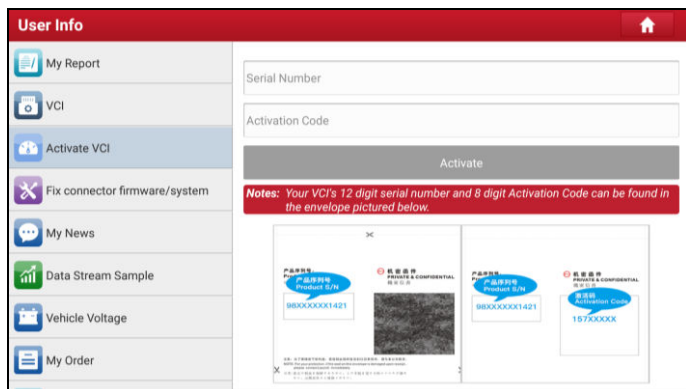
Fig. 14-5

Input the Serial Number and Activation Code, and then tap "Activate" to activate it.

For details on how to obtain Activation Code, tap the link below to get help.

9.4 Fix Connector Firmware/System

Use this item to upgrade and fix diagnostic firmware. During fixing, please do not cut power or switch to other interfaces.

9.5 My News

This option allows you to receive some commercial and promotional activity messages.

9.6 Data Stream Sample

This feature allows you to manage the recorded data stream sample files.

9.7 Vehicle Voltage

This item is used to detect the voltage of the currently tested vehicle when the VCI is plugged into the vehicle's DLC.

9.8 My Order

This item allows you to check the status of all your orders.

9.9 Subscription Renewal Card

This item is used to check the status of the subscription renewal card.

Fig. 14-6

1. Input the 12-digit subscription renewal card number.

2. Tap "Search" to get the search result.

9.10 Profile

Use this item to view and configure personal information.

• The profile description includes a 'placeholder' for a user photograph. Tap the user image to change it.

• Tap > next to "Free Upgrade Period" to check the due date of all diagnostic software.

9.11 Change Password

This item allows you to modify your login password.

9.12 Settings
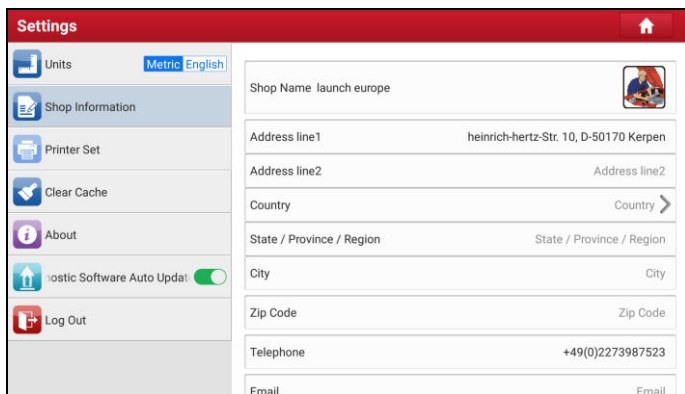
It enables you to make some application settings and view software version information etc.

9.12.1 Units

It is designed to configure the measurement unit. Metric System and English System are available.

9.12.2 Shop Information

This option lets you define your print information. It mainly includes Workshop, Address, Telephone, Fax and License Plate.

Fig. 14-7

After inputting, tap "Save".

Once you saved the print information, it will be entered automatically in the "Add Information" box every time you save the diagnostic report.

9.12.3 Printer Set

This option is designed to establish a wireless connection between the tablet and the mini printer (sold separately) while performing printing operations.

Follow the steps below to connect the printer.

1. Tap "Printer Set".

A. If it is the first time you have operated this printer, please proceed the following:

2. For initial use, you are suggested to reset the printer: Press and hold [MODE] & [FEED] for 8 seconds, the following resetting command will be printed out:

   at + default = 1

   ok

at + reboot = 1

rebooting...

1. Tap "Reset" to configure the printer.

   Step 1: Connect the printer:

   Tap "Scan" to start scanning and select the desired printer hotspot named with X-431PRINTER-XXXX (XXXX stands for 4 characters), and then tap "Connect" to enter Step 2.

   Step 2: Join the printer into LAN:

   Tap "Scan" to select the desired local wireless network from the list, and type in the security password (If it is an open network, password is not required), and then tap "Confirm".

4. Once the network of the printer is connected and the printer is found, tap "Printing test" to test the printing.

Now you can use the printer to print!

If the printer is not found, please reset the printer to default factory settings (refer to Step 2 for details) and check whether the current device and the printer are on the same LAN.

B. If you have configured the printer to the LAN:

2. Tap "Connect to Printer":

   a). If the local network remains as it is, tap "Test Print" directly to test the printing.

   b). If the local network changes, you have to reset the printer.

9.12.4 Clear Cache

This item is used to clear the App cache.

Tap "Clear Cache", a pop-up window will appear on the screen. Tap "OK" to clear cache and the system will restart the App.

9.12.5 About

The software version information and disclaimer are included.

9.12.6 Diagnostic Software Auto Update

This option is used to set to turn the automatic diagnostic software update function ON/OFF.

9.12.7 Login/Exit from current account

To logout the current user ID, tap "Log out".

To login the system again, tap "Login".

9.13 Diagnostic Software Clear

This item allows you to hide/clear the diagnostic software that is not frequently used.

Tap "Diagnostic Software Clear", the screen displays as follows:
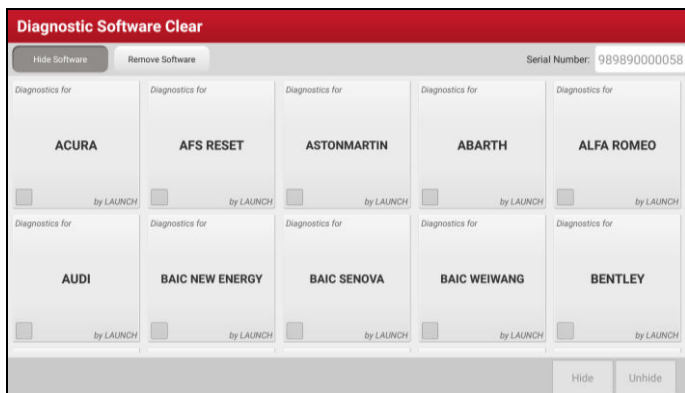
Fig. 14-8

Under the "Hide Software" tab, select the desired software logo (a "Checkmark" will show in the checkbox located at the lower right corner) and tap "Hide", it will become invisible. Tap "Unhide" to undo the hide operation.

Under the "Remove Software" tab, select the desired software logo and tap "Delete", it will disappear from the screen.

*Note: Removing software may completely delete the software from the tablet. If some software is not used and the tablet runs out of space, you can use this feature to remove it. To re-download it, go to "Update" -> "All Software".

10 Other Modules

10.1 Email

The function allows you to send and receive email.

*Note: Before sending or receiving email, you have to set up an email account. In addition, this function required a stable network connection.

1. On the Home screen, tap **Other Modules -> Email**.
2. Input the Email address, tap **NEXT**.
3. Choose the desired email account type.
4. Input the password, tap "Next".

*Note: If "Manual setup" is selected, please consult your email service provider for detailed parameter setting.

5. Follow the on-screen instructions to proceed until the system prompts you that the account setup has been finished.

10.2 Browser

10.2.1 Open browser

On the Home screen, tap **Browser** to launch the browser. You can choose the desired homepage or input the website address to browse.
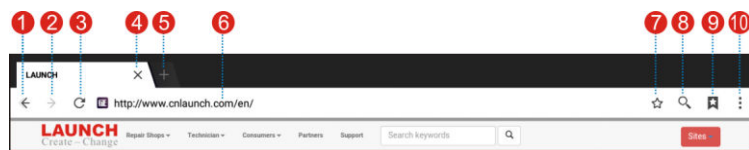
Fig. 15-1

1	Return to the previous page.
2	Advance to the recently visited page.
3	Refresh the current page.
4	Close the current page.

5	Create a new tab.
6	Input a web address.
7	Add the current page as bookmark.
8	Open search bar.
9	Open bookmark list.
10	View more options.

10.2.2 Download files

Files, pictures, and applications can be downloaded from the website in browser.

For example:

Tap and hold a picture, then choose "Save image" from pop-up menu to download it.

To download a link, tap and hold it, and then choose "Save link".

To protect the tablet and personal data, please download applications from trusted sources.

10.3 TeamViewer

TeamViewer is a simple, fast and secure remote control interface, which enables you to receive remote support from technician fellows, colleagues or friends by allowing them to control your tablet on their computer or TeamViewer software on the mobile device.

Computer and mobile devices that run TeamViewer are identified by a globally unique ID. The first time the TeamViewer is launched, this ID is generated automatically based on the hardware characteristics and will not change later on.

10.3.1 TeamViewer QuickSupport

This app allows you to request a remote support from a partner.

Follow the steps below to proceed:

1. On the Home screen, tap **Other modules -> TeamViewer QuickSupport**. The TeamViewer interface displays and the device ID is generated and shown.
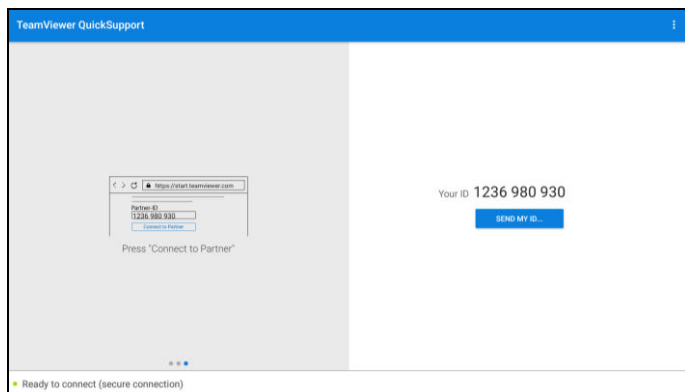
Fig. 15-2

2. Your partner must install the TeamViewer full version program (if not installed, go to http://www.teamviewer.com to download it), and then start the software on his/her computer at the same time, in order to provide support and take control of your tablet remotely.

3. Provide your ID to the partner, and wait for him/her to send you a remote control request.

4. A dialog box asking for your confirmation to allow remote control on your tablet will appear.

5. Tap Allow to accept, or tap Deny to reject.

For more information, please refer to the associated TeamViewer documents.

10.3.2 TeamViewer

This app enables you to remotely control a partner's device.

1. On the Home screen, tap **Other modules -> TeamViewer**. The TeamViewer interface displays.
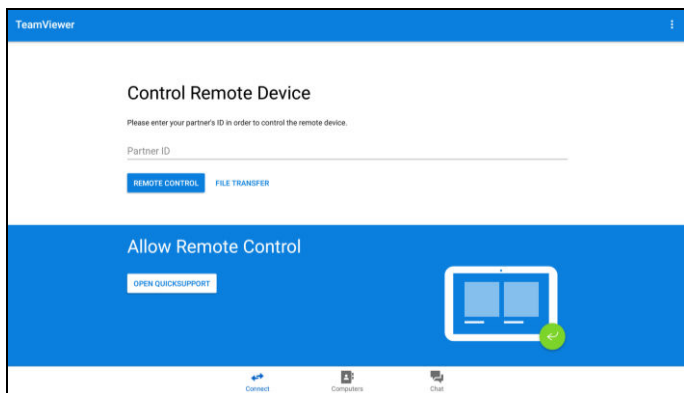
Fig. 15-3

2. Your partner must install the TeamViewer QuickSupport program (if not installed, go to http://www.teamviewer.com to download it), and then start the software on his/her computer/mobile device at the same time, in order to control the partner's computer/mobile device remotely.

3. Input the partner's ID, tap "REMOTE CONTROL" to send a remote control request.

4. After the partner confirms to accept remote control from your tablet, the remote assistance is now starting.

10.4 System OTA Upgrade

An Over-the-Air (OTA) update is the wireless delivery of new operating system, software or data to tablets and mobile phones. Wireless carriers have traditionally used over-the-air updates to deploy firmware and configure phones or tablets for use on their network. The initialization of a newly purchased tablet required an over-the-air update.

*Note: While performing OTA update, please make sure the tablet battery has at least 70% and DO NOT run any other programs during the update.

1. On the Home screen, tap **Other modules -> Wireless Upgrade**.

2. Tap "Check the Latest Version". Once a newer version is found, follow the on-screen instructions to download and install the update file.

3. Be patient to wait until the update is done.

10.5 File Explorer

ES File Explorer is a file and application manager. You can access and create folders on the tablet without needing to connect it to a computer.

The app also features an application manager, task killer and download manager. Another excellent feature is support for cloud storage accounts. This means you can download files directly to the folders you want without using a separate app.

The app has built-in ZIP and RAR sources, so you can access compressed files without unpacking them on your computer first.

For more information, please refer to the associated ES file explorer documents.

10.6 Synchronization

You can transfer media files and APK between the tablet and a computer.

1. Use the data cable to connect the tablet and a computer.

2. Swipe the screen from the top, tap "USB connected".

3. Tap "TURN ON USB STORAGE".

Now you can copy files between the tablet and the computer.

11 FAQ

1. Communication error with vehicle ECU?

Please confirm:

1. Whether the VCI is properly connected.
2. Whether the vehicle ignition switch is ON.
3. If all checks are normal, send vehicle year, make, model and VIN number to us using Feedback feature.

2. Failed to enter into vehicle ECU system?

Please confirm:

1. Whether the vehicle is equipped with the system.
2. Whether the VCI is correctly connected.
3. Whether the vehicle ignition switch is ON.
4. If all checks are normal, send vehicle year, make, model and VIN number to us using Feedback feature.

3. Can I use any other power adaptor other than the included power adaptor to charge the handset?

No. Please use only the included power adaptor to charge the handset. We assume no responsibility for damage or loss resulting from the use of the any other adaptors.

4. How to save power?

- Please turn off the screen while the device keeps idle.
- Set a shorter standby time.
- Decrease the brightness of the screen.
- If WLAN connection is not required, please turn it off.
- Disable GPS function if GPS service is not in use.

5. How to reset the tablet?

*Warning: Resetting may cause data loss. Before doing so, please make sure important data and information has been backed up.

There are 2 methods available to reset the tablet:

Method 1

1. Ensure the tablet is in ON mode.

2. Select "Tablet Setting" on the Home screen.

3. Select "Backup & reset".

4. Tap "Factory data reset".

5. Tap "RESET TABLET" to confirm.

Method 2

1. Ensure the tablet is in OFF mode.

2. Hold and press VOLUME - key and POWER key until the tablet enters system boot mode.

3. Use the VOLUME + / VOLUME - key to switch to system recovery mode and press POWER key to confirm.

4. Use the VOLUME + / VOLUME - key to move the highlight bar on "wipe data / factory reset" and press POWER key to confirm.

5. Press VOLUME + / VOLUME - to select "yes" and press POWER key to confirm.

6. Select "reboot system now" and press POWER key to restart the system.

7. After resetting is complete, follow the on-screen instructions to finish the system settings.

6. How to activate new VCI device?

*Note: Before registration, please make sure the network is properly connected.

If you have activated a VCI device before and bought a new VCI device due to the loss or other reasons, please follow the below steps to activate:

1. On the Home screen, tap "User Info" -> "Activate VCI".

2. Input product S/N and activation code, which can be found from the included password envelope, then tap "Activate".

3. After activation completed, the tablet will automatically wirelessly connect to the VCI device. Tap "User Info" -> "VCI" to check if the activated VCI device is displayed in the connector list or not. Each tablet is allowed to bind multiple VCI devices. If you intend to use one of the VCI devices to diagnose / test a

vehicle, just switch to the corresponding VCI device.

7. How to update Android?

A newer Android version will be released to bring better user experience and more capabilities. Please check for updates on regular basis.

*Note: Please make sure your tool battery has at least 70%. Do NOT run any other programs during the update.

1. On the Home screen, tap "Other Module" -> "Wireless Upgrade".

2. Tap "Check for updates". Once a newer version is found, follow the on-screen instructions to download and install the update file.

3. Be patient to wait until the update is done.

8. How to update the APK and diagnostic software?

*Note: During the update, please make sure the tool has a stable network connection.

1. On the Home screen, tap "Software Update".

2. To update all software, tap the "All software" tab and tap "Update" on the bottom of the screen to start the download.

3. To update some common software, tap the "Common software" tab to update the previously added common software list.

9. The diagnostic application is failing.

1. On the Home screen, tap "Tablet Setting" -> "Apps".

2. Select the application name from the Apps list.

3. Select "FORCE STOP", and then press "OK" to confirm.

4. Select "Clear Data", and then press "OK" to confirm.

10. How to retrieve the login password?

Please follow below steps to proceed in case you forgot the login password:

1. Tap [Login] button on the upper right corner of the screen.

2. Tap "Retrieve password".

3. Input product S/N and follow the on-screen prompts to set a new password.

Warranty

THIS WARRANTY IS EXPRESSLY LIMITED TO PERSONS WHO PURCHASE LAUNCH PRODUCTS FOR PURPOSES OF RESALE OR USE IN THE ORDINARY COURSE OF THE BUYER'S BUSINESS.

LAUNCH electronic product is warranted against defects in materials and workmanship for one year from date of delivery to the user.

This warranty does not cover any part that has been abused, altered, used for a purpose other than for which it was intended, or used in a manner inconsistent with instructions regarding use. The exclusive remedy for any automotive meter found to be defective is repair or replacement, and LAUNCH shall not be liable for any consequential or incidental damages.

Final determination of defects shall be made by LAUNCH in accordance with procedures established by LAUNCH. No agent, employee, or representative of LAUNCH has any authority to bind LAUNCH to any affirmation, representation, or warranty concerning LAUNCH automotive meters, except as stated herein.

Disclaimer

The above warranty is in lieu of any other warranty, expressed or implied, including any warranty of merchantability or fitness for a particular purpose.

Purchase Order

Replaceable and optional parts can be ordered directly from your LAUNCH authorized tool supplier. Your order should include the following information:

Order quantity
Part number
Part name

Customer Service

If you have any questions on the operation of the unit, please contact local dealer, or contact **LAUNCH Europe GmbH**:

Address: Heinrich-Hertz-Str. 10, D-50170 Kerpen

Phone: +49 (0) 2273 9875 55 / +49 (0) 2273 9875 23

Email: service@launch-europe.de

Statement:

LAUNCH reserves the rights to make any change to product designs and specifications without notice. The actual object may differ a little from the descriptions in the manual in physical appearance, color and configuration. We have tried our best to make the descriptions and illustrations in the manual as accurate as possible, and defects are inevitable, if you have any question, please contact local dealer or after-sale service center of LAUNCH, LAUNCH does not bear any responsibility arising from misunderstandings.