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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 X-431 PRO MINI, 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 X-431 PRO MINI in exceptionally cold or hot, dusty, damp or dry environments.
- In places using X-431 PRO MINI may cause interference or generate a potential risk, please turn it off.
- X-431 PRO MINI 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 X-431 PRO MINI into apparatus with strong electromagnetic field.
- Keep X-431 PRO MINI far away from magnetic devices because its radiations can damage the screen and erase the data stored on X-431 PRO MINI.
- 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.
- Do not disconnect power abruptly when X-431 PRO MINI is being formatted or in process of uploading or downloading. Or else it may result in program error.
- Do not delete unknown files or change the name of files or directories that were not created by you, otherwise your X-431 PRO MINI software might fail to work.
- Be aware that accessing network resources can leave your X-431 PRO MINI vulnerable to computer viruses, hackers, spyware, and other malicious activities that might damage your device, software or data. It is your responsibility to ensure that you have adequate protection in the forms of firewalls, antivirus software, and anti-spyware software and keep such software up to date.

Precautions on Using X-431 PRO MINI

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

- Always perform automotive testing in a safe environment.
- If the VCI module remains unused 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 test equipment 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 test equipment 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 test equipment 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.

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1 Introductions

1.1 Product Profile

X-431 PRO MINI is a stylish Android-based vehicle trouble diagnostic tool. It inherits from LAUNCH's advanced diagnosing technology and is characterized by covering a wide range of vehicles, featuring powerful functions, and providing precise test result.

Through the simple Bluetooth communication between the VCI module and X-431 PRO MINI, it achieves full car model and full system vehicle trouble diagnosis, which includes Reading DTCs, Clearing DTCs, Reading Data Stream, Actuation Test and Special Functions.

Moreover, it supports Wi-Fi connection, which enables you surf the Internet, update the diagnostic software online and perform remote diagnosis etc, getting your job fixed faster and easier.

1.2 Features

1. Diagnostic Tool:

A. Diagnose

- ♦ Diagnose the electronic control system of prevailing vehicle models covering Asian, European, American and Chinese. Diagnosis functions include: Read DTCs, Clear DTCs, Read data stream, Special functions etc.
- ♦ Specially designed for Android platform with clear and user-friendly interface.
- ♦ Via Bluetooth, it is simple for the VCI module to communicate with X-431 PRO MINI.

B. One-click Update: lets you update your diagnostic software more efficiently.

C. Repair Data: provides abundant automotive handbook, repair case and wiring diagrams for reference and retrieval.

D. Remote Diagnosis: configures X-431 PRO MINI as an I/M(Instant Messaging) tool, which enables technicians to exchange repair experience and perform remote assistance more conveniently.

2. Browser: built-in Wi-Fi module makes surfing on the internet freely.
3. Email: allows you to send and receive emails.
4. Settings: to configure your personalized X-431 PRO MINI through it.
5. Applications: other android based applications can be customized to install

or uninstall.

1.3 Knowledge of X-431 PRO MINI

1.3.1 X-431 PRO MINI whole set

X-431 PRO MINI is mainly composed of an X-431 PRO MINI handset, and a VCI module.

1.3.2 X-431 PRO MINI handset



Fig. 1-1 X-431 PRO MINI tablet

1 VCI module

2	Rear camera	
3	Camera flash	
4	Slot for VCI module	For housing the VCI module.
5	POWER/Screen lock key	In Off mode, press it to turn X-431 PRO MINI on; In On mode, turn X-431 PRO MINI off with long press or lock screen with short press.
6	Carry strap	
7	Speakers	
8	USB/Charging port	To connect to the power adaptor for charging.
9	Microphone	
10	LCD screen	
11	VOLUME +/- Key	To adjust the volume. To print the screen, hold and press the POWER and VOLUME – key until a snapshot pops up on the screen. The captured snapshot is saved in the “Screenshots” folder.
12	Receiver	
13	Front camera	
14	Earphone Jack	

1.3.3 VCI module (Only applies for 12V cars)

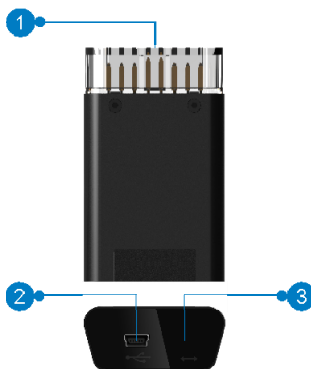


Fig. 1-2 VCI module

①	OBD-16 diagnostic connector	To connect on vehicle's OBD2 DLC.
②	Mini USB port	For connecting the USB cable to the tablet to perform vehicle diagnosis. (Note: This port is disabled for X-431 PRO MINI.)
③	Mode indicator	- It illuminates red when the VCI module is connected to the vehicle's DLC. - Blue indicates the VCI module is working in Bluetooth mode.

1.4 Technical Parameters

X-431 PRO MINI:

Operating system	Android 5.1
Processor	Quad core 1.3 GHz
Memory	2GB
Storage	16GB
LCD screen	6.9 inch with a resolution of 1280 x 720 pixels
Camera	Front-facing 2MP camera + rear-facing 5MP camera
Battery	3.7V/3000mh rechargeable polymer lithium battery
Connectivity	- Wi-Fi: WLAN 802.11b/g/n - Bluetooth: Bluetooth 4.1
Working temperature	0°C ~ 45°C
Storage temperature	-10°C ~ 50°C

VCI module:

Working voltage	9 ~18V
Average working current	About 85mA
Standby current	About 55mA
Working temperature	-10°C ~ 55°C
Storage temperature	-20°C ~ 70°C
Relative humidity	20% ~ 90%

1.5 Package List

While opening X-431 PRO MINI package for the first time, please carefully check the following components. Common accessories for each X-431 PRO MINI are same, but for different destinations, the accessories of X-431 PRO MINI may vary. Please consult from the local agency or check the package list supplied with X-431 PRO MINI together.

- X-431 PRO MINI tablet
- Password envelope
- VCI module (For connecting OBD II vehicles)
- OBD II extension cable
- OBD I adaptor (For connecting the non-16pin diagnostic connector and the VCI module)
- Battery clamps cable
- Power adaptors
- Non-16pin connectors (For connecting non-OBD II vehicle)

2 Preparations

2.1 Charging X-431 PRO MINI

1. Plug one end of the included power adaptor into the USB port of the X-431 PRO MINI.
2. Connect the other end to the AC outlet.

If  appears on the screen, it indicates it is being charged. If the logo changes into , it indicates that the battery is fully charged. Unplug the power adaptor from X-431 PRO MINI.

2.2 Using your battery

- ♦ If the battery remains unused for a long period of time or the battery is completely discharged, it is normal that the tool will not power on while being charged. Please charge it for a period of 5 minutes and then turn it on.
- ♦ Please use the included power adaptor to charge your tool. No responsibility can be assumed for any damage or loss caused as a result of using power adaptors other than the one supplied.
- ♦ While X-431 PRO MINI has low battery, a beep will sound. If it is very low, X-431 PRO MINI will be switched off automatically.

2.3 Power on/off

2.3.1 Power on

Press [POWER] to turn the tool on.

 Note: If it is the first time you have used this tool or the tool remains idle for a long period of time, the tool could fail to turn on. Please charge the tool for a minimum of 5 minutes and attempt to turn on again.

2.3.2 Power off

Press [POWER] for 3 seconds, an option menu will pop up on the screen. Tap "Power off" to turn the tool off.

2.4 Tips on finger operations



Single-tap: To select an item or launch a program.



Double-tap: To zoom in so that the text on a webpage appears in a column that fits your device's screen.



Long press: Tap and hold on the current interface or area until a contextual menu pops up on the screen, and then release it.



Slide: To jump to different pages.



Drag: Tap the application icon and drop it to other location.



Spread apart/pinch together: To zoom in manually, place two fingers on the screen and then spread them apart. To zoom out, place two fingers apart on the screen and then pinch them together.

2.5 Lock & unlock the screen

Many screen lock modes are available on X-431 PRO MINI.

 **Note:** You are recommended to set screen lock as “None” since X-431 PRO MINI is a frequently used diagnostic tool.

2.5.1 Lock the screen

- ♦ When it is ON, press [POWER] once to lock the screen;
- ♦ The system will lock the screen automatically after X-431 PRO MINI remains idle over the preset standby time.

2.5.2 Unlock the screen

Press [POWER] to activate the screen and drag the lock to “Unlock” position.

 **Note:** If you define as unlock using the pattern, you have to draw the right target pattern to unlock it.

2.6 Screen layout

There are four on-screen buttons available on the bottom of the screen.

BACK	Tap  to return to the previous screen.
HOME	Tap  to navigate to the Android's home screen.
Recent Apps	Tap  to view the recently launched applications.

2.7 Notification panel

The notification bar is used to display some activities, such as new message, to do list and running tasks. You can also open the notification bar to view the reminder or activity notification.

2.8 Customize your desktop

2.8.1 Create a widget on the desktop

Tap and hold the desired application or widget, and then drag it to the target position.

2.8.2 Move items on the desktop

Tap and hold the item to be moved, and drag and drop it to the target location.

2.8.3 Delete items from the desktop

 **Warning:** Deleting an icon will uninstall the corresponding application. Please be careful to do so.

1. Tap and hold the item to be moved until it is shaken.
2. Drag it on the trash icon and release it.

 **Note:** If no trash icon appears on the top of the screen, it indicates that the application cannot be uninstalled.

2.8.4 Adjust brightness

 **Tips:** Reducing the brightness of the screen is helpful to save the power of X-431 PRO MINI.

1. On the home screen, tap Settings > Display > Brightness level.
2. Drag the slider to adjust it.

2.8.5 Set standby time

If no activities are made within the defined standby period, the screen will be

locked automatically and the system enters sleep mode to save power.

1. On the home screen, tap Settings > Display > Sleep.
2. Choose the desired sleep time.

2.9 Set screen lock

This function is designed to lock the screen and buttons to avoid accidental operations while X-431 PRO MINI keeps unused.

1. On the home screen, tap Settings > Security > Screen lock.
2. Choose the desired screen lock mode and follow the on-screen instructions to finish your setting.



Note: You are recommended to set screen lock as “None” since X-431 PRO MINI is a frequently used diagnostic tool.

3 Wi-Fi Setting

 Note: If you don't need to use Wi-Fi for a while, you can turn it off to conserve battery life.

X-431 PRO MINI has built-in Wi-Fi that can be used to get online. Once you're online, you can register your X-431 PRO MINI, surf the Internet, get apps, send email, launch the remote diagnosis, and check for software updates etc.

3.1 Connect to a Wi-Fi network

1. On the home screen, tap Settings > WLAN.
2. Slide the Wi-Fi switch to ON, X-431 PRO MINI will start searching for available wireless networks.
3. Select a wireless network,
 - If the chosen network is open, X-431 PRO MINI will connect automatically;
 - If the selected network is encrypted, a network password will need to be entered.
4. When "Connected" appears, it indicates the Wi-Fi connection is complete.

 Note: When Wi-Fi is not required, this should be disabled to conserve battery power.

Once it is connected successfully, tap the Wi-Fi network from the list to view its name, link speed, security type, IP address etc.

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

3.2 Disconnect from a Wi-Fi network

1. On the home screen, tap Settings > WLAN.
2. Tap the network with a **Connected** status, then tap "Disconnect".

4 How To Diagnose

4.1 Diagnosis Flowchart

For new users, please follow the operation chart shown in Fig. 4-1 to get familiar with and start using X-431 PRO MINI.

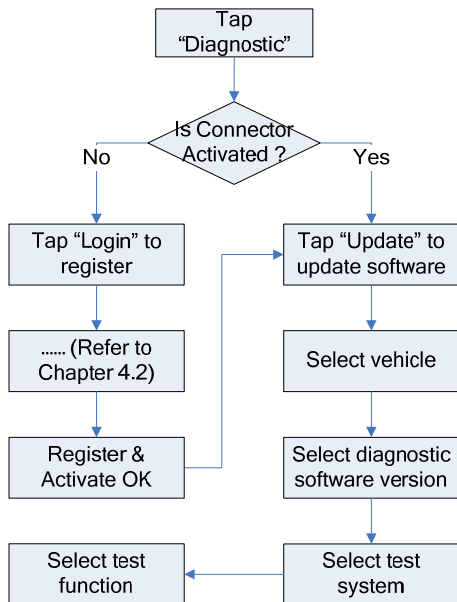


Fig. 4-1

4.2 Initial Use

During initial use, tap the X-431 PRO MINI icon on the home screen to launch it and enter the main menu screen.

4.2.1 User registration

Tap "Login" on the upper right corner of the main menu screen:

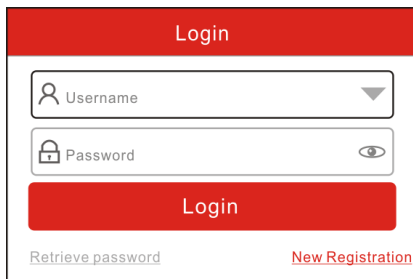
The login screen features a red header with the word "Login" in white. Below the header, there are two input fields: "Username" with a person icon and a dropdown arrow, and "Password" with a lock icon and a toggle eye icon. A red "Login" button is positioned below these fields. At the bottom, there are two links: "Retrieve password" on the left and "New Registration" on the right.

Fig. 4-2

1. If you are a new user, tap "New Registration". See Fig. 4-3.

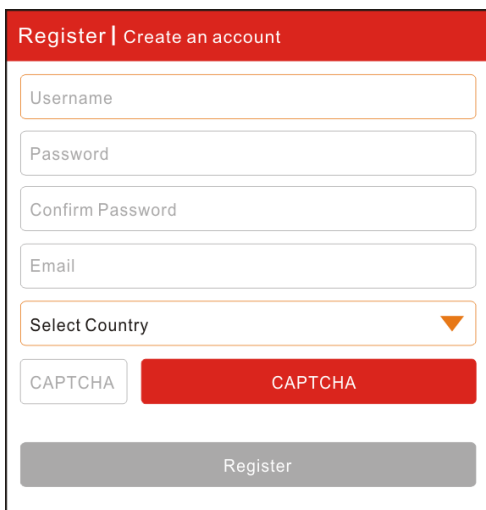
The registration screen has a red header with the text "Register | Create an account". It contains several input fields: "Username", "Password", "Confirm Password", "Email", and "Select Country" with a dropdown arrow. Below these fields are two CAPTCHA boxes, each labeled "CAPTCHA". At the bottom, there is a large grey "Register" button.

Fig. 4-3

 Note: To obtain better service, you need to provide real information.

- A. Create App account: In Fig. 4-3, fill in the information in each field and then tap "Register", a screen similar to the following will appear:

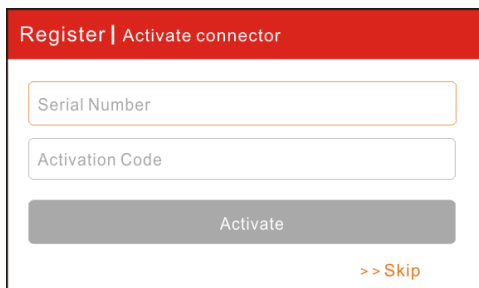


Fig. 4-4

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

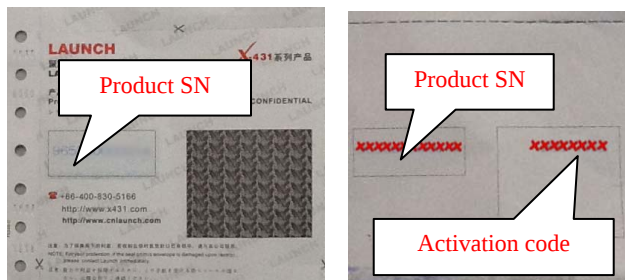


Fig. 4-5

 **Note:** To exit and activate it later, tap “Skip”. In this case, you can activate your connector by tapping “Activate Connector” in “Personal Center”. For details, please refer to Chapter 4.9.3 Activate Connector.

C. Download diagnostic software: Tap “Activate”, a dialog box similar to Fig. 4-6 will appear:

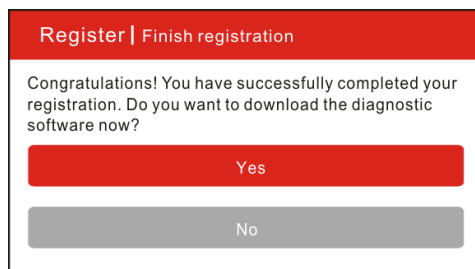


Fig. 4-6

To download the diagnostic software, tap “Yes” to enter the software download page. Tap “No” to download it later.

← Update			
112 Upgradable Software		Serial Number 985691001600	
Vehicle	Current Version	Update Version	Installation package size
☒ AutoSearch		V10.14	220.1 KB
☒ BatteryTest App		V1.04.000	381.8 KB
☒ Scope App		V1.03.003	1.1 MB
☒ Sensor App		V1.03.002	352.0 KB
☒ AUDI		V27.81 ▼	37.1 MB
☒ BAIC		V10.40 ▼	1.7 MB
☒ Beijing Hyundai		V21.36 ▼	1.3 MB
☒ BENZ/ MAYBACH		V48.30 ▼	36.3 MB
☒ BMW/MINI/ HCBMW/ ROLLSROYCE		V49.40 ▼	77.6 MB
☒ CHANGAN		V15.83 ▼	2.4 MB
☒ CHANGCHENG		V35.50 ▼	2.8 MB
☒ CHANGFEN		V20.04 ▼	797.1 KB
☒ Unselect Update Delete			

Fig. 4-7

On the download page, tap “Update” to start downloading. It may take several minutes to finish it, please be patient to wait. To pause downloading, tap “Pause”. To resume it, tap “Continue”.

Once download is complete, the system will install the software package automatically.

2. 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.
3. If you forgot the password, tap “Retrieve Password”, and then follow the on-screen instructions to retrieve it.

4.2.2 Diagnostic software layout

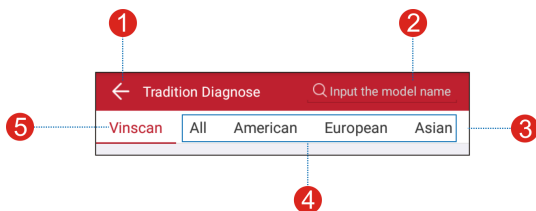


Fig. 4-8

- 1 Tap to navigate to the main function menu. Refer to “**Chapter 4.2.3 Function menu**” for details.
- 2 Search bar: input the desired vehicle model name to locate it quickly.
- 3 History tab: Generally once a vehicle diagnosis is performed, the system will record the every details of diagnostic process. This function provides a quick access to the tested vehicles and users can resume from the last operation, without the necessity of starting from scratch.
- 4 Vehicle region buttons: Tap different buttons to switch to corresponding vehicles.
- 5 VINscan button: Tap it to scan the Vehicle Identification Number (VIN) code of your vehicle. OBD VIN and INPUT VIN are included.
 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.

4.2.3 Function menu

It mainly includes the following items:

Name	Description
Tradition Diagnose	Configures X-431 PRO MINI to operate as a diagnostic tool.
Remote Diagnosis	This option aims to help repair shops or technicians to get the repair job fixed faster.
Software Upgrade	To update vehicle diagnostic software.
Maintenance Help	Includes How-to Videos, operation skills and user manual etc.

Personal Center	Allows you to configure system settings and manage your personal information.
------------------------	---

4.3 Connections

4.3.1 Preparation

Normal testing conditions

- Turn on the vehicle power supply.
- Vehicle battery voltage range should be 9-14 Volts.
- Throttle should be in a closed position.

Select the VCI module

If X-431 PRO MINI is testing vehicles equipped with universal OBD II 16 PIN diagnostic socket, please use the included VCI module. (For vehicles with non-OBD II 16 PIN diagnostic socket, a non-16 PIN connector is required.)

4.3.2 DLC location

The DLC (Data Link Connector) is typically a standard 16-pin connector where diagnostic tools interface with a vehicle's on-board control modules. The DLC is usually located 12 inches from the center of the instrument panel, under or around the driver's side for most vehicles. If DLC 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.

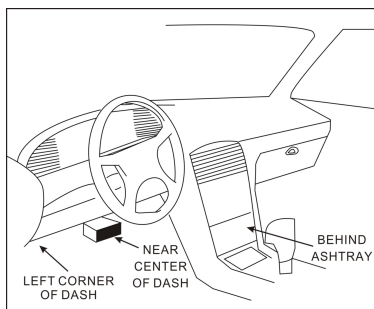


Fig. 4-9

4.3.3 Vehicle connection

The method used to connect the VCI module 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 OBD II vehicle:

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

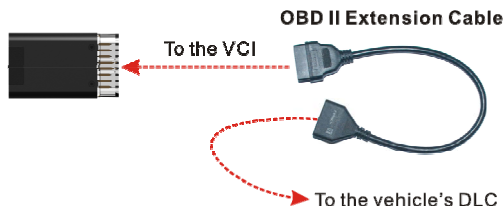


Fig. 4-10

3. Choose one of the two ways to obtain power from:
 - A. Power adaptor: Connect one end of the included power adaptor to DC IN port of X-431 PRO MINI tablet, and the other end to AC outlet.
 - B. Internal battery pack

For non-OBDII vehicle, 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, then connect 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 module.
5. To supply power to OBD I adaptor from:
 - A. Cigarette Lighter cable(optional): Connect one end of the cigarette lighter cable to vehicle's cigarette lighter receptacle, and the other end to the power jack of OBD I adaptor.

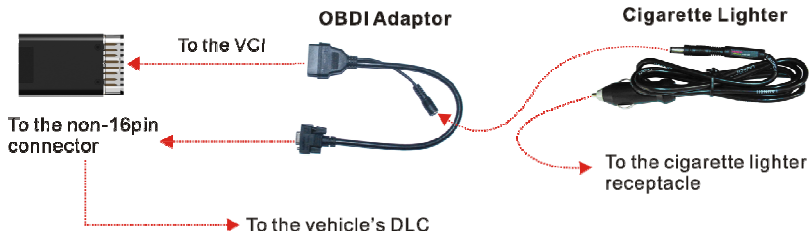


Fig. 4-11

B. Battery Clamps Cable: Connect one end of the battery clamps cable to vehicle's battery, and the other end to the power jack of OBD I adaptor.

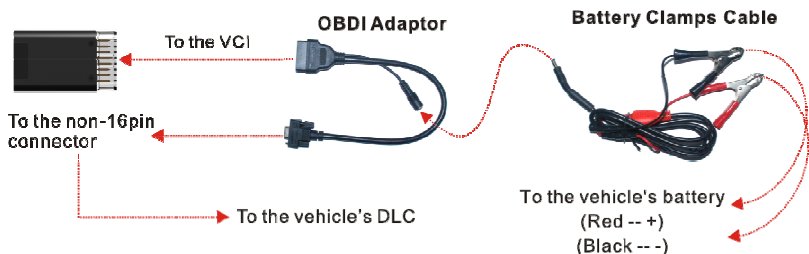


Fig. 4-12

4.4 Bluetooth Setting

Enter X-431 PRO MINI Bluetooth setting screen ("Settings" --> "Bluetooth"), slide the Bluetooth switch to ON and X-431 PRO MINI will start searching available Bluetooth device, tap the desired connector to pair.

By default, the Bluetooth name is 98639*****00 (where ***** stands for 5 digits.).

 **Note:** In case no Bluetooth setting is done before diagnostic software is launched, you can also configure it while using the software. For details on Bluetooth connection, please refer to Chapter 4.5 "Start diagnosing".

4.5 Start Diagnosing

Tap "Tradition Diagnose" to enter the vehicle selection page.

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

1. VINSCAN enables you to access it more quickly.

In this case, automatic scan (OBD VIN) and manual input (INPUT VIN) are

available.

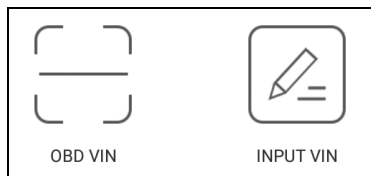


Fig. 4-13

OBD VIN: In this mode, the VCI module should be plugged into the vehicle's DLC first, and then a Bluetooth communication should be established between X-431 PRO MINI and the vehicle.

Tap "OBD VIN" to scan the vehicle identification number of the vehicle. Once scanning is complete and successful, X-431 PRO MINI will enter the diagnostic software of the vehicle.

 **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.

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.

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.

Tap "INPUT VIN" and a screen similar to Fig. 4-14 will appear:

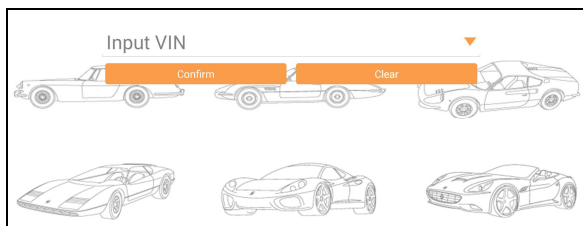


Fig. 4-14

Input the VIN, and tap "Confirm" to enter the diagnostic software of the vehicle.

2. 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). Tap the “DEMO” to enter the software selection page.
- 2). Tap “DEMO” to ignore Bluetooth connection and jump to the DEMO system selection screen. (Note: No Bluetooth connection is required for DEMO program.)

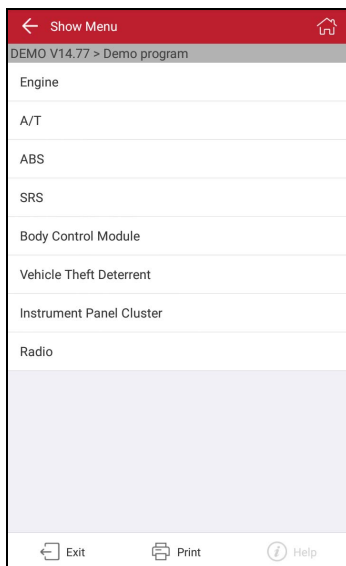


Fig. 4-15

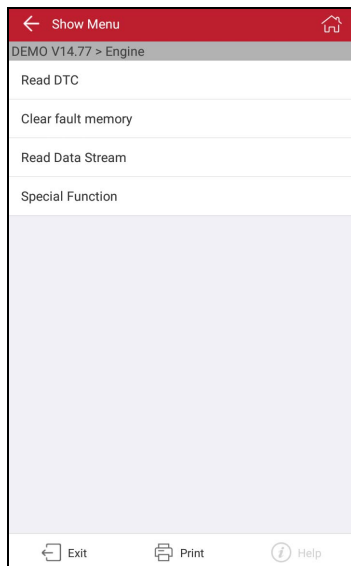


Fig. 4-16

- 3). Tap “Engine”, the system will navigate to the test function menu. See Fig. 4-16.

4.5.1 Read DTC

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

Tap “Read DTC” in function menu, the screen will display the diagnostic result.

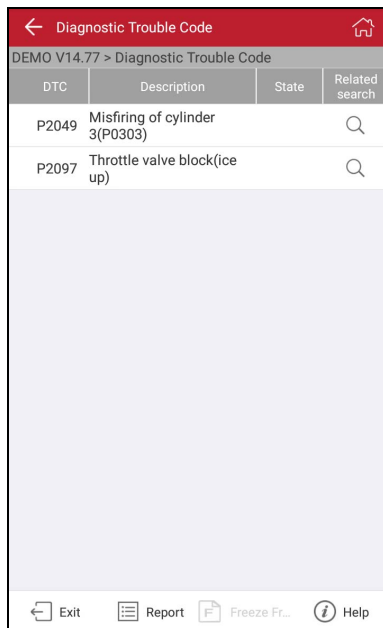


Fig. 4-17

Highlight a certain DTC item, and then tap 🔍 to search the definition of the selected DTC online.

On-screen Buttons:

Exit: Tap it to return to the home screen.

Report: To save the current diagnostic data. All reports are saved under the tab "Diagnostic Report" in "My Report" from "Profile" menu. For details on report operations, please refer to Chapter 4.9.1 "My Report".

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 it to view the help information.

4.5.2 Clear fault memory

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.

Tap "Clear fault memory" in function menu, the system will automatically delete the currently existing trouble code.

 **Note:** The trouble code will not disappear until the trouble was completely cleared.

4.5.3 Read data stream

This option retrieves and displays live data and parameters from the vehicle's ECU.

Tap "Read Data Stream" in function menu, the system will display data stream items.

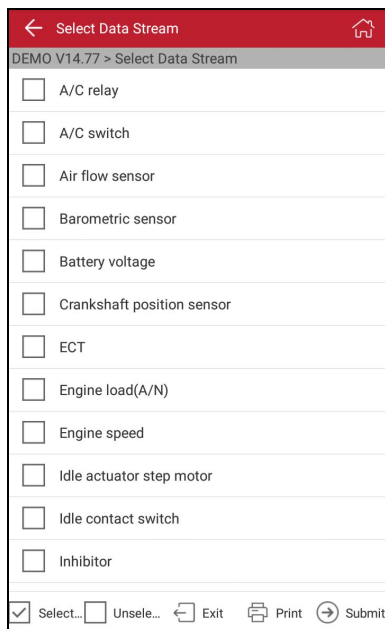


Fig. 4-18

On-screen Buttons:

Select Page: Tap it to select all items of the current page.

Unselect: Tap it to deselect all data stream items.

Exit: Tap it to return to the home screen.

Print: Tap it to print the current screen. To perform printing, you need to purchase a Wi-Fi printer manufactured by LAUNCH separately. For details on printer setting, see Chapter 4.10.3 “Launch wireless printer connection”.

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

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

Name	Value	Unit
A/C relay	Off	
A/C switch	Off	
Air flow sensor	250	Hz
Barometric sensor	104	Kpa
Battery voltage	13.7	V

Fig. 4-19

On-screen Buttons:

Exit: Tap to return to the home screen.

Graph: After selecting, tap it to view the waveform. There are 3 types of display modes available for data viewing, allowing you to view various types

of parameters in the most suitable way.

- ✓ **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.

Record: Tap to start recording diagnostic data for future playback and analysis. The saved file follows the naming rule: It begins with vehicle type, and ends with the record starting time (To differentiate between files, please configure the accurate system time). The file is stored in “My Report” under “Personal Center” menu. For details on playback operations, please refer to Chapter 4.9.1 “My Report”.

To stop reading the data stream, tap ☐ before the recording progress bar.

Print: Tap it to print the current screen. To perform printing, you need to purchase a Wi-Fi printer manufactured by LAUNCH separately. For details on printer setting, see Chapter 4.10.3 “Launch wireless printer connection”.

Help: Tap to view the help information.

If more than one page of data stream items is displayed, an icon similar to 1/X appears. Swipe the screen from right to left to switch to the next page.

4.5.4 Special function

This option allows you to detect whether the system parameters are normal or not. It mainly includes: Injector test, fuel pump test, purge control solenoid and so on.

Take “1# injector” as an example.

To detect whether 1# injector works normally or not, tap “1# injector”, the system will automatically carry out the function. After complete, a prompt dialog box will pop up on the screen.

4.5.5 How to view History?

Generally once a vehicle diagnosis is performed, X-431 PRO MINI 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 the necessity of starting from scratch.

1. Tap “History”, all diagnostic records will be listed on the screen in date sequence.

Where the box with light blue background indicates that no DTCs are found on this vehicle and the light yellow box indicates that the vehicle has DTCs.

2. Tap a certain box to enter the history records.
3. Tap "Restore" to directly jump to the system selection screen.
4. Tap the desired system to enter and follow the instructions on the screen to proceed.

4.6 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" to enter, the screen appears blank by default.

4.6.1 Interface layout

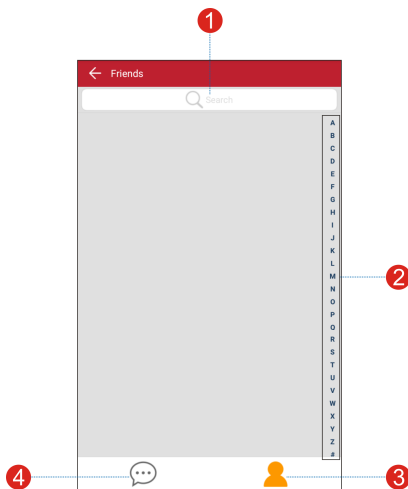


Fig. 4-20

1	Search bar	Directly input the username of the X-431 PRO MINI to start searching, and then tap the desired one to add it into your friend list.
2	Alphabetic order list	The name of friends is sorted by alphabetic order. Tap the desired letter to quickly locate it.
3	Contact tab	Tap to enter the friend list.
4	Message tab	Once an incoming message reaches, a red dot will appear on the upper right corner of the tab.

4.6.2 How to launch a remote diagnosis?

After adding your friend, you can tap it from the friend list to enter the instant messaging interface.

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  and choose the desired file type to send.

To perform the remote diagnosis, tap "Remote Diagnostic", an option menu including the following will appear:

Actions	Results
Send remote diagnostic reservation	Tap it and input the reservation title 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.
Invite remote diagnostic assistant	If you need assistance, just use this option to invite a technician to perform a remote control on your tool. Notes: In this case, • To perform this function, you need to download and install the corresponding vehicle diagnostic software. • Make sure the VCI module is properly connected to the vehicle's DLC and the Bluetooth communication between your X-431 PRO MINI and the VCI module works smoothly.
Cancel	To cancel this operation.

4.7 Software Update

Before diagnosing a vehicle, you have to download the corresponding vehicle diagnosis software.

Tap "Software Upgrade" to enter the update center.

Tap "Update" to start downloading. Once downloading is finished, the software packages will be installed automatically.

4.8 Maintenance Help

This option provides abundant repair case and automotive technology handbook for your reference.

4.9 Personal Center

This function allows users to manage your personal information, configure system settings and feedback your vehicle issues or diagnostic reports to us for analysis.

4.9.1 My report

This option is used to view the diagnostic report generated in process of vehicle diagnosis. Additionally, delete, share operations are also supported.

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

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

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

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

4.9.2 My connector

This option is used to manage all your activated connectors.

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

4.9.3 Activate connector

It is used to activate your VCI module.

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

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

4.9.4 Firmware fix

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

4.9.5 Diagnostic feedback

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

4.9.6 Profile

Use this item to view and configure personal information.

4.9.7 Change password

This item allows you to modify your login password.

4.10 Settings

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

4.10.1 Units of measurement

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

4.10.2 Print information

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

After inputting, tap on "Save" to save it.

4.10.3 Launch wireless printer connection

This option is designed to establish a wireless connection between X-431 PRO MINI and the Wi-Fi printer (sold separately) while performing printing operations.

Follow the steps below to connect the printer.

1. Tap "Launch Wireless Printer Connection";

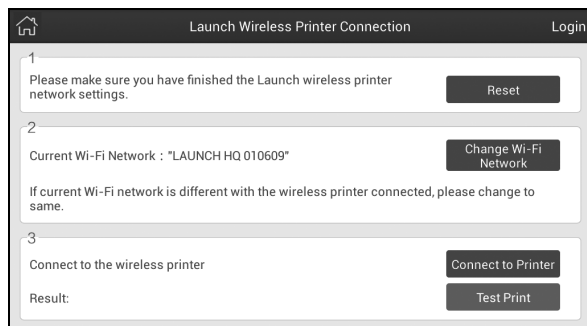


Fig. 4-21

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...

3. Tap "Reset" to configure Wi-Fi printer.

Step 1: Connect the printer:

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

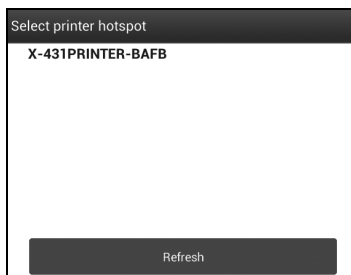


Fig. 4-22

Step 2: Join the Wi-Fi printer into LAN:

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

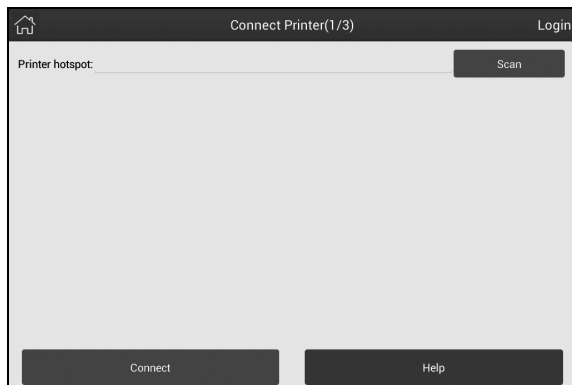


Fig. 4-23

1. Once the Wi-Fi network of the printer is connected and the printer is found,

tap “Printing test” to test the printing.

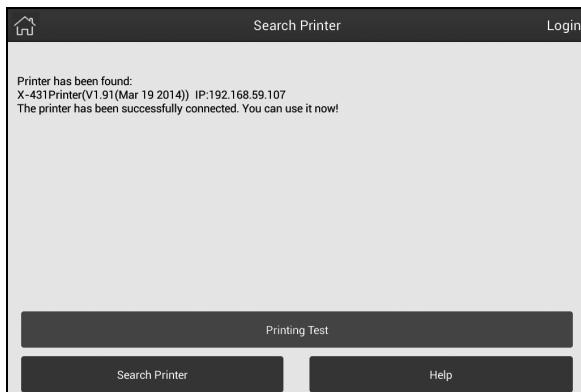


Fig. 4-24

Now you can use the Wi-Fi 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 Wi-Fi 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 Wi-Fi printer.

4.10.4 Network test

It enables you to test whether the current network environment is good or not. It is normal that you may encounter a logout while testing.

4.10.5 About

The software version information and disclaimer are included.

4.10.6 Exit

This option allows you to logout the system.

To logout the current user ID, tap “Exit from current account”.

5 Others

5.1 Email

The function allows you to send and receive emails.

5.1.1 Configure an email account

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

1. On the home screen, tap **Email**.
2. Choose the desired email account type.
3. Input email address and password, tap “Next”.

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

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

5.1.2 Add an email account

1. Tap **Settings** --> **Accounts**.
2. Tap **Add account**.
3. Choose the desired account type.

5.2 Browser

5.2.1 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.

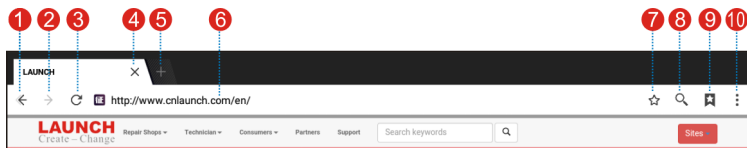


Fig. 5-1

- | | |
|---|---------------------------------------|
| 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.

5.2.2 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 your X-431 PRO MINI and personal data, please download applications from trusted sources. To configure it, tap **Settings** > **Security**, and then slide the Unknown sources switch to off.

5.3 Synchronization

You can transfer media files and APK between the PC and X-431 PRO MINI.

5.3.1 Connect to PC

1. Use the USB cable to connect the X-431 PRO MINI to your PC.
2. Swipe from the top, a message “Connected as a media device” appears.

5.3.2 Run on PC

Perform the following steps:

- Locate the new disc.
- Copy the files.

5.3.3 Install an application

Do the following steps:

1. Tap **Settings** > **Security**, and set the “Unknown sources” to ON, which allows you to install apps from unknown sources.
2. A dialog box appears on the screen, tap “OK” to confirm.
3. Set the tool as “Connected as a media device”, and copy the APK file from the PC to the tool.

5.4 Clear Cache

Doing so clears all browsing records and accounts and enables X-431 PRO MINI to run smoothly and quickly.

1. Tap **Settings > Apps**.
2. Tap  and select "Sort by size" to arrange all applications in size order.
3. Tap certain application, then tap "Clear Cache" to release the space these cache files are occupied.

6 FAQ

1. How to save power?

- Please turn off the screen while X-431 PRO MINI 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.

2. What should I do in case I forgot the screen lock?

You can set screen lock as pattern or password. If you forgot the password, please consult your device provider or reset your device.

 **Warning:** Resetting may cause data loss. Before use, please make sure important data has been backed up.

3. How to do if the system runs slow?

In this case, please do the followings:

> Check all running applications and stop the unnecessary applications (Steps: Settings --> Apps --> Running --> Tap the desired application and then tap "Stop").

> Check all installed applications, remove the unnecessary applications (Steps: Settings --> Apps --> Downloaded --> Tap the desired application and then tap "Uninstall").

If all steps mentioned above are finished and the system still works slowly. Please try to close the system and reboot your X-431 PRO MINI.

4. How to reset X-431 PRO MINI?

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

Do the following to reset X-431 PRO MINI:

1. Tap "Settings" --> "Back & Reset";
2. Tap "Factory data reset";
3. Tap "Reset tablet";
4. Tap "Clear all data" to start resetting until the tool automatically reboots.

5. Why some videos on the website can be not played?

It possibly results from:

1. The current browser does not support Flash playing;

2. Flash player does not support this video.

Try to use other browsers to watch it or install other Flash player.

6. The date and time of X-431 PRO MINI cannot be set.

It is because Automatic date & time is set on your X-431 PRO MINI. Tap "Settings" --> "Date & time", deselect "Automatic date & time" and then set the date and time manually. Since the diagnostic reports are saved and sorted by date, please make sure the system date and time is properly configured on this tool.

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

Any question during the operation, please call 86-755-84528722.

If your unit requires repair service, return it to the manufacturer with a copy of the sales receipt and a note describing the problem. If the unit is determined to be in warranty, it will be repaired or replaced at no charge. If the unit is determined to be out of warranty, it will be repaired for a nominal service charge plus return freight. Send the unit pre-paid to:

Attn: Customer Service Department

LAUNCH TECH. CO., LTD.

Launch Industrial Park,

North of Wuhe Avenue,

Banxuegang, Bantian,

Longgang, Shenzhen, Guangdong

P.R.China, 518129

Launch website: <http://www.cnlaunch.com>

<http://www.x431.com>

<http://www.dbscar.com>

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.

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

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

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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