

Statement

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- This manual is intended for professional vehicle repair technicians.
- This manual provides the operation methods for FCAR products only, and the company accepts no responsibility for the consequences caused by attempting to use the operation methods on other equipment.
- The company shall not accept any responsibility for accidents caused either by the user personally or anyone else, or costs and expenses due to equipment damages including equipment loss caused by the user's abuse or misuse, arbitrary changes or repairs or operation of the equipment in a manner not in accordance with the manual requirements.
- This manual is written in accordance with the existing configuration and functions of the

product, and is subject to change without notice if the product adds new configurations and functions.

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Registered trademark

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used without prior written permission of the owner.

Maintenance and Use Cautions

- Do not allow unauthorized disassembly.
- Avoid strong impacts to the equipment.
- Avoid proximity to any magnetic field.
- Do not keep this machine in a high temperature environment for any length of time.
- Do not use water and chemical solvents to clean the machine, please use a soft clean cloth and neutral detergent instead.

Automobile Inspection Notes

- Follow the standard safety rules of the auto repair industry to operate. Be especially careful to avoid impact or damage caused by environmental factors such as the surrounding pH, poison gas or high pressure environment.
- Vehicle battery fluid contains sulfuric acid, which is corrosive to the skin. During the operation, avoid direct contact with the battery fluid, in particular being careful not to splash into the eyes. Keep away from fire.

- The engine exhaust gas contains a variety of toxic compounds, which one should avoid breathing in. During the operation, park the vehicle in a well-ventilated place.
- When the engine is running, the temperature is very high; please avoid contact with the water tank, exhaust pipe and other high temperature components.
- Before starting the engine, apply the handbrake and place the shift lever in Gear Neutral (Manual Transmission) or P (Automatic Transmission) to avoid sudden movements of the vehicle when starting the engine.
- Before repairing the vehicle, apply the parking brake, engage the Neutral or P range, and lower the driver seat's glass doors.
- If the engine can be started, warm-up the vehicle to normal temperature (water temperature is about 80 °C), and turn off the auxiliary electrical appliances (such as air conditioning, lighting, sound, etc.).

Find the diagnostic socket; check and confirm the diagnostic socket cables are in good condition, connecting the main unit for diagnosis. Otherwise, do

not test, to avoid damage to the main unit. If necessary, use a multimeter to measure the voltage of the diagnostic socket.

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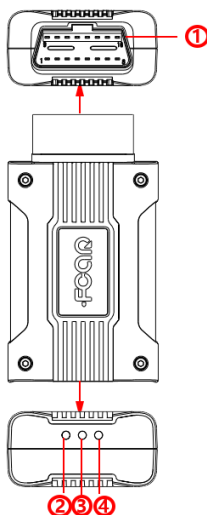
1 Product Overview

The product is commercial vehicle diagnostic tools based on the mobile device.

This product integrates commercial vehicle OBD standard diagnostic protocols, including SAE J1939, SAE J1708, SAE J1850 PWM, SAE J1850 VPW, ISO 14230-4, ISO 9141-2, ISO 15765-4 and ISO 27145-4. The commercial vehicles are classified according to the vehicle type information, and the operation interface is very clear, which makes it convenient for users to diagnose commercial vehicles.

The product includes a VCI device and a mobile App.

2 VCI Structure



Serial No.	Name	Function Description
①	OBD II	Connected to vehicles with a OBD II diagnostic interface
②	Green Light	Light on when the App establishes data connection with a vehicle. Flashes when data transmitted.

③	Red Light	Light on when the VCI get power supply.
④	Blue Light	Light on when the Bluetooth/Wi-Fi is connected, and light off when it is disconnected.

Technical Parameter

WIFI	802.11b/g/n 2.4GHz
BlueTooth	BT4.2
Diagnose interface	OBD II interface
Operating voltage	DC 9V~36V
Operating temperature	0°C~60°C
Storage temperature	-20°C~80°C

3 Power Supply

plug the device into the diagnostic interface of the vehicle, and the device will automatically start up. If it doesn't start up, it may be that there is no power supply for the vehicle diagnostic seat, and the device can be powered by the cigarette lighter or battery

clamp.

Note: the voltage of the power supply should be within the scope of application of the product equipment. If it is beyond the scope, the product may be damaged.

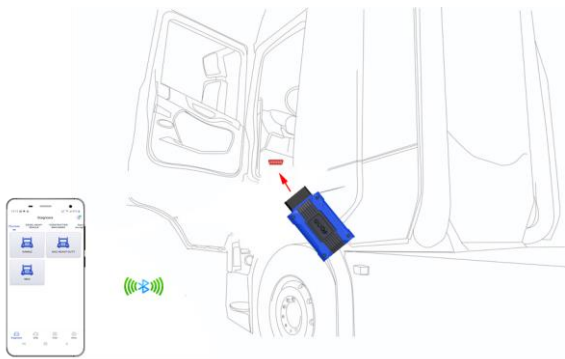
4 Vehicle Diagnostic Preparation

The diagnostic program establishes data connection with a vehicle through the VCI, which can read the vehicle diagnostic information, view the data flow, and perform action test and other functions.

To establish good communication between the diagnostic program and the vehicle, the following operations need to be performed:

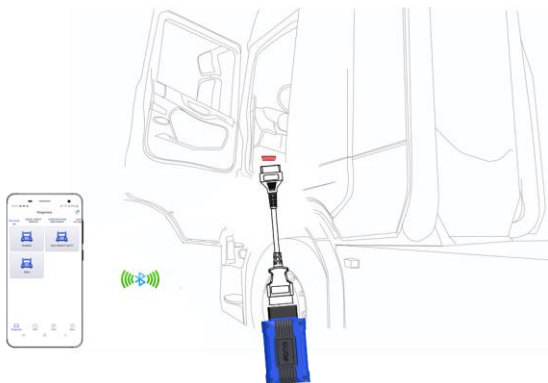
- 1) Turn off the ignition;
- 2) Find the diagnostic interface of the vehicle: it is usually located on the driver side; If the diagnostic interface is not found, please refer to the vehicle maintenance manual.
- 3) Insert the VCI to the vehicle's diagnostic interface.

At this time, the device is powered by the vehicle diagnosis seat, and starts automatically.



Tips: If the vehicle diagnosis seat is too small, so that you can't insert the VCI into the diagnosis interface, you can use an extended cable, shown as the figure below.

Fcar provides the cable, you can purchase it from your product seller.



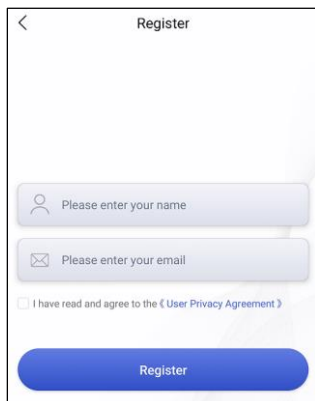
5 Introduction to App

The Android App runs on the Android 8.0 and above.

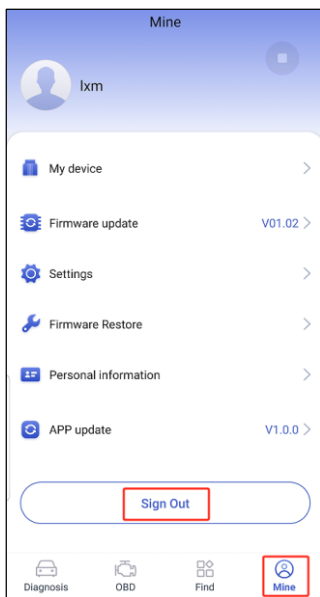
1) Login and Logout

The first time you use the App, you need to register. Input an account name and an E-mail address, and check the User Privacy Agreement to log in to the App.

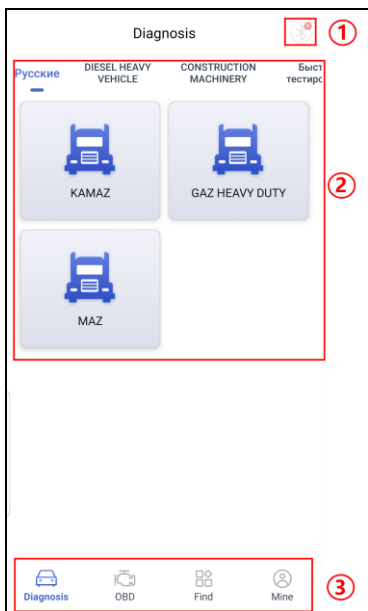
Note: Execute the operation, please ensure your mobile is connected to the internet.

A screenshot of a mobile application's 'Register' screen. At the top, there is a back arrow icon and the title 'Register'. Below the title, there are two input fields: the first is labeled 'Please enter your name' with a person icon, and the second is labeled 'Please enter your email' with an envelope icon. Below these fields is a checkbox labeled 'I have read and agree to the 《User Privacy Agreement》'. At the bottom of the form is a large blue button labeled 'Register'.

Select the menu **Mine** in the main page, and click the button **Sign out** to exit the system.



2) Introduction to Main Page



- ① Connect the VCI device
- ② Diagnostic menu and models
- ③ Navigation menu, see Table 1

Table 1:

Menu	Function Description
Diagnosis	Diagnostic procedure: the specific model

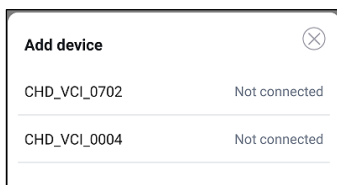
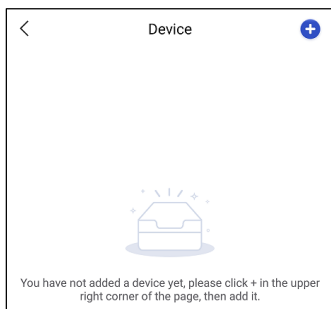
OBD	Diagnostic procedure: HD OBD & OBD-II
Find	Models data downloading, pin detecting, and product operation instruction
Mine	Personal information and APP/firmware updating

3) Connection Setting

The system supports the **Bluetooth** and **Wi-Fi** connection. The Bluetooth or Wi-Fi name of the VCI starts with letters “CHD_VCI”, and only a connection way selected every time.

After log in for the first time, click the icon “” to enter the VCI device connecting page.

Click the icon , enable Bluetooth and Location, and then the system scan the nearby Bluetooth devices firstly. If you want to the Wi-Fi connection, you need to select the Wi-Fi by hand through your mobile phone system.



After the connection succeeds, you can click the icon



to enter the diagnostic page.



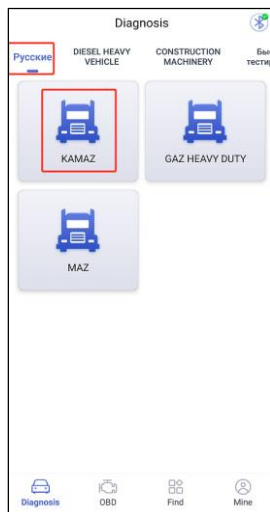
6 Diagnostic Function

Here we take 【KAMAZ】 as an example;

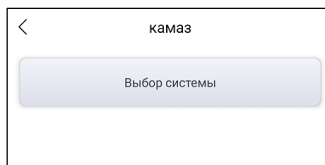
Tips: Please download the models data in the **Find**

menu before diagnosis operation.

1) Select **【KAMAZ】**.



2) Select a system;

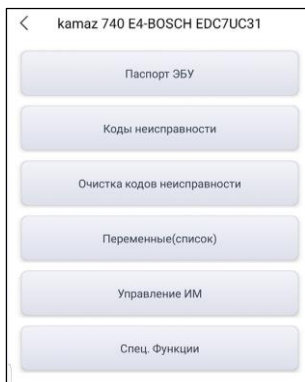




3) Select a model.



4) Enter the diagnosis home page;



The main diagnostic interface usually includes the following options:

- **Read ECU Information:** Read and display the control system module information detected from ECU
- **Read Fault Code:** Read the fault code information retrieved from the vehicle system module
- **Erase Fault Code:** Clear the fault code and freeze frame data retrieved from the vehicle system module
- **Live Data:** Read and display the real-time operation parameters of the current system module

- **Calibration:** Setting idle running time/PTO, Modify parameters, such as Idle speed/ speed limit

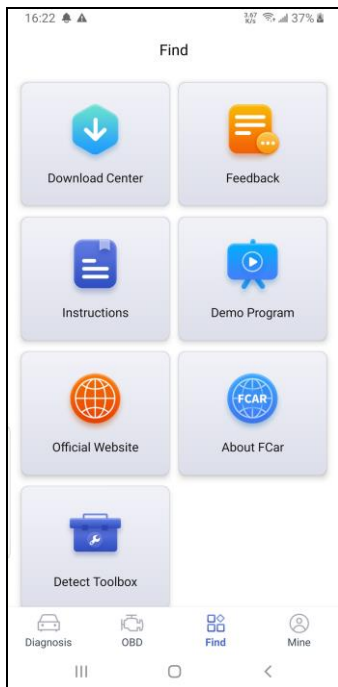
7 Other Function

By the **Find** menu, you can download models data and look up the product information, etc. Please see table 2 for details.

Table 2:

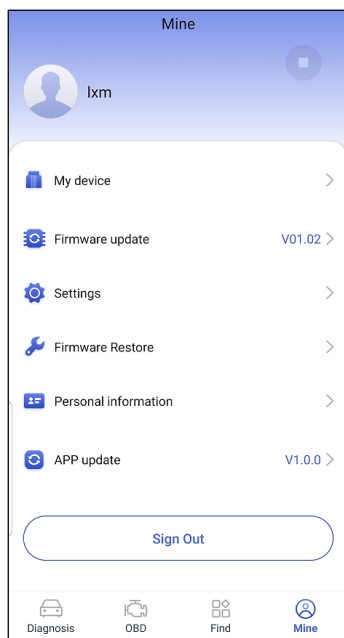
Menu	Function Description
Download Center	Download the vehicle models data
Feedback	Feedback the problems to Fcar's sale after center
Instructions	Product Instructions
Demo program	Product operation demonstration
Official Website	Fcar's official website
About Fcar	Introduction to Fcar
Detect Toolbox	Measure the 16pin voltage of OBD diagnostic interface

Data stream Playback	Play back the recorded data stream
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8 Personal Information and Setting

You can look up the device information, set the language & unit, update the firmware and APP.



FCC Statement

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

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

Changes or modifications not expressly approved by

the party responsible for compliance could void the user's authority to operate the equipment.

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.

To maintain compliance with FCC's RF Exposure guidelines. This equipment should be installed and operated with minimum distance between 20cm the radiator your body: Use only the supplied antenna.