THINKCAR

Version: V1.00.001

Copyright Information

This equipment is used by professional technician or maintenance personal.

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You can visit the website: http://www.thinkcar.com for information about THINKCAR products; you can also write to: Shenzhen Thinkcar Tech Co., Ltd., No. 2606, F26, Building 4, Phase II of Tian'an Yungu Industrial Park, Longgang District, Shenzhen City, Guangdong Province, China, to contact Think to obtain written consent to the use of the manual.

Important Security and Operation Information

To avoid personal injury, property loss or accidental damage to the product, please read all information in this chapter before using the product.

Handle the Equipment with Care

Do not drop, bend, puncture, insert foreign objects, or place heavy objects on the equipment, or else, vulnerable components inside may be damaged.

Do not Disassemble or Modify the Equipment

It is a sealed device without part that can be repaired by user inside. All internal repairs must be carried out by authorized maintenance agencies or technicians. Attempts to disassemble or modify the equipment will void the warranty.

Do not Attempt to Replace Internal Battery

The internal rechargeable battery must be replaced by authorized maintenance organization or technician.

Adapter information

Do not wet the equipment and adapter. Do not soak the equipment into water or place it in position where it may absorb water or other liquids. The charging device may be hot in normal use. Ensure good ventilation around the charging device.

Unplug the charging device if any of the following occurs:

- The charging device is exposed to rain, liquid, or excessive humidity.
- The charging device shows signs of physical damage.
- You attempt to clean the charging device.

Protect Data and Software

Do not delete unknown files or change names of files or directories created by others, otherwise, the equipment software may fail to run.

⚠ Note: access to network resources may make devices vulnerable to computer viruses, hackers, spyware, and other malicious acts, which may damage devices, software, or data. You should ensure that your computer is adequately protected with firewalls, anti-virus software, and anti-spyware software, and that these software is always up to date.

Precautions for Use

The ignition switch should be in the OFF position when the diagnosis line is removed or inserted.

Precautions for Vehicle ECU Operation

- When the ignition switch is on, please do not disconnect the internal electrical device of the car at will, so as to avoid damage to the ECU or equipment.
- Do not place magnetic objects near the computer to avoid circuit and component failure in the ECU.
- Disconnect the ECU system power supply when welding is carried out on the vehicle.
- When performing repairs near the computer or sensor, pay particular attention to avoid damage to the ECU and sensor.
- The connector of the ECU wire harness should be connected reliably to avoid damage to the integrated circuit and other electronic components inside the ECU.

Content

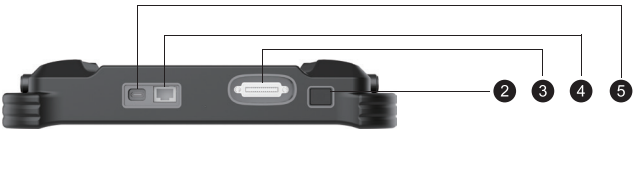
1. Overview

1.1 Instruction

The THINKTOOL X10 video remote diagnosis equipment (hereinafter referred to as THINKTOOL X10) has the strongest dual diagnosis mode, which can not only realize the local diagnosis function, but also complete the remote vehicle diagnosis through real-time communication of equipment, so that the diagnosis is not bound by space.

THINKTOOL X10 supports voice and video communication, and provides massive technical maintenance expert support anytime. THINKTOOL X10 remote service merchants and certified technicians can initiate remote diagnosis services online according to maintenance needs, and remotely solve auto repair problems for you.

1.2 Recognize diagnosis host



① Screen

② Power/Button

Long press the button to start or shut down.

Simply press the key to sleep or wake up.

③ Diagnosis interface

④ Ethernet interface

⑤ Type C charge jack

For connecting attached charger for charging.

⑥ Rear camera

⑦ LED lamp

⑧ Adjustable bracket

Adjustable for 180°, support three modes of lifting, support and normal.

⑨ Loudspeaker

⑩ Microphone

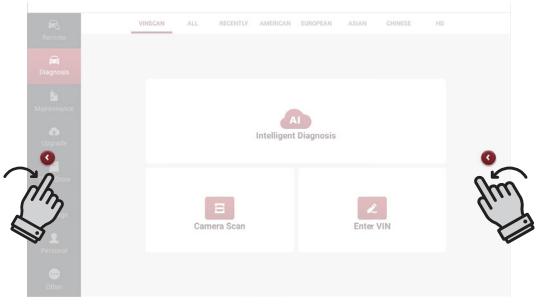
1.3 Performance parameter

Operating system	Android 10
Memory	4 GB
Memory capacity	128 GB
Battery	12600mAh/ 3.7V
Display screen	10 inches

Camera	Rear 13 megapixel camera
Network connection	Wi-Fi/Ethernet interface
Bluetooth	Bluetooth 5.1
Work temperature	0°C ~ 50°C
Storage temperature	-20°C ~ 60°C

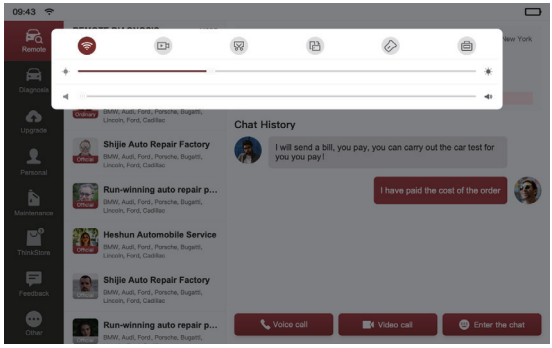
1.4 Equipment operation

The equipment interface shows return key " ", and gesture return is available.



1.5 Shortcut setting

Drop-down menu shortcut keys, including Wi-Fi, screen recording, screen capture, screen flip, LED switch, and Ethernet switch (the red bottom indicates enabled). The screen brightness and volume can be also adjusted.



After the screen capture function is enabled, the screen displays the screen capture button capture the screen by clicking the button. Check screenshot from "Personal" -> "Photo Album".

Long press the Wi-Fi to enter the Wi-Fi setting interface rapidly.

2. Rapid use introduction

2.1 First use

The following setting should be made in first use.

2.1.1 Start

Long press the power key to start the machine, and the screen displays as follows:

2.1.2 Language Setting

Select the tool language from the languages displayed on the interface.

2.1.3 Connect Wi-Fi

The system will automatically search all available Wi-Fi networks and you can choose the Wi-Fi needed. If the chosen network is open, you can connect it directly; If the chosen network is encrypted, you must enter the correct password.

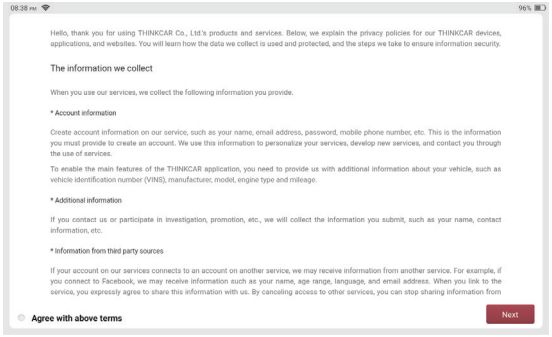
⚠ Tips: Wi-Fi must be set. If no Wi-Fi network is available nearby, you can enable "Portable Mobile Hotspot".

2.1.4 Choose Time Zone

Choose the time zone of the current location, then the system will automatically cofigure the time according to the time zone you chose.

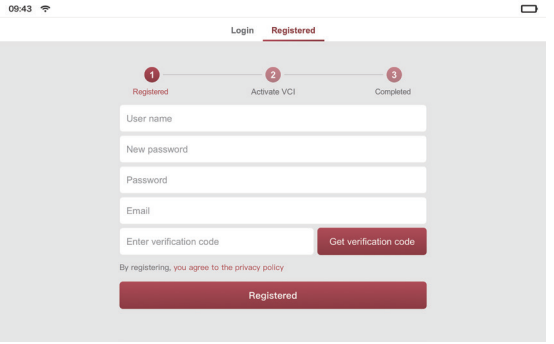
2.1.5 User agreement

Read all the terms and conditions of the user agreement carefully and select "Agree to the Terms".



2.1.6 Account creation

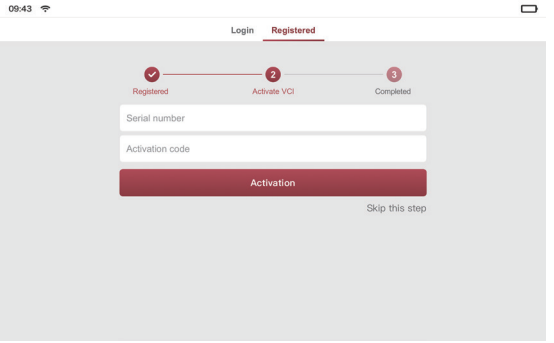
You need to enter your email address to register an account. If you already have other THINKCAR products and have registered, you can directly use the existing account to log in.



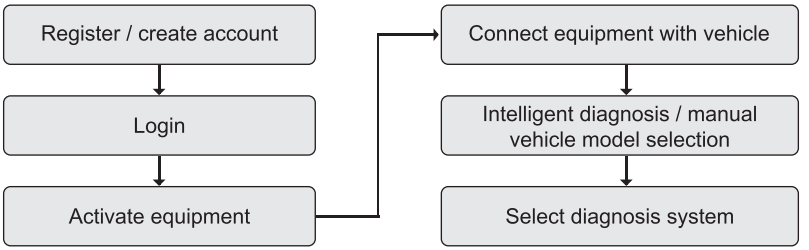
2.1.7 Diagnosis equipment activation

Enter the serial number and activation code of the equipment to activate it. If no activation operation is performed, you can also tap [Personal] on the home screen to enter to select [Activation VCI] to carry out operation.

⚠ Note: the activation code consists of 8 digits, pasted on the "Password Letter".

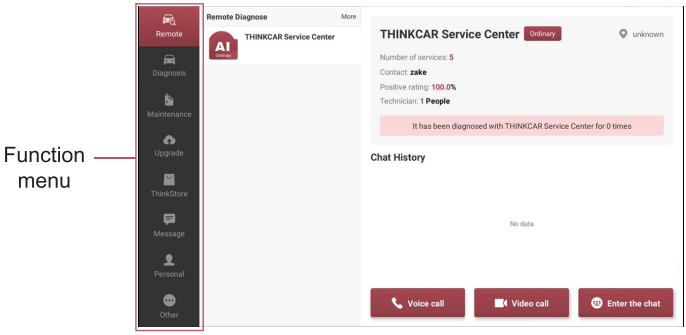


2.2 Diagnosis procedure



2.3 Function menu

After diagnosis host is started, the system automatically enters the home page:



THINKTOOL X10 mainly comprises the following function options:

- [Remote]: the user and the remote expert technician communicate the diagnosis requirements through this module, and the expert technician can use the third-party diagnostic equipment to provide professional remote diagnosis support after confirming the operation.
- [Diagnosis]: including intelligent diagnosis and traditional diagnosis. It can detect the electronic control system faults of most high, middle and low class models of Asian, European, and American vehicles. The diagnostic functions include fault code reading, fault code clearing, data stream reading, action testing, special functions, etc.
- [Maintenance]: it supports matching, code setting and common special functions of programmable modules of most models: AC System Relearn/Initialization, AdBlue Reset, AFS Reset, Airbag Reset, A/F Reset, Bleeding, BAT. Match, GearBox Learn, Brake Reset, Coolant Bleed, DPF Reg., EGR Adaption, Engine Power Balance Monitoring, Elec. Throttle Rlrn, Gear Learn, Gas Particulate Filter Regeneration, High Voltate Battery Diagnostics, Intelligent Cruise Control System, Immo, Injector, Language Change, Motor Angle Calibration, NOx Sensor Reset, ODO Meter, Oil Reset, SAS Reset, Seats Calibration, Stop/Start Reset, Sun Roof, Sus Reset, TPMS Reset, Transport Mode, Tyre Reset, Windows Calibration, IMMO PROG(optional).
- [Upgrade]: the model diagnosis software, client and firmware can be upgraded online with one key.
- [ThinkStore]:ThinkStore is launched by THINKCAR, including software and hardware products.
- [Message]: to display list of contacted merchants and relevant information.
- [Personal]: In this function, includes machine settings, account management, information query, etc.
- [Others]: includes ASDS, thinkfile, tire pressure, remote assistance, diagnosis feedback, Repair Info and use guidelines.

2.4 Recharge the host

The host is recharged by the following steps:

1. Connect one end of the power cable to the USB socket of the power adapter.
2. Connect the other end of the power cable to the charge jack at the top of the host.
3. Plug the charger into the power socket and start charging.
4. When the battery symbol shows, it means charging is finished, and disconnect the power socket of the host.

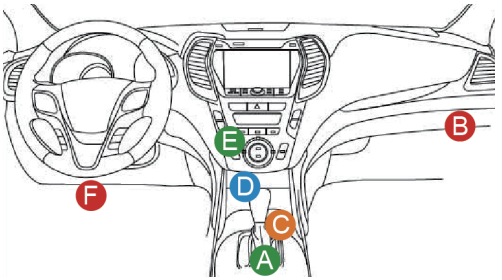
2.5 Battery use

- If the battery has not been used for a long time or the battery is exhausted, it may not be able to start up the machine properly when charging. This is normal. Please charge the battery for a period of time before starting the machine.
- Please use the attached charger for charging. The Company will not be responsible for any damage or loss caused by using other chargers other than those specified by the Company.
- The battery can be recharged. But since the battery is a consumable, after a long time of use, the standby time of the equipment will be shortened. To extend the service life of the battery, avoid frequent recharging.
- The battery charging time varies with temperature conditions and battery usage.
- When the battery of the equipment is low, the system will pop up the prompt of connecting the charger. When the battery is too low, the equipment may be automatically shut down.

2.6 Diagnosis equipment connection

The connection steps are as follows:

1. Find the diagnosis seat on the vehicle. Most of the diagnosis seats are standard OBDII diagnosis seats (non-standard OBDII vehicle diagnosis seats require corresponding adapters) and are generally mounted on the driver's side, 12 inches from the center of the instrument panel. If you cannot find the location of the vehicle diagnosis seat, please consult the vehicle maintenance manual.



A	Opel, Volkswagen, Audi
B	Honda
C	Volkswagen
D	Opel, Volkswagen, Citroen
E	Changan
F	Hyundai, Daewoo, Kia, Honda, Toyota, Nissan,Mitsubishi, Renault, Opel, BMW, Mercedes-Benz, Mazda, Volkswagen, Audi, GM, Chrysler,Peugeot, Regal, Beijing Jeep, Citroen and most prevailing models

2. Connect the diagnosis equipment with the diagnosis seat on the vehicle.

Note: for the non-standard OBDII diagnosis seat, if the diagnostic block is insufficient in power, power supply can be obtained in a battery double-embedded wire mode.

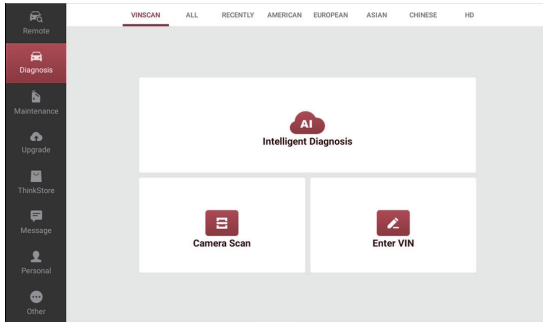
3. Diagnosis

When using the diagnosis function, the user can use VIN identification to quickly enter the system for diagnosis, or manually select the model and system for diagnosis.

3.1 VIN automatic identification

Automatic VIN identification gives you faster access to the test vehicle system, and models and submodels do not need to be manually selected.

Click [Diagnosis] on the home page of the equipment, and then click [VINSCAN] button to enter the function.



A. Intelligent diagnosis: the user can connect the vehicle through the diagnosis cable to read the VIN from the ECU of the vehicle, and then compare the read VIN with the server, so as to obtain the vehicle information for quick diagnosis, and the previous problems that the menu shall be selected step by step to test the vehicle, the speed is slow, and selection errors can be made, can be solved. (You can also enter the function directly through "Intelligent diagnosis" in the diagnosis main screen.)

B. Camera Scan: click to read and test VIN of the vehicle.

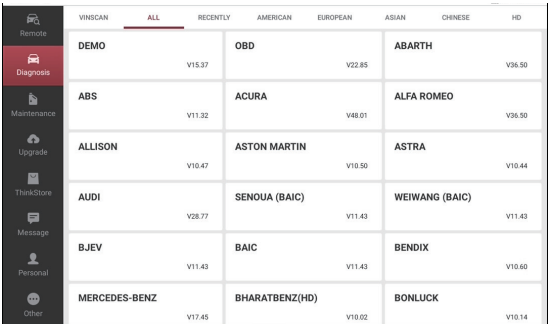
C. Enter VIN: click to enter manual input of VIN, and click [OK] to enter the diagnosis software.

Note: the VIN is usually located on the driver's side, in the lower right corner of the front windshield. The exact location varies in vehicles. Generally, VIN consists of 17 standard characters. VIN characters can contain uppercase letters A to Z and numbers 1 to 0, but to avoid misreading, letters I, O, and Q are usually not used. Enter VIN without Spaces and symbols.

3.2 Manual diagnosis

In addition to supporting quick diagnosis, it also supports step-by-step manual selection of the menu for diagnosis.
How to start the diagnosis is explained as follows by taking [Demo] programas example: using the demo as an example.

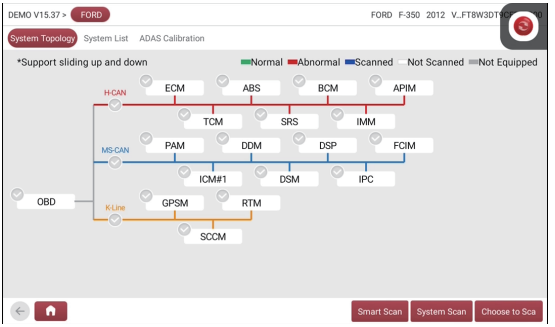
1) Select model: directly click the [Demo] symbol on the diagnosis interface, and click [OK] in the lower right corner after entering. (For actual diagnosis, please select the vehicle model on the main diagnosis interface.)



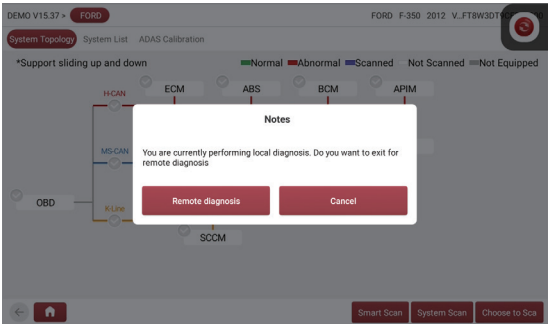
⚠ Note: diagnosis software for different models may have different diagnosis menus.

2) Select diagnosis mode: after the connection is successful, the screen will enter the diagnosis item selection interface.

⚠ Note: the interface has two display modes of system topology and system list, with the same functions. You can switch them according to your personal habits.

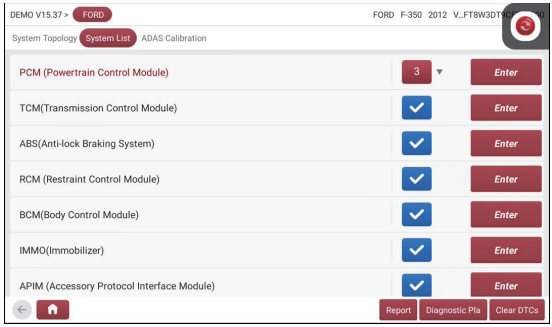


⚠ Note: this icon is a shortcut key for remote diagnosis, which can be slid and docked on both sides of the screen. After tapping, the following pop-up box will appear.



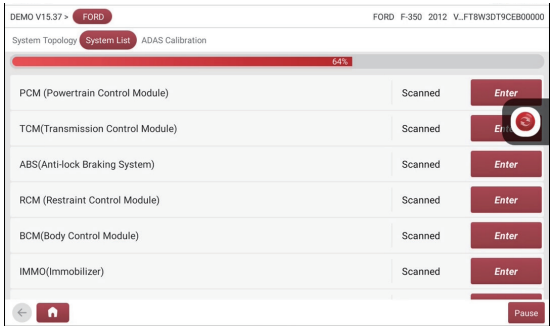
A. Smart Scan: this function is used to quickly detect vehicles and view vehicle health reports (this item will only be displayed if the model diagnosis software supports this function).

Click [Smart Scan], the system starts to scan for fault codes in each system and displays specific scan results.



Click [Report] to generate vehicle health report.

B. System Scan: what systems the vehicle is equipped with are automatically scanned.



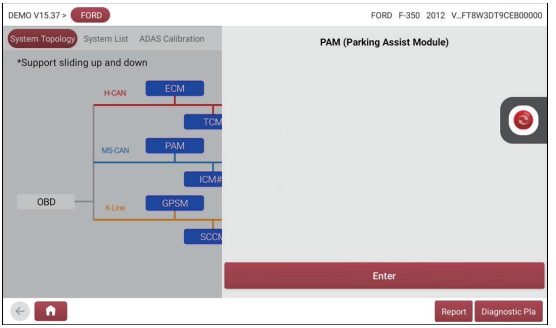
C. Selection scanning: scan the manually selected vehicle electric control system.

3.3 Select diagnosis system

1) Select diagnosis system, click [Enter], the screen enters the function selection interface. EMC (engine control

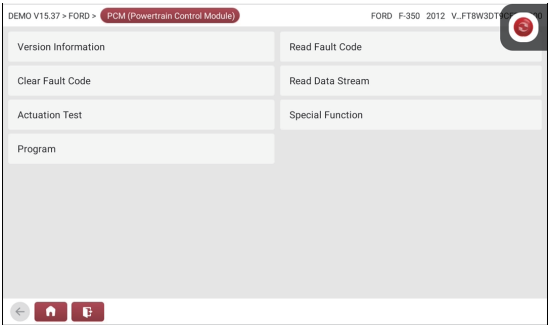
model) is taken as example.

⚠ Note: in the system topology mode, click [EMC] first and then click [Enter].



2) Click to diagnose the function.

⚠ Note: the diagnosis menu may vary from vehicle to vehicle.



a) Version information

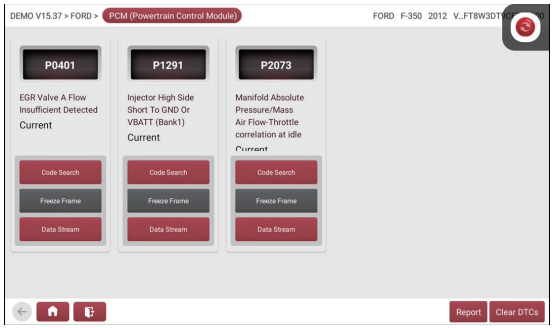
Click [Version Information] to read the version information of the ECU of the current vehicle.

b) Read fault code

This function is used to read the fault codes existing in the ECU of the current vehicle.

Click [Read Fault Code] on the function selection page, and the diagnosis result will be displayed on the screen.

⚠ Note: reading the fault code is only a small step in the process of vehicle troubleshooting. The vehicle fault code is only for reference, and the parts cannot be replaced directly on the basis of the given fault code definition. Each fault code has a set of test procedures, maintenance technicians must strictly follow the operation instructions and procedures described in the vehicle maintenance manual to confirm the root of the fault.



c) Clear fault code

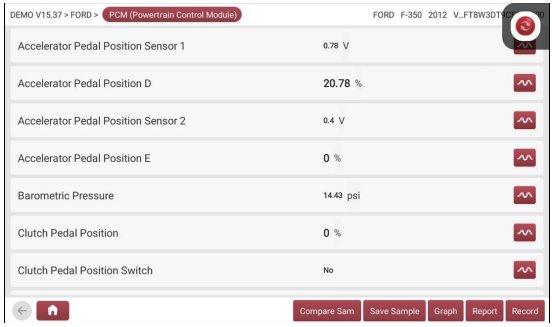
On the function selection page, click [Clear Fault Code], the system automatically deletes the existing fault code and pups up the dialog box "Clear Fault Code successfully".

⚠ Note: for general vehicles, please operate strictly following the routine sequence: first read the fault code, then clear the fault code, carry out trial run, read the fault code again for verification, repair the vehicle, clear the fault code, and carry out trial run again to confirm that the fault code does not appear any more.

d) Read data stream

This function is mainly used to read and display the real-time operation data and parameters of vehicle ECU. By observing this real-time data stream, maintenance technicians can gain insight into the overall performance of the vehicle and provide guidance on vehicle maintenance.

⚠ Note: to perform vehicle troubleshooting, you must drive the vehicle, please find someone else to help you. It is dangerous to drive and operate the diagnosis equipment at the same time, and serious traffic accidents can be caused.



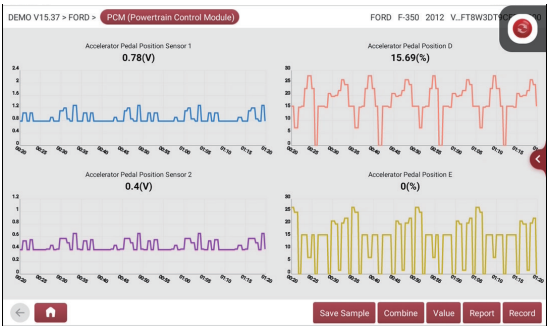
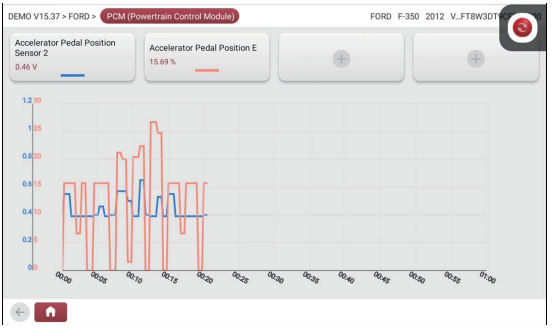
When the data stream options are not displayed in the screen, scroll up and down to view all the options. There are three display modes, you can choose the most suitable way to browse:

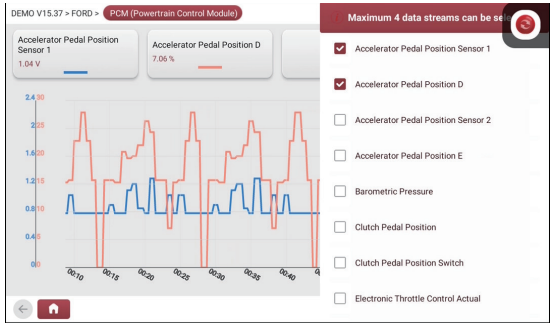
[Value]: The default display mode displays the parameters as values and lists (*Note: if the data stream value is not within the standard value range, the data stream is displayed in red).

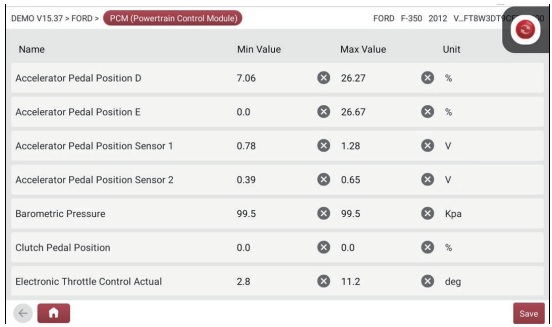
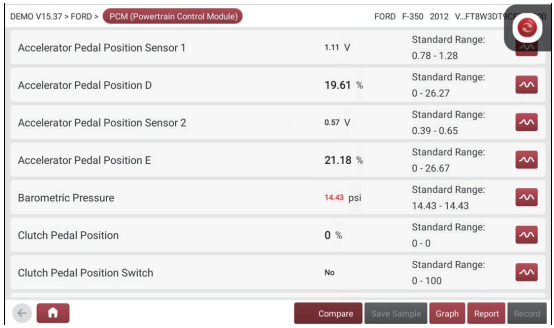
[Graph]: Parameters are displayed in the waveform mode.

[Combine]: The graphs are presented in a combination mode for user to compare (*Note: different data stream options are marked in different colors).

Screen button:

【Graph】	【Graph】: Parameters are displayed in the waveform mode.  【Combine】: Graphs are presented in a combination mode for users to compare. ⚠ Note: at most 4 data stream waveforms are displayed at the same time. 

【 】	In the value mode, click to display the current (single) data stream as a waveform. On the waveform display page, users can perform the following operations: 【Upper Limit/Lower Limit】: Click to set Max/Min. If the run value exceeds the set value, the system issues a warning.  【User Defined】: Click " " on the screen to define data stream options to be checked. ⚠ Note: at most 4 data stream options are selected. 
【Report】	Click this button to save the current data stream report. ⚠ Note: the saved report is stored under menus "Other" → "ThinkFile".
【Record】	Used to record diagnosis data for user to playback and review. To stop reading, click the button . ⚠ Note: the saved file is named after the serial number of the model diagnosis connector + the system time when it starts recording, and it is stored under menus "Other" → "ThinkFile".

【Save Sample】	Used to collect standard data streams, standard values stored can be imported into the [Standard Range]. Click [Collect] to start recording the sample data stream (Note: the system only records the data stream option with unit). After the recording is complete, click to terminate recording, then the system automatically jumps to the value modification page.  Click values in columns "Min" and "Max" after the data stream option to modify the value. When the modification is complete, click "Save" to save your data stream values as a standard data stream sample. All standard data streams are stored in "Personal" → "Data Stream Sample".
【Compare Sample】	Click [Compare Sample] to select the standard data stream sample acquired and saved. The values you set and saved in the data stream acquisition process will be imported into the column "Standard Range" for you to compare.  ⚠ Note: before you perform this function, you must first acquire and save the values of the data stream options.

e) Actuation test

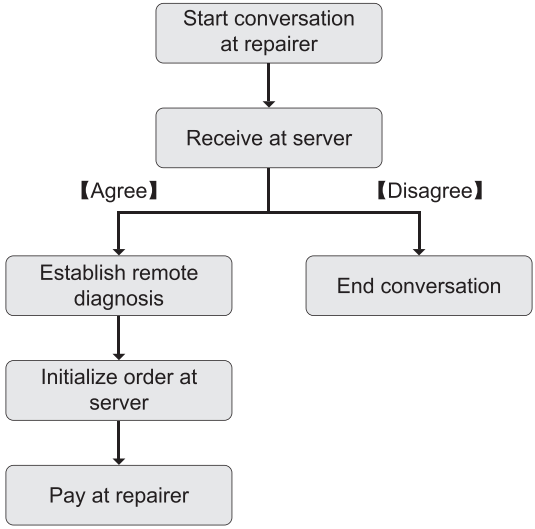
The function is mainly used to test whether the executive components in the electronic control system can work normally.

4. Remote diagnosis

Remote diagnosis is a service system integrating remote diagnosis platform and professional remote diagnosis equipment, including THINKTOOL X10 video remote diagnosis equipment (repairer), remote service platform, and ThinkLink remote diagnosis service box (server).

When THINKTOOL X10 users encounter diagnosis or maintenance problems during the diagnosis process, they can ask the server personnel to initiate a remote service request, and find a professional to answer your questions and even remotely program.

4.1 Remote diagnosis flow

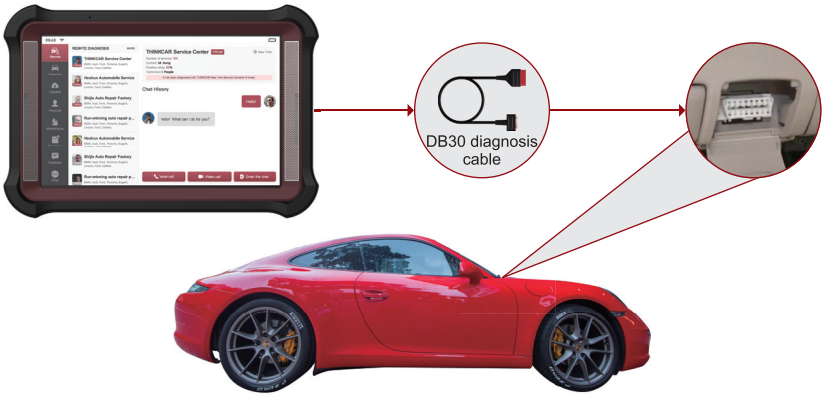


4.2 Connect and start remote diagnosis

1) Shut down vehicle ignition switch.

2) Connect one end of the DB30 diagnosis cable to the host of THINKTOOL X10, and connect the other end to the OBDII diagnosis port of the vehicle.

⚠ Note: it is suggested that during remote diagnosis, the battery of the vehicle should be connected with an external charging power supply to avoid battery loss of the vehicle and the failure of the vehicle to start due to the long time of remote diagnosis.



3) Connect one end of the delivered network cable to the LAN/WLAN port of the THINKTOOL X10 and the other end to the network modem LAN jack.

⚠ Note: it suggests that the network is of 100 mbit broadband and above.

4) Turn on the Ethernet switch using the THINKTOOL X10 drop-down menu.

5) Turn on the ignition switch.

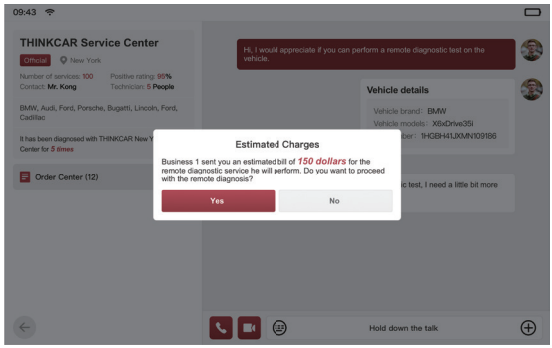
6) After the connection between THINKTOOL X10 (repairer) and service box (server) is successful, it enters the remote diagnosis mode.

7) In the remote diagnosis area of THINKTOOL X10, select an appropriate server for (text, voice, or video) communication.

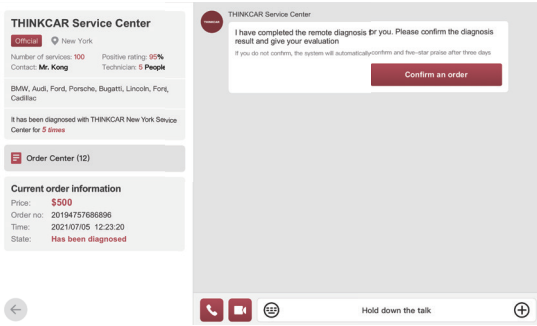
⚠ Note: you can view instructions for remote diagnosis under "Other" → "Guidelines for use".

8) After reaching an agreement with the server, the other side will create a service order, and the repairer will wait for the maintenance service and pay.

⚠ Note: using the "Remote Service" function at the bottom of the dialog box, you can initiate a server to remotely operate your device.



9) After the maintenance service is finished, the maintenance terminal can view the report and confirm the order through the dialog window.



10) After the remote diagnosis is completed, remove the network cable and turn off the Ethernet switch, so as to terminate remote diagnosis.

⚠ Note: in "Message" on the home page, you can view the records of the servers you contacted.

5. Maintenance

THINKTOOL X10 supports maintenance service of 35 models, and maintenance services applicable to different models are somehow different.

5.1 Oil Reset

The vehicle service light indicates that the vehicle needs repair and maintenance. After the maintenance, the mileage or driving time should be reset to zero, then the maintenance light will go out, and the system will start a new maintenance cycle.

5.2 Elec. Throttle Rlrn

Throttle learning is to use the vehicle decoder to initialize the throttle actuator, so that the learning value of ECU returns to the initial state, and then the throttle (or idle motor) action can be more accurately controlled and adjusted to regulate the air intake. Situations where throttle matching is required:

a) After replacing the ECU, the ECU does not store the characteristics related to throttle operation, and throttle matching is required.

b) After the ECU is powered off, the memory of the ECU memory is lost, and throttle matching is required.
c) After replacing the throttle assembly, throttle matching is needed.
d) After replacement or disassembly of the air inlet, the coordination of ECU and throttle body to control the idle speed is affected, so it is necessary to carry out throttle matching.
e) After the throttle is cleaned, the characteristics of the idle throttle potentiometer do not change, but at the same throttle opening, the air volume has changed, idle control characteristics have changed, and then throttle matching is required.

5.3 SAS Reset

Steering angle learning is to find the relative zero position of the vehicle running in a straight line. With this position as a reference, ECU can calculate the exact angle of left and right steering. Generally, after the replacement of steering angle position sensor, the replacement of steering system mechanical parts (e.g. steering machine, steering column, rod ball head, horn), four wheel positioning, body repair, etc., it is required to do the steering angle reset to zero.

5.4 BAT. Match

Battery replacement is to use the automobile diagnosis equipment to reset the monitoring unit of the vehicle battery, remove the original fault information about the insufficient battery power, make it match again, and make the monitoring unit monitor with the relevant information of the existing accumulator as the standard.

Situations where battery matching is required:

a) When replacing the main accumulator, it is necessary to use battery matching to clear the original information of insufficient power, so as to avoid the failure of some auxiliary electronic functions of the vehicle when the relevant control module detects false information, such as automatic start and stop function, failure of one-key trigger function of the skylight, and failure of automatic function of the electric window.
b) The battery monitoring sensor uses the battery matching function to match the control module with the monitoring sensor again, so as to detect the use of battery power more accurately and prevent the meter to prompt error information resulting in misinformation.

5.5 Bleeding

When the ABS system contains air, it is necessary to exhaust the brake system through the ABS exhaust function, so as to restore the brake sensitivity of the ABS system. In addition, in the replacement of ABS computer, ABS pump, brake master pump, brake sub-pump, brake pipeline and brake oil, it needs to use the ABS exhaust function to exhaust the ABS system.

5.6 Brake Reset

When the brake pad is used to a certain thickness, the brake pad induction line can be abraded. At the moment, the brake pad induction line will convey a signal induction line to the vehicle computer, prompting to replace the brake pad. Brake pad reset is needed after replacement, otherwise the vehicle will continue to alarm.

Situations where reset is required:

a) After the brake pad is replaced and the brake pad abrades the sensor.
b) The brake pad indicator lights on.
c) After the short circuit of the brake pad sensor line is repaired.
d) After the servo motor is replaced.

5.7 DPF Reg.

The DPF regeneration function is mainly to regularly remove particles in the trap by using a combustion oxidation method (e.g. high temperature heating combustion, and combustion with fuel additives or catalysts to reduce the ignition point of particles), so that the trap performance is always kept at the best stability.

Situations where DPF regeneration matching is required:

a) The exhaust back pressure sensor is replaced.
b) The particle trap is dismounted or replaced.
c) Fuel additive injector is dismounted or replaced.
d) The catalytic oxidizer machine is dismounted or replaced.
e) The DPF regeneration fault indicator lights on, and matching is needed after repairing.
f) The DPF regeneration control module is repaired or replaced.

5.8 Gear Learn

It means self-adaptive learning of crankshaft position sensor. The crankshaft position sensor can learn the machining error of crankshaft gear and store it in the computer, so as to diagnose engine misfire more accurately. If a vehicle installed with Delphi engine has not undergone gear signal learning, the fault indicator will light up after starting the engine. When detecting with diagnosis equipment, there will be a fault code that P1336 gear signal has not been learned. At the moment, the diagnosis equipment must be used to perform the special function of gear signal learning on the vehicle. The fault indicator is off after this function is successfully completed. Gear signal learning is required in case of replacement of engine ECU, crankshaft position sensor, crankshaft flywheel, and fault code with unlearned gear signal.

5.9 Immo

In order to prevent the vehicle from being used by illegal keys, the anti-theft key matching function enables the anti-theft control system on the vehicle to identify and authorize the remote key before vehicle car can be started and used normally. In addition, when replacing the ignition key, ignition switch, combined instrument panel, engine control unit (ECU), body control module (BCM), and remote control battery, immobilizer matching is required.

5.10 Injector

Write the actual injector code or rewrite the code stored in the ECU into the code corresponding to the injector of each cylinder, so as to control or correct the amount of fuel injection of each cylinder more accurately. Generally after the ECU and injector are replaced, it is necessary to confirm or recode the injector code of each cylinder, so that the cylinder can better identify each injector and accurately control fuel injection.

5.11 TPMS Reset

When the tire pressure failure indicator lights on, after repairing, it is necessary to reset the tire pressure through the tire pressure reset function and put out the tire pressure failure indicator. When maintenance that the tire pressure is too low or leakage happens, tire pressure monitoring equipment is replaced or installed, tires are replaced, the tire pressure sensor is damaged, tire transposing of vehicle with tire pressure monitoring function is carried out, et., is completed, the tire pressure of the vehicle should be reset.

5.12 Sus Reset

The height of the vehicle body can be adjusted with this function. When the body height sensor and

control module in the air suspension system are replaced or the levelness of the vehicle is incorrect, it is necessary to perform this function to adjust the body height sensor for level calibration.

5.13 AFS Reset

The self-adaptive headlight system can be initialized with this function. The self adaptive headlight system can decide whether to automatically turn on the headlights according to the intensity of the ambient light, and monitor the driving speed of the vehicle, the posture of the body, and adjust the lighting angle of the headlights in time.

5.14 GearBox Learn

This function can complete self-learning of the gearbox and improve the shift quality. When the gearbox is dismounted or repaired (after the power failure of accumulators in some vehicles), shift delay or impact problem can be caused. At this time, it is necessary to perform this function, so that the gearbox can automatically compensate according to the driving conditions, so as to achieve more comfortable and ideal shift quality.

5.15 Sun Roof

With this function, skylight locking and closing, memory function of closing, sliding/tilting of the skylight when it rains, outside temperature threshold, etc. can be set up.

5.16 EGR Adaption

With this function, parameters can be adjusted to activate the exhaust gas retreatment system.

5.17 ODO Meter

a) Meter calibration is copy, writing or rewriting of the mileages, that is, to copy, write or rewrite the data from the chip in the meter by using the vehicle diagnosis computer and the data line, so that the meter shows the actual mileage.
b) Usually, when the speed sensor is damaged and the mileage is not accurate due to meter fault, mileage calibration is needed after repairing.

5.18 Airbag Reset

With the function, airbag data can be reset, and airbag collision fault indicator can be terminated. When the vehicle has a collision and the airbag is opened, the fault code corresponding to the collision data will appear. The airbag indicator lights on, and the fault code cannot be cleared. Since the data in the airbag computer is one-time, it is necessary to replace all new accessories according to the requirements. However, after performing this function, the data of the airbag computer can be restored, and the fault code can be cleared. The airbag indicator will light off, and the airbag computer can continue to use.

5.19 Transport Mode

In order to reduce the power consumption of the vehicle, protection such as vehicle speed limit, no door open network awakening, and disabled remote control key can be enabled, then the transport mode needs to be released to restore the vehicle to normal.

5.20 A/F Reset

It aims to set or learn air/fuel ratio parameters.

5.21 Stop/Start Reset

By swiping the trip computer hiding, the vehicle can enable or disable the automatic start-stop function (provided that the vehicle has the hiding function, supported by the hardware).

5.22 NOx Sensor Reset

It is a sensor used to detect nitrogen oxide (NOx) content in engine exhaust. Re-initialization of NOX fault and replacement of NOX catalytic converter require resetting the catalytic converter learning value stored in the engine ECU.

5.23 AdBlue Reset

Urea reset is needed after diesel tail gas treatment (vehicle urea) is replaced or refilled.

5.24 Seats Calibration

It is for seat change with memory function, and matching after maintenance.

5.25 Coolant Bleed

The electronic water pump is activated with the function before exhaust of the cooling system.

5.26 Tyre Reset

For setting of tire sizes after tire modification or replacement.

5.27 Windows Calibration

To perform door and window matching to restore the initial memory of the ECU and restore the automatic rise and fall function of the electric window.

5.28 Language Change

To change the language of central control system of vehicle.

5.29 AC System Relearn/Initialization

If the ECU or actuator of the vehicle air conditioner is replaced, or the memory of the ECU memory is lost, air conditioner initialization learning is needed.

5.30 Intelligent Cruise Control System

For replacement of intelligent cruise control system of vehicle and matching after repairing.

5.31 Engine Power Balance Monitoring

At the power stroke of each cylinder, power balance monitors crankshaft acceleration, thus determining the relative power provided by each cylinder.

5.32 Gas Particulate Filter Regeneration

After long-term use of the particle catcher, fuel consumption can be increased, engine output power can be decreased, then in this case, the GPF needs to be replaced or regenerated.

5.33 Motor Angle Calibration

There is a deviation between the rotor position detected by the angle position sensor of the motor and the actual rotor magnetic field position, so it is necessary to calibrate the motor angle.

5.34 High Voltate Battery Diagnostics

For diagnosis and state information detection on high-voltage accumulator.

5.35 IMMO PROG (optional)

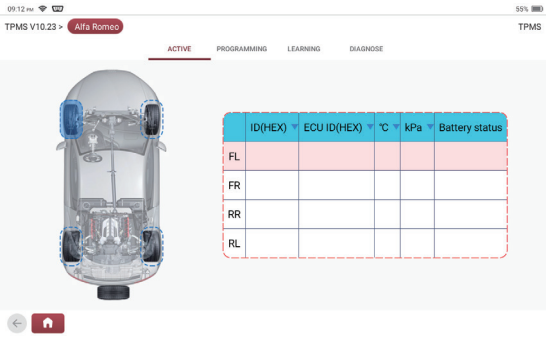
Anti-theft editor supports vehicle key chip read and write, EEPROM chip read and write, MCU chip read and write, engine ECU and transmission ECU EEPROM and FLASH read and write.

6. Other functions

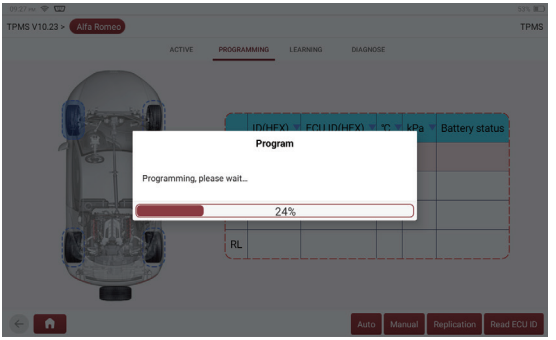
6.1 TPMS

THINKTOOL X10 with wireless tire pressure diagnosis tool (optional) can realize the activation, programming and learning functions of TPMS.

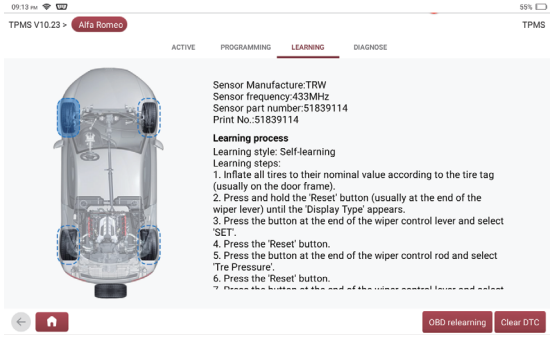
a) Activation: the sensor ID, wheel pressure, sensor frequency, tire temperature and battery status can be activated with the function.



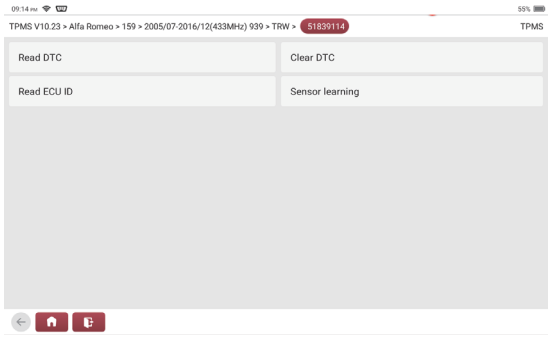
b) Programming: with this function, sensor data can be programmed to a blank THINKCAR sensor to replace one that is low on power and is not working properly. Three sensor programming methods are provided: automatic, manual and activation copy.



c) Learning: with this function, the sensor ID can be written into the vehicle ECU for sensor identification.

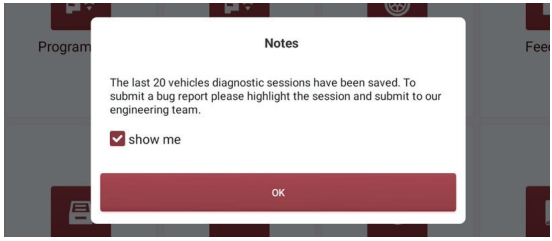


d) Diagnosis: with this function, the tire pressure system fault code can be read, the tire pressure system fault code can be cleared, the sensor ID number stored in the tire pressure system can be read, and the tire pressure function can be learned. (The diagnostic page may vary from vehicle to vehicle.)



6.2 Feedback

In case of an unresolvable problem or a problem with the diagnosis software, click [Other]→[Feedback], and you may also send the latest 20 test records back to THINKCAR. After receiving your feedback, we will follow up and deal with it in time, so as to improve our product quality and user experience. Click [Feedback], and the following dialog box will pop up:



Click [OK] to enter the feedback selection interface of vehicle diagnosis records. The following three options are available:

[Diagnosis feedback]: to display list of all detected models.

[Diagnosis feedback history]: click to check handling progress of all submitted diagnosis feedback.

[Offline list]: click to view the diagnosis feedback of upload failure due to network problems. Once the network is restored, the system automatically uploads the data to the server.

Under the [Diagnosis Feedback] tab, click the diagnosis record of the corresponding model or special function to enter.

Click [Select File] to open the target folder, select the diagnosis log that you want to feedback, and then select the corresponding diagnosis feedback problem type. Enter the fault description and contact information in the text box. Then click [Upload Log] and send it to us.

After receiving your fault feedback, we will follow up your feedback report in time. Please pay attention to the progress and results of the diagnosis feedback in the [Diagnosis Feedback History].

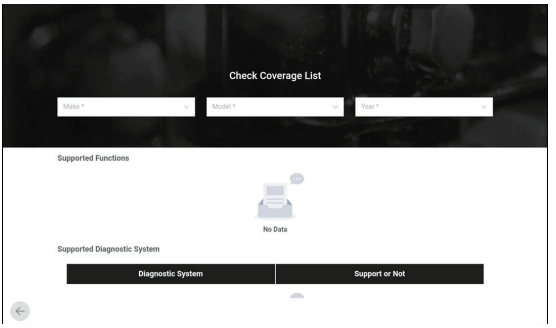
6.3 Repair Info

6.3.1 OBD fault code base

To query definitions of OBD fault codes.

6.3.2 Coverage List

The model brand, model, year and other information can be input to query support functions and diagnosis system.



6.3.3 Video

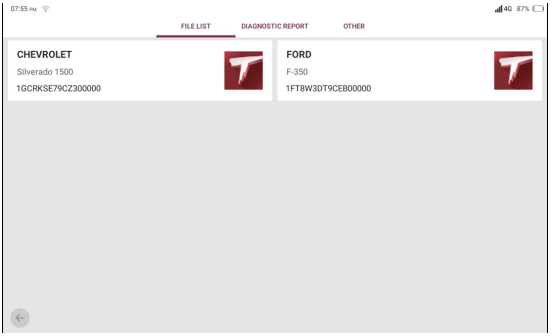
You can watch the video about THINKTOOL X10.

6.3.4 Learning materials

You can view the playback of the operation steps of the special functions of each brand model, helping users to learn the operation of the special functions of each brand model online without connecting the vehicle.

6.4 ThinkFile

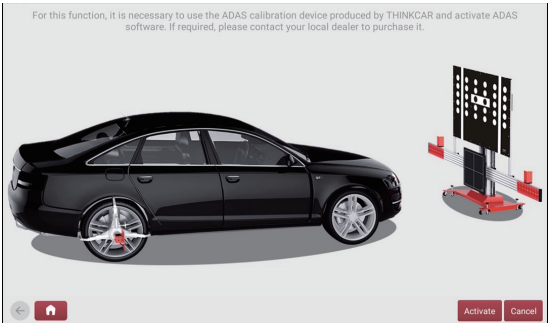
Used to record and establish a diagnosis vehicle file. It is created based on the vehicle VIN and inspection time, including diagnosis reports, data stream records, pictures and all VIN-related data.



6.5 ADAS

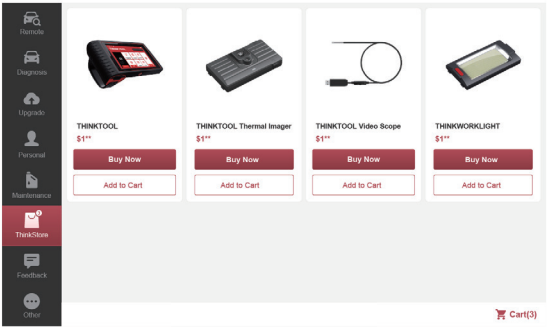
Advanced driver assistance systems (ADAS) is an electronic component in vehicles that include a variety of vehicle safety functions such as automatic emergency braking (AEB), lane departure warning (LDW), lane keeping assistance, blind spot elimination, night vision cameras, and self-adaptive lighting.

This function is disabled on the device by default. You need to activate this function using an activation card before using it. This function shall be paired with ADAS calibration tool of THINKCAR. It is mainly for calibrating driver assistance systems such as cameras and radars, e.g. front-facing cameras for lane departure warning systems, radar sensors for ACC (self-adaptive Cruise control) or cameras for self-adaptive headlights.



7. ThinkStore

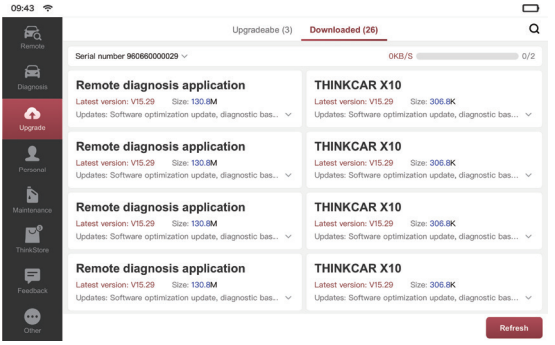
ThinkStore is launched by THINKCAR, including software and hardware products. In the store, you can buy required software, each software has a detailed functional introduction. All THINKCAR hardware is also available for purchase online.



8. Upgrade

To ensure that you enjoy better functions and upgrade services, you are advised to upgrade the software from time to time. When a new software version is available, the system prompts you to upgrade it.

Click [Upgrade] to enter the upgrading center. There are two function tabs on the upgrade page:



Upgradeable software: list of software upgradeable.

Downloaded software: list of software downloaded.

⚠ Note: during upgrading, ensure that the network connection is normal. In addition, due to the large number of software, it may take a few minutes. Please wait patiently. To deselect a software, click the check box of the software.

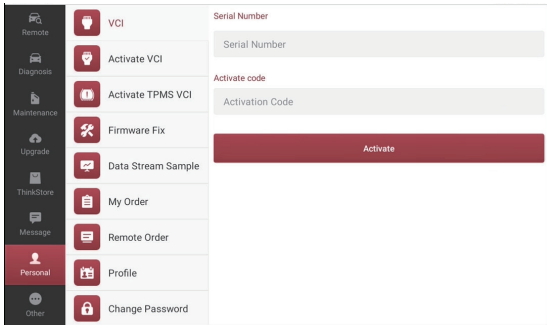
9. Personal

9.1 VCI

If multiple equipment serial numbers are registered with the same THINKTOOL X10 account, use this item to select the corresponding equipment serial numbers.

9.2 Activate VCI

It is used to activate the equipment and check activation help information.



Enter the connector serial number and verification code, then click "Activate ".
Once activated, the equipment serial number will be displayed in my equipment list.

9.3 Activate TPMS VCI

It is used to activate the tire pressure monitoring tool.

9.4 Firmware Fix

To repair connector firmware. In the repairing process, do not cut off the power or switch the interface.

9.5 Data Stream Sample

To manage recorded standard data stream sample files.

9.6 My order

To check detailed information of order.

9.7 Remote Order

To query the remote service order, confirm the order or apply for a refund.

9.8 Profile

To set and manage personal information.

9.9 Change Password

To reset user password.

9.10 Wi-Fi

To set connectable Wi-Fi network.

9.11 Business management

To add the owner information of the merchant, which will be displayed to the owner in the diagnosis report.

9.12 Customer management

To manage client information of all diagnosed vehicles, displayed in sequence here.

9.13 Setting

To perform system settings, such as diagnostic unit setting, language and time zone settings, cache clearing, and mode switch.

10. FAQ

Q: Can the same type of charger be used to charge the host?

A: No, please charge with the attached charger. The Company is not responsible for any damage or economic loss caused by the use of adapters not provided by THINKCAR.

Q: How can the electricity be saved?

A: Turn off the screen when the equipment is not used. The screen standby time shall be shortened. The screen brightness shall be reduced.

Q: Why cannot the host power on after charging?

Possible cause	Solution
The equipment stands by for a log time, and the battery is under power	Charge for more than 2h first, and then power on the equipment.
Adapter problem	If there is any quality problem, please contact distributors or after-sales service of THINKCAR.

Q: Why cannot the product be registered?

Possible cause	Solution
The equipment is not connected with the network	Make sure that the equipment is connected with the network normally.
Notes that your email has been registered.	Use another email for register or log in with the username registered by the email (If you forget the username, you can retrieve it by email)
The email didn't receive the verification code during the registration	Check if the email is correct and get the verification code again

Q: Why cannot the product login?

Possible cause	Solution
The equipment is not connected with the network	Make sure that the equipment is connected with the network normally.
The user name or password is incorrect	Make sure the user name and password input is correct; Contact the THINKCAR customer service or regional sales to find back the user name and password.
Server problem	The server is maintained, please try later.

Q: Why cannot the product be activated?

Possible cause	Solution
The equipment is not connected with the network	Make sure that the equipment is connected with the network normally.
Serial number and activation code input is incorrect	Make sure the serial number and activation code input is correct. (the serial number consists of 12 digits, and the activation code consists of 8 digits).
Activation code is valid	Contact the after-sales of THINKCAR or regional sales.
It prompts the setting is omitted	Contact the after-sales of THINKCAR or regional sales.

Q: Why does it prompt that the software is not activated during upgrading?

Possible cause	Solution
The diagnosis equipment may be not activated in registration	To activate the equipment using the serial number and activation code, the operation steps are as follows: click "Personal" → "Equipment Activation", input correct serial number and activation code into the interface, and click "Activate".

Q: Software upgrading failure.

Possible cause	Solution
The equipment is not connected with the network	Make sure that the equipment is connected with the network normally.
Problems of server	The server is maintained, please try later.

Q: The diagnosis line is not powered on when connected to the vehicle

Possible cause	Solution
The diagnosis line is insufficient in contact	Please replug the diagnosis line.
Vehicle diagnosis seat lines are not in good contact	Please check whether the diagnosis pin is normal.
The battery itself of the vehicle is under power	Please replace the accumulator.

Q: Non-standard OBDII vehicle diagnosis interface connection?

A: There is non-standard conversion connector in the equipment packing case. Connect it according to the method described in the manual.

Q: Why cannot diagnosis equipment communicate with vehicle ECU?

A: Ensure that the diagnosis cable is connected correctly. Make sure the ignition key is turned on. If all the checks are normal, please send the following information to us through the function module of "Diagnosis Feedback": VIN code, model and model year.

Q: Why cannot it enter the vehicle ECU system?

A: Ensure the vehicle is equipped with this system. Ensure that the system is electronically controlled. Ensure that the diagnosis cable is connected correctly. Ensure that the ignition key is turned on.

Q: The diagnosis software has abnormality in use.

A: Click "Others" → "Diagnosis Feedback" to feedback the specific problems to us for improvement.

Q: The downloaded diagnosis software is inconsistent with the serial number.

A: Multiple pieces of diagnosis equipment are registered with the account, but corresponding diagnosis equipment serial number is not selected.
Enter "Personal" → "My Equipment" to select corresponding diagnosis equipment serial number. Long press to delete the model software with the problem, and then enter the upgrading center to download the diagnosis software again.

IC Requirement

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation,Science and Economic Development Canada' s licence-exempt RSS(s). Operation is subject to the following two conditions:

(1)This device may not cause interference.

(2)This device must accept any interference,including interference that may cause undesired operation of the device.

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation,Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L 'exploitation est autorisée aux deux conditions suivantes:

1)L'appareil ne doit pas produire de brouillage;

2)L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

IC WARNING

Cet équipement est conforme aux limites d'exposition aux rayonnements ISED établies pour un environnement non contrôlé. L'utilisateur final doit suivre les instructions spécifiques pour satisfaire les normes. Cet émetteur ne doit pas être co-implanté ou fonctionner en conjonction avec toute autre antenne ou transmetteur.

Le dispositif portatif est conçu pour répondre aux exigences d'exposition aux ondes radio établie par ledéveloppement énergétique DURABLE. Ces exigences un SAR limite de 1,6 W/kg en moyenne pour un gramme de tissu. La valeur SAR la 0.733W/kg plus élevée signalée en vertu de cette norme lors de la certification de produit à utiliser lorsqu'il est correctement porté sur le corps.

FCC Requirement

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.
Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy, and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
– Reorient or relocate the receiving antenna.
– Increase the separation between the equipment and receiver.
– Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
– Consult the dealer or an experienced radio/TV technician for help.

FCC WARNING

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. End user must follow the specific operating instructions for satisfying RF exposure compliance. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.
The mobile device is designed to meet the requirements for exposure to radio waves established by the Federal Communications Commission (USA). These requirements set a SAR limit of 1.6 W/kg averaged over one gram of tissue. The highest SAR value reported under this standard during product certification for use when properly worn on the body is 0.733 W/kg.
For body operation, this device has been tested and meets FCC RF exposure guidelines when used with any accessory that contains no metal and that positions a minimum of 15mm from the body. Use of other accessories may not ensure compliance with FCC RF exposure guidelines.

Warranty Terms

- This warranty applies only to users and distributors who purchase THINKCAR products through normal procedures.
- Within one year from the date of delivery, THINKCAR warrants its electronic products for damages caused by defects in materials or workmanship.
- Damages to the equipment or components because of abuse, unauthorized modification, use for non-designed purposes, operation in a manner not specified in the instructions, etc. are not covered by this warranty.
- The compensation for dashboard damage caused by the defect of this equipment is limited to repair or replacement. THINKCAR does not bear any indirect and incidental losses.
- THINKCAR will judge the nature of the equipment damage according to its prescribed inspection methods. No agents, employees or business representatives of THINKCAR are authorized to make any confirmation, notice or promise related to THINKCAR products.

Thinkcar Tech Inc

Service Line: 1-833-692-2766

Customer Service Email: support@thinkcarus.com

Official Website: www.thinkcar.com

Products tutorial, videos, Q&A and coverage list are available on Thinkcar official website.

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