XHINKCAR
THINKCAR

Version: V1.00.001

This is the generic manual, please check the updated e-manual in "Repair Info" of the device for the specific details of the device.

Statement: **XHINKCAR** | **THINKCAR** owns the complete intellectual property rights for the software used by this product. For any reverse engineering or cracking actions against the software, XHINKCAR | THINKCAR will block the use of this product and reserve the right to pursue their legal liabilities.

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 0.156 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.

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 0.156W/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.

Copyright Information

Copyright © 2022 by THINKCAR TECH CO., LTD (hereinafter referred to as “THINKCAR”). All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying and recording or otherwise, without the prior written permission of THINKCAR. The information contained herein is designed only for the use of this unit. THINKCAR is not responsible for any use of this information as applied to other units.
Neither THINKCAR nor its affiliates shall be liable to the purchaser of this unit or third parties for damages, losses, costs, or expenses incurred by purchaser or third parties as a result of: Accident, misuse, or abuse of this unit, or unauthorized modifications, repairs, or alterations to this unit, or failure to strictly comply with THINKCAR operating and maintenance instructions. THINKCAR shall not be liable for any damages or problems arising from the use of any options or any consumable products other than those designated as Original THINKCAR Products or THINKCAR Approved Products.
Formal statement: The names of other products mentioned in this manual are intended to explain how to use this equipment, and the registered trademark ownership still belongs to the original company.
This equipment is designed for professional technicians or maintenance personnel.

Trademark

THINKCAR TECH CO., LTD has registered trademarks in China and some overseas countries. The registered marks include but are not limited to "THINKCAR" and "XHINKCAR". Without the written consent of THINKCAR TECH CO., LTD, no one can use the trademark of THINKCAR TECH CO., LTD, otherwise, THINKCAR TECH CO., LTD will protect its legitimate rights and interests through legal procedures.
You may contact THINKCAR TECH CO., LTD. by visiting the website at www.thinkcar.com, or writing to THINKCAR TECH CO., LTD., Room 2606, Block#4, Tian'an Cloud Park, Bantian, Longgang District, Shenzhen, China, to request written permission to use Materials on this manual for purposes or for all other questions relating to this manual.

Safety Precautions and Warnings

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

Handle equipment carefully

Do not drop, bend, or puncture the tool, or insert extra objects into or place heavy objects on the device. The vulnerable components inside may be damaged.

Do not disassemble or modify the equipment

The device is a sealed device with no user-serviceable parts inside. All internal repairs must be performed by an authorized maintenance organization or qualified technician. Attempts to disassemble or modify the device will void the warranty.

Do not try to replace the internal battery

The internal rechargeable lithium battery must be replaced by an authorized maintenance organization or qualified technician. Contact the dealer for factory replacement.

Adapter information

Avoid immersing the device in water or placing it in a location where it may absorb moisture or other liquids.
During normal use, the charging device may become hot. Please ensure that there is good ventilation while charging device.
If any of the following situation occurs, please unplug the charging device:

- The charging device is exposed to rain, liquid or in an environment with excessive overlap.
- The charging device showed physical damage.
- Cleaning the charging device.

Data and Software Protection

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

⚠ Note: Access to network resources makes the device vulnerable to computer viruses, hackers, spyware, and other malicious behaviors, and may damage the device, software, or data. To make ensure that you are using firewalls, anti-virus software and anti-spyware software to provide adequate protection for your computer and keep these software up to date.

Precautions on Using the device

- To make sure the ignition switch should be in the OFF position when plugging and unplugging the diagnostic connector.
- Keep the connector in the storage box on the back of the main unit, when the vehicle diagnosis is finished.
- Gently press the diagnostic connector to pop up the diagnostic connector. Do not pull or use sharp objects to pry the diagnostic connector.

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.

Content

1. Quick Start Manual 1
1.1 Initial Use 1
1.1.1 Turn on the Machine 1
1.1.2 Language Setting 1
1.1.3 Connect Wi-Fi 1
1.1.4 Choose Time Zone 2
1.1.5 User Agreement 2
1.1.6 Create an Account 2
1.1.7 VCI Activation 3
1.2 Diagnosis Flowchart 3
1.3 Function Menu 4
1.4 Charging 5
1.5 Battery 5
1.6 VCI Connections 5
1.7 Printer / WorkLight / Thermal Imager / Battery Tester Installation 8
1.8 Scope Box / Video Scope / Printer Installation 9
1.9 Wireless TPMS / Battery Tester Installation (Bluetooth) 9
2. Introduction 9
2.1 Product Profile 9
2.2 Components & Controls 10
2.3 OBD Connector 11
2.3.1 THINKDIAG 11
3. Begin to Use 12
3.1 Intelligent Diagnosis 12
3.2 Diagnosis 12
3.2.1 Manual Diagnosis 12
3.2.2 Health Report 13
3.2.3 System Scan 15
3.2.4 System Selection 15
3.3 Quick Check 19
3.4 Maintenance 20
3.4.1 Oil Reset 20
3.4.2 Elec. Throttle Adaption 20
3.4.3 Steering Angle Reset 21
3.4.4 Battery Matching 21
3.4.5 ABS Bleeding 21
3.4.6 Brake-pad Reset 21
3.4.7 DPF Regeneration 22
3.4.8 Gear Learning 22
3.4.9 IMMO Service 22
3.4.10 Injector Coding 22
3.4.11 TPMS Reset 22
3.4.12 Suspension Matching 22
3.4.13 AFS Reset 23
3.4.14 A/T Learning 23
3.4.15 Sunroof Initialization 23
3.4.16 EGR Adaption 23
3.4.17 ODO Reset 23
3.4.18 Airbag Reset 23
3.4.19 Transport Mode 23

3.4.20 A/F Reset 23
3.4.21 Stop/Start Reset 24
3.4.22 NOx Sensor Reset 24
3.4.23 AdBlue Reset (Diesel Engine Exhaust Gas Filter) 24
3.4.24 Seat Calibration 24
3.4.25 Coolant Bleeding 24
3.4.26 Tyre Reset 24
3.4.27 Windows Calibration 24
3.4.28 Language Change 24
3.5 TPMS Diagnosis 24
3.6 Coverage list 26
3.7 Module 26
3.8 Remote Assistance 28
3.9 ThinkFile 28
3.10 Repair Info 29
3.10.1 OBD Fault Code Library 29
3.10.2 Learning materials 29
3.10.3 User Manual 29
3.11 Update 29
3.12 Feedback 31
4. User Info 31
4.1 VCI 32
4.2 Activate VCI 32
4.3 Activate TPMS VCI 32
4.4 Fix VCI firmware/system 33
4.5 Data Stream Sample 33
4.6 My Order 33
4.7 Profile 33
4.8 Change Password 33
4.9 Wi-Fi 33
4.10 Diagnostic Software Clear 34
4.11 Business Information 34
4.12 Customer Management 34
4.13 Diagnostic Record 34
4.14 Photo Album 34
4.15 Screen Recorder 34
4.16 Settings 34
4.16.1 Check for Updates 35
4.16.2 Sleep Time 35
4.16.3 Privacy Policy 35
4.16.4 System Upgrade 35
4.16.5 Units 35
4.16.6 T-Code 35
4.16.7 Clear Cache 35
4.16.8 Mode Switch 35
4.16.9 Restore Factory Settings 36
4.17 Hotkey Setting 36
5.FAQ 36

1. Quick Start Manual

1.1 Initial Use

The following settings should be made when you initially use the device.

1.1.1 Turn on the Machine

After pressing the power button, images will be shown on the screen as follows.

1.1.2 Language Setting

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

1.1.3 Connect Wi-Fi

The system will automatically search all available Wi-Fi networks. Please connect to the trusted Wi-Fi.

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

⚠

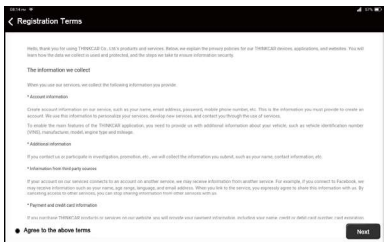
1.1.4 Choose Time Zone

Choose the time zone of the current location, then the system will automatically configure the time.

1.1.5 User Agreement

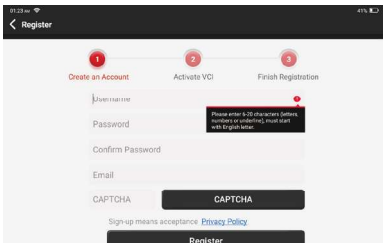
Please read all the terms and conditions of the user agreement carefully. Choose “Agree all the above terms”, and tap “Next” to complete the registration process.

Then the page will jump to the “Congratulations on your successful registration” interface.



1.1.6 Create an Account

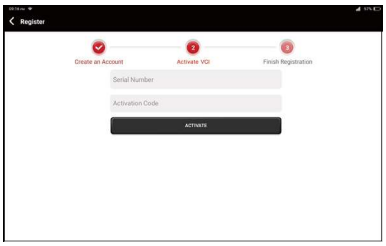
You need to use your email account to register a THINKCAR personal account. This account can be applied to all THINKCAR products, and you can log in directly with this account when using other THINKCAR device.



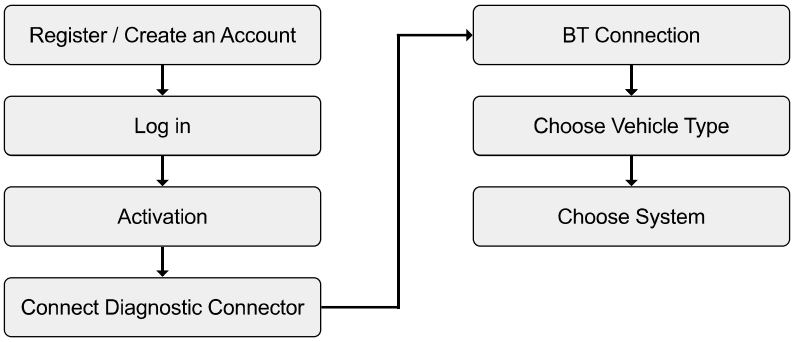
1.1.7 VCI Activation

Enter the connector serial number and activation code to activate and bind the diagnostic connector. If you have not activated it, you can also tap "Settings" on the main interface to enter and select "Activate" to operate.

⚠ Tips: The activation code is an 8-digit number and is pasted on the "password letter".



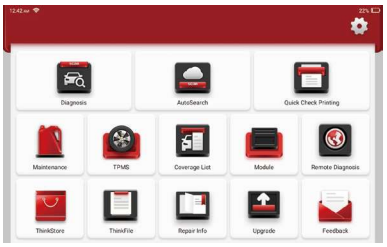
1.2 Diagnosis Flowchart



1.3 Function Menu

After startup, the system will automatically enter the homepage:

⚠ Note: The homepage is slightly different according to different 8-inch device.



It mainly includes the following features:

- The device and diagnostic connector support Bluetooth communication.
- Support powerful intelligent VIN recognition technology, which is convenient, fast and efficient.
- Quick check: Automatic Identification of Vehicle Information, Auto Checking and Report Printing.
- Modular expansion: printer, work light, video scope, battery tester, scope box, thermal imager, battery test clip, wireless TPMS tool.
- It can detect faults in the electronic control systems of most high-end, medium-end, and low-end vehicles in Asia, Europe, the United States and China. Powerful diagnostic functions include reading fault codes, clearing fault codes, reading data streams, action tests, and other special functions.
- Maintenance function: matching, coding, programming of most vehicles' programmable modules, and most commonly used maintenance and reset functions: Oil Reset; Elec. Throttle Adaption; IMMO Service; Injector Coding; Brake-pad Reset; Steering Angle Reset; ABS Bleeding; AFS Reset; Battery Matching; A/T Learning; DPF Regeneration; EGR Adaption; TPMS Reset; Sunroof Initialization; Suspension Matching; Gear Learning; Airbag Reset; ODO Meter Reset; AdBlue Reset; A/F Reset; Coolant Bleeding; Language Change; NOx Sensor Reset; Seat Calibration; Stop/Start Reset; Transport Mode; Tyre Reset; Windows Calibration.
- TPMS: with wireless TPMS tool (optional), TPMS activation, programming and learning functions can be supported.
- Diagnostic software, client-side and firmware can be updated online.
- Feedback: In the process of diagnosis, if the software or function is abnormal, please feed back to us. Our professionals will follow up and deal with it in time.

1.4 Charging

Follow the steps below to charge the device:

- Use the charger to connect the device and the power socket to charge.
- When the battery status displays , the device is charging.
- When it displays , the charging process has been completed and you shall disconnect the device.

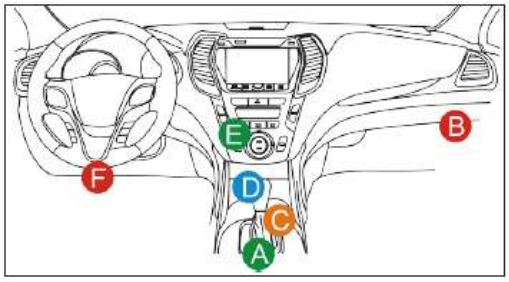
1.5 Battery

- It is normal that the device cannot be turn on when charging because the battery has not been used for a long time or maybe the power is exhausted. Please turn on the device again after charging the battery for a while.
- Please use the charger in the package to charge the device. Except for the chargers specified by the company, the company shall not be liable for any damage and loss caused by charging with other chargers.
- The battery can be recharged repeatedly. Please try not to recharge frequently to avoid battery loss and prolong battery life.
- The battery charging time varies with temperature and battery status.
- When the battery power is low, the system will pop up a prompt to remind you to connect the charger. When the battery power is too low, the device will turn off.

1.6 VCI Connections

Connection steps as below:

(1) Locate vehicle's DLC socket. Most of the DLC are standard OBDII/EOBD diagnostic sockets (non-standard OBDII/EOBD vehicle diagnostic sockets need to use the corresponding adapter). The DLC is usually located 12 inches from the center of the instrument panel (dash), under or around the driver's side for most vehicles. If the DLC cannot be found, refer to the vehicle's service manual for the location.



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

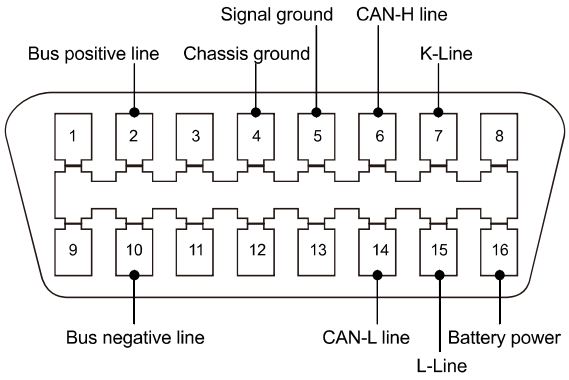
(2) For OBDII/EOBD vehicle, follow the steps below to proceed:

a. Plug the VCI dongle into the vehicle's DLC socket

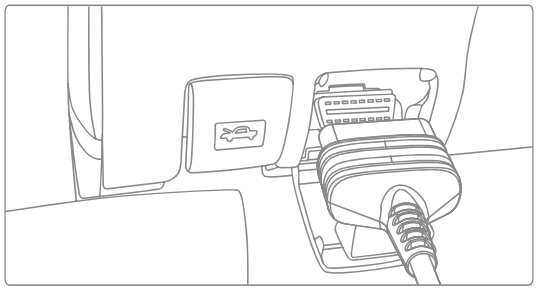
b. Use the OBDII/EOBD extension cable to connect the VCI dongle and DLC socket.

(3) For non-OBDII/EOBD vehicle, If the pin of the DLC is damaged or has insufficient power, please try any of the following methods to proceed:
a. Cigarette Lighter Cable
b. Battery Clamps Cable

(4) Non-standard 16-PIN vehicle diagnostic sockets (OBDI).
A. Introduction of OBD vehicle diagnosis connector
In the development history of automobile diagnosis and detection, OBD system is an online diagnostic system for internal combustion engines, which currently goes through a generation and a second generation, the second generation being EOBD/OBDII, as shown in the diagram below, with a unified hardware feature and interface definition for the diagnostic seat of the car.



OBD II Connector and Pinout

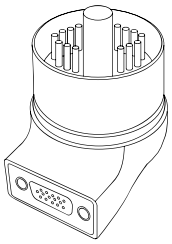


OBD II Diagnostic Port of Automobile

About 1996, before the United States unified the OBD II standard and during the transition period, different automobile manufacturers had different diagnostic port for OBD I. Such as three PIN like HONDA; 17 PIN like Toyota; 38 PIN like BENZ. At present, all overseas comprehensive diagnostic device of Company's are equipped with 10 OBD I diagnostic connectors, as shown in the table below:

CR-6 1 PC		BZ-38 1 PC	
TA-17 1 PC		TA-22 1 PC	
B-20 1 PC		G/V-12 1 PC	

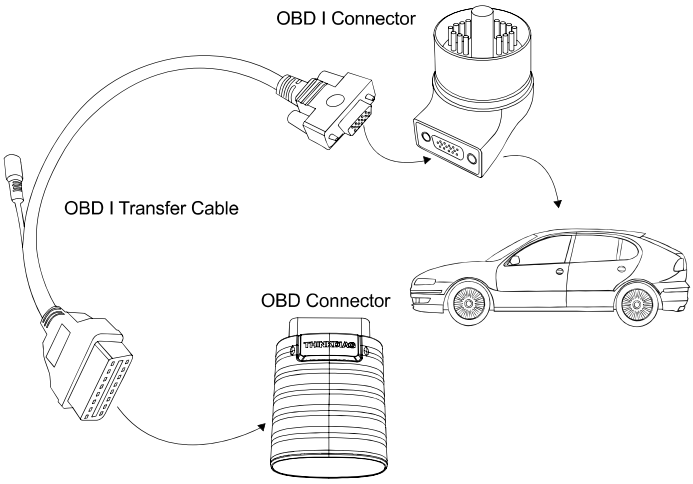
OBD I Diagnostic Port on the Packing List



Diagnostic Connector for BMW 20

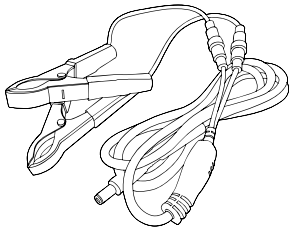
B. How to connect OBD I Diagnostic Port

The OBD I connector, which was set up to cater for older models of various car brands, has very few current applications as most older cars have been phased out. Cars that produced after 2005 are basically all OBD II connector. In USA, we still occasionally come across vintage or modified cars that still use OBD I. For this reason, a transfer from OBD II to OBD I is required.



Transfer process

⚠ Note: when using older models, the Transfer Cable must be used, with the small power connector on it, which is connected to the power connector of the power double clamp cable, this is a solution for certain cars before 1996, whose diagnostic holders do not have a 12V power supply.



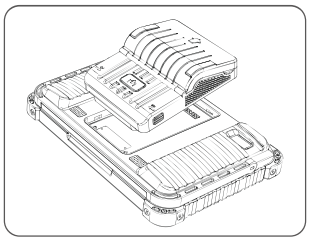
Application of the double clamp power cable

All other configurations with Non-standard 16-PIN diagnostic connectors can be wired as shown in Picture 5 for achieving the diagnosis of the corresponding old models.

1.7 Printer / WorkLight / Thermal Imager / Battery Tester Installation

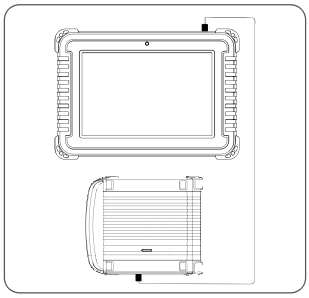
The printer is installed on the back of the device. Please follow the steps below:
(1) Unscrew the backplane screws and remove the host backplane.
(2) Insert one side of the printer into the card slot of the device.

(3) Press the buckle on the side of the printer to snap on it into the device.
(4) When the device is on, it will automatically identify and connect the printer.



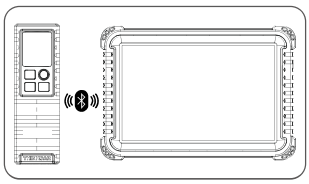
1.8 Scope Box / Video Scope / Printer Installation

The Scope Box and Video Scope are connected by USB cable. It will automatically enter the corresponding interface once they are connected.



1.9 Wireless TPMS / Battery Tester Installation (Bluetooth).

Tap Wireless TPMS or Battery Tester on the device, and you can detect the corresponding module in Bluetooth mode. You need to match the module by activating it.



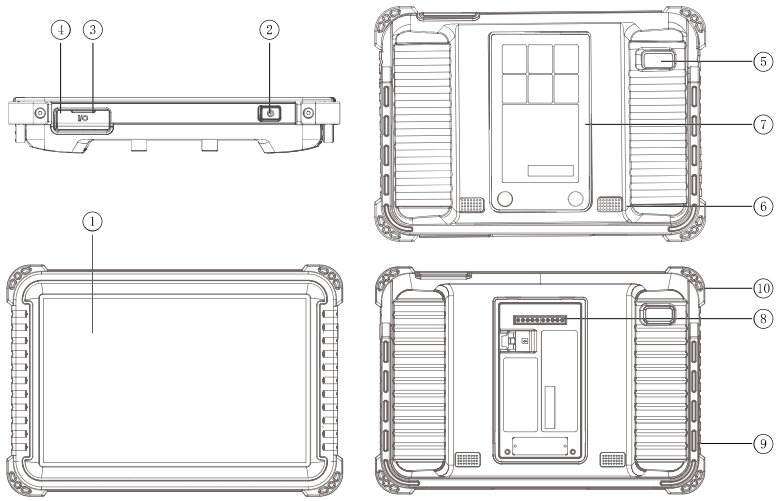
2. Introduction

2.1 Product Profile

The device, is a new generation of modular high-end intelligent diagnostic equipment developed by THINKCAR, adopting a unique modular design to meet various application scenarios, including diagnostic

module, printer, videoscope, work light, thermal imager, scope box, moduledock and TPMS tool.

2.2 Components & Controls

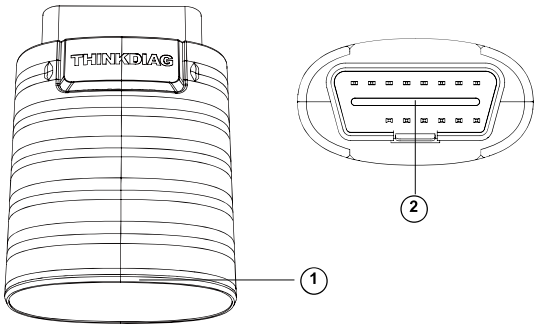


No.	Function
1	Display
2	Power Key: Hold the button for 3 seconds to turn the device on, or off, and 10 seconds for a forced restart. Press the button to wake up the device or turn off the device.
3	Type-C Port: Connect the supplied charger for charging.
4	USB Port: Reserved for add-on modules and other devices with similar port.

5	Rear Camera
6	Speaker
7	Backplane: Remove the backplane of the tablet, and install function modules on the back-end.
8	Pin: Be used for communication between the function expansion module and the device.
9	Adjustable Kickstand: Able to keep the device standing on the desk, or hang the device on the steering wheel with 180 degree rotation.
10	Rubber Protection Sheet

2.3 OBD Connector

2.3.1 THINKDIAG



NO.	Name	Descriptions
1	Indicator Light	LED indicator is located at the bottom, and the three status as follows: • Power: Green light indicates that the power is on. • Diagnosis: Blue light shows that it enter the diagnosis mode. • Vehicle: Flashing-blue light means it is communicating with the vehicle.

2	Diagnostic Port	Plug in the diagnostic cable whose OBD 16-pin connector is linked to the DLC of the vehicle.	
3	Supporting protocols	ISO 9142 ISO 14230 ISO 15765 K/L-Line Flashing Code CAN ISO 11898 SAE-J1850 VPW SAE-J1850 PWM Highspeed CAN	Middlespeed CAN Lowspeed and Singlewire CAN GM UART TP 2.0 TP 1.6 UART Echo Byte Protocol Honda Diag-H Protocol Fault-Tolerant CAN SAE-J2610

3. Begin to Use

Diagnostic function, covering more than 100 car brands, support intelligent diagnosis and traditional diagnosis, including OBDII full-function diagnosis. Full-system diagnosis includes: read fault code, clear fault code, read real-time data stream, special function, actuation test. A diagnosis report can be generated after the diagnosis.

3.1 Intelligent Diagnosis

Connect the vehicle first, tap “Intelligent Diagnosis” on the homepage, the device will start the smart diagnosis program and automatically read the vehicle VIN, as shown in below:

If the device failed to access the VIN information, please use “Diagnosis”. At this point, you need to manually input the VIN code to gain the car information.

3.2 Diagnosis

In this mode, user can manually select vehicle models and systems for diagnosis.

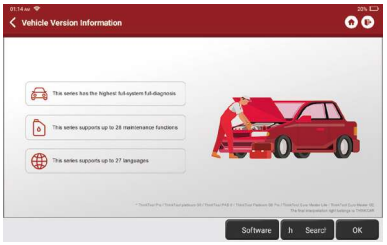
3.2.1 Manual Diagnosis

The device also supports step-by-step manual selection of menus for diagnosis.

To use the "DEMO" as an example to introduce how to start the diagnosis as below.

1. Select vehicle type: Tap on the "demo" on the main diagnostic interface to enter.

⚠ Tips: The diagnosis menu varies with different vehicles.



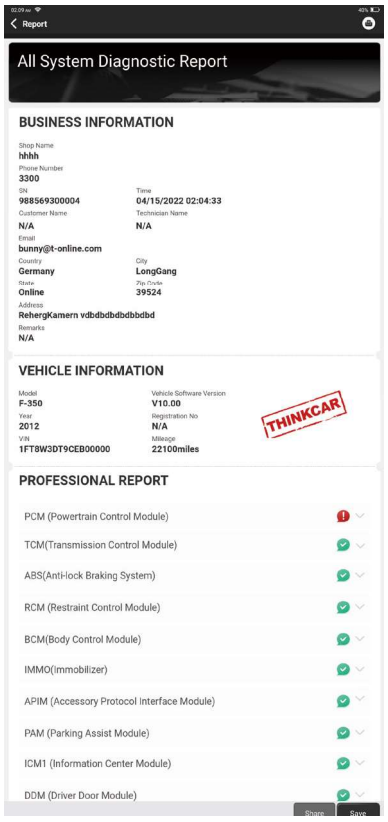
2. After the connection is successful, the screen will enter the test item selection interface.

3.2.2 Health Report

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

The system will start scanning Electronic Control Units to see if there are fault code and displays the specific results.

Click "Report" to generate a vehicle health report.

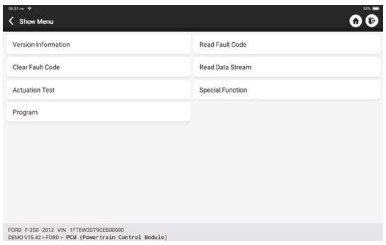


3.2.3 System Scan

Automatically scan all systems of the vehicle, and use to determine which electronic control units are fitted to this vehicle.

3.2.4 System Selection

After selecting a system, it automatically sends a command whether this electronic control unit exists or not, and also determines which type of electronic control unit it is.

Choose the system: “PCM” (e.g.), and the screen will enter the function menu.

⚠ Tips: The diagnosis menu varies with diff erent vehicles.