THINKSCAN SOC-TSP07-FBA Diagnostic Scanner Tool User Manual

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THINKSCAN Plus

THINKSCAN SOC-TSP07-FBA Diagnostic Scanner Tool

Quick Start Manual

Initial Use

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

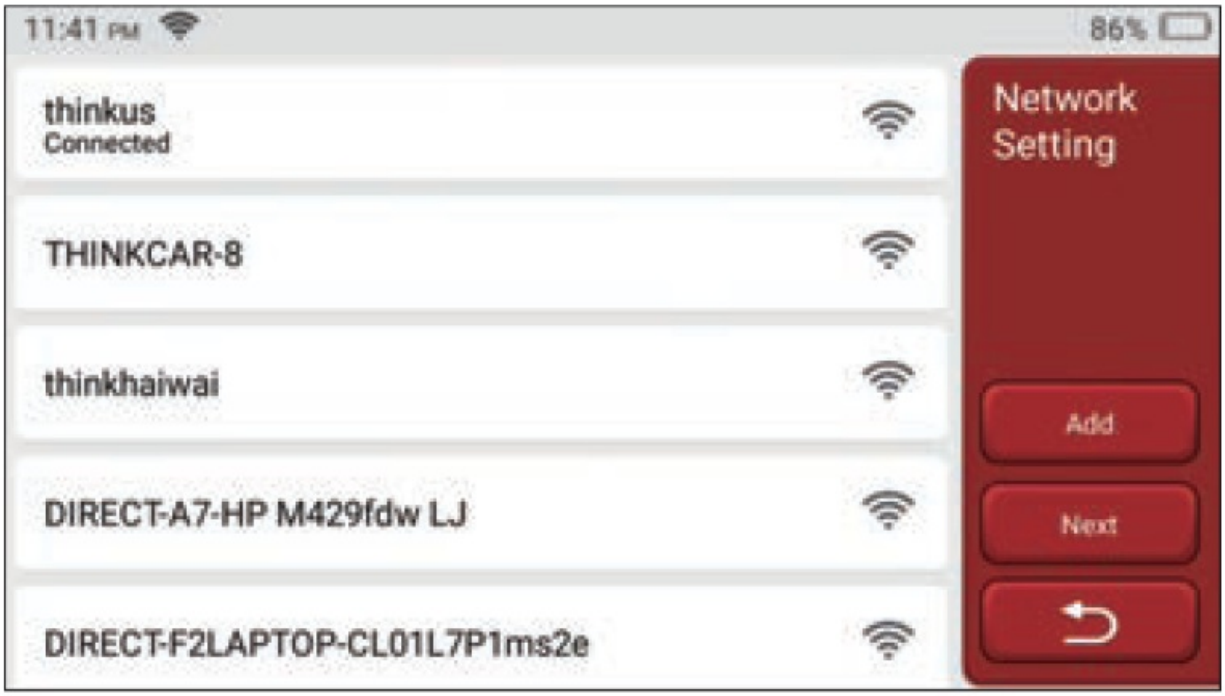
Tum on the Machine

After connecting with the car, images will be shown on the screen as follows

Language Setting

Select the tool language from the languages displayed on the interface

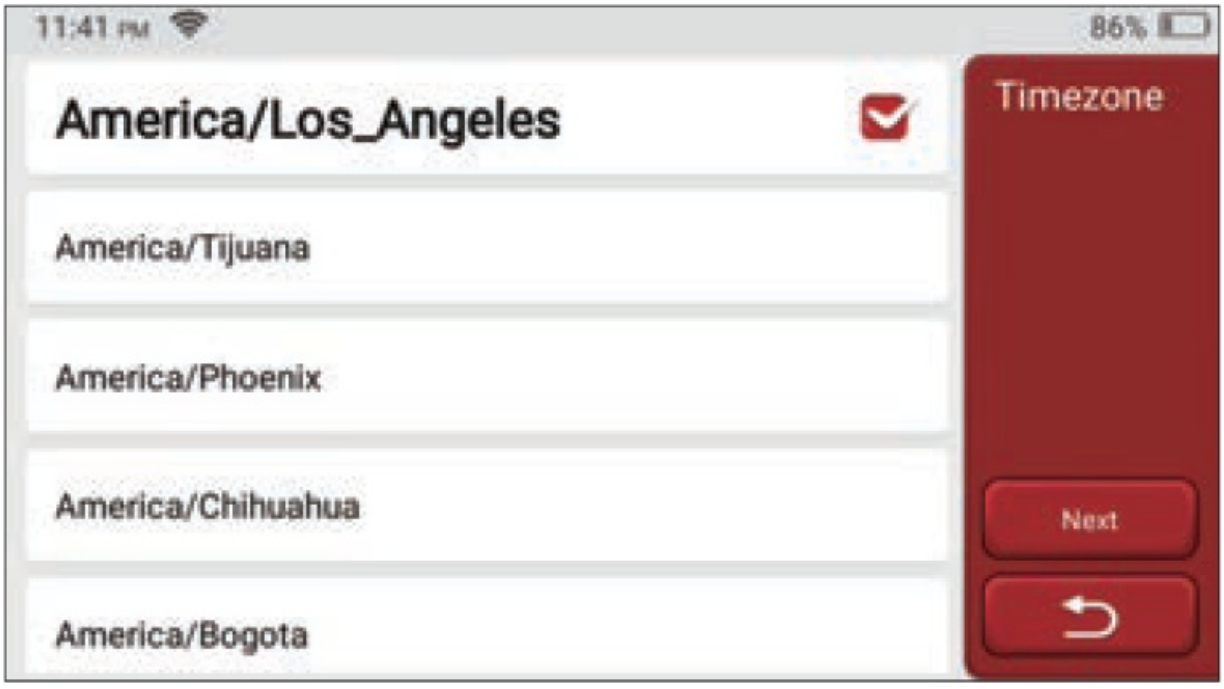
Connect Wi-Fi



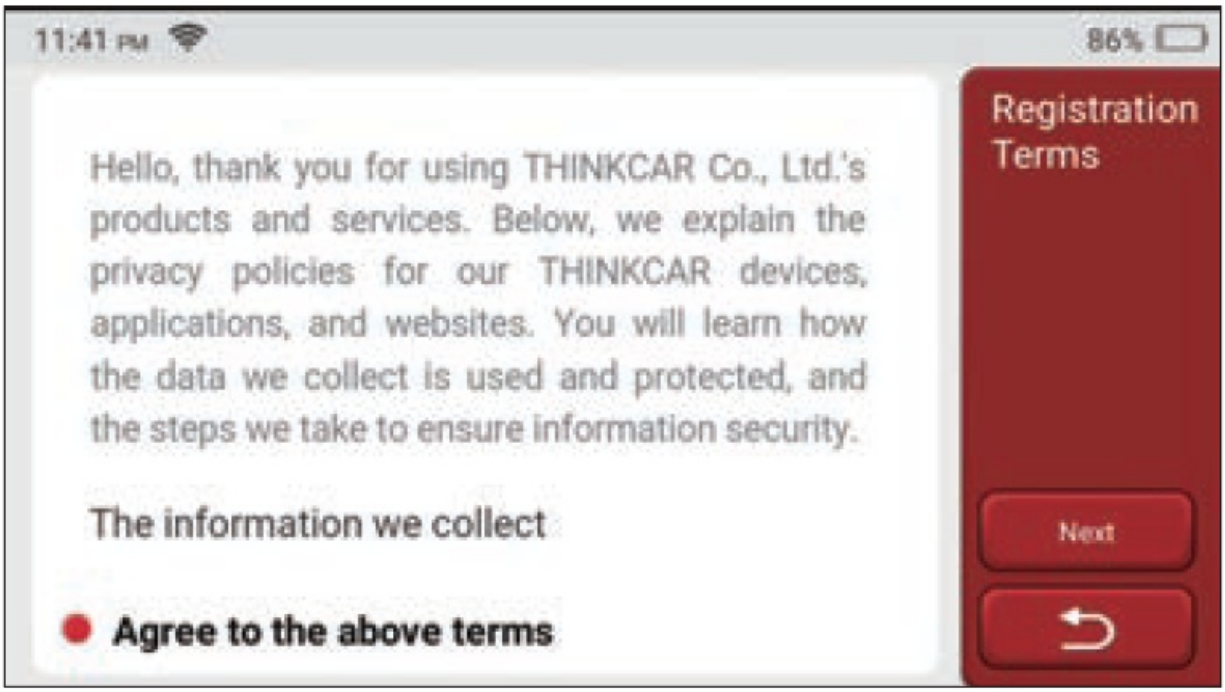
The system will automatically search all available Wi-Fi networks and you can choose the Wi-Fi needed. If the chosen network is open, you can connect it directly; If the chosen network is encrypted, you must enter the correct password. Then You can connect to Wi-Fi after clicking “connect”.
Tips: Wi-Fi must be set. If no Wi-Fi network is available nearby, you can enable “Portable Mobile Hotspot”.

Choose Time Zone

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



User Agreement



Please read all the terms and conditions of the user agreement carefully. Choose “Agree all the above terms”, and click the “Agree” button to complete the registration process. Then the page will jump to the “Congratulations on your successful registration” interface.

Copyright Information

Trademark Information

General Notice

- Other product names used herein are for identification purposes only and may be trademarks of their respective owners. THINKCAR disclaims any and all rights in those marks.

- There is a possibility that this unit is inapplicable to some of the vehicle models or systems listed in the diagnosis section due to different countries, areas, and/or years. Do not hesitate to contact THINKCAR if you come across such questions. We are to help you solve the problem as soon as possible.

Disclaimer

- To take full advantage of the unit, you should be familiar with the engine.
- All information, illustrations, and specifications contained in this manual are based on the latest information available at the time of publication. The right is reserved to make changes at any time without notice.
- 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 the purchaser or third parties as a result of an 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 by THINKCAR.

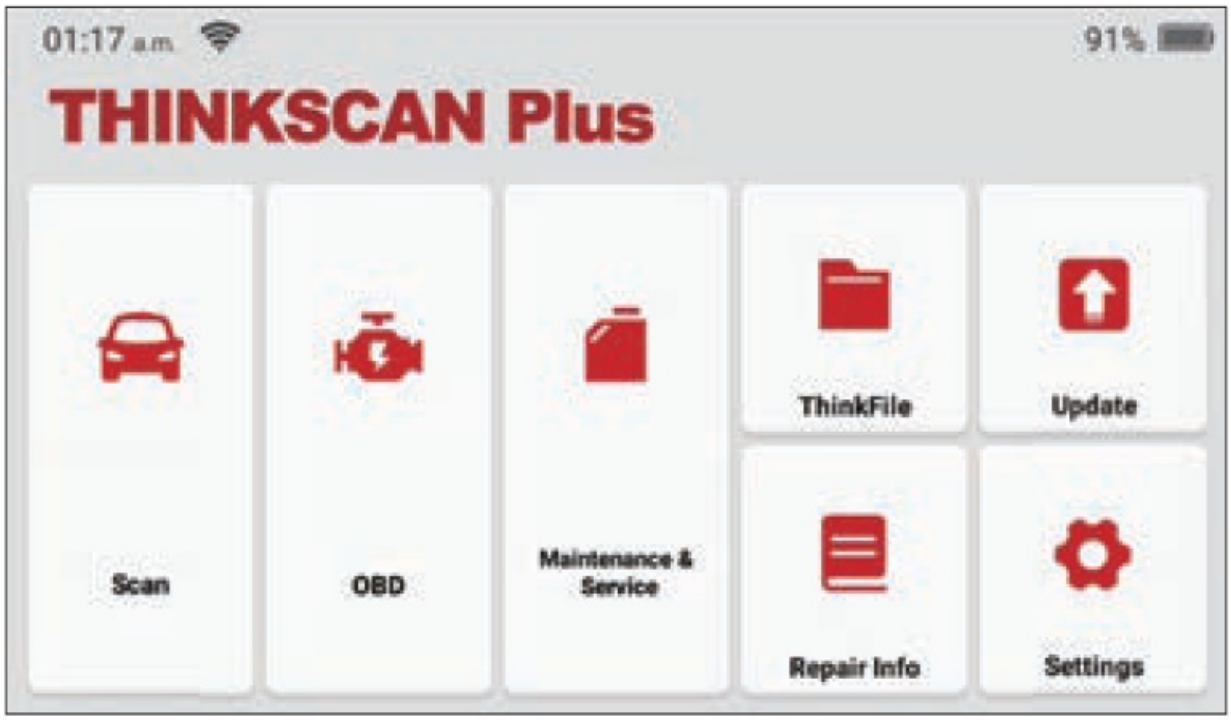
Safety Precautions and Warnings
To prevent personal injury or damage to vehicles and/or this tool, please read this user's manual first carefully and observe the following safety precautions at a minimum whenever working on a vehicle

- Always perform automotive testing in a safe environment.
- Do not attempt to operate or observe the tool while driving a vehicle. Operating or observing the tool will cause driver distraction and could cause a fatal accident.
- Wear safety eye protection that meets ANSI standards.
- Keep clothing, hair, hands, tools, test equipment, etc. away from all moving or hot engine parts.
- Operate the vehicle in a well-ventilated work area: Exhaust gases are poisonous.
- Put blocks in front of the drive wheels and never leave the vehicle unattended while running tests.
- Use extreme caution when working around the ignition coil, distributor cap, ignition wires, and spark plugs. These components create hazardous voltages when the engine is running.
- Put the transmission in P(for A/T)or N (for M/T)and make sure the parking brake is engaged.
- Keep a fire extinguisher suitable for gasoline/chemical/ electrical fires nearby.
- Don't connect or disconnect any test equipment while the ignition is on or the engine is running
- Keep this tool dry, clean, free from oil/water or grease. Use a mild detergent on a clean cloth to clean the outside of the tool. when necessary.
- Please use the DC 5V power adaptor to charge this tool. No responsibility can be assumed for any damage or loss caused as a result of using power adaptors other than the night one.

An Introduction to the company
THINKCAR TECH is a highly creative developer of vehicle diagnosis tools. By marrying user-friendly creative ideas with technologies, the company has produced Think series products featured as ultimate experience and extraordinary imagination, including THINKOBD, THINKCAR, THINKDIAG, THINKPLUS, THINKSCAN, and THINKTOOL. Those products prove to be a brand new generation of diagnosis tools through useroriented creative products forms and service systems. THINKCAR TECH keeps striving for perfection in all aspects such as its products design, material selection, manufacturing, and software service.

Functions Descriptions

The THINKSCAN Plus host computer has 8 functions, namely, OBD, Scan, Maintenance & Service, ThinkFilm, ThinkStore, Repair Info, Setup, and Update.



Choose the diagnostic function

A. Version Information
As shown in the picture, click “Version Information” to read the current version information of the car ECU.

B. Read Fault Code
This function is to read the OTC in the ECU memory, helping maintenance personnel to quickly identify the cause of the vehicle breakdown.
Tips: Reading the DTC when troubleshooting a vehicle is only a small step in the entire diagnostic process. Vehicle DTC are for reference only, and parts cannot be replaced directly based on the given DTC definition. Each DTC has a set of test procedures. The maintenance technician must strictly conform to the operation instructions

and procedures described in the car maintenance manual to confirm the root cause of the breakdown. As shown below, click “Read Fault Code”, and then the screen will display diagnostic results.

Screen buttons

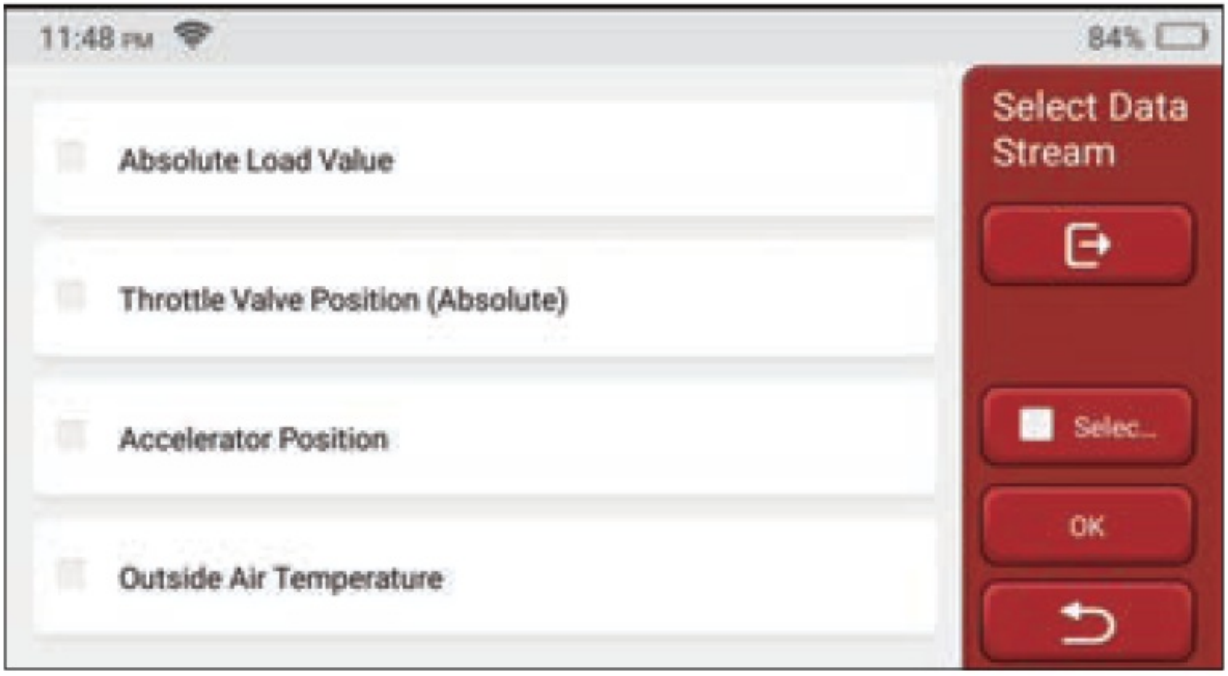
Freeze frame: If this button is highlighted, it means there is freeze frame information. The freeze frame serves to record some specific data streams at the moment when the car breaks down. The number is for verification.
Report: Save the current diagnosis result as a diagnosis report. The diagnostic report is saved in the ThinkFile module and can be sent to designated e-mail boxes.
Tips: After the report is produced, the technician can take a real-time photo of the vehicle and save it as a vehicle maintenance file.

Clear Fault Code

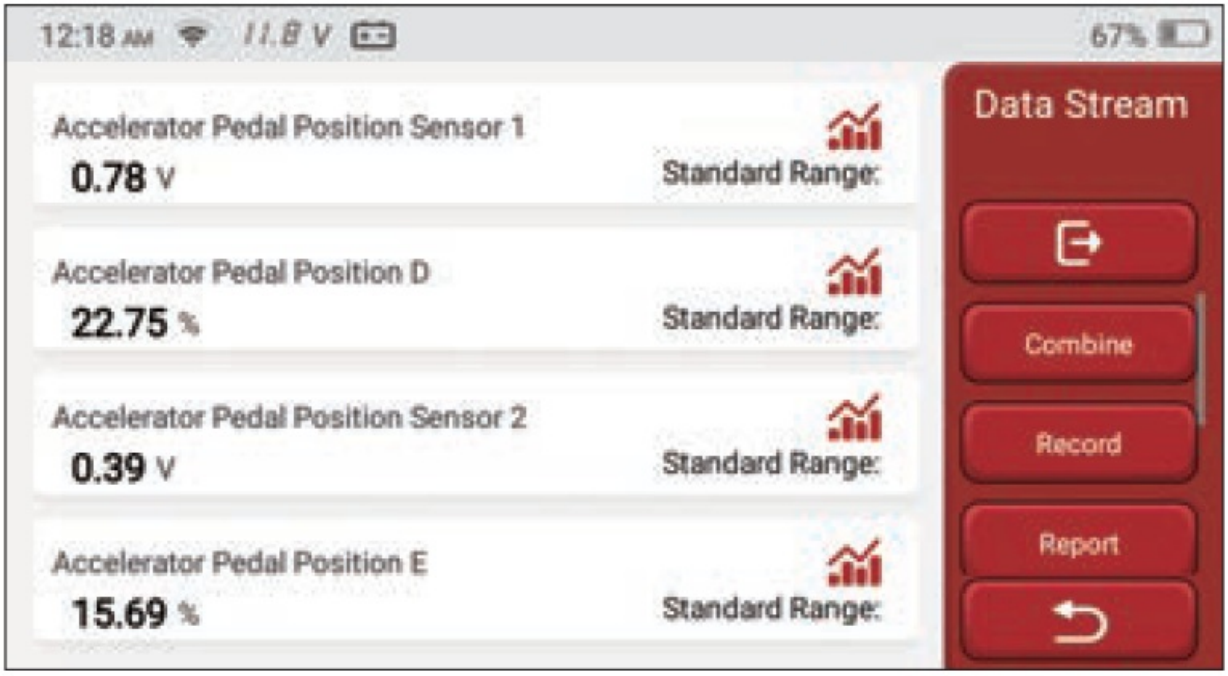
This function serves to clear the OTC of the ECU memory of the tested system.
Click “Clear Fault Code”, and then the system can automatically delete the existing OTC and pop up the dialogue box saying “OTC successfully cleared”.
Note: For general vehicles, please strictly follow the normal sequence: read the DTC , clear it, have a test run, read the OTC again for verification, repair the vehicle, clear the DTC, and try again to confirm that the DTC no longer appear.

D. Read Data Stream

the vehicle’s overall performance and offer maintenance suggestions. This function is majorly used to read and display real-time data and parameters of the car ECU. Through observing these data streams, maintenance technicians can understand



Screen buttons
Select all: If you want to check some data stream, tick the box before its name. If you want to choose all the data streams, click this button.
Deselect: Click this button to deselect all checked data streams.
OK: Confirm current operations. Click “OK” after selection, and then the system will display the dynamic data of selected data streams. Screen buttons:
Select all: If you want to check some data stream, tick the box before its name. If you want to choose all the data streams, click this button.
Deselect: Click this button to deselect all checked data streams.
OK: Confirm current operations. Click “OK” after selection, and then the system will display the dynamic data of selected data streams.



Screen buttons
Graph: Click it and the data streams are displayed in dynamic wave patterns. Report: Click the button to save the number of current data streams.
Record: It’s used to record diagnosis data so that users can replay and check it. If you want to stop the reading, click “stop” (the white box before the progress bar). The diagnostic record is saved in the Think File: module. It can be sent to designated e-mail boxes and reviewed for troubleshooting and analysis. If the 1 / X appears, it

means that the data stream options haven't fully displayed. Swipe the screen from bottom to top to display the remaining options. With 3 display modes available, you can browse it in suitable ways

- Figure: Displays parameters with wave patterns.
- Value: The default display mode shows parameters with numbers and lists.
  Note: If the value of the data stream is not within the standard value range, the data stream will be displayed in red.
- Combine: The graphs are presented together for users to make comparisons. Note: different data flow options are marked in different colors.

Maintenance & Reset

The host computer boasts the 28 most commonly used maintenance and reset functions, namely, Maintenance light reset, Steering angle reset, Battery matching, ABS exhaust, Throttle matching, Brake pad reset, DPF regeneration, Anti-theft matching, Nozzle coding, Tire pressure reset, Suspension level calibration, Headlight matching, Gearbox matching, Sunroof initialization, EGR Adaption, Gear Learning, ODO Reset, Airbag Reset, Transport Mode, A/F Reset, Stop/Start Reset, NOx Sensor Reset, AdBlue Reset (Diesel Engine Exhaust Gas Filter), Seat Calibration, Coolant Bleeding, Tyre Reset, Windows Calibration and Language Change.

Maintenance light reset
The lightening of the car maintenance light indicates that the vehicle needs maintenance. Reset the mileage or driving time to zero after the maintenance, so the maintenance light will go out and the system will start a new maintenance cycle.

Steering angle reset
Find the position where the car keeps driving straight. With this position as a reference. the ECU can calculate the accurate angle when the car turns left and right. Generally, after replacing the steering angle position sensor, replacing the mechanical parts of the steering system (such as steering gear, steering column, tie rod ball head, steering knuckle), completing the four-wheel positioning, body repair, etc., it is required to reset the steering angle to zero.

Battery matching
Battery matching is to use a car diagnostic tool to reset the monitoring unit of the car battery. By clearing the original breakdown information about the lack of battery power, rematch the battery. Based on the related information of the existing battery, the monitoring unit implements monitoring. Battery matching is required in the following situations:

- Replacement of the main battery needs to utilize battery matching to clear the former information about the lack of power, thus avoid false information detected by the relevant control module which will cause the failure of some electronic auxiliary functions. For example, the vehicle automatically stops; the sunroof can't work by one key; elec tric windows can't open and close automatically.
- The battery monitoring sensor uses the battery matching function to re-match the control module with the monitoring sensor, so as to more accurately detect the use of the battery power, and avoid receiving wrong information from instrument prompts and causing false alarms.

ABS exhaust
When the ABS system contains air, it is necessary to exhaust the brake system through the ABS exhaust function to restore its braking sensitivity. In addition, when replacing the ABS computer, ABS pump, brake master cylinder, brake cylinder, brake line, and brake fluid, the ABS exhaust function is a necessity.

Throttle matching
Throttle matching is to utilizes the car decoder to initialize the throttle actuator so that the learning value of the ECU returns to the initial state. By doing these, the movement of the throttle (or idle motor) can be more accurately controlled, thus adjusting the intake volume. Situations when throttle matching is needed:

- After replacing the electronic control unit, the relevant characteristics of the throttle operation have not been stored in the electronic control unit.
- After the electric control unit is powered off, the memory of the electric control unit's memory is lost.
- After replacing the throttle assembly, you need to match the throttle.
- After replacing or disassembling the intake port, the controlling of the idle speed by the coordination between the electronic control unit and the throttle body is affected.
- Although the characteristics of the idle throttle potentiometer have not changed, the intake volume has changed and the idle control characteristics have changed at the same throttle openings.

Brake pad reset
When the brake pad reaches a certain thickness, the brake pad induction wire will be worn. At this time, the wire will send a signal induction wire to the onboard computer to prompt the replacement of the brake pad. After replacing the brake pad, the brake pad needs to be reset, otherwise, the car will continue to alarm. Situations when the reset is required

- After the brake pad is replaced and when the brake pad wears sensors
- when the brake pad indicator lightens;
- After the brake pad sensor circuit is repaired;
- After the servo motor is replaced.

DPF regeneration
The DPF regeneration function is mainly to periodically use combustion oxidation methods (such as high-temperature heating and combustion, the combustion through the use of fuel additives or catalysts to reduce the ignition point of particulate matters) to remove particulate matters from the trap so that the performance of the trap is always stable. DPF regeneration matching is required in the following situations:

- replace the exhaust back pressure sensor;
- disassembly or replacement of the particle trap;
- removal or replacement of fuel additive nozzles;
- removal or replacement of catalytic oxidizer;
- the DPF regeneration fault lamp is lit and matched after maintenance;
- repair and replace the DPF regeneration control module.

Anti-theft matching
In order to prevent the car from being used by illegal keys, the car's anti-theft matching function enables the car's immobilizer control system to identify and authorize the remote control key before the car can be turned on and used normally. In addition, when replacing the ignition key, ignition switch, instrument cluster, engine control unit (ECU), body control module (BCM), and remote control battery, it is necessary to match the anti-theft key.

Nozzle coding
Write the actual code of the fuel injection nozzle or rewrite the code in the ECU to the code corresponding to the fuel nozzle of each cylinder, so that the fuel injection amount of each cylinder can be controlled or corrected more accurately. Usually, after replacing the ECU and the fuel injector, the coding of each cylinder fuel nozzle needs to be confirmed or recoded, thus the cylinder can better identify the fuel injector of each cylinder and control the fuel

injection accurately.

Tire pressure reset
When the car tire pressure fault indicator light is on, this function is to reset the tire pressure and turn off the tire pressure fault indicator.
If the tire pressure is too low or leaks, replace or install tire pressure monitoring equipment, and replace the tire.
When the vehicle with a damaged tire pressure sensor and tire pressure monitoring function has rotated its tires, the tire pressure reset must be carried out after maintenance.

Suspension level calibration
This function can adjust the vehicle body height. When replacing the vehicle height sensor or control module in the air suspension system or the vehicle level is wrong, this function can adjust the vehicle height sensor for level calibration.

Headlight matching
This function can initialize the adaptive headlight system. This system can decide whether to automatically turn on the headlights based on the ambient light intensity, monitor the vehicle's driving speed, body posture, etc., and adjust the headlight lighting angle timely.

Gearbox matching
This function can complete the self-learning of the gearbox and improve the shift quality. When the gearbox is disassembled or repaired (after some batteries are powered off), it will cause shifting delay or car impact. At this time, this function is to make the gearbox automatically compensate according to driving conditions, thus achieving a more comfortable, more ideal shift quality.

Sunroof initialization
This function can set the sunroof lock off, close in rain, memory function of sliding/tilting sunroof, outside temperature threshold, etc.

EGR Adaption
This function is used to learn the EGR (Exhaust Gas Recirculation) valve after it is cleaned or replaced.

Gear Leaming
The crankshaft position sensor learns crankshaft tooth machining tolerance and saves to the computer to more accurately diagnose engine misfires. If tooth learning is not performed for a car equipped with Delphi engine, the MIL turns on after the engine is started. The diagnostic device detects the OTC P1336 'tooth not learned'. In this case, you must use the diagnostic device to perform tooth learning for the car. After tooth learning is successful, the MIL turns off. After the engine ECU, crankshaft position sensor, or crankshaft flywheel is replaced, or the OTC 'tooth not learned' is present, tooth learning must be performed.

ODO Reset

- ODO reset is to copy, write, or rewrite the value of kilometers in the chip of the odometer by using a car diagnostic computer and data cable, so that the odometer shows the actual mileage.
- Usually when the mileage is not correct due to the damaged vehicle speed sensor or odometer failure, it is necessary to do ODO reset after maintenance.

Airbag Reset
This function resets the airbag data to clear the airbag collision fault indicator. When the vehicle collides and the airbag deploys, the corresponding fault code of the collision data appears, the airbag indicator lights up, and the fault code cannot be cleared. Since the data inside the airbag computer is disposable, it is required that all new accessories must be replaced, but after performing this function, the data of the airbag computer can be recovered and the fault code can be cleared, the airbag light will go out, and the airbag computer can continue to

use.

Transport Mode
In order to reduce power consumption, the following functions may be disabled, including limiting the vehicle speed, not waking up the door opening network, and disabling the remote control key, etc. At this time, the transport mode needs to be deactivated to restore the vehicle to normal.

A/F Reset
This function is applied to set or learn Air/Fuel ratio parameters.

Stop/Start Reset
This function is used to open or close the automatic start-stop function via setting the hidden function in ECU (provided that the vehicle has a hidden function and is supported by hardware).

NOx Sensor Reset
NOx sensor is a sensor used to detect the content of nitrogen oxides (NOx) in engine exhaust. If the NOx fault is re-initialized and the NOx catalytic converter is replaced, it is necessary to reset the catalytic converter learned value stored in the engine ECU.

AdBlue Reset (Diesel Engine Exhaust Gas Filter)
After the diesel exhaust treatment fluid (car urea) is replaced or filled up, the urea reset operation is required.

Seat Calibration
This function is applied to match the seats with memory functions that are replaced and repaired.

Coolant Bleeding
Use this function to activate the electronic water pump before venting the cooling system.

Tyre Reset
This function is used to set the size parameters of the modified or replaced tire.

Windows Calibration
This feature is designed to perform door window matching to recover ECU initial memory, and recover the automatic ascending and descending function of power window.

Language Change
This function is used to change the system language of the vehicle central control panel.

ThinkFile
It is used to record and establish the file of the diagnosed vehicles. The file is created based on the vehicle VIN and check the time, including all diagnostic-related data such as diagnostic reports, data stream records, and screenshots.

Repair Info

It includes 4 items, namely, a fault code database, a table of vehicles able to be diagnosed, videos, a learning course. The maintenance technician can quickly refer to the explanation of the fault codes, and understand all the vehicles that can be diagnosed through the table. The videos contain equipment usage guides, maintenance and diagnosis guides. The learning course demonstrates how tools are operated. These four functions help technicians quickly grasp the equipment used and improve diagnostic efficiency.

Software update

This module allows you to update the diagnostic software & App and set frequently used software.
If you did not download the software in process of product registration or a pop-up message prompting you that some new software can be updated, you may use this option to download it or keep it synchronized with the latest version.

Settings

The host uses system settings. After the initial setting is completed, the user can modify or add related information

here or swipe the screen from the top to make settings.

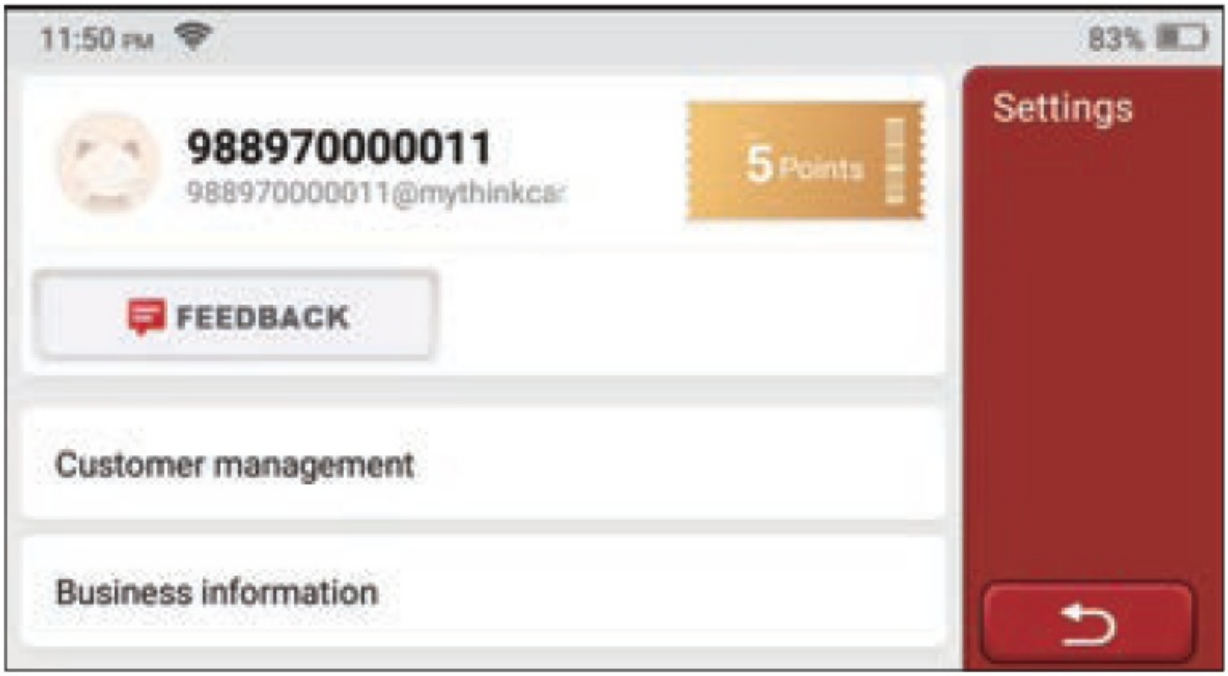
Account information
Users need to register the following information including email, points, orders, homepage, etc.

Points: Points can be earned by participating in events organized by THINKCAR, or by recommending others to purchase our products. Every 1 point deducts 1 USD when purchasing THINKCAR's products and services.

Cart: check and manage the shopping cart.

Order: diagnostic software purchase records.

Feedback: this allows you to feedback the diagnostic software/app bugs to us for analysis and improvements.



Customer management
Information of all clients whose vehicles have been diagnosed will be displayed here in turn.

Business information
Add the repair shop information, which will be displayed to the owner in the diagnostic.

Network
Set the connectable WIFI network.

Finnware upgrade
Used to update the firmware.

Q&A

Here we list some common questions and answers related to this tool

Q: Why does it have no responses when connected to a car computer?
A: Check whether the connection with the vehicle diagnostic socket is normal, whether the ignition switch is on, and whether the tool supports the car.

Q: Why does the system stop while reading the data stream?
A: This may be caused by loose diagnostic dongles. Please unplug the dongle and reconnect it firmly.
Q. Communication error with vehicle ECU?
A: Please confirm

- Whether diagnostic dongles is correctly connected.
- Whether ignition switch is ON.
- If all checks are normal, send vehicle year, make, model and VIN number to us using Feedback feature.

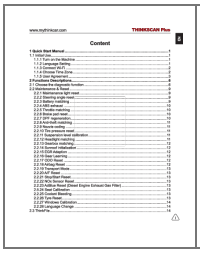
Q: Why does the host screen flash when the engine ignition starts?
A: It is normal and caused by electromagnetic interference.
Q: How to upgrade the system software?

- Start the tool and ensure a stable Internet connection.
- Go to “Set up”-> “App Update”, click “OTA” and then click “check version” to enter the system upgrade interface.
- Complete the process by following the instructions on the screen step by step. It may take a few minutes depending on the internet speed. please be patient. After successfully completing the upgrade, the tool will automatically restart and enter the main interface.

Warranty Terms

This warranty applies only to users and distributors who purchase THINKCAR TECH INC products through normal procedures. Within one year from the date of delivery, THINKCAR TECH 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 TECH does not bear any indirect and incidental losses. THINKCAR TECH will judge the nature of the equipment damage according to its prescribed inspection methods. No agents, employees, or business representatives of THINKCAR TECH are authorized to make any confirmation, notice, or promise related to THINKCAR TECH products.
Service Line: 1-833-692-2766 Customer Service Email: **support@thinkcarus.com** Official Website: www.mythinkcar.com Products tutorial, videos, FAQ, and coverage list are available on Think car official website. Follow us on **@thinkcar.official** **@ObdThinkcar**

Documents / Resources

	**THINKSCAN SOC-TSP07-FBA Diagnostic Scanner Tool** [pdf] User Manual SOC-TSP07-FBA Diagnostic Scanner Tool, SOC-TSP07-FBA, Diagnostic Scanner Tool