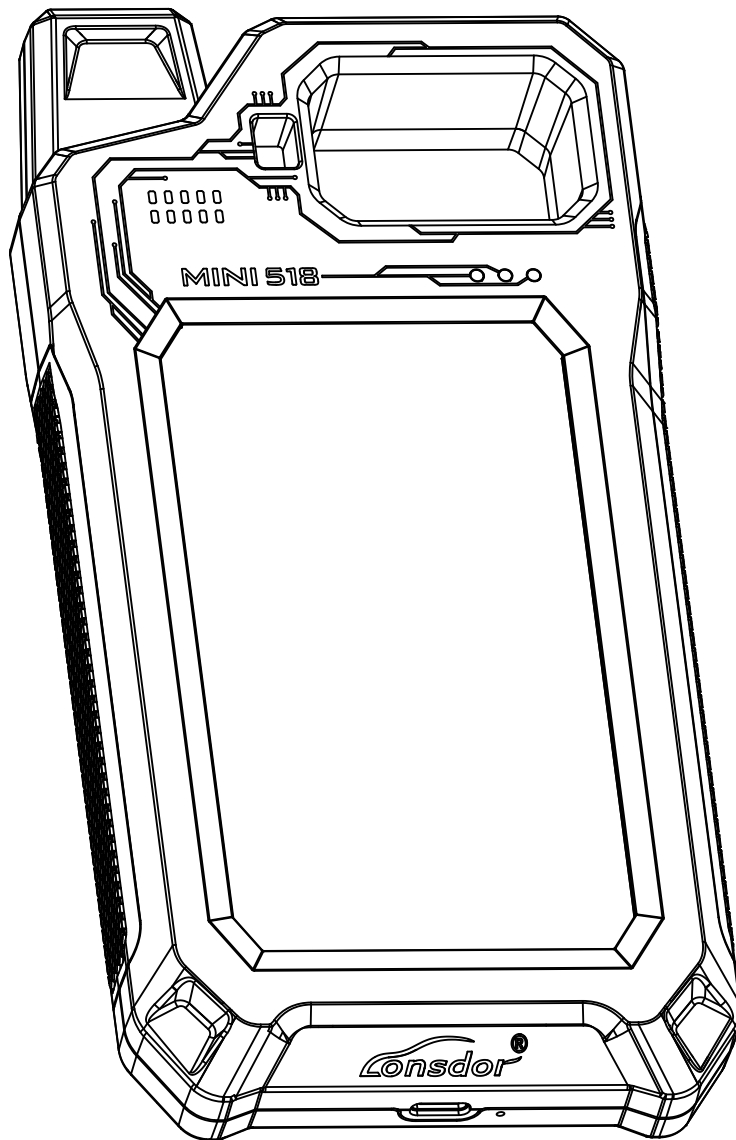


MINI 518

TPMS DIAGNOSTIC INSTRUMENT

USER MANUAL



LONSDOR

★ Please read this instruction manual carefully before use!

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DISCLAIMER

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Declared by: Lonsdor Dept of Legal Affairs

SAFETY INSTRUCTIONS

Before using this product, please read this section carefully and ensure you understand these guidelines. For more detailed information, refer to the "Safety Precautions" section in the appendix.

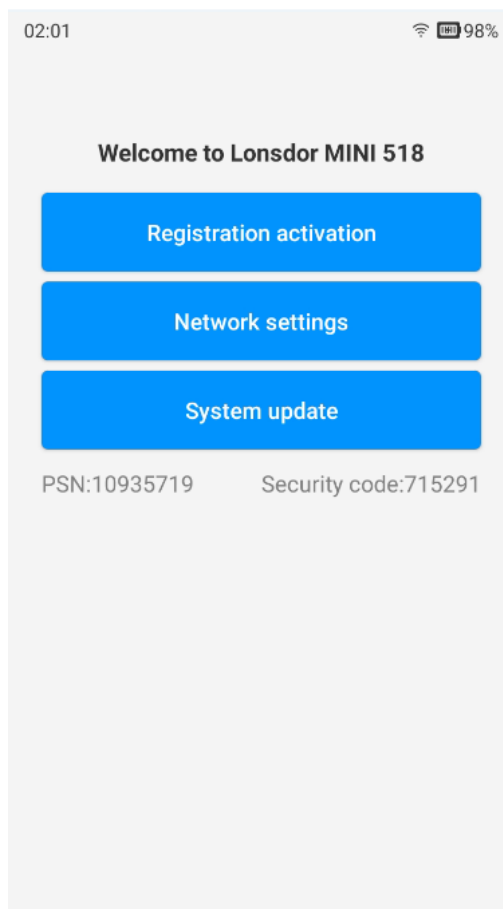
- 1、Wear ANSI-compliant safety goggles and keep clothing, hair, hands, tools, and devices away from running or hot engine components.
- 2、Exhaust fumes emitted by cars is harmful to health; perform vehicle diagnostics only in well-ventilated areas.
- 3、Do not operate the TPMS Diagnostic instrument while driving.
- 4、Always follow the vehicle repair manual instructions and adhere strictly to diagnostic procedures and safety guidelines. Ensure all vehicle diagnostics are conducted in a safe environment.

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1. REGISTRATION GUIDE

After powering on your device, connect to Wi-Fi properly and enter the registration process.



Register

NEW USER REGISTRATION

- ① First-time use: Prepare your mobile phone or email to complete the registration and activation process. Click "OK" to begin.
- ② Power on the device to enter the registration activation interface.
- ③ Enter your mobile number or email address, set a password, and input the verification code received via SMS/email to complete registration.
- ④ Account created successfully. Set up a device unlock password.
- ⑤ The user account will be automatically linked to this device.
- ⑥ Once approved by the server, registration is complete.
- ⑦ Restart the device to access the system.

2. PRODUCT OVERVIEW

2.1 PRODUCT INTRODUCTION

Product Name: MINI518 TPMS Diagnostic instrument

Introduction: The MINI518 is a tire pressure detection and programming tool launched by Shenzhen Lonsdor Technology Co., Ltd. It features a 5.5-inch color touchscreen and works with the BT100 Bluetooth OBD connector. The Mini518 integrates tire pressure fault diagnosis, TPMS sensor programming, and tire pressure learning/programming into a single device.

2.2 PRODUCT PARAMETERS

Operating System: Android 8

Processor: Allwinner A133

Memory: RAM 2GB, FLASH 16GB

LCD: MIPI 720*1280

WiFi: 802.11 b/g/n

Bluetooth: 4.2

USB: 2.0

Battery: 4050mAh

Input Voltage: 5V

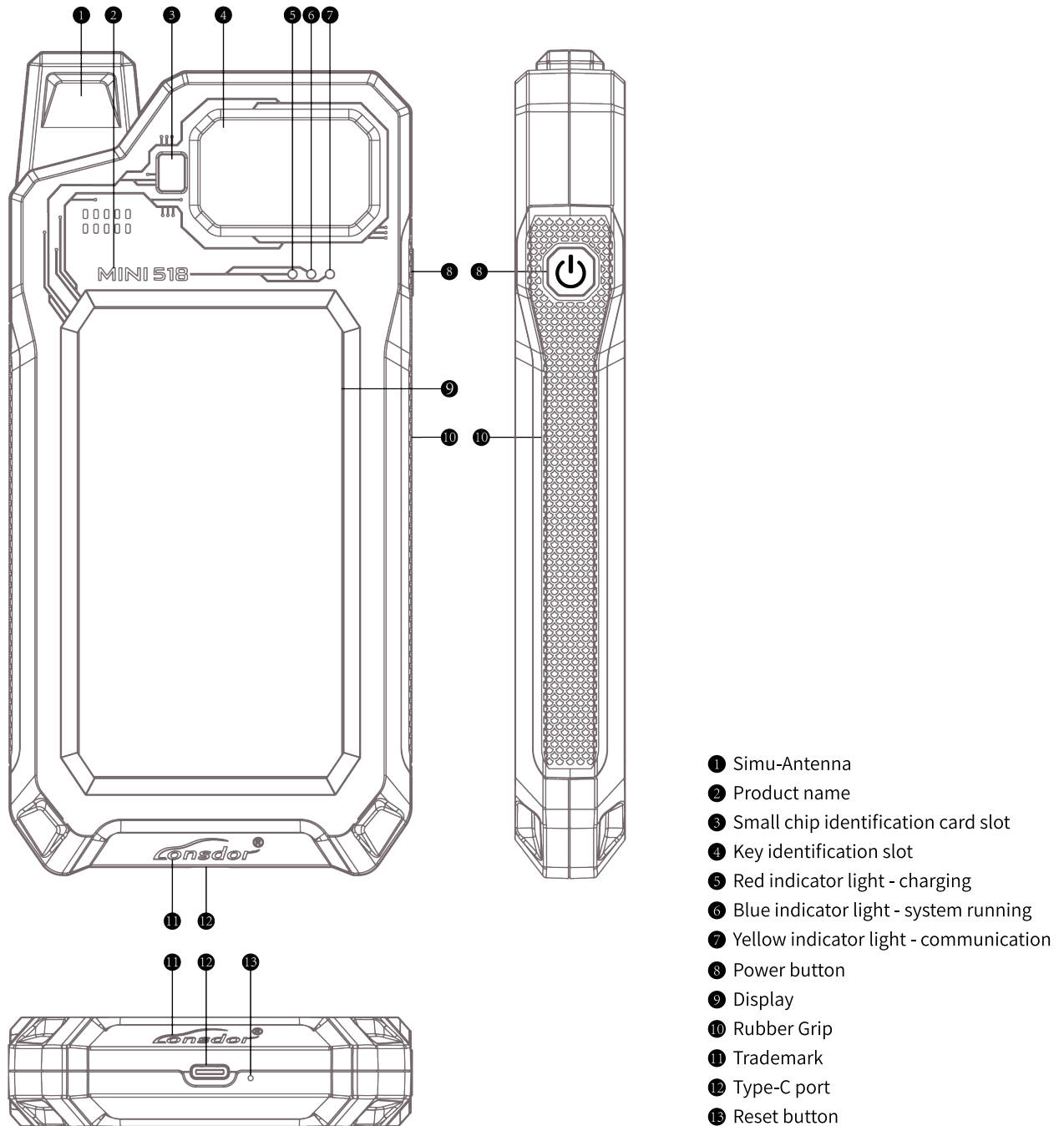
Casing Material: PC+ABS Hard shell+TPR60 °

Specifications: 195mm*96mm*26mm

2.3 PRODUCT LIST

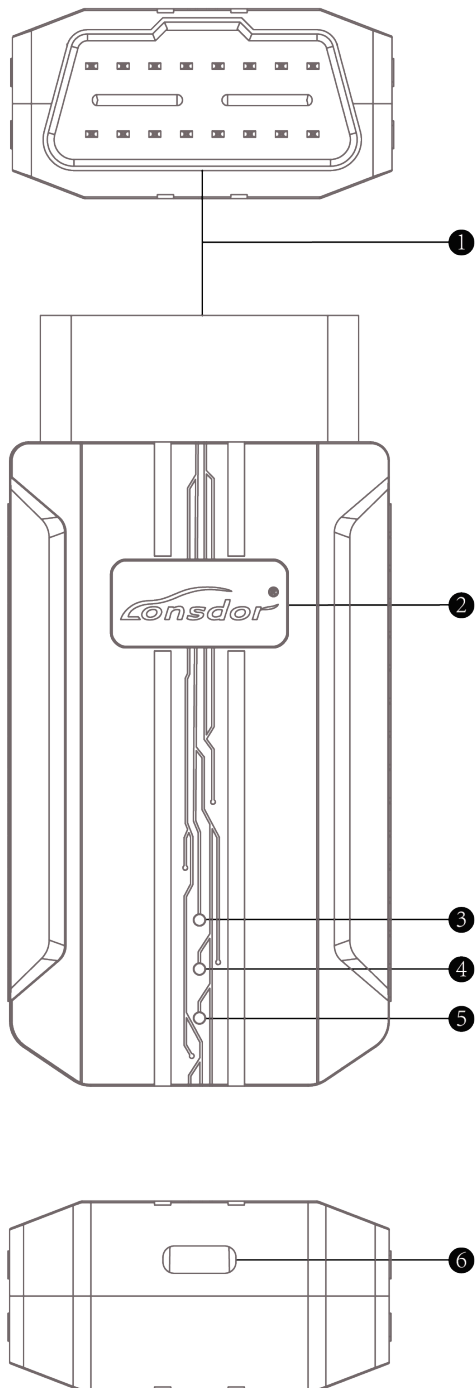
Name	Quantity
MINI518 Host Unit	1unit
MINI518 Host Tool Kit	1set
BT100 Bluetooth OBD connector	1set
2-in-1 Type-C power cable	1piece
Warranty Card	1copy

2.4.1 MINI518 HOST UNIT



MINI 518 Whole machine introduction

2.4.2 BT100 BLUETOOTH OBD CONNECTOR

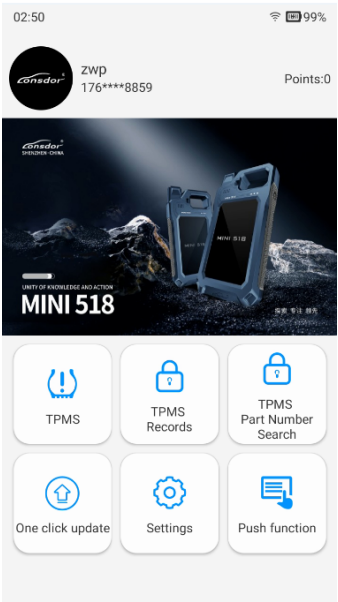


- ① OBD port
- ② Trademark
- ③ Red indicator-charging
- ④ Blue indicator-Bluetooth connection
- ⑤ Yellow indicator-Communication
- ⑥ Type-C interface

BT100 Bluetooth OBD Connector Whole machine introduction

3. FUNCTION INTRODUCTION

3.1 MINI518 MAIN INTERFACE FUNCTIONS



Main interface functions

Functions	Description
Tire pressure diagnosis	Program and activate the tire pressure monitoring system (TPMS) by selecting vehicle make, model, and year.
Tire pressure test records	Tire pressure test records View relevant information through test records, and quickly access vehicle models via test records.
OE search	Find supported vehicle models through the OEM sensor manufacturer and part number, then access diagnostics.
One-click upgrade	Manufacturers will release program updates from time to time, and users can get the latest features here.
Settings	Enter the system settings interface
After-sales feedback	Users can report any problems encountered during use to the manufacturer
Push functions	Based on customer after-sales feedback, engineers resolved the issue immediately and pushed a test version for the user to fix the problem.

3.2 MINI 518 TPMS Diagnostic instrument

Enter the tire pressure diagnosis, select the vehicle make, model, and year in the vehicle identification menu, the system will display the tire pressure system service bar.

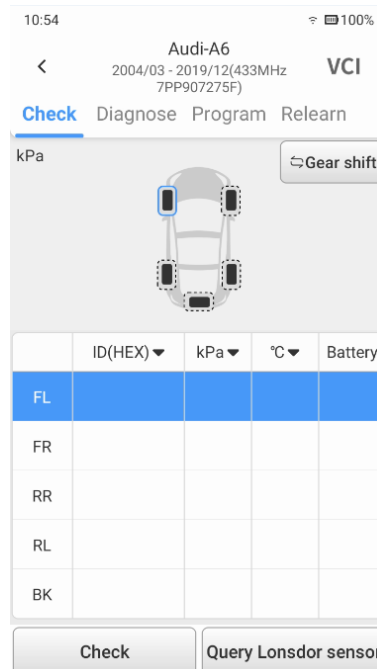


Figure 3-1

The navigation tabs at the top of the main interface screen include the following items:

- Check –To activate the sensor and display sensor data.
- Diagnose - To communicate with the test vehicle to perform diagnose function, and display the diagnostic results of the fault code.
- Program – To program the Lonsdor TPMS sensor, display the newly programmed sensor ID and sensor PSN (Product Serial Number).
- Relearn – To display OE sensor information and relearning steps, follow the instructions to perform the relearn function.

TPMS Check

The "Check" function allows users to activate the tire pressure monitoring system (TPMS) sensor to view sensor data, including sensor ID, pressure, temperature, and battery status.

1. Select the wheel by choosing either the wheel icon on the vehicle graphic or the corresponding wheel label (including "Left Front," "Right Front," "Right Rear," and "Left Rear"). Then, click the "Check" button to activate the sensor.
2. Once the sensor is successfully activated, its information will be displayed on the MINI518 interface.

SPECIAL NOTES:

- If the sensor battery is critically low, a yellow icon will appear next to the corresponding wheel icon on the interface.
- If the tire pressure sensor requires magnetic activation, a magnetic activation icon will appear next to the corresponding wheel icon on the interface. Place the magnet above the valve stem, position the MINI518 next to the valve stem, then press the “Check” button (this function only applies to 1997–2003 vehicle models, and the magnet must be purchased separately).
- If the sensor requires activation by deflating the tire, a tire deflation activation icon will appear next to the corresponding wheel icon on the interface. Quickly deflate the tire (recommended rate of approximately 30 kPa per minute) while placing the MINI518 next to the valve stem and tapping the “Check” button.
- After successfully activating the sensor, the wheel icon displays the sensor status in green or red.

Icons	Results	Description
	Sensor reading successful	The tire pressure system sensor is successfully activated and decoded, and the sensor information is displayed in the table.
	Sensor reading successful, but the battery is low or the tire pressure is not within the normal range	The tire pressure system sensor is successfully activated and decoded, and the sensor battery is low. If the tire pressure is not within the normal range, the icon will turn yellow. For both scenarios where the icon turns yellow, follow the prompts to identify the problem.
	Sensor reading failed	If the search times out without any sensors being activated or decoded, the sensor may be improperly installed or malfunctioning, and the interface will display “Failed.” If a sensor with a duplicate ID is read, the screen will display "This ID is already activated." Repeat the test procedure.

Table 3-2 Sensor Icon Status Possible Results

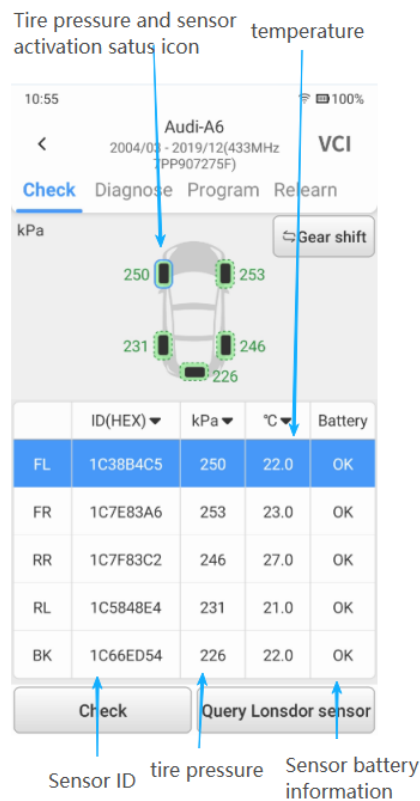


Figure 3-3 Check interface

The table lists the location, sensor ID, tire pressure, tire temperature, sensor frequency, and sensor battery information for the activated sensor.

TPMS DIAGNOSIS

The Diagnose function is used to check the status of the tire pressure monitoring system (TPMS). To use this function, the MINI518 must be connected to the test vehicle via the BT100 Bluetooth connector for communication.

Insert the BT100 (OBD Bluetooth connector) into the vehicle's diagnostic link connector (DLC). The BT100 will power on automatically. The MINI518 will establish communication with the vehicle via the BT100. (Note: If the vehicle's DLC is not located under the dashboard, please refer to the vehicle user manual for its exact position.)

When the BT100 is correctly connected to the vehicle and ready to establish communication with the MINI518, the BT100 power indicator light will be solid blue.

There are two communication methods between BT100 and MINI518: Bluetooth connection and USB connection.

After the devices are successfully connected, the VCI navigation button in the upper right of the MINI518 screen will display blue.



Figure 3-4 Communication interface

Note: Bluetooth and USB cannot be enabled simultaneously. MINI518 will prioritize USB communication.

1. If BT100 is not connected correctly, the "BT100 Not Connected" message will be displayed. To resolve this issue, perform the following steps:

- Check if BT100 is powered on. The red indicator light will remain lit when powered.
- Verify that BT100 is placed correctly.
- For Bluetooth connection:

Check if the configurations are normal. Ensure the paired BT100 is correct for MINI518. If communication is interrupted during diagnosis, ensure there are no objects nearby that may cause signal interference. Stay close to BT100 for a more stable signal.

- For USB connection, Check the cable connection between MINI518 and BT100.

2. If BT100 cannot establish a communication connection, the "BT100 not connected, Please check" message will appear on the screen. Possible reasons include:

- BT100 cannot establish a communication connection with the vehicle.
- Loose connection port.
- Blown vehicle fuse.
- Vehicle or wiring fault.

Diagnostic operation: Click "Diagnose," and MINI518 will automatically communicate with the vehicle.

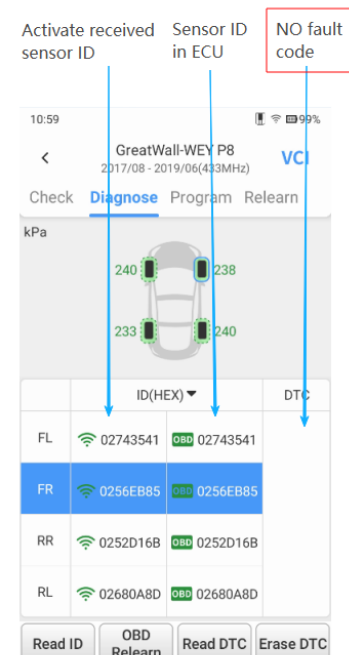
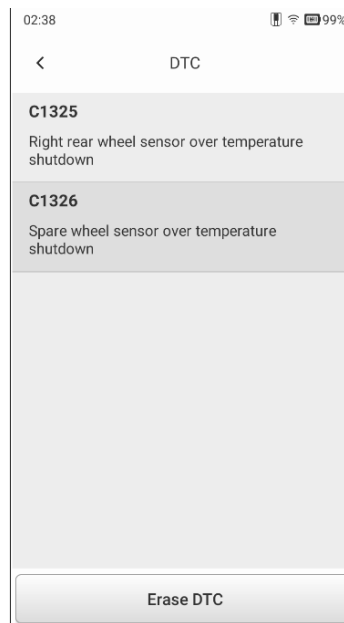
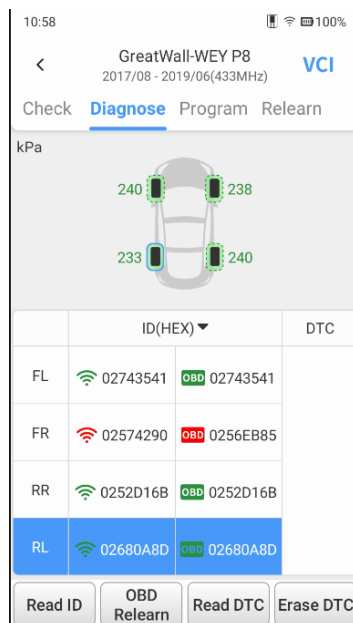


Figure 3-5 Diagnose interface Figure 3-6: Fault code interface Figure 3-7: Fault code interface

- If the vehicle supports OBD functionality, the sensor IDs stored in the ECU will be read and displayed, with an OBD icon attached on the left.
- When the sensor ID obtained through activation matches the ID saved in the ECU, the activation mark (📶) and OBD mark (OBD) will turn green. If the IDs differ, the activation mark (📶) and OBD mark (OBD) will turn red. In this case, the vehicle ECU cannot recognize the installed sensor, and the sensor must be matched according to the vehicle's relearn procedure.
- If the tested vehicle's TPMS does not support OBD functionality, the sensor IDs stored in the ECU cannot be read. Only the sensor ID obtained through activation will be displayed on the screen.
- If there are fault codes in the tire pressure monitoring system (TPMS), the count will be displayed in the corresponding column (as shown in Figure 3-5: Diagnose Interface). Clicking on the number in the fault code column will reveal detailed information about the fault codes (Figure 3-6: Fault Code Interface). After the vehicle fault is repaired, click the "Clear fault code" button to reset them. When no fault codes exist in the TPMS ECU, the fault code column will appear blank (Figure 3-7: Fault code interface).

3.3 SENSOR PROGRAMMING

Users can program sensor data into the Lonsdor sensor using the "Program" function to replace the original sensor. The device provides four programming methods: Copy by sensor ID、Copy by OBD ID、Input sensor ID、Auto generate

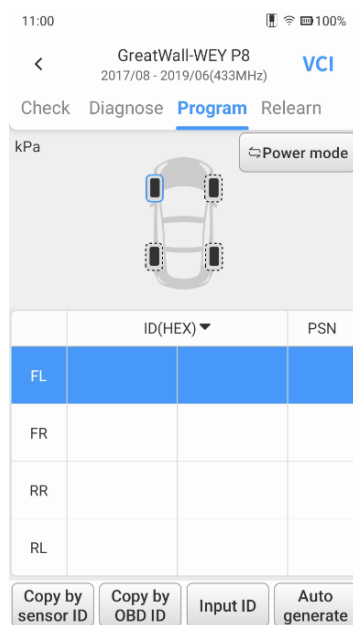


Figure 3-8: Programming interface

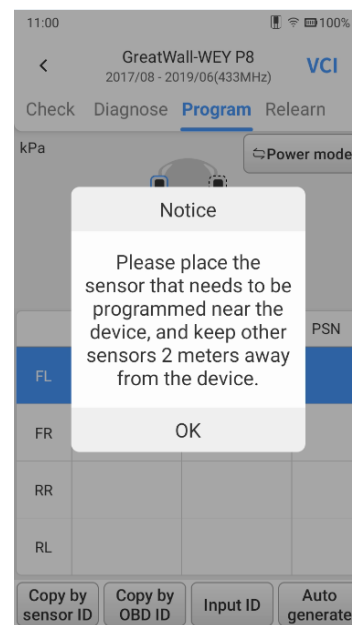


Figure 3-9: "Copy by sensor ID" caution interface

3.3.1 COPY BY SENSOR ID

1. Activate the vehicle's sensor to obtain the sensor's ID information.
2. On the interface, select the wheel position, place the Lonsdor sensor to be programmed in front of MINI518, and click "Copy by sensor ID" to start programming.

3. The interface will display a prompt window. Click "OK" to begin programming. During the process, you can click "Cancel" to stop programming.

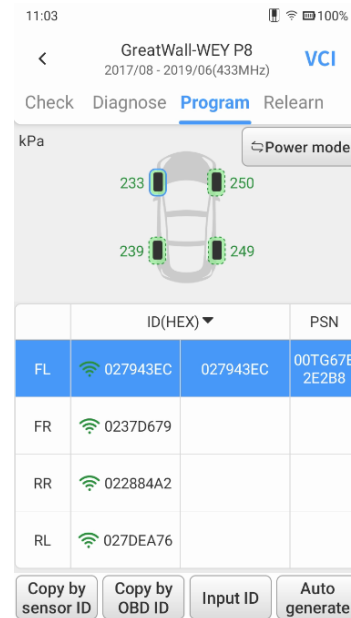
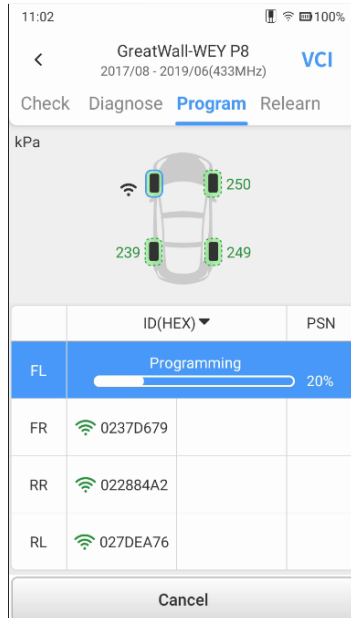


Figure 3-10: Copy by sensor ID interface

Figure 3-11: Copy by sensor ID completion interface

4. After programming is completed, the programmed ID will be displayed in the second column to the right of the corresponding wheel. In Figure 3-11, the new ID appears in the second column to the right of "Left Front." The programmed ID should match the ID obtained during activation.

Under normal circumstances, since the original sensor and the new sensor share the same ID and the vehicle's ECU has already recognized the ID, no "relearn" function is required when the newly programmed sensor is installed on the same wheel. However, if the vehicle ECU loses the sensor ID, the relearn process must still be performed.

3.3.2 COPY BY OBD ID

1. Read the sensor ID in the ECU via OBD. Select the wheel position on the interface and place the Lonsdor sensor to be programmed in front of the MINI518. Click "OBD Copy" to program the Lonsdor sensor.

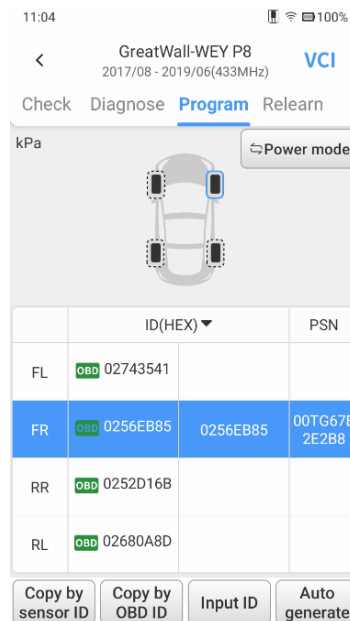


Figure 3-12 OBD copy interface diagram

2. After programming is completed, the programmed ID will be displayed in the second column to the right of the corresponding wheel. In Figure 3-12, the new ID appears in the second column to the right of "Right Front." Recommend to use the "Copy by OBD ID" function to program new Lonsdor sensors.

3.3.3 INPUT SENSOR ID

1. Select the wheel position on the interface, place the Lonsdor sensor to be programmed in front of MINI518, then click "Input ID" to program the new Lonsdor sensor.
2. Click "Input ID", enter the original sensor's ID, and choose decimal or hexadecimal input as needed.

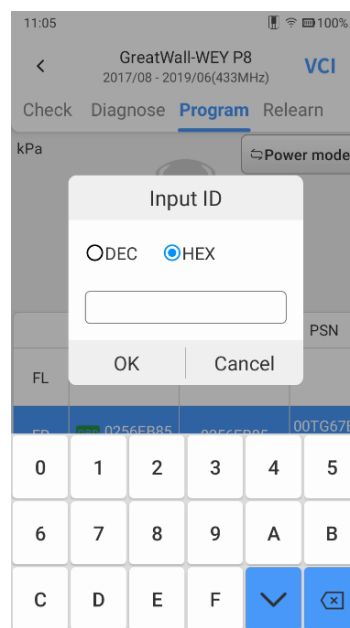


Figure 3-13 Input sensor ID interface

Generally, because the IDs of the original and new sensors are the same and the vehicle's ECU has already recognized the IDs, there is no need to perform the "Relearn" function when a newly programmed sensor is installed on the same wheel. However, if the vehicle's ECU has lost the sensor ID, relearning is still required.

3.3.4 AUTO GENERATE

"Auto-Generate" will create a new ID for the sensor. Place the Lonsdor sensor to be programmed in front of MINI518 (keep others at least 2 meters away to avoid potential programming errors). Up to 16 sensors can be programmed at once. Note: The auto-generated ID requires a "Relearn" step to be written to the ECU.

1. Place the Lonsdor sensor to be programmed in front of MINI518, then click "Auto Generate" to begin programming the new sensor.
2. MINI518 will scan for nearby TPMS sensors. If only one sensor is detected, programming will start automatically. If multiple sensors are found, you can freely select a desired sensor to be programmed.

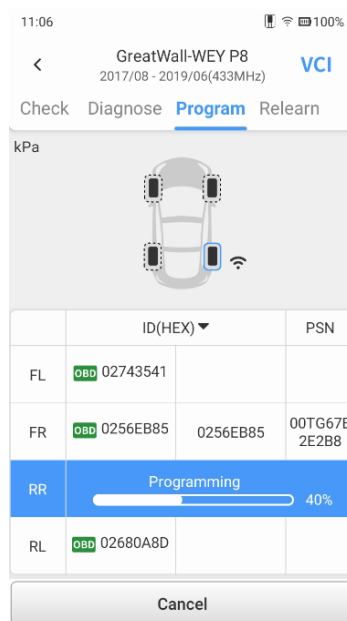


Figure 3-14 Auto generation interface

3.4 TPMS RELEARN

The "Relearn" function enables the vehicle's ECU to recognize a new sensor ID. When the new sensor ID differs from the original sensor ID stored in the TPMS ECU, the "Relearn" function is required to transmit the ID information to the vehicle's ECU. There are four available TPMS learning methods, select the most appropriate method based on the specific scenario:

1. OBD Relearn
2. Auto Relearn
3. Static Relearn
4. Clone Relearn

3.4.1 OBD RELEARN

The OBD relearn function enables the MINI518 to allow the vehicle to recognize the TPMS sensor IDs via OBD and write them into the TPMS module.

Note:

If the selected vehicle supports the OBD relearn function and diagnostic communication is established with the vehicle, a "OBD relearn" button will appear at the bottom of the screen.

To perform the relearn function, activate all sensors on the vehicle.

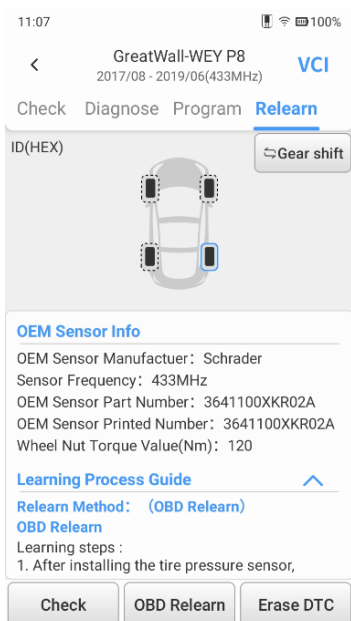


Figure 3-15 OBD relearn interface 1

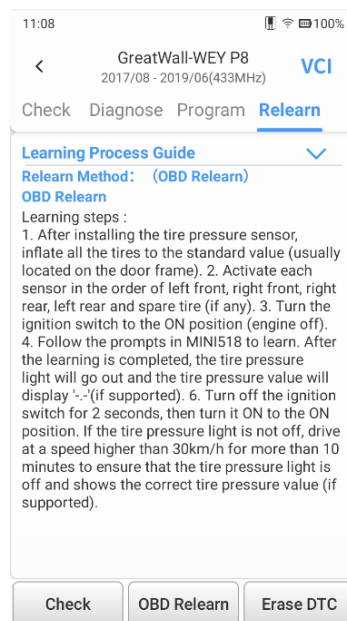


Figure 3-16 OBD relearn interface 2

3.4.2 AUTO RELEARN

Some vehicles support relearn functions that can be completed through driving. Please refer to the learning methods displayed on the interface.

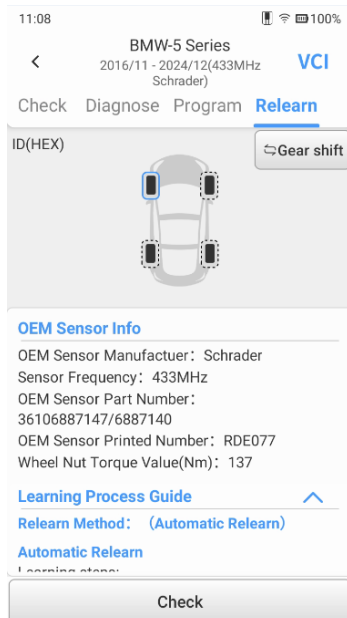


Figure 3-17 Auto relearn interface 1

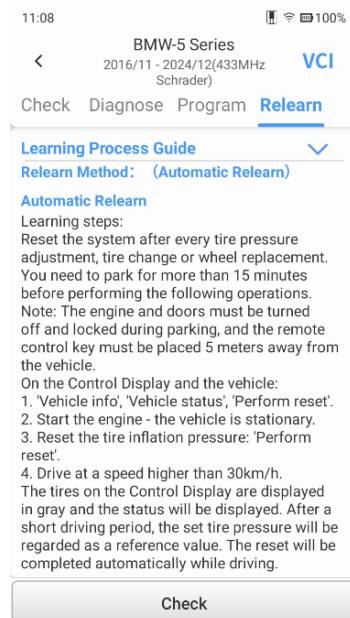


Figure 3-18 Auto relearn interface 1

3.4.3 STATIC RELEARN

Enter the "Relearn" interface and follow the prompts to complete static relearning.

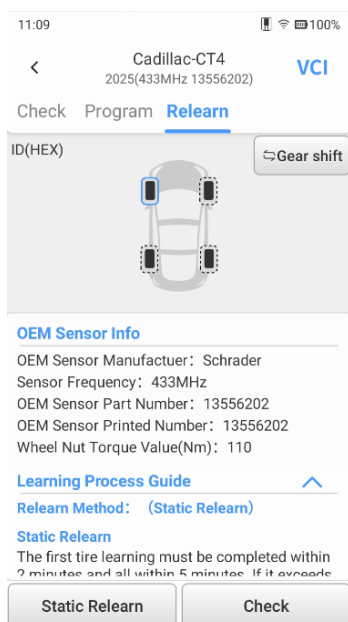


Figure 3-19 Static relearn interface 1

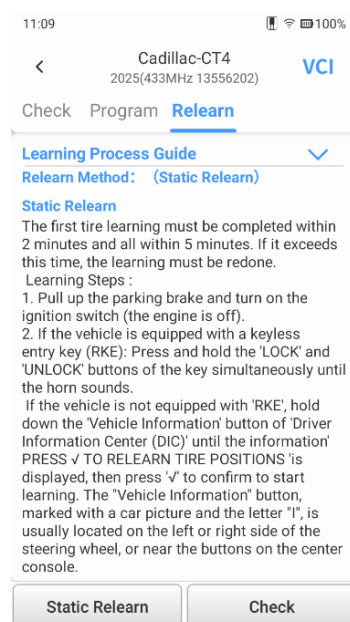


Figure 3-20 Static relearn interface 2

3.4.4 CLONE RELEARN

Clone relearning refers to directly copying the OEM sensor ID to enable vehicle recognition, without the need for relearning as long as the ID remains intact in the vehicle's ECU.

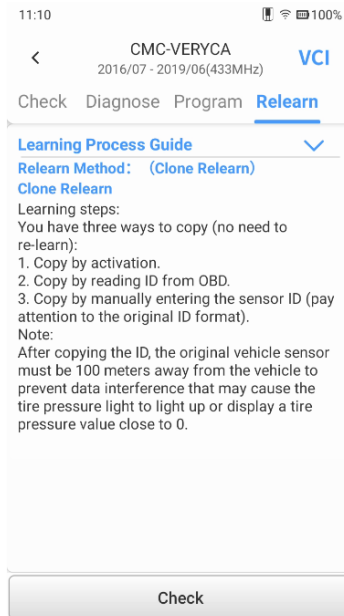


Figure 3-21 Clone relearn interface

3.5 OE Query (Original Equipment Parts No.) Search

The OEM (Original Equipment Manufacturer) part number on the sensor can be used to quickly access the TPMS function menu, helping technicians efficiently select the correct vehicle model.

3.5.1 APPLICATION SCENARIOS

Typical Application Scenarios:

(1) Repair Shops

When the OEM part number is known, technicians can use the "OE Query" function to swiftly select the vehicle model and detect the sensor status. Then use the "Program" function to write the original vehicle's sensor ID into the Lonsdor sensor. If the sensor ID in the vehicle's ECU is intact, no relearn procedure is required—the new sensor can be installed directly to replace the faulty one.

(2) Tire Shops or Sensor Dealer

For customers purchasing sensors in bulk for the same vehicle model or OEM part number, the "OE Query" function enables precise matching. Up to 16 sensors can be programmed simultaneously.

3.5.2 FUNCTION DESCRIPTION

How to Search for Information via OEM Part Number

1. Click "OE Query" on the device's main menu to enter the "Choose Sensor Manufacturer" interface. Use the search function or the alphabetical navigation bar on the right to quickly locate the manufacturer. Select current vehicle's sensor manufacturer and then the corresponding OEM part number; or click "All Part Numbers", enter the "Part Number" in the search box at the top of the screen, and click "Search".

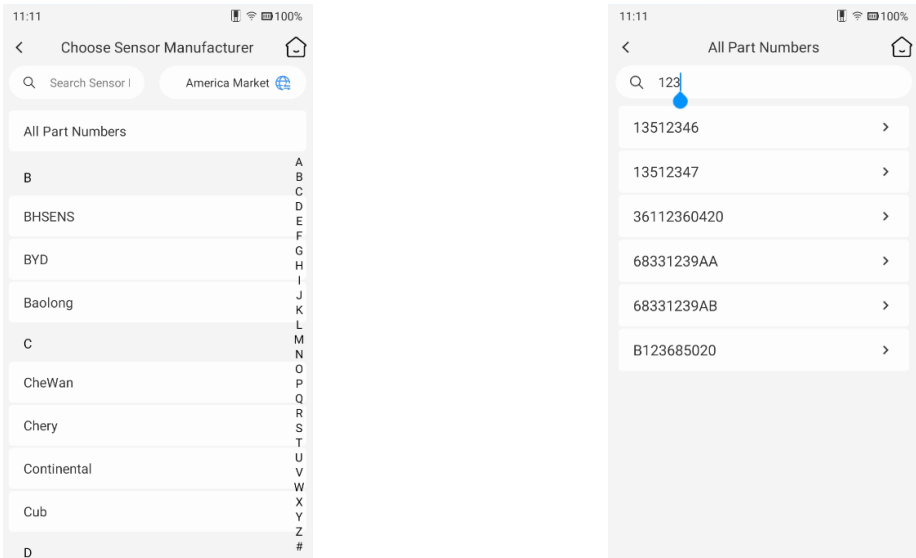


Figure 3-22 "Choose Sensor Manufacturer" interface

Figure 3-23 "All Part Numbers" interface

2. 2.Clicking the selected part number will show the supported vehicle models, as shown in the interface below.



Figure 3-24 Supported vehicle models interface

3.5.2.1 CHECK

Select the Check tab and click the "Check" button at the bottom of the interface, this will wake up and read the following info: sensor ID, tire pressure, tire temperature, sensor frequency and battery level.

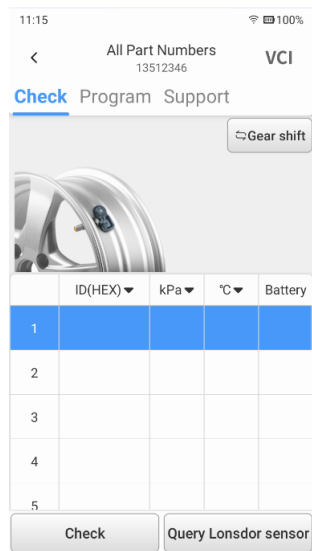


Figure 3-25 “Check” interface

3.5.2.2 PROGRAMMING

The Programming function enables Lonsdor sensor to adapt to the selected vehicle, replacing the faulty sensor.

Three options are available: Copy by sensor ID, Input ID, Auto generate.

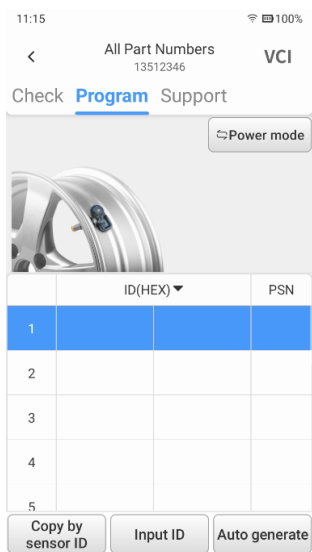


Figure 3-26 “Program” interface

3.5.2.3 SUPPORTED VEHICLE MODELS

This interface can display all vehicle models supported by current OEM part number. To perform the "Diagnose" and "Relearn" functions, select the correct vehicle model, then click the "Enter" button at the bottom.

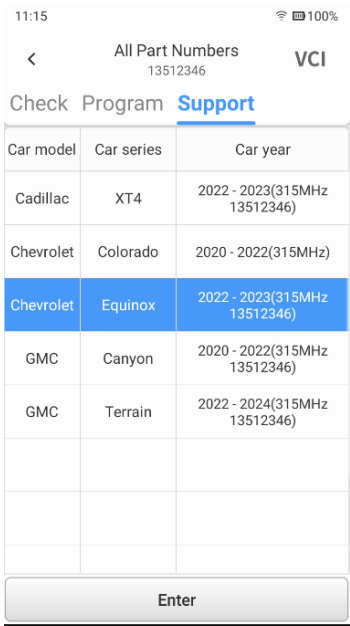
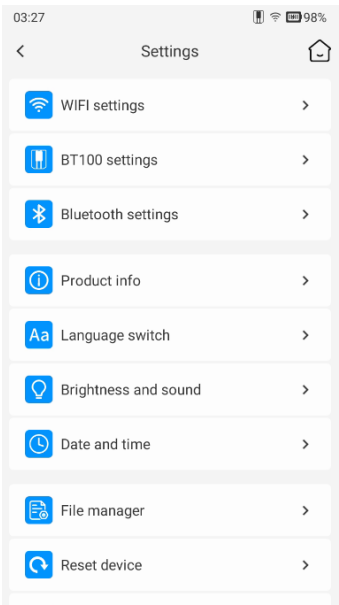


Figure 3-27 "Supported vehicle models" Interface

3.6 MINI518 SYSTEM SETTINGS INTERFACE



System interface Settings

Functions	说明
WIFI settings	Set up Wi-Fi connectivity
BT100 settings	Set up BT100 connection status
Bluetooth settings	Set up Bluetooth connection status
Product info	Include device info, account info, points details, etc.
Language switch	Change language
Brightness and sound	Set screen brightness, screen off time, and volume
File manager	Perform common file operations such as open, copy, and paste
Reset device	Restart the app
Screen test	Test the touchscreen functionality
Network test	Test the current network connection
Firmware upgrade	APK updates

4. After-Sales Service

1. Our company will provide you with superior after-sales service and warranty service within agreed time.
2. The warranty period lasts 12 months since device activation date.
3. Once the product is sold, return and refund is not acceptable if no quality problem.
4. For product maintenance beyond the warranty coverage, our company will charge labor and material costs.
5. If the device breaks down or gets damaged due to any of the following reasons, our company reserve the right not to provide service based on the agreed terms (but you can choose paid service);
 - The entire device and components are beyond the warranty period;
 - Product surface is found flawed or damaged due to user operation (not quality problem);
 - Counterfeit, without certificate or invoice, our official back-end system can not authenticate the device info;
 - Damages due to fail to follow the instructions on operation, use, storage and maintenance in this manual;
 - Damages and faults caused by private disassembly or by improper repair and maintenance of the maintenance company unauthorized by Lonsdor;
 - Liquid inflow, moisture, falling into water or mildewing;
 - The newly purchased device works normally without any damage when unpacked for the first time. But with the prolonged time of use, screen damage occurs, such as screen explosion, scratching, white spots, black spots, silk thread screen, touch damage, etc.
 - Damage by using specific tools and accessories not provided by our company;
 - Force majeure;
 - For the man-made damaged device, if you choose no repair service after we disassemble it and make a quotation, the device appears unstable conditions (such as: boot failure, system crash, etc) when you receive it;
 - Private cracking of the system causes function changes, instability, and quality damage, etc.
6. If the auxiliary parts and other parts (other than the main components of the device) are faulty, you can choose paid repair service provided by our company or our authorized customer service outlets.
7. Our company will perform repair after receiving your device and confirming its problems, so please fill in the problems in details.
8. After repair finished, we will return the device to you, so please fill in the correct delivery address and contact number.

4. After-Sales Service

9. Customers who needs to send the device for repair, shall bear the cost such as round-trip delivery cost, transportation cost and etc. If the device gets damaged in the process of delivery, our company shall not bear correlative fees. In particular cases, we will assist the customer to claim for compensation against the shipping company.

10. Our company do not provide sales invoice to individual in any form. Please ask the dealer you purchased from to invoice you if required.

11. Please keep the warranty card properly, and fill in the card when returning your device for repair, so that we can go through relevant work procedure(the warranty card attached to the end of the manual).

12. Aftersales service hotline: 400-966-9130

WhatsApp: +8618938676302/+8618814486441

Skype: live:.cid.22a25301c379a13e/live:.cid.36e93bd8b6197a30

Service time (GMT+8): China time from 8:30am to 6:00pm (legal holidays off).

Website: en.lonsdor.com

E-mail: service@lonsdor.com



Lonsdor WeChat account



Lonsdor website QR code