Matters needing attention:

- Please read this manual carefully before use and keep it for future reference.
- The equipment list should be checked carefully before use. If in doubt, contact Thinkcar Tech Inc immediately.
- Due to the continuous upgrading of the product, the manual and the physical have a slight difference, without notice, please prevail in kind.

Thinkcar and its affiliates shall not be liable for any costs and expenses incurred as a result of damage to or loss of the equipment due to accidents, abuse or misuse of the equipment, unauthorized alterations or repairs to the equipment, or failure to comply with Thinkcar's operation and maintenance requirements, whether by the user or a third party.

Thinkcar is not responsible for any damages or problems caused by the use of other optional accessories or consumables other than Thinkcar's original products or Thinkcar's approved products.

Official Disclaimer: All other product names mentioned in this manual are intended to illustrate how the equipment is used and remain registered trademarks of their respective companies.

This equipment is intended for use by specialized technicians or maintenance personnel.

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Contents

1、Product Overview

EVC303 battery pack leak tester (LP) is the latest high-accuracy nondestructive testing equipment developed by THINKCAR. It mainly uses compressed air as the medium to apply specific pressure to the inner cavity or surface of the battery to be tested and then uses sensitive sensors to detect the variations of pressure to determine the leakage of the battery pack. It can improve customer testing efficiency and product quality with pollution-free, quick, and accurate testing characteristics in the new energy industry.

1.1 Product Features

- High sensitivity pressure sensing significantly improves test accuracy and stability.
- 10.1-inch touch screen visually displays the test progress and data.
- Display the progress time of each stage during the test.
- The pressure dial and the test curve will display on the same screen in real-time.
- The system automatically memorizes the last test parameters, which is convenient for the next test modification and improves efficiency.
- Parameters such as workpiece number, volume, pressure, time of each stage, leakage limit can be preset.

1.2 Main Function and Test Range

Mainly used for the leakage test of battery packs.

1.3 System Components

The tester consists of main unit, AC power cord and air pipe.
The main unit includes display screen, data processing unit, data acquisition unit and panel operation unit.

1.4 Working Conditions

NO CORROSIVE, NO EXPLOSIVE, NO ELECTRICAL BREAKDOWN AIR OR CONDUCTIVE DUST.

1.5 Storage Conditions

Placed in a dry storage room, temperature: -20℃ ~ 70℃, humidity: 10% ~ 93%.

2、Precautions for Safe Use

2.1 General Rule

Please follow the user manual to use this tester.

2.2 Common Incorrect Operation

1）Tools for connecting is not well insulated.
2）Operating without following the user manual.

2.3 Damage Probably Caused By Incorrect Operation

1）Short circuit accident: Tools is not well insulated, or battery pack positive and negative electrodes are too close.
2）Failure to follow the correct operation method will cause the equipment not working properly.

2.4 Emergency Treatment In Exceptional Cases

Disconnect the equipment power supply and test cables.

2.5 Precautions In Exceptional Circumstances

If the operator uses tools without well insulation or improper operate to cause short circuit, please separate the cables immediately.

2.6 Other Safety Alerts

Strict compliance with safety operating norms and correct operating procedure.

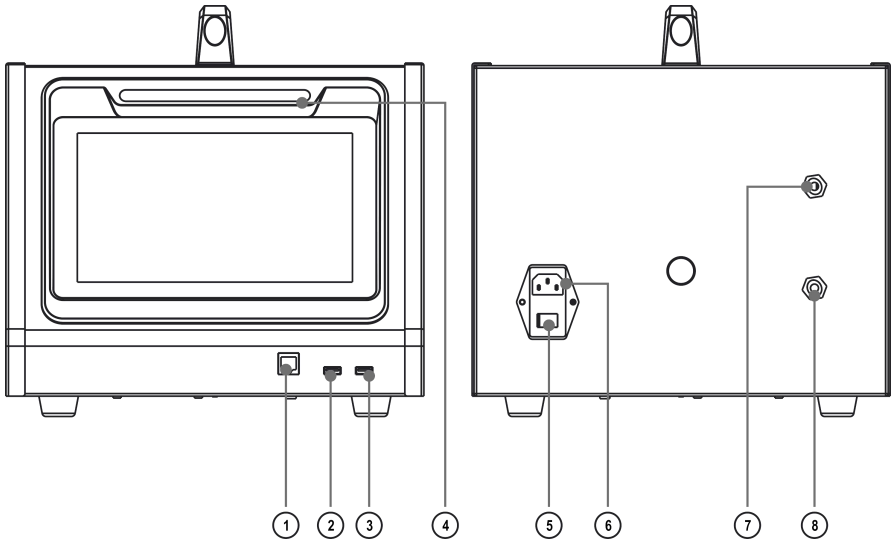
3、Technical Features

Parameter	Description
Model	EVC303
Test Power	20W（Max）
Test Method	Pressure
Test Pressure Range	0Kpa ~ 30Kpa
Sensor Resolution	1Pa
Sensor Resolution	±5Pa
Display	10.1-inch LCD touch screen

Communication Port	RJ45*1, USB*2
Data Storage	Internal storage of device or data transfer to USB flash drive
Power Supply	AC 90V ~ 264V
Air Supply	0.1Mpa ~ 1.0Mpa dry compressed air
Air Inlet Port	ϕ6mm air pipe
Test Port	ϕ6mm air pipe
Work Temperature	-5℃ ~ 45℃
Work Humidity	5% ~ 93%
Dimension	360.5 x 329.0 x 323.0mm

4、Operating Instructions

4.1 Panel Description



No.	Name	Description
1	RJ45 Interface	For data download.
2	I/O 1	For data copy and transmit.
3	I/O 2	For data copy and transmit.
4	Light strip	Green constant light indicates that the device is in standby mode; Blue constant light indicates work in progress; Yellow constant light indicates a non-stop warning;

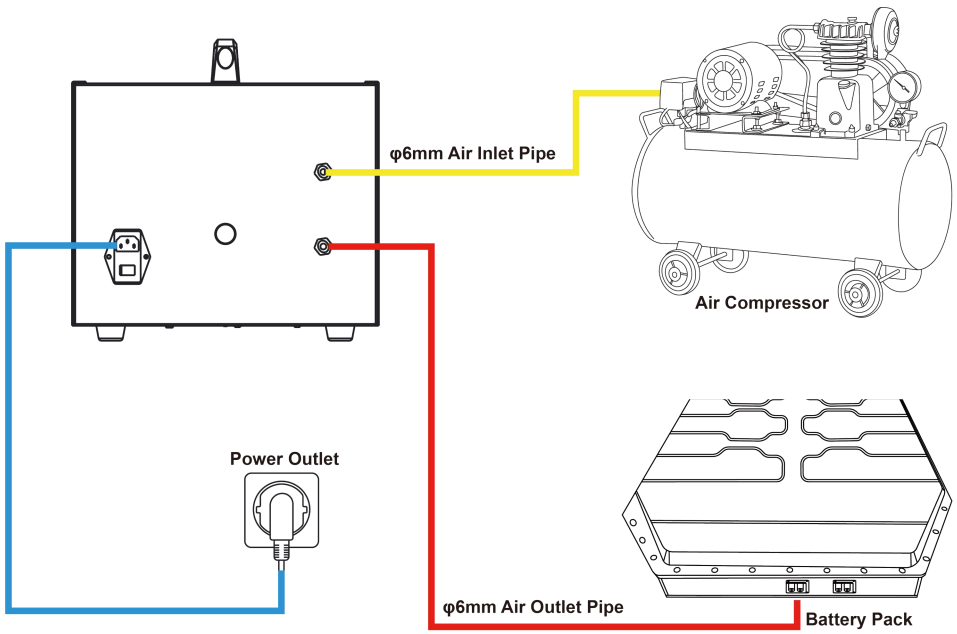
		Red flashing indicates a fault/shutdown warning.
5	Power Switch	Equipment power on/off.
6	Power Socket	90V ~ 264V power input.
7	Air Inlet Port	Connect to air source.
8	Air Outlet Port	Connect to battery pack.

4.2 Tester Connection

1.Air Supply Connection： Connect the 0.1Mpa ~ 1.0Mpa dry and clean air source to the air inlet port of the tester through the ϕ6mm air pipe

2.AC Input Connection： Use the provided power cord to connect the tester to 90V ~ 264V AC power supply.

3.Battery Pack Connection： Connect the battery pack and tester's air outlet port with a ϕ 6mm air pipe. Ensure the airtightness of the connection.



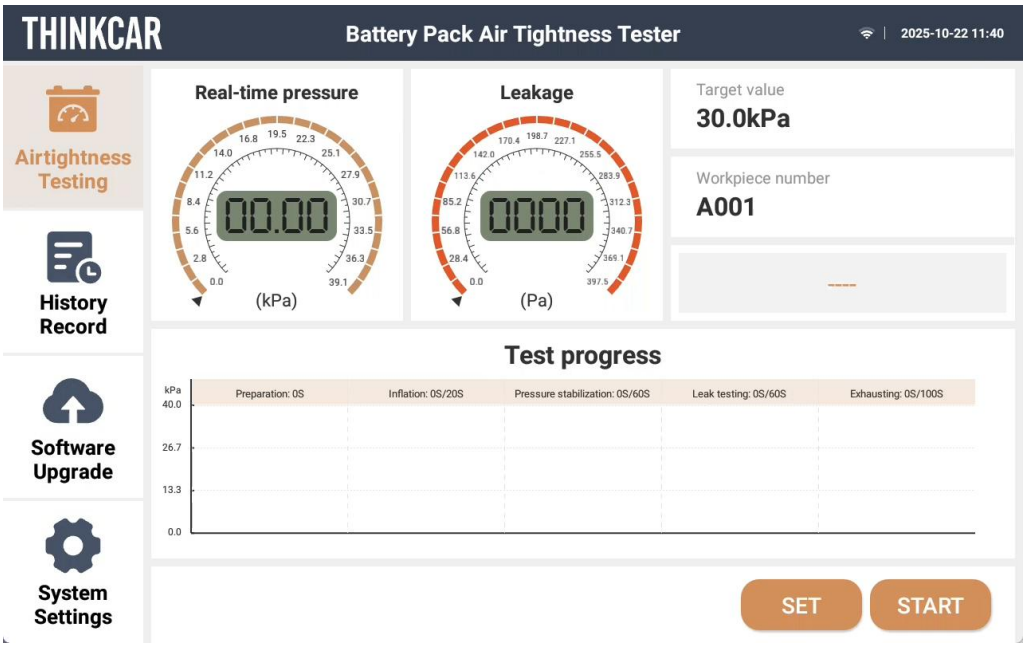
4.3 Main Unit Operation

After completing the tester connection, turn on the power switch to start the tester.

4.3.1 Main Menu

After the device is turned on, it enters the airtightness testing interface by default. Users can click the function module icon on the left side of the screen to switch to different function module interfaces. The function modules on the left include Airtightness Testing, History

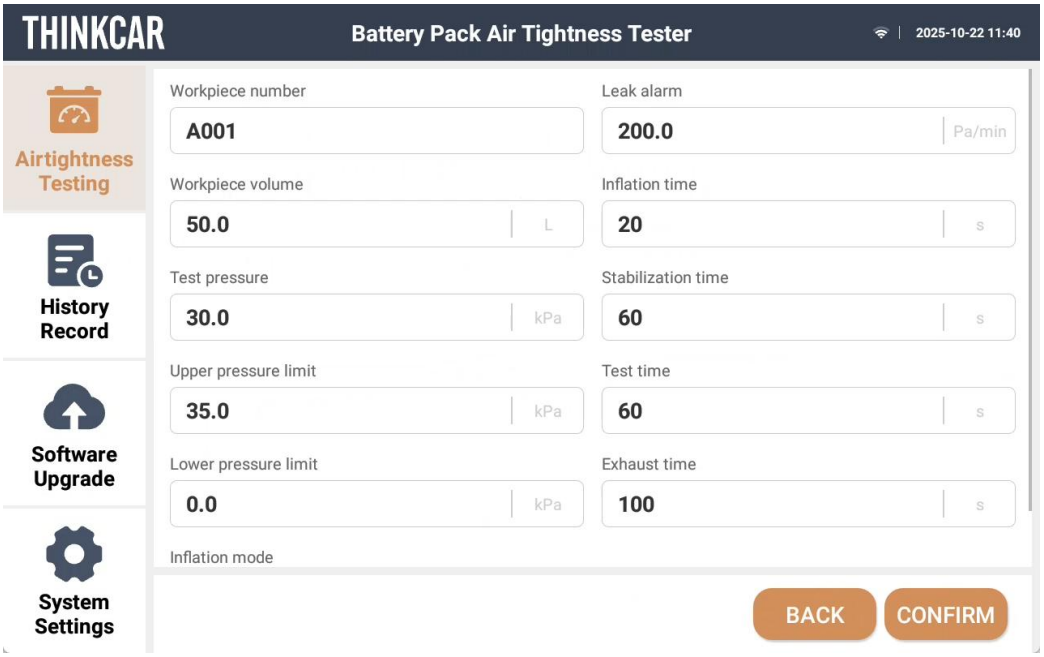
Record, Software Upgrade and System Settings.



4.3.2 Airtightness Testing

In the airtightness testing interface, click **SETTINGS** to preset the airtightness testing parameters.

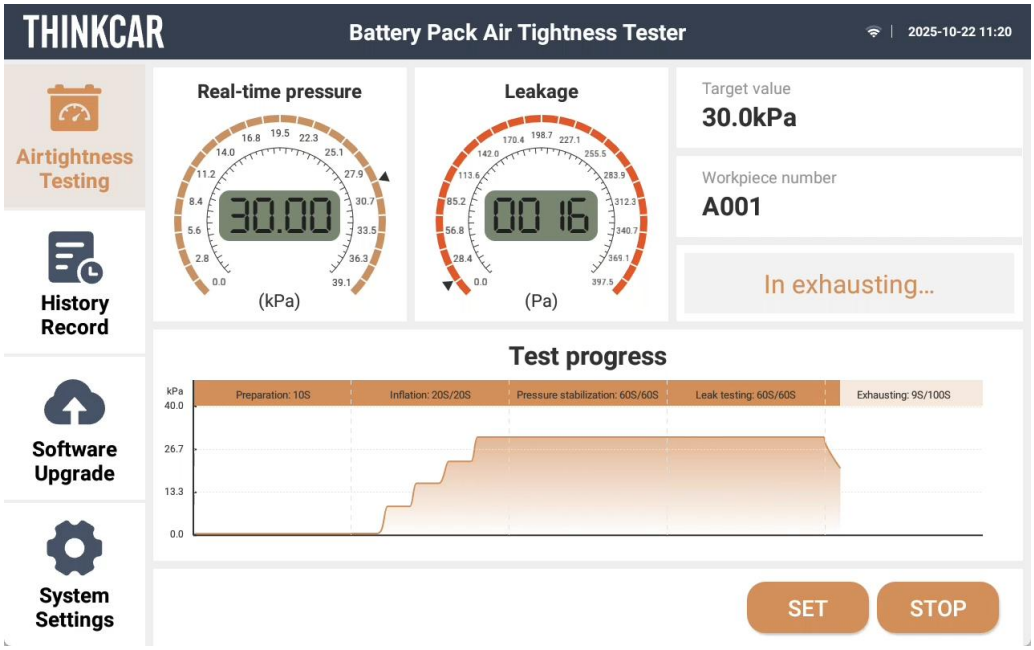
After setting the parameters, click **CONFIRM** to save the current settings and return to the airtightness testing interface.



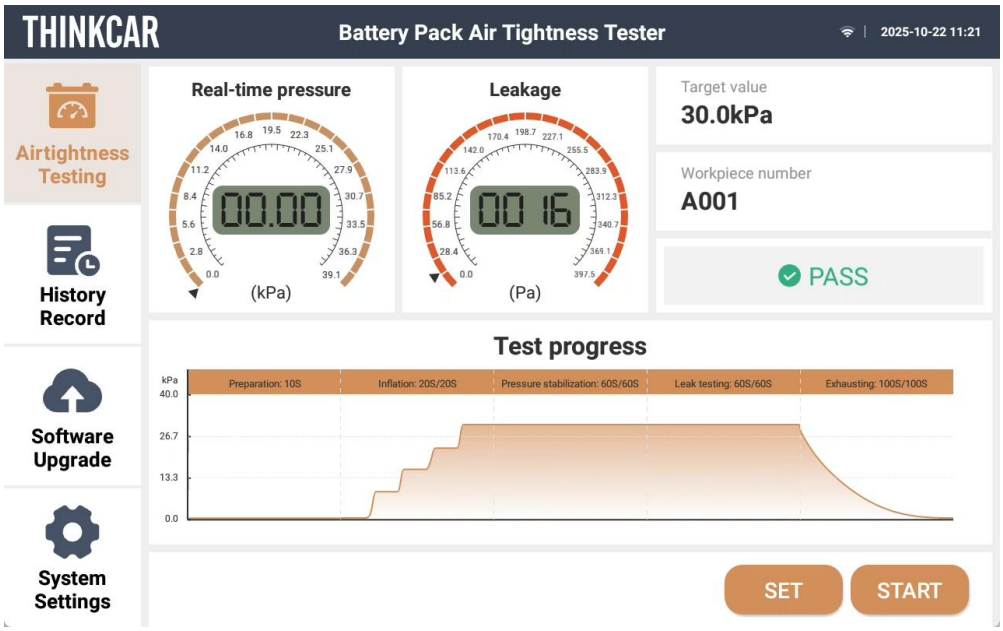
No.	Name	Description
1	Workpiece	Target battery pack number, enter the actual value.

	number	
2	Workpiece volume	Target battery pack volume, input according to actual value.
3	Test pressure	Set the target inflation pressure, for example, the pressure is 4000Pa.
4	Upper pressure limit	The upper limit of the test range. It will be displayed on the real-time pressure dial. (*Note. The set value≤30kps under the low pressure mode*).
5	Lower pressure limit	The lower limit of the test range. It will be displayed on the real-time pressure dial.
6	Leak alarm	If the leakage amount is less than or equal to the set value, the system determines that the airtightness is qualified; if the leakage amount exceeds the set value, the system determines that the airtightness is unqualified.
7	Inflation time	The inflation time can be adjusted according to the battery pack specification. This stage is the pressure stabilization stage, and the system will no longer perform air replenishment actions.
8	Stabilization time	A holding time that the tester will stop inflating.
9	Test time	After the voltage is stabilized, the pressure change in the battery pack will be detected within the set time period, and the airtightness will be judged based on the set leakage alarm amount.
10	Exhaust time	Time to exhaust gas after the test is complete.

Tap **START** in the airtightness testing interface to start the test.

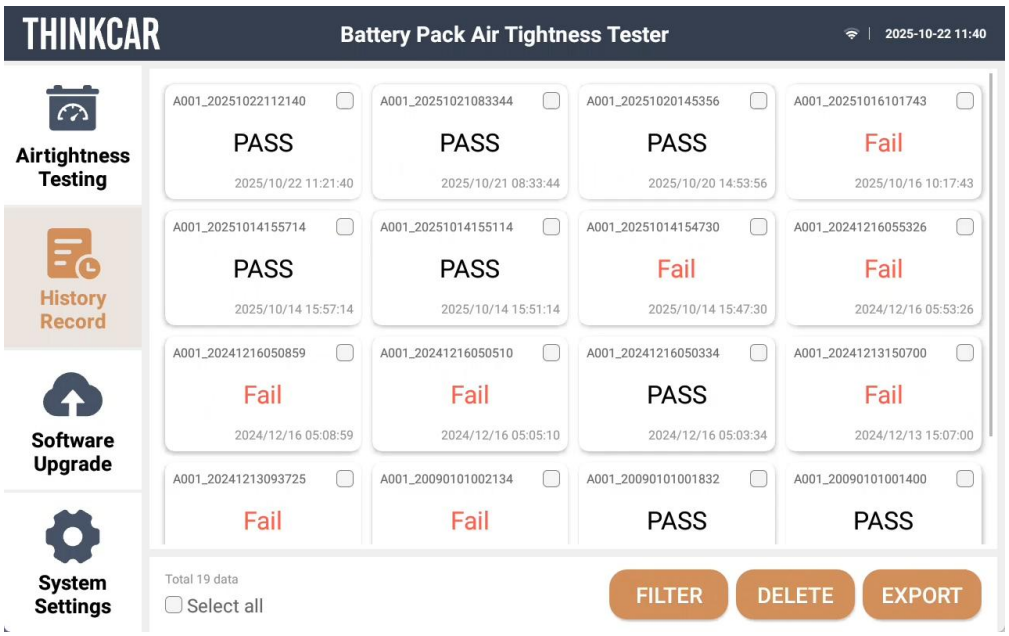


During the test, you can check the test progress and wait for the test results. Click **STOP** to end the current test.



4.3.3 History Record

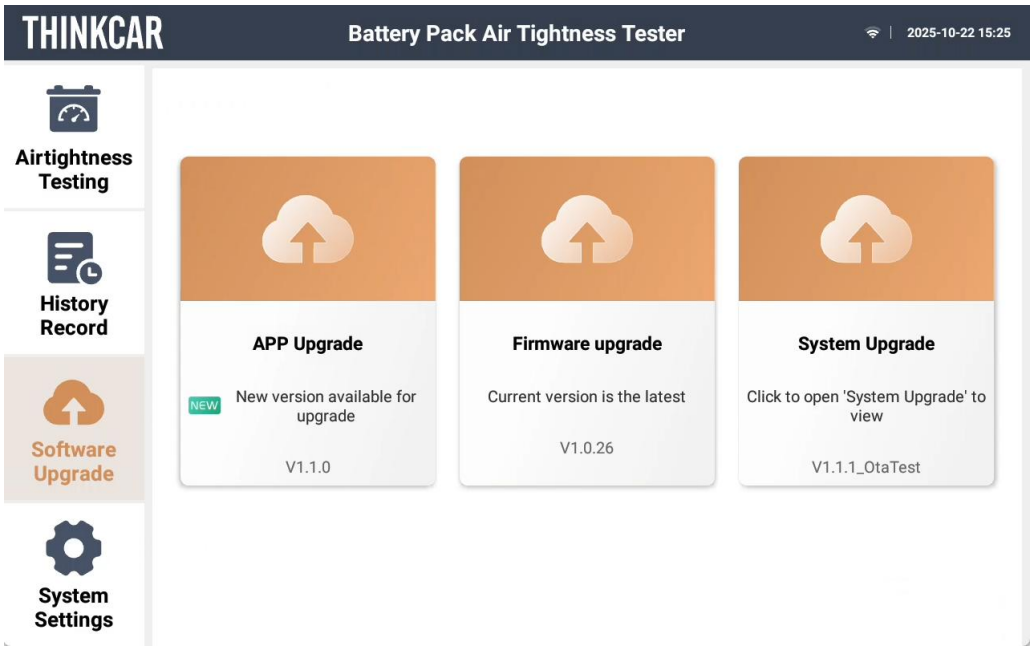
Click **History Record** in the function menu on the left to enter the history record interface. Select a single or multiple historical records and click **DELETE** to delete the selected records; You can insert a USB flash drive into the I/O port on the panel, and then click **EXPORT** to transfer the selected historical data to the USB flash drive.

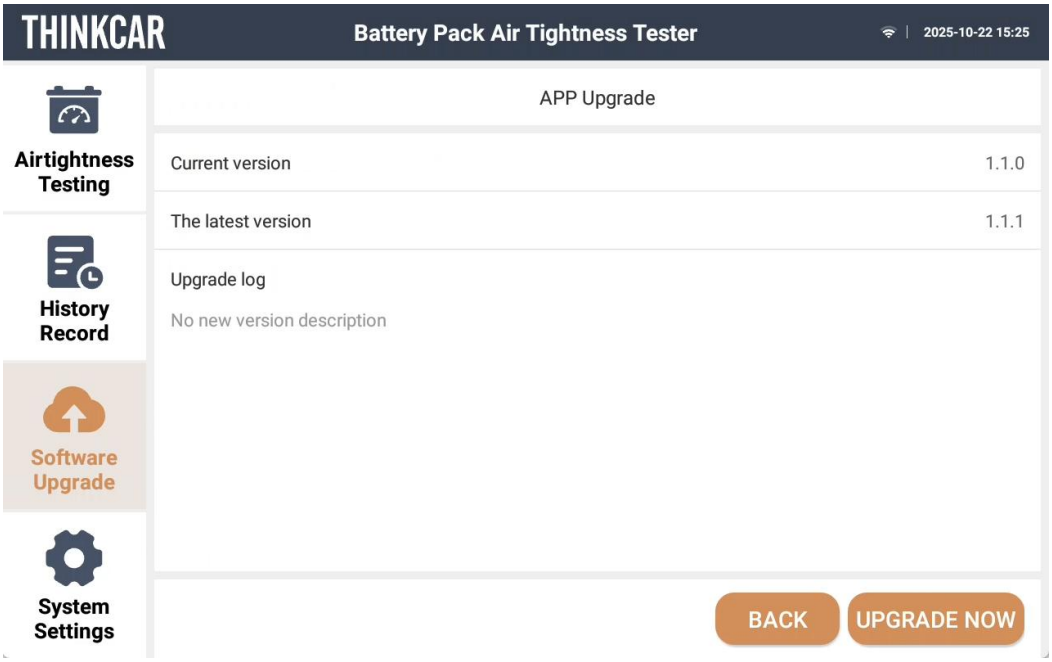


4.3.4 Software Upgrade

Click **Software Upgrade** in the function menu on the left to enter the software upgrade interface. Select options such as **APP Upgrade, Firmware Upgrade** or **System Upgrade** to view the current version and the latest version, and click **Upgrade** Now to upgrade the APP, firmware or system to the latest version.

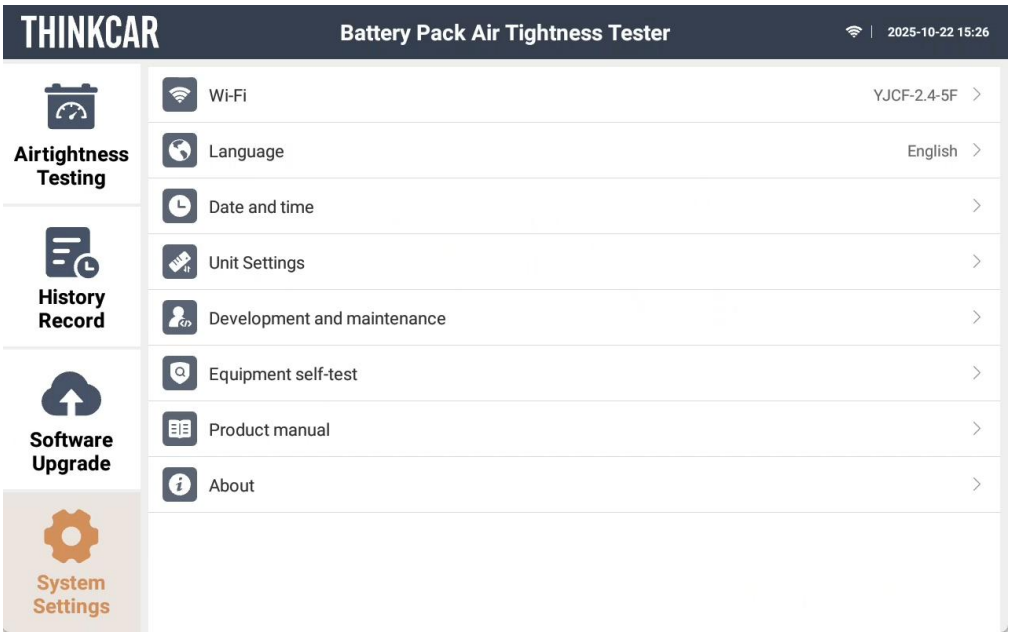
Note: To perform software upgrade functions, it is necessary to connect to a wireless network firstly; To ensure the normal upgrade, please ensure network stability during the upgrade process.





4.3.5 System Setting

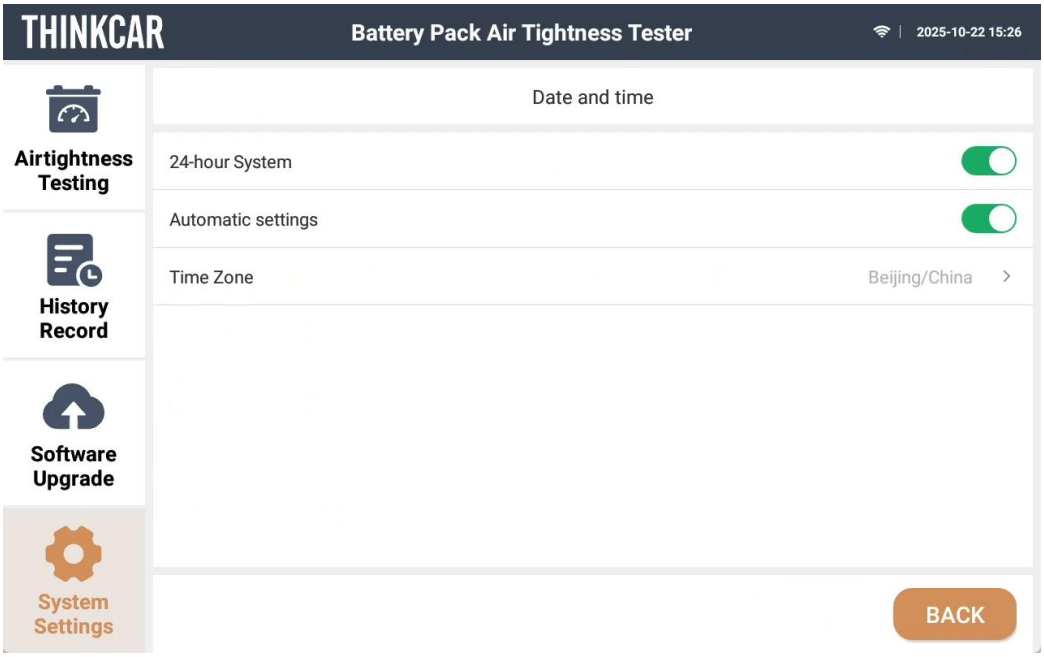
Click **System Settings** in the function menu on the left to enter the system settings interface. System settings include **Wi-Fi, Language, Date and time, Unit Settings, Development and maintenance, Equipment seft-test, Product manual** and **About**, etc.



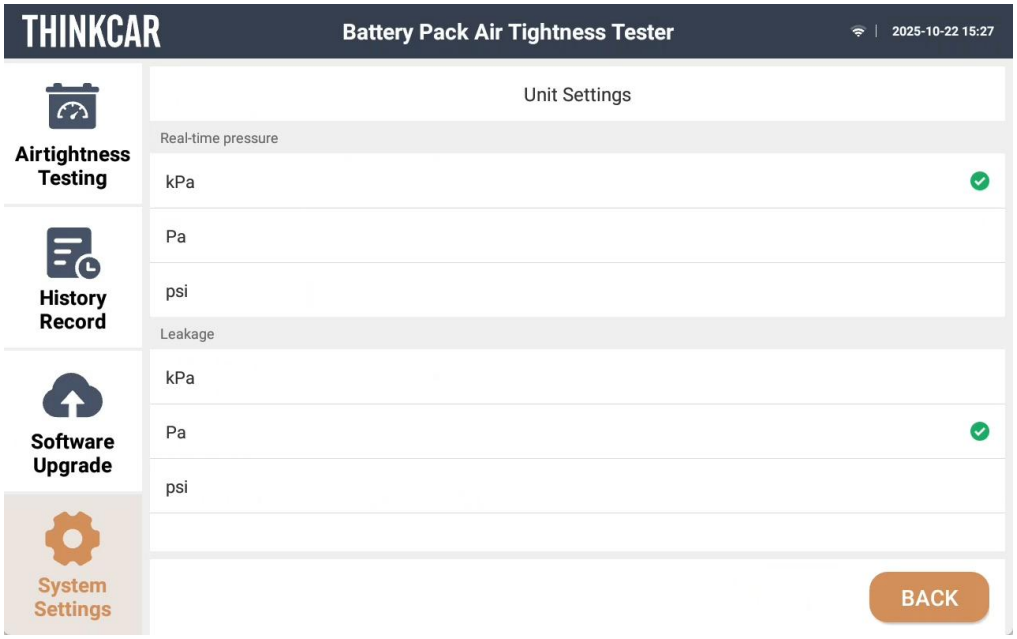
Wi-Fi: Used to set up the device's wireless network connection.

Language: Used to set the system language.

Date and time: Used to set date, time and time zone, etc.

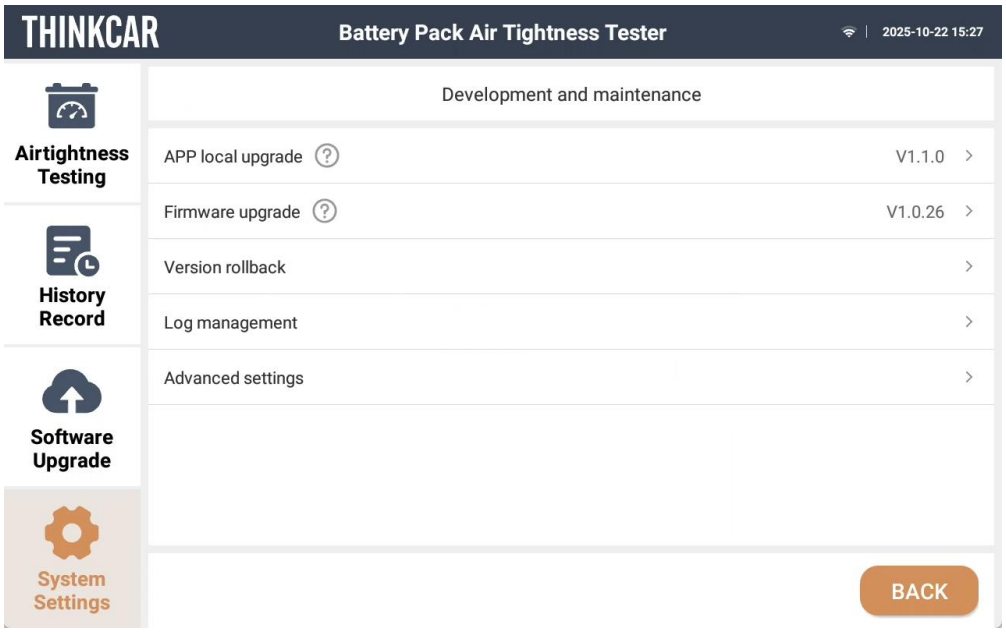


Unit Settings: For setting the display unit of leakage and real-time pressure.

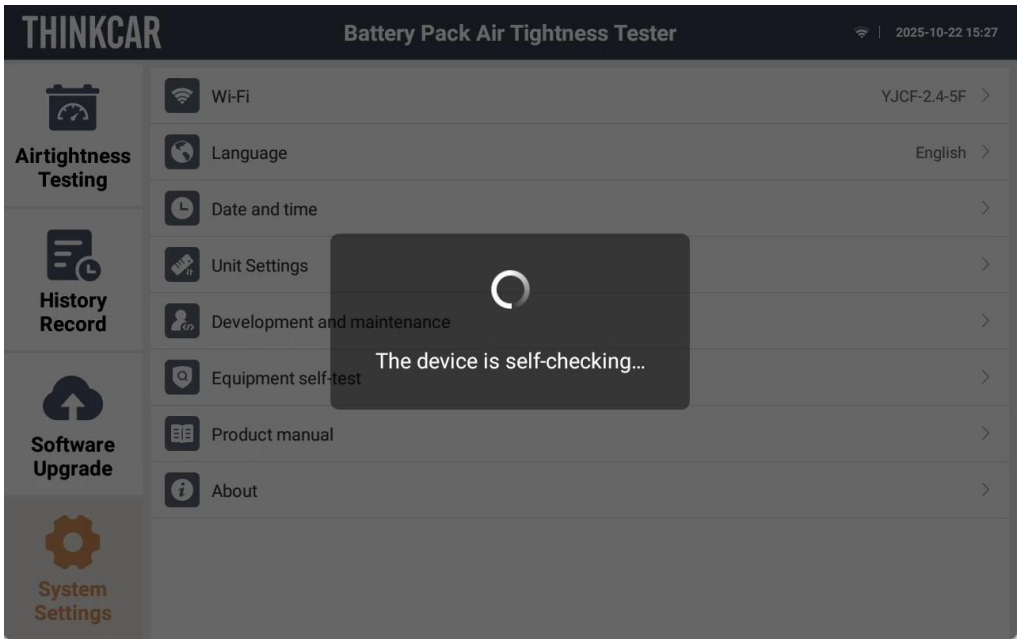


Development and maintenance: Includes options such as version rollback, log management and advanced settings.

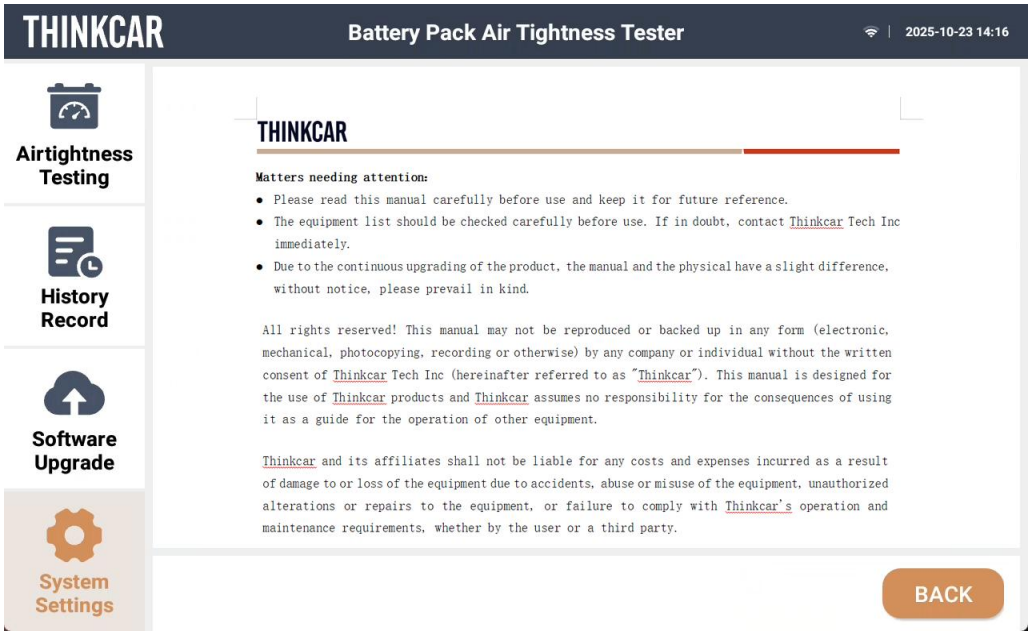
Note: To enter development and maintenance mode, a password is required. Please contact our after-sales personnel to obtain the password.



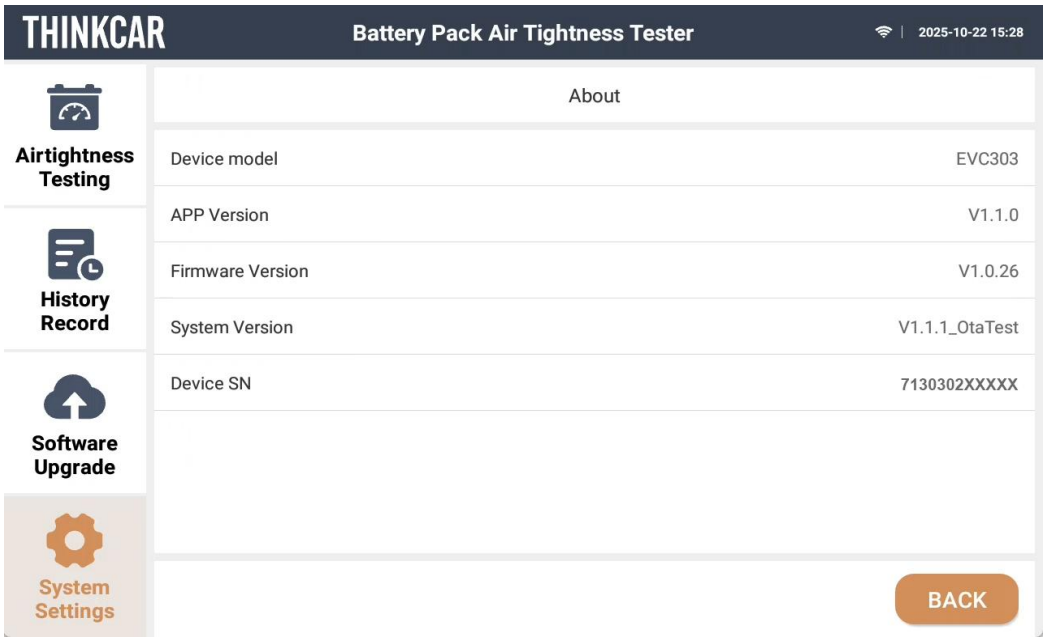
Equipment seft-test: Support automatic self-check of equipment.



Instructions: This function is used to view the electronic version of the user manual.



About: Used to view information such as device model, APP version, firmware version, system version and device serial number.



Warranty terms

This warranty applies only to customers and dealers who have purchased Thinkcar products through the normal course of business.

For a period of one year from the date of delivery, Thinkcar Inc. warrants its electronic products against damage caused by defects in material or workmanship. Damage to this equipment or parts caused by misuse, unauthorized alteration, use for purposes other than those for which the product was designed, or failure to operate in the manner specified in the instruction manual is not covered by this warranty. Damage to automotive gauges caused by defects in this equipment is limited to repair or replacement only, and Thinkcar is not liable for consequential or incidental damages.Thinkcar will determine the nature of the damage to the equipment in accordance with its own prescribed methods of inspection.No agent, employee, or commercial representative of Thinkcar is authorized to make any confirmation, recommendation, or promise in connection with Thinkcar products. No agent, employee or commercial representative of Thinkcar is authorized to make any confirmation, representation or promise with respect to Thinkcar products.

Waiver of Declaration

The above warranty may be substituted for any other form of warranty.

Order Notification

Replacement parts and optional accessories can be ordered directly from Thinkcar authorized dealers, please specify the quantity, part number and part name.

Customer service center

If you encounter any problems during the operation of the equipment, please call: +1 (909) 321-5665.

When the equipment needs to be repaired, please send it to Thinkcar with the warranty card, product certificate, purchase invoice and a description of the problem. If the equipment is within the warranty, Thinkcar will repair it free of charge; if the equipment is outside the warranty, Thinkcar will charge for the repair and add the return shipping cost.

SIMPLIFIED EU DECLARATION OF CONFORMITY

Hereby, THINKCAR TECH CO., LTD. declares that this equipment is in compliance with Directive 2014/53/EU.

The full text of the EU declaration of conformity is available at the following internet address:

https://h5.mythinkcar.com/update_app/productlist

Thinkcar Company Address: 1908 S Lynx Pl, Ontario, CA 91761.

Customer Service Email: service@thinkcar.com

Thinkcar website: www.thinkcar.com

Statement:

Thinkcar reserves the right to change product design and specifications without prior notice. The appearance and color of the actual product may differ from that shown in the manual, please refer to the actual product. We have tried our best to make all the descriptions in the book accurate, but there are still some inaccuracies, if you have any questions, please contact the dealer or Thinkcar after-sales service center, the company does not assume any responsibility for any misunderstandings arising from the consequences.