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Launch assumes no responsibility for device damages or problems resulted from the usage of other parts or consumables, rather than original products of launch or products approved by the company.

Official statement: the mentioning of the names of other products in this manual is to illustrate how to use the device, with the ownership of the registered trademarks belonging to the owners.

The device is intended for the use of professional technicians or maintenance and repair personnel.

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Disclaimer of Warranties and Limitation of Liabilities

All information, illustrations, and specifications in this manual are based on the latest information available at the time of publication.

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Contents

1. Product Overview

EVT511 EV Battery Airtightness Detector (LP) is the latest high-accuracy nondestructive testing equipment developed by Launch. 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-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 Airtightness testing of battery packs.

1.3 System Components

The detector 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 Environmental conditions for use

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

1.5 Working conditions

Temperature: -10~55 ℃

Humidity: 10%~90%

2. Precautions for Safe Use

2.1 General Rule

Please follow the user manual to use this detector.

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 device not working properly.

2.4 Emergency Treatment In Exceptional Cases

Disconnect the detector 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

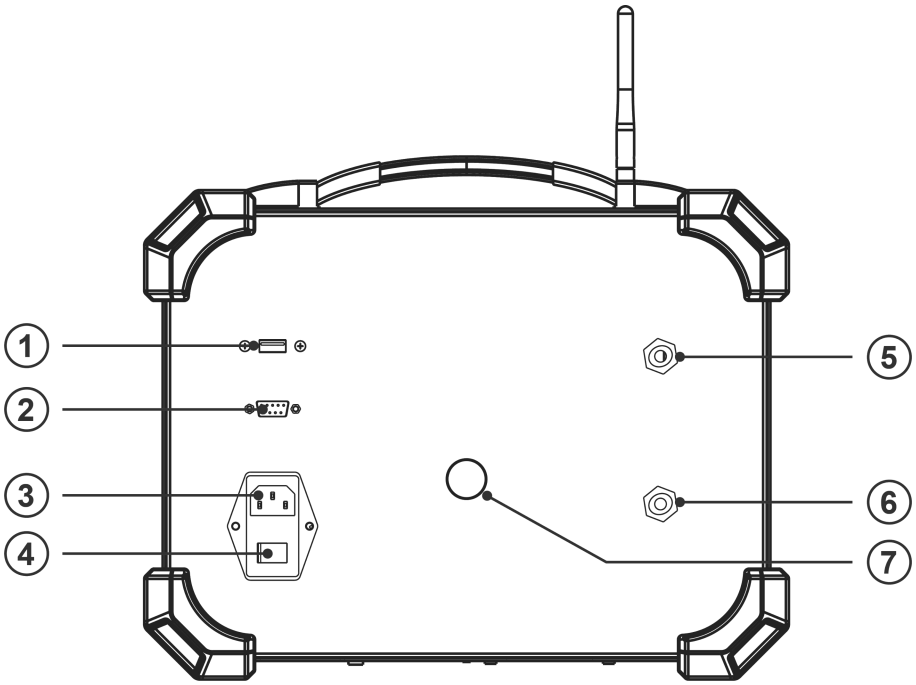
Strict compliance with safety operating norms and correct operating procedure.

3. Technical Features

Parameter	Description
Model	EVT511
Test Power	20W (Max)
Test Method	Pressure (positive pressure)
Test Pressure Range	0~30Kpa
Sensor Resolution	1 Pa
Sensor Resolution	±5pa
Display	10-inch LCD touch screen
Communication Port	RS485, I/O
Data Storage	Internal memory/download via USB disk
Power Supply	AC 90~264V 50/60Hz
Air Supply	0.1 ~ 1.0 Mpa dry compressed air
Air Inlet Port	φ6mm air pipe
Test Port	φ6mm air pipe
Work Temperature	-10 ~ 55°C
Work Humidity	10% ~ 90%
Dimension	349.0*329.0*366.5 mm
Weight	4.0kg

4. Operating Instructions

4.1 Panel Description



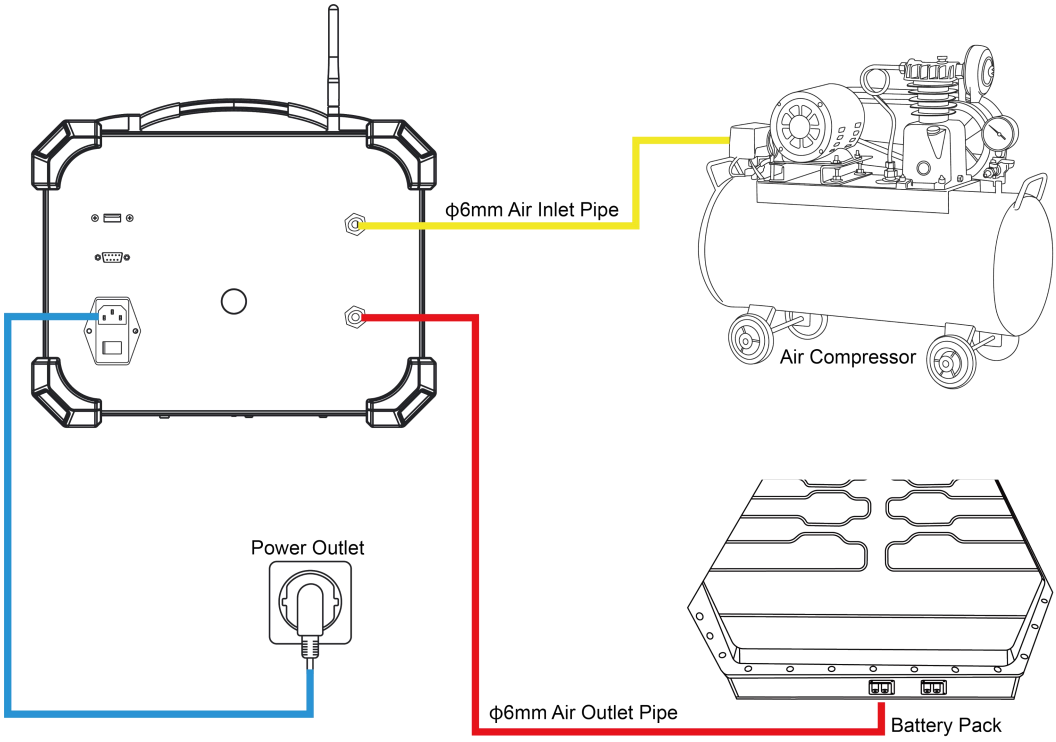
No.	Name	Description
1	I/O Port	For data download.
2	RS485 Port	For data copy and transmit.
3	Power socket	90~264V power input.
4	Power Switch	Detector turn on/off.
5	Air Inlet Port	Air supply inlet.
6	Air Outlet Port	Connect to battery pack.
7	Air Pressure Observation port	To observe the air pressure values.

4.2 Detector Connection

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

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

3. Battery Pack Connection：Connect the battery pack and detector's air outlet port with a φ6mm air pipe. Ensure the airtightness of the connection.



Connecting Diagram

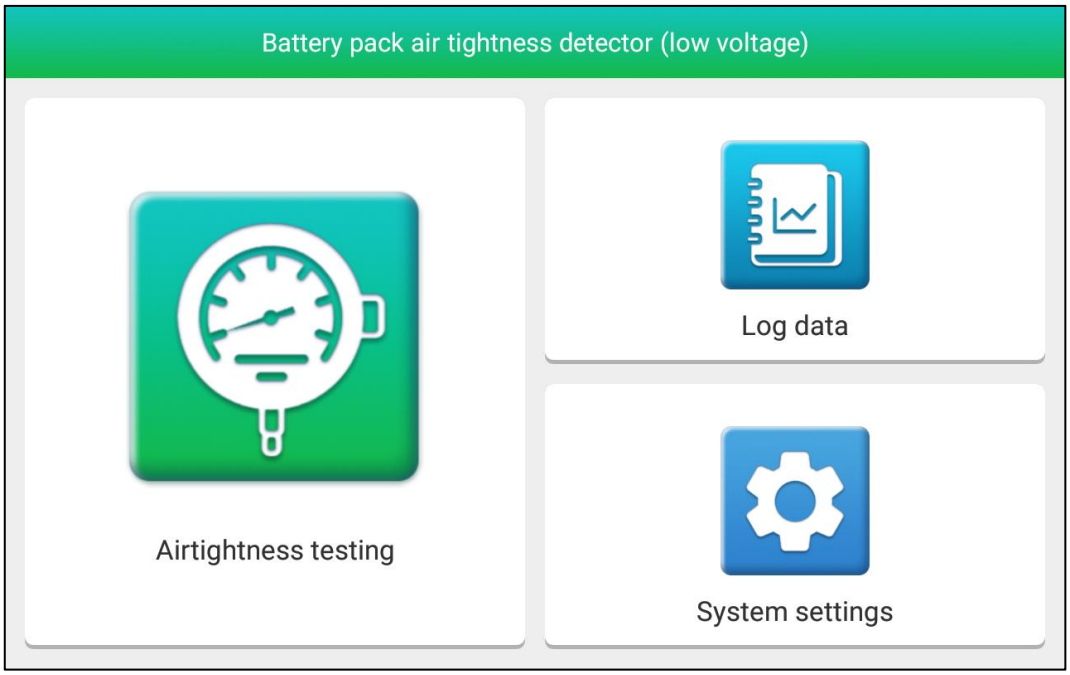
4.3 Main Unit Operation

4.3.1 Welcome Screen

Turn on the power switch to start the detector. The screen will display the welcome page firstly.

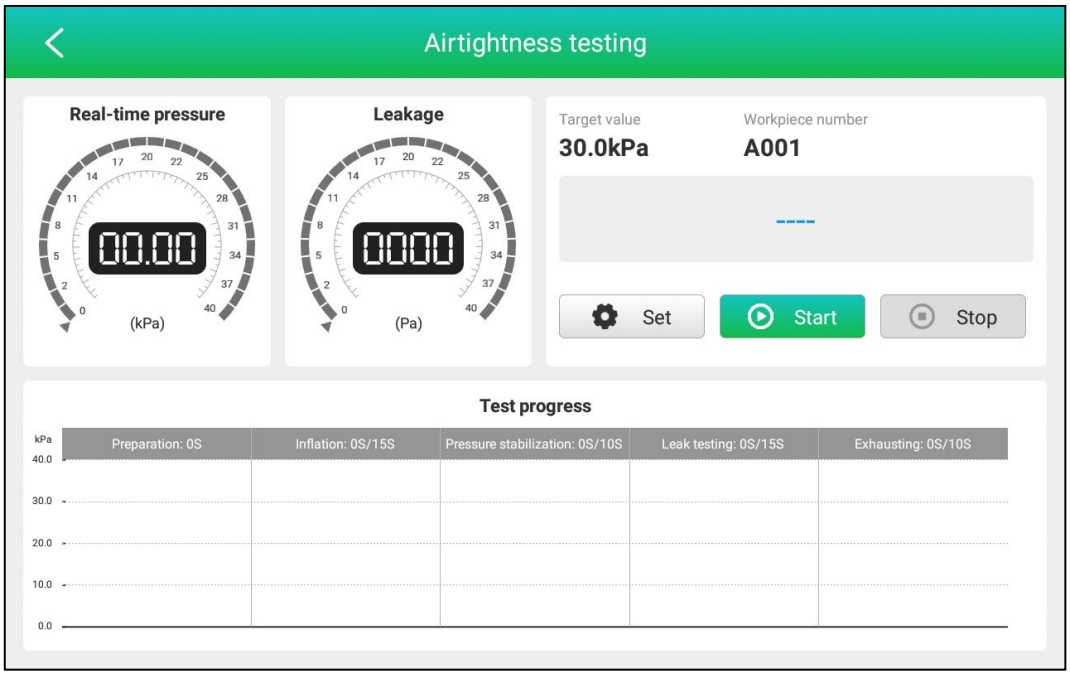
4.3.2 Main Menu

Enter the main interface after startup. The functional modules of the main interface include airtightness testing, log data and system settings.

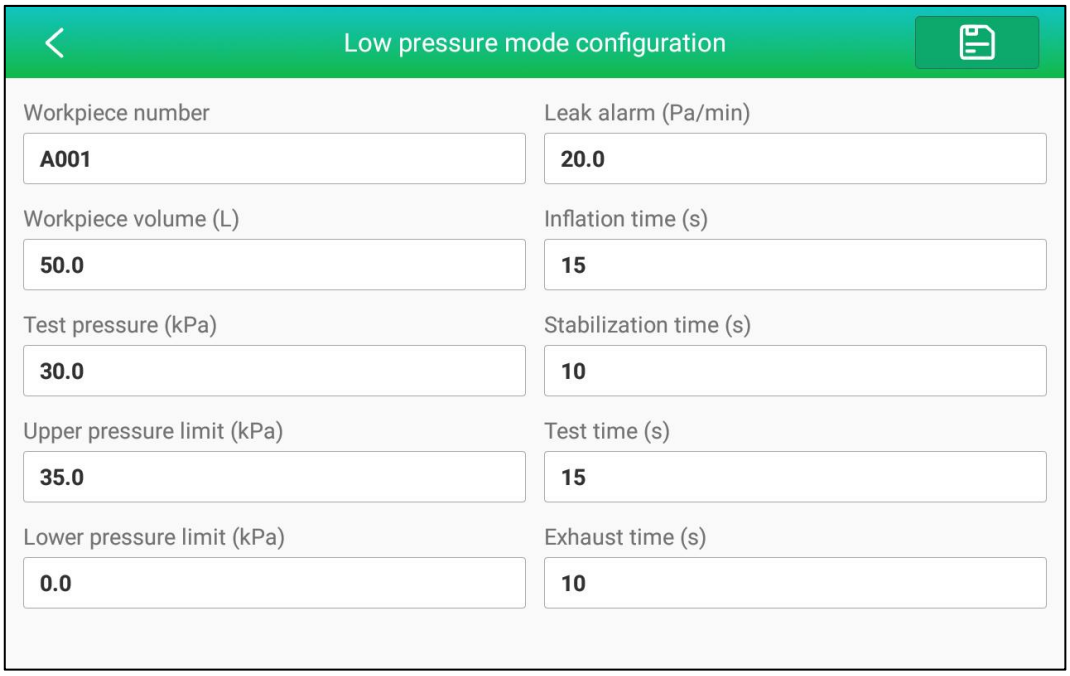


4.3.3 Airtightness testing

Tap **Airtightness testing** on the main interface to enter the test interface. Airtightness testing parameters can be preset.



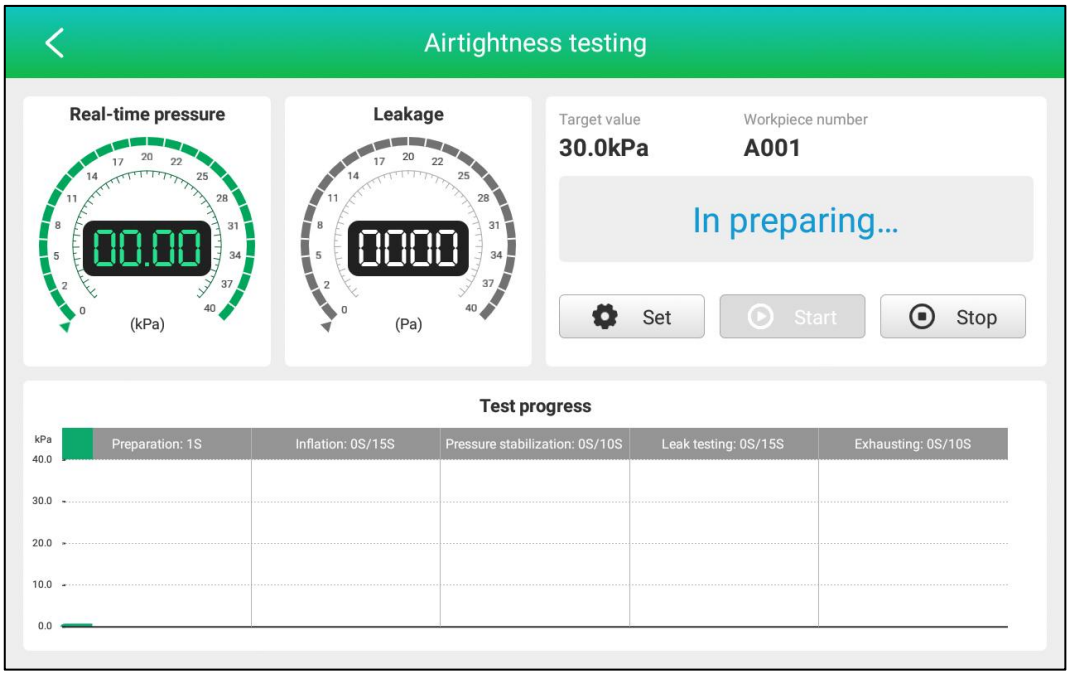
Tap **Set** button to enter the low pressure mode configuration interface for parameter setting. After completing the parameter settings, click the button "" to save the current settings.



No.	Name	Description
1	Workpiece number	Name the battery pack, can input the actual ID.
2	Workpiece Volume	The battery pack volume, input the actual value.
3	Test Pressure	Set the target pressure for inflation.
4	Upper Pressure limit	The maximum allowable test pressure of the battery pack under test.
5	Lower Pressure limit	The minimum allowable test pressure of the battery pack under test.
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 set according to the battery pack size.
8	Stabilization Time	A holding time that the detector will stop inflating and wait for pressure change.
9	Test Time	After the voltage stabilization is completed, the pressure changes in the battery pack will be detected within this 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.

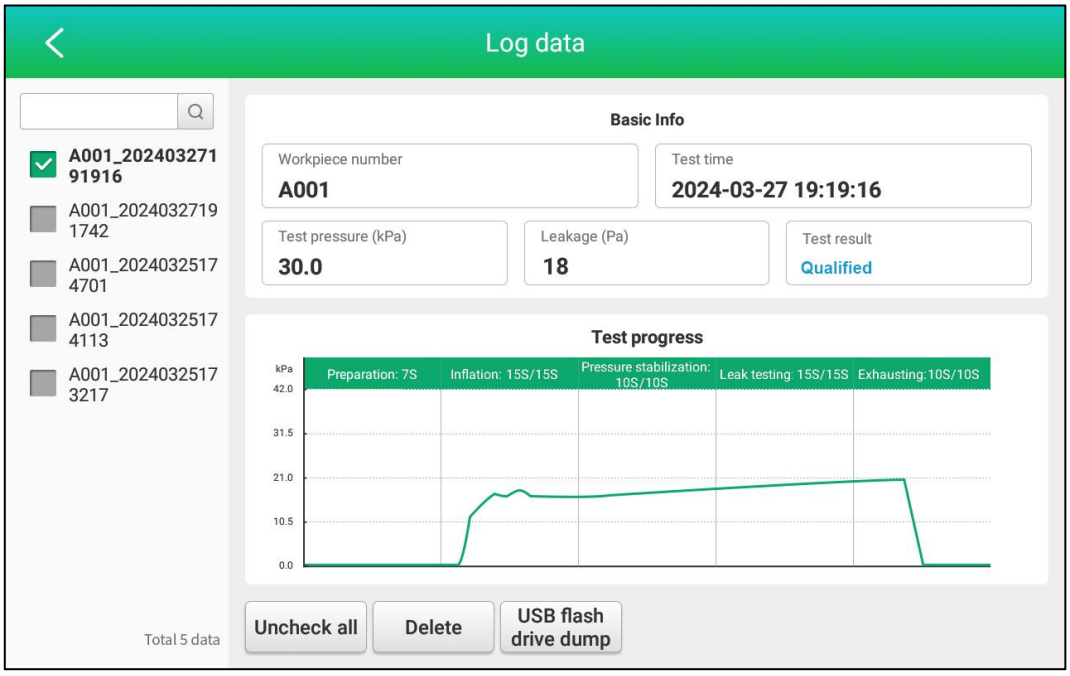
After the parameter setting is completed, tap **Start** to start the test. Users can view the real-time test data on the page and wait for the test result.

Tap **Stop** during the test to end the current test.



4.3.4 Log data

Tap **Log data** on the main interface to read the data. Check a battery pack, insert the USB disk into the I/O port on the panel, and tap **USB Flash Drive Dump** to transfer the corresponding data to the USB disk.



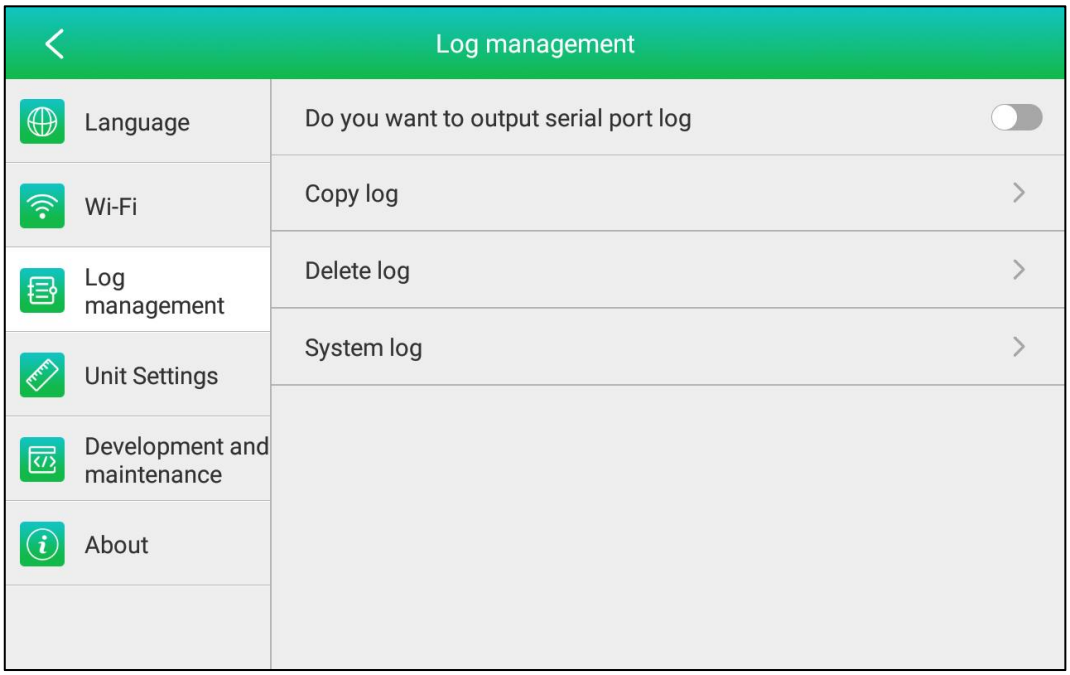
4.3.5 System Settings

Tap **System Settings** on the main interface to enter the system setting interface, which includes Language, Wi-Fi, Log, Develop and About.

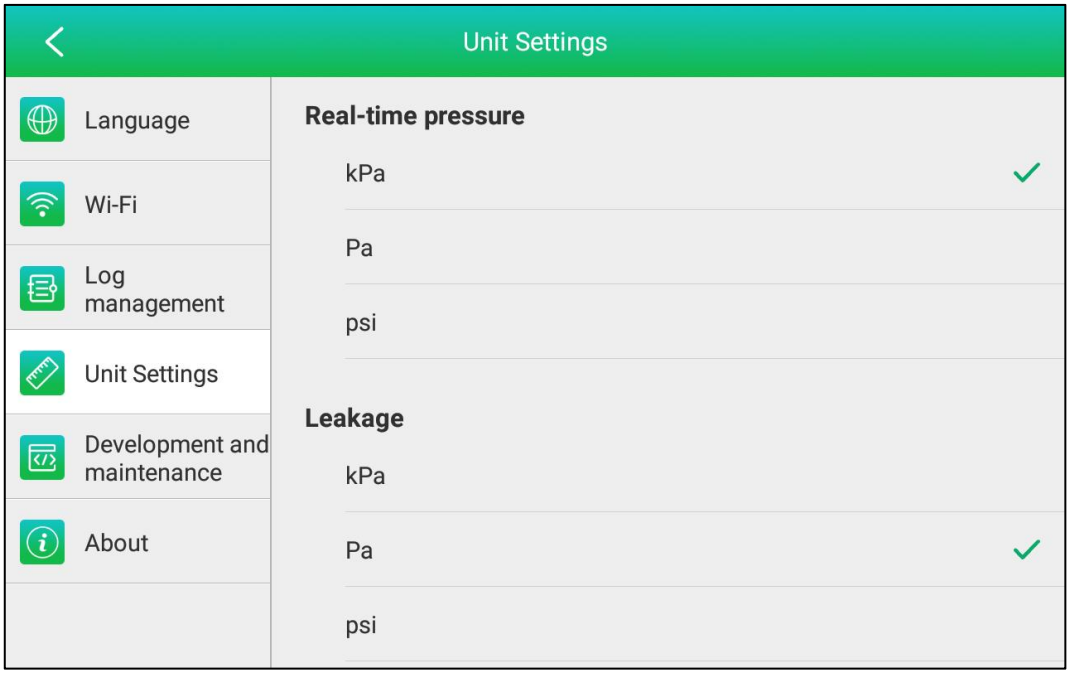
Language: Used to change the system language.

Wi-Fi： Used to set the Wi-Fi connection of the detector.

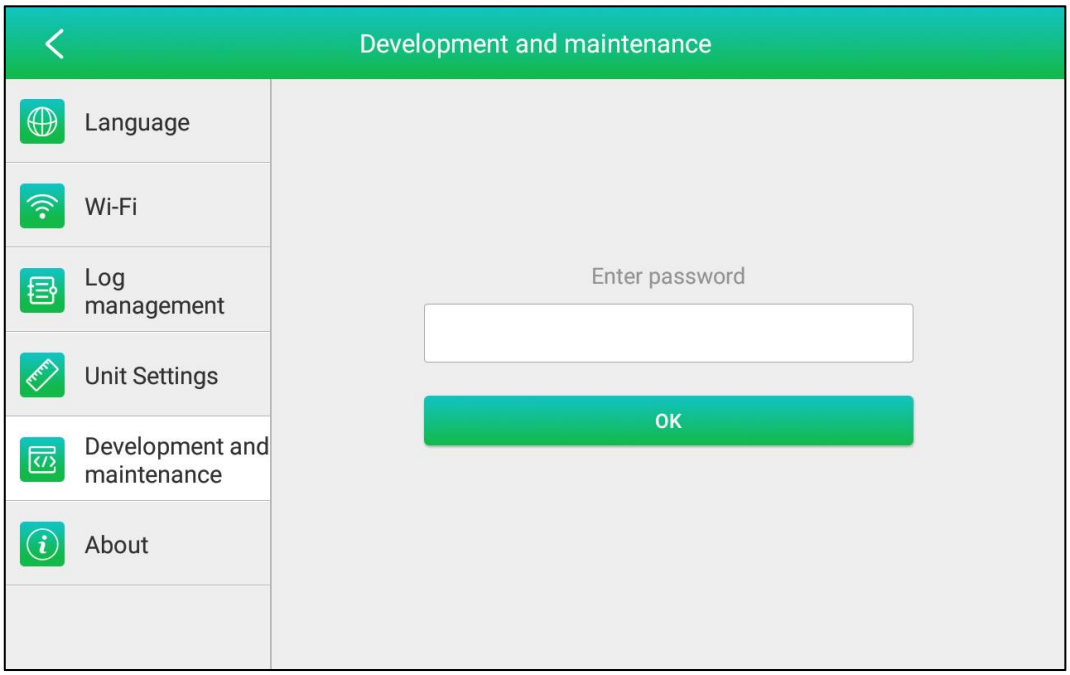
Log management : Used to save and view system logs.



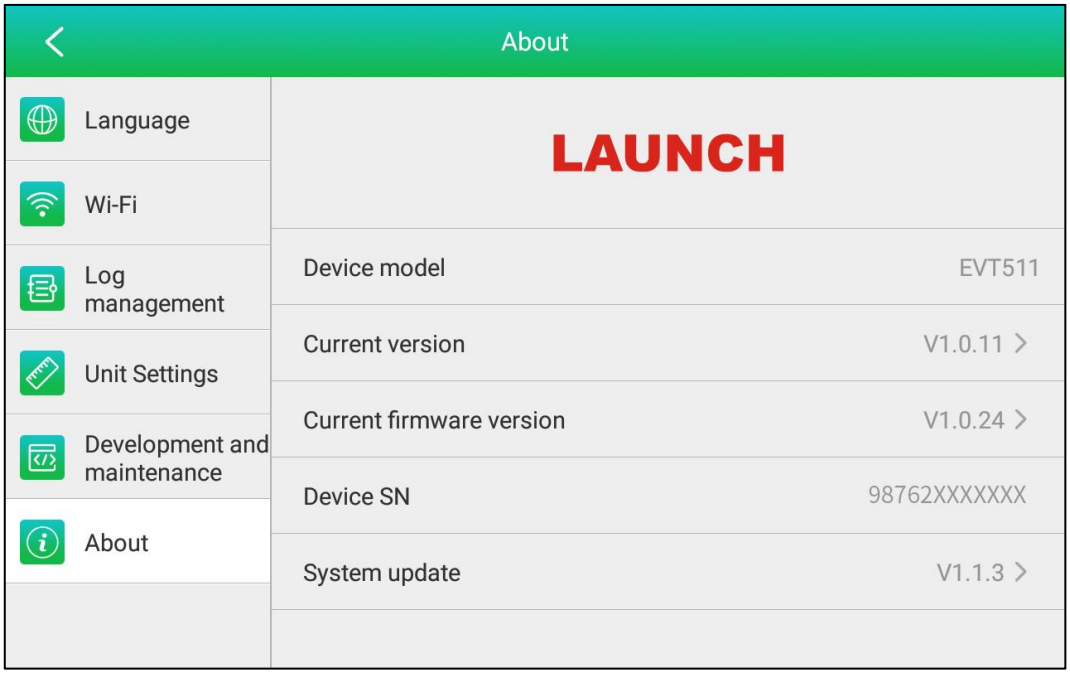
Unit Settings : Used to change the display units.



Develop and maintenance : Only for development and maintenance.



About : Used to view system version information, etc.



5. Transport & Storage

1） This detector is equipped with special equipment box for packing, which is has anti-vibration and reliable for transportation.

2） Storage conditions: dry storage room, temperature: -20~70℃, Humidity: 95%Within.

Compliance Information:

FCC ID: XUJEVT511
Any 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 A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

RF Exposure Statement
This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

This device is in compliance with the essential requirements and other relevant provisions of Radio Equipment Directive 2014/53/EU. The RF frequencies can be used in Europe without restriction.

Warranty

This warranty applies only to users and distributors who have purchased Launch's products through regular procedures.

Launch shall provide a warranty against material or craftsmanship defects for 15 months from the date of delivery on its electronic products. Damages to the device or its components caused by abuses, unauthorized modifications, uses for a purpose other than for which it is intended, or operations not following the manner specified in the manual, etc. are not covered by this warranty. Compensation for the damage to instrument of the automobile due to the defect of the device is limited to repair or replacement, Launch is not responsible for any indirect or accidental loss. Launch will judge the attributes of the equipment damage according to its specified test method. None of Launch's dealers, employees and business representatives has the authority to make any confirmations, reminders or promises related to the company's products.

Disclaimer Statement
The above warranty can substitute warranties in any other forms.

Order Notice
Replaceable and optional parts can be ordered directly from LAUNCH authorized distributors. Your order should include the following information:
Order quantity
Part number
Part name

Customer Service Center
Customer Service Center
For any problem met during the operation, please call +86-755-84528888, or send email to overseas.service@cnlaunch.com.
If the device needs to be repaired, please send it back to Launch, and attach the Warranty Card, Product Qualification Certificate, Purchase Invoice and problem description. Launch will maintain and repair the device for free when it is within warranty period. If it is out of warranty, Launch will charge the repair cost and return freight.

Launch Address:
Launch Tech Co., Ltd, Launch Industrial Park, North of Wuhe Road, Bantian Street,Longgang District, Shenzhen City, Guangdong Province, P.R.China,
Zip Code: 518129
Launch Website: https://www.cnlaunch.com

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