Hangzhou Yile Shangyun Robot Technology Co. Ltd

103A+225E Vending Machine Routine Maintenance



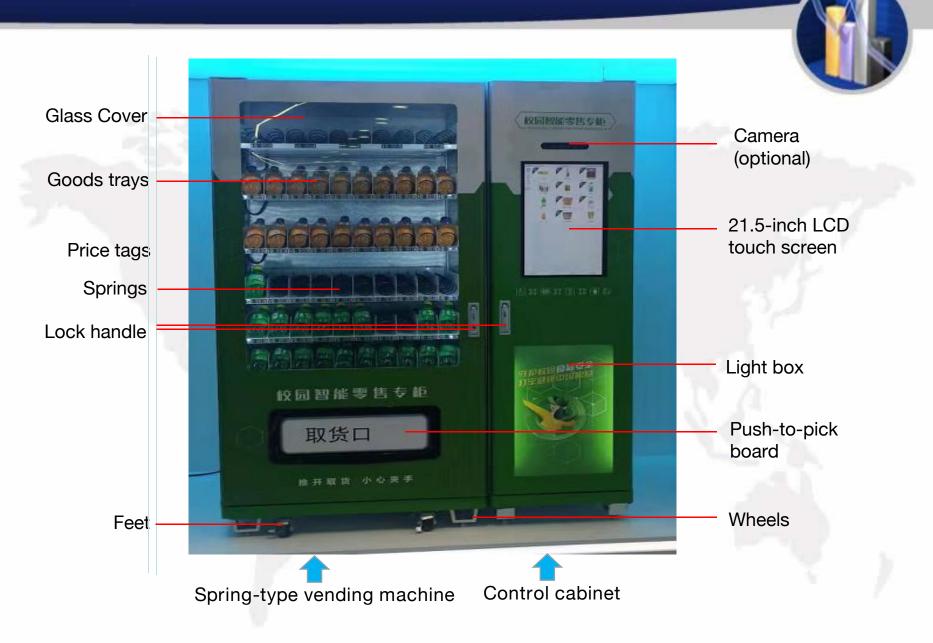
After-Sales Service Support

Contents

- 1. Appearance
- 2. Requirements for Installation
- 3. To Open the Front Door
- 4. To Insert a SIM Card
- 5. To Load Goods
- 6. To Detach and Install Springs
- 7. To Adjust the Goods Trays
- 8. To Remove the Electric Box
- 9. To Remove the Cooling Components
- 10. To Clean the Outlet of Condensation Components
- 11. The Detachment and Maintenance of Bill Acceptor
- 12. The Detachment and Maintenance of Coin Changer
- 13. The Instruction for Use
- 14. The Instruction for Background Operation
- 15. To Install the Operating System
- 16. Common Problems and Solutions
- 17. The Instruction of the Multimeter

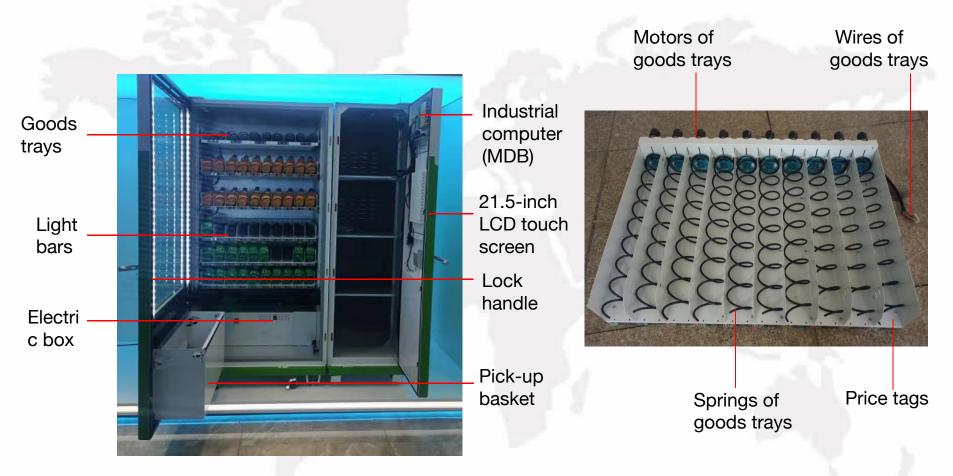


Appearance



Appearance





Requirements for Installation

Please take the precautions, confirm the requirements before installation, and follow the steps as shown below:





- 1. Please make sure the four feet land on level ground.
- Adjust the height of the feet by screwing to reach a level state on the ground, using gradienter if necessary.
- 3. Cut open the cable tie, and plug the cable into a safe grounding receptable.
- 4. If extension cord is necessary, it should be operated by a professional electrician (ground wires are crucial).
- 5. Plug in and switch on the machine (with a sound of beep indicating that the machine is in motion).



To Open the Front Door









1

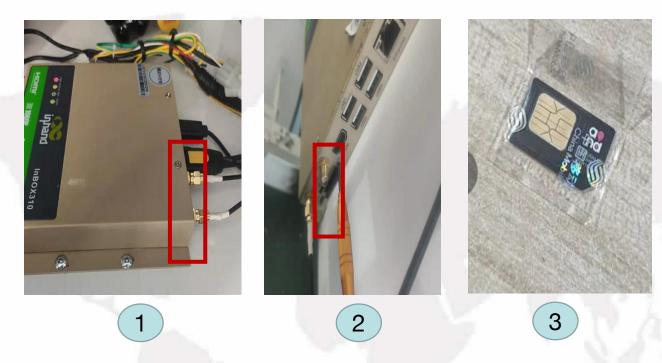
2

3

- 1. Insert the corresponding key into the keyhole of the lock handle and turn the key anticlockwise.
- 2. Push the button below the handle so that the handle pops out. Hold and turn the handle anticlockwise and pull out the door.

To Insert a SIM Card





- 1. After opening the front door, switch off the industrial computer (MDB box) and prepare a standard size SIM (all telecom companies supported) as shown in Picture 3.
- 2. The slot of SIM card is shown in Picture 2.
- 3. Insert the SIM card into the slot and the insertion of SIM card is complete.

To Load Goods

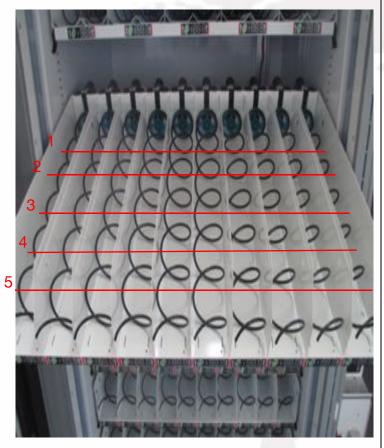




- 1. The goods should be loaded from the inside to outside.
- 2. Goods should be loaded according to their different sizes into the space between the spirals of springs accordingly.

To Load Goods





Tracks	Goods get stuck.	The tip of the spring is cocked up. Goods should be fitted in again.
		The size of goods is not suitable for goods. Please change the goods for those of a different size.
		The orientation of the front end of the spring is wrong. Please correct the orientation of the orientation of the spring.
	Goods are dropped out more than needed.	The goods do not meet the standard of selling. Please change them for a different type of goods.
		Test the springs for three times. If the motor once rotates more than 360 °. The motor need replacement.
		Test the springs. If they work abnormally, the drive board need changing.
	Goods do not drop out.	The wires of goods trays are loose.
		The joint part of motors are loose.
		The Springs are disconnected from motors. Please reconnect them.
		The motor is not working. Replace the motors.

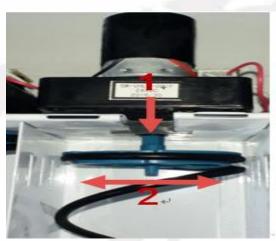
To Load Goods

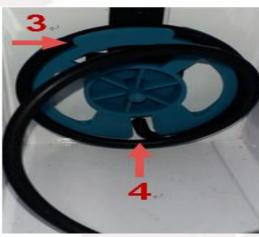
- 1. Open the front door of the machine. Lift the black buckets and pull out the goods trays to their limits.
- 2. Goods should be loaded following the instruction below (taking bottled drinks for example):
 - A. Load bottles with top downward and bottom backward.
- B. Fill the last one or two spirals starting from label 1 with bottles (as the lines labelled 1 and 2 show). Then push the goods tray inward properly for its balance to load more.
- C. If the goods left to be loaded are less than 5 units, do load them from 5 to 1 indicated in the picture instead of from 1 to 5.
- 3. After finishing loading, push the trays back and fasten the buckets back to the trays to prevent them from slipping out accidentally.
- 4. Attentions:
- A. Do consider the balance of the goods trays and push the trays inward properly while loading goods as stated in 2-B for fear that they might slip out before fastened to the buckles.
- B. If the height of the goods reaches the maximum span between two goods trays or the ceiling and the top goods tray, the goods trays should be readjusted to the actual need of space.
- C. Mind the position of bottles (550 mL) while loading: top downward and bottom backward.

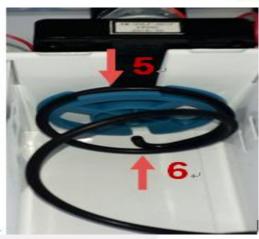
Common plans for tracks	3 dual-motor tracks	5 single- motor tracks	8 single- motor tracks	8 dual- motor tracks	12 single- motor tracks	15 single- motor tracks
Types of goods	Large sized goods such as instant noodles	Beverages	Bread	Foods	Tiny packaged foods and cigarette	Snacks and cigarette

To Detach and Install Springs









- 1. Hold and pull to detach the shank from the end of springs near the motor.
- 2. While the shank is detached, it can be unscrew.
- 3. Adjust the position of shank to the gap of the wheel, and the spring can be pulled out.
- 4. To install the springs back, just reverse the steps above.

Attention: Any springs installed should be tested three times at least to ensure its performance.

To Adjust the Goods Trays



- 1. To install and remove the goods trays:
 - 1) Do disconnect the wires on the right side of the goods tray shown in Figure 1 before removing them.
 - 2) Turn the buckles upwards and pull out the goods tray.
 - 3) Lift the good trays slightly and pull out the tray completely as Figure 2 indicates.
 - 4) To install a good tray, please put the wheels of tray onto the two trails respectively
 - 5) Lift the outer part of goods tray as step 3) to better push them back to its place.
 - 6) Push the tray onto the rails entirely and fasten the buckles on the left and right side.
- 2. To adjust the height of the goods trays:
 - 1) Goods tray being removed, loosen the 4 screws using a large Phillips screwdriver and keep them in reserve.
 - 2) Move the good tray upward or downward for one or more scales according to actual need, and fasten the screws back.
 - 3) Reinstall the goods trays after adjusting. Repeat the steps until all the trays are well adjusted.

To Adjust the Goods Trays

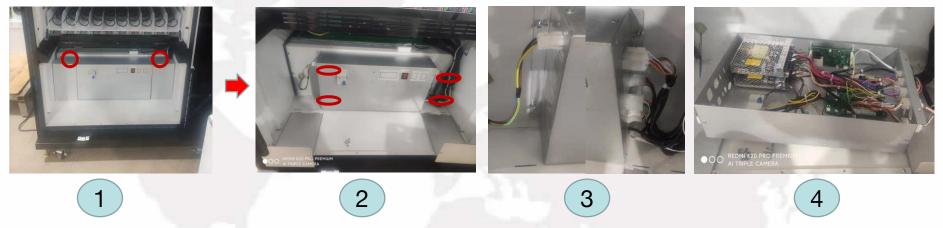




- 1. Pinch and pull out the buckle from its socket to disconnect the tray, and place it aside.
- 2. Loosen and remove the two self-tapping screws on two sides using a Phillips screwdriver.
- 3. Pull out the rails, adjust the rails to the intended height, and align the holes on the rails with those on the rack. Make sure the holes on the two sides aligned are of the same height and tighten the screws back to their places.
- 4. After adjusting the rails, put the goods tray back on the rails and connect the wires back. Note that the wires to the goods tray must not cross the rails; instead, it should be connected from the back of the tray without any potential contact with rails.

To Remove the Electric Box



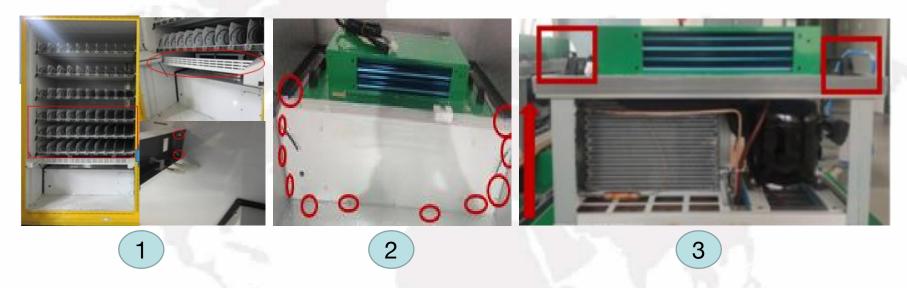


Attention: The machine must be unpowered before taking any action.

- 1. Loosen the screws and take off the decorative metal plate shown as Figure 1.
- 2. Unscrew the four bolts circled out in Figure 2, unfasten the wires to the light bars, and the cover of the electric box can be removed.
- 3. Do remember the inner layout of circuits, taking pictures of them if necessary.
- 4. Remove the screws shown in Figure 3.
- 5. Now the electric box is ready to be pulled out.

To Remove the Cooling Components





Attention: Electric box must be removed first before removing the refrigerator.

- 1. Please remove the bottom three goods trays and the shield below them as Figure 1 shows.
- 2. Loose the screws of the cover and take off the cover shown in Figure 2.
- 3. There are two handles on two top corners of the refrigerator. Hold, lift and pull out the entire refrigerator.

Components



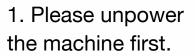


(The figure above shows the refrigerator, with condensation outlet circled out, which should be cleaned every two or three months.)

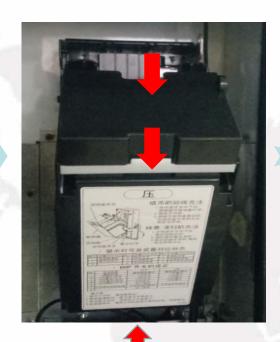
Sweep out the dust from the surface of the refrigerator and from the condensation sheets using a dry broom.

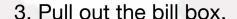
The Detachment and Maintenance of Bill Changer





2. Follow the arrow and push the upper bar and pull open the bill box.







- 4. Unscrew and remove the four nuts using a M7 socket screwdriver as the figure above shows.
- 5. To install the bill acceptor, please reverse the steps in this section.

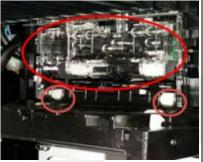
The Detachment and Maintenance of Bill Changer





- 1. Push the bar to pull out the bill box.
- 2. Take out the bills inside.
- 3. Push the part right below the bar to install the bill box with a tap sound being heard.





- 1. Push the lower bar and pull open the reading head of bill box.
- 2. Wipe out the filth and dust inside the reading head using a clean and wet but not dripping towel.
- 3. Push the back part outward until a tap sound is heard.

The machine may not be within the preset working hours.

The type of bill may be set incorrectly. Please set it again and properly.

There may be no goods inside the vending machine. The vending machine does not accept money in this case.

Price may have not been set for tracks. The vending machine does not accept money in this case.

The bill changer does not accept bills.

Check whether the indicator light of bill acceptor lights. Follow the relative instruction.

The bill acceptor may be stopped from working because the coin changer is stuck with coins. Coins should be cleared first.

The bill acceptor is stuck with bills. Please open the bill acceptor and clear the bills stuck.

There is a mechanical issue. Repair or replace the components.

The bill box is working abnormally. Please replace the bill box.

The bill acceptor is broken. Please replace the bill acceptor.

The reading head of bill acceptor may be filthy. Please clean it before use.

The Detachment and Maintenance of Coin Changer

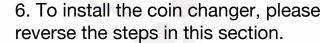


- 1. Please unpower the machine first.
- 2. Disconnect the wires of the coin changer.
- 3. Push the green button at the corner the coin changer.



- 4. Pull out and remove the reading head.
- 5. Loosen the three screws shown in the figure using a Phillips screwdriver.





The Detachment and Maintenance of Coin Changer







- 1. Pinch the green clasp and pull out the coin box.
- 2. Clutch the two hooks of the coin box. Pull open the cover to test the coin changer.





- 1. Push the handle in the direction that the blue arrow shows to open the lid.
- 2. Push the inlet of the coin changer towards the left to open the coin box.





- 1. Clean the coin box using a clean wet towel.
- 2. After cleaning, please reverse the steps above to assemble the coin changer.

Note: Do not use any solvent containing alcohol while cleaning.

Changer





- 1. Press open the coin changer to move the reading head forward on the left card pin
- 2. Loosen the 3 screws that fix the coin changer, remove the cable protection iron sheet, open the plug that connects the coin and the banknote, and remove the recognizer.





- 1. Press the bottom latch inward with your thumb and index finger and push up to open the change cover;
- 2. Remove the coins that are stuck;
- 3. Return to the front end as is;



Indicato r lights	Blinking slowly	Blinking rapidly	Off	Solutions
	Receivin g coins	L'OINS	Stop receivin g coins	Please clear the coin.
C/C (green)	Operati na	Coin box open	Commu nication error	Reset the coin box.
DIS (green)	Operati ng	Looking for card		Clear the coins stuck.





To buy goods, please choose items on the interface of menu.

Then, the interface of payment will appear. If people do not want to continue, tap back twice to cancel.



To set the machine, push the mode button on the industrial computer.

Note: This function is normally used by administrator.





Note: This is the function for reloading goods and management. Please contact administrator when the settings need to be changed.

Note:

- 1. Select the "Exit" to quit the setting mode and get back to the home of the operating system.
- 2. The device number is the unique number of the machine.
- 3. The name of the telecom carrier is displayed here if the machine is connected to the internet.
- 4. The name of the payee is showed here when the machine is connected to the internet.
- 5. The state of the payee account is showed here.
- 6. Tap to exit the setting mode and resume the sale interface.
- 7. Tap here to display the state of the industrial computer.
- 8. Tap here to show the information of goods storage.
- 9. Tap here to show the options for administrator.
- 10. Tap here to exit the vending software and get back the interface of the operating system.

About Software



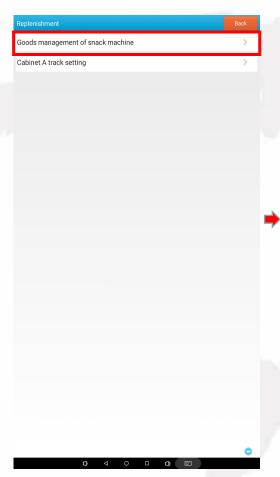
The number of software version is displayed here.

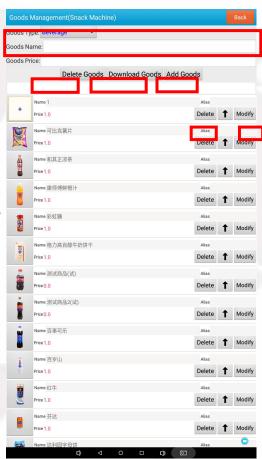
After entering this menu in the online state, check whether there is a new version. If there is, click it to download and update the installation. After the installation, click the E-VENDING Machine APP to enter the mode first to check whether the local version is up to date.



Note: This menu is a new program for the company's system to upgrade the background website of the hanging network, and it is recommended that customers upgrade it.

Loader: Goods Management (Snack Machine)

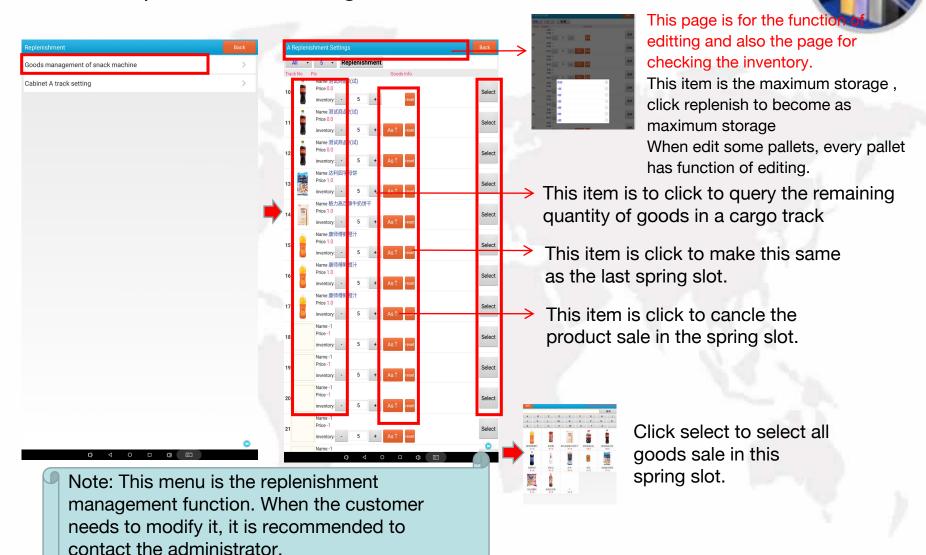




- 1. Please key in the name and price of goods and choose "Add Goods" to display them on the machine.
- 2. To delete items, choose "Delete Goods".
- 3. Choose "Delete" to delete one item.
- 4. Click "Modify" to alter the name and price of a goods.
- 5. Tap "Download Goods" to obtain the items added previously in the background.

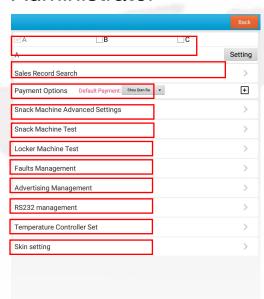
Notes: This menu is the replenishment management function. When the customer needs to modify it, it is recommended to contact the administrator.

Loader: A Replenishment Settings





Administrator



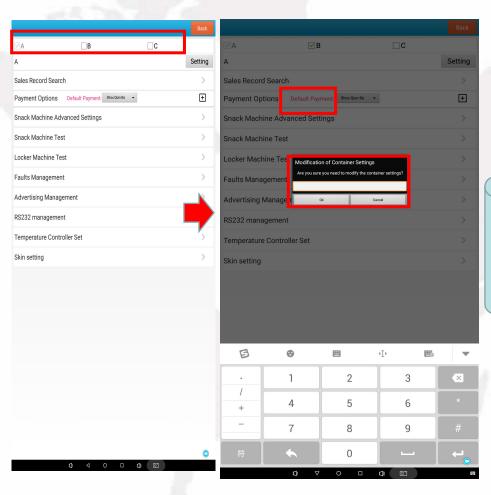
Explanation:

- 1. This item is for adding slave locker (Passcode:352356)
- 2. This item is for adjusting up and down of the pallets.
- 3. This is for checking the sales record.
- 4. This is the item for collecting money for customers.
- 5. Special function of the vending machine.
- 6. For testing spring slot.
- 7. Testing slave locker
- 8. checking and trouble clearing
- 9. Item for advertising
- 10. Serial port
- 11. The item for adjusting temperature and humidity.
- 12. The skin for the page.

Note: This menu is the replenishment management function. When the customer needs to modify it, it is recommended to contact the administrator.



Administrator

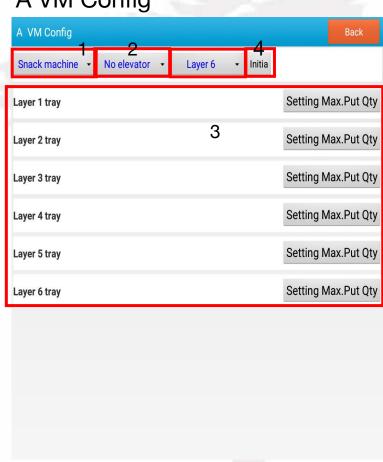


Tick the box marked B, key in the default password 352356, tap ok to finish the setting.

Note: Modification of this menu parameters is prohibited.



A VM Config



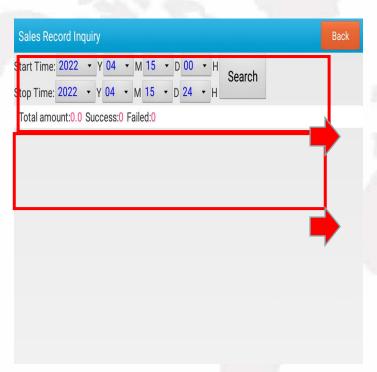
- 1. This item is for testing spring.
- 2. This is for adjusting whtether install elevator or not.
- 3. This is for adjusting the number of pallets.
- 4. Click it to preserve the adjustment statue.

This is for the set of each pallet like pallet number, maxium replenishment number and the type of spring slot.

Notes: Modification of this menu parameter is prohibited.



Sales Record Inquiry

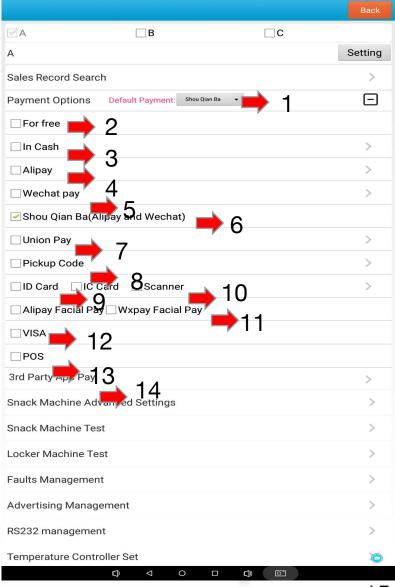


Sales record: The total quantity and total amount, success and failure records (the selection here is generally data within a month, you can choose the start time and end time, the interval is the beginning and end of a month

The details of sales record.

This menu is for customers to check sales record.

The Instruction for Use Method of Payment

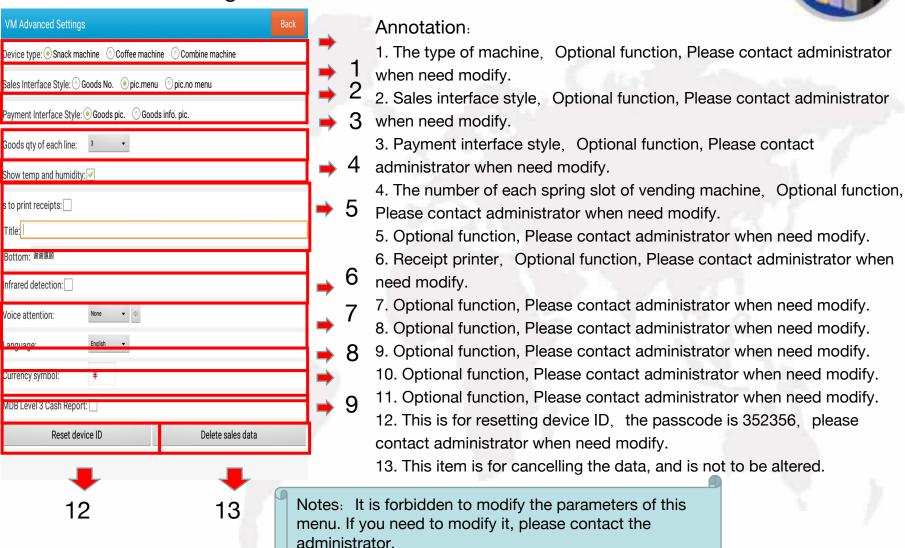


Explanation:

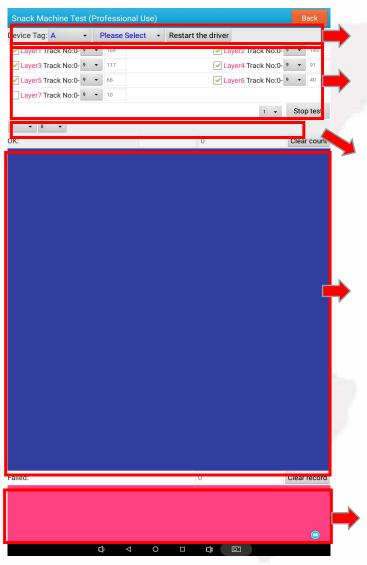
- 1. Choose the default payment method
- 2. Enable free mode(optional)
- 3. Enable cash payment function(optional)
- 4. Enable Alipay payment function(optional)
- 5. Enable WeChat payment function(optional)
- 6. Enable Mobile QR Code Payment function(optional)
- 7. Enable UnionPay business function, (optional)
- 8. Enable pickup code function(optional)
- 9. Enable ID Card Reader Payment function(optional)
- 10. Enable ID Card Reader Payment(optional)
- 11. Enable face swiping function(optional)
- 12. Enable VISA payment function(optional)
- 13. Enable third party (POS) function(optional)
- 14. Enable third party (ID card reader)function(optional)

Note: This menu is optional. When a customer needs to alter it, it is recommended to contact the administrator.

VM Advanced Settings



Snack Machine Test (Professional Use)



This is the settings for goods locker and goods tray.

This is the settings for number of goods trays and number of motors on each goods tray as well as testing all the motors.

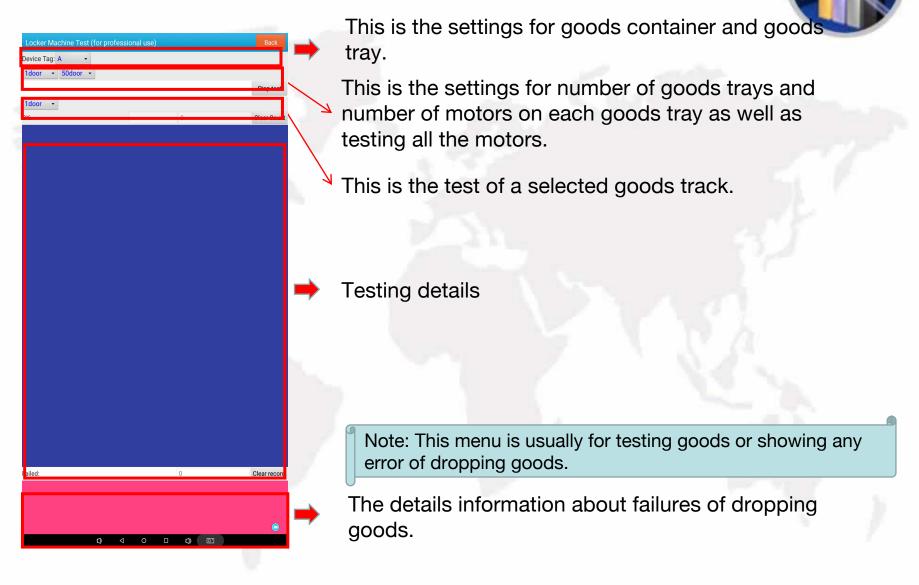
This is the test of a selected goods track.

Testing details

The details information about failures of dropping goods.

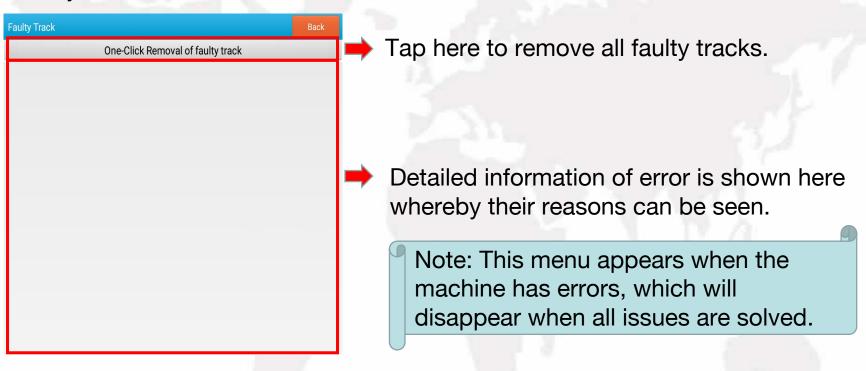
Note: This menu is usually for testing goods or showing any error of dropping goods.

Locker Machine Test (for professional use)



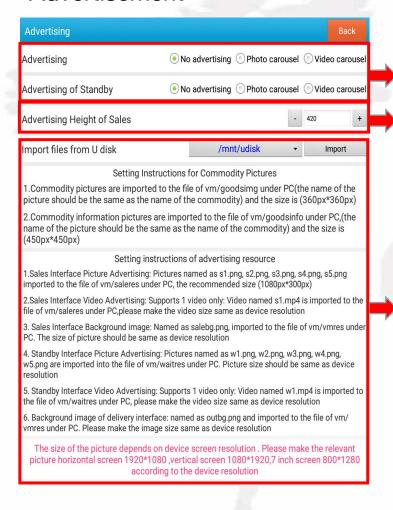


Faulty Track





Advertisement



The Settings for advertisement

The size of advertisement

The instruction for setting advertisement.

Notes: This menu is an optional function. When customers want to modify it, it is recommended to contact the administrator.

The Instruction for Use



Serial Port Config (Professional Use)



This menu is the settings for serial ports which is normally not to be altered. When customers want to change it, it is recommended to contact the administrator.

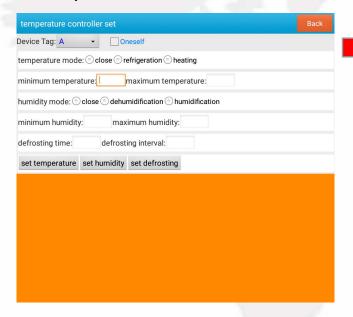
Note: Modification of this menu parameters is prohibited. Please contact administrator when there is a need.

备注: 此菜单为禁止改动, 客户需修改时, 务必要联系管理员

The Instruction for Use



Temperature controller set

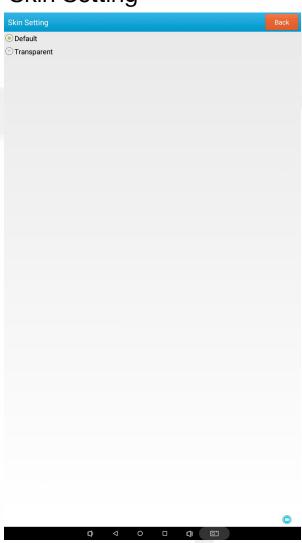


This menu is for adjusting the temperature of the refrigerator. After adjusting the temperature, click "set temperature" and "set defrosting" to finish all steps.

Notes: This menu is for adjusting the temperature of frerigerator. Please Contact adminstrator if it is needed to be modified.

The Instruction for Use

Skin Setting

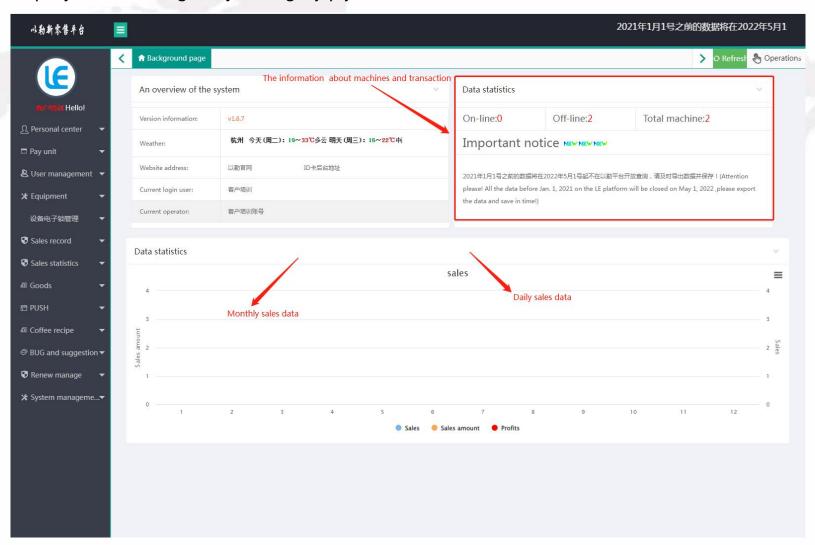


This menu is for adjusting the skin of sales interface. When customer need modify, please contact with adminstrator.

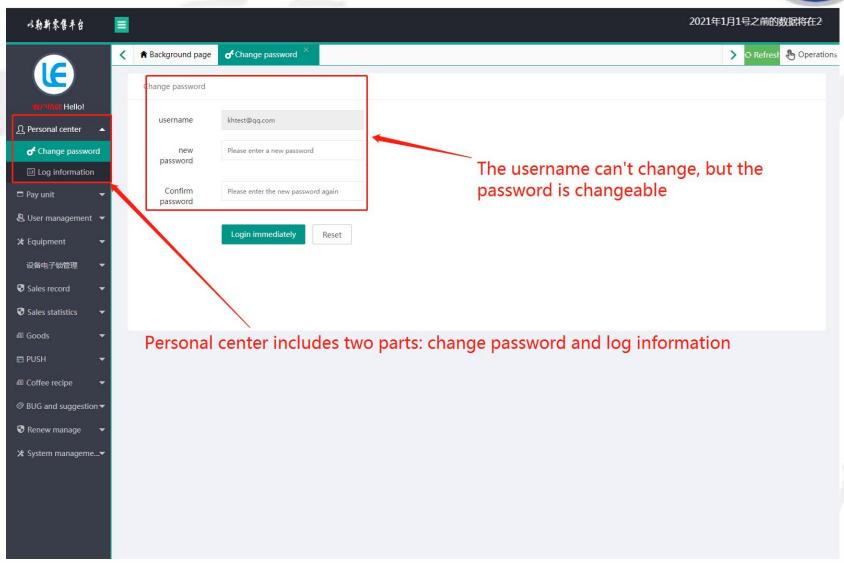
This menu is for adjusting the skin of sales interface. Please contact the administrator when there is a need.

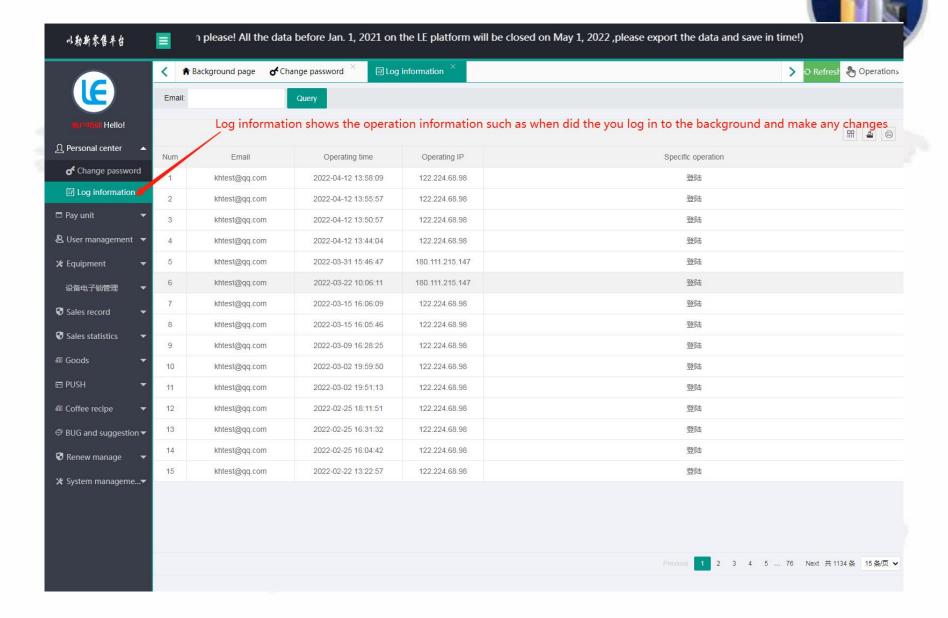
1. Homepage of Background Operation:

http://ylvm.levending.net/ylvm/login.jsp;jsessionid=0F07D10F775D18C267990BC4AB8F8888

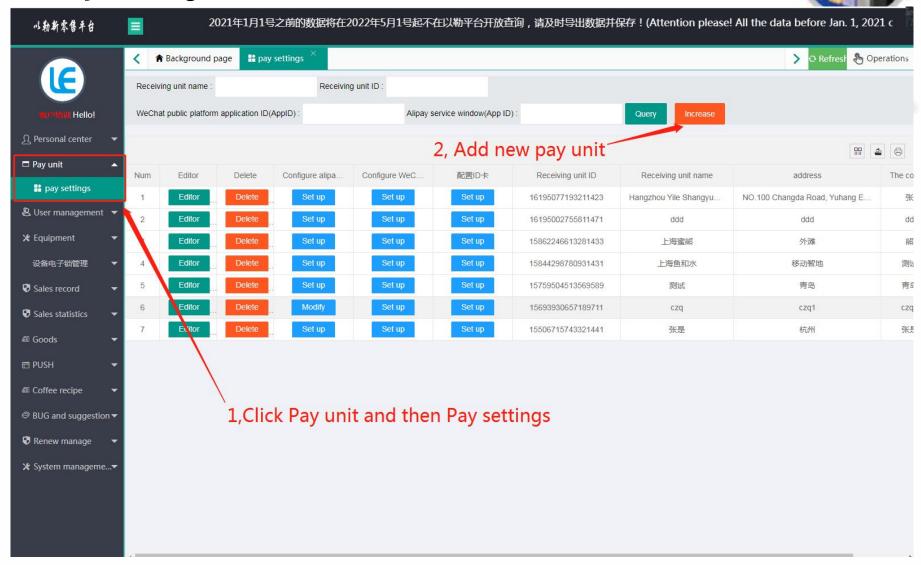


2. Personal center

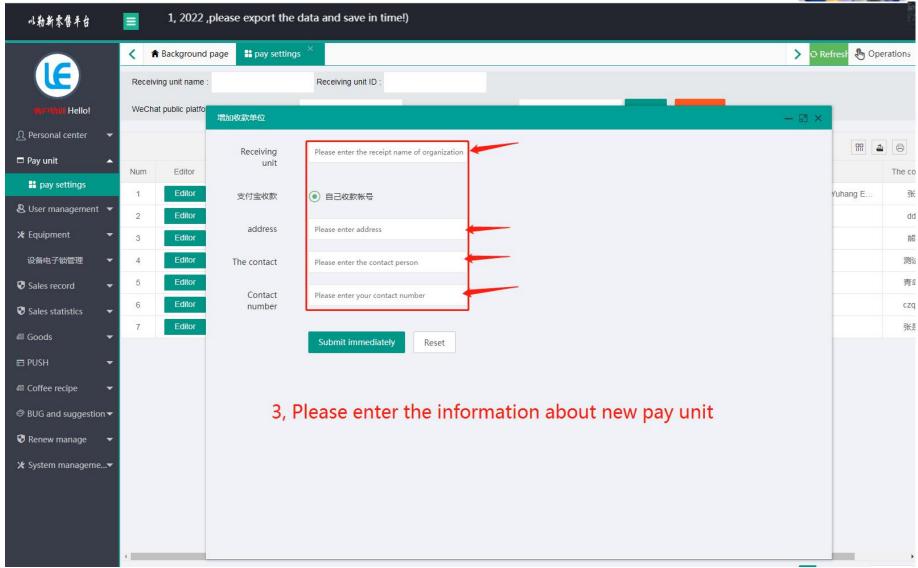


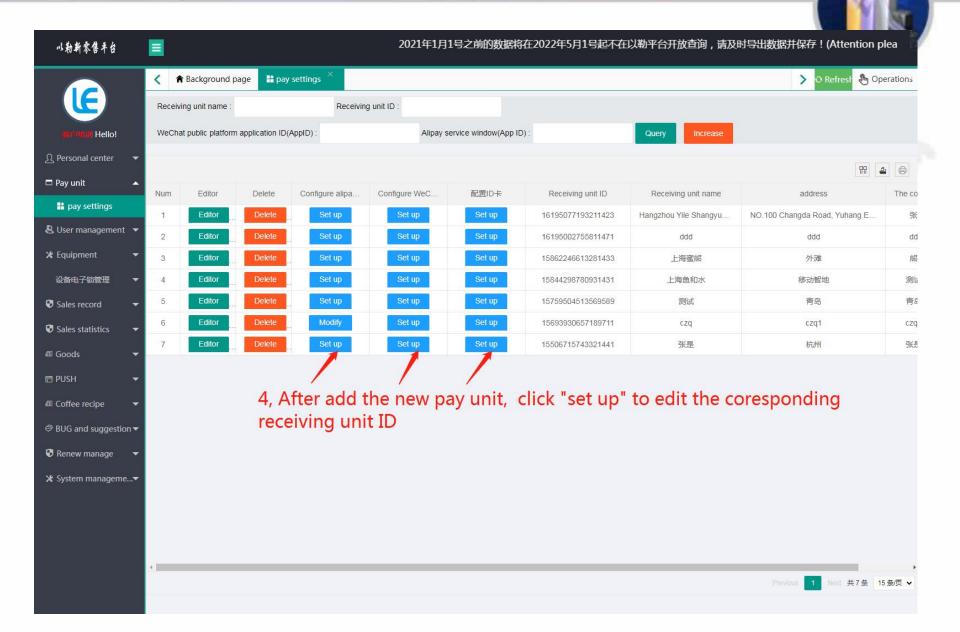


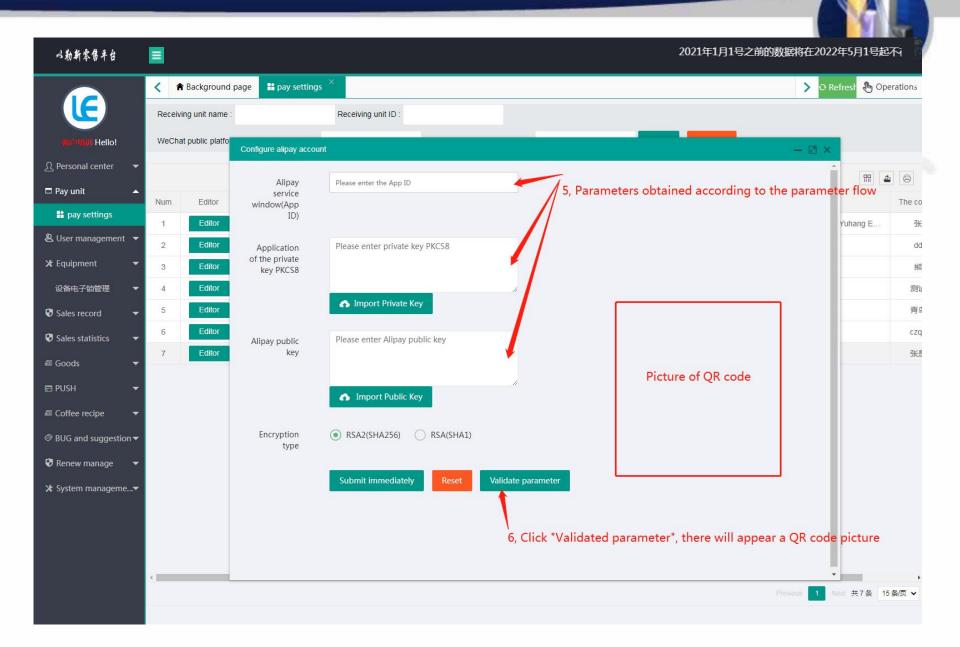
3. Pay settings

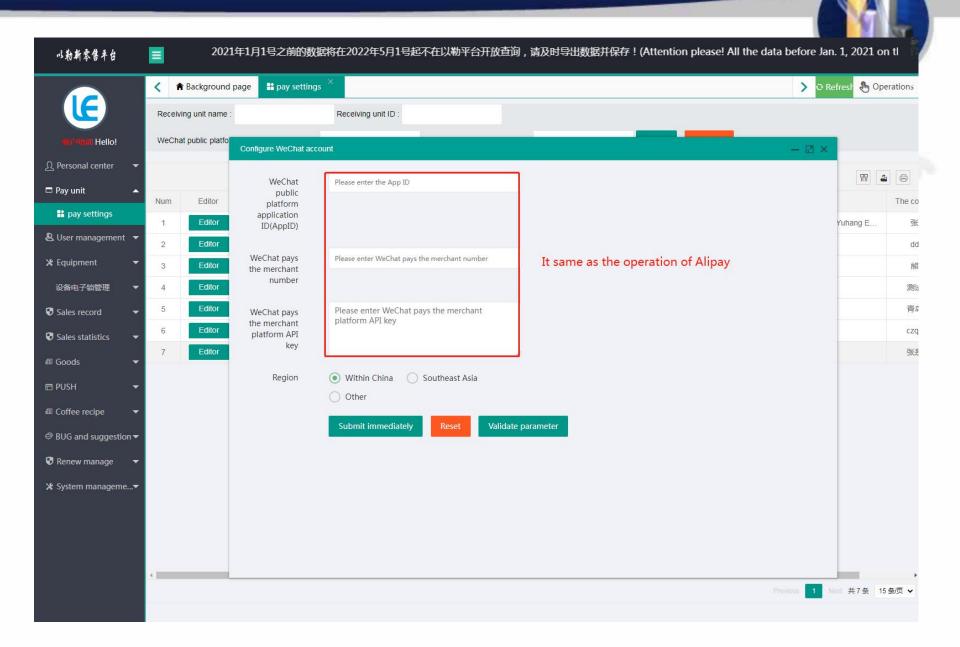


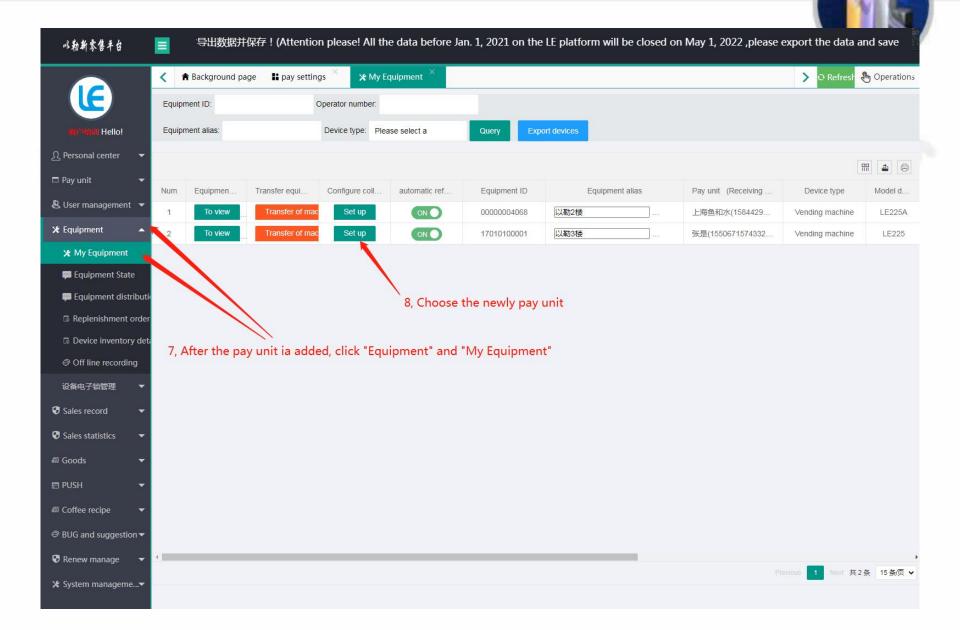


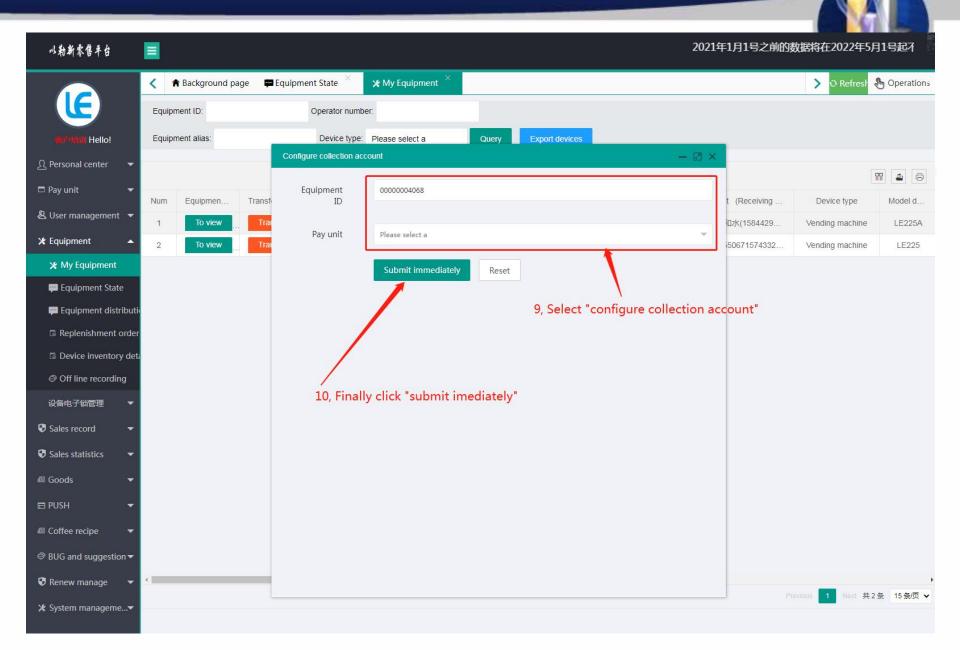




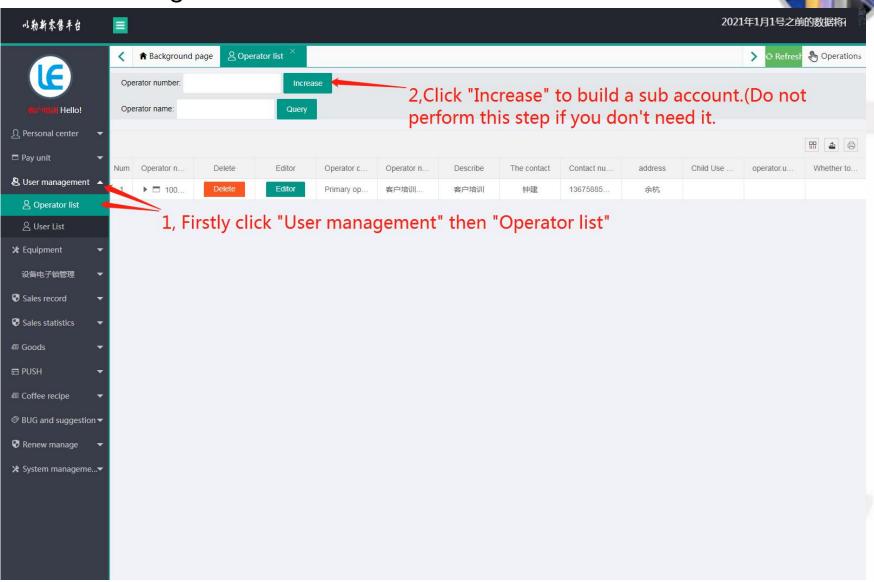


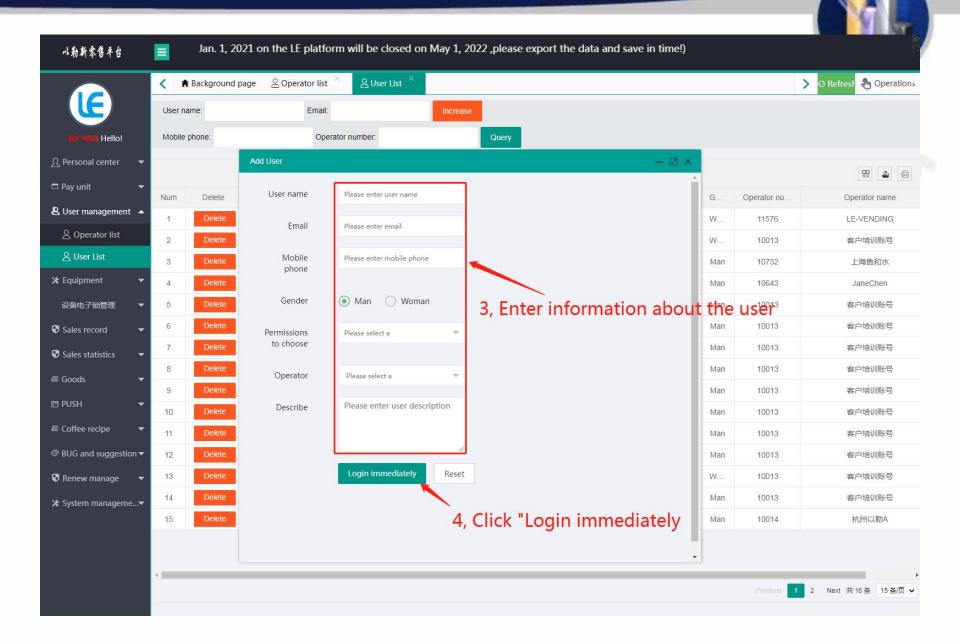


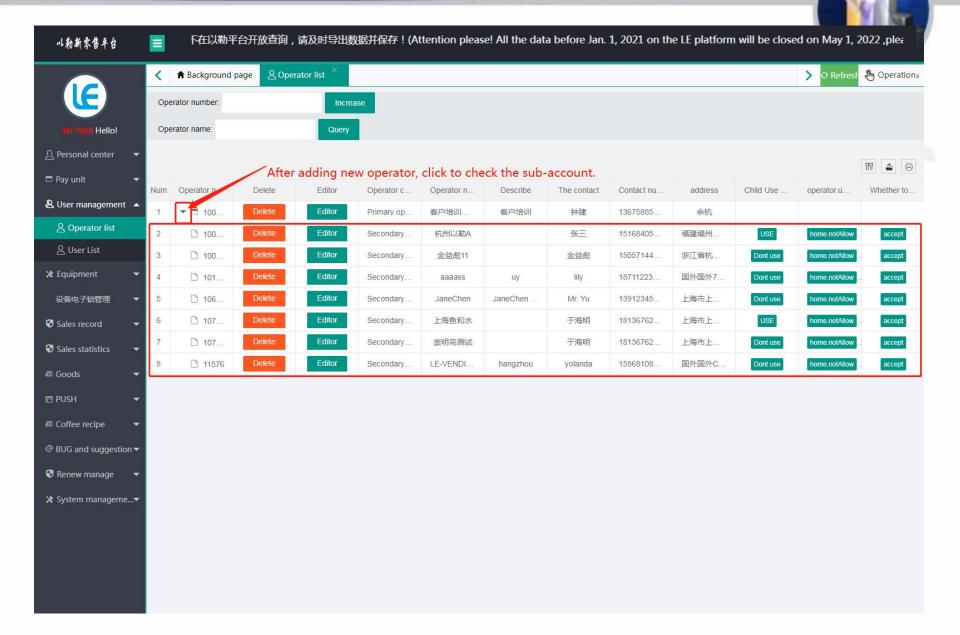


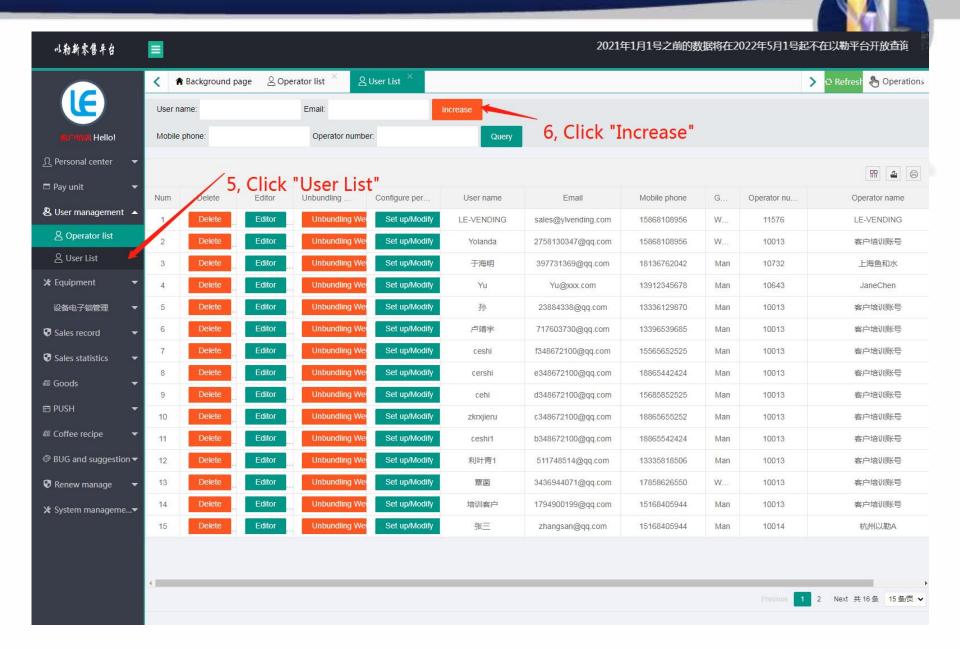


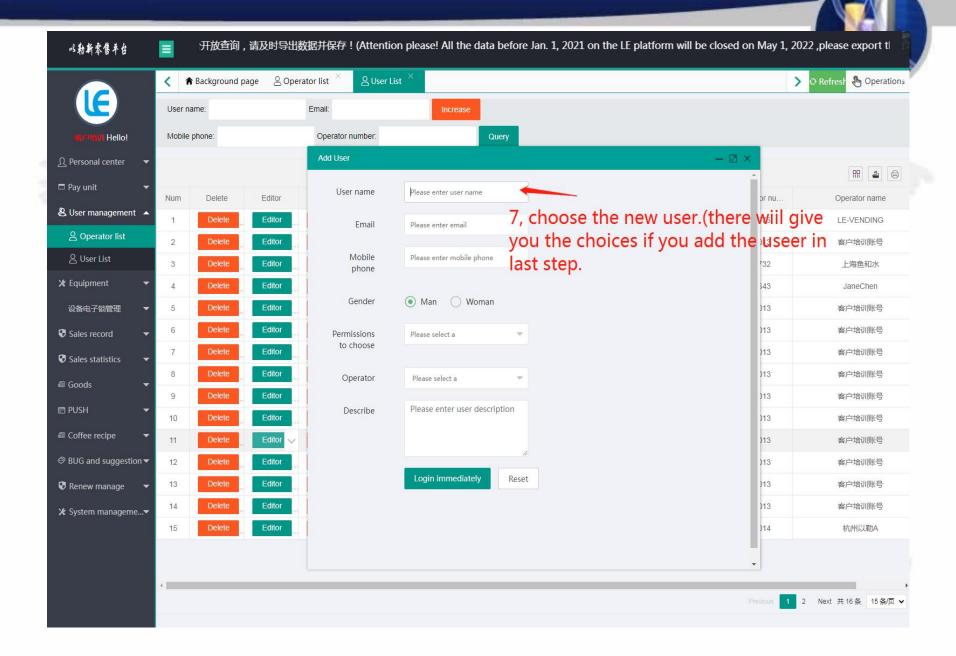
4. User management

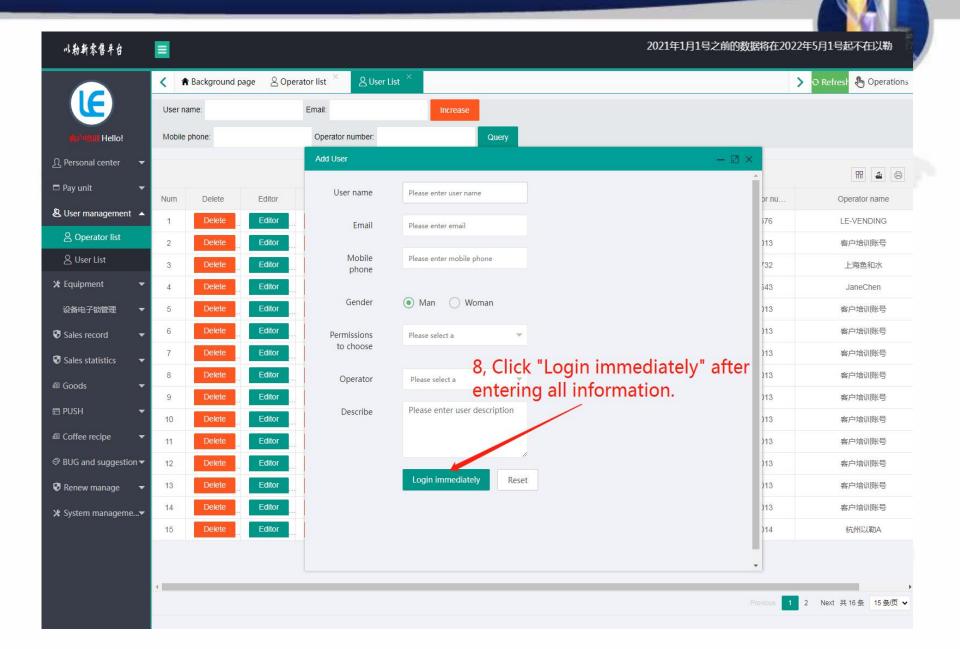


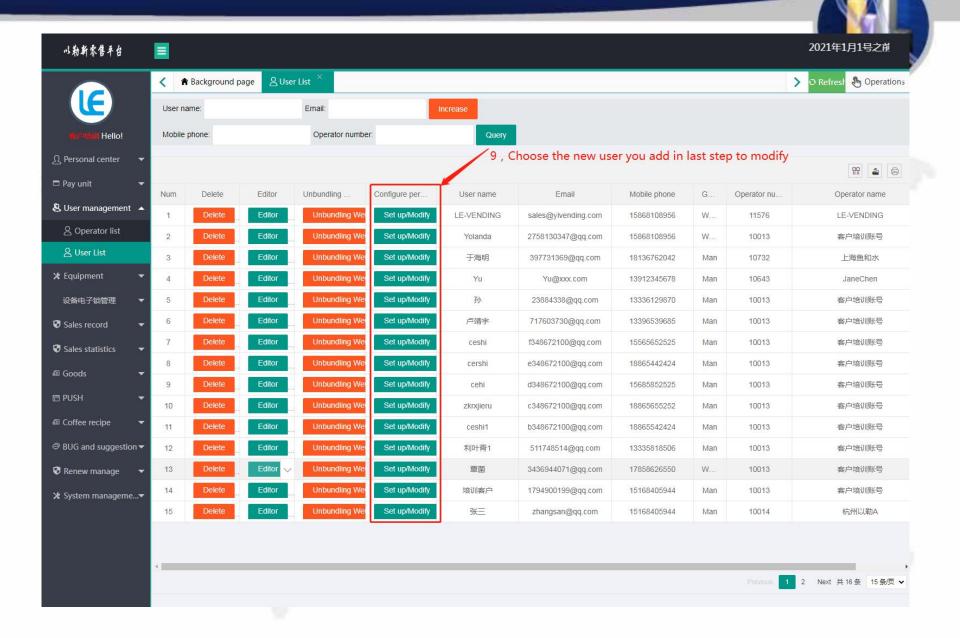


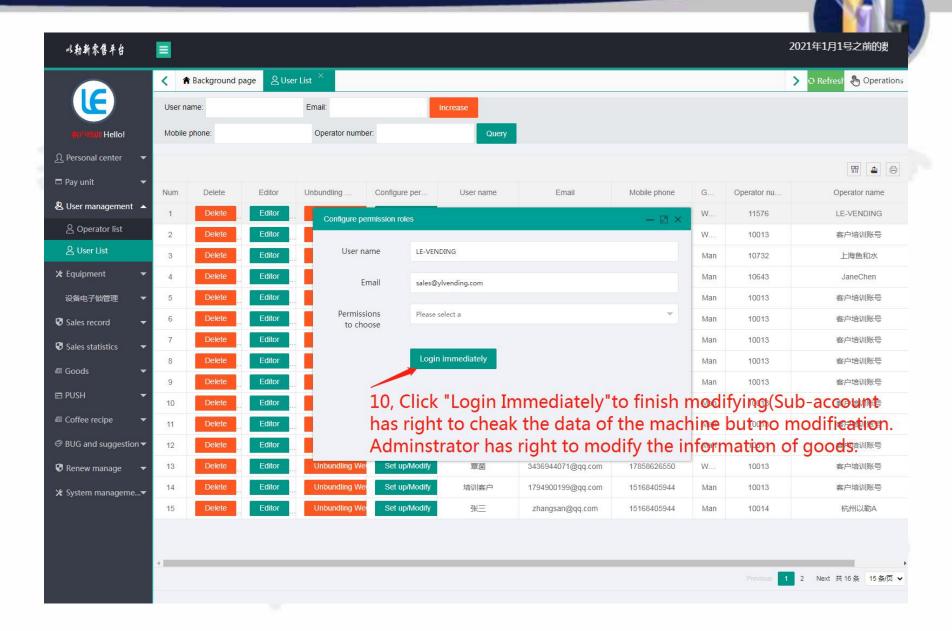




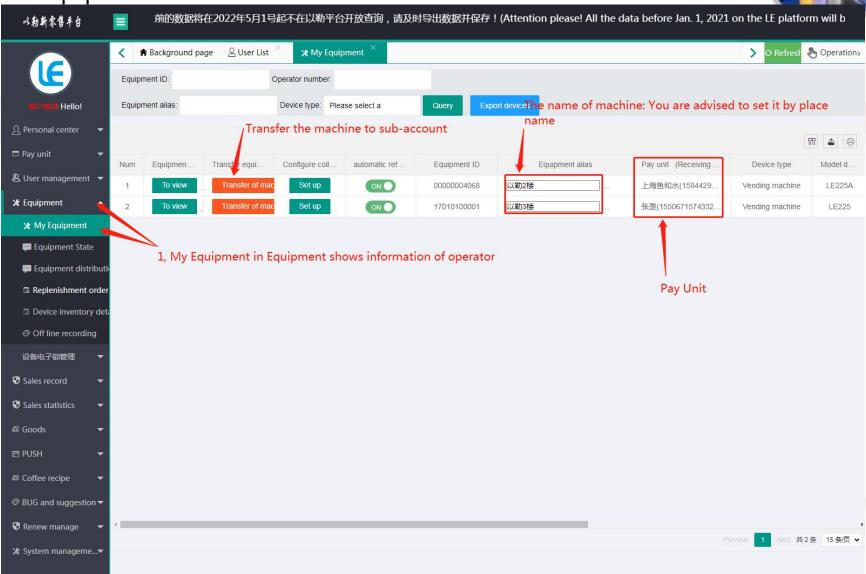


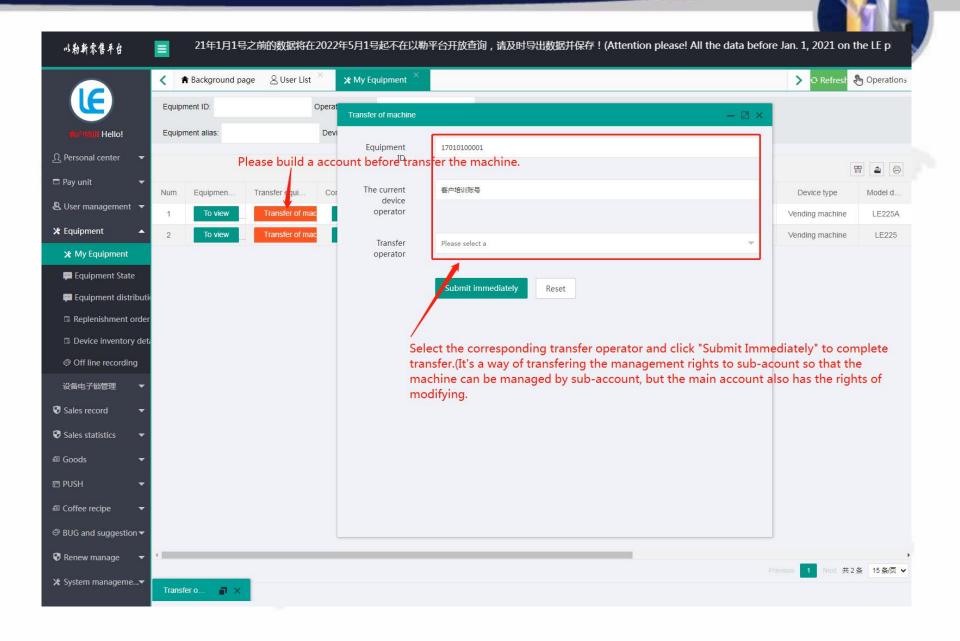


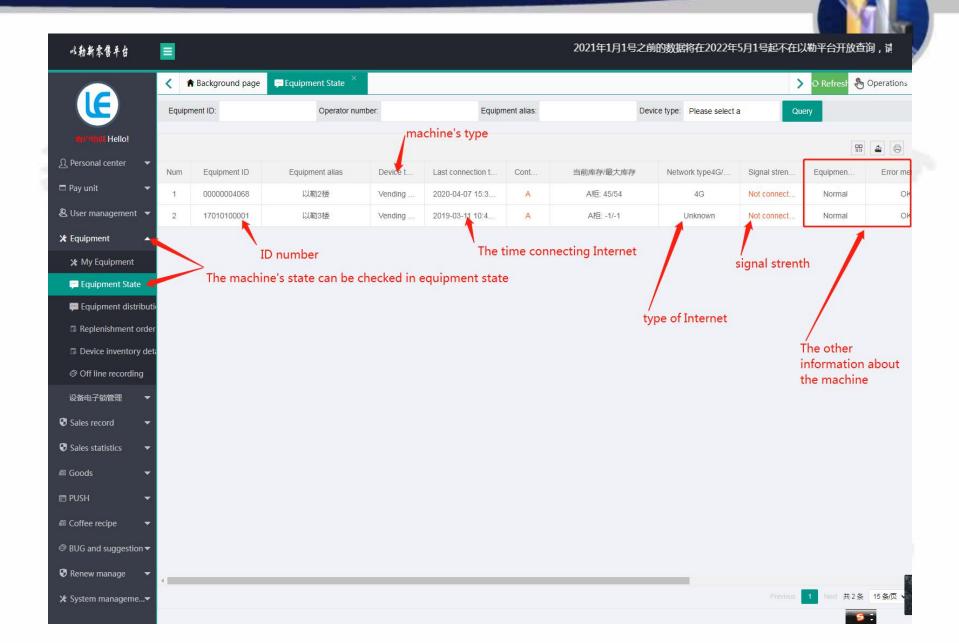


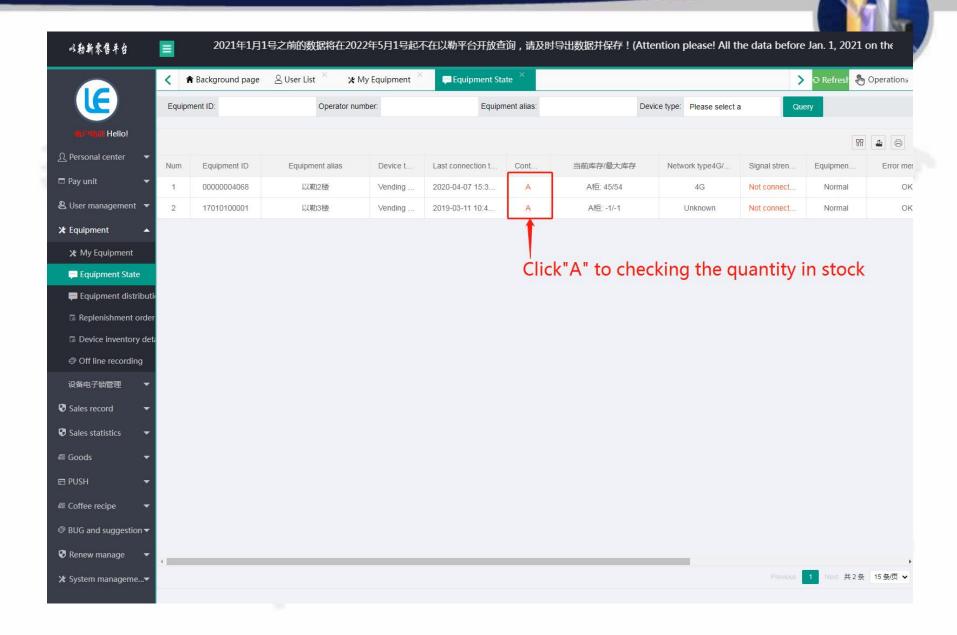


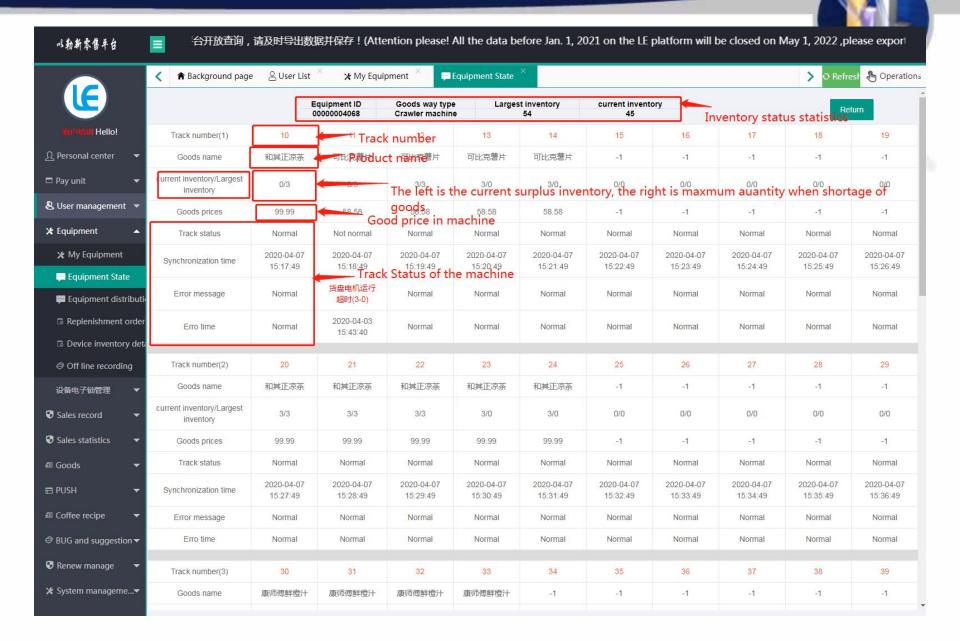
5. Equipment

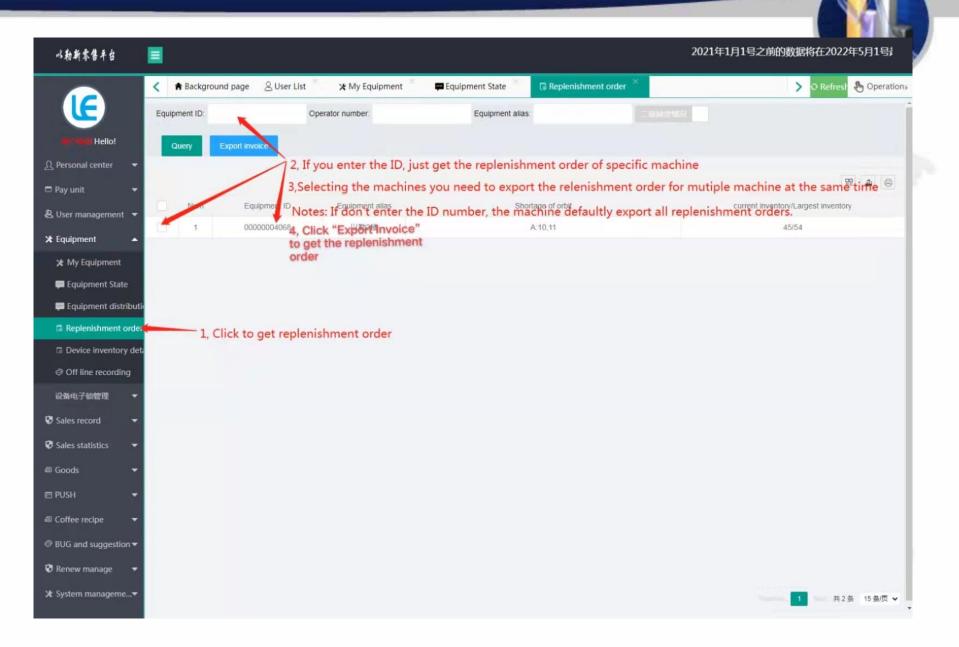




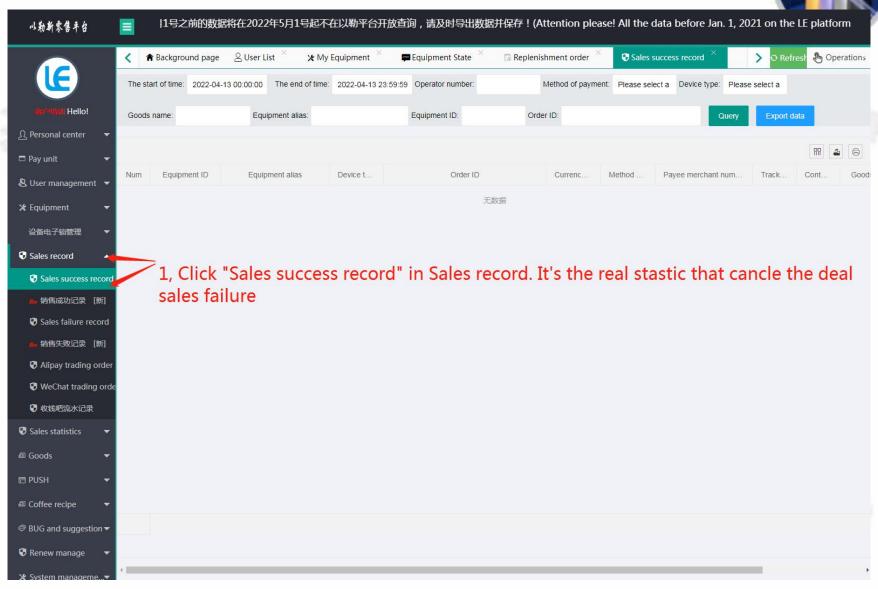


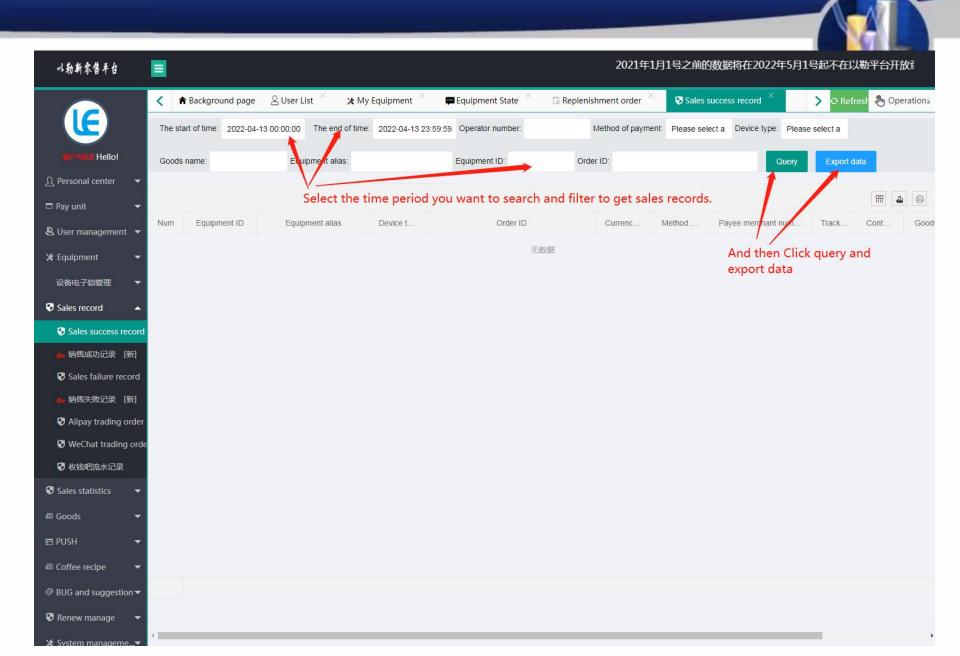


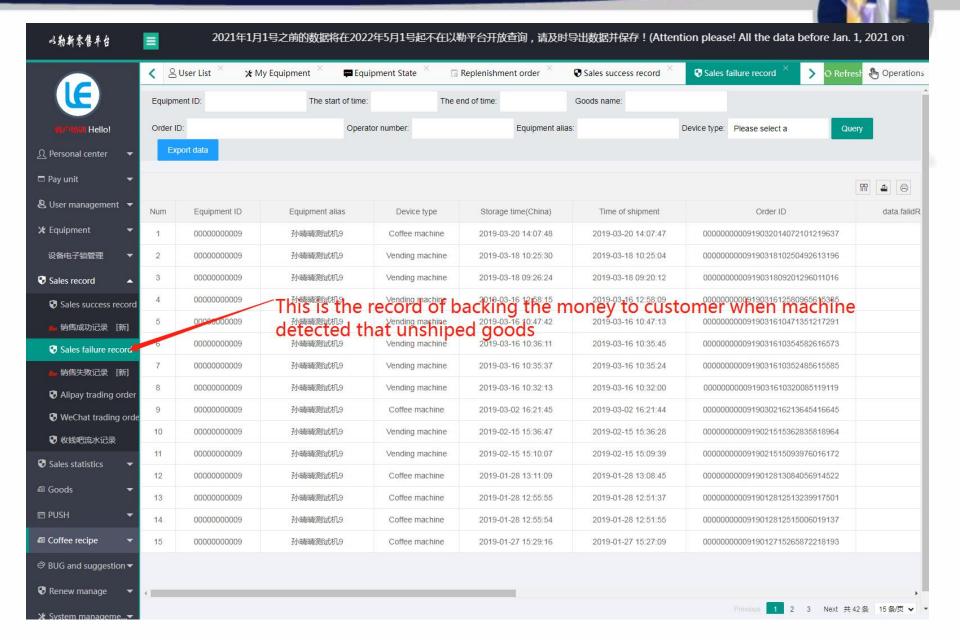


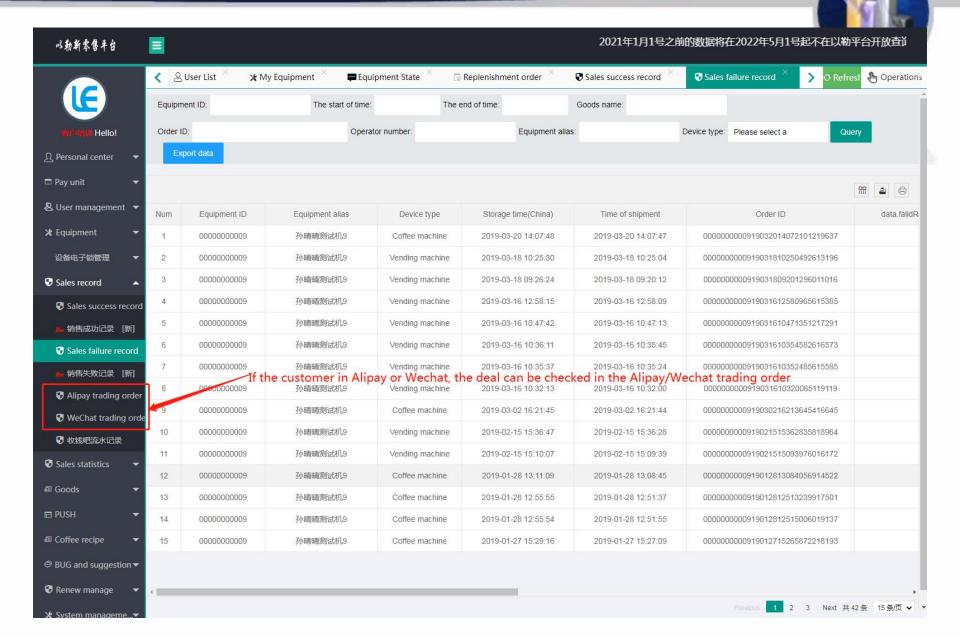


6. Sales record

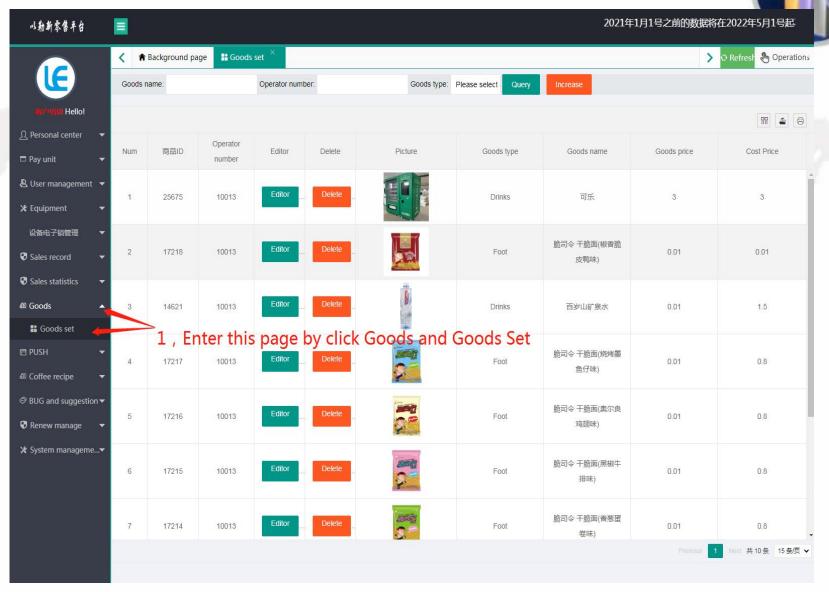


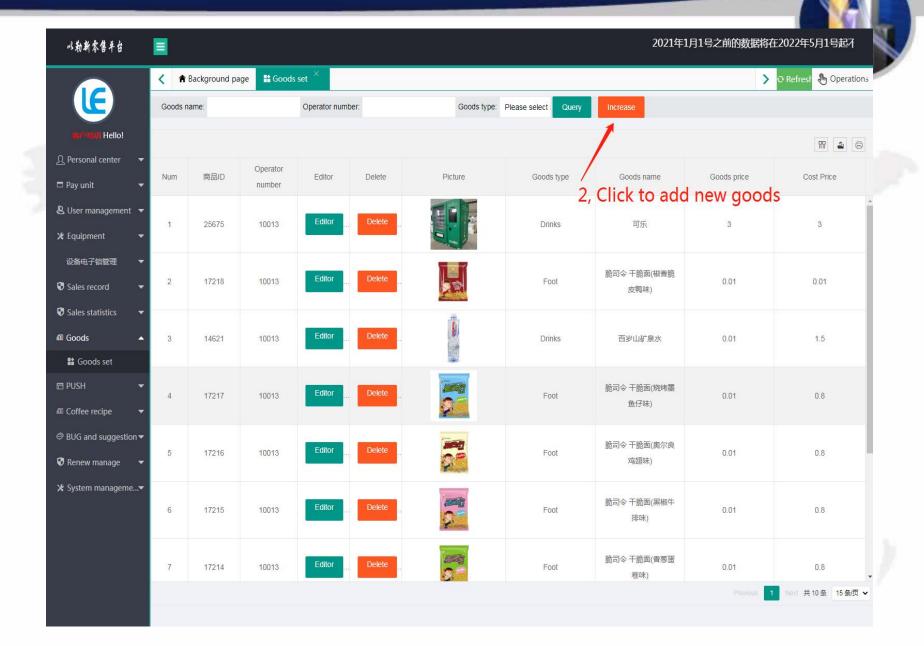


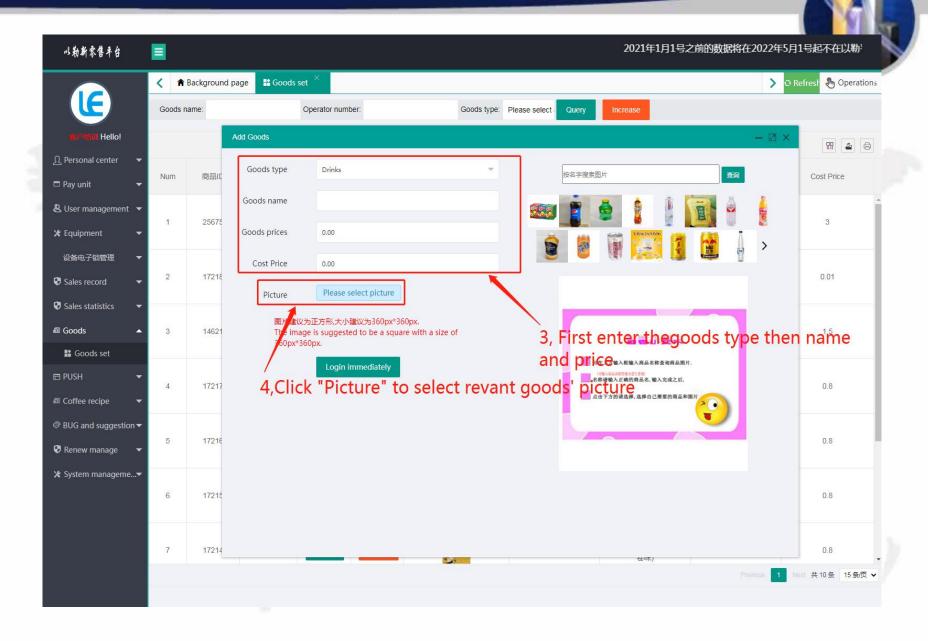


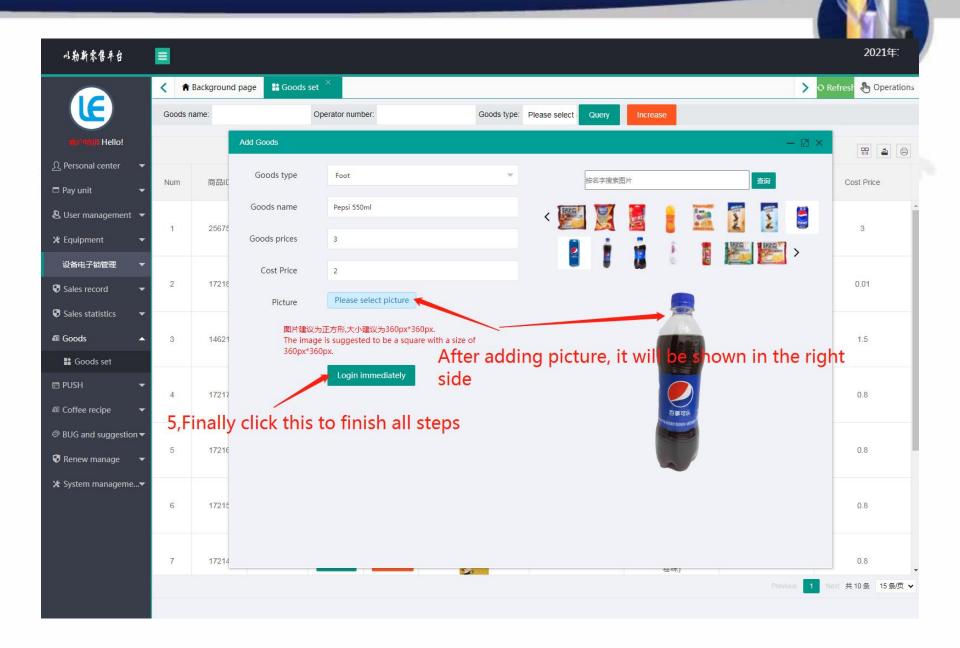


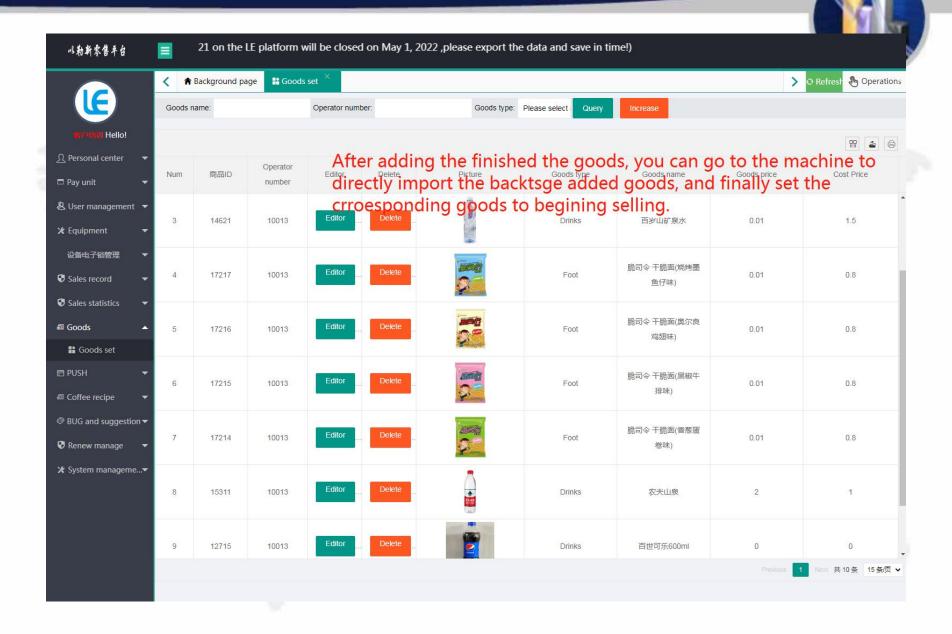
7. Goods











To Install the Operating System



Step 1 Preparation



Power on the machine.



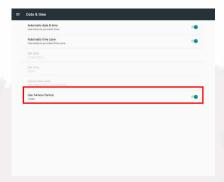
Select Security and tick Unknown Sources as shown above.



Restore factory settings and select Settings.



Click build number 5 to 6 times in succession and developer options will appear as shown above.



Click Date and Time, tick 24 hour mode.



tick USB Debugging shown as above and choose "OK".

To Install the Operating System



Prepare a USB drive with the software, and insert it into the machine.

Step 2 Installation of software

Open File Explorer. Click the second option and select "/mnt/sdcard". After loading, click "mnt" or click "up" sign to go back to "mnt". Click "udisk" or "usbdisk_1.1.1" to install the software as follows:

- 1. vmpush_Vxxx.apk
- 2. vmself _V xxx.apk (run the software after installation)

Step 3 Hide the navigation bar at the bottom

Settings → Display → Display Full Screen

Step 4 Others

Show/hide function bar:

Show function bar: Settings \rightarrow Display \rightarrow untick Display Full Screen, click OK to restart the screen.

Hide function bar: Settings → Display → tick Display Full Screen, click OK to restart the screen.

Issues	Symptoms	Reasons and Solutions	To test with
The compres sor does not work	1. The condensation does not work.	 Check whether the mesh of the inlet is choked. If so, please clear it. Check whether the fan of the compressor works. If not, the motor of condensation may need changing. Check whether the perfusion fan works. If not, please test whether capacitors work. If not, the capacitors may need replacement. If the capacitors work normally, the perfusion fan may need to be changed. 	Multimeter
		 Check the temperature of the compressor and other settings. If "LL" is displayed on the thermostat, the wires of temperature control may need to be replaced. If "888" is displayed on the thermostat, the module of temperature control may need to be replaced. 	3)
		Test the working voltage; the normal voltage is around AC 220V of AC 110 according to model type.	Electric shock pen or multimeter
		2. Test the starting capacitor to check whether it is broken.	Multimeter
		3. Check whether the compressor is broken.	Electric shock pen or multimeter
	4. The compressor is out of freon.	1. Find the place where the freon leaked and add freon of type R134A.	Leakage detector

	1. The machine displays	The test in the background operation can be solve the	
	issues of goods track.	problems. If it fails, follow the steps below.	
	2. The wires of goods trays	1. Connect the wires.	
	are not properly connected.	2. Reconnect the relevant components.	
	3. The motor fails.	1. Replace the motor.	- A. C. C.
	7.4	1. Check if the fuse has blown. If so, it need replacement.	
Goods do	4. The drive board has a fault	2. The drive board itself is defective and need changing.	2
not drop out.		3. Test the voltage and check if it is normal (24V or 12V according to the type of drive board).	74. "
	The mainboard may have a defect.	1. Check if the mainboard is burnt out.	
	C. Cianal dalivan faile	1. The signal cord may be faulty.	
	6. Signal delivery fails.	2. The joint part of the signal cord may be loose.	
	7. A	Adjust the spring or change it.	
	7. A spring is stuck.	2. Change the goods in the track.	
	1. The machine is not well grounded.	1. If the screen does not respond to touch sensitively, please check whether the screen is well grounded.	10
	2. The screen is defective.	1. Change the screen.	
The screen		1. Shut down the machine and do not restart it for 3 hours.	
works abnormally		2. Power the machine for 3 hours at least.	- LD*
		3. If both methods above fail, the screen need changing.	
		4. Try avoiding shutting down the machine too often to reduce the chance of freezing the screen.	

The machine cannot read cards	The card reader is not connected to the mainboard.	Check the communication cable.
	2. The network is not stable.	Check whether the machine is connected to the internet.
	3. The card itself is defective.	1. Try changing SIM card.
1	4. The card reader is faulty.	Replace the card reader.
7	1. The SIM card is out of credit.	1. Recharge the card.
	2. The SIM card is broken.	1. Change the SIM card.
	3. There is no signal.	Choose a different Wi-Fi.
No internet	4. The Wi-Fi is not stable.	1. Change the modem.
	5. The mainboard is problematic.	1. Replace the screen.
	6. The mainboard is not set properly.	Go to settings and tick background internet connection.
	7. The antenna is broken.	1. Change the antenna.
	1. Coins are stuck.	Clear the coin changer according its manual.
	2. The industrial computer is defective.	Change the industrial computer.
The coin changer	O. There is no closely to	Check whether the connector of wire is tightly connected.
does not work.	3. There is no electricity.	2. The 24 V switch is broken.
	4. The situation is to be determined.	Please refer to the inner ppt document.
	5. The mainboard is defective.	The mainboard need replacement.

The coin changer does not work.	6. There may not be enough coins left in it.	Coins need to be reloaded into the coin changer.
The bill acceptor does not	The bill acceptor has not been closed properly after it is emptied.	Put the bill box back to its place.
	2. The bill acceptor has not been cleared for too long.	1. Clean the bill acceptor.
	3. The industrial computer is broken.	Change the industrial computer.
work.	4. Bill box is full.	1. Empty the box.
	5. The mainboard is defective.	Replace the mainboard.
	1. The signal is not stable.	Change the communication cable.
The motor	2. The drive board is broken.	1. Replace the drive board.
	3. 24V power box is broken.	The power box needs changing.
work.	4. The wires of goods trays are not well connected.	Reconnect the wires and check the hinge.
	5. The mainboard is defective.	Replace the mainboard.
The locker cannot be opened.	The locker is not well connected to the mainboard.	Check whether the circuit is closed.
	2. The mainboard is burnt.	Change the mainboard of the locker.
	3. The settings for the mainboard is problematic.	Check the settings according to requirements.



	The communication cable is defective.	Check whether the communication cable is tightly connected.
The bill acceptor or coin changer does not respond wher coins have been put inside.	1. The industrial computer is broken.	Change the industrial computer.
The goods tra	The plastic part of the rails may be broken.	Replace the plastic part.
is in normal	2. The bronze post may be snapped.	1. Change the rails.

- 1. This chart shows the procedure of maintenance of this machine.
- 2. The contents will be updated not regularly.

The Instruction of the Multimeter



High-precision digital multimeter VC890D, the commonly used function buttons are as follows.



To measure the DC voltage, first set the gear to DC 200V, insert the red test lead into the $V\Omega$ and temp jacks, and the black test lead into the com jack, and start measuring the 9V battery voltage. The red test lead is connected to the positive electrode, and the black test lead is connected to the negative electrode. The measurement result is about 10V, indicating that the battery is in good condition.

The Instruction of the Multimeter





To measure the AC voltage, first set the gear to AC 750V, insert the red test lead into the $v\Omega$ and temp jacks, and the black test lead into the com jack. Then start measuring the AC voltage, which is normally around 220V.



For diode measurement, first set the gear to the diode and on-off gears, insert the red test lead into the $v\Omega$ and temp jacks, and the black test lead into the com jack. If the screen shows that the buzzer matches, press select to switch key. The diode symbol is displayed on the screen, and the diode can be measured.



For on-off measurement, first switch the gear to the diode and on-off gears, insert the red test lead into the $v\Omega$ and temp jacks, and the black test lead into the com jack. If the diode symbol is displayed on the screen, press the select switch button and witch to the buzzer to measure continuity.

The Instruction of the Multimeter





To measure the DC current, first set the gear to 20A and insert the red test lead into the 2mA jack.

Then insert the black plug into the com jack, connect the multimeter in series with the circuit under test, and measure the current.



