

Currency Counter BC-55 User Manual



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1. Machine Overview

1.1 Preface

Thank you for purchasing our products. This instruction manual contains the operation steps and precautions for using this product, in order to improve the use and working efficiency of the product, please read this manual carefully before using, so as to operate the product accurately. Please contact your local agent if you encounter any problem.

We reserve the right to change the contents of this instruction manual at any time without notice.

1.2 Statement

This product is used for counting banknotes. Our company does not assume any responsibility for any loss arising from the application of this product for any purpose other than the above without our company's permission, and for any loss caused by any modification of this product not by our company or by any agents not authorized by our company. If you need to install or transport this product, please consult your local agent to reduce (avoid) product damage due to installation errors or transportation shocks.

- This product is used for counting banknotes described in the specification. Please do not use this product for any other purposes.
- This product is only used in corresponding countries or regions and may not be used in other countries or regions due to the difference between power supply specifications and safety standards.
- Please understand that the contents of this manual are subject to change without prior notice.
- The appearance and technical specifications of this product are subject to change without prior notice. Therefore, the actual product may be different from the instructions in this manual.
- This product may not be changed or modified in any form without the explicit written authorization of our company.

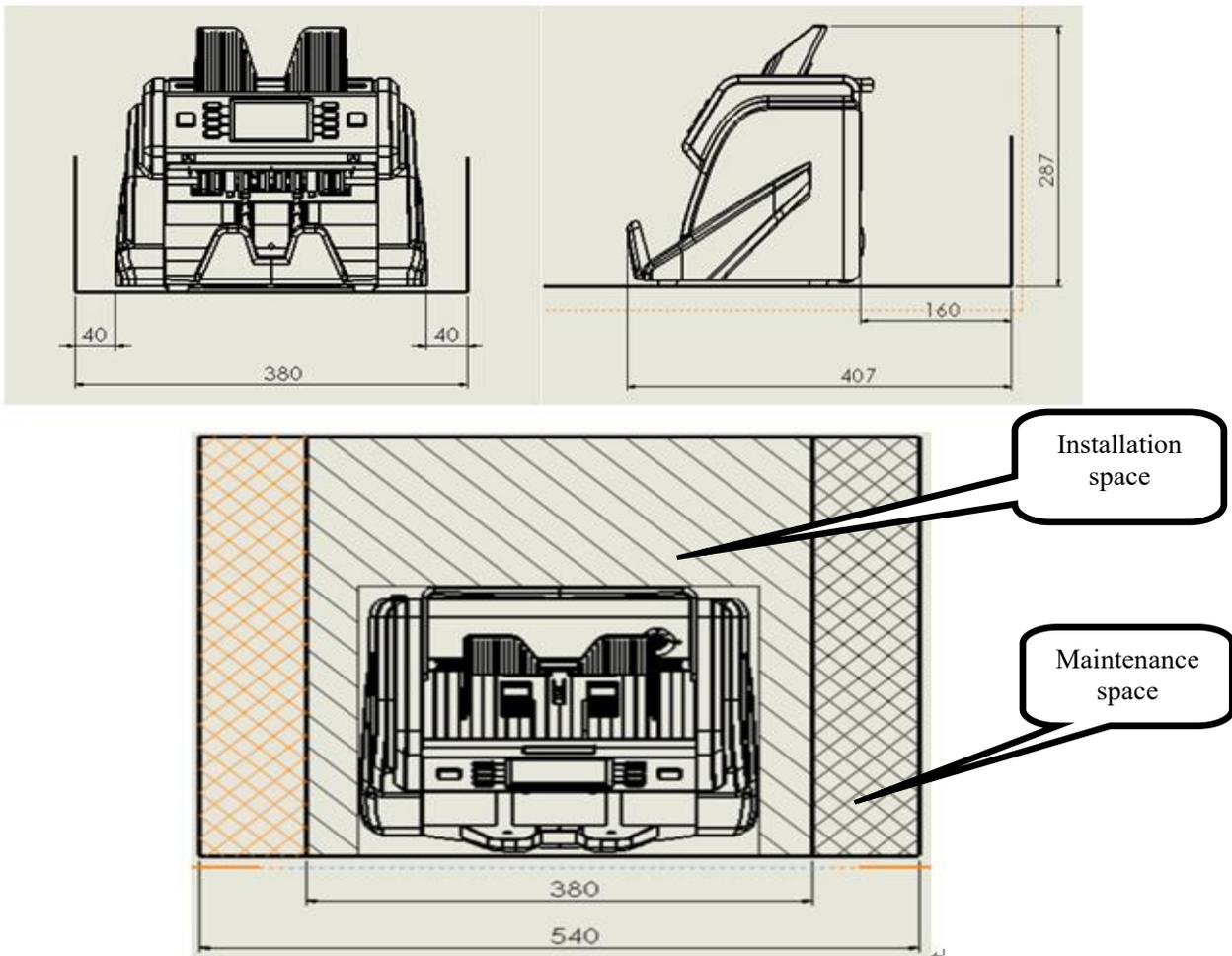
2. Installation Precautions

2.1 Installation Instructions

- 1) Please contact your nearest sales store or our designated distributor if you need to install this product.
- 2) This machine is specially designed for indoor use. Please do not install or use it outdoors.
- 3) Please do not install it in places that cannot bear the weight of this product or in places that are inclined or uneven.
- 4) Do not use or place combustible materials, inflammables and volatile items such as thinners around/inside this product.

2.2 Installation and Use Location

As shown in the figure, please stay away from the surrounding walls and reserve sufficient operation space for placement of banknotes, opening or closing of the cover plate, as well as for maintenance.



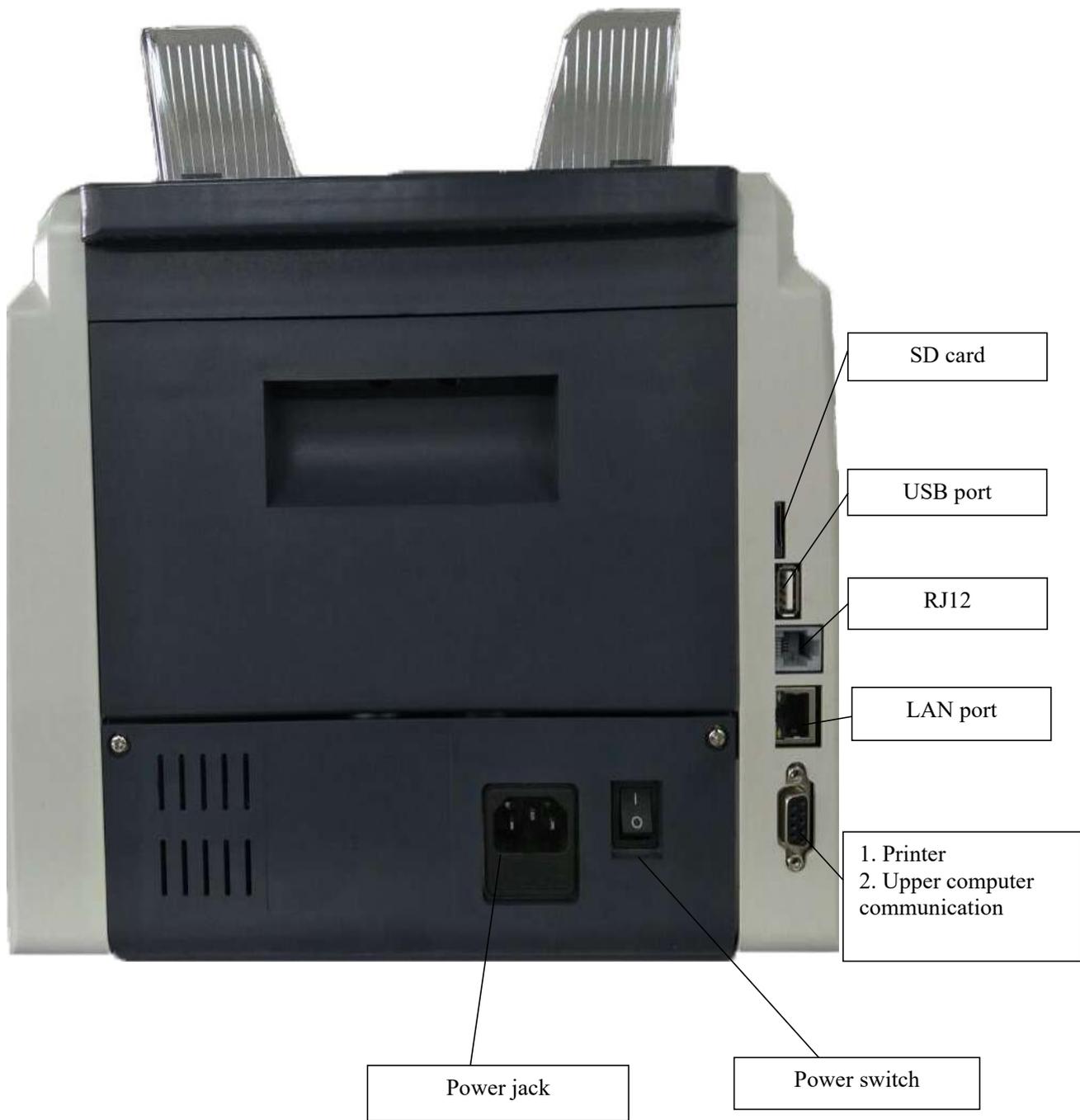
Unit (mm)

3. Complete Machine Diagram

3.1 Front Appearance



3.2 Back Appearance



3.3 Top Appearance



Feed gap adjusting knob

Rear lid open button

4. Technical Parameters

Overall dimensions (length×width×height)	300mm×247mm×287mm
Weight	About 7KG
Capacity of banknote inlet	600
Capacity of banknote receiving port	200
Display	3.5 inch TFT touch screen
Interface	RS-232/LAN/RJ12/SD/USB
Currency support capacity	the standard software includes 8 currencies, if you need more currencies, please call us or contact us by email.
Countable Note Size	Length: 100mm~180mm Width: 50mm~90mm
Countable Note thickness	0.05mm~0.12mm
Counting speed	800/1000/1200pcs/minute (MIX, SDC mode) 800/1000/1200/1500pcs/min (CNT mode)
Counting mode	MIX, SDC, CNT
Batch number	0~200
Counterfeit detection function	UV/MG/MT/IR
Power requirement	AC 220V 50Hz ±10% AC 110V 60Hz ±10%
Noise during operation	60-75DB
Power consumption	≤15W standby ≤50W operation
Use environment	Ambient temperature (0~40°C)/humidity (40~90%) Air pressure (70-106kpa)
Storage environment	Ambient temperature (-40~55°C)/humidity (10~95%) Air pressure (70-106kpa)

5. Description of Display and Operation Interface

5.1 Display Appearance



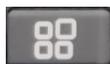
5.2 Operating Instructions for Function Keys



Return key, to return to the previous interface when the function is set; Clear key.



Currency selection key.



Mode switch key.



Function key.



Counting information check key.



Accumulation function switch key.



Preset switch key.



Data printing key.

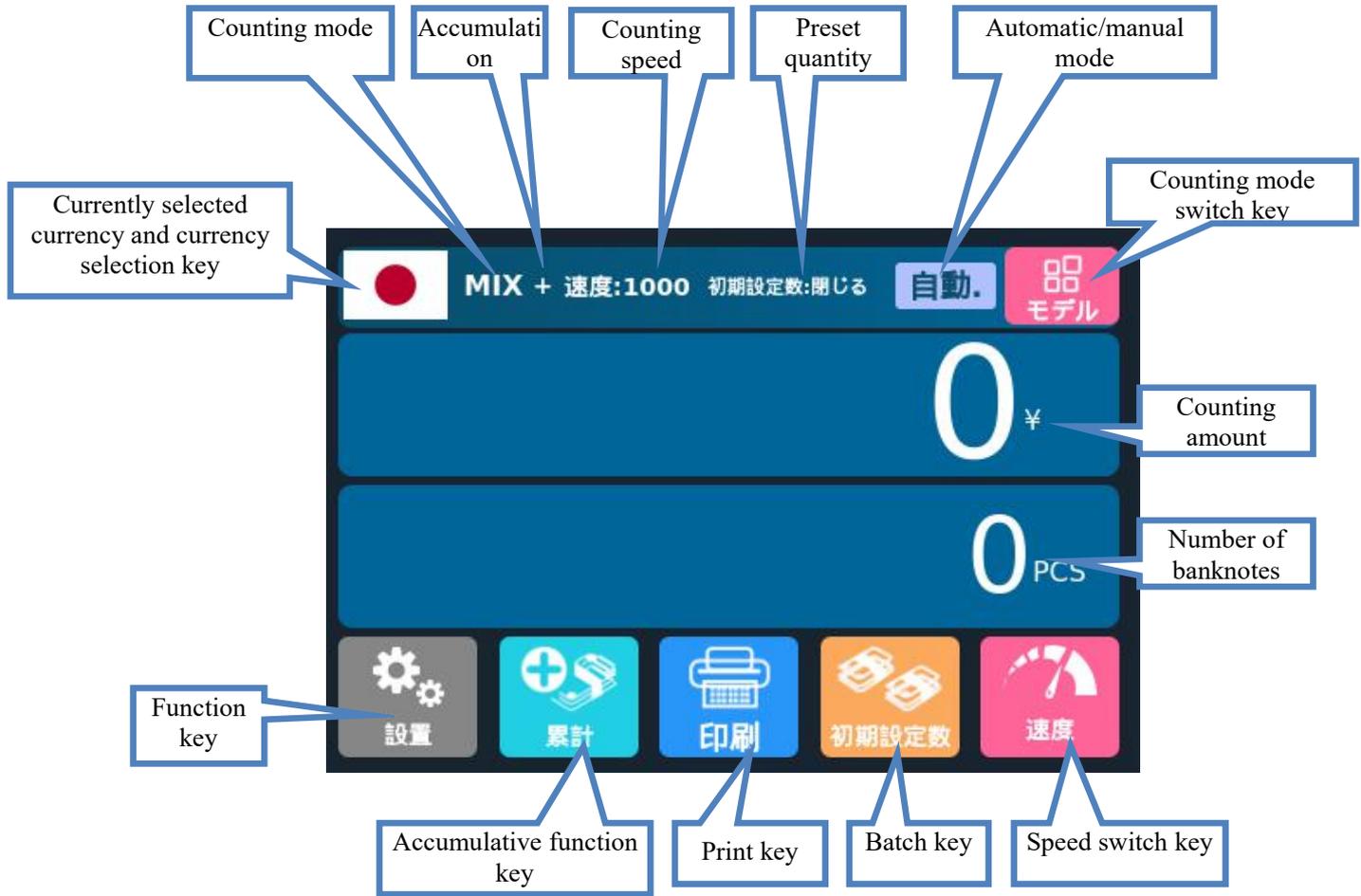


Speed switch key.



Start key, start the machine manually; Save key after selecting and entering, confirming or modifying the function.

5.3 Display Interface and Touch Screen Description



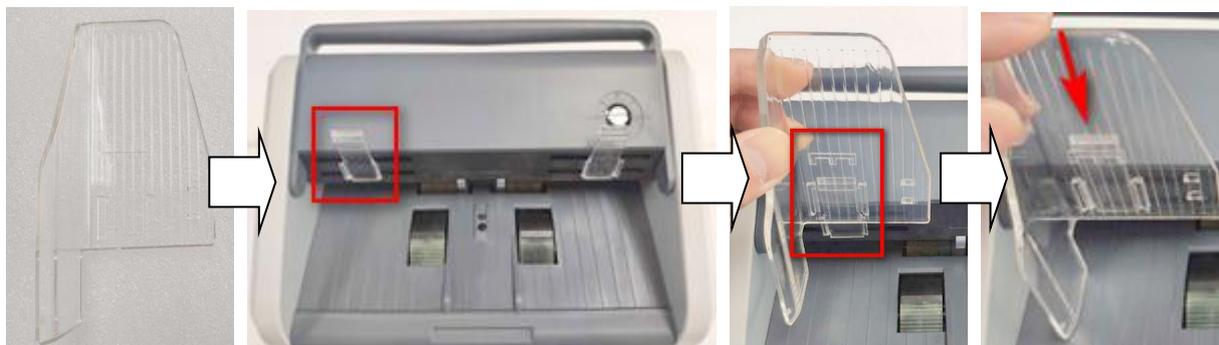
6. Operating Instructions

6.1 Start-up

Reminder: To ensure smooth counting please install the left and right Note Guider in the box. Please check below picture.



Take out the left Note Guider, install the click into the rail of the Note Guider, and press the Note Guider until you hear a clicking sound, it means the Note Guider is installed in position.



Then take out the right Note Guider, install it in the same way. After you finish both, the machine looks like this:



Turn on the switch after connecting the machine to the power supply. First, the machine enters the self-checking interface, as shown in the following figure:



Please wait patiently for about 1 minute, and the machine will enter the main counting interface after self-check succeeds, as shown in the following figure:



6.2 Selection of Counting Mode

6.2.1 Single Currency Counting Mode

After the machine is turned on, a flag graphic  appears in the upper left corner, indicating that the machine is in the Japanese yen counting mode.

By pressing the key  of the keypad or touching the key  in the upper right corner of the display screen, three counting modes can be cyclically switched, and the three counting modes will be cyclically switched according to the **MIX-CNT-SDC** sequence.

6.2.1.1 <Mix> Mix Counting Mode

The following figure shows the interface of the machine in MIX Counting Mode. In this mode, the machine will count the banknotes of all denominations of Japanese yen, and count and save the detailed information of the counted banknotes at the same time, including the total amount and the total number of banknotes in stacker, so as to facilitate users to check. In this mode, the machine has three counting speed (800/1000/1200 pcs/minute) options.



Initial Interface of MIX Counting Mode



Interface after Counting

6.2.1.2 <SDC> Single Counting Mode

The following figure shows the interface of the machine in SDC Single Counting Mode. In this mode, the machine will count the banknotes of the same denomination of Japanese yen with the first banknote counted as a reference, and count and save the detailed information of the counted banknotes at the same time, including the total amount and the total number of banknotes in the stacker, so as to facilitate users to check. In this mode, the machine has three counting speed (800/1000/1200 sheets/minute) options.



Initial Interface of SDC Single Counting Mode



Interface after Counting

6.2.1.3 <CNT> Count Mode

The following figure shows the interface of the machine in CNT Count Mode. This mode does not limit currency, and only counts the number of banknotes; It only works with double note detection function and no other counterfeit detection function. In this mode, the machine has four counting speed (800/1000/1200/1500 sheets/minute) options.



Initial Interface of CNT Count Mode



Interface after Counting

Note: In MIX Counting Mode and SDC Single Counting Mode, the machine has the functions of image acquisition, magnetic detection, ultraviolet detection and double note detection. While in CNT Counting Mode, there is only a double note detection function.

6.2.2 Automatic Recognition Mode

Automatic recognition: Refers to the automatic recognition of banknote counting mode. In the process of counting banknotes, the machine uses the first banknote passing through the sensor as the judgment rule to recognize banknotes of all denominations of the same country. When banknotes from other countries are recognized, the machine will alarm and stop. At this time, banknotes from other countries need to be taken out, and the machine will continue counting. The machine can only recognize the currency of the country displayed in the program.

Press the key  or the flag  on upper left corner of the display to enter the currency selection interface, as shown in the following figure:



Currency Selection Interface



Click the automatic identification mode, and the display screen will be automatically adjusted to the main interface after selection, as shown in the following figure:



In the automatic recognition mode, there is only one MIX Counting Mode, and the display of machine counting information will be different when the accumulation function is off and on.

When the accumulation function is off, the machine will only record and display the details of the current counting after each counting.

When the accumulation function is on, the machine will accumulate and count the details of current and previous counting after each counting.

6.2.2.1 Accumulation Function Off

There is no sign  between "MIX" and "Speed" at the top of the display, indicating that the accumulation function is off at this time.



The accumulation function is off, and the symbol "+" does not appear.

Example: Put a handful of Japanese yen into the machine to count. The interface of the machine displays as follows at the end of counting: The flag in the upper left corner is identified as Japanese yen.



Take out the Japanese yen in the stacker, then put the US dollar into the machine to count. The machine interface displays as follows at the end of counting: The flag in the upper left corner is identified as US dollar.



After the banknotes in the stacker are taken out, the machine will only display the total number and total amount of banknotes counted for the current time, and will not display the details of the previous yen banknotes, as shown in the following figure:



Only the details of the current counting will be displayed after the counting is finished

6.2.2.2 Accumulation Function On

Press the key  or click on the button  at bottom of the screen, and a symbol  will appear at the top of the display.



The interface of accumulation function on in the automatic mode

Example: Put Japanese yen into the machine for counting first, and the machine interface displays as follows at the end of counting: The flag in the upper left corner is identified as Japanese yen.



Take out the Japanese yen in the stacker, then put the US dollar into the machine to count. The machine interface displays as follows at the end of counting: The flag in the upper left corner is identified as US dollar.



After the banknotes in the stacker are taken out, the machine will count and accumulate the details of the previous and current counting, and the following interface will appear:



After the banknotes are put in again, the upper left corner of the machine will still recognize the banknote type and change the flag icon. After the banknotes in the stacker are taken out, the machine will continue to accumulate the banknote counting details. If we put in RMB for banknote counting, then put in Euro, and finally take out the banknotes in the stacker, the machine will display the following interface:



6.2.3 Multi-currency Mix Counting Mode

Multi-currency Mix Counting: Banknotes from multiple countries are mixed together and put into a machine to count. The machine can recognize all the currencies displayed on display.

Press the key  or the flag  on upper left corner of the display to enter the currency selection interface, as shown in the following figure:



Currency Selection Interface

Click on the Multi-country Mix Counting Mode  多国, and the display screen will be automatically adjusted to the main interface after selection, as shown in the following figure:



Example: Put a handful of banknotes (including Japanese Yen, RMB,US Dollar, Euro) into the machine to count. Details of counting after counting are shown in the following figure:



CURR	QTY	AMT
JPY	10	20K
CNY	20	2000
USD	8	80
EUR	5	50

Details of Multi-country Mix Counting

6.3 Batch Setting

Press the key  or touch the key  below the display to select the Batch number in the banknote counting interface. The default is 7 options of 200/100/50/20/10/5/off. You can also change the preset number of 6 digital file bits. Please refer to the introduction of Batch setting function 8.1.2 for details. When the Batch function is turned off, the Batch quantity of the machine is 200. When the count reaches 200, the machine will stop running automatically.



The preset number is off



The preset number is 200

6.4 Counting Speed Setting and Function Description

There are four counting speed options: 1500, 1200, 1000 and 800 (Note: 1500 is only optional in CNT Counting Mode). The default speed is 1200 in the three modes. If setting is required, different counting

speeds can be switched by pressing the  key or touching the  key in any counting mode. As shown in the figure below, the counting speed is set to 1000 in Mix Counting Mode.



Function description at each counting speed:

Counting mode	Speed mode	Applicable working mode
MIX Counting Mode	800 pcs/minute	Counting, amount counting, serial number reading functions on
	1000 pcs/minute	Counting, amount counting, serial number reading functions on
	1200 pcs/minute	Counting, amount counting
SDC Single Counting Mode	800 pcs/minute	Counting, amount counting, serial number reading functions on
	1000 pcs/minute	Counting, amount counting, serial number reading functions on
	1200 pcs/minute	Counting, amount counting

Counting mode	Speed mode	Applicable working mode
CNT Count Mode	800 pcs/minute	Counting only, without amount counting
	1000 pcs/minute	Counting only, without amount counting
	1200 pcs/minute	Counting only, without amount counting
	1500 pcs/minute	Counting only, without amount counting

6.5 Accumulation Function On

In any counting mode, the accumulation function of the number of sheets can be enabled by pressing

the  key or touching the  key. No "+" symbol appears between "MIX" and "Speed" at the top of the display screen, indicating that the accumulation function is disabled at this time.



The accumulation function is disabled, and the symbol "+" does not appear.

A "+" sign appears between "MIX" and "speed" at the top of the screen, indicating that the accumulation function is enabled.



The accumulation function is enabled, and the symbol "+" appears

- a) After a handful of banknotes is counted and not taken away from the stacker, the machine will display the total quantity and total amount of banknotes counted this time; If the banknotes are removed from the stacker, the machine will display the total quantity and total amount of the current and previously counted banknotes; At this time, press the CLR key once and the information of the last counting will be cleared, and press the CLR key twice and all counting information will be cleared.
- b) In the process of counting, the machine will automatically delete the information of the counted banknotes and prompt the need to count the banknotes again if there is any error.
- c) In the accumulation mode, when checking the serial number, the machine only displays the serial number of the last 200 banknotes.

7. Check Information and Print Information

7.1 Check Details of Counting

In MIX Counting or SDC Single Counting Mode, press the  key upon the completion of counting to enter the interface shown in the following figure to check the details of counting:

 カウンター明細		
通貨単位	数量	金額
¥ 10K	0	¥ 0K
¥ 5K	0	¥ 0K
¥ 2K	0	¥ 0K
¥ 1K	0	¥ 0K
トータル:	0	¥ 0K

For example, put a handful of Japanese yen into the machine to count, and the machine interface displays at the end of counting as follows:



At this time, press the  key to enter the interface shown in the following figure to check the details of counting:

カウンター明細		
通貨単位	数量	金額
¥ 10K	17	¥ 170K
¥ 5K	4	¥ 20K
¥ 2K	5	¥ 10K
¥ 1K	10	¥ 10K
トータル:	36	¥ 210K

This interface is used to check the number of banknotes of various denominations and the total amount of this denomination, as well as the total amount of all amounts. At the same time, banknotes can also be counted by directly placing them under this interface. To exit this interface, please press ESC or touch the  key in the upper left corner.

7.2 Check the Serial Number

Press the  key again under the interface of Check Details of Counting to enter the interface shown in the figure below to view the serial number:

固有番号		
←		プリント
順番	固有番号	金額
1	FA058182A	10K
2	RV337805E	10K
3	RQ814612C	10K
4	NP542994K	10K
5	GE513692K	10K
6	JW741252J	10K
< 1/3 >		

You can check and verify the counted normal banknote serial number under this interface, and touch left or right to turn the page for checking. To exit this interface, press ESC or touch  in the upper left corner.

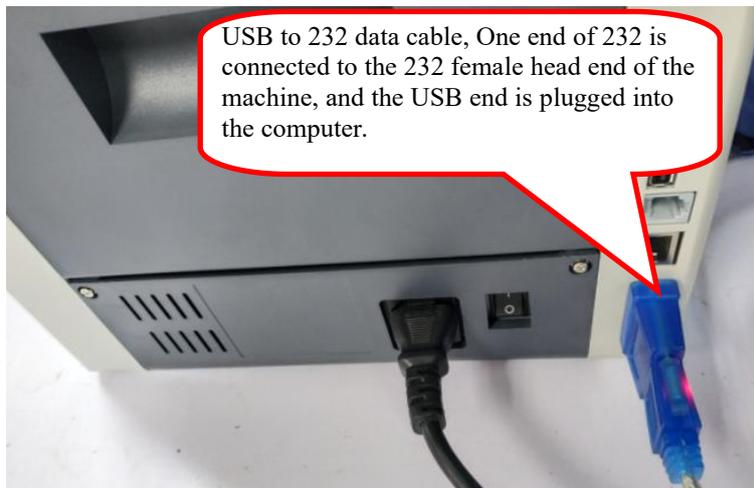
Note: This interface is only displayed when the serial number reading is on (that is, SP:800 or 1000).

7.3 Print Information

When the external printer has been connected and can be printed, after counting, press the  key to enter the detail list checking interface, and then press the  key or touch  key, the printer will automatically print the detail and total amount of counting. If you press the PRINT key under the serial number checking interface, the serial number list will be printed.

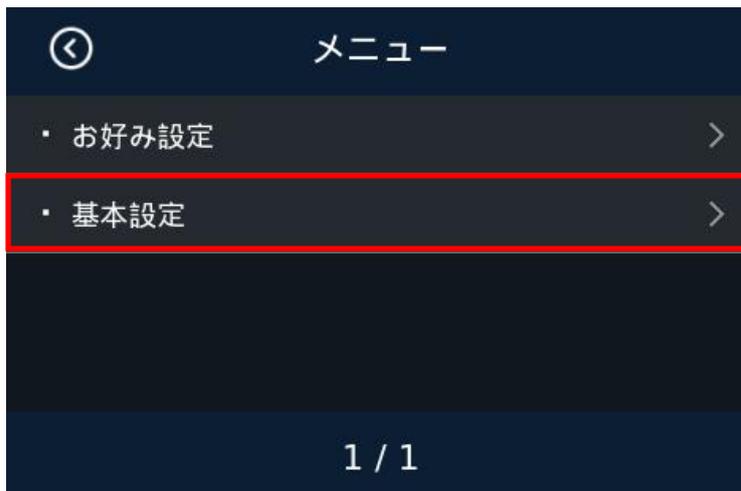
7.4 Check the Counting List Information

7.4.1 Plug-in of Serial Wire Harness



7.4.2 Machine Setup

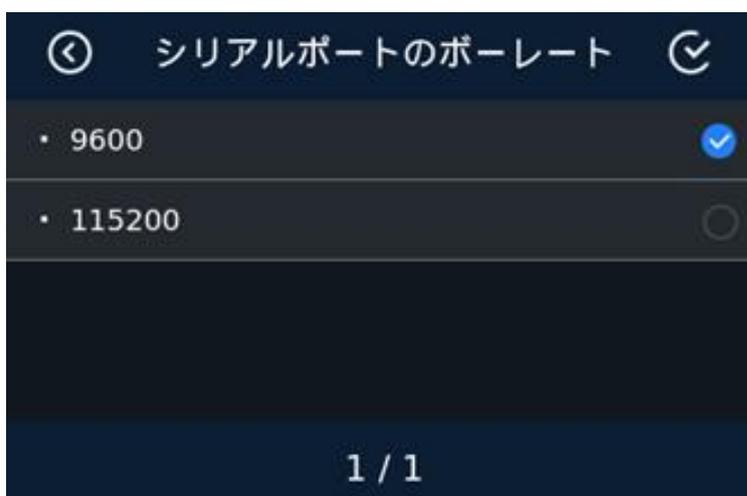
Turn on the power switch, press the  key or touch  key to enter the user setting interface:



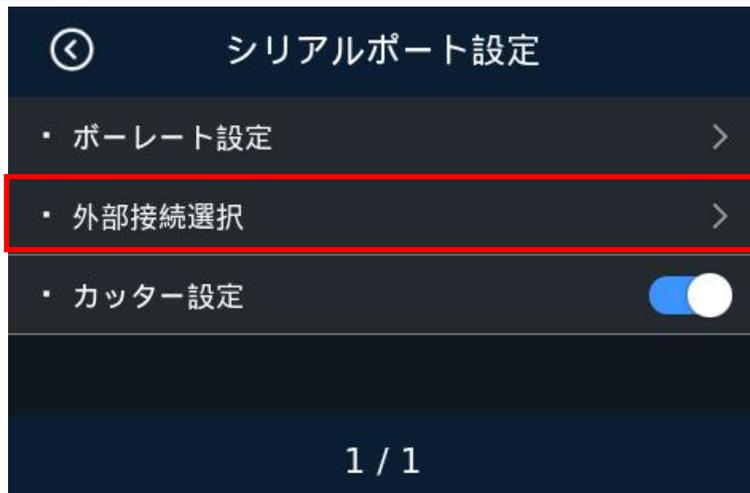
Select "  "——"  ".



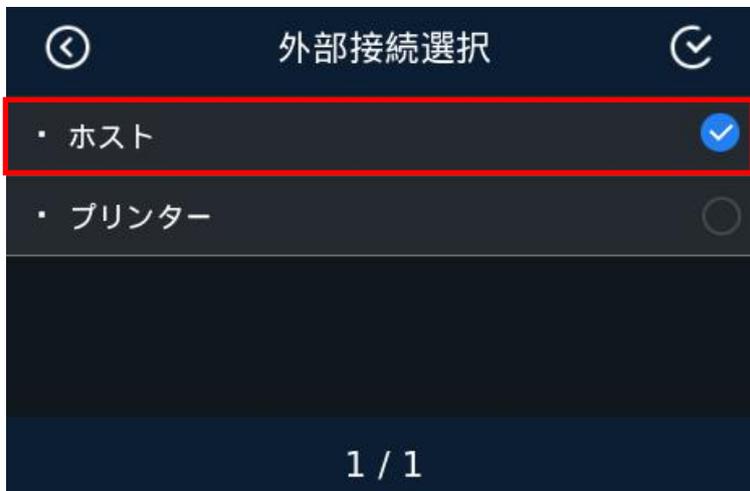
In the "ボーレート設定" selection interface, touch 9600 or 115200 to select the corresponding baud rate according to the actual situation of the external device. And click the  key in the upper right corner to save. The machine will prompt you to restart.



Select "基本設定" — "シリアルポート" — "外部接続選択" again.



In the "外部接続選択" interface, please type **ホスト** behind "✓" and then click the  key in the upper right corner to save.

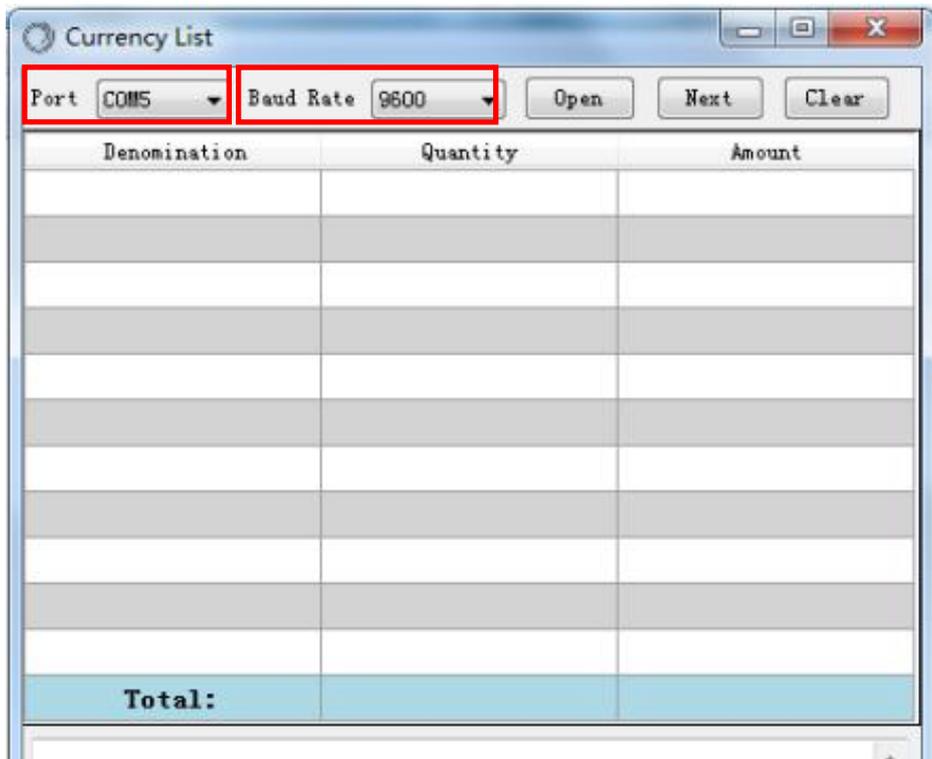


7.4.3 Collect List Information

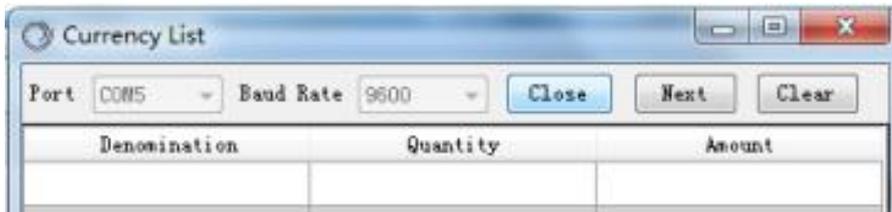
Open the upper computer software provided by our company

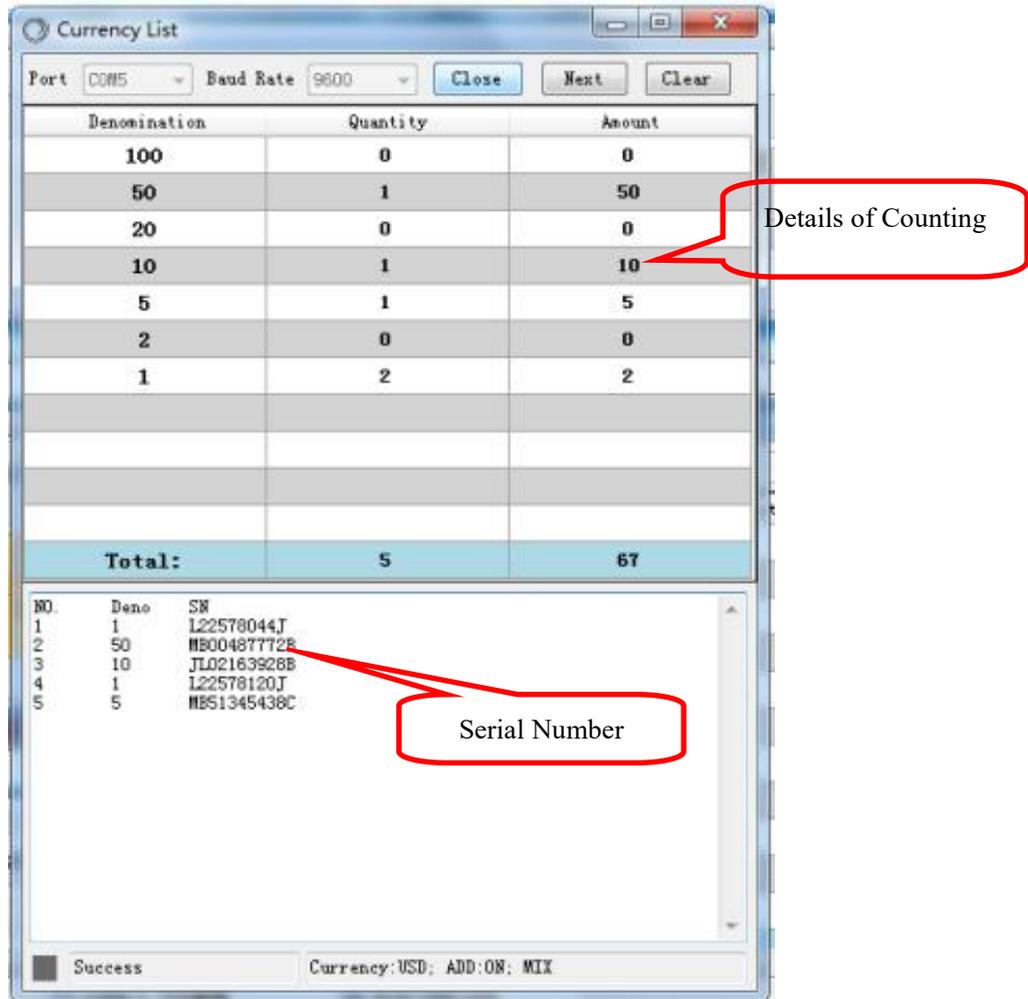


Select serial port and baud rate, and the baud rate must be consistent with the baud rate selected on the machine.



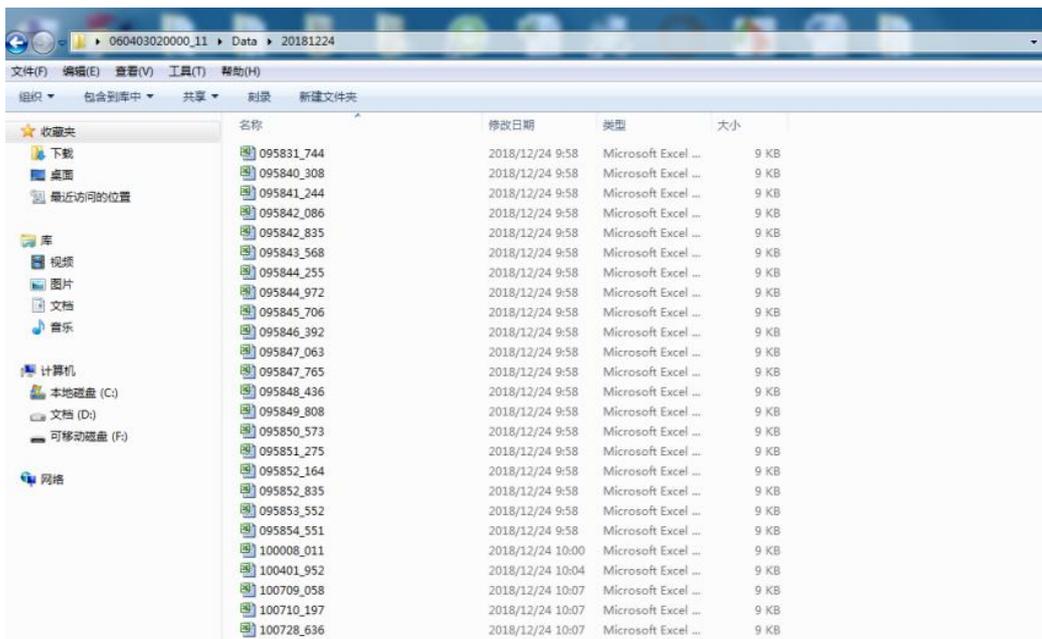
Press the Open key again, the font of serial port and baud rate will be dimmed, OPEN will be changed to CLOSE, and then counting can be performed and the counting information can be checked:





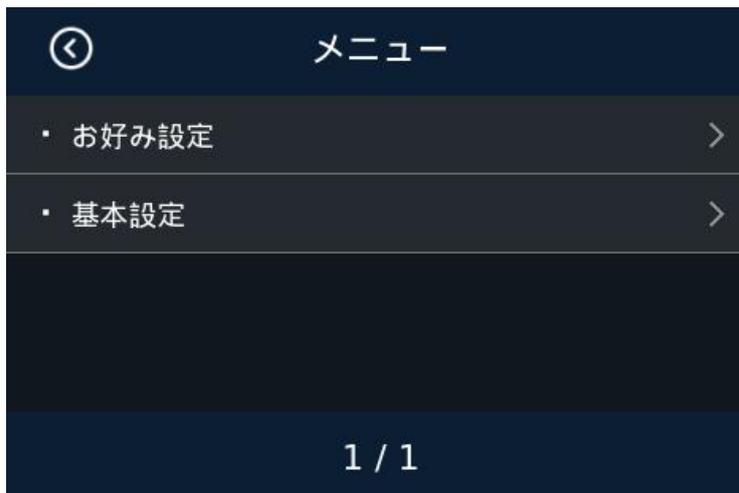
At the same time, the folder stored in the upper computer will automatically generate a Data

folder . Open the folder  to find the corresponding list information.



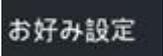
8. User Setting

Press the  key or touch the  key to enter the user setting interface as shown in the following figure:



Touch the corresponding option to enter the next level, press ESC or touch  to return to the previous level interface.

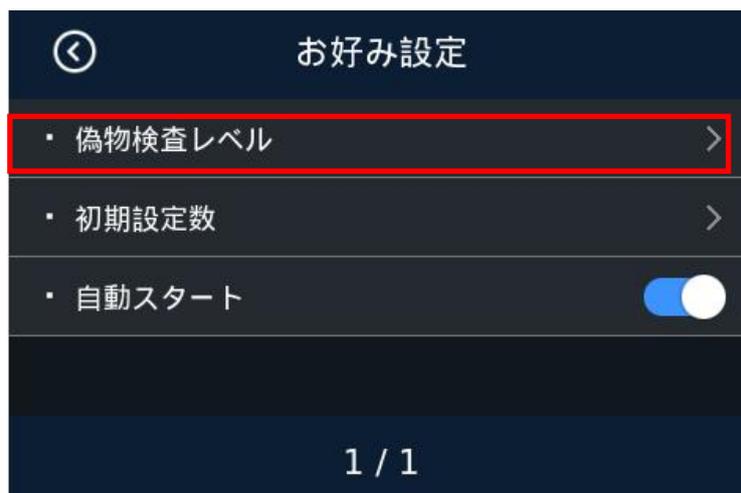
8.1 Preferences Setting

Touch  option to enter the preferences setting interface, which contains three parameter settings of false detection gear, preset number and auto-start:

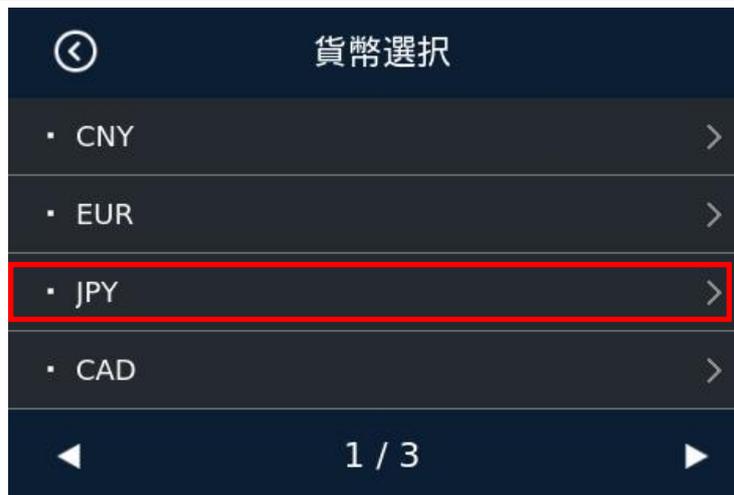


8.1.1 Counterfeit detection level setting

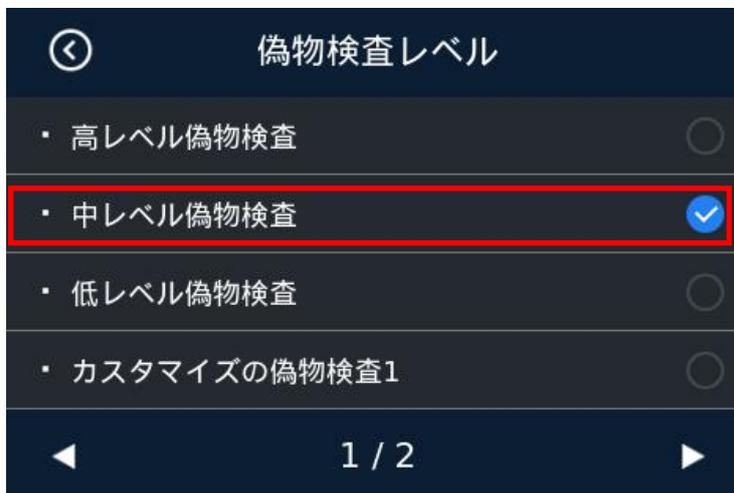
Touch **偽物検査レベル** option to enter the Counterfeit detection level setting, as shown in the following figure:



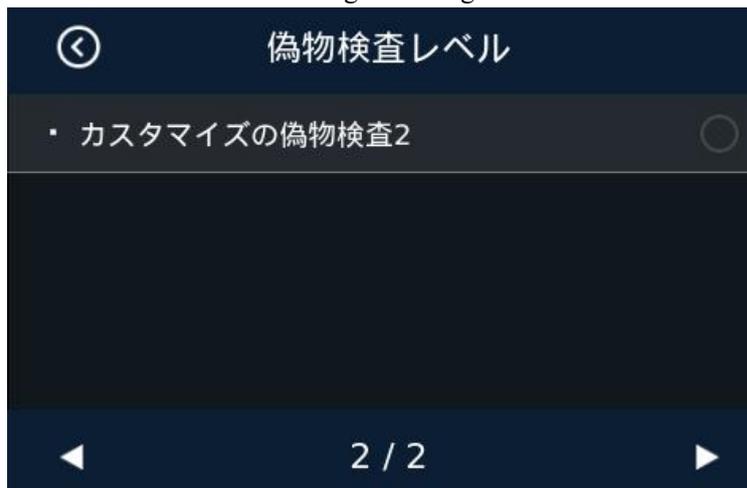
The currency selection interface will appear:



Take Japanese yen as an example, touch "JPY" to enter the interface of Japanese yen counterfeit detection setting, as shown in the following figure:



False detection gear setting interface 1



False detection gear setting interface 2

There are three levels optional under this setting interface: High, medium and low. The higher the level is, the higher the counterfeit detection sensitivity will be. Users can select the appropriate file location and

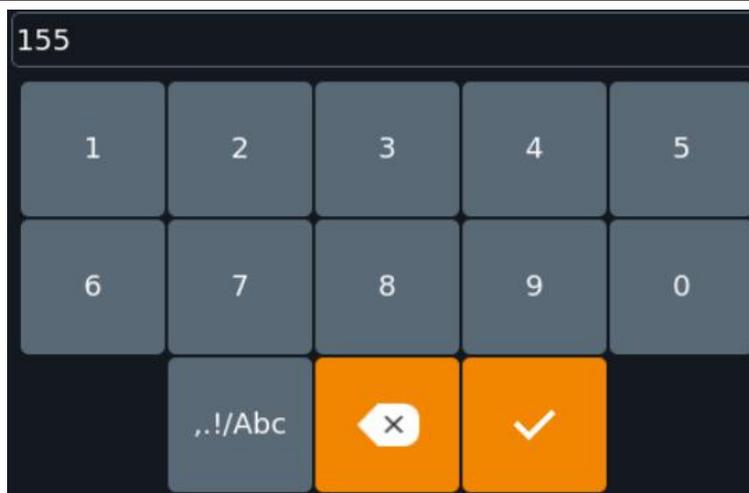
touch the back  to confirm saving. The default level is medium. Customized counterfeit detection 1 and customized counterfeit detection 2 are not recommended for customers to directly change and use.

8.1.2 Batch setting

Touch **初期設定数** option under the preference setting interface to enter the following interface as shown in the figure:

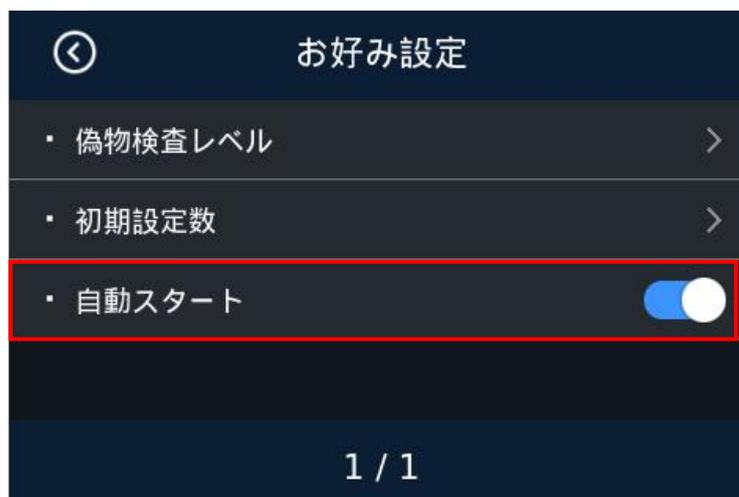


Touch the corresponding Batch number under this setting interface, directly enter the value to be changed (155 as shown in the figure below), and touch  to confirm and exit. As shown in the following figure:



8.1.3 Auto-start function setting

Touch the auto-start option under the preference setting interface to switch on and off, as shown in the figure:



After this function is turned on, the machine will automatically start counting when banknotes are placed at the hopper

8.2 Basic Setting

Touch the basic setting option in the menu interface to enter the basic setting interface:



Under this interface, there are 7 items that can be checked or changed, including date/time, buzzer, alarm, serial port, version information, language, and factory settings. Touch left and right keys to check or change the items.

8.2.1 Date and Time Setting

Touch the date and time option in the basic setting interface to enter the time setting interface, as shown in the following figure:

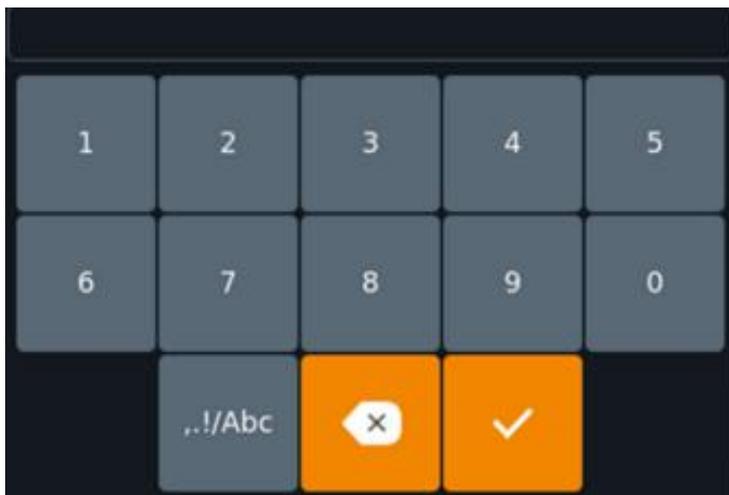


Touch **日付&時間** to enter the time and date setting interface, as shown below:

Touch the corresponding value once, touch the "+" key to increase the value by 1, and touch the "-" key to decrease the value by 1, as shown in the following figure:

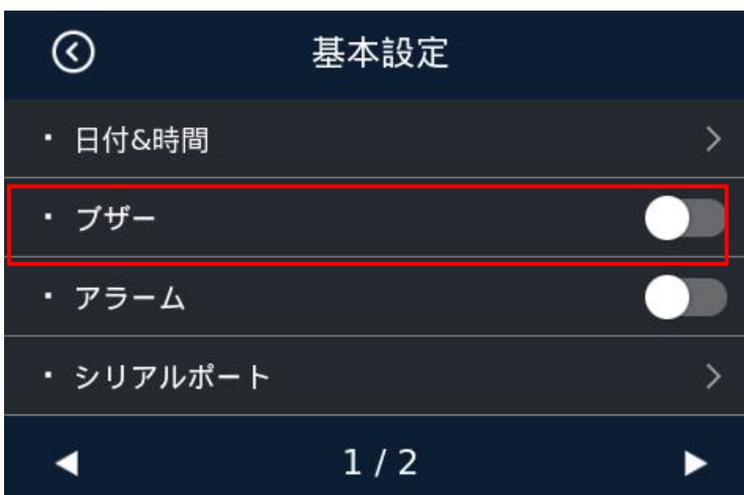


Touch the corresponding numerical value twice to enter the number change interface, directly touch the corresponding number input, touch  key to save, and  key to delete, as shown in the following figure:

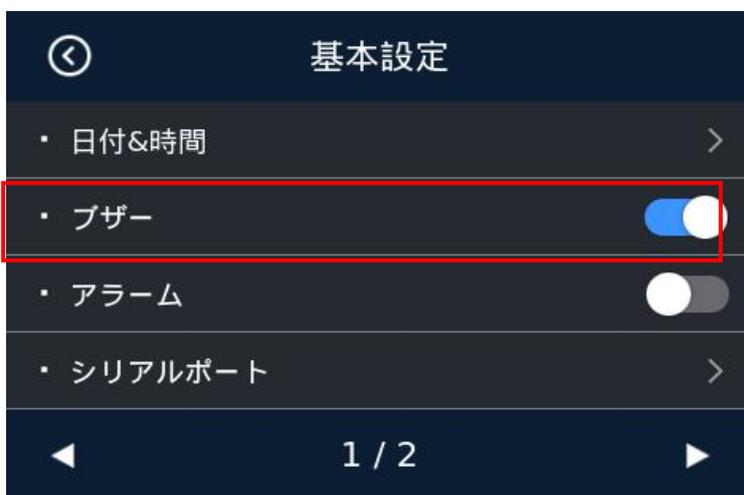


8.2.2 Buzzer Setting

In the basic setting interface, touch the switch button of the **ブザー** option to control the buzzer on and off.



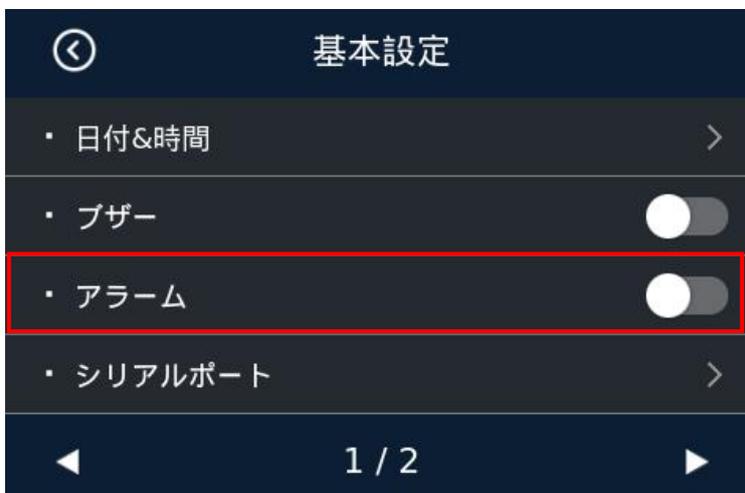
The above picture shows the buzzer off



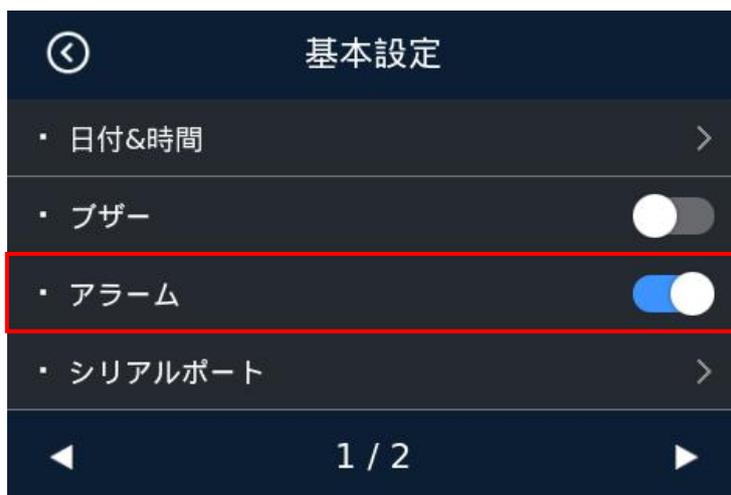
The above picture shows the buzzer on

8.2.3 Alarm Setting

In the basic setting interface, touch the switch button of the **・ アラーム** option to control the alarm on and off.



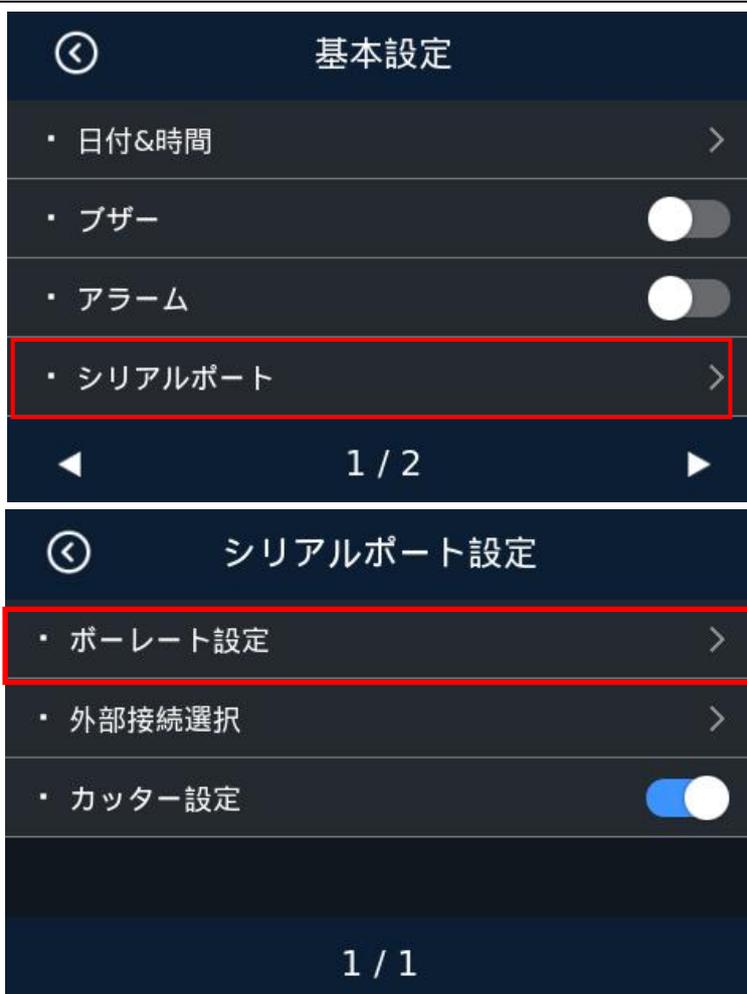
The above picture shows the alarm off



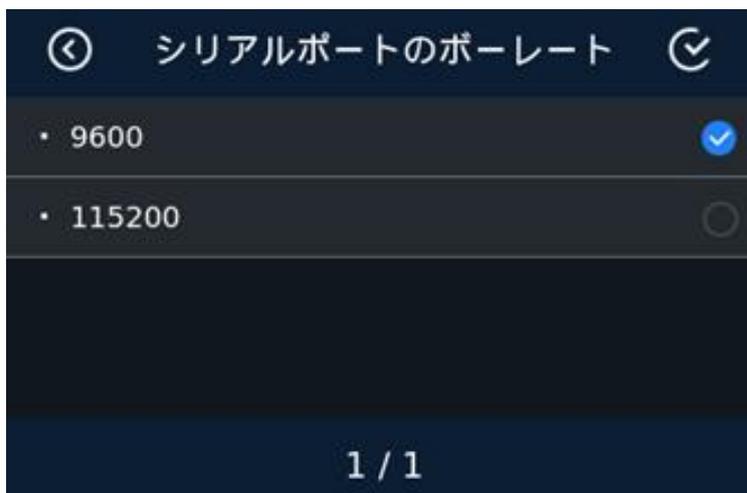
The above picture shows the alarm on

8.2.4 Serial Port Setting

In the basic setting interface, touch **シリアルポート** option to enter the serial port baud rate setting interface.



In the "ボーレート設定" selection interface, touch 9600 or 115200 to select the corresponding baud rate according to the actual situation of the external device. And then click the  key in the upper right corner to save. The machine will prompt you to restart the machine.



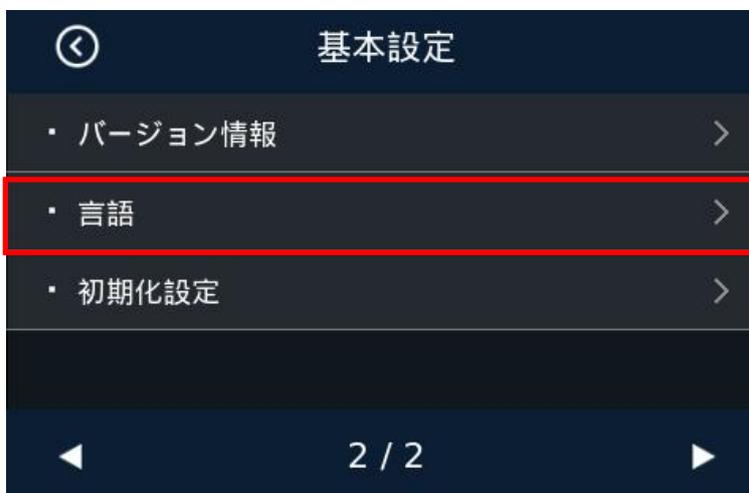
8.2.5 Software Version Viewing

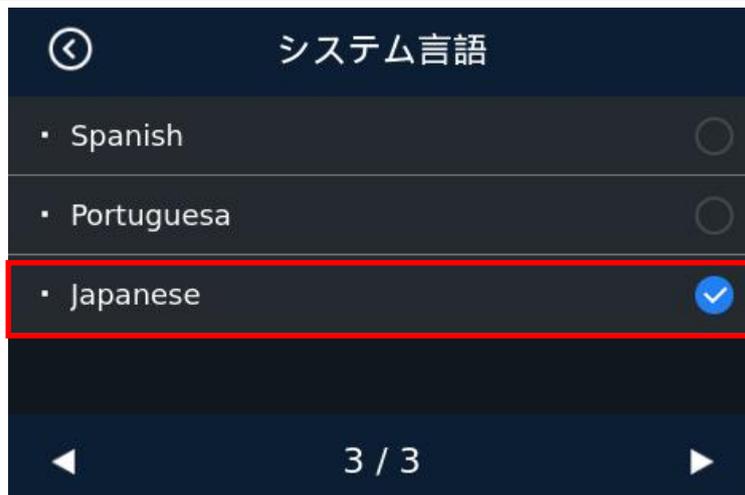
In the basic setting interface, touch **バージョン情報** option to enter the software version viewing interface, as shown in the following figure:



8.2.6 Language Setting

Touch the language option in the basic setting interface to enter the language setting interface, as shown in the following figure. Touch the corresponding language type to select it.





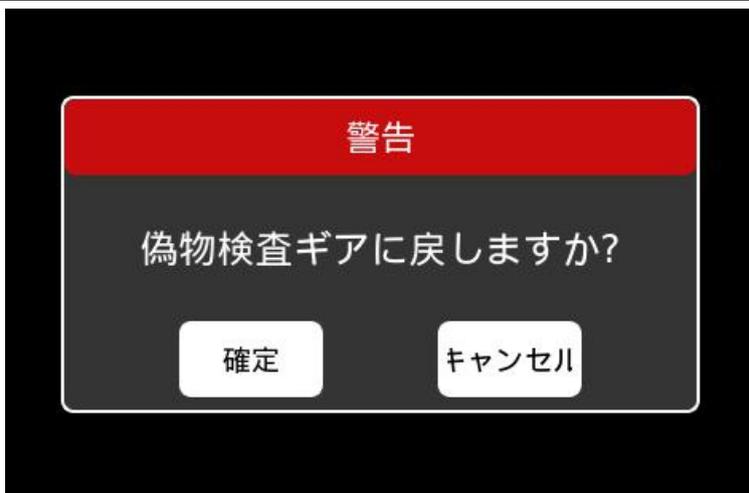
Click on the  key on top left corner of the screen to restart the machine according to the prompt.

8.2.7 Restore Factory Setting

Touch the Restore Factory Setting option in the Basic Setting interface to enter the Restore Factory Setting interface, as shown in the following figure:



Touch  option. Click  to restore all counterfeit detection levels to factory settings;



Touch **基本設定のリセット** option. Click **確定** to restore all counterfeit detection levels to factory settings.



9. Common Error Codes Descriptions

In the process of using the machine, the machine may show abnormal state, resulting in abnormal operation, and the machine will display corresponding fault information. The following provides the phenomenon when the machine malfunctions. Please refer to the maintenance manual for specific handling methods. If the user still cannot solve the problem according to the maintenance manual, please contact the local agent.

System error code:

Code	Code meaning
3001	Virtual device open
3002	Virtual device error

3004	Network error
3008	Display communication error
3009	RTC ERROR
3101	MOTOR ERROR
3102	INCODE ERROR
3310	PS2 ERROR
3401	LOWER CIS ERROR
3402	UPPER CIS ERROR
3501	HOPPER SENSOR ERROR
3502	STACKER SENSOR ERROR
3901	PASSAGE OPEN

Counting error code:

Error reporting code	Reason for error
51	White light image, image denomination not recognized
151-159	Infrared images, each code represents a counterfeit detection point with inconsistent characteristics
202	Ultraviolet emission abnormal
203	Ultraviolet projection abnormal
351	Big magnetic number (BM)
463	Inconsistent edge magnetic characteristics (number)
471-482	Magnetic image abnormal, divided according to the magnetic head in which abnormal signals appear
501	Serial number error
551, 555	Reject (tilt)
552	Reject (damage)
553, 556	Reject (chained)
554	Reject (incompletion)
557	Reject (sticked)
901	Different denominations, different from the first denomination

10. Software Upgrade

U-disk upgrade method is adopted for the software upgrade of this product, and the upgrade file (master control software: .ZPK, e.g. **BC55_1_20180413.DF61CBFADD1A723E.ZPK**) needs to be copied to the root directory of the U-disk (please do not change the file name or format of the upgrade file, and there cannot be two or more upgrade files in the root directory of the U-disk), and then insert the USB disk into the USB interface at the rear of the machine.

When the power switch is turned on, the machine will automatically recognize the upgrade file. Upon successful recognition, the interface shows "Upgrade pack is found, update after 5 seconds" and it will automatically enter the upgrade state after 5 seconds. The interface shows "Updating". The upgrade will be completed within one minute. The interface shows "Update complete, Please remove the U-disk and reboot" which means the upgrade is successful, and restart according to the prompt.

11. Daily Maintenance

Any dust, dirt or other substances sticking to the sensor will interfere with the normal operation of the sensor and cause erroneous counting results. Therefore, the sensor and roller shaft shall be cleaned with the attached cleaning tools as necessary every day.

Please turn off the power switch before cleaning to prevent electric shock or other injury accidents.

Please do not use chemicals such as benzene, thinner or water, which may cause fading or cracking of the machine.

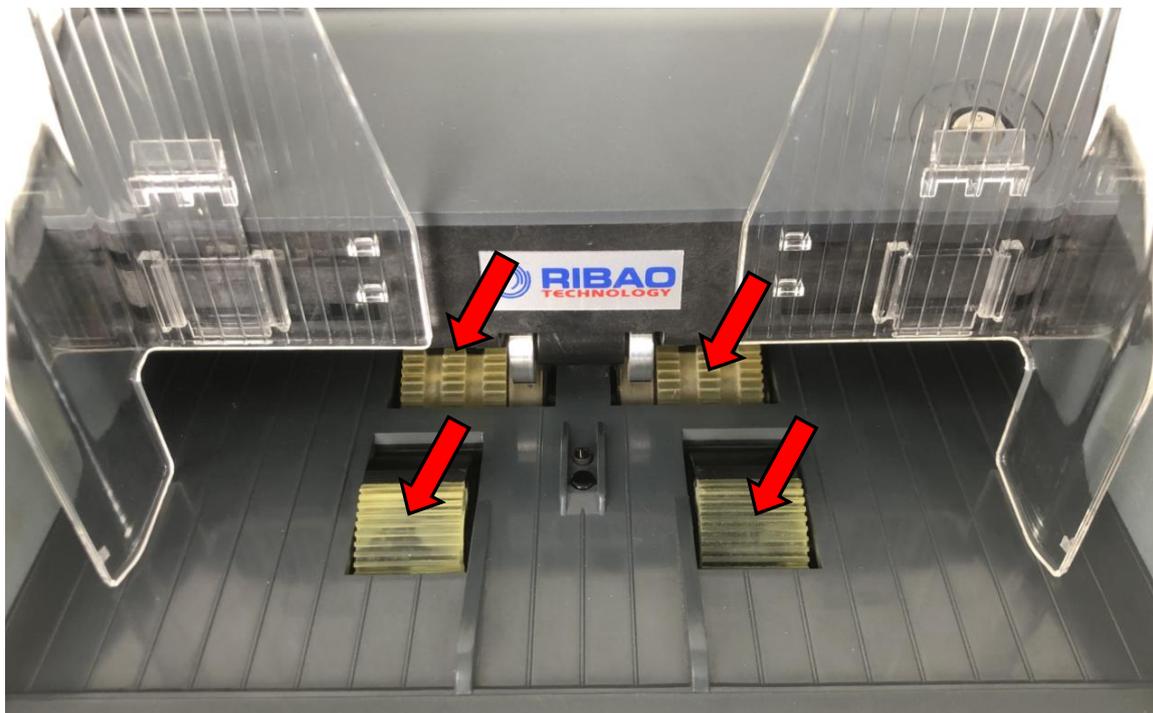
11.1 Clean the hopper sensor

As shown in the figure, clean the start-up sensor with nylon brush or cleaning cloth.



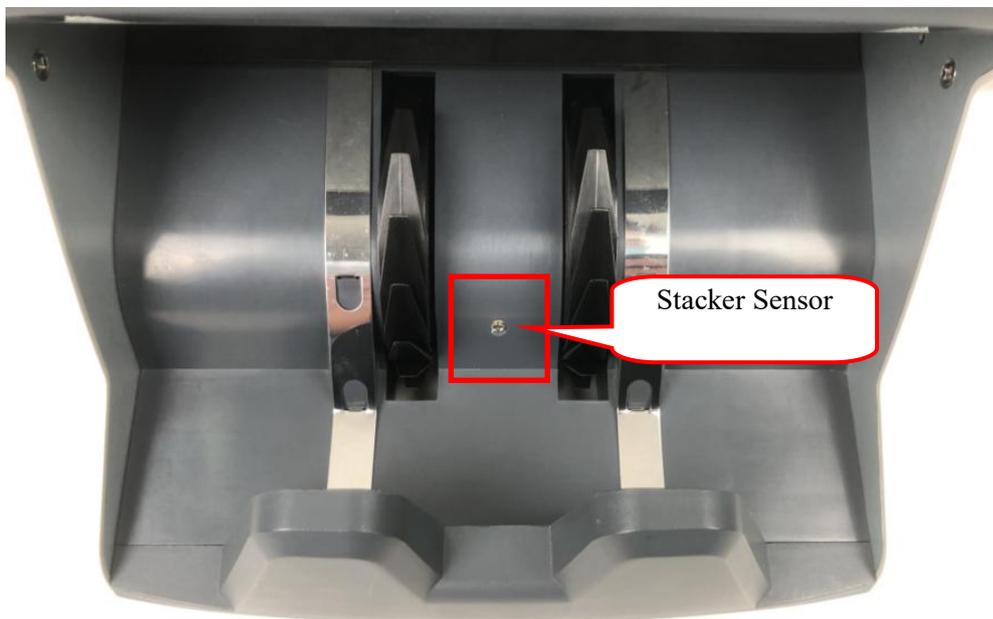
11.2 Clean the drum roller shaft and feed roller shaft

As shown in the following figure, clean the drum roller shaft and feed roller shaft with nylon brush or cleaning cloth.



11.3 Clean the stacker sensor

As shown in the following figure, clean the sensor with nylon brush or cleaning cloth. (ST)

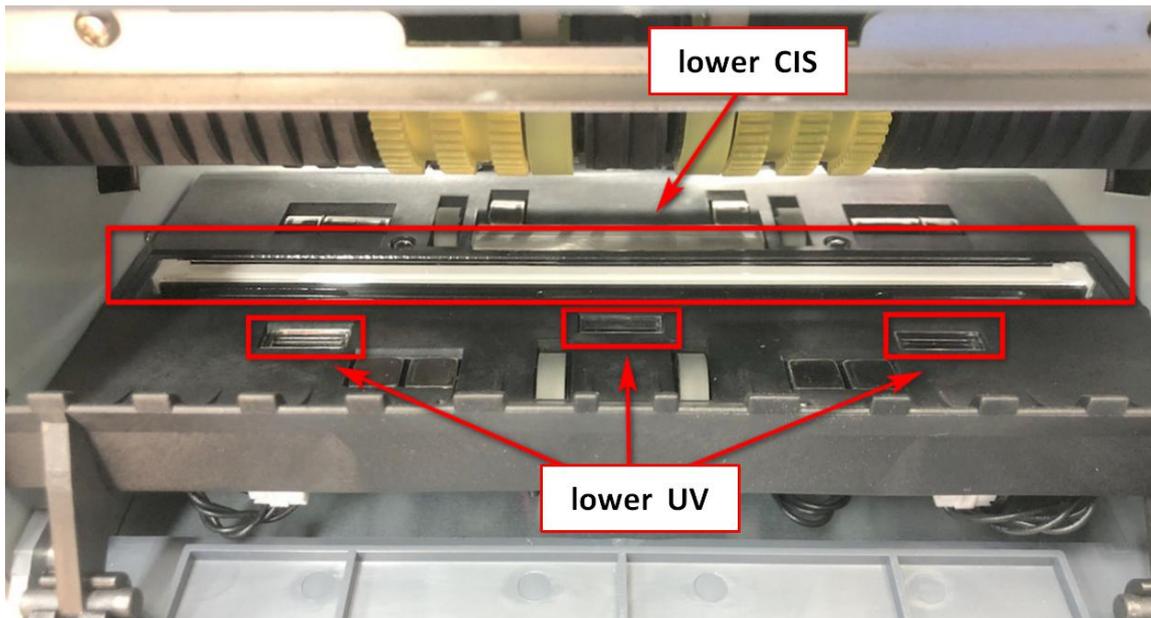


11.4 Clean the internal sensors

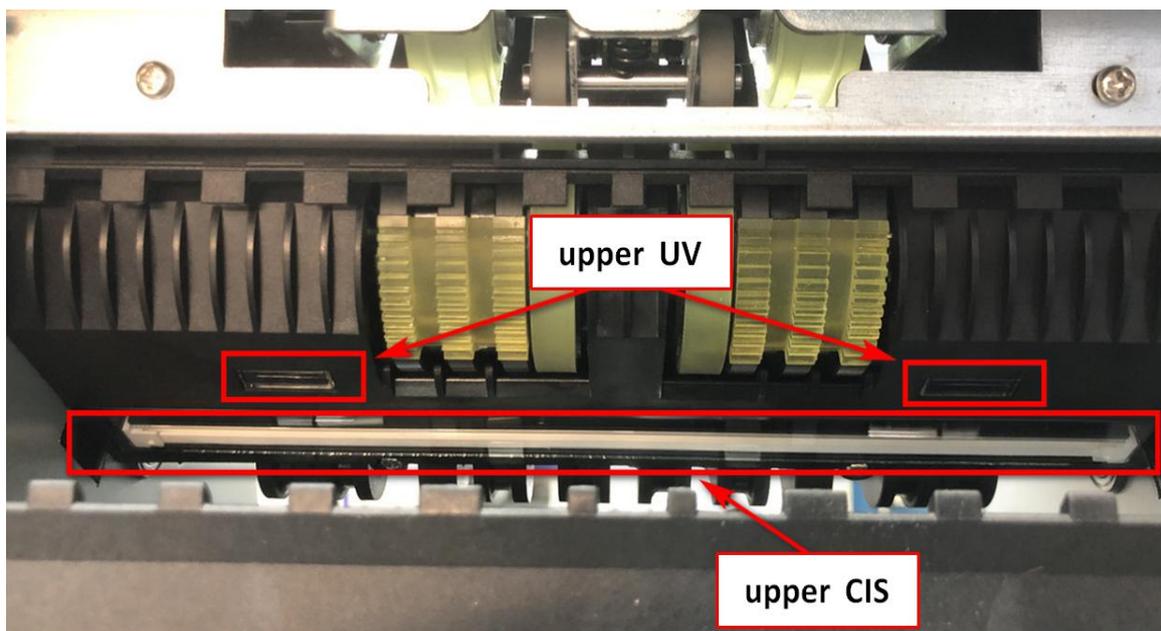
1) Pull the back cover in the direction shown in the figure to open the back cover.



2) Clean the lower UV sensor and lower CIS with nylon brush respectively as shown in the following figure.



3) Clean the upper UV sensor and upper CIS with nylon brush as shown in the following figure.



12. Accessories

- | | |
|--------------------------------|---|
| 1. Power cord | 1 |
| 2. Nylon brush | 1 |
| 3. Manual | 1 |
| 4. External display (optional) | 1 |
| 5. External printer (optional) | 1 |

***** Our company reserves the right to change the Manual in order to continuously improve our products. *****