Currency Counter BC-55 User Manual

Contents

1. Machine Overview

1.1 Safety Instruction

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.

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.

NOTE：

● 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.

● This machine is specially designed for indoor use. Please do not install or use it outdoors.

● Please do not install it in places that cannot bear the weight of this product or in places that are inclined or uneven.

● Do not use or place combustible materials, inflammables and volatile items such as thinners around/inside this product.

● Do not bend the power cord excessively, or place heavy or sharp objects on top of the machine.

● Do not use this product in an excessively humid environment.

● Please avoid strong light and strong magnetic field interference.

1.2 Installation Instruction

As shown in the Figure 1, 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.
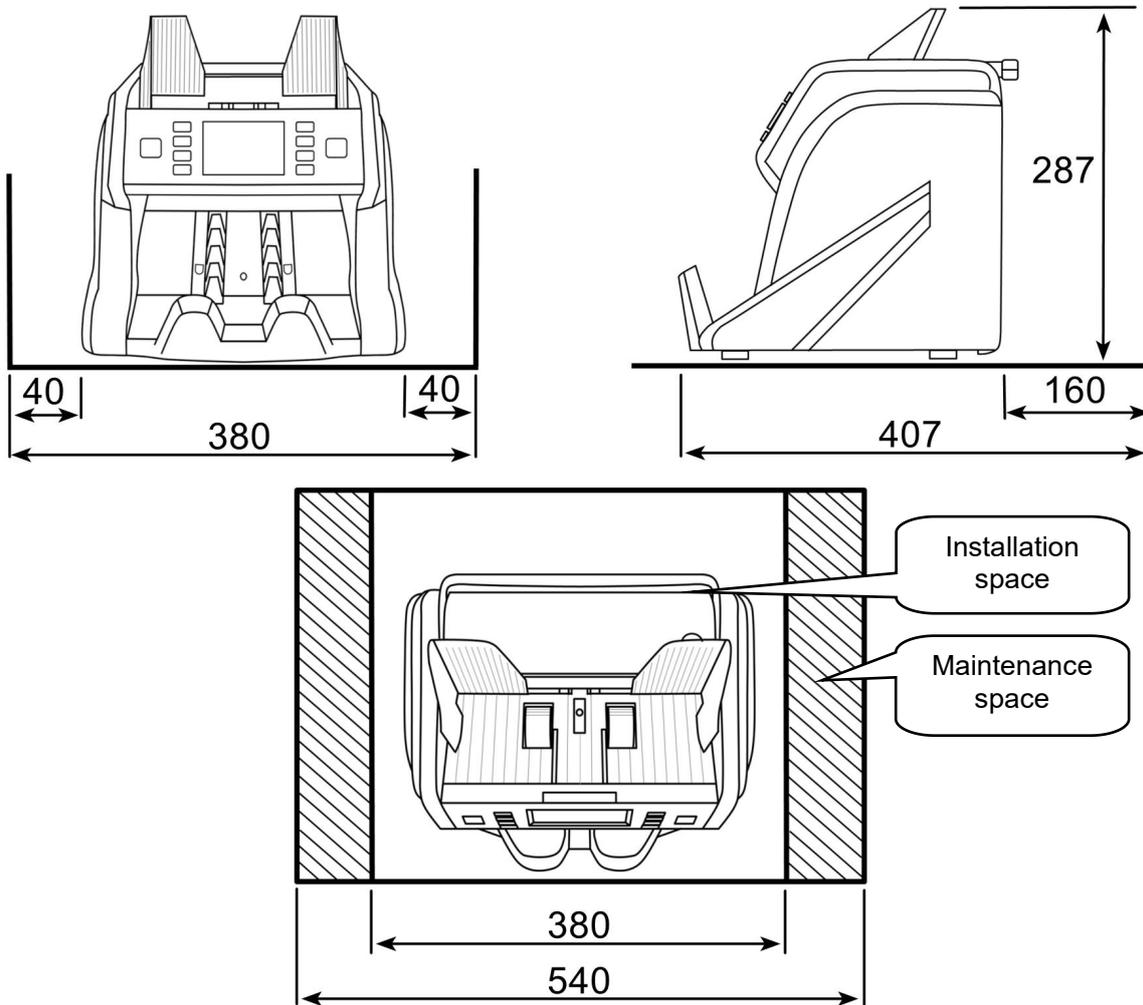
Unit（**mm**）

Figure 1

1.3 Machine & Accessories
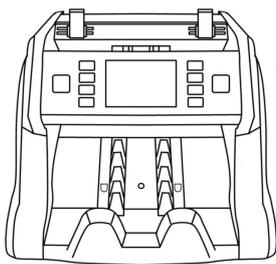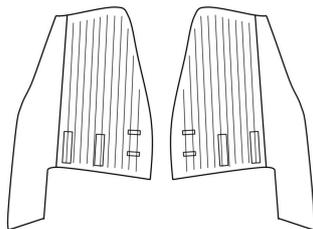
| Machine | Note guider(left/right) | User manual | Power cable | Clean brush |
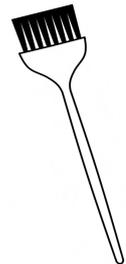
1.4 Appearance

1.4.1 Front Appearance

Note Guider

Hopper

Key

Display

Stacker

1.4.2 Back Appearance

Feed gap knob

Handle

SD card slot

USB slot

RJ12:Connect external display

LAN port: Connect PC

Rear lid open button

Power jack

Power switch

Serial port: Connect PC or printer
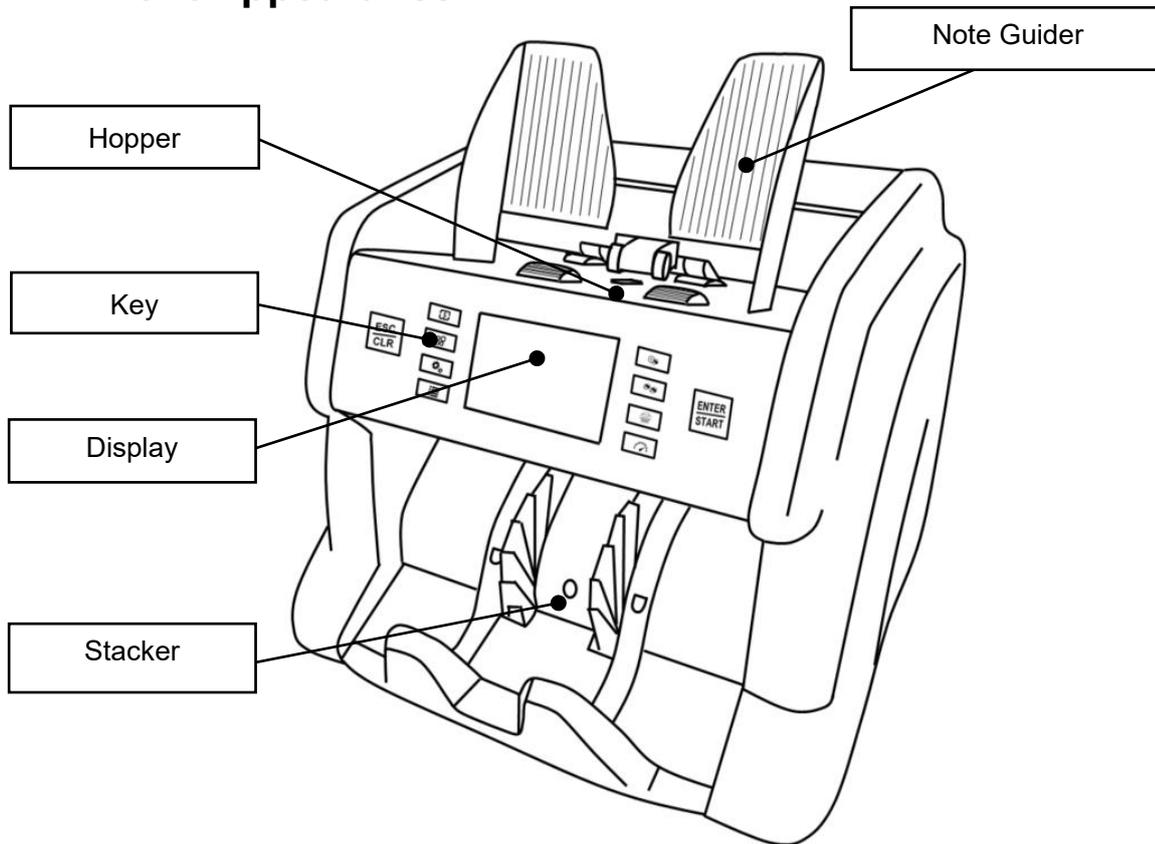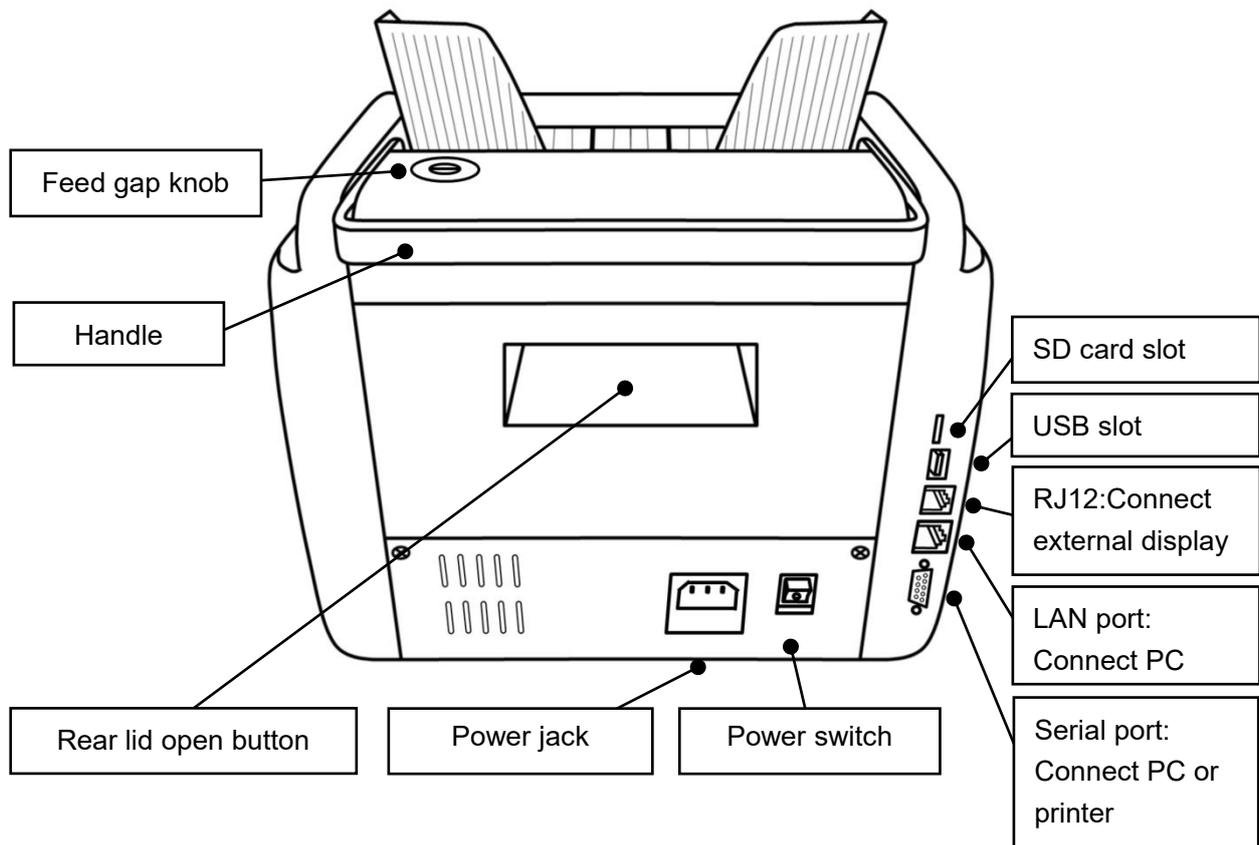
1.5 Technical Parameters

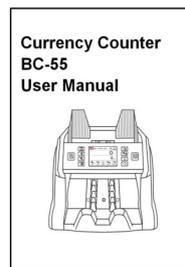|	
Overall dimensions (L×W×H)	300mm×247mm×287mm
Weight	About 7KG
Capacity of banknote inlet	600
Capacity of banknote receiving port	200
Display	3.5 inch TFT touch screen
Interface	RS-232/LAN/RJ12/SD/USB
Currency support capacity	the standard software includes 5 currencies, if you need more currencies, 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 100V-240V 50Hz/60Hz ±10%
Noise during operation	60-75DB
Power consumption	≤15W standby ≤50W operation
Use environment	Ambient temperature (0~40℃)/humidity (40~90%) Air pressure (70-106kpa)
Storage environment	Ambient temperature (-40~55℃)/humidity (10~95%) Air pressure (70-106kpa)

1.6 Start-up

Reminder: To ensure smooth counting please install the left and right Note Guider in the box. Please check below Figure 2.

Figure 2

1) 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, as shown in the Figure 3.
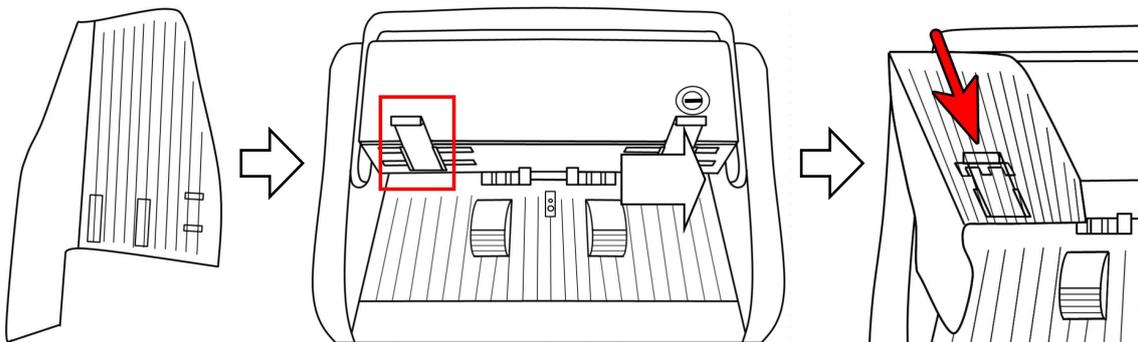
Figure 3

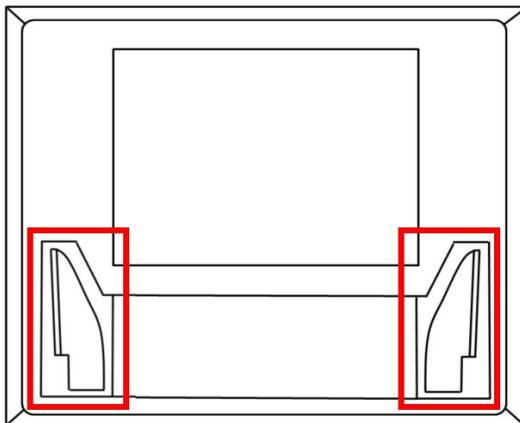2) Then take out the right Note Guider, intall it in the same way. After you finish both, the machine looks like this:
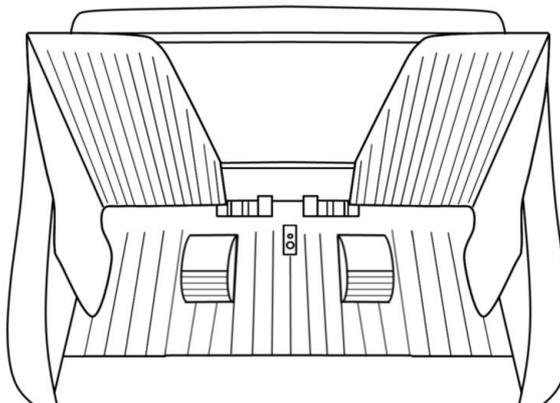
Figure 4

3) Connect the machine to the power supply and turn on the power switch. First, the machine enters the loading interface. After loading, the machine enters the self-check interface, as shown in Figure 5 below. The machine will enter the main interface after self-checking succeeds, as shown in Figure 6 below:

Build-in self-check
Please wait...
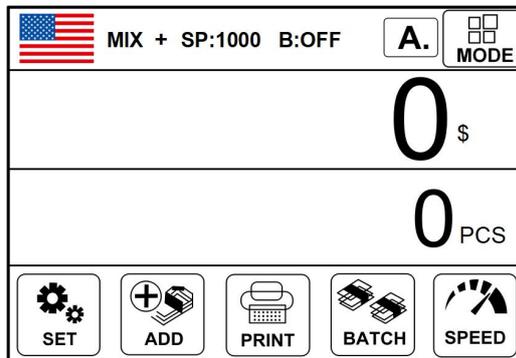
| Figure 5 | Figure 6 |

1.7 Notes Placement

1) Please put the handle of the machine on the back of the machine first.

2) The banknotes to be counted should be sorted according to size and then put into the hopper. The banknotes counted should be pre-arranged and straightened out when they encounter folds, and arches, which can increase the one-time pass rate.

3) During the banknote counting process, the note guider should be limited according to the maximum size of currently counted notes to ensure that the banknotes can be accurately identified by the relevant sensors. Taking US dollars as an example, please arrange the banknotes first, and then limit the note guider according to the largest size banknote. Finally, put the banknotes into the hopper and start counting, as shown in Figure 7:
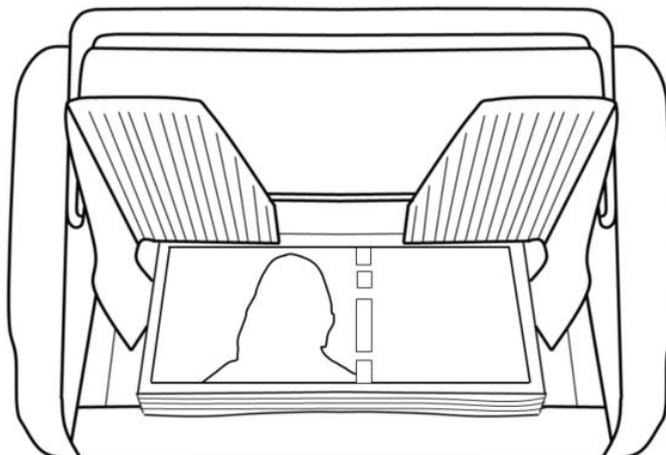
Figure 7

1.8 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

2. Function Introduction

2.1 Function Introduction

2.1.1 Display Interface and Touch Screen Description

Figure 8

1. Currently selected currency and currency selection key
2. Counting mode
3. Accumulation
4. Counting speed
5. Preset quantity
6. Automatic/manual mode
7. Counting mode switch
8. Counting amount
9. Number of banknotes counted
10. Function key
11. Accumulative function key
12. Print key
13. Batch key
14. Speed switch key
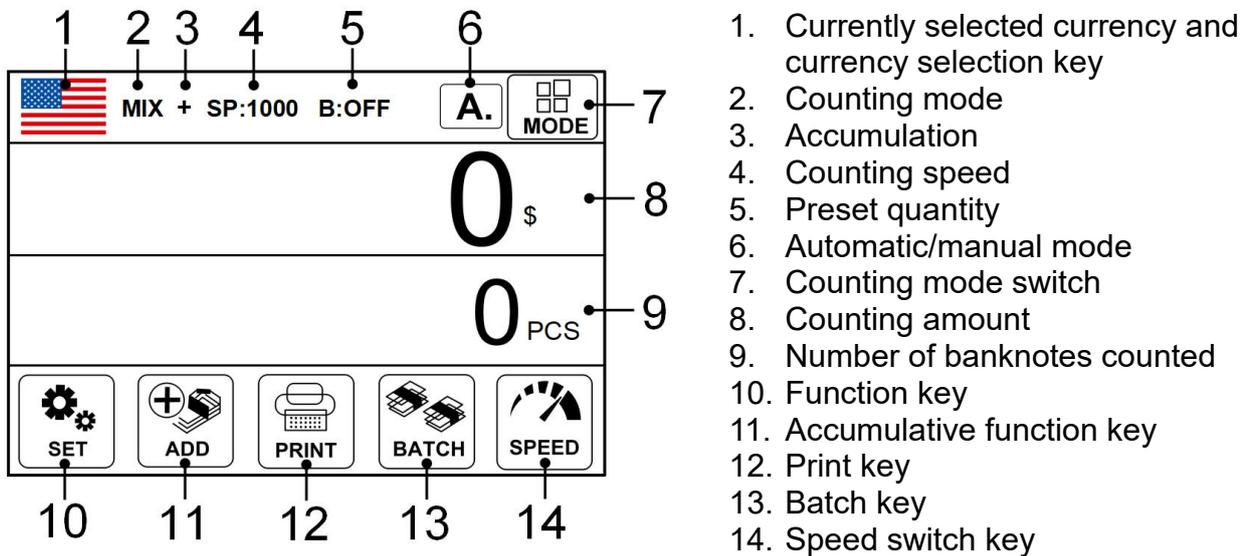
2.1.2 Operating Instructions for Function Keys

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

$ (currency) Currency selection key.

Mode Mode switch key.

Function Function key.

List Counting information check key.

Accumulation Accumulation function switch key.

Preset Preset switch key.

Print Data printing key.

Speed Speed switch key.

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

2.1.3 Manual/Automatic Setting

The " A. " key in the upper right corner of the display is the manual/automatic switch key. Touch it and the mode will be changed.

Automatic mode: the word " A. " will appear in the upper right corner. The machine will count the banknotes automatically when they are put into the banknote hopper, as shown in Figure 9.

Manual mode: the words " M. " will appear in the upper right corner. Put the banknotes into the banknote hopper, after pressing START key, the machine will count the banknotes.
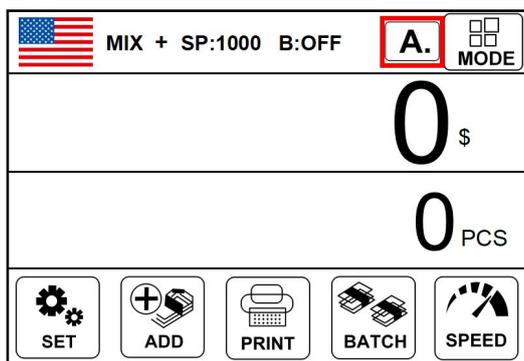

Figure 9

2.1.4 Selection of Counting Mode

2.1.4.1 Single Currency Counting Mode

The currencies of different countries can be selected by pressing the " [$] " key on the keyboard plate or touching the " ▓▓▓ " flag pattern in the upper left corner of the display, as shown in Figure 10 below:
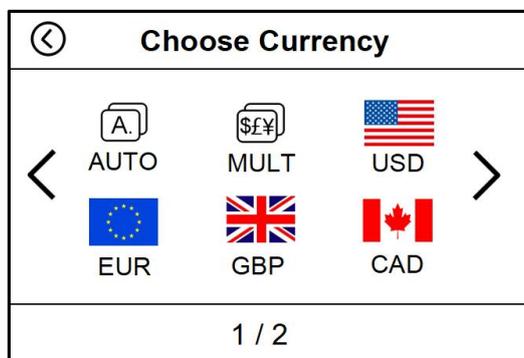

Figure 10

Take US dollars as an example. After the touch of " " key, the display returns to the main interface, and the top left corner displays the " " flag graphic, indicating that the machine is in the mode of counting US dollars.

By pressing the key " " of the keypad or touching the key " " on 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.

Figure 11

2.1.4.1.1 <MIX> Mix Counting Mode

The following Figure 12 and Figure 13 shows the interface of the machine in MIX Counting Mode. In this mode, the machine will count the banknotes of all denominations of US dollars, 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.

Figure 12

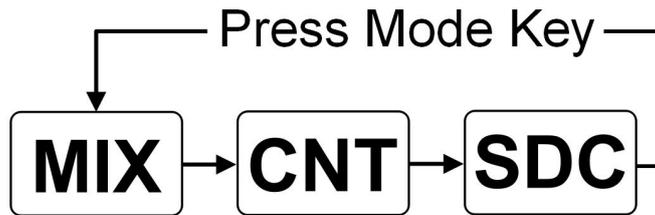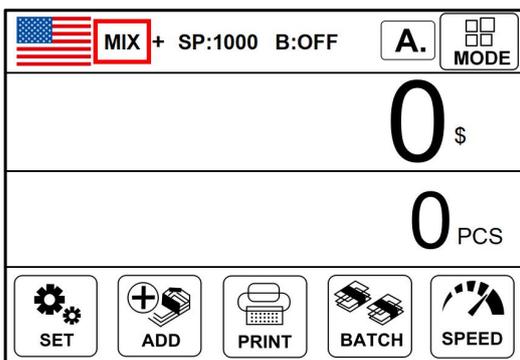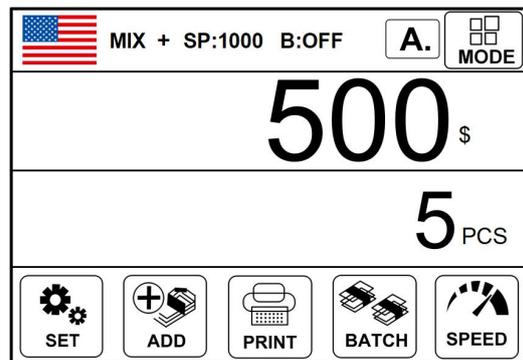Figure 13

2.1.4.1.2 <CNT> Count Mode

The following Figure 14 and Figure 15 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.
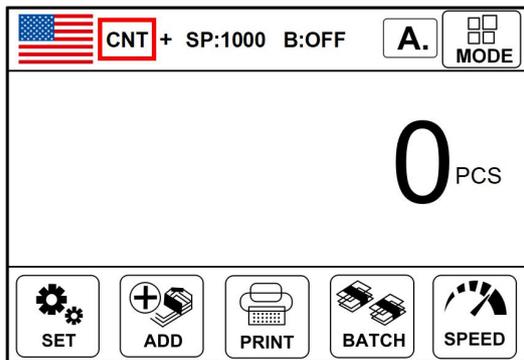
Figure 14
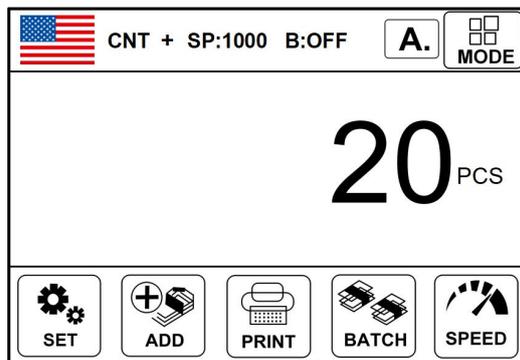
Figure 15

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.

2.1.4.1.3 <SDC> Single Counting Mode

The following Figure 16 and Figure 17 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 US dollars 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.
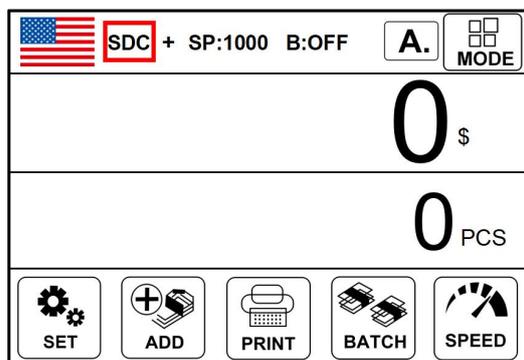
Figure 16
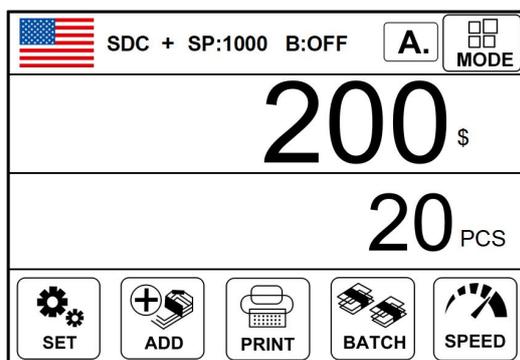
Figure 17

2.1.4.2 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 20:
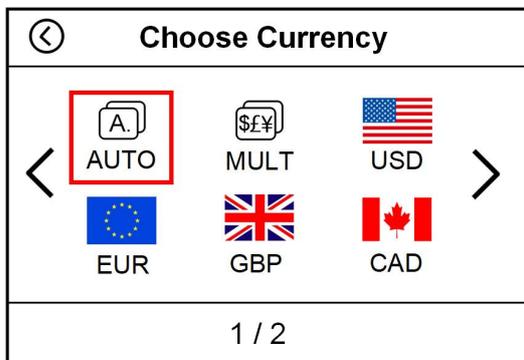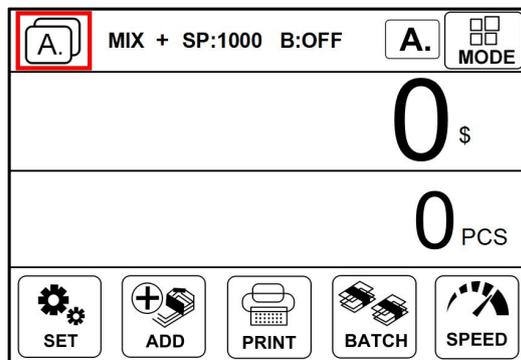
| Figure 10 | Figure 20 |

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.

2.1.4.2.1 Accumulation Function Off

1) There is no sign **"+"** between **"MIX"** and **"SP:"** at the top of the display, indicating that the accumulation function is off at this time. as shown in the following Figure 21.
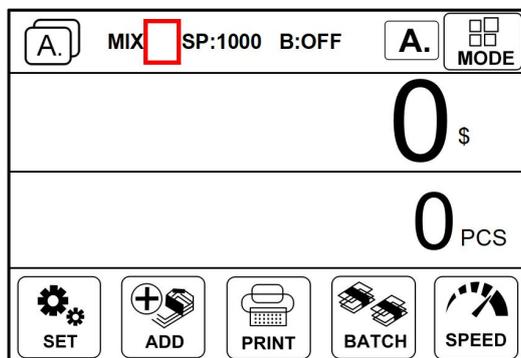
Figure 21

2) Example: Put a handful of US dollars 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 US dollars, as shown in the following Figure 22.

Figure 22

3) Take out the US dollars in the stacker, then put the Euro 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 Euro. as shown in the following Figure 23.

Figure 23

4) 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 US dollars, as shown in the following Figure 24.
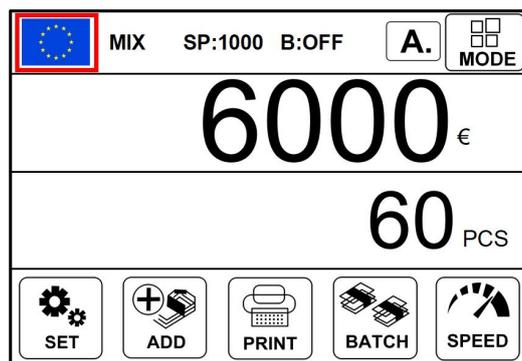
Figure 24

2.1.4.2.2 Accumulation Function On

1) Press the key " " or click on the button " " at bottom of the screen, and a symbol "**+**"

will appear at the top of the display. as shown in the following Figure 25.
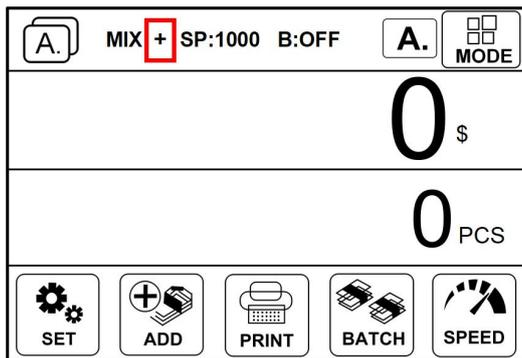
Figure 25

2) Example: Put the US dollars 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 US dollars, as shown in the following Figure 26.
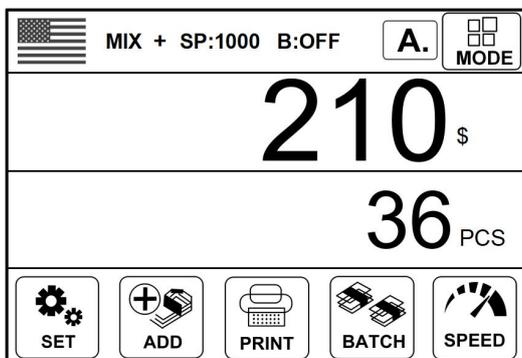
Figure 26

3) Take out the US dollars in the stacker, then put the euro 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 euro. as shown in the following Figure 27.
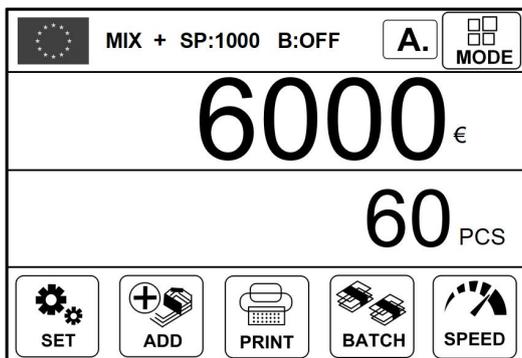
Figure 27
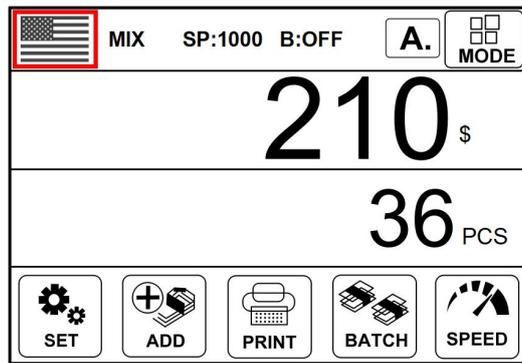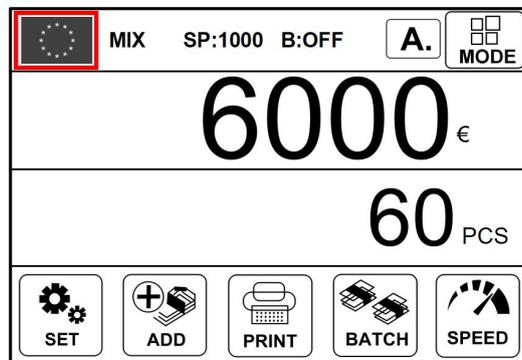
4) After the banknotes in the stacker are taken out, the machine will count and accumulate the details of the previous and current counting, and the following interface will appear:

Figure 28

5) 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 US dollars for banknote counting, then put in POUNDS, CAD, EURO, and finally take out the banknotes in the stacker, the machine will display the following interface:

Figure 29

2.1.4.3 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.

1) 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 10，then Click on the Multi-country Mix

Counting Mode "MLUT", and the display screen will be automatically adjusted to the main interface after selection, as shown in the following Figure 30:

Choose Currency		
⊘		
AUTO	MULT	USD
EUR	GBP	CAD
1 / 2		
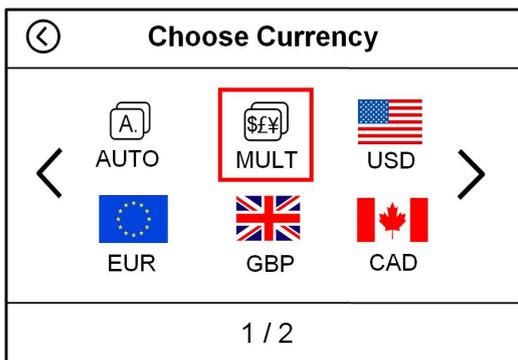
Figure 10
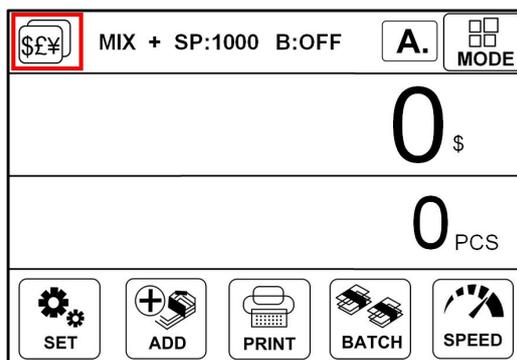
Figure 30

Figure 10   Figure 30

2) Example: Put a handful of banknotes (including US dollars,Euro,Pounds,CAD) into the machine to count. Details of counting after counting are shown in the following Figure 31:

CURR	QTY	AMT
USD	5	100
EUR	1	10
GBP	1	10
CAD	5	50
⟨	⟩	

Figure 31

2.1.5 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 " SPEED " key in any counting mode. As shown in the Figure 32 below, the counting speed is set to 1000 in Mix Counting Mode.
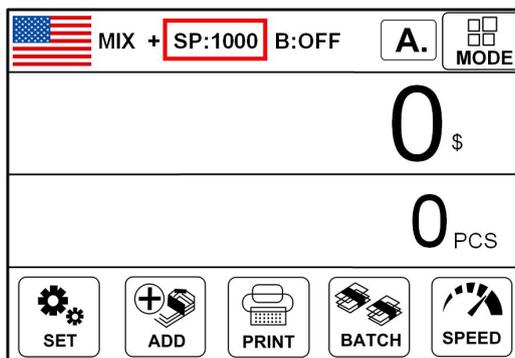
Figure 32

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
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

2.1.6 Check counting details on Machine

2.1.6.1 Check banknote counting details

Under MIX counting mode or SDC counting mode, after finish counting and press left side button

" ⊞ ", you can check the counting details as Figure 33 shows, Figure 34 is the interface after finish

counting:

| ◁	List	
DENOM.	QTY	AMT
$ 100	0	$ 0
$ 50	0	$ 0
$ 20	0	$ 0
$ 10	0	$ 0
$ 5	0	$ 0
$ 2	0	$ 0
$ 1	0	$ 0
Total:	0	$ 0

◁	List	
DENOM.	QTY	AMT
$ 100	2	$ 200
$ 50	5	$ 250
$ 20	5	$ 100
$ 10	4	$ 40
$ 5	3	$ 15
$ 2	10	$ 20
$ 1	20	$ 20
Total:	49	$ 645

Figure 33   Figure 34

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.

2.1.6.2 Check the serial number of the banknotes

When the machine is in MIX counting mode and SDC counting mode, and the counting speed is 800pcs / min or 1000pcs / min, can output the serial number of the banknotes. After adjusting the counting mode and counting speed, take a handful of notes and put them into the machine for counting. After counting, press the "list" button on the left to enter the counting details interface, as shown in Figure 35 below. Press the "list" button on the left again to enter the crown size query interface, as shown in Figure 36 below.

DENOM.	List QTY	AMT
$ 100	0	$ 0
$ 50	0	$ 0
$ 20	0	$ 0
$ 10	0	$ 0
$ 5	0	$ 0
$ 2	0	$ 0
$ 1	0	$ 0
Total:	0	$ 0

NO.	Serial Number List	Denom.
1	J24846704C	1
2	C31126948J	1
3	C63669804C	1
4	C63669904C	1
5	L69967377A	1

Figure 35   Figure 36

2.1.7 Batch Setting

2.1.7.1 Default Preset Number

Press the key " " or touch the key " BATCH " below the display to select the Batch number in the banknote counting interface. The default is 8 options of 200/100/50/20/10/5/USER/OFF.(For example, Figure 37 is the preset turned off, and Figure 38 is the preset number 200). 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.
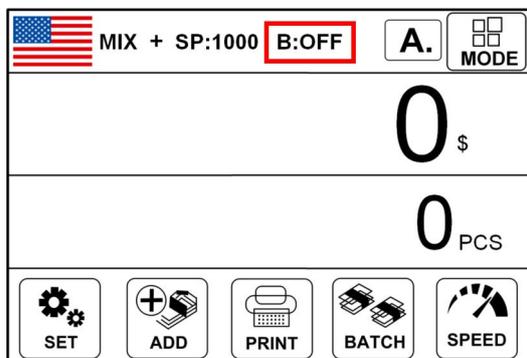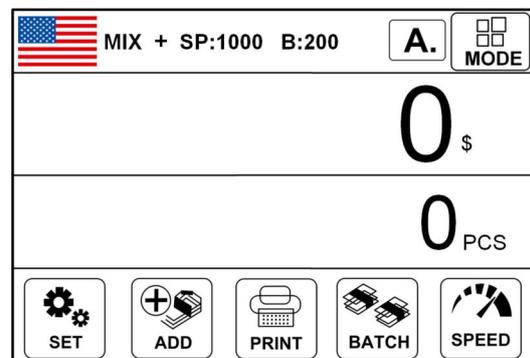
Figure 37   Figure 38

2.1.7.2 Modify Default Batch

1) Press the " [⚙] " key to enter the main interface of USER MENU, as shown in Figure 39 below，

Press **"Customize"** to enter into Customize Settings，as Figure 40.
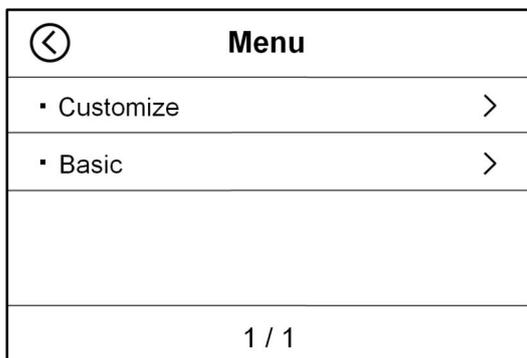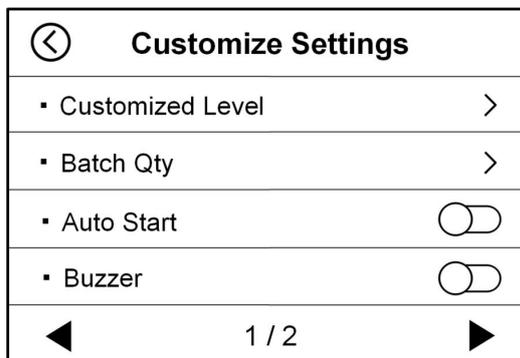
Figure 39	Figure 40

2) Press **"Batch Qty"** under Figure 38 to enter into Batch Setting interface, as Figure 41.
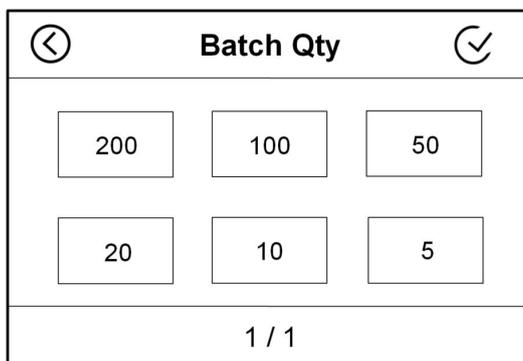
Figure 41

In the Figure above, 200, 100, 50, 20, 10, and 5 are the default 6 batch values . If one or more of the default 6 values are not available to customers, they can be modified to other values.

Example: The default preset number of 25 is not required by the customer. The customer needs a value of 155. Then the operation is as follows:

1) Touch Click **"20"** to enter into Batch setting interface as Figure 42 :
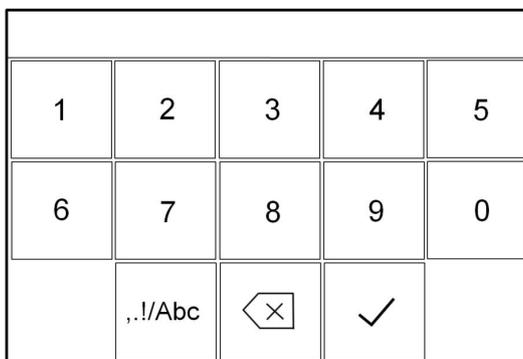
Figure 42

2) Click **"155"** in turn as Figure 43 shows, and then click " ✓ " to save , the interface will display as Figure 44, the original **"20"** will be changed to **"155"**, then press the " ☑ " key in the upper right corner of the display to save.
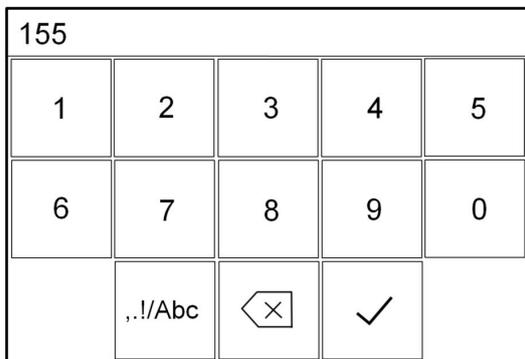
Figure 43
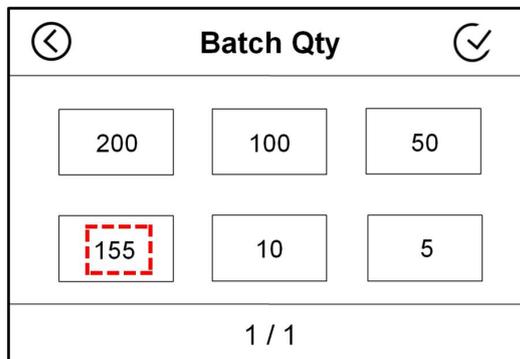
Figure 44

3) Please press the **"ESC/CLR"** key to return to the main interface, and then press the " ⬛ " key on the right side of the frame to switch to the previously set value of 155, as shown in Figure 45:
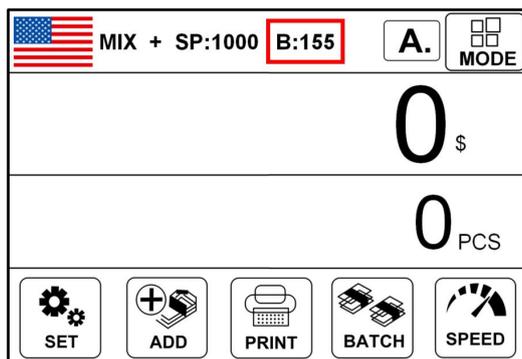
Figure 45

2.1.7.3 Customized Batch Setting

1) Under main interface, press batch key " ⬛ " for 3S and the machine will enter into customized batch number setting interface as below Figure 46:
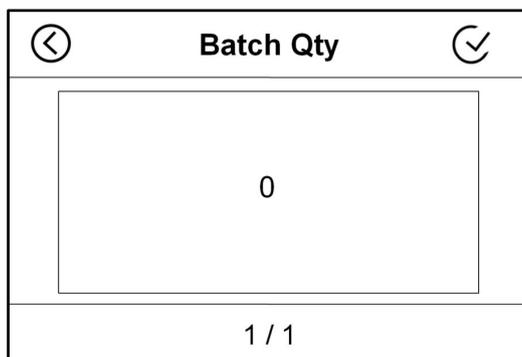
Figure 46

PS: The Batch value should be between 0 to 200, otherwise it can not be saved.

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2) Touch click **"0"** to enter into Batch setting interface and input your desired value(for example 155), as

Figure 47 shows, and click **"√"** to save, as Figure 48 shows.
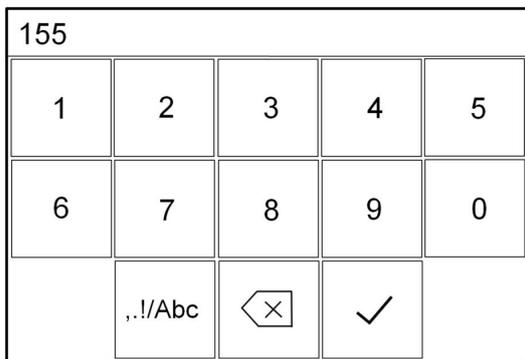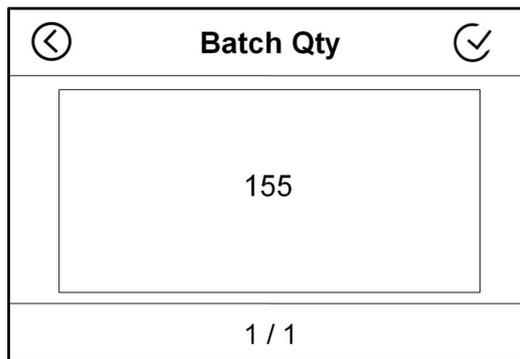
| Figure 47 | Figure 48 |

3) Under interface Figure 49, click **"✓"** on right corner, the machine will jump back to main interface,

and the current batch value will be changed into 155 too, as Figure 50 shows.
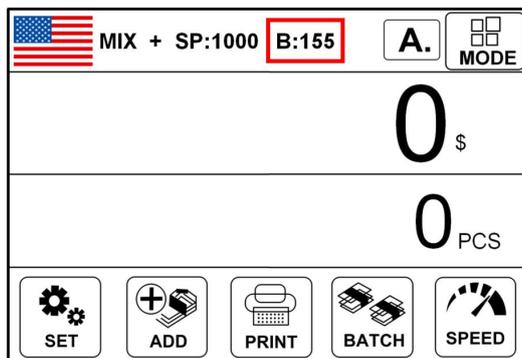
Figure 50

2.1.8 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 **"ADD"** 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.

There is no sign **"+"** between **"MIX"** and **"SP:"** at the top of the display, indicating that the accumulation function is off at this time.,as shown in Figure 51 below.

A **"+"** sign appears between **"MIX"** and **"SP:"** at the top of the screen, indicating that the accumulation function is enabled, as shown in Figure 52 below.
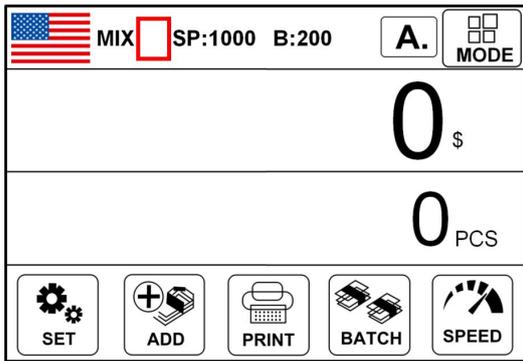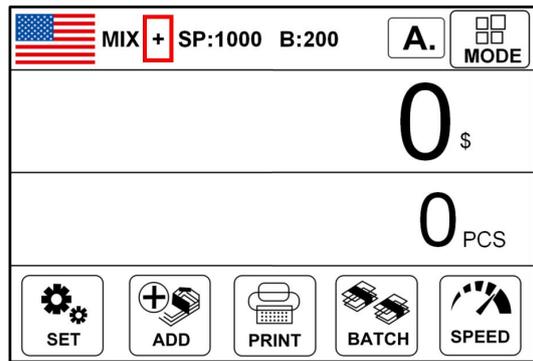
Figure 51   Figure 52

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.

2.1.9 Counterfeit Detection Setting

1) Press the " " key to enter the main interface of USER MENU, as shown in Figure 39 below, Press **"Customize"** to enter into Customize Settings, as Figure 40.
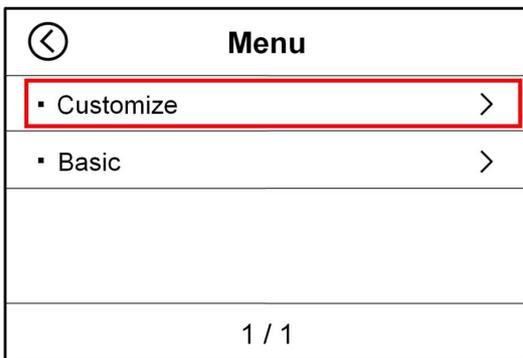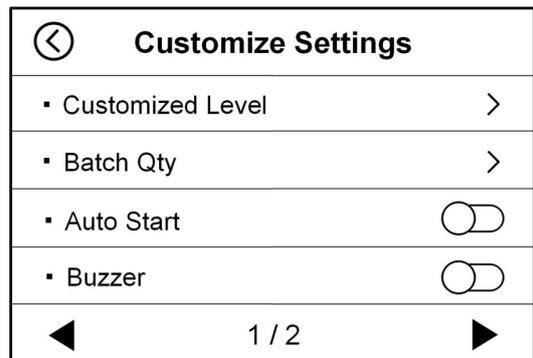
Figure 39   Figure 40

2) Touch Click **"Customized Level"** under Figure 40 to enter into counterfeit detection level setting interface, as Figure 53 shows:

```
      ⊙        Currency Choose

      ▪ USD                          >

      ▪ EUR                          >

      ▪ GBP                          >

      ▪ CAD                          >

      ◀              1 / 3           ▶
```
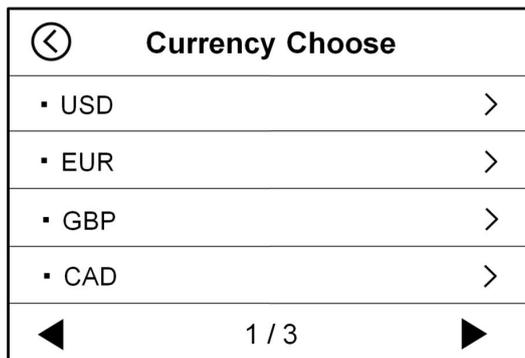
Figure 53

3) Take USD as an example, touch **"USD"** to enter the interface of US dollars counterfeit detection setting, as shown in the following Figure 54 and Figure 55:

```
   ⊙      Customized Level               ⊙      Customized Level

   ▪ High Level Detection      ◯         ▪ User Customized Detection 2   ◯

   ▪ Middle Level Detection    ✓

   ▪ Lower Level Detection     ◯

   ▪ User Customized Detection 1 ◯

   ◀          1 / 2          ▶           ◀          2 / 2          ▶
```
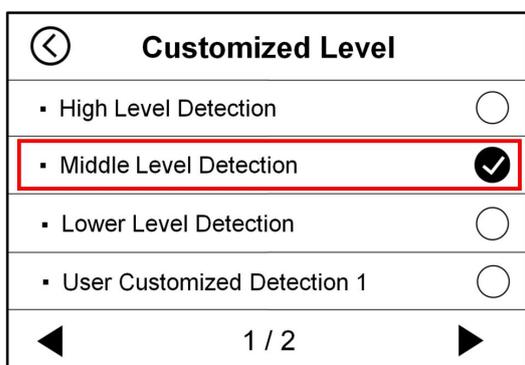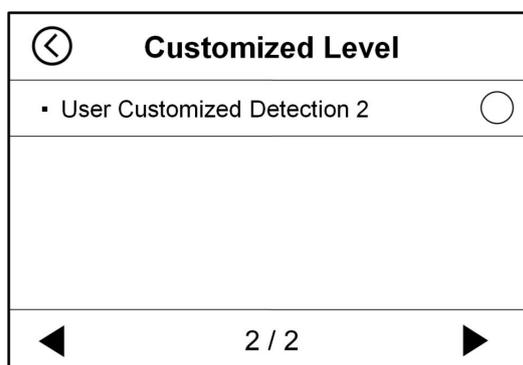
Figure 54   Figure 55

4) 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.

2.1.10 Buzzer Setting

1) Press the " ⚙ " key to enter the main interface of USER MENU, as shown in Figure 39 below，Press **"Customize"** to enter into Customize Settings, as Figure 40.

ⓦ	**Menu**		ⓦ	**Customize Settings**	
▪ Customize		＞	▪ Customized Level		＞
▪ Basic		＞	▪ Batch Qty		＞
			▪ Auto Start		◯
			▪ Buzzer		◯
	1 / 1		◀	1 / 2	▶

<div align="center">Figure 39　　　　　　　　　　　Figure 40</div>

2) In the interface of Figure 40, tap the switch button at the back of **"Buzzer"** to turn on and off the buzzer. Figure 56 shows the off state of the buzzer, and Figure 57 shows the on state of the buzzer.

ⓦ	**Customize Settings**	
▪ Customized Level		＞
▪ Batch Qty		＞
▪ Auto Start		◯
▪ Buzzer		●
◀	1 / 2	▶
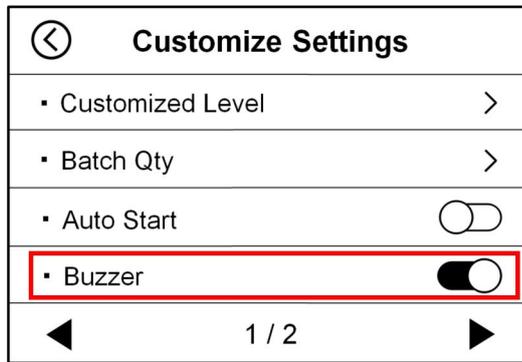
d

<div align="center">Figure 56　　　　　　　　　　　Figure 57</div>

2.1.11 Language Setting

1) Press the "⚙" key to enter the main interface of USER MENU, as shown in Figure 39 below，Press **"Customize"** to enter into Customize Settings, as Figure 40.

ⓦ	**Menu**		ⓦ	**Customize Settings**	
▪ Customize		＞	▪ Customized Level		＞
▪ Basic		＞	▪ Batch Qty		＞
			▪ Auto Start		◯
			▪ Buzzer		◯
	1 / 1		◀	1 / 2	▶

<div align="center">Figure 39　　　　　　　　　　　Figure 40</div>

2) In the interface shown in Figure 40, touch the "▶" key in the lower right corner to enter the second page interface, as shown in Figure 58. Touch the **"Language"** button again to enter the language setting interface, as shown in Figure 59 below:

Customize Settings			System Language	
· Language	>		· 简体中文	○
			· English	✓
			· 繁体中文	○
			· Polski	○
◀ 2 / 2 ▶			◀ 1 / 3 ▶	
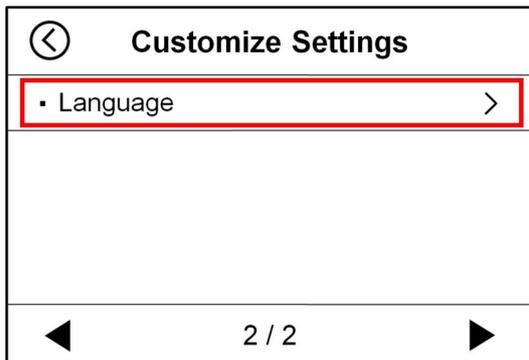
Figure 58	Figure 59

3) After you touch "✓" after the language you want to select, touch the "ⓒ" button in the upper left corner of the screen, and the machine will prompt you to restart the machine. After restarting, the main interface language of the machine will be displayed as the language just selected.

2.1.12 Date and Time Setting

1) Press the " ⚙ " key to enter the main interface of USER MENU, as shown in Figure 39 below，Press **"Basic"** to enter into Basic Settings, as Figure 60.
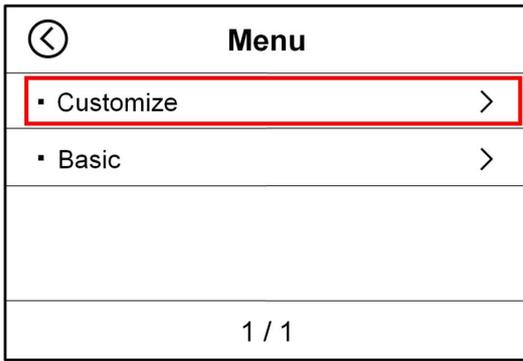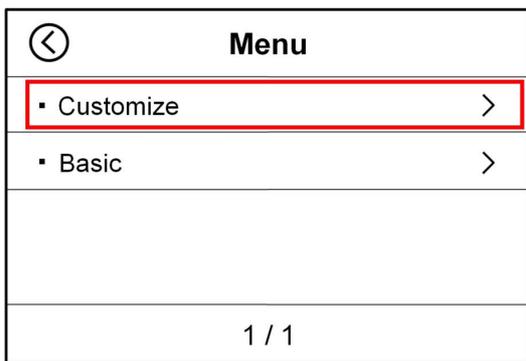
Menu			Basic Settings	
· Customize	>		· Date&Time	>
· Basic	>		· Serial Port	>
			· Version Info	>
			· Restore Factory Setting	>
1 / 1			1 / 1	

Figure 39	Figure 60

2) Touch the **"Data&Time"** option in the basic setting interface to enter the time setting interface, as shown in the following Figure 61:

Date&Time	
· Date&Time	15-12-2021 09:47:38 >
· Time Format	>
1 / 1	
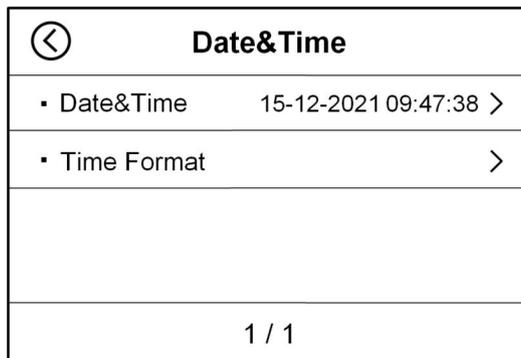
Figure 61

The first **"Data &Time"** is used to set time as Figure 62. Touch click numbers the display will show number input interface, input the correct values and click "✓" to save as Figure 63.
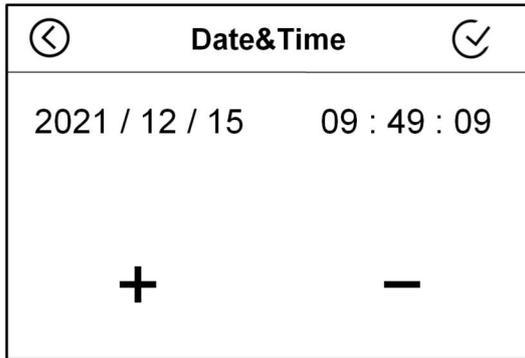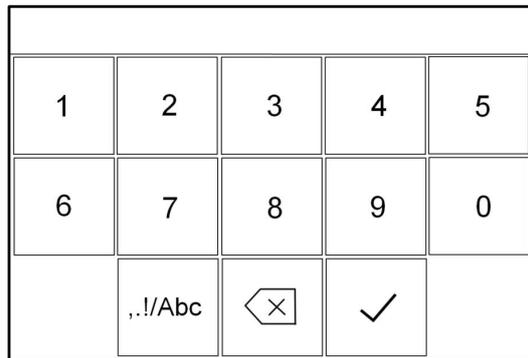
Date&Time ⊘ ⊘ 2021 / 12 / 15 09 : 49 : 09 **+** **—**	1 2 3 4 5 6 7 8 9 0 ,.!/Abc ⊗ ✓
Figure 62	Figure 63

The second **"Time Format"** is used to set time format and 24h format, as Figure 64. Touch click "✔" to select the right time format.

Time Style
• yyyy-MM-dd   ○
• dd-MM-yyyy   ✔
• 24H Format   ⬤
1 / 1

Figure 64

2.1.13 Software Version Viewing

1) Press the " ⚙ " key to enter the main interface of USER MENU, as shown in Figure 39 below，Press **"Basic"** to enter into Basic Settings, as Figure 60.

Menu	**Basic Settings**
• Customize >	• Date&Time >
• Basic >	• Serial Port >
	• Version Info >
	• Restore Factory Setting >
1 / 1	1 / 1
Figure 39	Figure 60

2) Touch the **"Version Info"** button to enter the software version interface, as shown in Figure 65 below:

Figure 65

2.1.14 Restore Factory Setting

1) Press the " " key to enter the main interface of USER MENU, as shown in Figure 39 below，

Press **"Basic"** to enter into Basic Settings, as Figure 60.
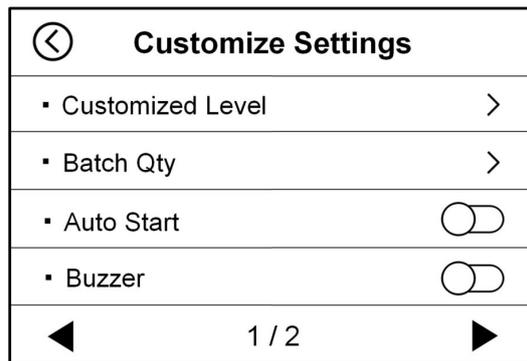

Figure 39   Figure 60

2) Touch the **"Restore Factory Setting"** button again to enter the language setting interface, as shown
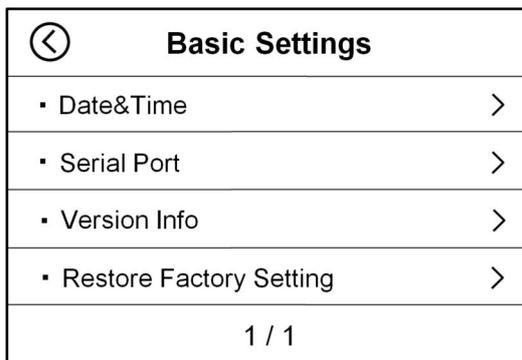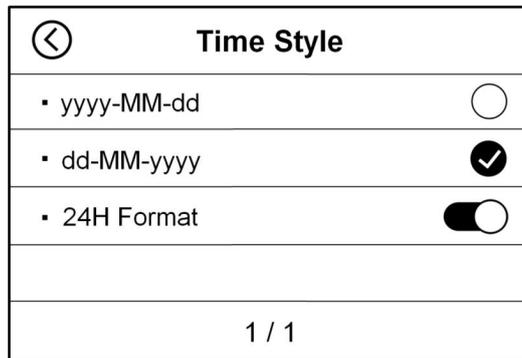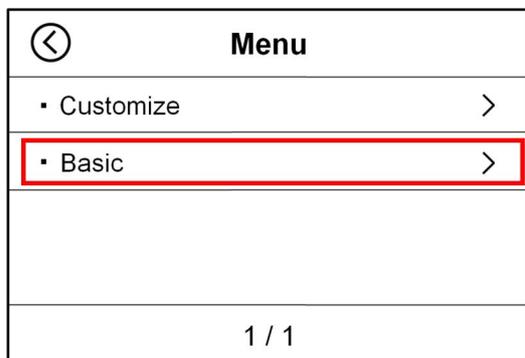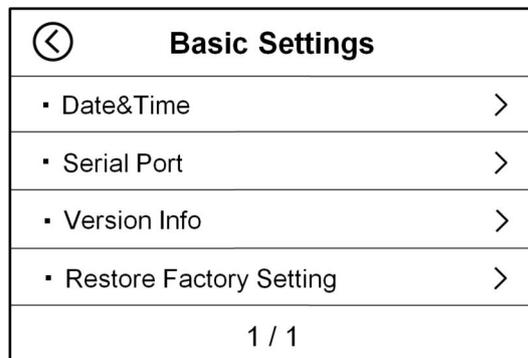
in Figure 66 below:

Figure 66

3) **"Restore CF Detection Level"**：Restore the factory settings of the counterfeit detection gear. If the

customer has a special request to adjust the counterfeit check position of a certain country's currency for

banknote counting, and wants to restore the original counterfeit check unit after counting the currency,

this function can be used. As shown in Figure 67 below.
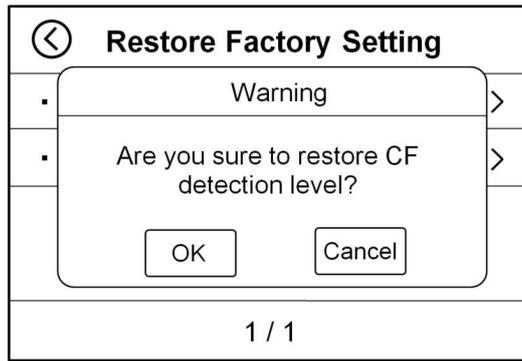
Figure 67

4) **"Restore Basic Setting"**：Restore the basic settings to factory settings. If the customer has modified the basic settings of multiple machines (such as the buzzer, baud rate, coin counting alarm function, etc.), and now needs to restore the factory settings, this function can be used. After using this function, the machine needs to be restarted. As shown in Figure 68 below.
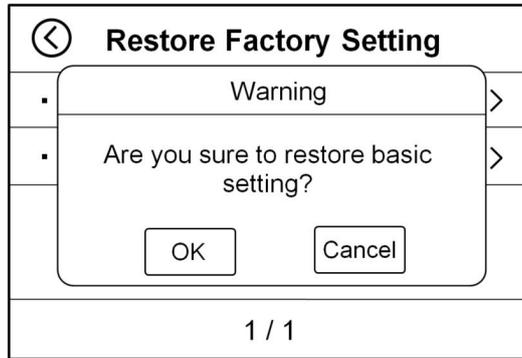
Figure 68

2.1.15 Counting History Information

1) Press the " " key once to enter the MENU main interface, as shown in Figure 39 below. Press the " " key twice again to enter the Debug Menu interface, as shown in Figure 69 below:

Figure 39

Figure 69

2) Touch the "▶" button at the lower right corner of the interface in Figure 69 to move to the second page, as shown in Figure 70 below. Tap **"Log Data"** to enter the coin history information interface, as shown in Figure 71:

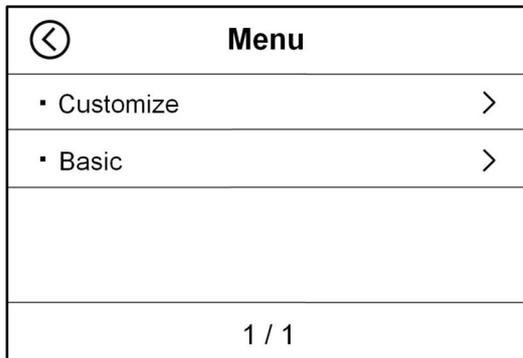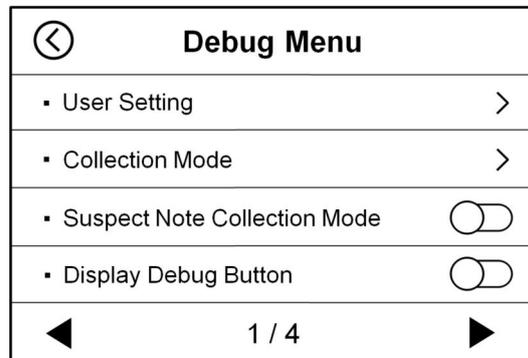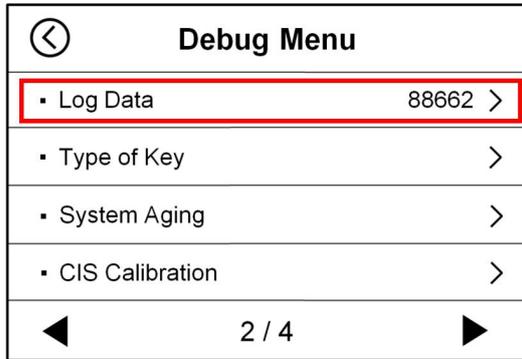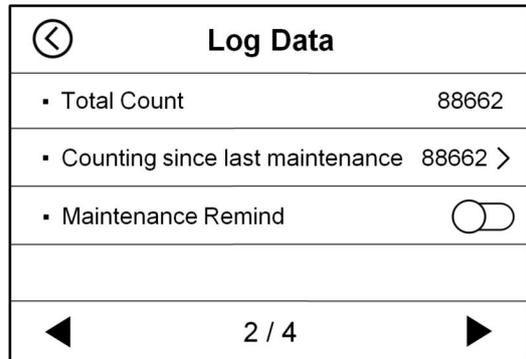|	
Debug Menu	**Log Data**
· Log Data 88662 〉	· Total Count 88662
· Type of Key 〉	· Counting since last maintenance 88662 〉
· System Aging 〉	· Maintenance Remind ⟨⟩
· CIS Calibration 〉	
◀ 2 / 4 ▶	◀ 2 / 4 ▶

| Figure 70 | Figure 71 |

"Total Count"：Historical total count

"Counting since last maintenance"：Total count since last maintenance, tap to clear

"Maintenance Remind"：This is a reminder function when the number of total counts reaches 80W. After reaching 80W, the customer needs to reset the number of credits on the machine. Customers can choose to turn on or off by tapping the switch "⟨⟩" at the back according to their needs.

2.2 Printer Introduction

1) If you buy a serial thermal printer. Please confirm the corresponding baud rate first according to the printer's instructions.

2) Press the "⚙" key to enter the main interface of USER MENU, as shown in Figure 39 below，Press **"Basic"** to enter into Basic Settings, as Figure 60.

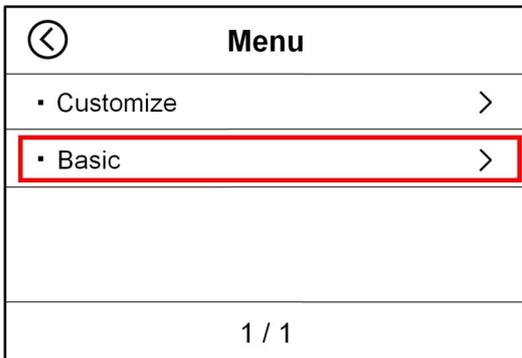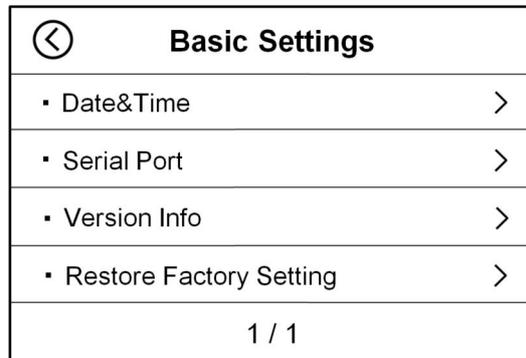|	
Menu	**Basic Settings**
· Customize 〉	· Date&Time 〉
· Basic 〉	· Serial Port 〉
	· Version Info 〉
	· Restore Factory Setting 〉
1 / 1	1 / 1

| Figure 39 | Figure 60 |

3) Touch the **"Serial Port"** key to enter the baud rate setting interface, as shown in Figure 72 below. First touch the second item **"Device Choice"** to enter the peripheral selection interface. In this interface,

type "✅" after the second item "Printer", and then touch the "✅" key in the upper right corner to save, and it will automatically transfer to the interface shown in Figure 73.

⊙ **Serial Port settings**	
▪ Baud Rate	>
▪ Device Chioce	>
▪ Printer Cutter Function	◯⬤
1 / 1	

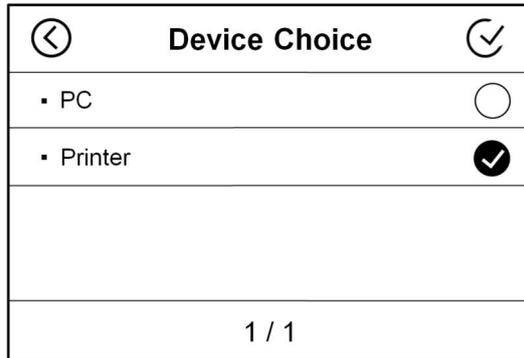| ⊙ **Device Choice** ✅	
▪ PC	◯
▪ Printer	✅
1 / 1	

<center>Figure 72   Figure 73</center>

4) In the interface shown in Figure 72, touch the first item **"Baud Rate"** to enter the baud rate setting interface, as shown in Figure 74 below. Please select the corresponding baud rate according to the printer's baud rate and then click "✅", and then touch the "✅" key in the upper right corner to save. The factory default baud rate of the machine is 115200. After changing the baud rate, the machine will prompt to restart, so please restart the machine as required.

⊙ **Baud Rate** ✅	
▪ 9600	◯
▪ 115200	✅
1 / 1	

<center>Figure 74</center>

5) Press the "⎡ESC/CLR⎤" key several times to return the machine to the main interface. Please select the coin counting mode and currency type of the machine.

6) Connect the printer to the power source, connect one end of the cable in the printer box to the printer, and the other end to the RS232 interface of the machine.

7) Now that the printer is connected to the machine, please count the banknotes. After the count is completed, press the "▤" key to enter the coin count list interface, press the "🖨" key on the right or touch the "PRINT" key at the bottom of the screen to print the bill details and total amount. The printed format is shown in Figure 75.

```
CUSTOMER ID :
————————————————————————
USD
Deno.          Count        Value
100            5            500
50             2            100
20             0            0
10             0            0
5              30           150
1              21           21

Total :        56           771
————————————————————————

               11/09/2021   11:14:30
```

Figure 75

8) If you encounter other problems, please contact US, we will provide the perfect solution.

2.3 Introduction of uploading the counting data

If the customer wants to upload the machine's point currency detail data to the PC, the customer needs to do the following:

2.3.1 Serial cable connection

Take a USB to RS232 serial cable, connect the USB end to the PC, and insert the RS232 serial end into the machine, as shown in Figure 76.
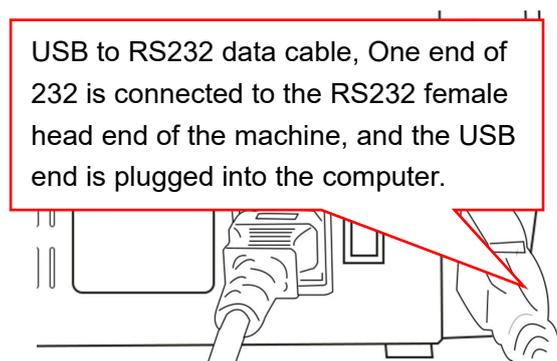
USB to RS232 data cable, One end of 232 is connected to the RS232 female head end of the machine, and the USB end is plugged into the computer.

Figure 76

2.3.2 Machine Setup

1) Press the " ⚙ " key to enter the main interface of USER MENU, as shown in Figure 39 below，Press **"Basic"** to enter into Basic Settings, as Figure 60.

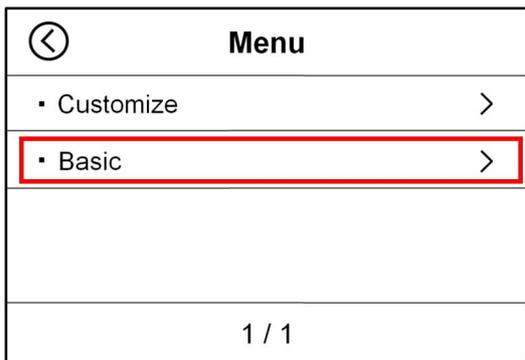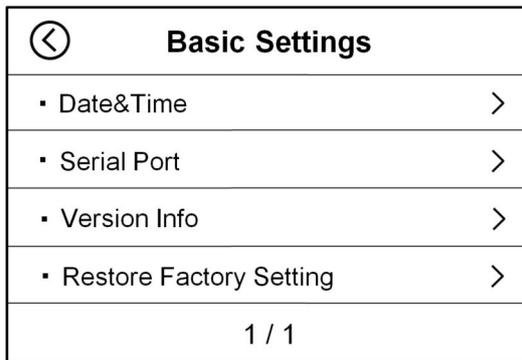| ◁	**Menu**		◁	**Basic Settings**	
· Customize		>	· Date&Time		>
· Basic		>	· Serial Port		>
			· Version Info		>
			· Restore Factory Setting		>
	1 / 1			1 / 1	

<div align="center">Figure 39   Figure 60</div>

2) Touch the **"Serial Port"** key to enter the baud rate setting interface, as shown in Figure 77 below. First touch the second item **"Device Choice"** to enter the peripheral selection interface. In this interface, type "✅" after the first item **"PC"**, and then touch the "✓" key in the upper right corner to save, and it will automatically transfer to the interface shown in Figure 78.

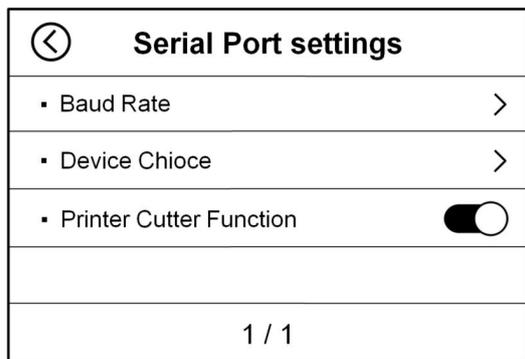| ◁	**Serial Port settings**		◁	**Device Choice**	✓
· Baud Rate		>	· PC		✅
· Device Chioce		>	· Printer		○
· Printer Cutter Function		⬤			
	1 / 1			1 / 1	

<div align="center">Figure 77   Figure 78</div>
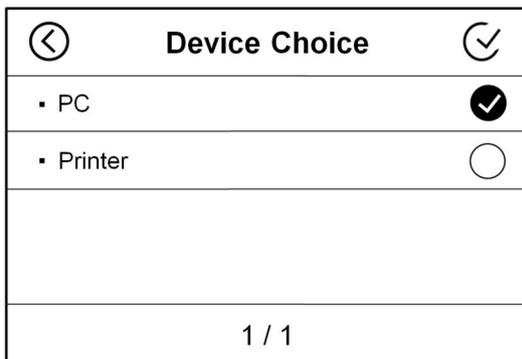
3) Press the " ESC CLR " key several times to return the machine to the main interface. Please select the coin counting mode and currency type of the machine.

2.3.3 Instruction of Data collection PC software

1) Open the upper computer software provided by our company "◎ UpperMonitor", as shown in Figure 79 below.

Currency List		— □ ✕
Port ▽ Buad Rate ▽	Open	Next Clear
Denomination	**Quantity**	**Amount**

<div align="center">Figure 79</div>

2) Select serial port and baud rate, and the baud rate must be consistent with the baud rate selected on the machine, as shown in Figure 80 below。

Figure 80

3) 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, as shown in Figure 81 and Figure 82 below.
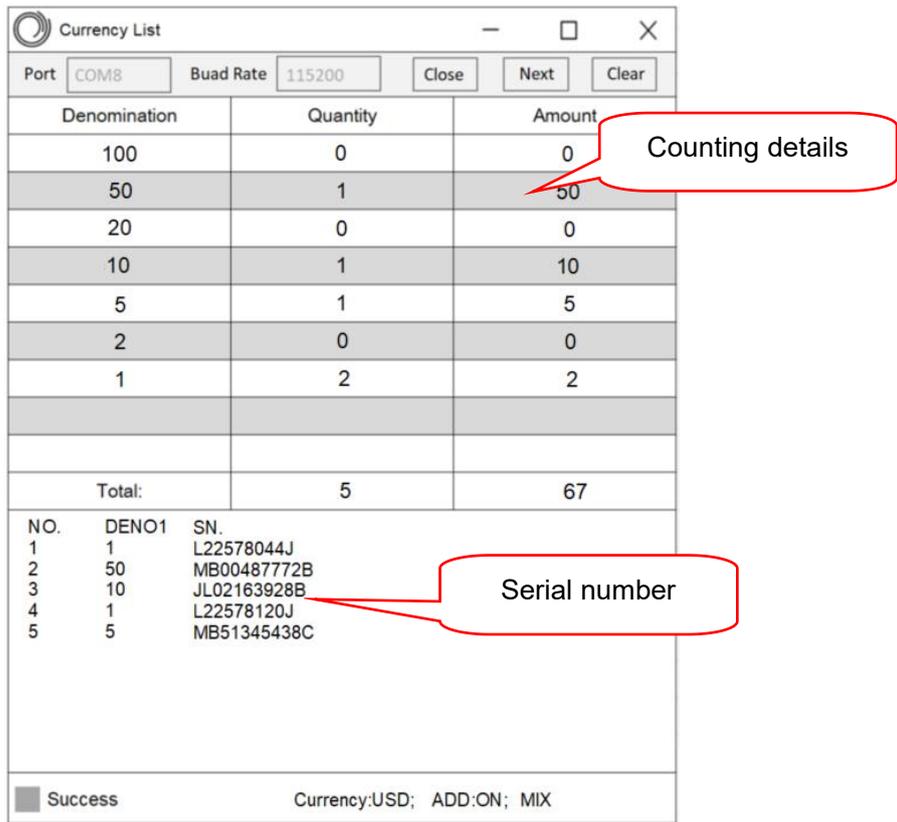

Figure 81

Figure 82

4) At the same time, the folder stored in the upper computer will automatically generate a Data folder "Data". Open the "Data" folder to find the corresponding list information, as shown in Figure 83 below.

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Release > Data > 20211009			
名称	修改日期	类型	大小
163444_038.pdf	2021/10/9 16:34	Foxit Reader PD...	12 KB
163447_720_SN.pdf	2021/10/9 16:34	Foxit Reader PD...	0 KB

Figure 83

2.4 Instruction of External display

This machine is suitable for external displays with RJ12 connectors. Take the external display as an example, the specific operations are as follows:

1) Please insert the RJ12 connector of the external display into the RJ12 interface on the back of the machine, as shown in Figure 84.
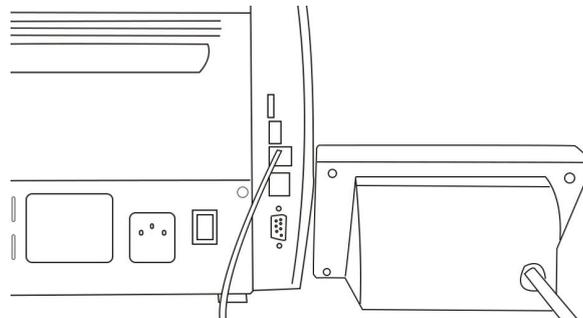
Figure 84

2) After turn on the machine and select the currency of the corresponding country, the code of the corresponding country will also be displayed on the external display.

Example: The machine selects the US dollars mixed point mode, as shown in Figure 85,at this time the word **"USD"** will appear on the external display, as shown in Figure 86.
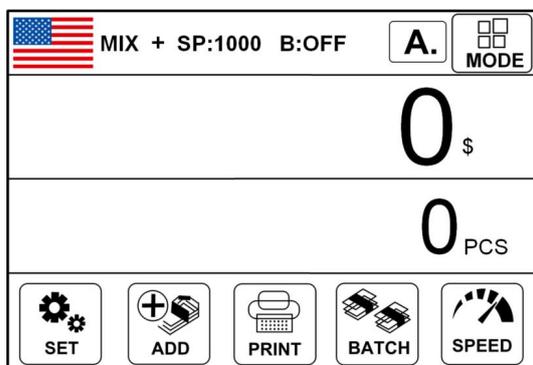

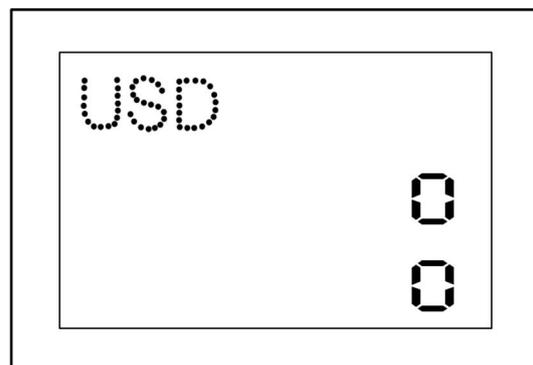Figure 85   Figure 86

3) Put in a bundle of US dollars to count. After counting ends, the total number and total amount of counted notes will appear on the display, as shown in Figure 87 below. At this time, there will also be two

lines of values on the external display: the first line is the number of notes, and the second line is the total amount, as shown in Figure 88.
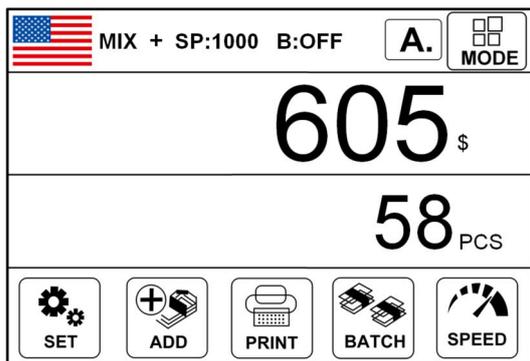

Figure 87   Figure 88

3. Maintenance Instruction
3.1 Software Upgrade
3.1.1 U-disk Preparation

U-disk upgrade method is adopted for the software upgrade of this product.

Please copy the upgrade file provided to you by our company (the suffix name of the master control software is ".ZPK", such as 20180413.DF61723E.ZPK) to the root directory of the U disk (please do not change the file name or format of the upgrade file, and Only one file in the format of ".ZPK" can be kept in the root directory of the USB flash drive), and then insert the USB flash drive into the USB port on the back of the machine.

3.1.2 Software Upgrade

1) Insert the U-disk into the USB interface of the machine when the machine is off, as shown in Figure 89.below:
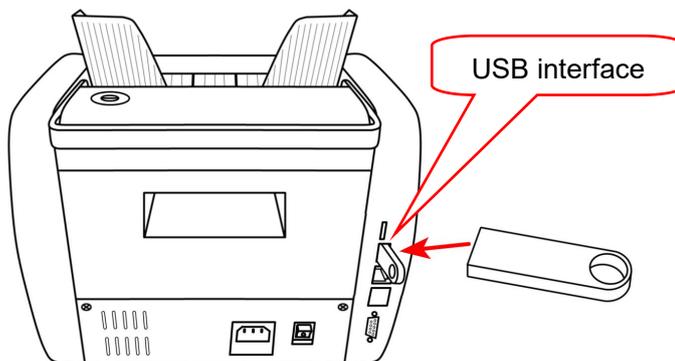

USB interface

Figure 89

2) Turn on the power of the machine, the machine will automatically recognize the U disk information and display it for 5 seconds before the upgrade starts, as shown in Figure 90 below. The machine continues to upgrade, and the interface shown in Figure 91 appears below. After the upgrade of the standby device is completed, the interface shown in Figure 92 will appear. At this time, please unplug the U disk and restart the interface, so the software upgrade of machine is completed.
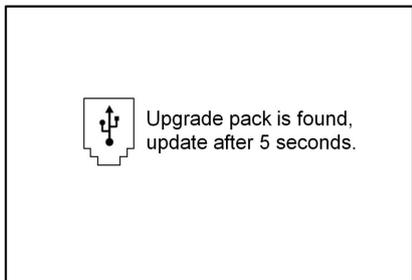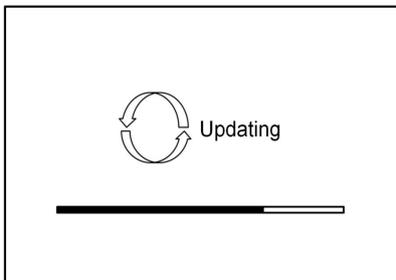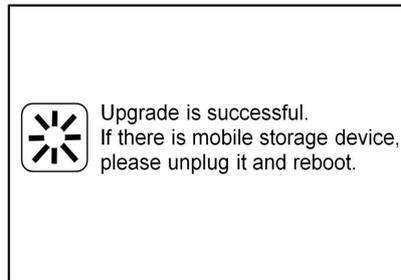

| Figure 90 | Figure 91 | Figure 92 |

3.2 Daily Clean instruction

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.

3.2.1 Clean the banknote hopper sensor

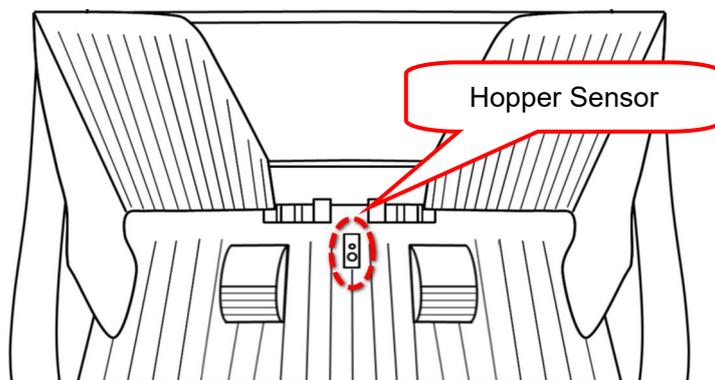As shown in the Figure 93, clean the start-up sensor with nylon brush or cleaning cloth.

Figure 93

3.2.2 Clean the banknote feeding axle and the banknote twisting axle

As shown in the following Figure 94, clean the drum roller shaft and feed roller shaft with nylon brush or cleaning cloth.
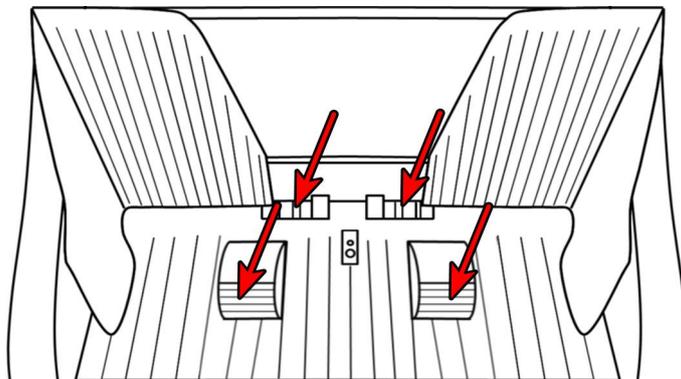

Figure 94

3.2.3 Clean the banknote stacker sensor

As shown in the following Figure 95, clean the sensor with nylon brush or cleaning cloth. (ST)

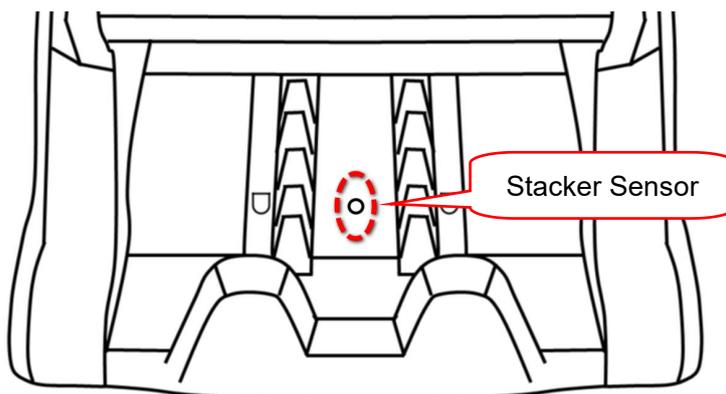
Figure 95

3.2.4 Clean the channel internal sensors

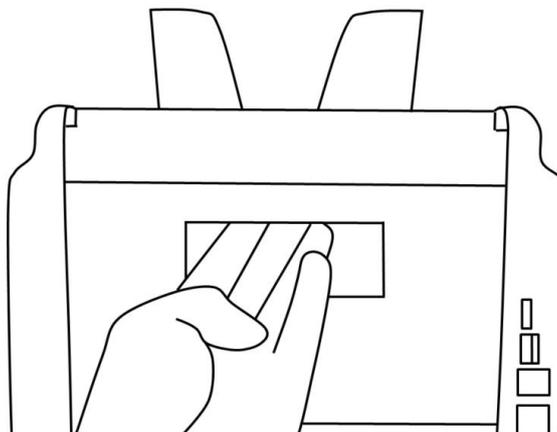1) Pull the back cover in the direction shown in the Figure to open the back cover.

Figure 96

2) Wipe the upper CIS of mark 1 in one direction with a dust-free cloth, and then clean the infrared emitting lamp cap of mark 2 with a nylon brush.
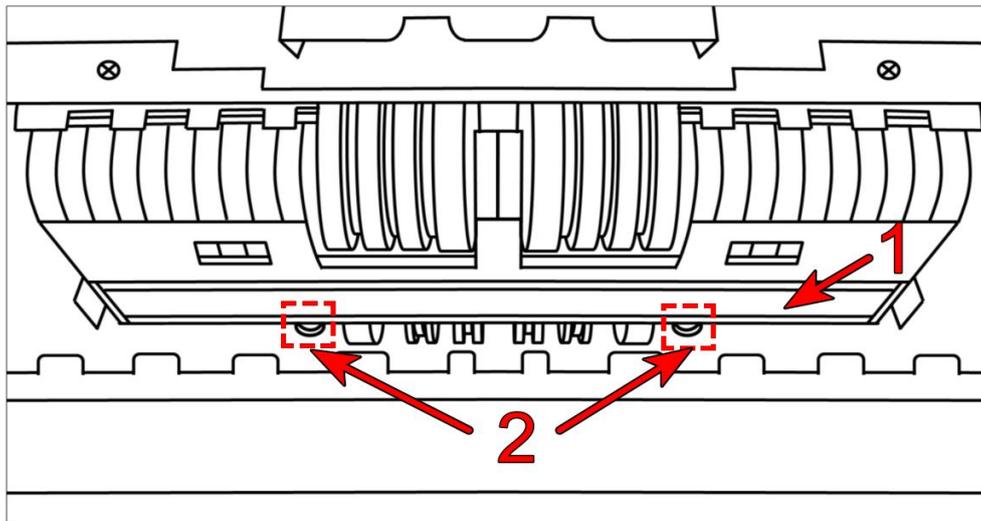

Figure 97

3) Clean the lower UV sensor and lower CIS with nylon brush as shown in the following Figure 98. Wipe the lower CIS of mark 1 in one direction with a dust-free cloth, and then clean the infrared receiving lamp of mark 2 and the lower UV lamp of mark 3 with a nylon brush.
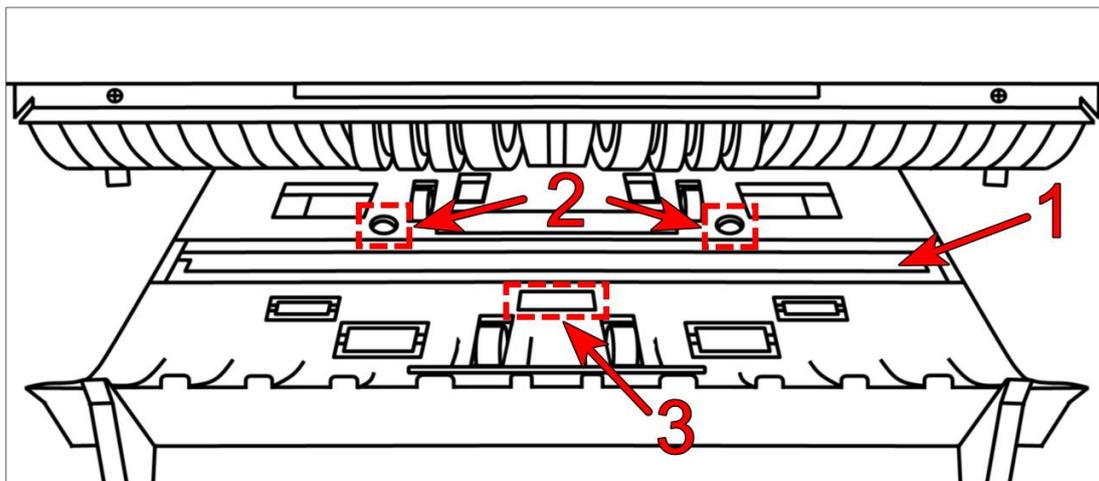

Figure 98

3.3 Common Faults and Corresponding 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.

Fault description of boot self-check:

Code	Code meaning
3001	Virtual device open
3002	Virtual device error
3004	Network error
3008	Display 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

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