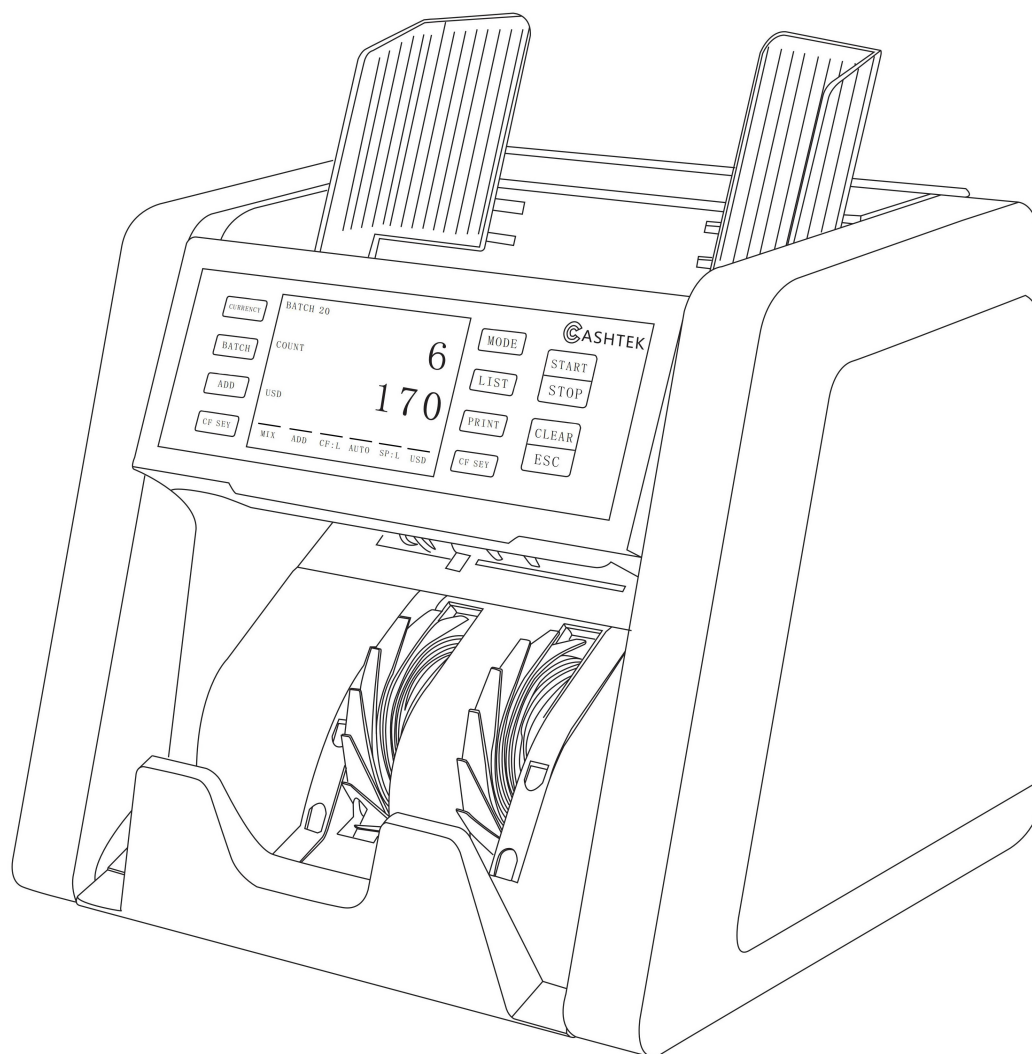


Currency Counter N70 User Manual



Contents

Contents	1
1. Machine Overview	2
1.1 Safety Instructions	2
1.2 Installation Instructions	3
1.3 Machine and Accessory	4
1.4 Appearance	5
1.5 Technical Parameters	6
1.6 Machine Startup	7
1.7 Banknote Sorting	8
1.8 Counting Error Code	9
2. Introduction to Functions	10
2.1 Introduction to Usage Functions.....	10
2.1.1 Description of Display and Touch Screen Interface	10
2.1.2 Function Key Operating Instructions	10
2.1.3 Automatic/Manual Mode Switch Key	11
2.1.4 Counting Mode Selection	11
2.1.5 Counting Speed Setting and Function.....	18
2.1.6 Details View of Counting	19
2.1.7 Counting Preset Function	20
2.1.8 On/Off of Accumulation Function.....	24
2.1.9 Counterfeit Detection Gear Settings	25
2.1.10 Buzzer Settings	26
2.1.11 Language Settings.....	27
2.1.12 Date and Time Settings	28
2.1.13 Software Version View.....	30
2.1.14 Restore Factory Settings.....	30
2.1.15 Counting History Query	32
2.2 Instructions for Connecting Printer	33
2.3 Upload Counting Data to PC	36
2.3.1 RS232 Serial Connection	36
2.3.2 Machine Settings	36
2.3.3 Using Instructions for Data Acquisition Software	38
2.4 Using Instructions for External Display.....	39
3. Maintenance Instructions	41
3.1 Software Upgrade	41
3.1.1 Preparation of USB Flash Disk.....	41
3.1.2 Software Upgrade.....	41
3.2 Daily Cleaning Instructions	42
3.2.1 Cleaning of Feeding Sensor.....	42
3.2.2 Cleaning of Feeding Block and Twisting Block	42
3.2.3 Cleaning of Stack Sensor	43
3.2.4 Cleaning of Channel Internal Sensor	43
3.3 Common Faults and Corresponding Descriptions.....	45

1. Machine Overview

1.1 Safety Instructions

This product is only used for counting currency. We are not liable for any loss caused by the use of this product for any purpose other than the above purposes without our permission, and for any loss caused by any modification of this product not made by our company or unauthorized agents. If you need to install or ship this product, please consult your local agent to reduce damage caused by installation errors or transportation impact.

Please read this manual carefully before use so as to operate the product accurately. If you encounter any problems, please contact your local agent.

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

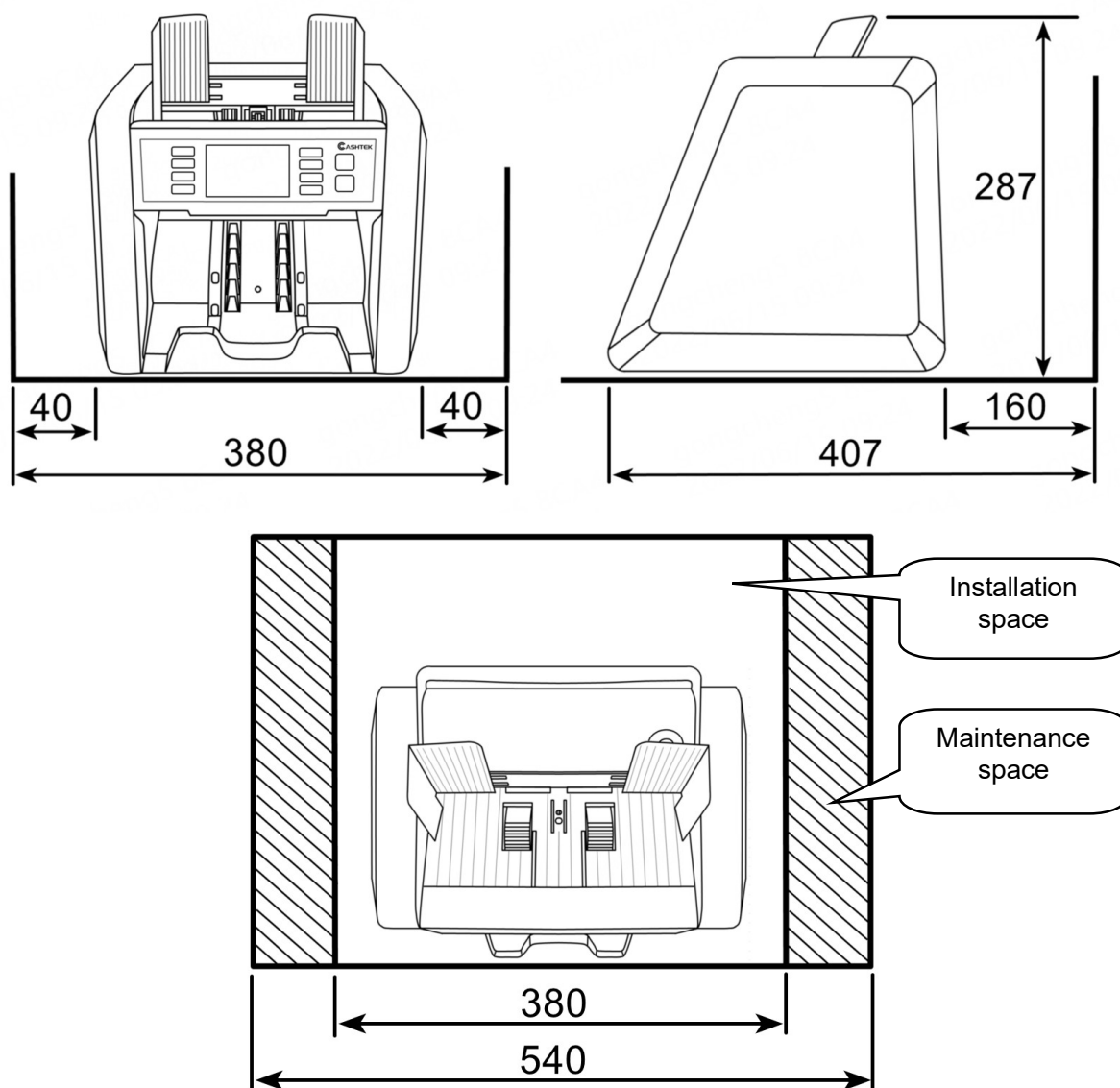
NOTE:

- This product is only used to count the banknotes described in the manual. Please do not use this product for any other purpose.
- This product is only used in the corresponding countries or regions, due to different power specifications and safety standards, may not be used in other countries or regions.
- Please forgive us for any change in the contents of this manual 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 description in this manual.
- This product may not be altered or modified in any form without the express written authorization of our company.
- If you need to install this product, please contact the nearest sales store or our designated distributor.
- This machine is designed for indoor use. Please do not install or use it outdoors.
- Please do not install it in a place that cannot bear the weight of this product or in an inclined or uneven place.
- Do not use or place volatile materials such as combustibles, combustibles and diluents around/inside this product.
- Do not bend the power cord excessively, or place heavy or sharp objects on the top of the machine.
- Do not use this product in too humid environment.
- Please avoid strong light and magnetic field interference.

- When the machine is not in use, please turn off the machine switch. Prevent curtains and various entanglements from being clamped by the machine.
- When cleaning the machine, please turn off the machine switch first.

1.2 Installation Instructions

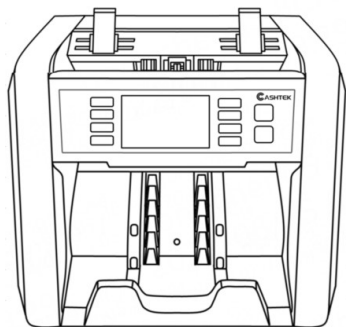
As shown in Figure 1, stay away from the surrounding walls and leave enough operating space for placing banknotes, opening or closing the cover plate, and maintenance.



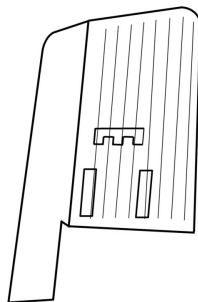
Unit (mm)

Figure 1

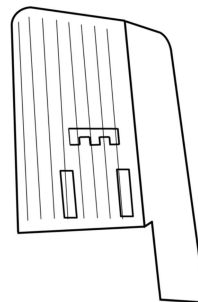
1.3 Machine and Accessory



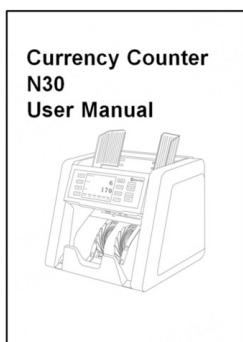
Machine



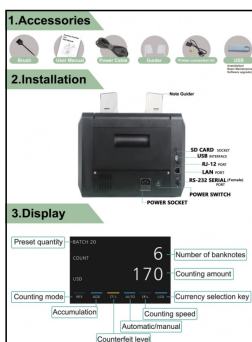
Left note guider



Right note guider



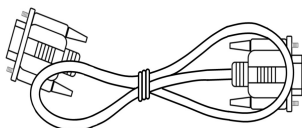
User manual



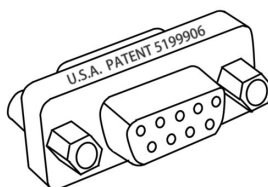
Simple instruction manual



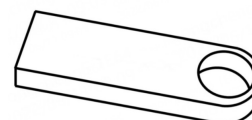
Warranty card



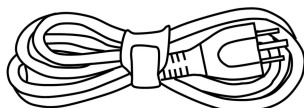
DB9 connecting wire



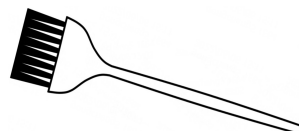
DB9 connector



USB flash disk



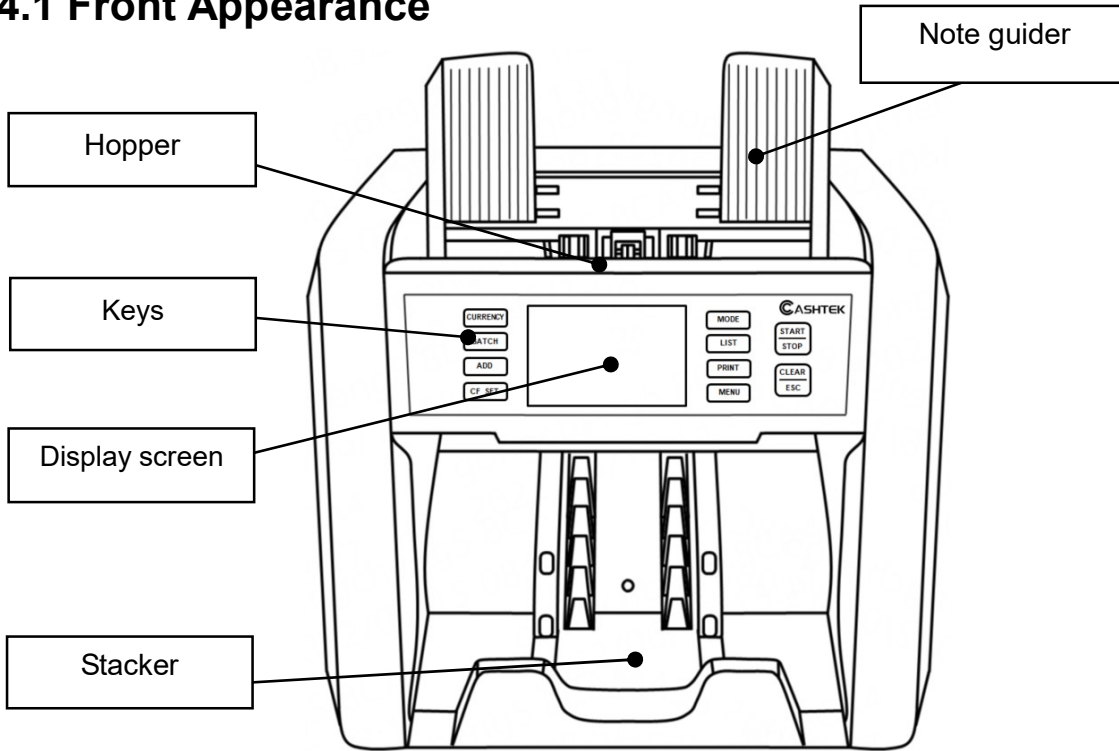
Power cord



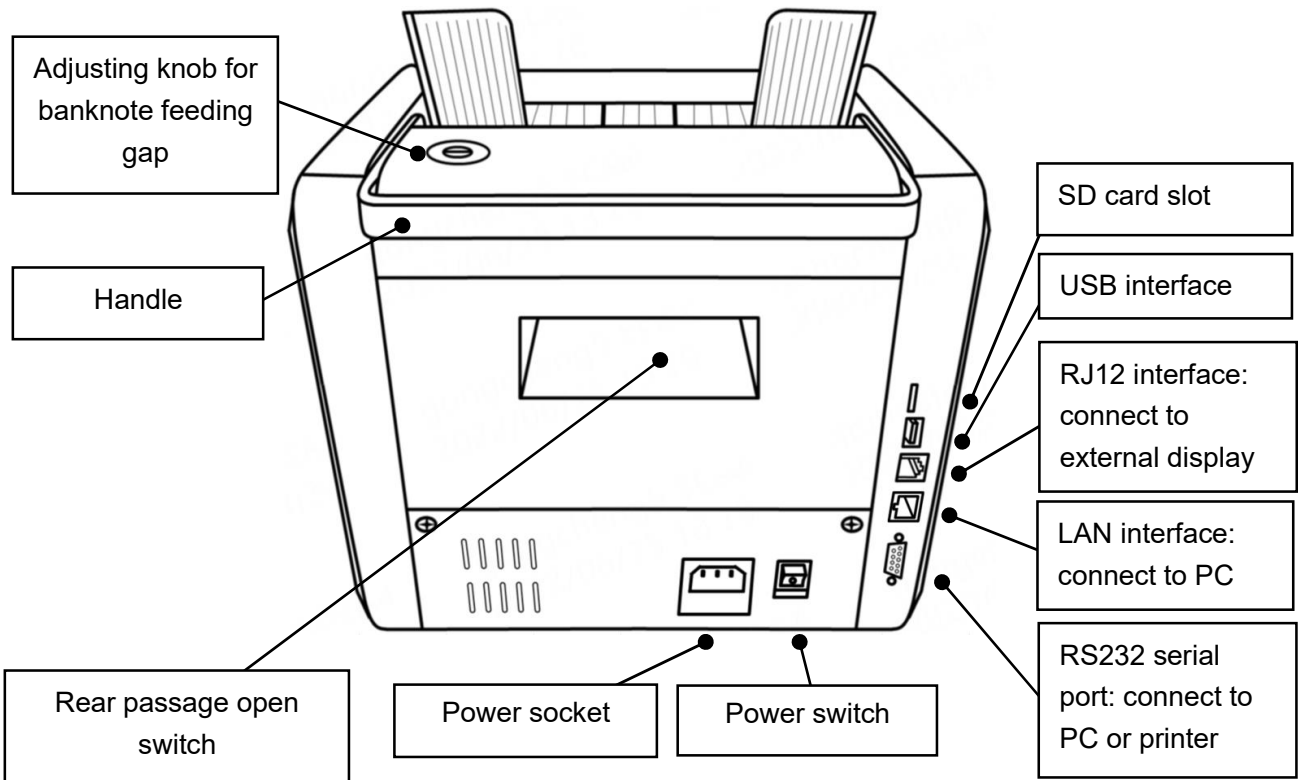
Cleaning brush

1.4 Appearance

1.4.1 Front Appearance



1.4.2 Back Appearance



1.5 Technical Parameters

Overall dimensions (W×L×H)	300mm×247mm×287mm
Weight	About 6KG
Hopper Capacity	600 PCS
Stacker Capacity	200 PCS
Display screen	3.5" TFT touch screen
Interface	RS232/LAN/RJ12/SD/USB
Supportable currency	The standard software includes 5 currencies. If you need to count more kinds of currencies, please call us or contact us by email
Supportable currency size	Length: 120mm ~ 180mm Width: 50mm ~ 90mm
Supportable currency thickness	0.05mm~0.15mm
Counting speed	Value counting mode (MIX/SDC): L(800PCS/min)/M(1000PCS/min)/H(1200PCS/min) L (800PCS/min)/M (1000PCS/min)/H (1200PCS/min) Quantity counting mode (CNT): L(800PCS/min)/M(1000PCS/min)/H(1200PCS/min)/U(1500PCS/min) L(800PCS/min)/M(1000PCS/min)/H(1200PCS/min)/U(1500PCS/min)
Counting mode	Mixed counting mode, single counting mode, quantity counting mode, automatic currency recognition mode, multi-country currencies mixed counting mode
Preset number range	0~200
Counterfeit detection function	UV/MG/MT/IR
Power supply requirements	AC100V-240V 50/60Hz ±10%
Operating noise	60-75DB
Power consumption	Standby ≤ 15W, normal operation ≤ 50W
Use environment	Temperature (0 ~ 40 °C)/humidity (40 ~ 90%)/air pressure (70-106kpa)
Storage environment	Temperature (-40 ~ 55 °C)/humidity (10 ~ 95%)/air pressure (70-106kpa)

1.6 Machine Startup

Warm tip: In order to ensure that the machine counts smoothly when you count banknotes, please find the left and right note guiders in the packaging box. As shown in Figure 2 below:

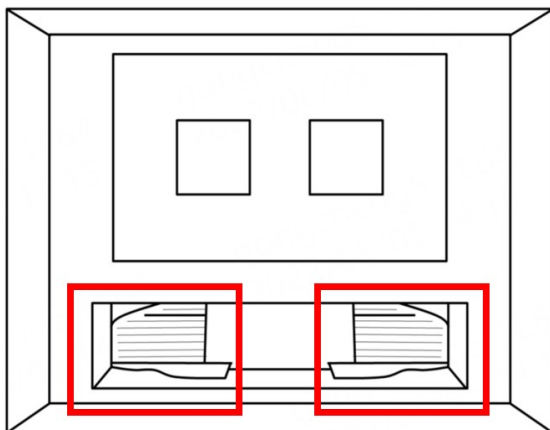


Figure 2

1) Take out the left note guider from the packaging box, align the guide rail on the back of the left note guider with the transparent clip of the machine, and load the note guider vertically down into the clip until the sound of "click" is heard, indicating that the left note guider is installed in place, as shown in Figure 3 below:

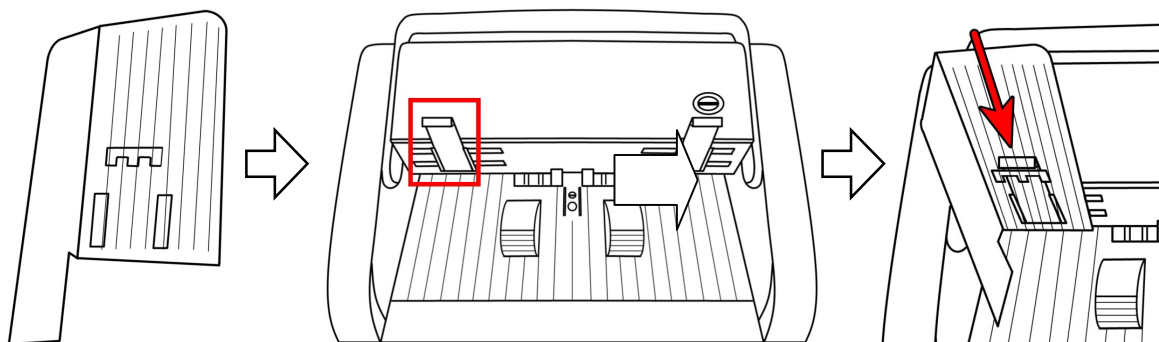


Figure 3

2) Remove the right note guider from the packaging box and fit it into the machine clip in the same way. When both note guider are fully in place, as shown in Figure 4 below:

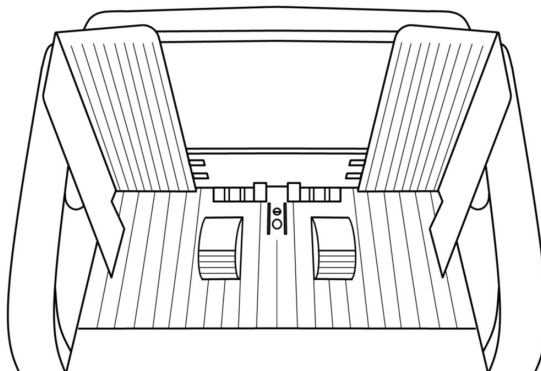


Figure 4

3) Connect the machine to the power supply and turn on the switch. First, the machine enters the loading interface. After loading, the machine enters the self-test interface, as shown in Figure 5 below. After successful self-test, the machine enters the main interface, as shown in Figure 6 below:

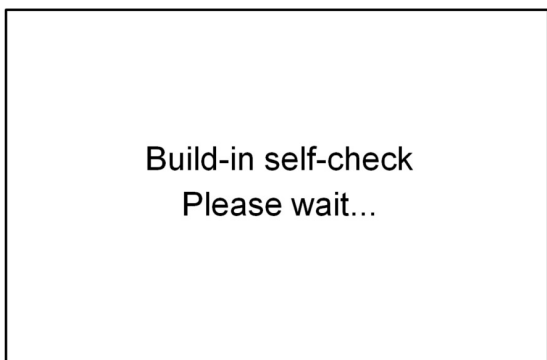


Figure 5

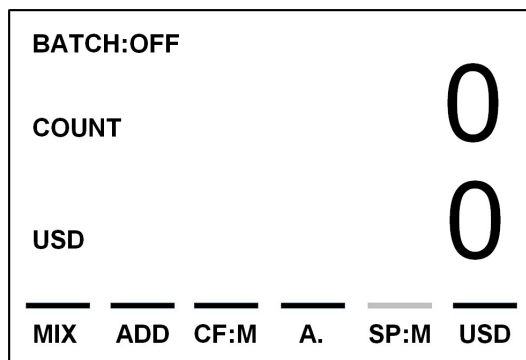


Figure 6

1.7 Banknote Sorting

- 1) Before counting the banknotes, please put the handle of the machine on the back of the machine.
- 2) Please sort the banknotes to be counted according to their size and put them into the feeding inlet. For folded and arched banknotes, they should be sorted in advance, so as to improve the one-time pass rate of counting.
- 3) In the process of counting, it is necessary to adjust the limit positions of the left and right note guiders according to the maximum size of the current banknotes to ensure that the banknotes can be accurately identified by relevant sensors. Taking US dollars as an example, please sort out the banknotes first, and then adjust the limit position of the note guiders according to the largest size banknotes. Finally, put the banknotes into the hopper for counting, as shown in Figure 7:

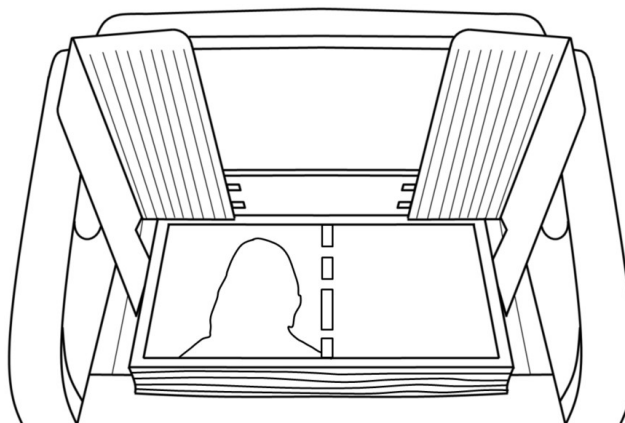


Figure 7

1.8 Counting Error Code

Error code	Cause
51	White spotlight, the denomination cannot be recognized
151-159	Infrared image, each code represents a counterfeit detection point with inconsistent characteristics
202	Abnormal ultraviolet reflection
203	Abnormal ultraviolet transmission
351	Abnormal large magnetic number
463	Inconsistency of edge magnetic characteristics (number)
471-482	Abnormal magnetic signal, divided according to the magnetic head where the abnormal signal occurs
501	Serial number error
551, 555	Rejecting (tilt)
552	Rejecting (damage)
553, 556	Rejecting (banknote adhesion)
554	Rejecting (incomplete)
557	Rejecting (banknote overlap)
901	Different denomination from the first banknote
902	Different version from the first banknote

2. Introduction to Functions

2.1 Introduction to Usage Functions

2.1.1 Description of Display and Touch Screen Interface

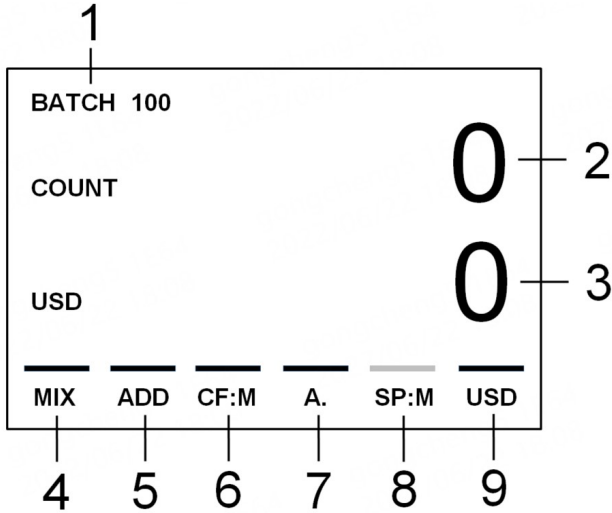


Figure 8

2.1.2 Function Key Operating Instructions



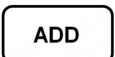
Startup key, used to start the machine in manual mode, select and enter functions, and save after confirmation or modification.



Currency selection key.



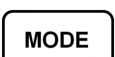
Preset switch keys.



Accumulation function ON/OFF key.



Counterfeit gear switch key.



Counting mode switch key.



Detailed view key for counting.



Data print key.



Function key.



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

2.1.3 Automatic/Manual Mode Switch Key

There are "A." or "M." characters at the bottom of the display screen. Touch the "A." or "M." character, the character will change, and the color of the horizontal line above the character will also change, and the display screen will prompt to enter the automatic or manual mode.

Automatic mode: The "A." character appears at the bottom of the display screen and the horizontal line above the character is blue, indicating that the machine is in automatic counting mode at this time. Put the banknotes in the hopper, and the machine will automatically count the banknotes. As shown in Figure 9 below.

Manual mode: Touch the "A." character lightly, and the word "MANUAL" appears on the display screen and then disappears. The "M." character appears below the display screen and the horizontal line above the character turns gray, indicating that the machine is in manual counting mode at this time. Put the banknotes in the hopper, and the machine will not automatically count the banknotes. After pressing the "START/STOP" button again, the machine will count the banknotes. As shown in Figure 10 below.

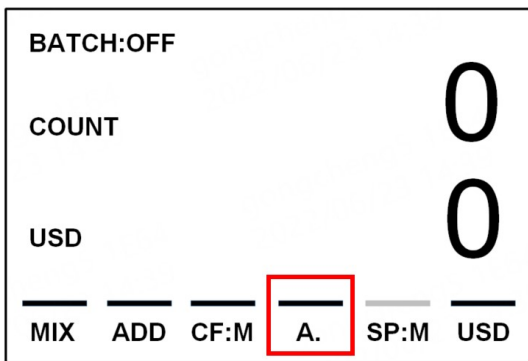


Figure 9

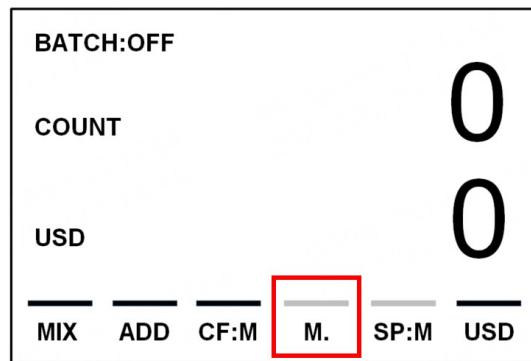



Figure 10

2.1.4 Counting Mode Selection

2.1.4.1 Single Currency Counting Mode

Press the "CURRENCY" key on the box below or touch the "USD" character on the lower right of the display screen to enter the currency list interface, as shown in Figure 11 below. Under this interface, you can select currencies of different countries. Take the dollar as an example, you can touch "" key, and the display screen will automatically jump to the main interface, and the currency symbol "USD" will be displayed in the lower right corner, indicating that the machine is in the mode of counting dollars. As shown in Figure 12 below.

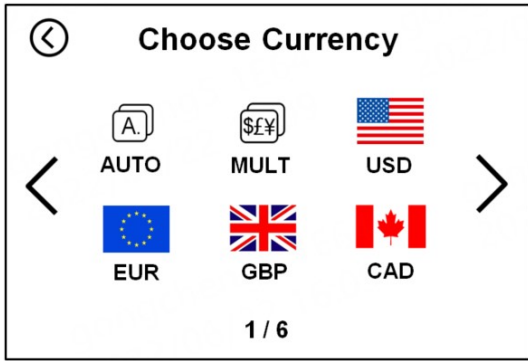


Figure 11

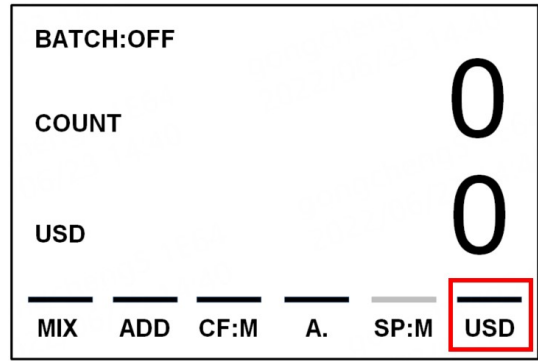


Figure 12

By pressing the "MODE" key on the face frame or touching the "MIX" character at the lower left of the display screen, you can switch the three counting modes cyclically. In each mode, the machine will use the default values of the system. The corresponding order of each mode is shown in Figure 13 below.

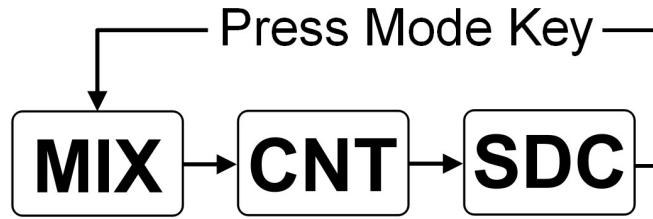


Figure 13

2.1.4.1.1 < MIX > mixed counting mode

Figures 14 and 15 below show the interface of the machine in the mixed counting mode in the automatic counting state. In this mode, the machine will count all denominations of the currency of the same country, and record the detailed information of the counted banknotes, including the total amount and total number of banknotes in the receiving hopper, which is convenient for users to view. When this mode is selected, the machine counts at the default speed (L: 800 pcs/min; M: 1000 pcs/min, H: 1200 pcs/min, with three optional).

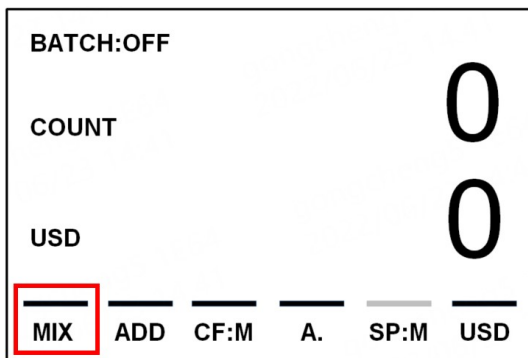


Figure 14

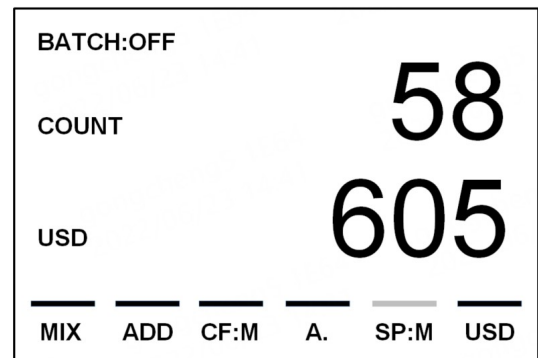


Figure 15

2.1.4.1.2 < CNT > counting mode

Figures 16 and 17 below show the interface where the machine only counts the quantity in the automatic state. This model does not limit the currency, but only counts the number of banknotes. When this mode is

selected, the machine counts at the default speed (L: 800 pcs/min; M: 1000 pcs/min, H: 1200 pcs/min, U: 1500 pcs/min, with four optional). Only double detection is retained.

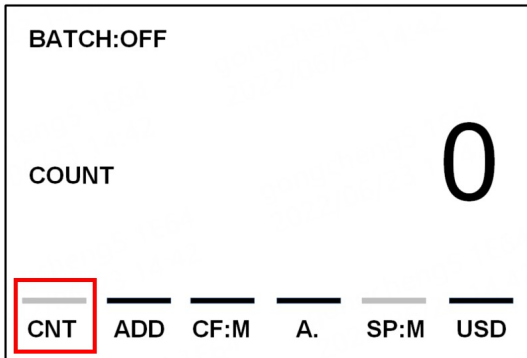


Figure 16

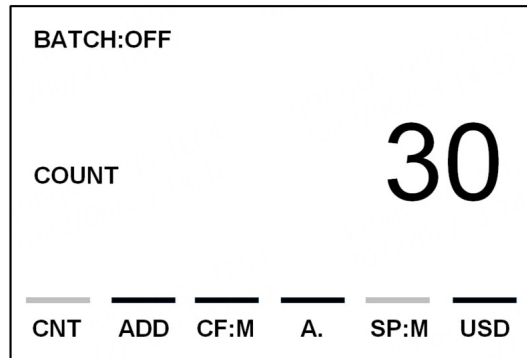


Figure 17

2.1.4.1.3 < SDC > single denomination counting mode

Figure 18 and Figure 19 below show the interface of single denomination counting mode in the automatic counting state of the machine. Under this mode, the machine will count the banknotes with the same denomination as the first banknote based on the first banknote to be counted, and count the detailed information of the banknotes, including the total amount and the total number of banknotes. In the receiving hopper, count and save in detail, which is convenient for users to view (Note: currency with different denominations cannot be put in this mode, otherwise the size error will be prompted when counting currencies). When this mode is selected, the machine counts at the default speed (L: 800 pcs/min; M: 1000 pcs/min, H: 1200 pcs/min, with three optional).

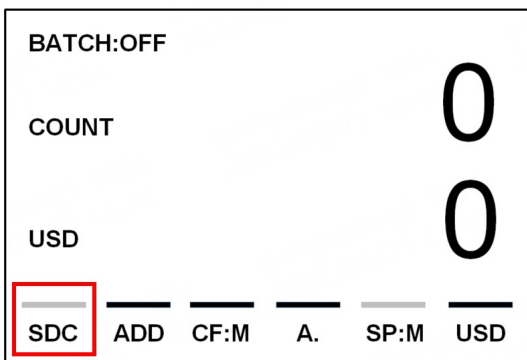


Figure 18

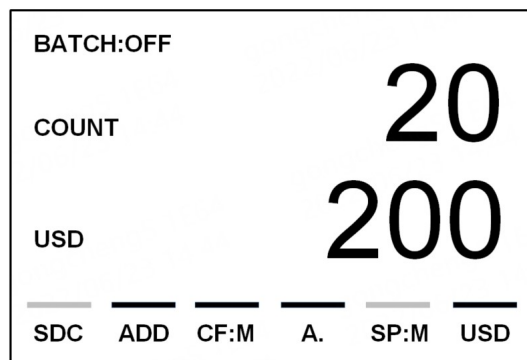


Figure 19

Note: In MIX mixed counting mode and SDC single counting mode, the machine has image, magnetic detection, UV detection and overlap detection functions. In CNT counting mode, only overlap detection function is available.

2.1.4.2 Automatic Recognition Mode

Automatic recognition: Automatic recognition of currency types put into the machine. In the process of counting banknotes, the machine identifies banknotes of all denominations in the same country based on the first banknote passing through the sensor. When currency from other countries is recognized, the machine will give an alarm and stop. At this time, you need to take out the banknotes from other countries, and then press the **"START/STOP"** key on the right side, and the machine will continue to count the banknotes. The machine can only recognize the currency of the country displayed in the program.

Press the **"CURRENCY"** key or touch the "USD" character in the lower right corner of the display screen



to enter the currency selection interface, as shown in Figure 11 below. Click "Auto" automatic recognition mode, and after selection, the display screen will automatically adjust to the main interface, as shown in Figure 20 below:

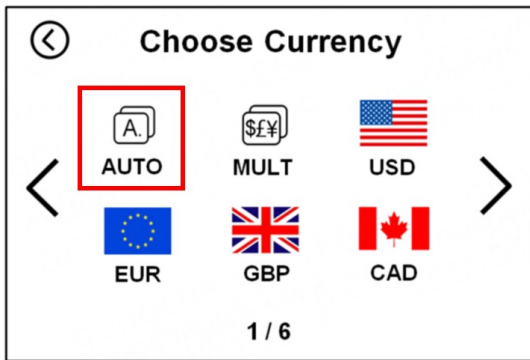


Figure 11

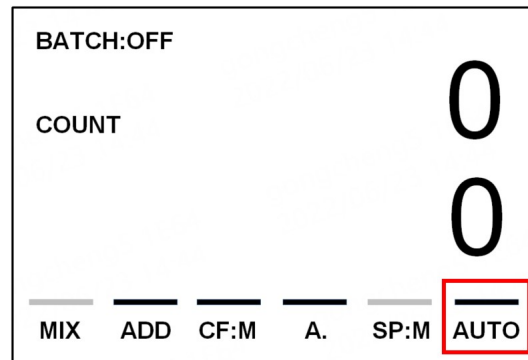


Figure 20

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

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

When the accumulation function is turned on, the machine will accumulate and count the detailed information of this and previous inventory after each inventory.

2.1.4.2.1 Accumulation function off

1) The horizontal line above the "ADD" character in the lower left corner of the display screen is gray, indicating that the accumulation function of the machine has been turned off at this time, as shown in Figure 21 below.

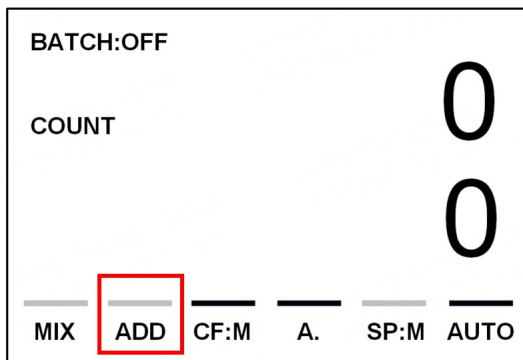


Figure 21

2) Example: Put a stack of dollars into a machine to count. The machine interface shows the end of counting as shown in Figure 22 below. The "USD" character appears in the lower right corner of the display screen.

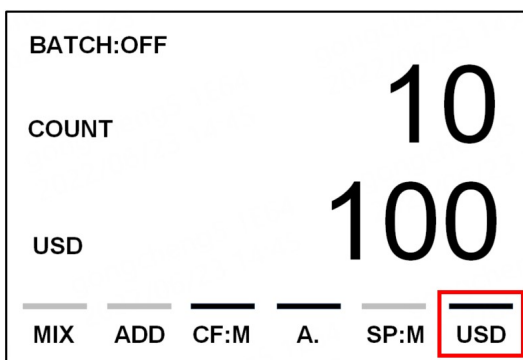


Figure 22

3) Take all the dollar bills out of the receiving bucket and then take a stack of euro bills and put them into the machine for counting. After the machine counting, the interface shown in Figure 23 below appears. The "EUR" character appears in the lower right corner of the display screen.

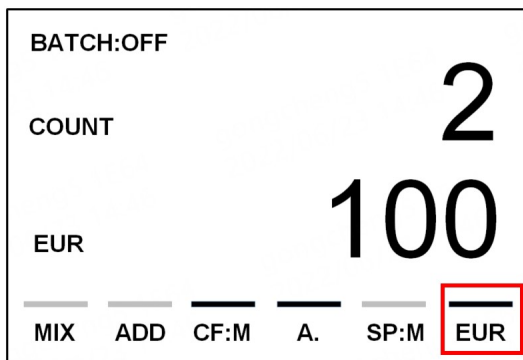


Figure 23

4) After taking out all the euro banknotes in the banknote receiving hopper of the machine, the machine will only display the quantity and amount of the currently counted euro banknotes, but will not show that the counting currency of the previous counted dollars.

2.1.4.2.2 Accumulation function on

1) Press the "ADD" key to the left of the box below or touch the "ADD" character at the bottom of the display. The word "ADD: ON" appears on the display screen, and the horizontal line above the ADD character changes from gray to blue, indicating that the accumulation function of the machine is turned on at this time, as shown in Figure 24 below.

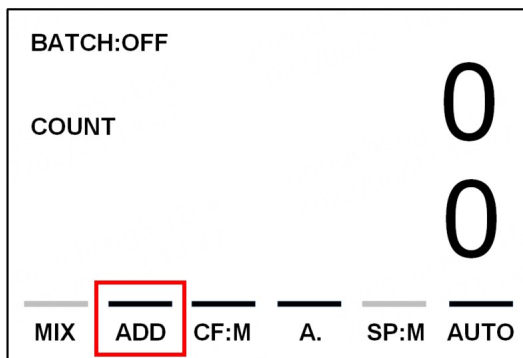


Figure 24

2) Example: Put a stack of dollars into a machine to count. The machine interface shows the end of counting as shown in Figure 25 below. The "USD" character appears in the lower right corner of the display screen.

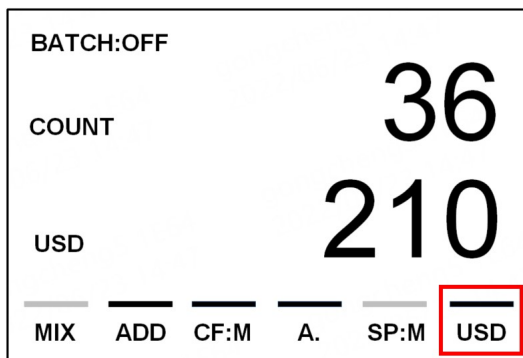


Figure 25

3) Take all the dollar bills out of the bucket and then take a stack of euro bills and put them into the machine for counting. After the machine counting, the interface shown in Figure 26 below appears. The "EUR" character appears in the lower right corner of the display screen.

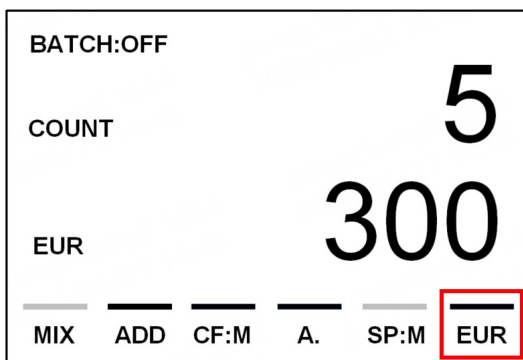


Figure 26

4) After taking out all the euro banknotes in the banknote stacker of the machine, the machine will accumulate the quantity and amount of the euro banknotes currently counted with the dollar banknotes counted in the previous time in detail, as shown in Figure 27 below.

CURR	QTY	AMT
USD	36	210
EUR	5	300

MIX	ADD	CF:M	A.	SP:M	AUTO
-----	-----	------	----	------	------

Figure 27

5) After taking out the banknotes in the stacker, put the currencies of other countries again. If the banknotes in the bucket are not taken away at the end of each counting, the characters of the current currency will be recognized and displayed in the lower right corner of the machine. After taking away the banknotes in the banknote pick-up hopper, the machine will automatically count and accumulate the banknotes in detail. For example: If we first put a stack of dollars for counting, then put them into pounds, Canadian dollars and euros for counting, and finally take away the banknotes in the stacker, the machine counting is obviously shown in Figure 28 below:

CURR	QTY	AMT
USD	36	210
GBP	60	3000
CAD	22	220
EUR	60	6000

MIX	ADD	CF:M	A.	SP:M	AUTO
-----	-----	------	----	------	------

Figure 28

2.1.4.3 Multi currency mixed counting mode

Multi currency mixed counting mode: The currencies of various countries are mixed together and put into the machine for counting, and the quantity and amount of each currency are displayed according to the currency name. Note: The machine can only recognize the supported national currency displayed by the machine. Unsupported currencies will stop and report errors. Please change the counting mode of the machine to MIX mixed counting mode first.

Press the **"CURRENCY"** key or touch the "USD" character in the upper right corner of the display screen



to enter the currency selection interface, as shown in Figure 11. Then click "MLUT" multi currency mixed counting mode, the display will automatically switch to the main interface, as shown in Figure 29 below:

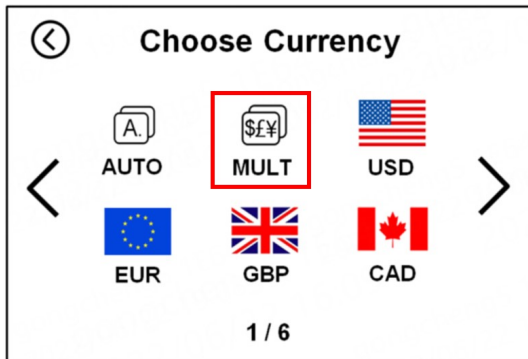


Figure 11

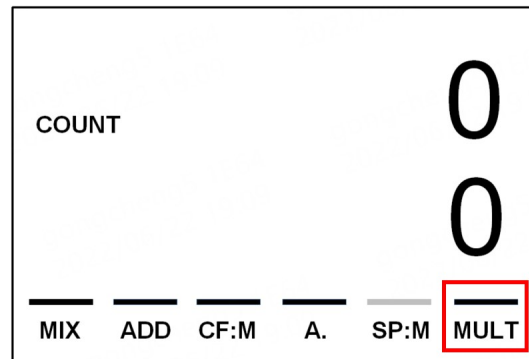


Figure 29

Example: Put a stack of banknotes (including dollars, euros, Canadian dollars and pounds) into a machine for counting. Details of counted currencies are shown in Figure 30 below:

CURR	QTY	AMT
USD	30	300
EUR	6	300
CAD	15	150
GBP	60	3000

MIX	ADD	CF:M	A.	SP:M	MULT
-----	-----	------	----	------	------

Figure 30

2.1.5 Counting Speed Setting and Function

The machine has four counting speed options: SP: U, SP: H, SP: M, SP: L

- 1) SP: U: 1500 pcs/min (Note: SP: U is only optional in CNT mode).
- 2) SP: H: 1200 pcs/min
- 3) SP: M: 1000 pcs/min
- 4) SP: L: 800 pcs/min

The default speed of the three counting modes is SP: M (1000 pcs/min). If you need to adjust the counting speed, touch the "SP: M" key at the bottom of the display screen to switch the speed (speed switching can be done in any counting mode). As shown in Figure 31 below, the machine is at SP: H high counting speed.

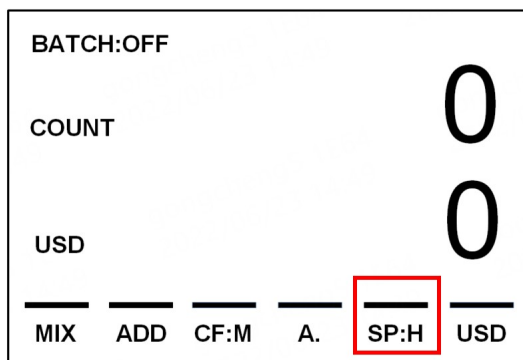


Figure 31

Function description corresponding to each counting speed:

Counting mode	Counting speed	Applicable working mode (function)
MIX mixed counting mode	800 pcs/min	Quantity counting, amount counting and serial number reading functions
	1000 pcs/min	Quantity counting, amount counting and serial number reading functions
	1200 pcs/min	Quantity counting, amount counting
single counting mode	800 pcs/min	Quantity counting, amount counting and serial number reading functions
	1000 pcs/min	Quantity counting, amount counting and serial number reading functions
	1200 pcs/min	Quantity counting, amount counting
CNT counting mode	800 pcs/min	Quantity counting, but not amount counting
	1000 pcs/min	Quantity counting, but not amount counting
	1200 pcs/min	Quantity counting, but not amount counting
	1500 pcs/min	Quantity counting, but not amount counting

2.1.6 Details View of Counting

2.1.6.1 Details View of Counting

In MIX mixed counting mode or SDC single counting mode, after counting, press the "LIST" key on the right side of the following box to enter the counting details interface, as shown in Figure 32 below. Figure 33 shows the detailed interface of counting after 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

Figure 32

⏪ 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

This interface is used to view the number of banknotes of various denominations and the total amount of that denomination, as well as the total quantity and total amount of all banknotes. At the same time, banknotes can also be counted directly under this interface. To exit the interface, press the "CLEAR/ESC" key on the right side of the face or touch the "⏪" key in the upper left corner.

2.1.6.2 Details View of Banknote Serial Number

When the machine is in MIX mixed counting mode and SD single counting mode, and the counting speed is 800 pcs/min or 1000 pcs/min, the machine can collect the serial number of banknotes. After adjusting the counting mode and counting speed, take a stack of banknotes and put them into the machine for counting. After counting, press "LIST" on the left side of the following box to enter the counting details interface, as shown in Figure 34 below. Press the "LIST" key on the left again to enter the serial number query interface, as shown in Figure 35 below.

⏪ LIST		
DENOM.	QTY	AMT
\$ 100	0	\$ 0
\$ 50	0	\$ 0
\$ 20	0	\$ 0
\$ 10	0	\$ 0
\$ 5	0	\$ 0
\$ 2	0	\$ 0
\$ 1	5	\$ 5
Total	5	\$ 5

Figure 34

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

Figure 35

2.1.7 Counting Preset Function

2.1.7.1 Default Preset Number Settings

In the main interface state of the machine, press the "BATCH" key on the left side or touch the "BATCH: OFF" character in the upper left corner of the display screen to switch the default preset number. The default

preset number is 200/100/50/20/10/5/USER/OFF 8 options. (For example, Figure 36 shows preset off and Figure 37 shows preset number 200). When the Batch function is turned off, the number of Batch on the machine is 200. When the count reaches 200, the machine will automatically stop running.

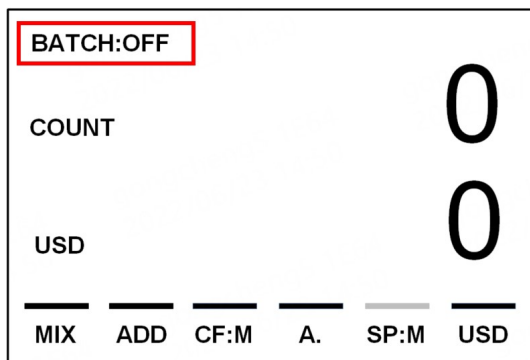


Figure 36

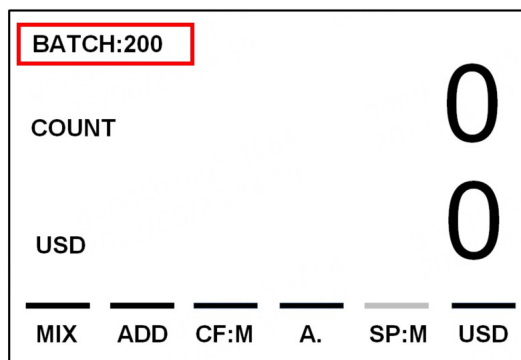


Figure 37

2.1.7.2 Detailed Preset Number Settings

1) In the main interface of the machine, press the "MENU" button on the right to enter the "MENU" interface shown in Figure 38 below. Then, touch "Customize" to enter the "Customize Settings" interface, as shown in Figure 39 below.

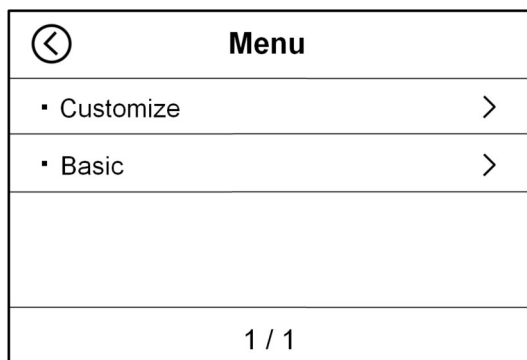


Figure 38

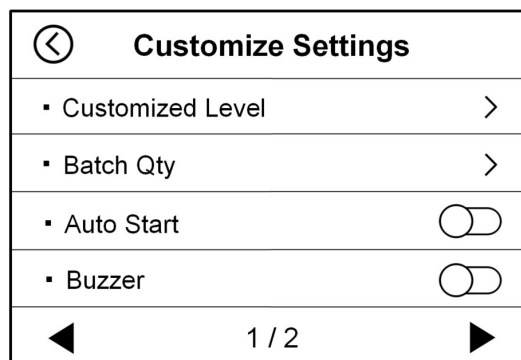


Figure 39

2) Under the interface of Figure 39 above, touch the "Batch Qty" option to enter the preset number setting interface, as shown in Figure 40 below:

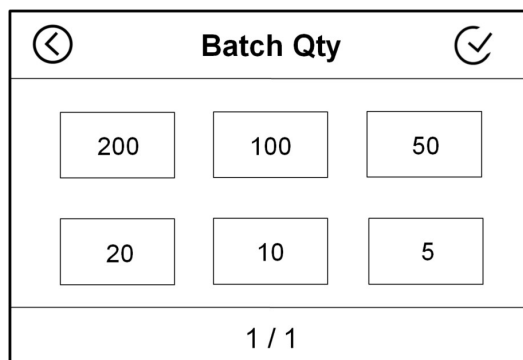


Figure 40

In the interface of Figure 40 above, 200, 100, 50, 20, 10 and 5 are the default 6 preset number. If one or more of the six preset number are not required by the customer, the customer can modify the unnecessary value to the required value.

Example: Customers do not need the default preset number of 20. The customer needs to preset the value to 155, so the operation is as follows:

1) Under the interface shown in Figure 40, touch the value "20" to enter the preset number setting interface, as shown in Figure 41:

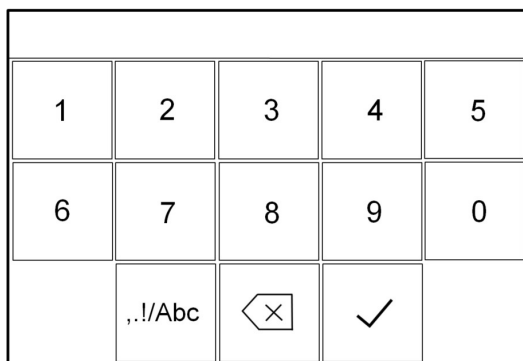


Figure 41

2) Under the interface of Figure 41, enter the number "155", then touch the "✓" key at the lower right corner as shown in Figure 42 to save. After saving successfully, the original number "20" changed to "155". Please touch the "⌂" key at the upper right corner to save the number, as shown in Figure 43 below.

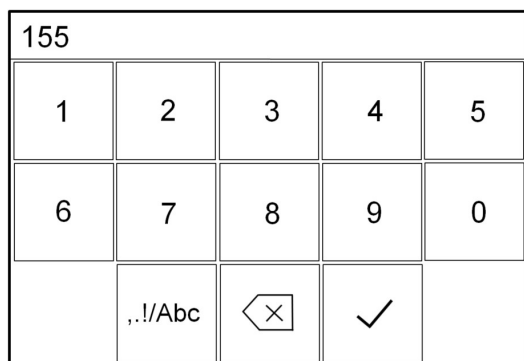


Figure 42

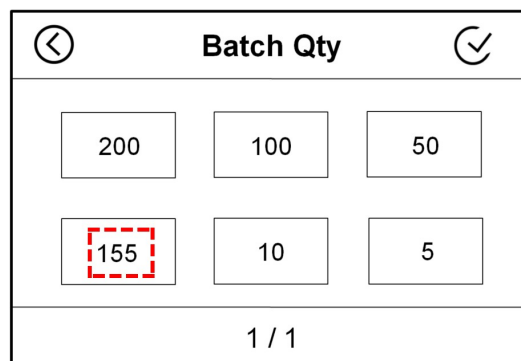


Figure 43

3) Please press the "CLEAR/ESC" key on the right side of the frame several times until the machine returns to the main interface. Press the "BATCH" key on the left side of the frame or touch the "BTACH: 200" character in the upper left corner of the display screen to switch the preset number until it is switched to "B: 155", as shown in Figure 44 below.

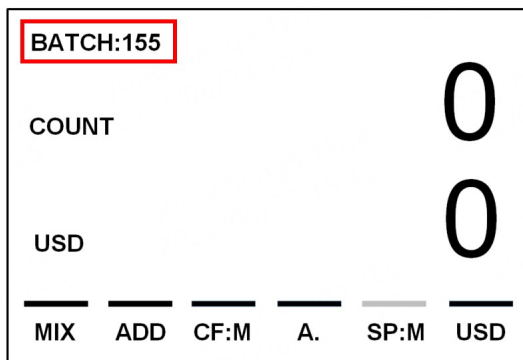


Figure 44

2.1.7.3 Custom Preset Number Quick Settings

1) Under the main interface of the machine, press and hold the "BATCH" key on the left side of the frame for 3 seconds until the display screen jumps to the preset number shortcut setting interface, as shown in Figure 45 below.

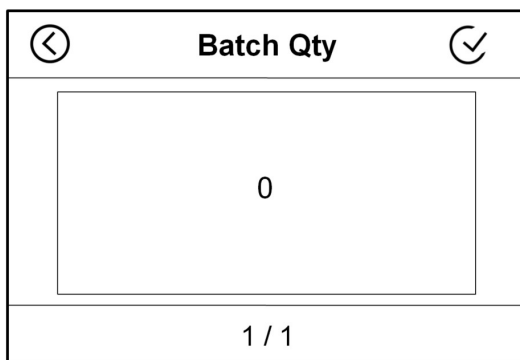


Figure 45

Warm tip: The preset number input range is 0-200. If it exceeds the range, it will not be saved.

2) Touch the "0" character in the middle of the display screen to enter the preset number input interface shown in Figure 46. Touch the "✓" key at lower right corner after entering "155" in this interface and save. After saving, it will jump to the interface shown in Figure 47 below.

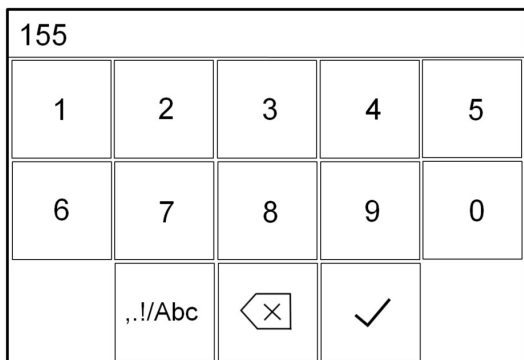


Figure 46

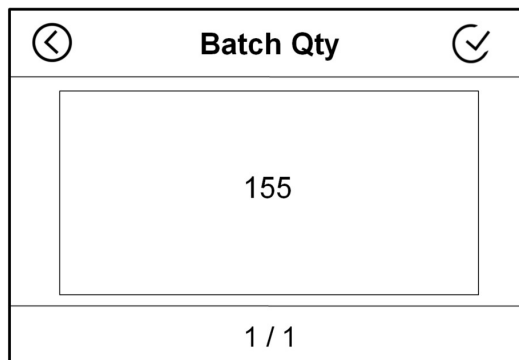


Figure 47

3) In the interface shown in Figure 47, touch the "✓" key to save the preset number, and the machine automatically jumps to the main interface. The upper left corner of the main interface is displayed as " BATCH: 155 ", as shown in Figure 48 below.

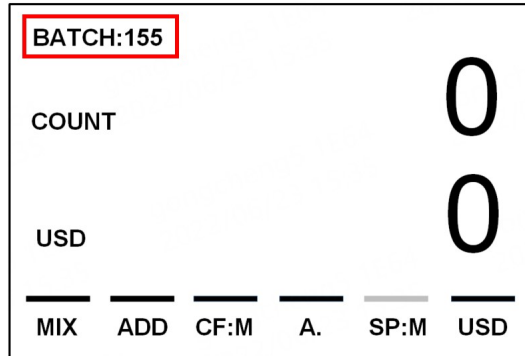


Figure 48

2.1.8 On/Off of Accumulation Function

In any currency point mode, press the "ADD" key on the left side of the frame or touch the "ADD" character at the bottom of the display screen to turn on or off the accumulation function of the machine.

Accumulation function on: the words "ADD: ON" appear on the display screen and disappear, and the horizontal line above ADD characters at the bottom of the display screen turns blue, indicating that the accumulation function is turned on at this time, as shown in Figure 49 below.

Accumulation function off: the words "ADD: OFF" appear on the display screen and disappear, and the horizontal line above ADD characters at the bottom of the display screen turns gray, indicating that the accumulation function is turned off at this time, as shown in Figure 50 below.

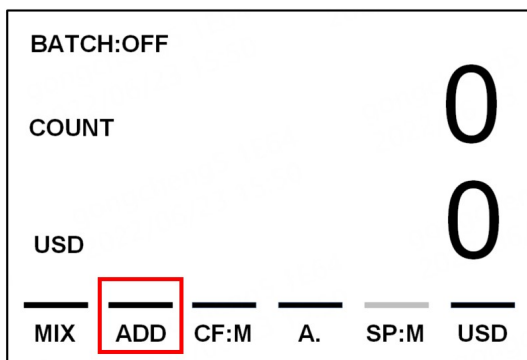


Figure 49

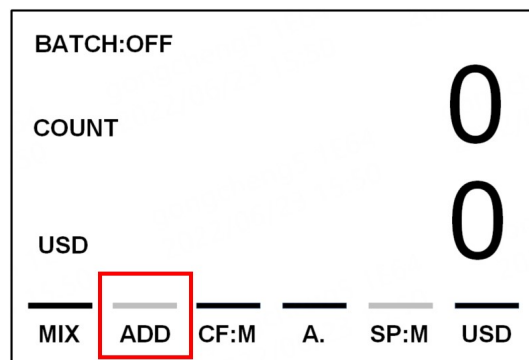


Figure 50

1) Accumulation function off: put a stack of banknote into the machine for counting, and the machine will display the number and amount of banknotes counted this time after counting. After taking out all the banknotes in the banknote staker, put them back into the banknotes for counting. After counting, the

machine will only display the banknote information counted this time, but not the banknote information counted before.

2) Accumulation function on: put a stack of banknote into the machine for the first counting, and the machine will display the number and amount of banknotes counted this time after the counting is completed. After taking out all the banknotes in the banknote stacker, put them back into the banknotes for the second counting. When the banknotes are not taken out from the banknote stacker after counting, the machine will display the number and amount of banknotes counted for the second time. When the banknotes are taken out of the bucket, the machine will accumulate the number and amount of the banknotes counted for the second time and the first time. Press the CLR key once to clear the first currency information, and then press the CLR key again to clear all currency information.

3) In the counting process, if there is an error, the machine will automatically delete the counted banknote information and prompt to re-count.

4) When switching currencies in automatic recognition mode, the accumulation function will fail.

2.1.9 Counterfeit Detection Gear Settings

1) In the main interface of the machine, press the "MENU" button on the right to enter the "MENU" interface shown in Figure 38 below. Then touch "Customize" to enter the "Customize Settings" interface, as shown in Figure 39 below.

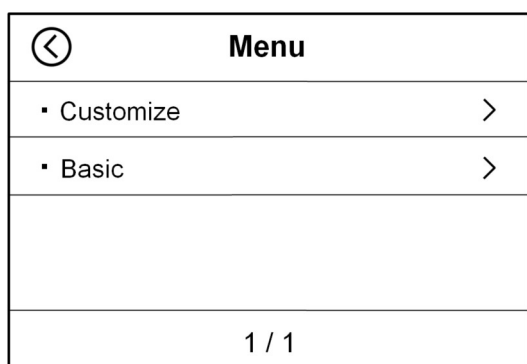


Figure 38

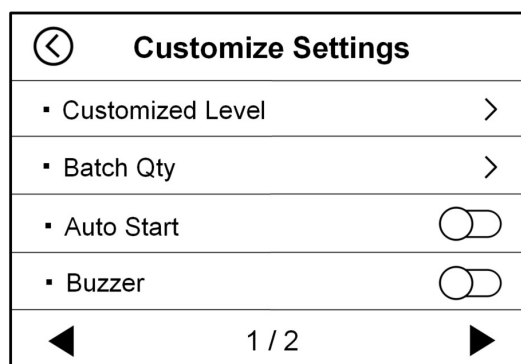


Figure 39

2) Under the interface in Figure 39, touch the "Customized Level" option to enter the "Currency Choose" interface, as shown in Figure 51 below.

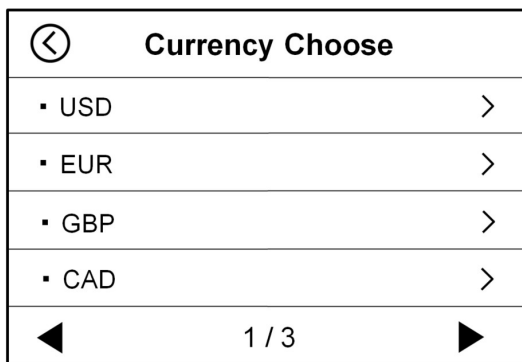


Figure 51

3) Take the dollar as an example. In the interface of Figure 51, touch the "USD" option to enter the counterfeit detection gear setting interface, as shown in Figures 52 and 53 below. In the interface shown in Figure 52, the counterfeit detection gears are available in three gears: high, medium and low. The higher the gear, the higher the counterfeit detection sensitivity. The default counterfeit detection gear of the machine is mid-range. Users can select the appropriate counterfeit detection gear according to the actual counting demand, and click the "✔" key on the back to confirm and save." User Customized Detection 1 "and" User Customized Detection 2 "are not recommended for direct use by customers.

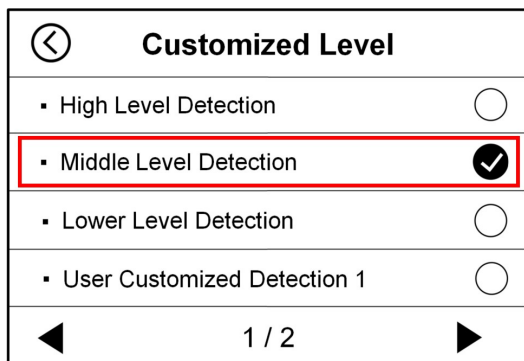


Figure 52

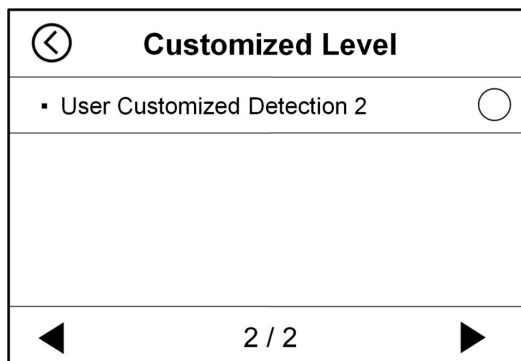


Figure 53

2.1.10 Buzzer Settings

1) In the main interface of the machine, press the "MENU" button on the right to enter the "MENU" interface shown in Figure 38 below. Then touch "Customize" to enter the "Customize Settings" interface, as shown in Figure 39 below.

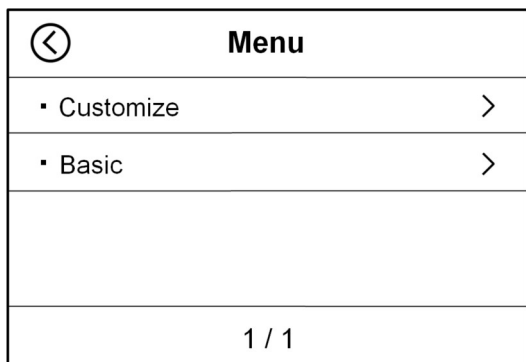


Figure 38

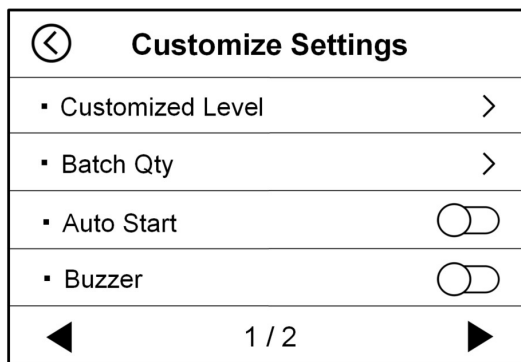


Figure 39

2) Under the interface in Figure 39, touch the switch button behind the option "Buzzer" to turn the buzzer on and off. Figure 54 below shows the buzzer on, the switch color behind "Buzzer" changes to blue. Figure 55 below shows the buzzer off, the switch color behind "Buzzer" turns gray.

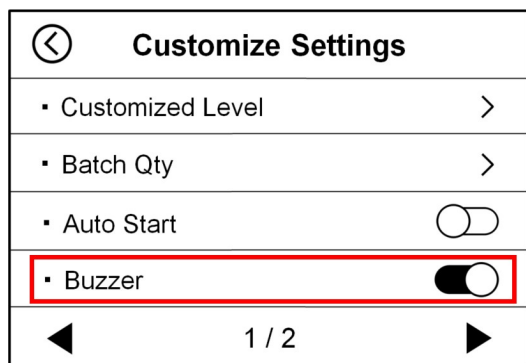


Figure 54

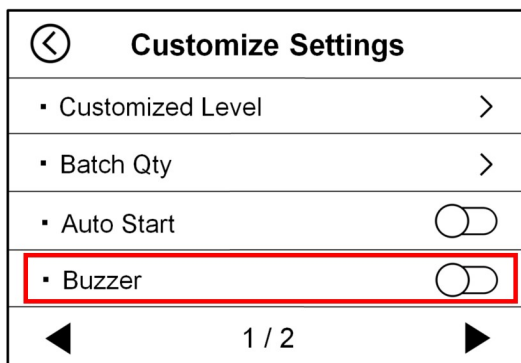


Figure 55

2.1.11 Language Settings

1) In the main interface of the machine, press the "MENU" button on the right to enter the "MENU" interface shown in Figure 38 below. Then touch "Customize" to enter the "Customize Settings" interface, as shown in Figure 39 below.

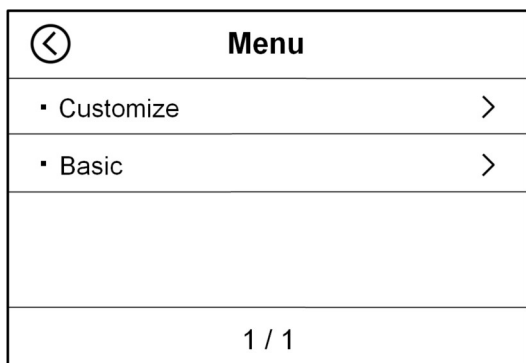


Figure 38

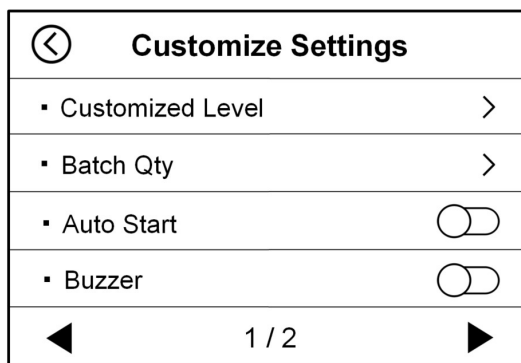


Figure 39

2)在图 39 界面，触摸显示屏右下角“”键进入如图 56 所示的第二页。触摸图 56 界面的“Language”选项进入语言设置界面，如下图 57 所示。

2) In the interface of Figure 39, touch the "▶" key in the lower right corner of the display screen to enter the second page as shown in Figure 56. Touch the "Language" option in Figure 56 to enter the language setting interface, as shown in Figure 57 below.

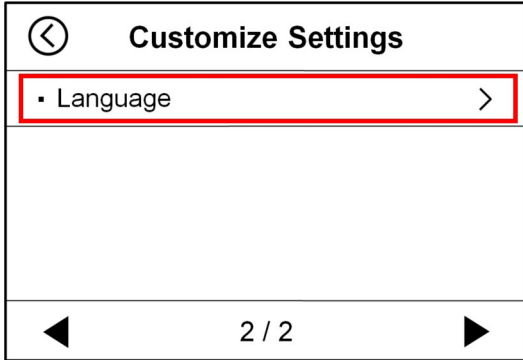


Figure 56



Figure 57

3) Check "✔" behind the language you want to select, and then touch the "◀" key in the upper left corner of the screen, and the machine will prompt you to restart the machine. After restarting, the interface language of the machine will be displayed as the language you just selected.

2.1.12 Date and Time Settings

1) In the main interface of the machine, press the "MENU" button on the right to enter the "MENU" interface shown in Figure 38 below. Then touch the "Basic" option to enter the "Basic Settings" interface, as shown in Figure 58 below.

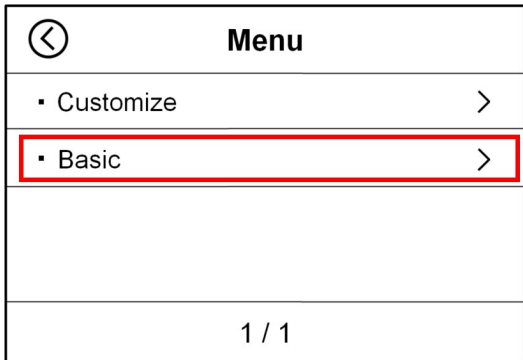


Figure 38

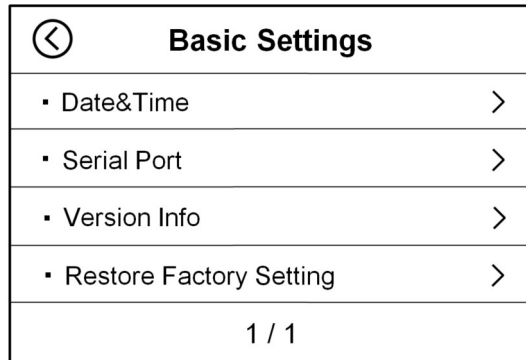


Figure 58

2) In the interface of Figure 58, click and touch the "Date & Time" option to enter the date and time setting interface, as shown in Figure 59 below.

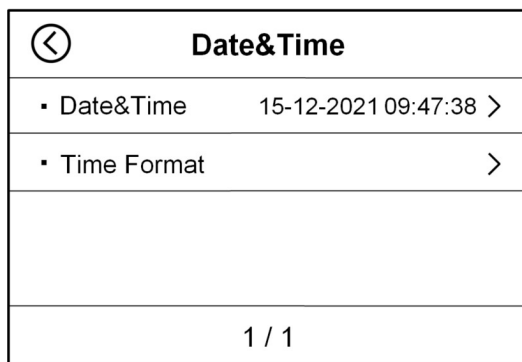


Figure 59

The first option "Date & Time" is used to set the date and time. In the interface shown in Figure 59, touch the first item "Date & Time" to enter the interface shown in Figure 60. According to the actual demand, touch the value to be modified to enter the interface shown in Figure 61. After entering the value, click the "✓" key in the lower right corner of the interface of Figure 61 to save the value. After the numerical value setting is completed, in the interface of Figure 60, you need to touch the "✓" key in the upper right corner to save it.

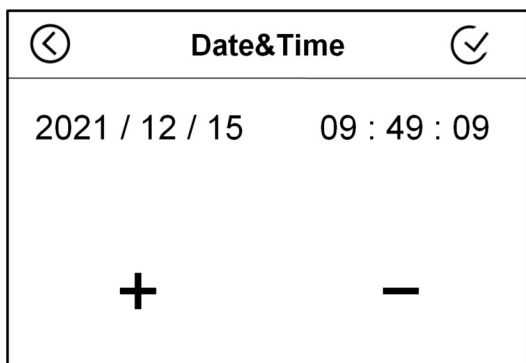


Figure 60

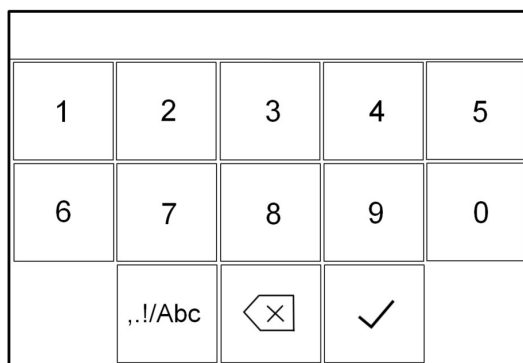


Figure 61

The second option "Time Format" is used to format the date and 24-hour time. In the interface shown in Figure 59, touch the second item "Time Format" to enter the interface shown in Figure 62. According to the actual needs, select the required date format and whether to turn on the 24-hour time format.

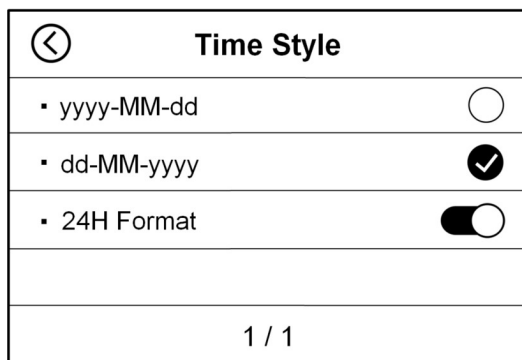


Figure 62

2.1.13 Software Version View

1) In the main interface of the machine, press the "MENU" button on the right to enter the "MENU" interface shown in Figure 38 below. Then touch the "Basic" option to enter the "Basic Settings" interface, as shown in Figure 58 below.

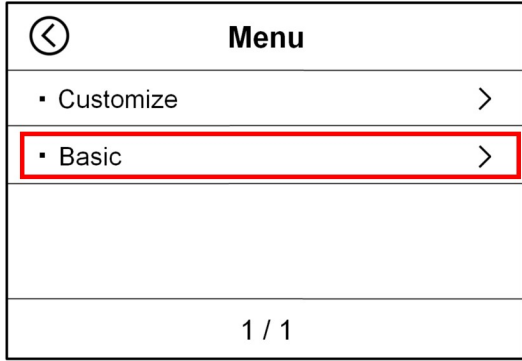


Figure 38

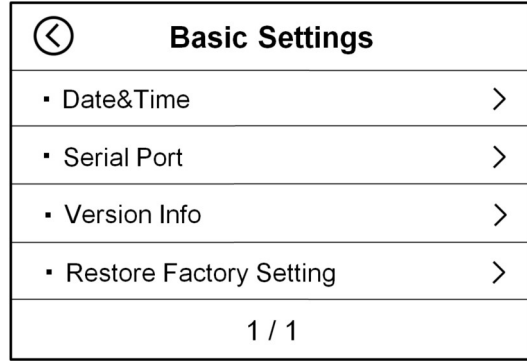


Figure 58

2) In the interface of Figure 58, touch the "Version Info" option to enter the software version interface, as shown in Figure 63 below.

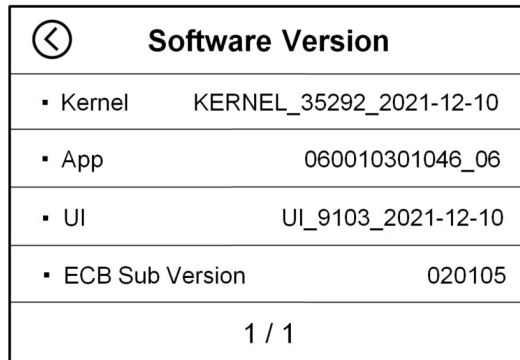


Figure 63

2.1.14 Restore Factory Settings

1) In the main interface of the machine, press the "MENU" button on the right to enter the "MENU" interface shown in Figure 38 below. Then touch the "Basic" option to enter the "Basic Settings" interface, as shown in Figure 58 below.

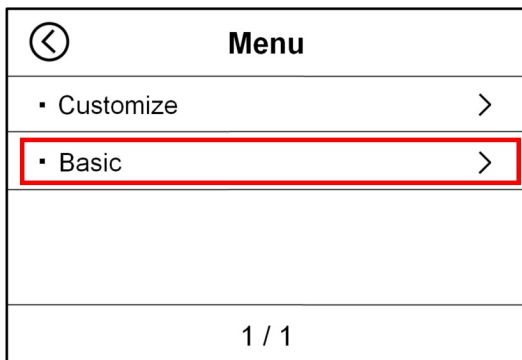


Figure 38

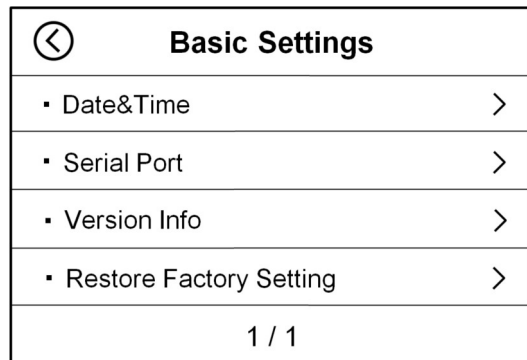


Figure 58

2) In the interface of Figure 58, touch the "Restore Factory Setting" option to enter the Restore Factory Settings interface, as shown in Figure 64 below.

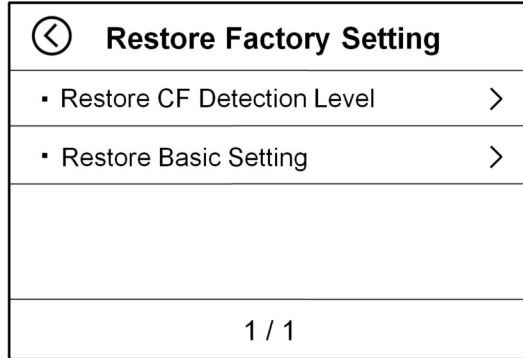


Figure 64

"Restore CF Detection Level": Restore the counterfeit detection gear to the factory setting state. If the customer has special requirements for counting banknotes, needs to adjust the counterfeit detection gear of a certain country's currency, and wants to restore the original counterfeit detection gear after counting banknotes, he can use this function. As shown in Figure 65 below.

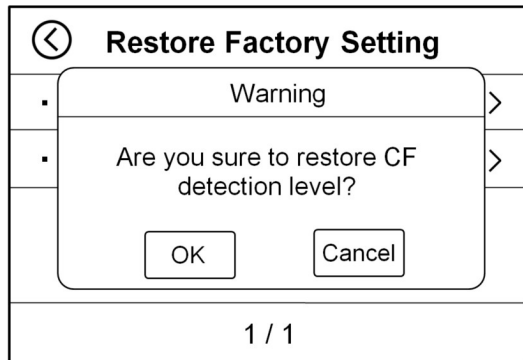


Figure 65

4) "Restore Basic Setting": Restores basic settings to factory settings. This function can be used if the customer modifies several basic settings of the machine (such as buzzer, baud rate, buzzer function, etc.) and now needs to be restored to the factory setting state. After using this function, you need to restart the machine. As shown in Figure 66 below.

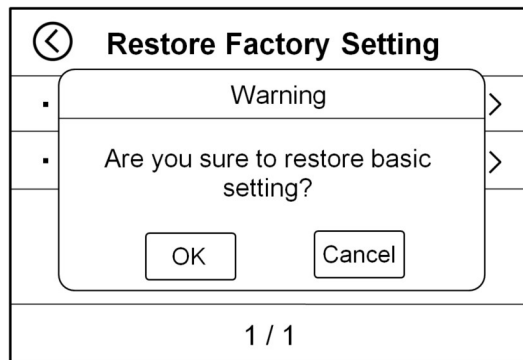


Figure 66

2.1.15 Counting History Query

1) In the main interface of the machine, press the "MENU" button on the right to enter the "MENU" interface shown in Figure 38 below. Press the "MENU" key on the right side twice in succession to enter the "Debug Menu" interface shown in Figure 67 below.

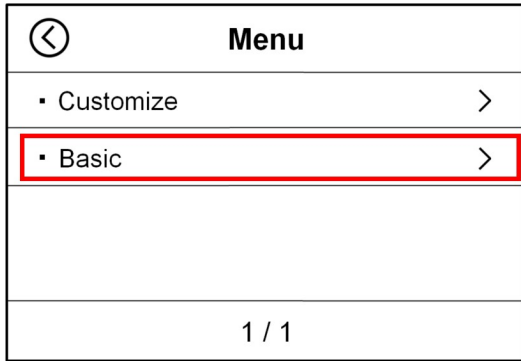


Figure 38

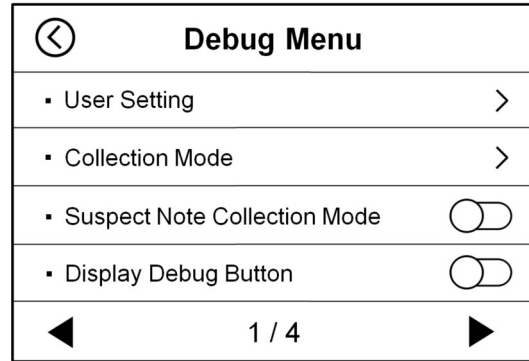


Figure 67

2) In the interface of Figure 67, touch the "▶" key in the lower right corner of the screen to adjust to the second page shown in Figure 68 below. Then touch the "Log Data" option to enter the "Log Data" interface shown in Figure 69.

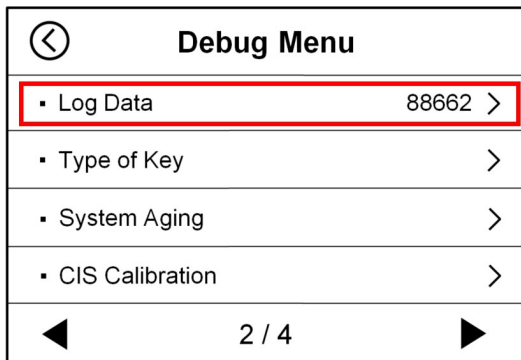


Figure 68

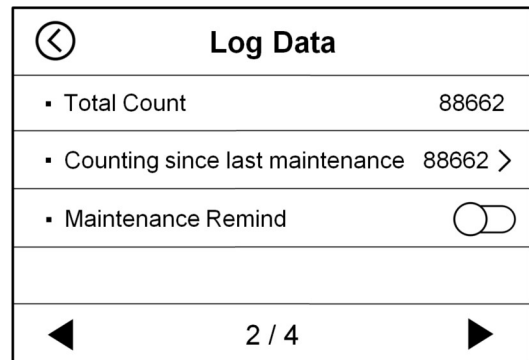


Figure 69

"Total Count": the total number of historical counting.

"Counting since last maintenance": the total number of currencies counted since the last maintenance; Touch to clear it.

"Maintenance Remind": This is the reminder function when the total number of currencies counted reaches 80W. When the total number of currencies reaches 80W, the customer needs to clear the number of currencies counted by the machine. Customers can choose to touch the back switch "" to turn on or off this reminder function according to their own needs.

2.2 Instructions for Connecting Printer

If you purchase a serial thermal printer, please confirm the baud rate of the printer according to the printer's instructions, adjust the baud rate of the machine to the baud rate of the printer, and then connect the printer to the machine for printing data. The default baud rate of the machine is 115,200. The specific operation steps are as follows:

1) In the main interface of the machine, press the **"MENU"** button on the right to enter the "MENU" interface shown in Figure 38 below. Then touch the "Basic" option to enter the "Basic Settings" interface, as shown in Figure 58 below.

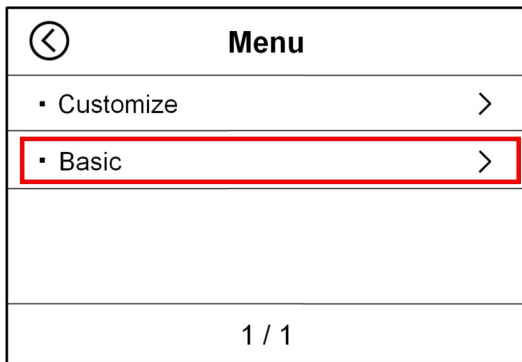


Figure 38

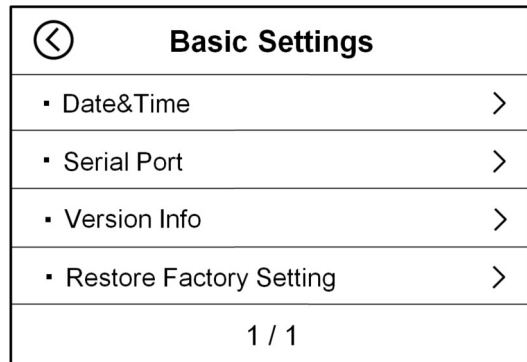


Figure 58

2) In the interface of Figure 58, touch the second item "Serial Port" to enter the "Serial Port settings" interface shown in Figure 70 below.

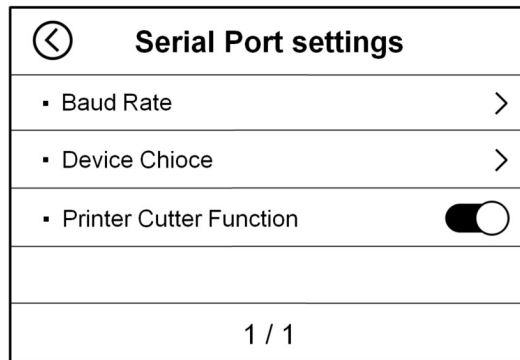


Figure 70

3) In the interface shown in Figure 70, please touch the second item "Device Choice" to enter the interface shown in Figure 71 below. Tick "✔" after the "Printer" option, and then touch the "✔" key in the upper right corner of the screen to save. After saving, the machine interface automatically jumps back to the interface shown in Figure 70.

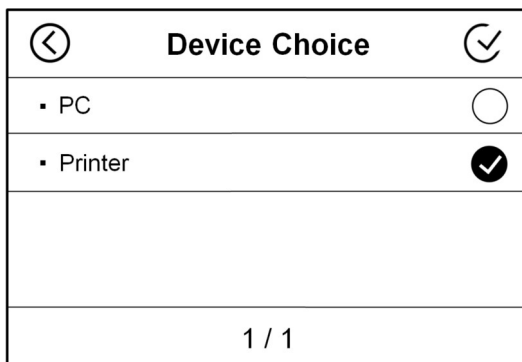


Figure 71

4) In the interface of Figure 70, touch the first item "Baud Rate" again to enter the baud rate setting interface, as shown in Figure 72 below. In the interface in Figure 72, select the baud rate of the machine according to the baud rate of the printer you purchased. After the selection is completed, touch the "⏩" key in the upper right corner of the screen to save, and the display screen reminds you to restart the machine. If you purchase a printer with a baud rate of 115200, you can skip this baud rate setting step.

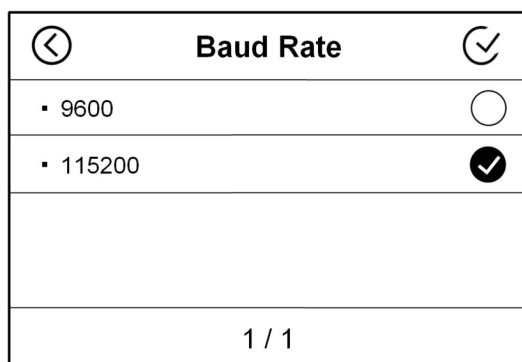


Figure 72

- 5) Enter the main interface after the machine restarts. If your machine does not restart, please press the right button "CLEAR/ESC" several times to return the display screen to the main interface.
- 6) Please select the currency and counting mode of the machine in the main interface.
- 7) Connect the printer to the power supply, connect one end of the data line in the printer box to the printer, and connect the other end to the RS232 interface of the machine.
- 8) After printer connected to the machine, please count the banknotes. After counting, press the "LIST" key on the right side of a lower box to enter the detailed interface of counting currencies, and press the "PRINT" key on the right side to print counting currencies obviously. The print format is shown in Figure 73.

CUSTOMER ID:		
USD		
Deno.	Count	Value
100	5	500
50	2	100
20	0	0
10	0	0
5	30	150
2	0	0
1	21	21
Total:	58	771
		16/6/2022 16:18:45

Figure 73

9) If the baud rate is set correctly, but you still cannot print, connect the printer you purchased to the machine using the printer cable in the packing box we provided, and then print again. As shown in Figure 74 below.

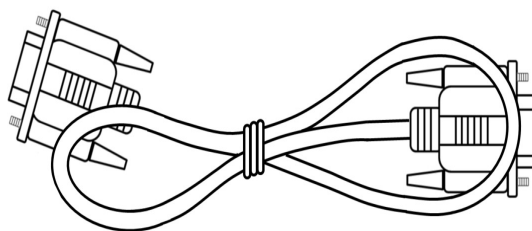


Figure 74

10) If you find that the data cable interface of the printer you purchased does not match the currency counter interface, you can connect it using the printer data cable adapter in the packing box provided by us (see Figure 75 below).

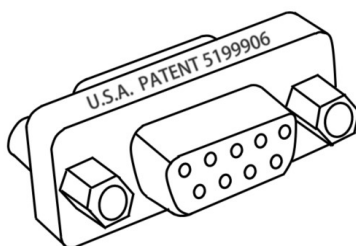


Figure 75

11) If you encounter other problems, please contact our after-sales service team. Please refer to the warranty card and product label for contact information. We will provide you with perfect solutions.

2.3 Upload Counting Data to PC

If you want to upload the counting details of the machine to the PC, you need to follow the steps:

2.3.1 RS232 Serial Connection

Take a USB-to-RS232 serial port wire, connect the USB port to the PC, and insert the RS232 serial port into the machine, as shown in Figure 76:

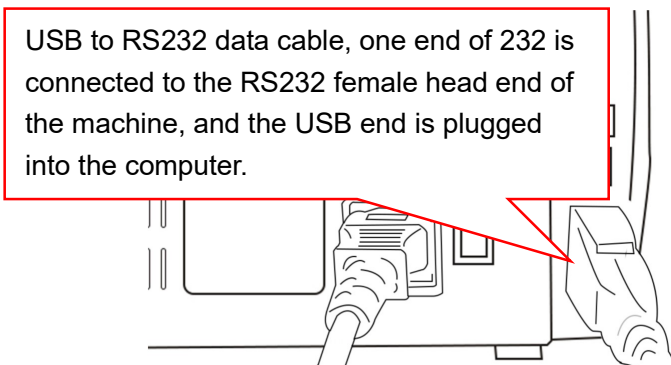


Figure 76

2.3.2 Machine Settings

1) In the main interface of the machine, press the **"MENU"** button on the right to enter the "MENU" interface shown in Figure 38 below. Then touch the "Basic" option to enter the "Basic Settings" interface, as shown in Figure 58 below.

Menu	
▪ Customize	>
▪ Basic	>
1 / 1	

Figure 38

Basic Settings	
▪ Date&Time	>
▪ Serial Port	>
▪ Version Info	>
▪ Restore Factory Setting	>
1 / 1	

Figure 58

2) In the interface of Figure 58, touch the second item "Serial Port" to enter the "Serial Port settings" interface shown in Figure 77 below.

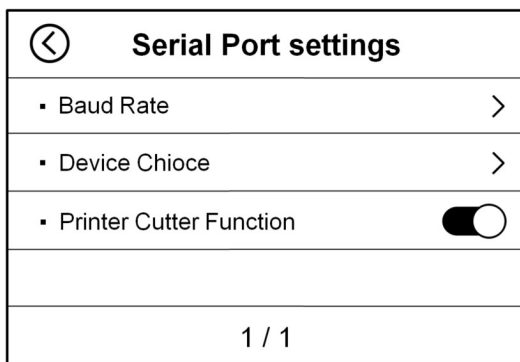


Figure 77

3) In the interface shown in Figure 77, please touch the second item "Device Choice" to enter the interface shown in Figure 78 below. Tick "✔" after the "Printer" option, and then touch the "✔" key in the upper right corner of the screen to save. After saving, the machine interface automatically jumps back to the interface shown in Figure 77.

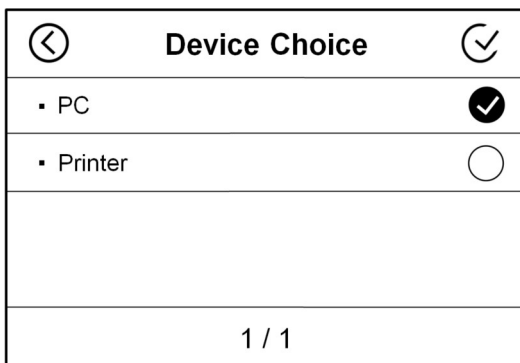


图 78

Figure 78

4) In the interface of Figure 77, touch the first item "Baud Rate" to enter the baud rate setting interface, as shown in Figure 79 below. Please remember the baud rate value displayed in the interface of Figure 79 below. (the default baud rate value of the machine is 115200)

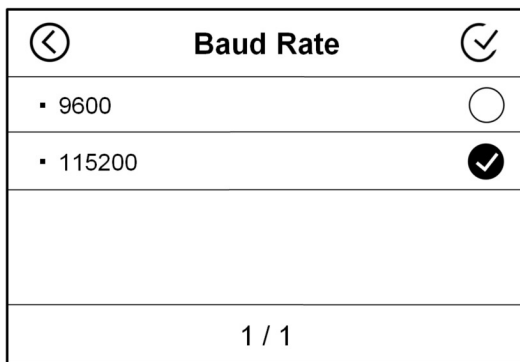



Figure 79

5) Please press the right button "CLEAR/ESC" several times to return the display screen to the main interface.

2.3.3 Using Instructions for Data Acquisition Software

1) Extract the host computer software provided by our company, get a folder named "Release", and open the host computer software application program "  UpperMonitor.exe " in this folder, as shown in Figure 80 below.

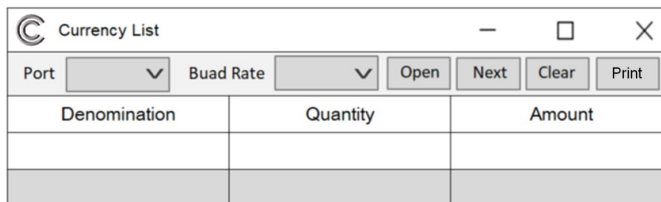


Figure 80

2) Select the serial port and the baud rate, which must match the baud rate selected on the machine, as shown in Figure 81 below.

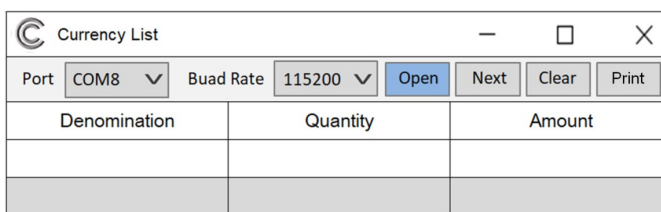


Figure 81

3) Then press the Open key, the serial port and baud rate fonts dim, OPEN becomes CLOSE, and then you can count the banknotes and view the counting information, as shown in Figures 82 and 83 below.

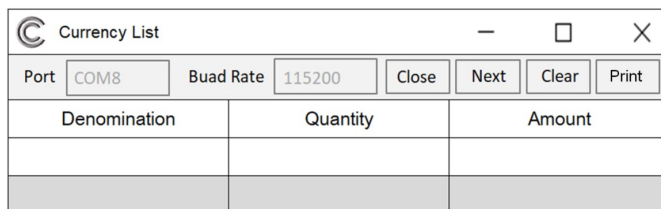


Figure 82

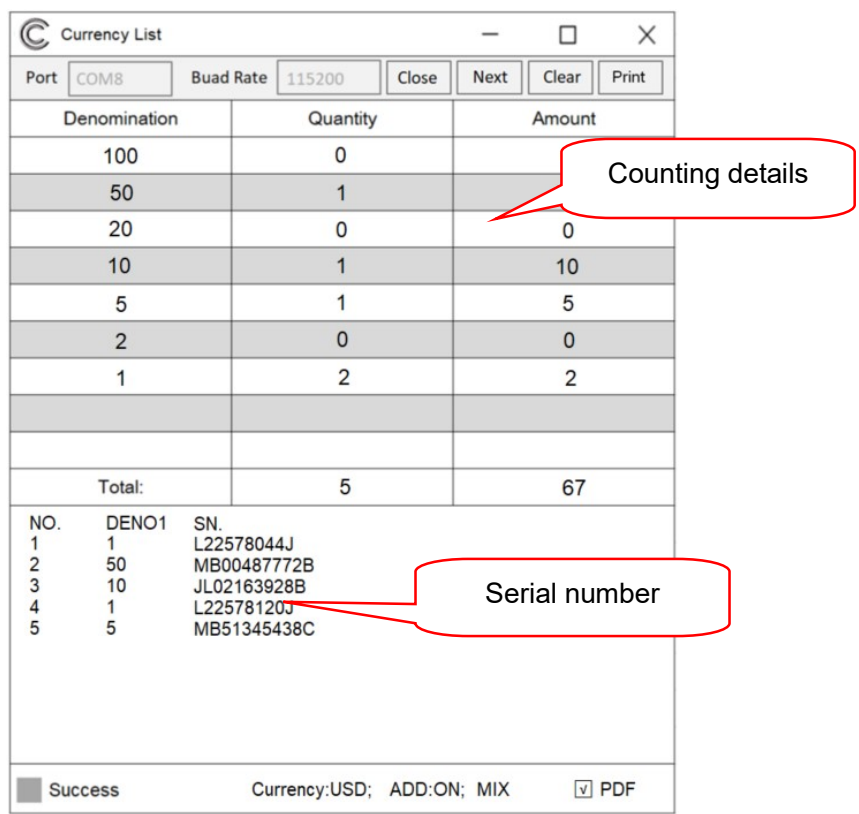


Figure 83

4) At the same time, a data folder "Data" is automatically generated under the "Release" file contents. Open the "Data" folder and find the corresponding list information, as shown in Figure 84 below.



Figure 84

2.4 Using Instructions for External Display

This machine is suitable for external display with RJ12 connector. Take the external display as an example, the specific operation is as follows:

1) Plug the RJ12 connector for the external monitor into the RJ12 interface on the back of the machine, as shown in Figure 85:

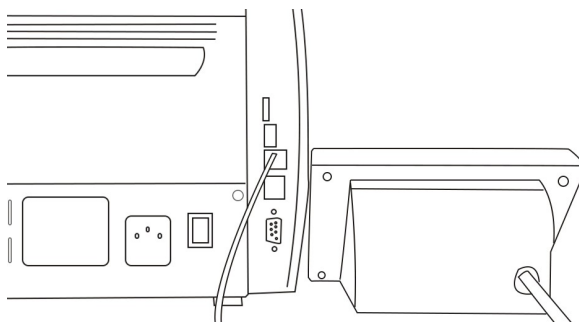


Figure 85

2) The machine starts normally, after selecting the currency of the corresponding country, the code of the corresponding country will also be displayed on the external display.

Example: Select the dollar mixed counting mode, as shown in Figure 86. The word "USD" appears on the display, as shown in Figure 87:

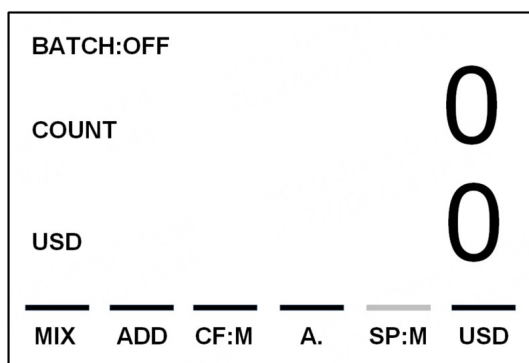


Figure 86

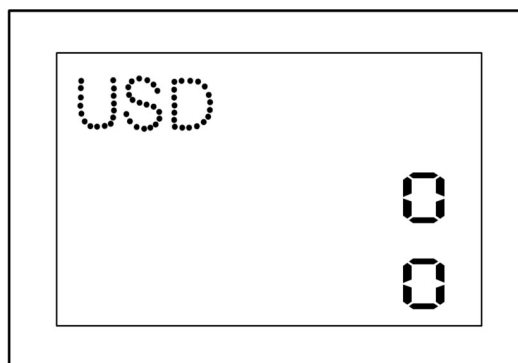


Figure 87

3) Put in a stack of dollar bills and count them. After the count is completed, the total number of currencies counted and the total amount appear on the display screen, as shown in Figure 88 below. At this time, two lines of values will also appear on the external display screen: the first line is the number of currencies counted, and the second line is the amount of currencies counted, as shown in Figure 89:

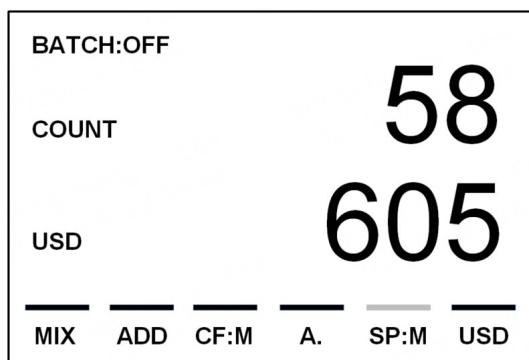


Figure 88



Figure 89

3. Maintenance Instructions

3.1 Software Upgrade

3.1.1 Preparation of USB Flash Disk

The software upgrade of this product adopts USB flash disk upgrade mode.

Please copy the upgrade file provided to you by our company (the suffix of the main control software is ".ZPK", such as 20180413.DF61723E.ZPK) to the root directory of USB flash disk (please do not change the file name or the format of the upgrade file, and only one file in the format of ".ZPK" can be kept under the root directory of USB flash disk). When the machine is turned off, insert the USB disk into the USB interface on the back of the machine.

3.1.2 Software Upgrade

1) In the shutdown state, insert the USB disk into the USB interface of the machine, as shown in Figure 90 below:

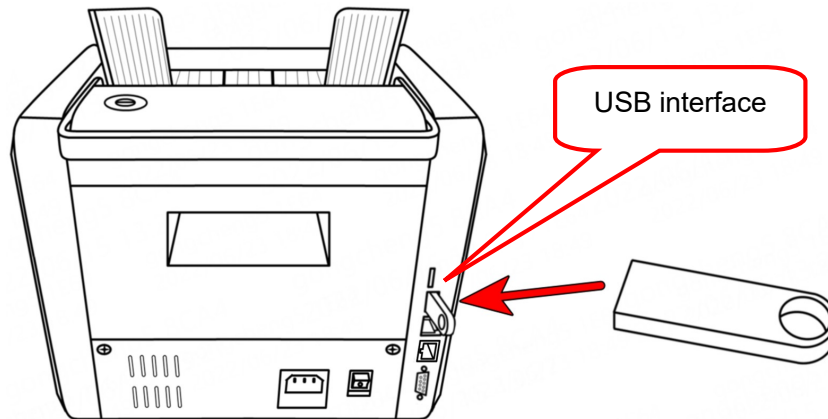


Figure 90

2) Turn on the machine switch, and the machine will automatically recognize the USB flash drive information and display it for 5 seconds before the upgrade starts, as shown in Figure 91 below. The machine continues to upgrade, and the interface shown in Figure 92 below appears. After the machine software upgrade is completed, the interface shown in Figure 93 will appear. At this time, please unplug the USB flash drive and restart the machine. The software upgrade of the machine is completed.

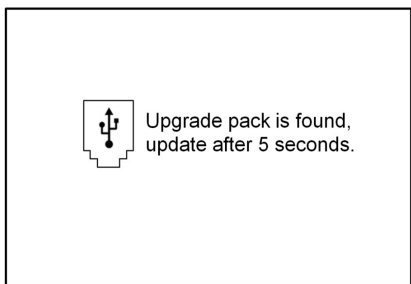


Figure 91

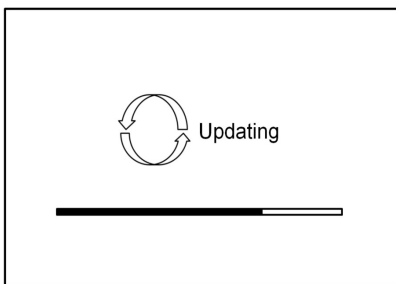


Figure 92

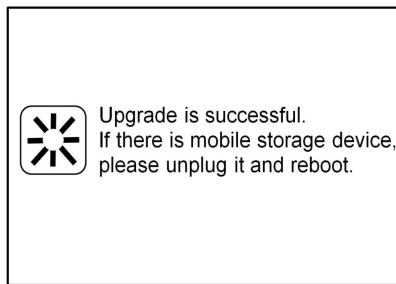


Figure 93

3.2 Daily Cleaning Instructions

Any dust, dirt or other substance that adheres to the sensor will interfere with the normal operation of the sensor and lead to wrong counting results. Therefore, the sensor must be cleaned daily with the included cleaning tool as needed.

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

Please do not use chemicals such as benzene, diluents or water, which may cause the machine to fade or crack.

3.2.1 Cleaning of Feeding Sensor

As shown in Figure 94, clean the hopper sensor with a clean brush or cloth.

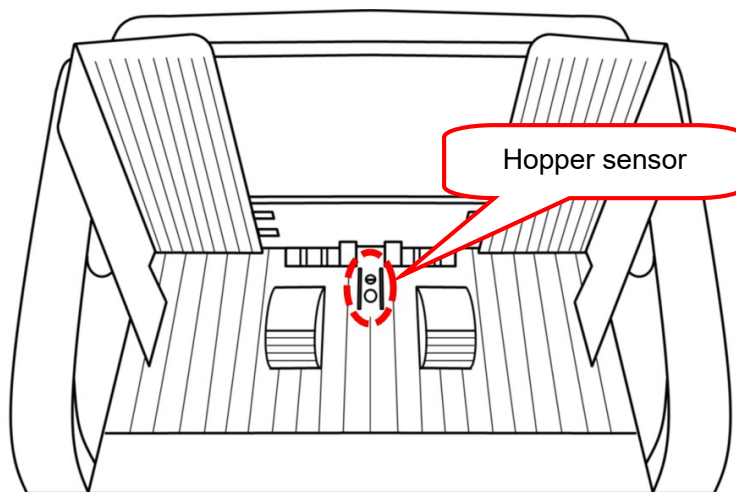


Figure 94

3.2.2 Cleaning of Feeding Block and Twisting Block

As shown in Figure 95 below, clean the feeding block and twisting block with a clean brush or cleaning cloth.

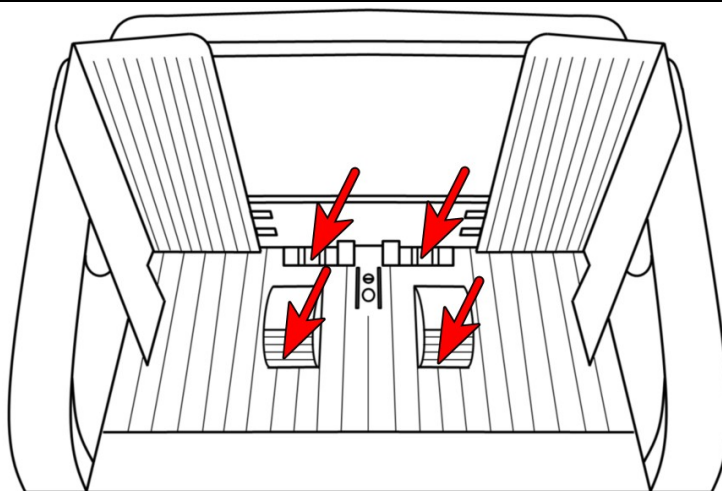


Figure 95

3.2.3 Cleaning of Stack Sensor

As shown in Figure 96 below, clean the receiving sensor with a clean brush or cleaning cloth.

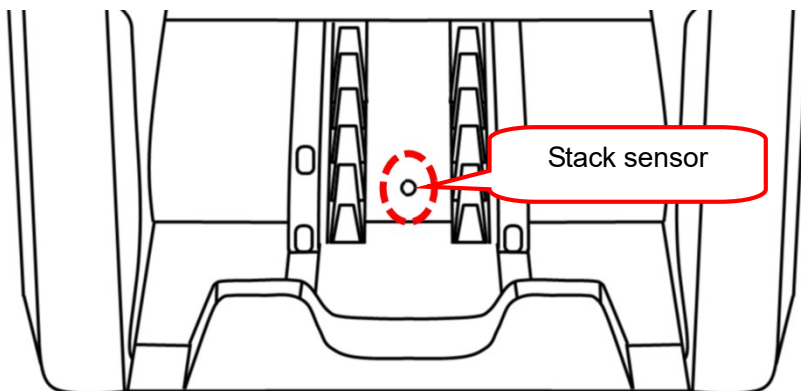


Figure 96

3.2.4 Cleaning of Channel Internal Sensor

1) Pull the back cover in the direction shown and open the back cover.

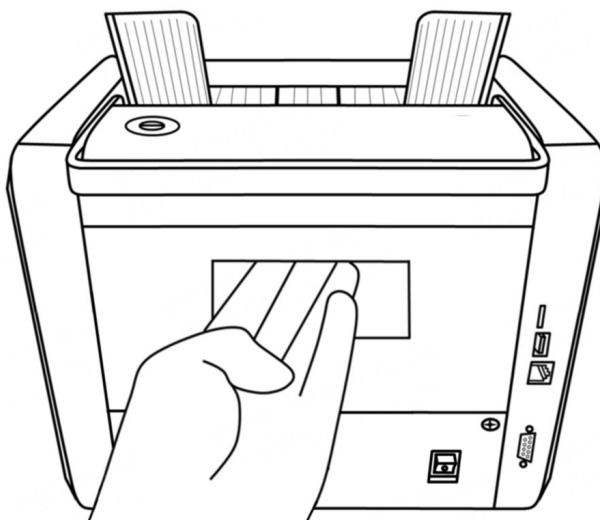


Figure 97

2) As shown in Figure 98 below, wipe the upper CIS of Mark 1 from one direction with a dust-free cloth, and then clean the infrared emission of Mark 2 with a nylon brush.

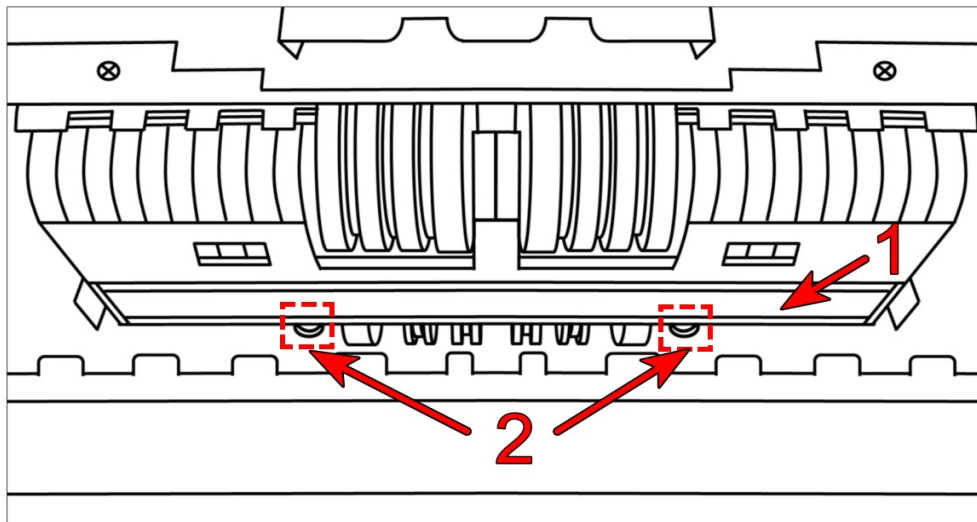


Figure 98

3) As shown in Figure 100 below, clean the lower UV sensor and lower CIS using a nylon brush. Wipe the lower CIS of Mark 1 from one direction with a dust-free cloth, then clean the infrared receiving lamp of Mark 2 and the lower UV lamp of Mark 3 with a nylon brush.

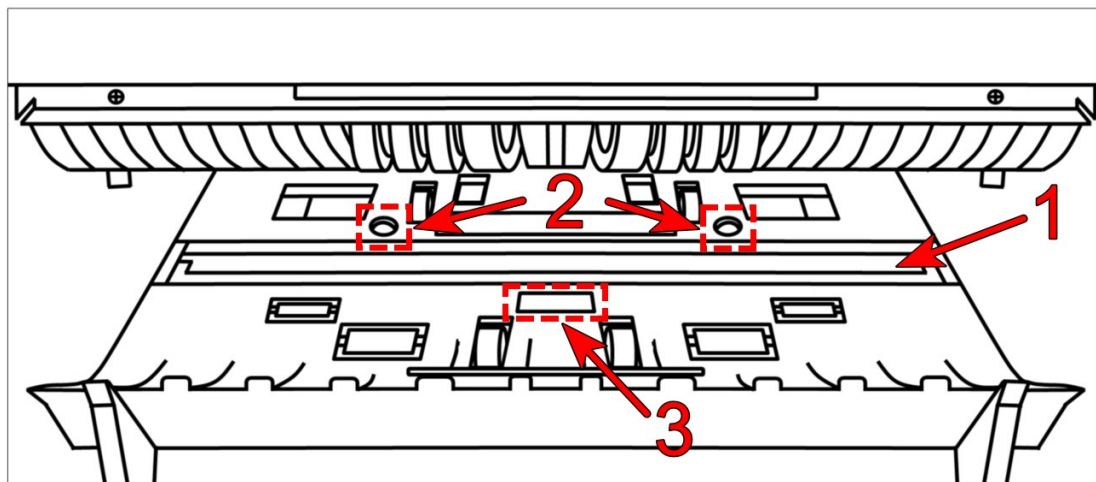


Figure 99

3.3 Common Faults and Corresponding Descriptions

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

Description of fault code for startup self-check:

Error code	Error position
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

***** In order to continuously improve product performance, our company reserves the right to change the manual. *****