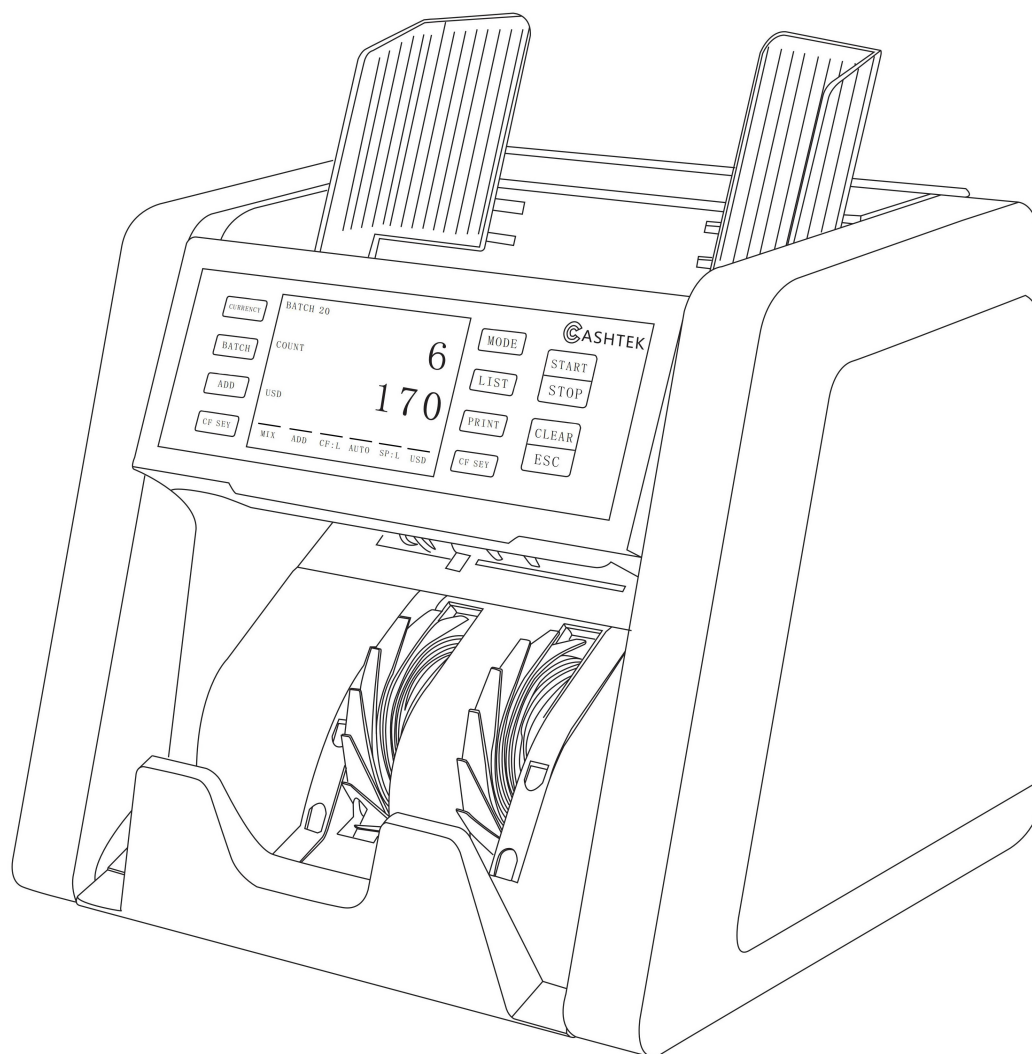


Currency Counter N30 User Manual



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 of 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 Settings.....	15
2.1.6 Details View of Counting	16
2.1.7 Counting Preset Settings.....	16
2.1.8 Accumulation Mode	19
2.1.9 Counterfeit Detection Gear Setting	21
2.1.10 Time and Date Settings	24
2.1.11 Buzzer Settings.....	24
2.1.12 Software Version View.....	25
2.1.13 Counting History Information.....	25
2.1.14 Restore Factory Settings.....	27
2.2 Using Instructions for Printer	28
2.3 Upload Counting Data to PC	30
2.3.1 RS232 Serial Connection	30
2.3.2 Machine Settings	30
2.3.3 Using Instructions for Data Acquisition PC Software	31
2.4 Using Instructions for External Display.....	32
3. Maintenance Instructions	34
3.1 Software Upgrade	34
3.2 Daily Cleaning Instructions	35
3.2.1 Cleaning of Feeding Sensor.....	35
3.2.2 Cleaning of Feeding Block and Twisting Block	36
3.2.3 Cleaning of Receiving Sensor.....	36
3.2.4 Cleaning of Channel Internal Sensor	36
3.3 Common Faults and Corresponding Descriptions.....	38

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.

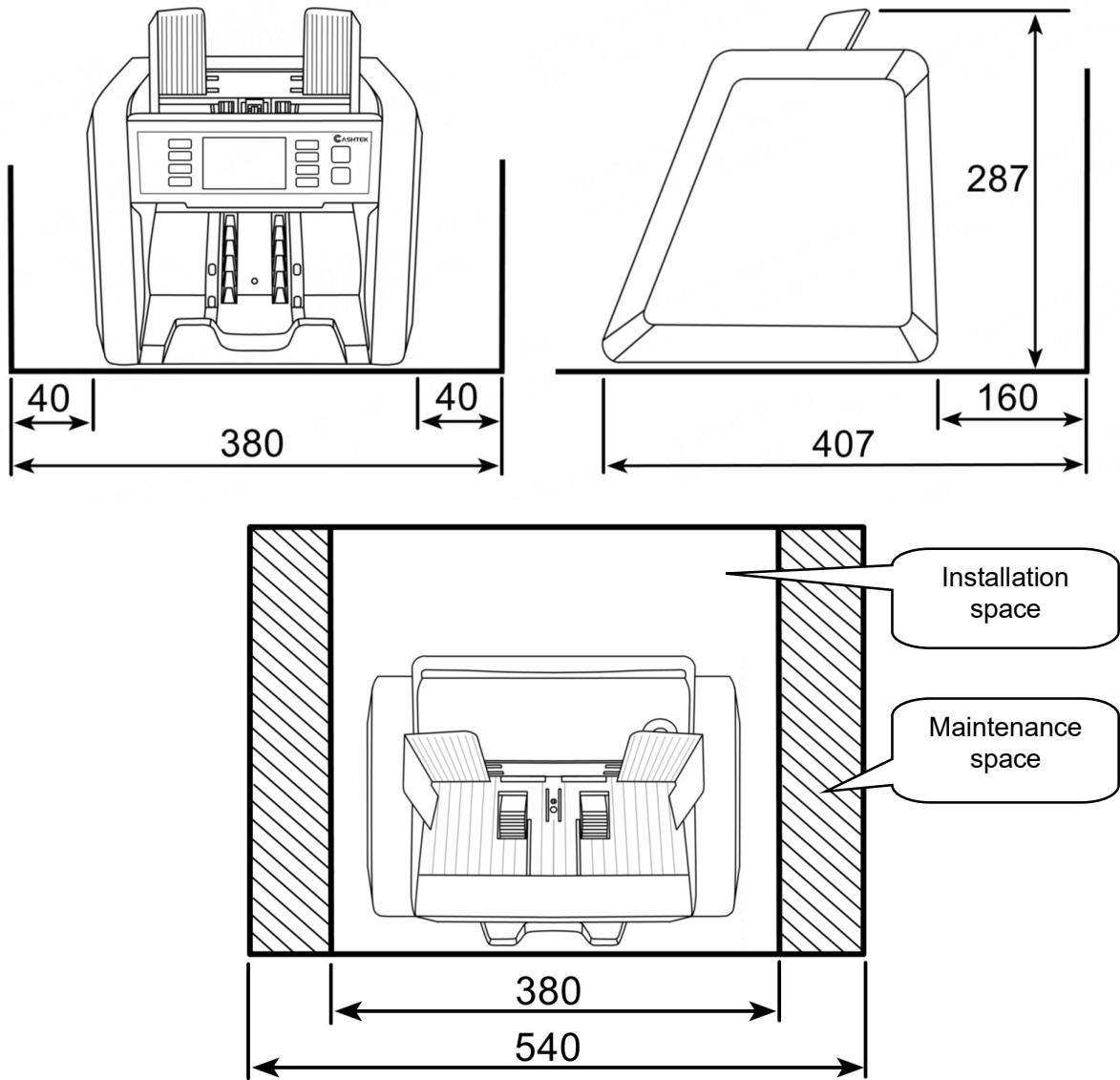
NOTE:

- 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

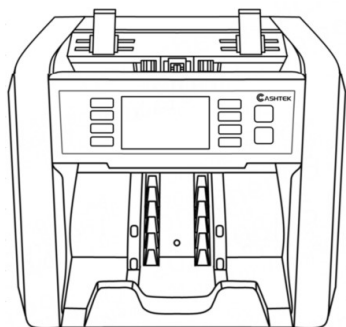
As shown in Figure 1, stay away from the surrounding walls and leave enough operating space for placing banknotes, opening or closing the cover plate, and maintenance.



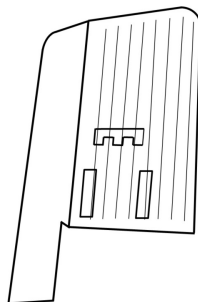
Unit (mm)

Figure 1

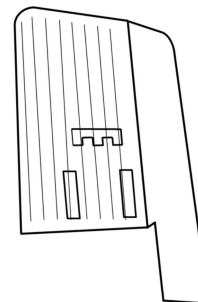
1.3 Machine and Accessory



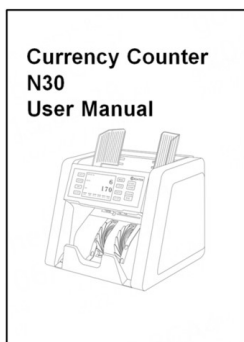
Machine



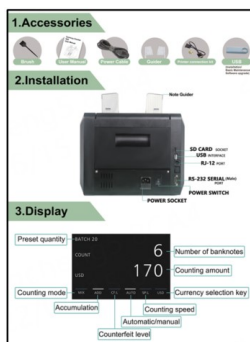
Left hopper guider



Right hopper guider



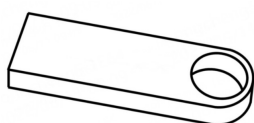
User manual



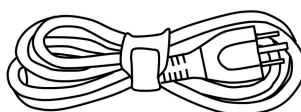
Simple instruction manual



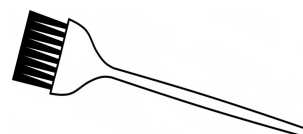
Warranty card



USB flash disk



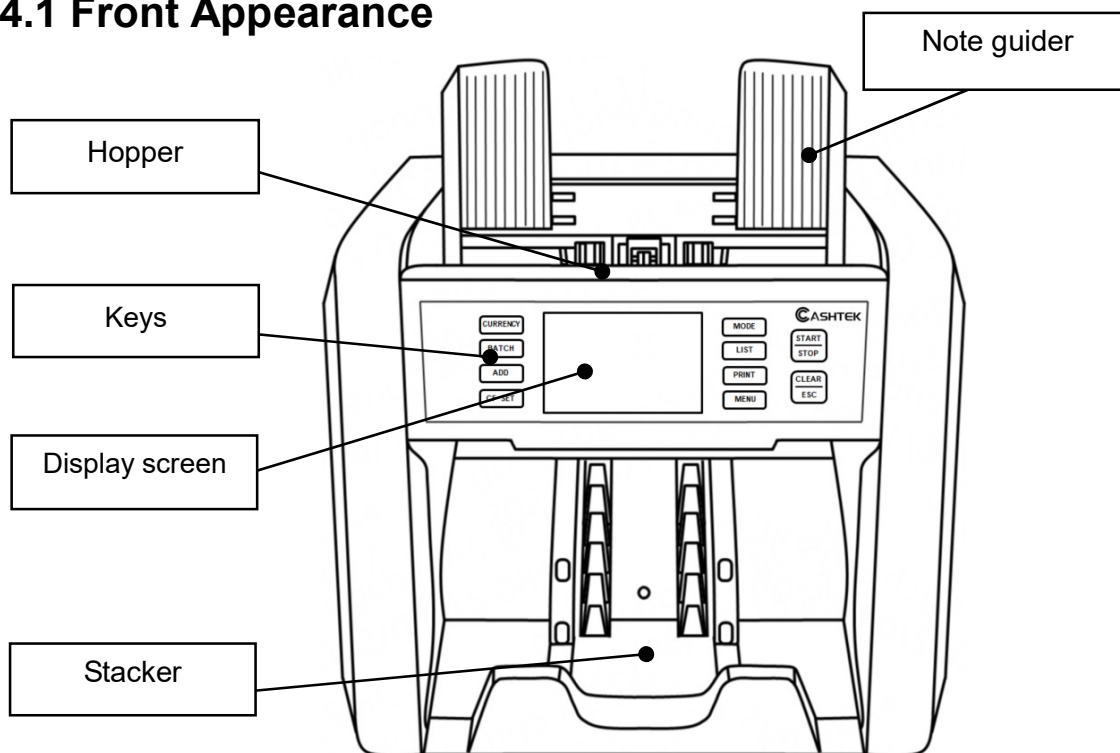
Power cord



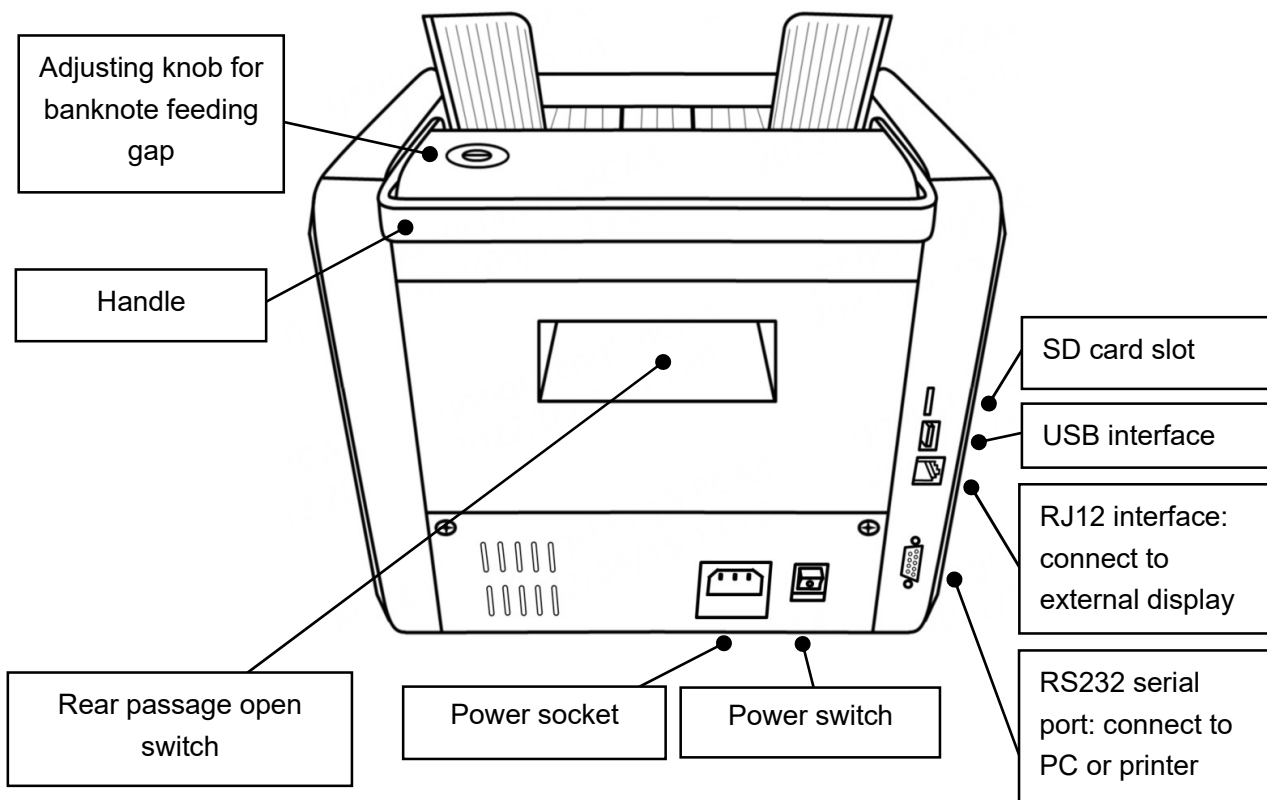
Cleaning brush

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
Applicable currency	Dollar, euro, local currency and customer defined currency
Currency capacity	Maximum 4 currencies per machine
Power supply requirements	AC100V-240V 50/60Hz ±10%
Counting mode	Mixed counting mode, single counting mode, quantity counting mode, automatic currency recognition mode, multi-country currencies mixed counting mode
Counting speed	Value counting mode (MIX/SDC): L(800 PCS/min)/M(1000 PCS/min)/H(1200 PCS/min) L (800 PCS/min)/M (1000 PCS/min)/H (1200 PCS/min) Quantity counting mode (CNT): L(1000 PCS/min)/M(1200 PCS/min)/H(1500 PCS/min) L (1000 PCS/min)/M (1200 PCS/min)/H (1500 PCS/min)
Counterfeit detection function	Fluorescence detection, magnetic detection, infrared emission detection, infrared transmission detection
Preset number	0~200
Display screen	3.5" TFT touch screen
Hopper Capacity	600 PCS
Stacker Capacity	200 PCS
Supportable currency size	Length: 120mm ~ 180mm Width: 50mm ~ 90mm
Supportable currency thickness	0.05mm~0.15mm
Power consumption	Standby ≤ 15W, normal operation ≤ 50W
Operating noise	No load < 60dB, run < 75dB
Software upgrade	USB upgrade
External display	Optional
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 guider in the packaging box. As shown in Figure 2 below:

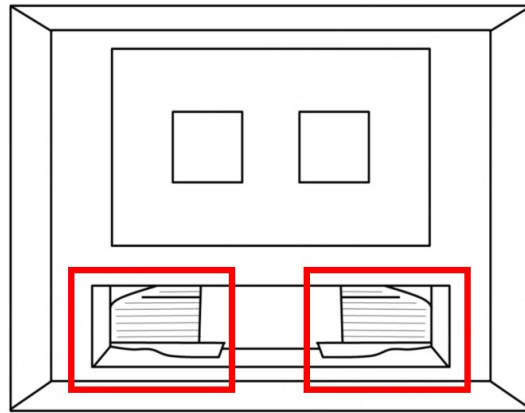


Figure 2

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 heightening plate 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:

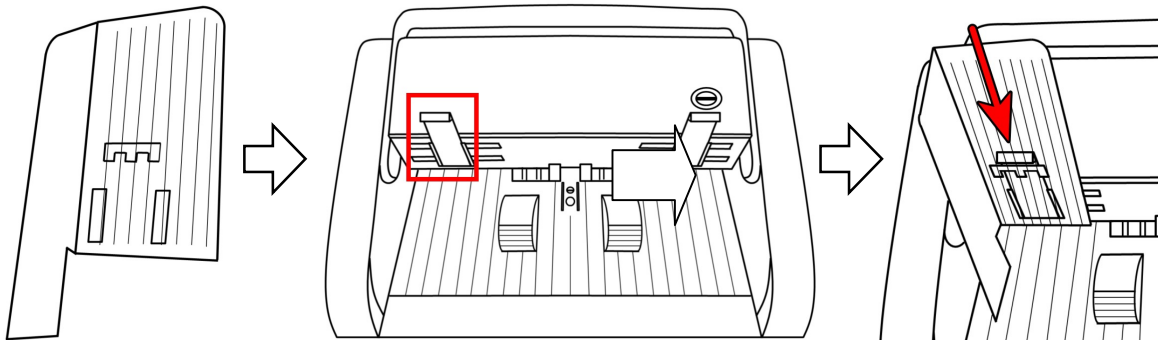


Figure 3

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

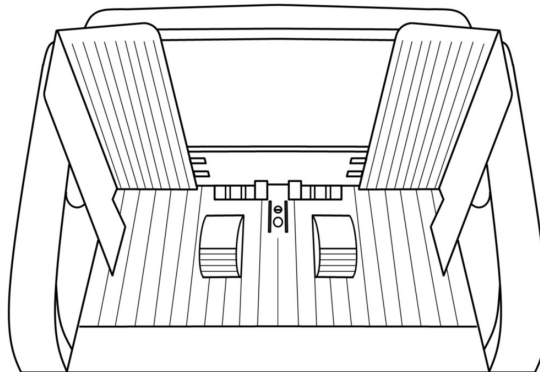


Figure 4

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:

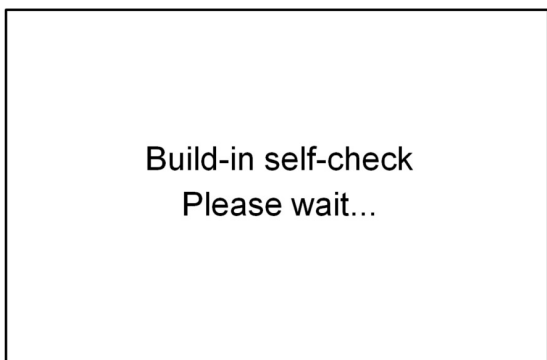


Figure 5

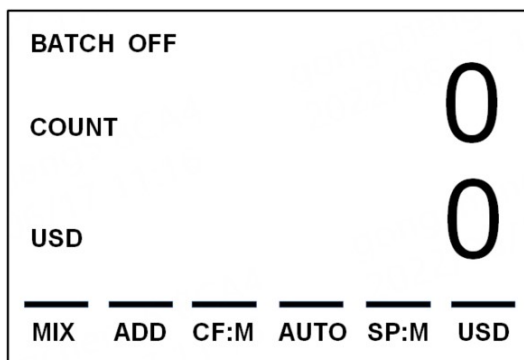


Figure 6

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 hopper. 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 guider 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:

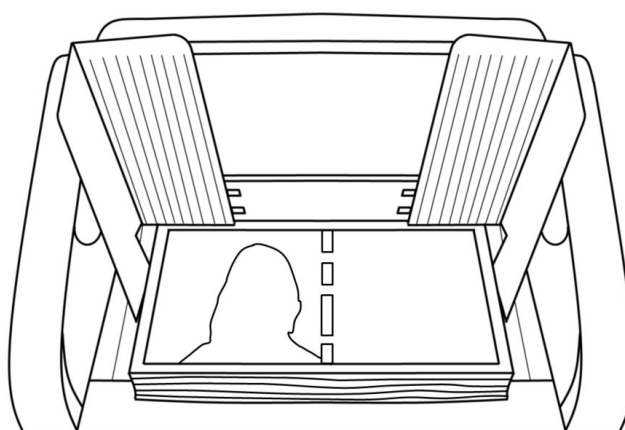


Figure 7

1.8 Counting Error Code

Error code	Cause
ERROR-001	Banknote image can not be recognized
ERROR-002	A different value is detected
ERROR-003	UV error
ERROR-004	MG side magnetic error
ERROR-005	MT middle magnetic error
ERROR-006	Banknote size error
ERROR-007	Timeout error
ERROR-008	Different currency detected when automatic recognition
ERROR-009	Chained notes error
ERROR-010	Double notes error
ERROR-011	Abnormal infrared characteristic area 1
ERROR-012	Abnormal infrared characteristic area 2
ERROR-013	Abnormal infrared characteristic area 3
ERROR-014	Abnormal infrared characteristic area 4
ERROR-015	Abnormal infrared characteristic area 5
ERROR-016	Abnormal infrared characteristic area 6
ERROR-017	Abnormal infrared characteristic area 7
ERROR-018	Abnormal infrared characteristic area 8
ERROR-019	Abnormal infrared characteristic area 9
ERROR-026	Banknote feeding position is too close to the edge of the machine
Power Abnormal!	Abnormal power supply
JAM	Banknote jamming
Passage Abnormal!	Abnormal rear passage
Stacker Error!	Stacker sensor is blocked

2. Introduction of Functions

2.1 Introduction to Usage Functions

2.1.1 Description of Display and Touch Screen Interface

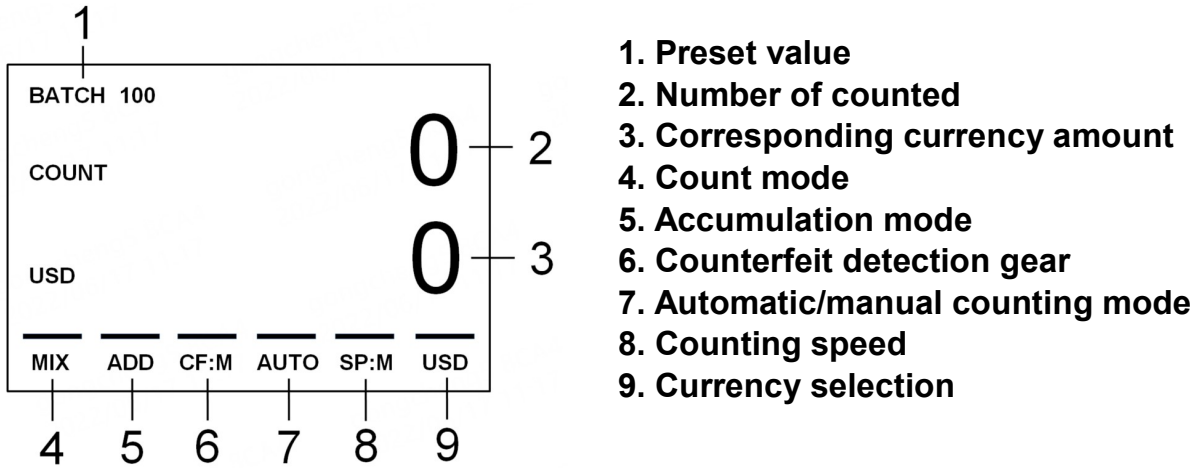


Figure 8

2.1.2 Function Key Operating Instructions



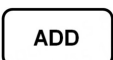
Startup key, used to start the machine in manual mode, select and enter functions, and save after confirmation or modification.



Currency selection key.



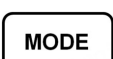
Preset switch keys.



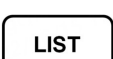
Accumulation function ON/OFF key.



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 is a horizontal line above the "AUTO" character at the bottom of the display screen. Touch the "AUTO" character, the color of the horizontal line will change, and the display screen will prompt to enter the automatic or manual mode.

Automatic mode: Touch the "AUTO" character lightly, and the words "INFORMATION AUTO" appear on the display screen and then disappear, and the horizontal line above "AUTO" turns white. In the automatic mode, put the banknotes in the feeding inlet, and the machine will automatically count the banknotes.

Manual mode: Touch the "AUTO" character lightly, and the words "INFORMATION Manual" appear on the display screen and then disappear, and the horizontal line above "AUTO" turns blue. In manual mode, put the banknotes in the feeding inlet, and the machine will not automatically count the banknotes. After pressing the "START/STOP" button again, the machine will count the banknotes.

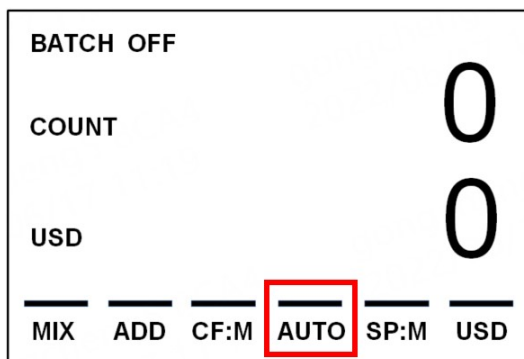


Figure 9

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.

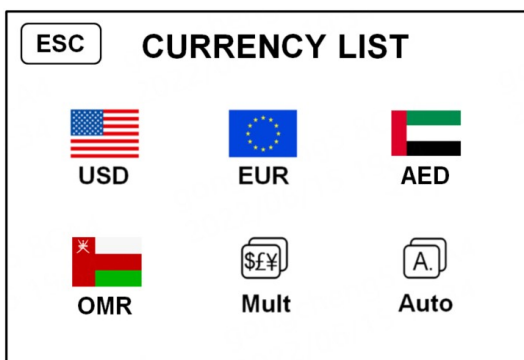


Figure 10

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.

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 11 below.

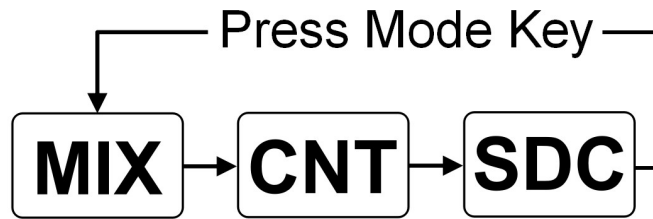


Figure 11

2.1.4.1.1 < MIX > mixed counting mode

Figures 12 and 13 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).

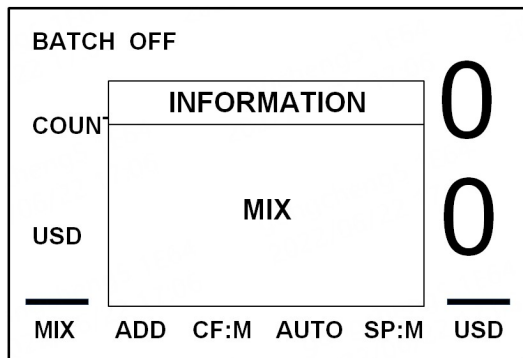


Figure 12

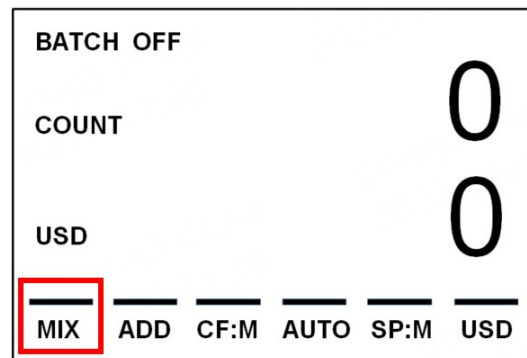


Figure 13

2.1.4.1.2 < SDC > single denomination counting mode

Figure 14 and Figure 15 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).

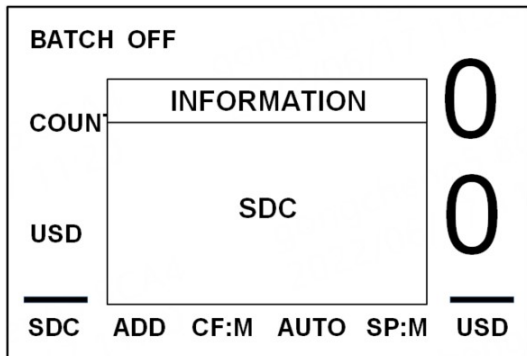


Figure 14

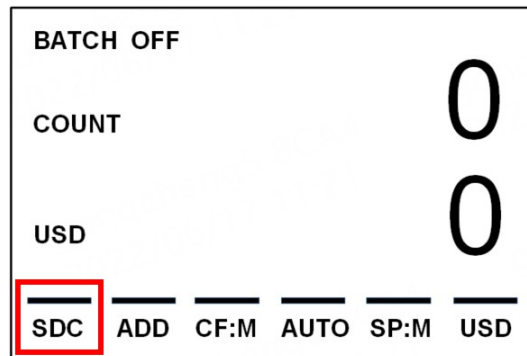


Figure 15

2.1.4.1.3 < 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:1000 pcs/min, M:1200 pcs/min; H:1500 pcs/min, with three optional). Only double detection function is retained.

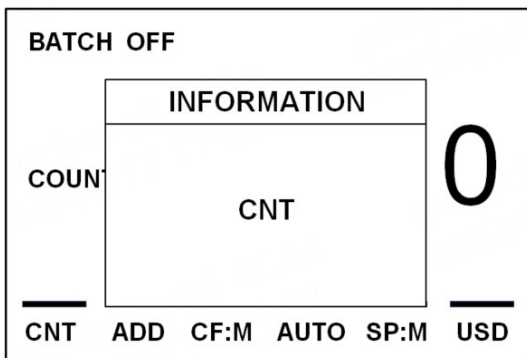


Figure 16

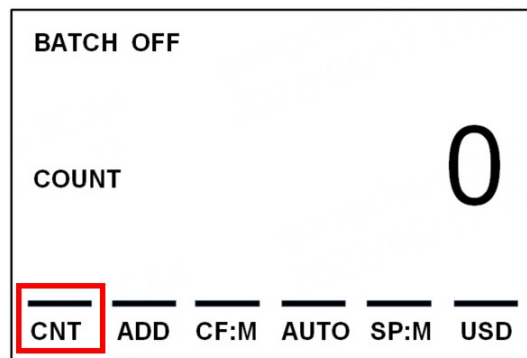


Figure 17

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

2.1.4.2 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 10. Then click "MLUT" multi currency mixed counting mode, the display will automatically switch to the main interface. At this time, the currencies of the four existing countries in the software will be displayed (according to the customer's requirements, the currencies of different countries will be displayed), as shown in Figure 18 below:

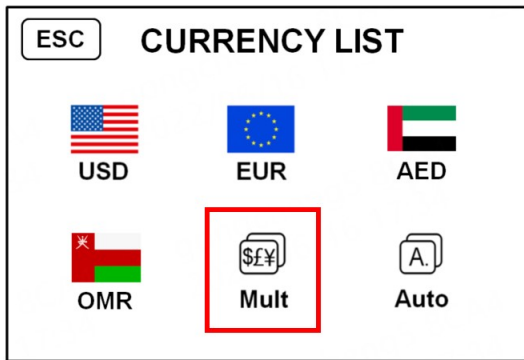


Figure 10

Currency	Pcs	Value
USD	0	0
EUR	0	0
AED	0	0
OMR	0	0.0
<hr/>		
MIX	ADD	CF:M
AUTO	SP:M	MULT

Figure 18

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 19 below:

Currency	Pcs	Value
USD	5	50
EUR	10	200
AED	10	100
OMR	5	2.5
<hr/>		
MIX	ADD	CF:M
AUTO	SP:M	MULT

Figure 19

2.1.4.3 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 10 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:

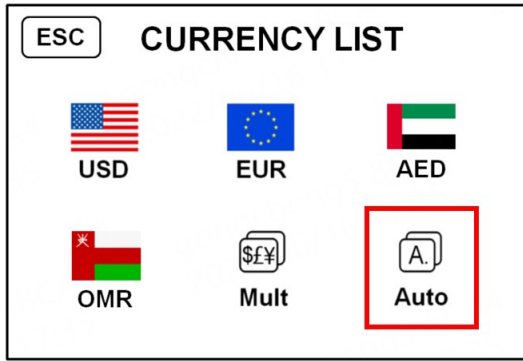


Figure 10

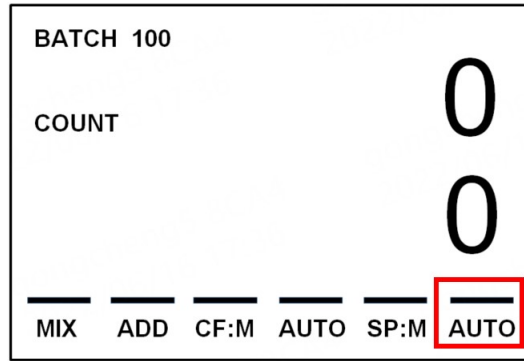


Figure 20

In automatic recognition mode, there are two counting modes: MIX mixed counting mode and SDC single counting mode. Customers can choose operations according to their own needs. It is recommended that customers choose MIX mixed counting mode for automatic recognition.

2.1.5 Counting Speed Settings

Counting speed is divided into three options: H, M and L (high, medium and low). In any counting mode, touching the "SP: H" character in the lower right corner of the display screen can change different counting speeds. The current speed level will be displayed in the red box in Figure 21, with the letter H for high gear. If you select medium gear or low gear, SP: M or SP: L will be displayed accordingly.

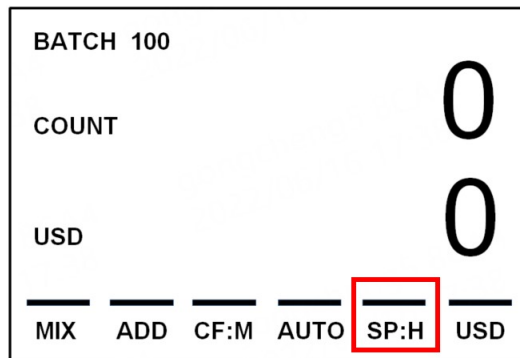


Figure 21

The counting speed corresponding to each level in each counting mode is shown in the following table:

Counting mode	H	M	L
MIX	1200 pcs/minute	1000 pcs/minute	800 pcs/minute
SDC	1200 pcs/minute	1000 pcs/minute	800 pcs/minute
CNT	1500 pcs/minute	1200 pcs/minute	1000 pcs/minute

2.1.6 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 22 below. Figure 23 shows the detailed interface of counting after counting.

USD Report			Print
Den	Pcs	Value	
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 22

USD Report			Print
Den	Pcs	Value	
100	1	100	
50	2	100	
20	4	80	
10	10	100	
5	10	50	
2	5	10	
1	10	10	
< Total		42	450 >

Figure 23

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.

2.1.7 Counting Preset Settings

2.1.7.1 Default Preset Number Settings

In the main interface, press the **"BATCH"** key or touch the "BATCH 25" character in the upper left corner of the display screen to set the default preset number, and the default value is 10/25/50/100/200/OFF (For example, Figure 24 shows the preset data 25, and Figure 25 shows the preset number 50). You can also modify the previous preset number of "10/25/50/100". When the preset number is turned off, the default preset number of the machine is 200. When the preset number reaches 200, the machine will automatically stop running.

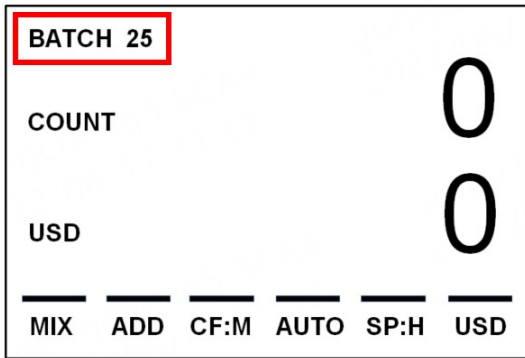


Figure 24

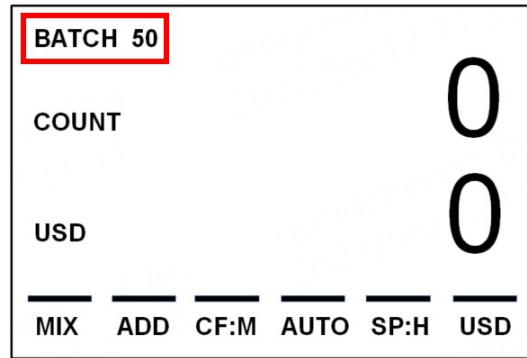


Figure 25

2.1.7.2 Modification of Default Preset Number

1) Press the **"MENU"** key on the right to enter the USER MENU main interface, as shown in Figure 26 below, and press "1. Preference" to enter the PREFERENCE SETTING interface, as shown in Figure 27.

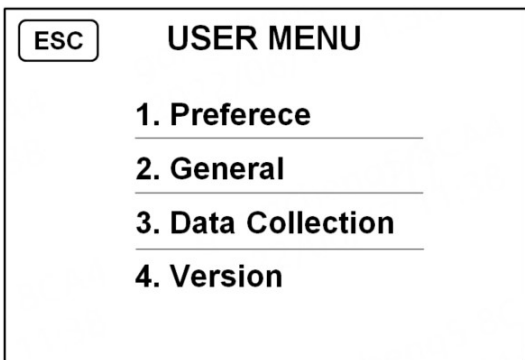


Figure 26

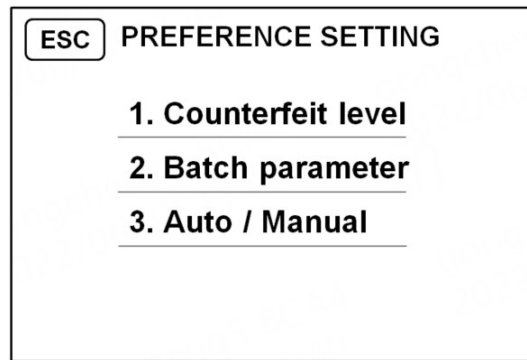


Figure 27

2) Press **"2. Batch parameter"** under Figure 26 to enter the preset number setting interface, as shown in Figure 28.

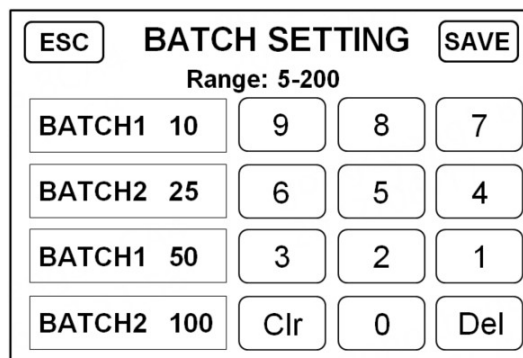


Figure 28

3) BATCH1, BATCH2, BATCH3 and BATCH4 on the right of the above figure are the four default numbers of the system. If the customer does not need to use one or more of the default four numbers, the numbers can be changed.

4) Example: The default preset number is 25, which is not required by customers. The customer needs 155, so the operation is as follows:

5) Touch "BAT^{CH} 25" and the button changes from gray to white, as shown in Figure 29 below:

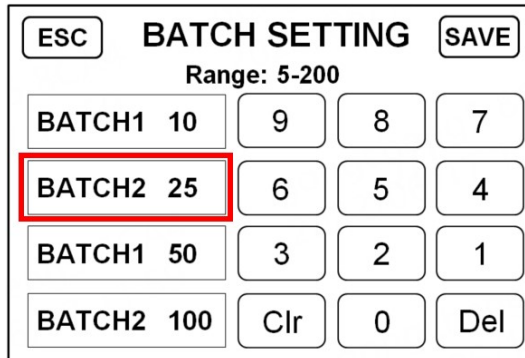


Figure 29

6) Enter "155" directly on the number key on the right side of the display screen, and the value of "BAT^{CH}2" will also become 155, as shown in Figure 30 below. Please touch the "SAVE" key in the upper right corner to save the data.

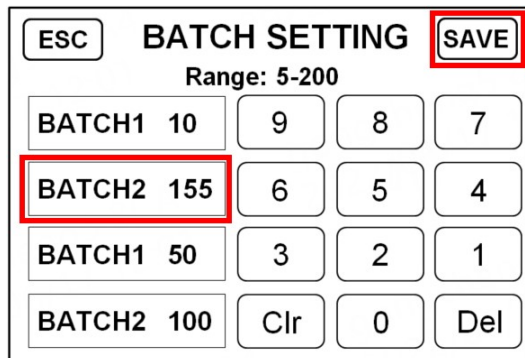


Figure 30

7) Press the "CLEAR/ESC" key to return to the main interface, and then press the "B:" key at the top of the display screen to switch to the previously set number of 155, as shown in Figure 31 below:

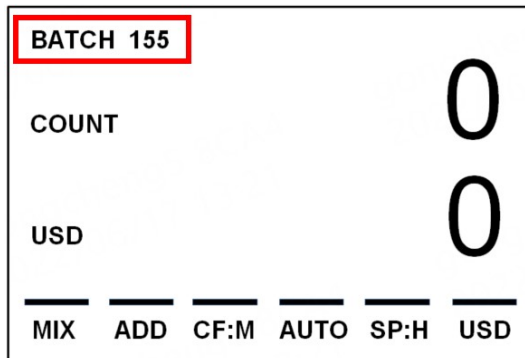


Figure 31

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 32 below.

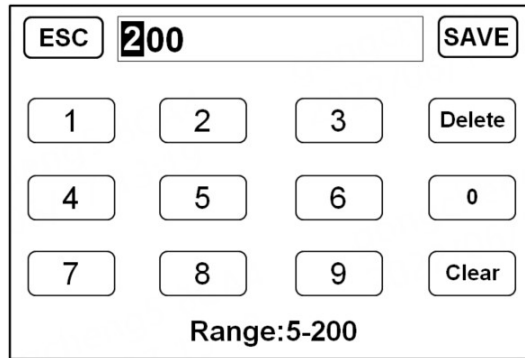


Figure 32

Tip: "Range: 5 ~ 200" means that the default number must be between 5 and 200, otherwise it cannot be saved by pressing the "SAVE" key.

2) At this time, we enter an example value in the input field: 155, as shown in Figure 33. Click the "SAVE" key in the upper right corner of the display screen again to save. Then the machine will automatically jump to the main interface, and the current preset number also jump to 155, as shown in Figure 34 below:

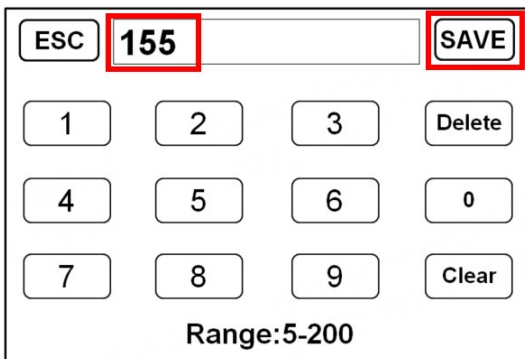


Figure 33

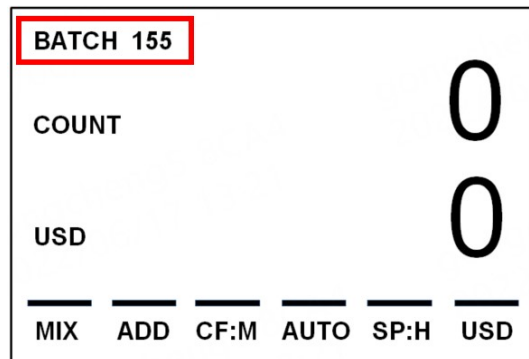


Figure 34

2.1.8 Accumulation Mode

In any counting mode, press the "ADD" key or touch the "ADD" character in the lower left corner of the display screen to turn on and off the counting function.

When the accumulation power is turned on, the prompt of "INFORMATION: ADD ON" appears in the counting interface (as shown in Figure 35 below), and the font of "ADD" character in the lower left corner changes from blue to white.

When the accumulation power is turned off, the prompt of "INFORMATION: ADD OFF" appears in the counting interface (as shown in Figure 36 below), and the font of "ADD" character in the lower left corner changes from white to blue.

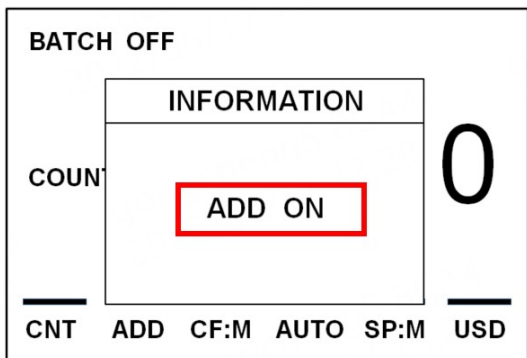


Figure 35

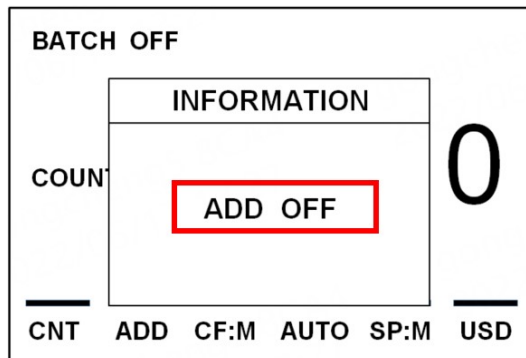


Figure 36

- 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 receiving hopper, 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 receiving hopper, put them back into the banknotes for the second counting. When the banknotes are not taken out from the banknote receiving hopper 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 Setting

2.1.9.1 Simple Counterfeit Detection Gear Setting

Press the **"CF SET"** button on the left or touch the **"CF: M"** character at the bottom of the display screen to adjust the counterfeit detection gear easily, and the counterfeit detection gear will be switched among three gears (H, M and L).

H: High gear, highest counterfeit detection sensitivity, as shown in Figure 37.

M: Middle gear, moderate sensitivity, suitable for daily counting of currencies in all countries.

L: Low gear, counterfeit detection sensitivity is relatively weak.

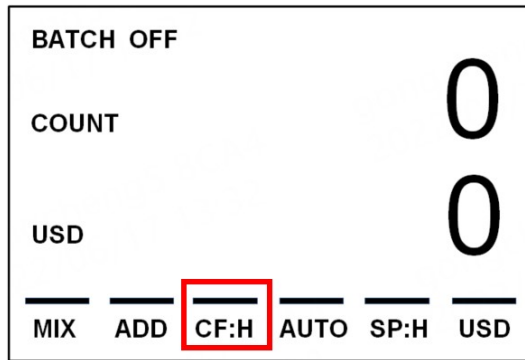


Figure 37

2.1.9.2 Accurate Counterfeit Detection Gear Setting

1) Press the **"MENU"** key on the right side of the box below to enter the USER MENU main interface, as shown in Figure 26 below. Then touch **"1. Preference"** to enter the PREFERENCE SETTING interface, as shown in Figure 27.

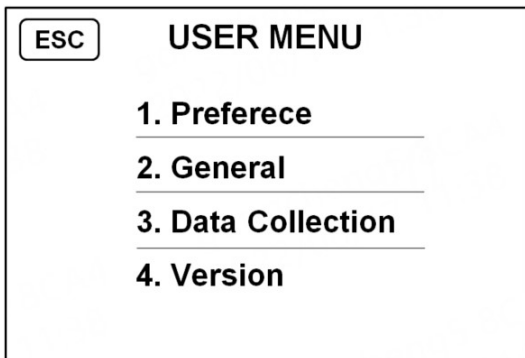


Figure 26

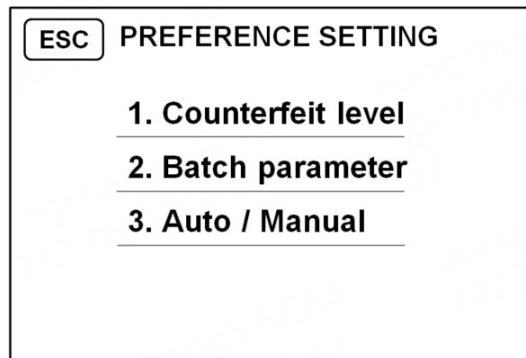


Figure 27

2) Touch **"1. Counterfeit level"** to enter the counterfeit detection gear setting interface, as shown in Figure 38 below:

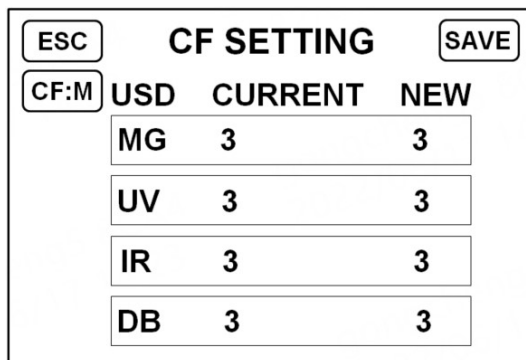


Figure 38

3) "CF: M" indicates that the counterfeit detection gear is in the middle range, and the default value of the counterfeit detection gear is 3. Touch the "CF: M" character in the upper left corner to switch to view the counterfeit detection sensitivity values (H, M, L).

Gear	Counterfeit detection sensitivity value			
	MG	UV	IR	DB
H (high gear)	5	5	5	5
M (middle gear)	3	3	3	3
L (low gear)	1	1	1	1

4) Customers can select the corresponding counterfeit detection level according to the actual demand of counting currencies. If the customer need to adjust one or several sensitivity values, he can directly touch the value under the NEW line of the counterfeit detection column on the screen.

5) Example: If the customer wants to lower the counterfeit detection level of MG in middle gear, he can follow the steps:

a) Default values of each parameter in middle gear counterfeit detection mode are shown in Figure 39 below. The default current counterfeit detection for MG is 3, and the default counterfeit detection for the NEW line is 3.

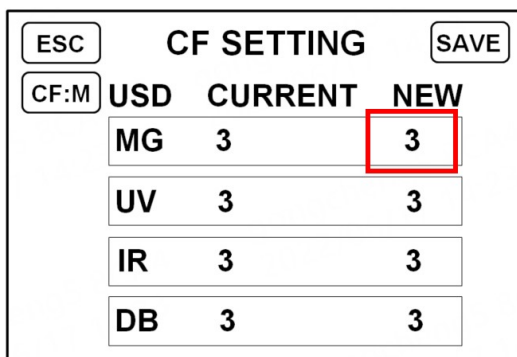


Figure 39

b) Touch the value 3 in the NEW line corresponding to MG, and the interface shown in Figure 40 below appears. Each counterfeit detection gear has 6 grades, from 0 to 5. 0 represents the closed counterfeit

detection gear, 1 represents the weakest counterfeit detection gear, and 5 represents the strongest counterfeit detection gear. At this time, MG counterfeit detection gear level needs to be lowered, so click "Level 2" to set the gear value to 2, as shown in Figure 41.

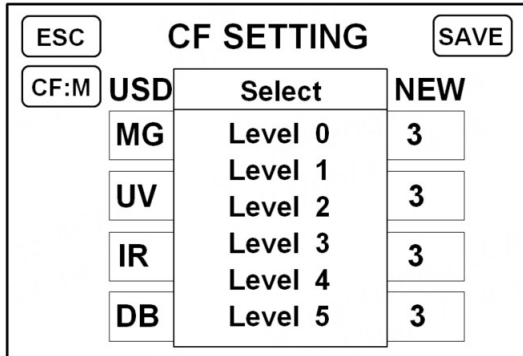


Figure 40

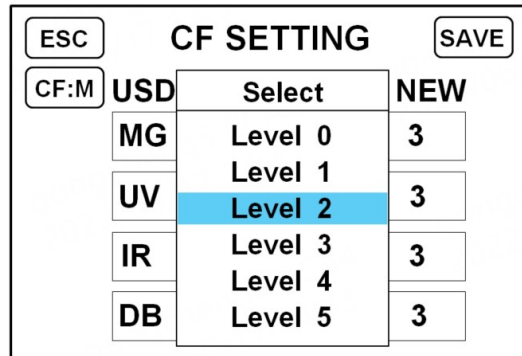


Figure 41

c) When "Level 2" is selected, the value of the NEW line corresponding to MG on the display interface will change to 2, as shown in Figure 42 below. Please click the "SAVE" key in the upper right corner to save the value, as shown in Figure 43.

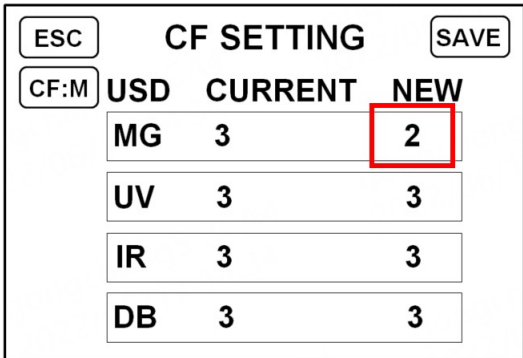


Figure 42

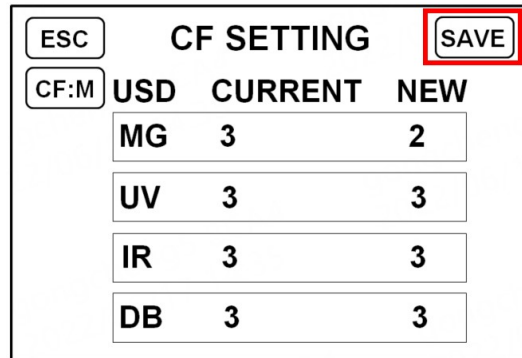


Figure 43

d) After clicking "SAVE" to save, the display will jump back to the interface shown in Figure 27. Touch the "1. Counterfeit level" key to enter the counterfeit detection level setting interface, and you can see that the counterfeit detection gear value of MG changes to 2, as shown in Figure 44 below:

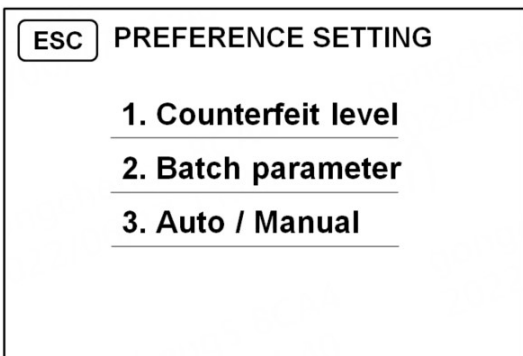


Figure 27

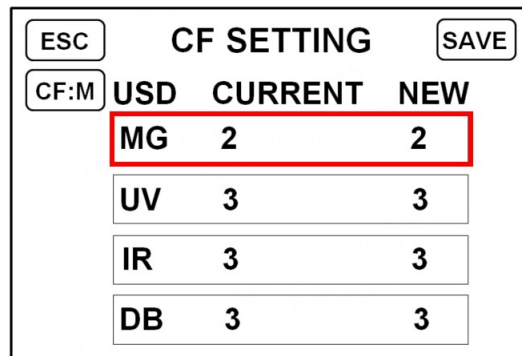


Figure 44

2.1.10 Time and Date Settings

1) Press the **"MENU"** key to enter the USER MENU main interface, as shown in Figure 26 below. Touch "2. General" to enter the GENERAL SETTING interface as shown in Figure 45 below:

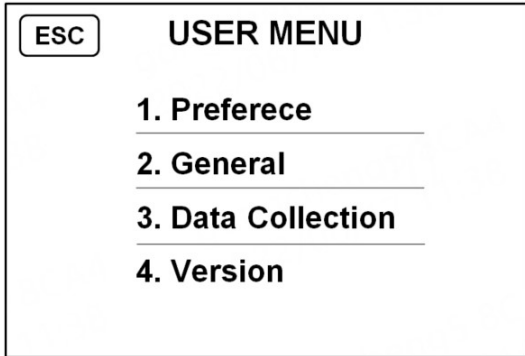


Figure 26

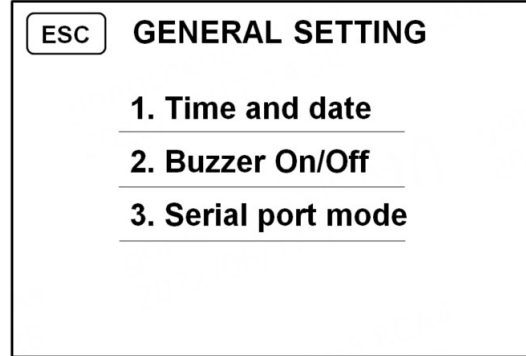


Figure 45

2) Touch "1. Time and date" to enter the time and date setting interface, as shown in Figure 46 below:

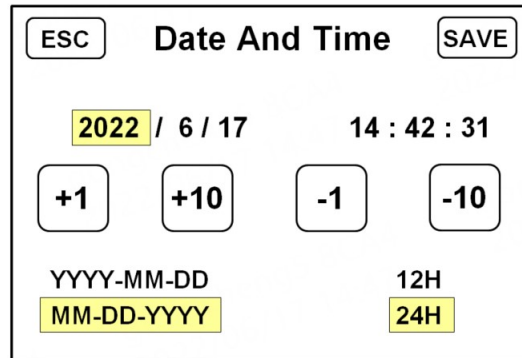


Figure 46

Touch the values of time and date, and the font shading will turn white. At this time, customers can modify the time and date according to their own needs. After modification, please touch the "SAVE" key in the upper right corner of the display screen to save.

2.1.11 Buzzer Settings

1) Press the **"MENU"** key to enter the USER MENU main interface, as shown in Figure 26 below. Touch "2. General" to enter the GENERAL SETTING interface, as shown in Figure 47 below:

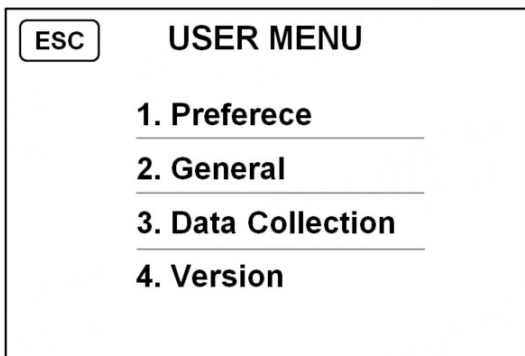


Figure 26

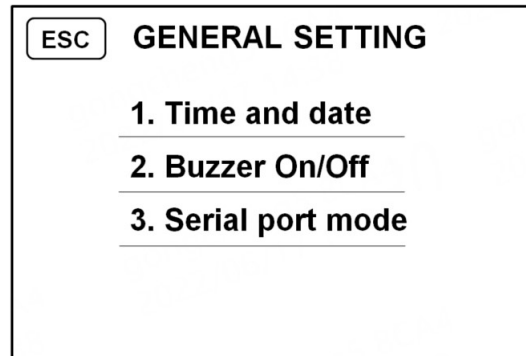


Figure 47

2) Click "2. Buzzer On/Off" to enter the buzzer setting interface, as shown in Figure 48 below:

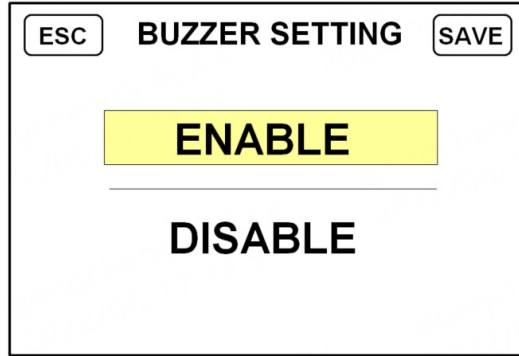


Figure 48

Touch the Open or Close button, and the shadow will turn yellow when selected.

Touch "ENABLE" to turn on the buzzer switch, and then touch the "SAVE" key in the upper right corner to save.

Touch "DISABLE" to turn off the buzzer switch, and then touch the "SAVE" key in the upper right corner to save.

2.1.12 Software Version View

Press the "MENU" key on the right to enter the USER MENU interface, as shown in Figure 26. Touch "4. Version" to enter the software version viewing interface, as shown in Figure 49.

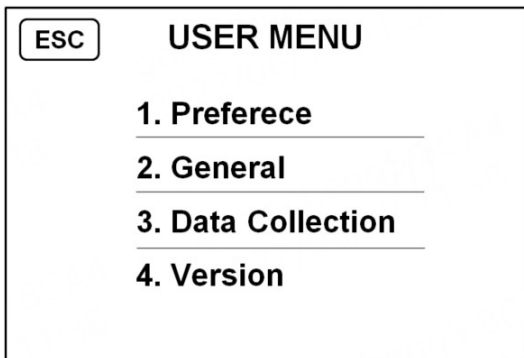


Figure 26

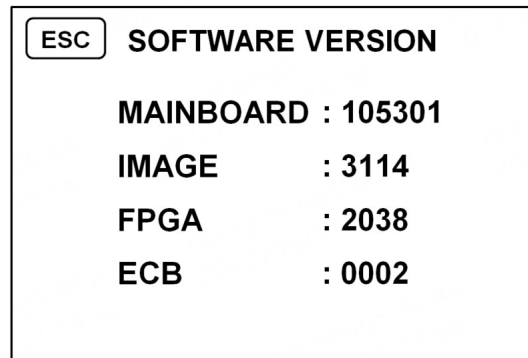


Figure 49

2.1.13 Counting History Information

1) Press the "MENU" key on the right to enter the USER MENU main interface, as shown in Figure 26 below.

Then press the "MENU" key twice in succession to enter debug mode, as shown in Figure 50 below:

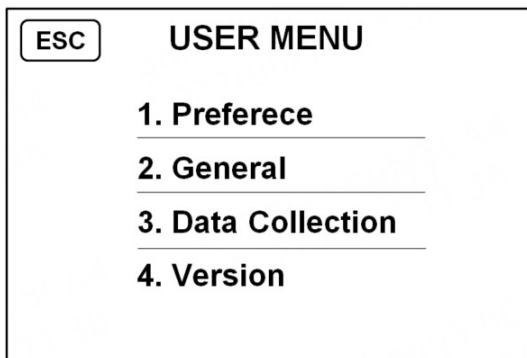


Figure 26

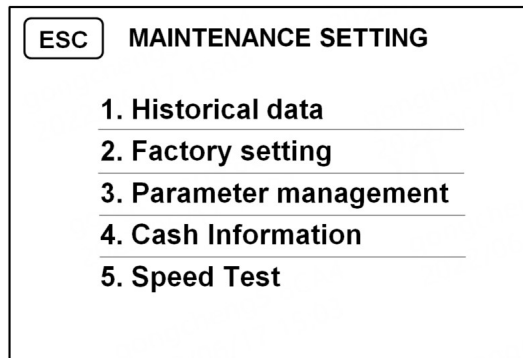


Figure 50

2) Touch "1. Historical data" in the interface shown in Figure 50 to enter the counting history information interface, as shown in Figure 51 below:

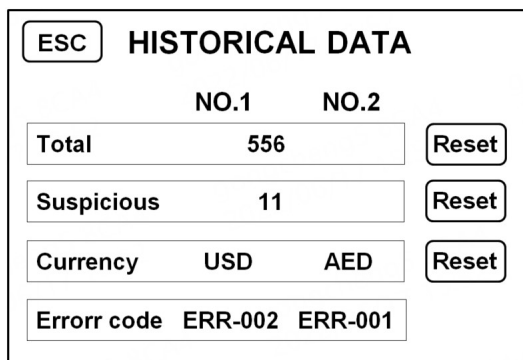


Figure 51

"Total 556" means the historical total number of banknotes counted.

"Suspicious 11" means the historical total count of suspicious banknotes.

"Currency USD AED" means the two currencies with the largest number of counted.

"Error code ERR-002 ERR-001" means the two error codes with the most reported error in counting history.

3) Touch the corresponding "Reset" key on the right to clear the data, and the display interface is shown in Figure 52 below:

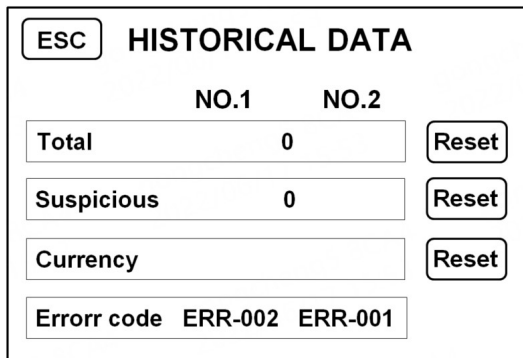


Figure 52

2.1.14 Restore Factory Settings

1) Press the **"MENU"** key on the right to enter the USER MENU main interface, as shown in Figure 26 below. Then press the **"MENU"** key twice in succession to enter debug mode, as shown in Figure 50 below:

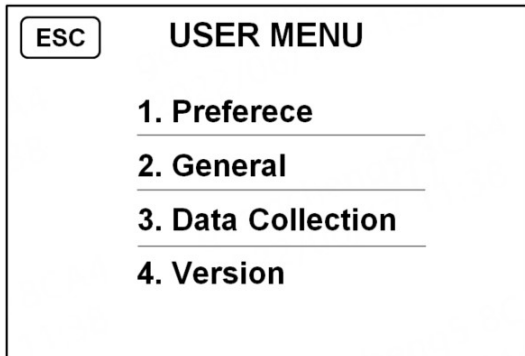


Figure 26

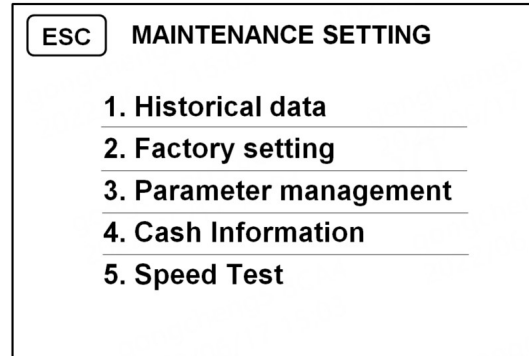


Figure 50

2) Touch the "2. Factory setting" key to enter the interface of restoring factory settings, as shown in Figure 53 below:

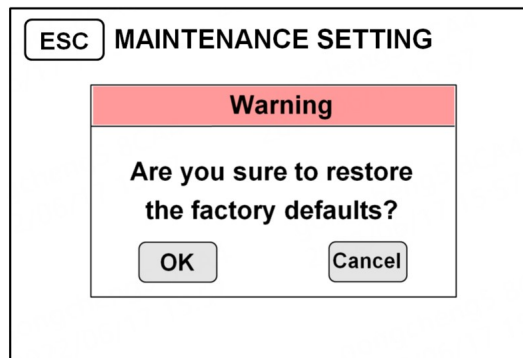


Figure 53

3) Touch the "OK" key to restore the factory settings, and restore all other settings except the initial time and date settings to the initial state. Restart the machine after restoring factory settings, as shown in Figure 54 below:

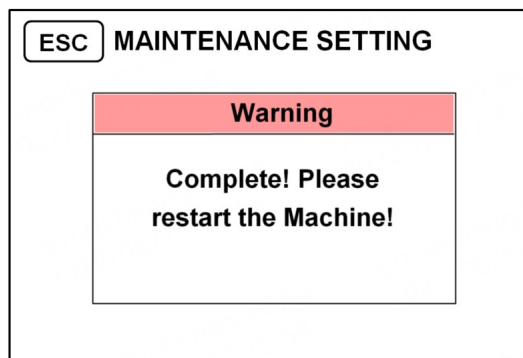


Figure 54

2.2 Using Instructions for 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) Press the **"MENU"** key to enter the USER MENU interface, as shown in Figure 26. Then touch "2. General" to enter the GENERAL SETTING interface as shown in Figure 55:

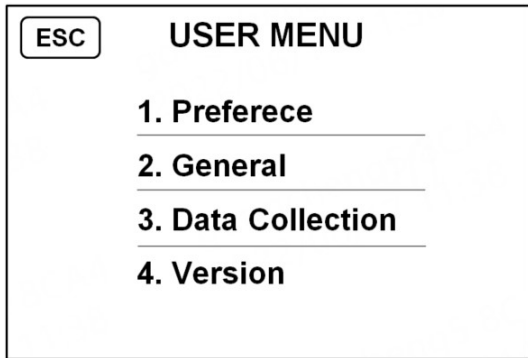


Figure 26

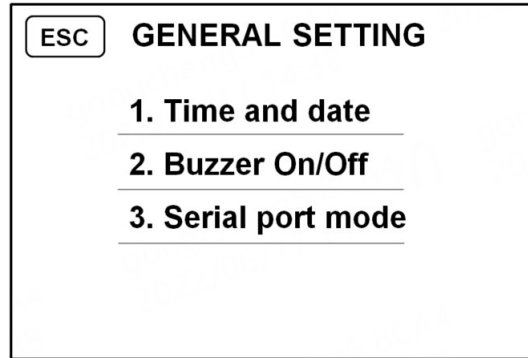


Figure 55

2) Touch "3. Serial port mode" under the interface in Figure 55 to enter the SERIAL PORT MODE interface as shown in Figure 56.

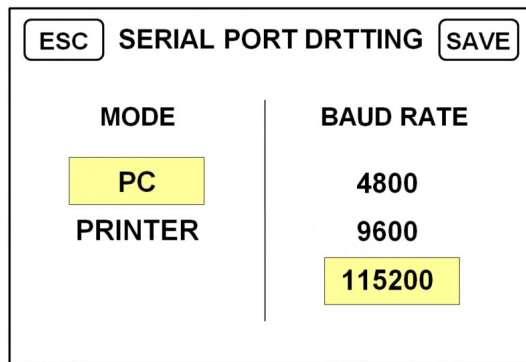


Figure 56

3) In the "SERIAL PORT MODE" interface, click and select "PRINTER" in the MODE column on the left, and then click and select the same baud rate value as the printer in the BUAD RATE column on the right. When the selection is complete, touch the "SAVE" button in the upper right corner to save, as shown in Figure 57 below.

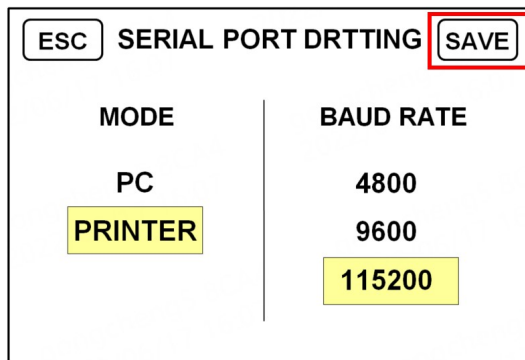


Figure 57

4) Connect the printer power supply. Connect one end of RS232 line in the printer box to the printer and the other end to the machine 232 interface, as shown in Figure 58:

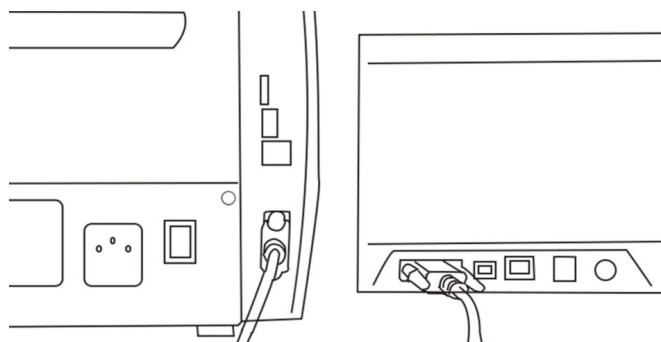


Figure 58

5) Printing can be done after the printer is connected. Press the "LIST" key on the right to enter the detailed banknote counting interface, as shown in Figure 59 below. Press the "PRINT" key on the right side or touch the "PRINT" key in the upper right corner of the display screen, and the printer will print the banknote counting details. The printed format is shown in Figure 60 below.

USD Report		
<	Print	>
Den	Pcs	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 >

Figure 59

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 60

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 61:

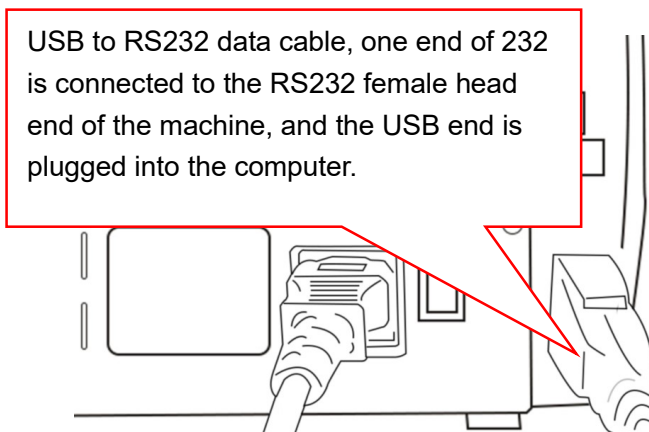


Figure 61

2.3.2 Machine Settings

1) Press the **"MENU"** key to enter the USER MENU interface, as shown in Figure 26. Then touch **"2. General"** to enter the GENERAL SETTING interface, as shown in Figure 55:

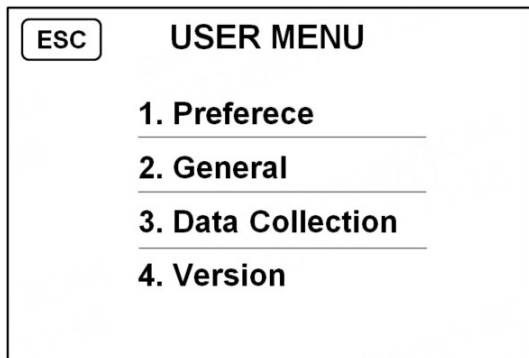


Figure 26

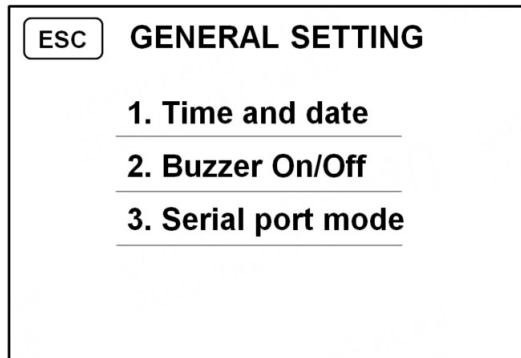


Figure 55

2) In the interface of Figure 55, touch **"3. Serial port mode"** to enter the SERIAL PORT MODE interface, as shown in Figure 62:

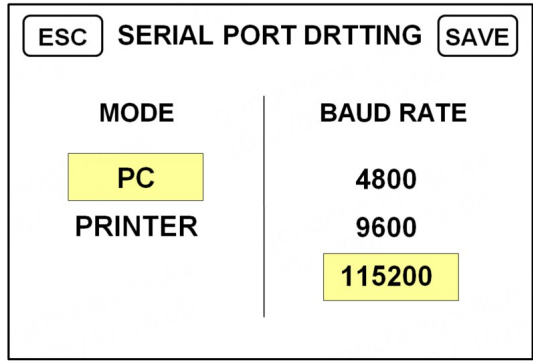


Figure 62

3) In the "SERIAL PORT MODE" interface, first click and select "PC" in the MODE column on the left side, and the baud rate value on the right side can not be selected. The default baud rate of the machine is "115200". After the selection is complete, touch the "SAVE" key in the upper right corner to save, as shown in Figure 63 below.

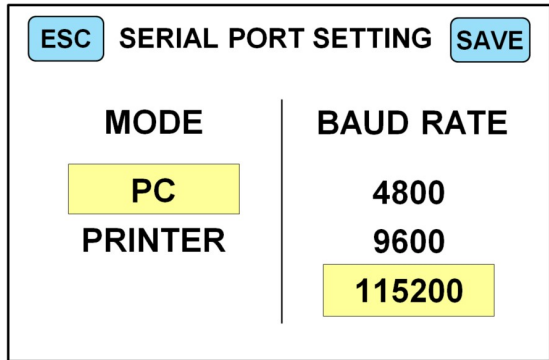


Figure 63

2.3.3 Using Instructions for Data Acquisition PC 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 64 below.



Figure 64

2) Select the serial port and the baud rate, which must match the baud rate selected on the machine, as shown in Figure 65 below.

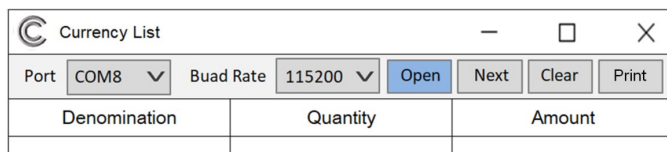


Figure 65

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 66 and 67 below.

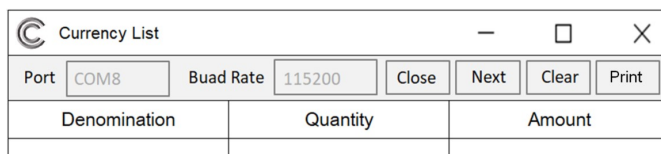


Figure 66

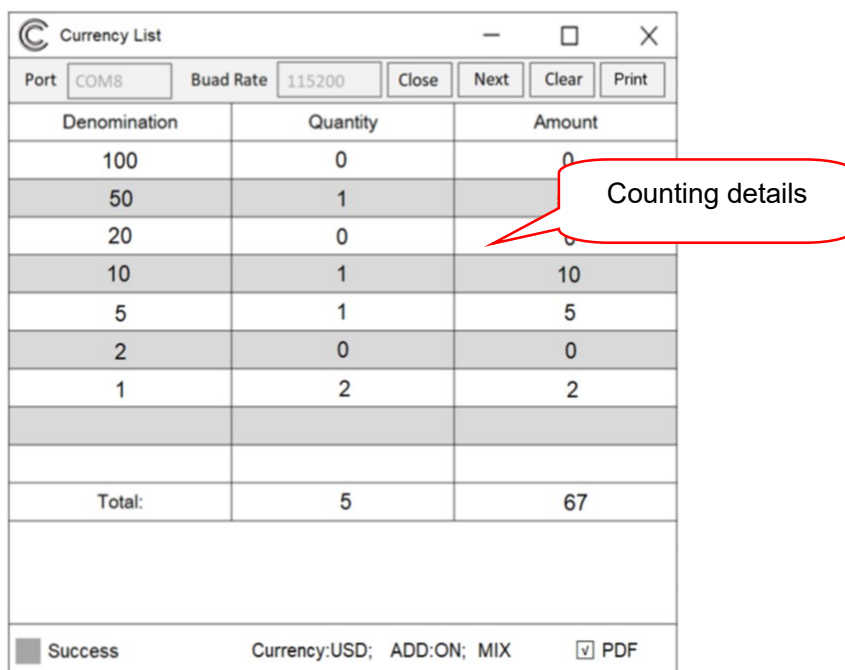


Figure 67

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 68 below.

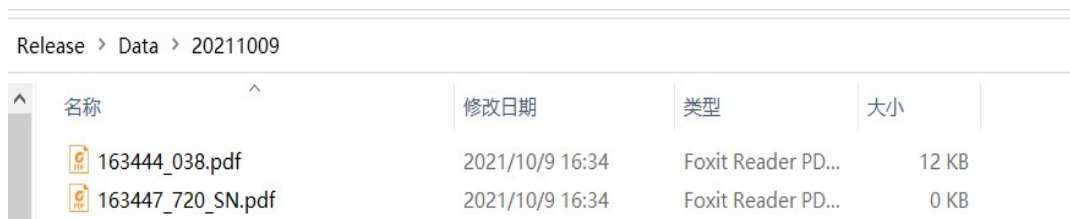


Figure 68

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 69:

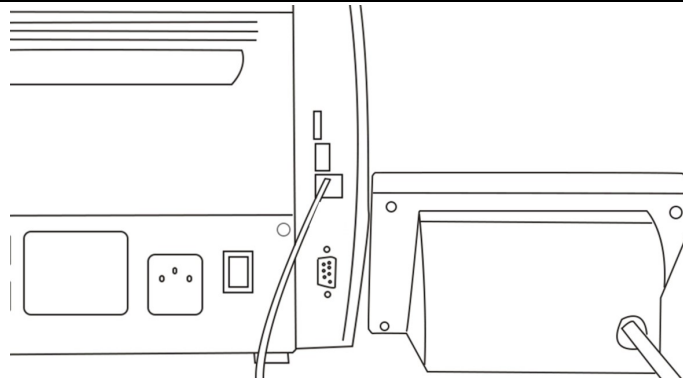


Figure 69

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 70. The word "USD" appears on the display, as shown in Figure 71:

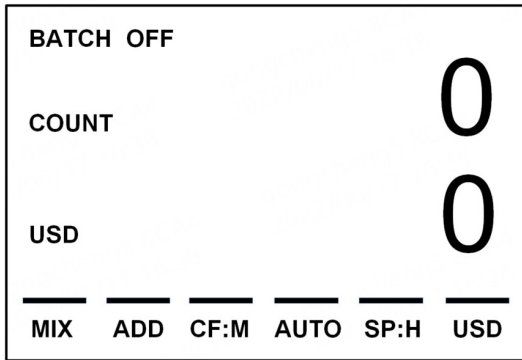


Figure 70

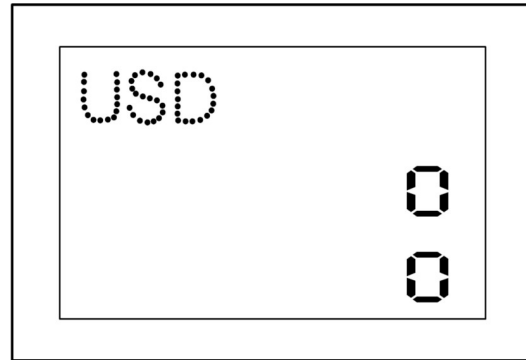


Figure 71

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 72 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 73:

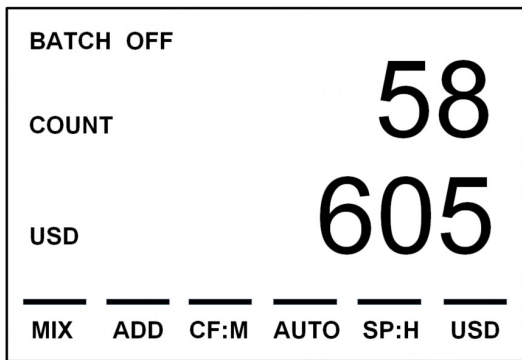


Figure 72



Figure 73

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.

If you use the USB flash disk that comes with the machine, please insert the USB flash disk into the computer, and copy the upgrade software *****.GIN (suffix is .GIN) provided by our company into the GIN folder under the root directory of the USB flash disk.

If you use your own USB flash disk, please insert the USB flash disk into the computer, create a "GIN" folder under the root directory of the USB flash disk, and copy the upgrade software *****.GIN (suffix is .GIN) provided by our company into the GIN folder under the root directory of the USB flash disk.

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 74 below:

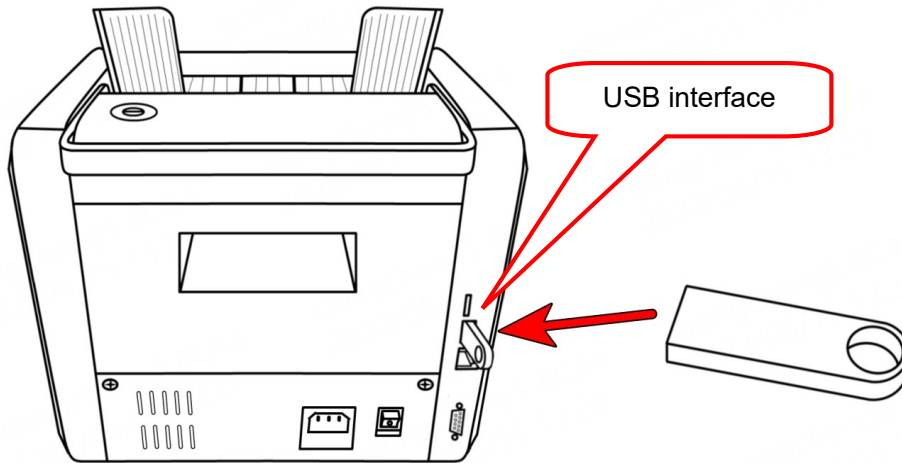


Figure 74

2) Turn on the machine power, and the machine will automatically read the software in the U disk to upgrade, and the upgrade interface shown in Figure 75 will appear. After the software upgrade is successful, the machine will conduct self-check, as shown in Figure 76 below.

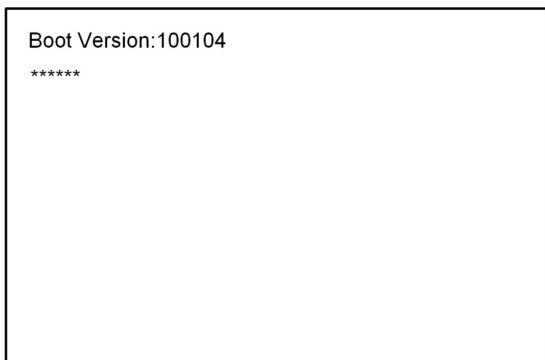


Figure 75



Figure 76

3) After the self-test is completed, the machine will automatically enter the main interface and the machine software upgrade is completed.

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 77, clean the start sensor with a clean brush or cloth.

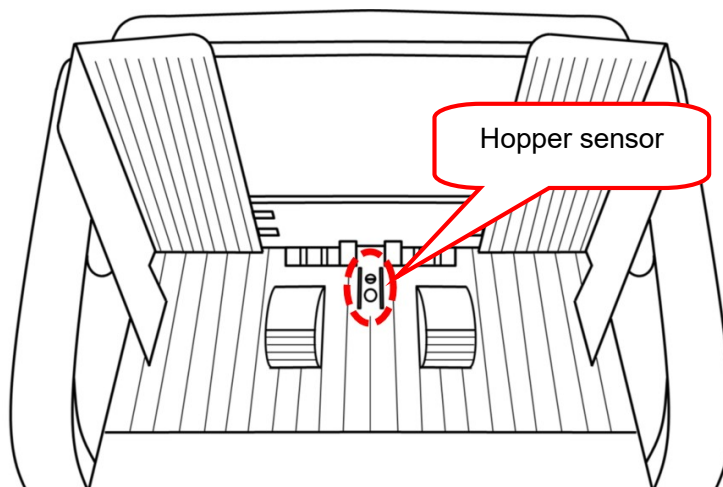


Figure 77

3.2.2 Cleaning of Feeding Block and Twisting Block

As shown in Figure 78 below, clean the feeding block and twisting block with a clean brush or cleaning cloth.

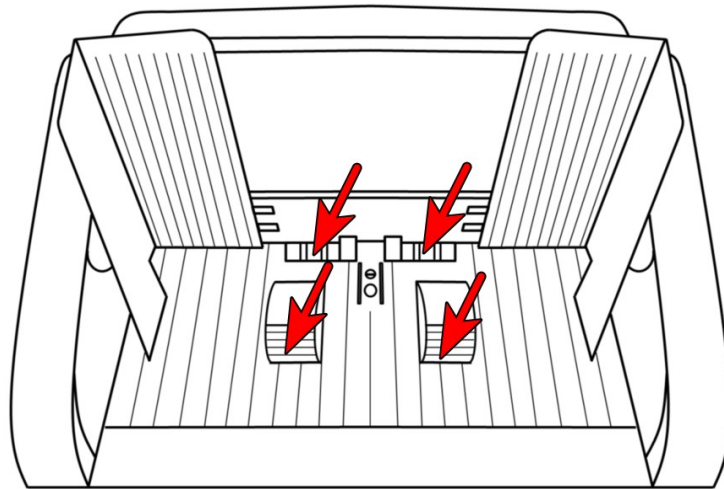


Figure 78

3.2.3 Cleaning of Receiving Sensor

As shown in Figure 79 below, clean the receiving sensor with a clean brush or cleaning cloth.

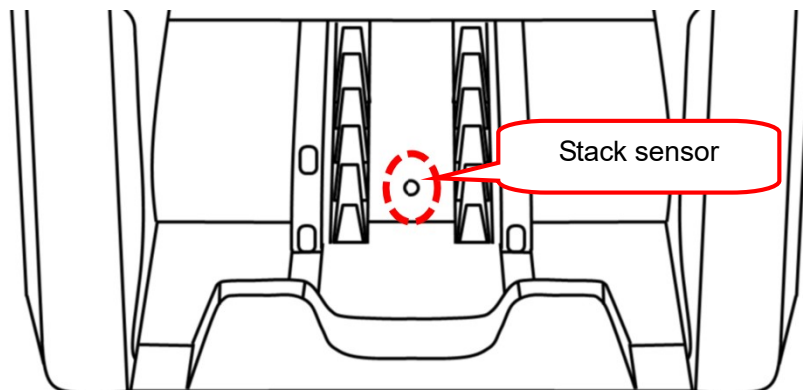


Figure 79

3.2.4 Cleaning of Channel Internal Sensor

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

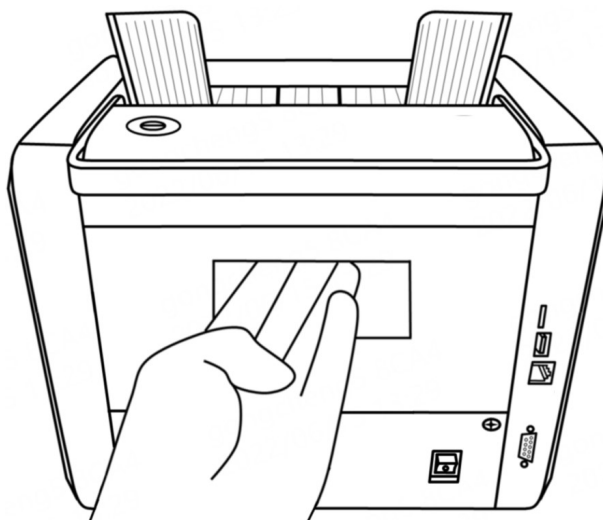


Figure 80

2) Wipe the light source strip of Mark 1 in one direction with a dust-free cloth, and then clean the infrared emission lamp cap of Mark 2 with a clean brush.

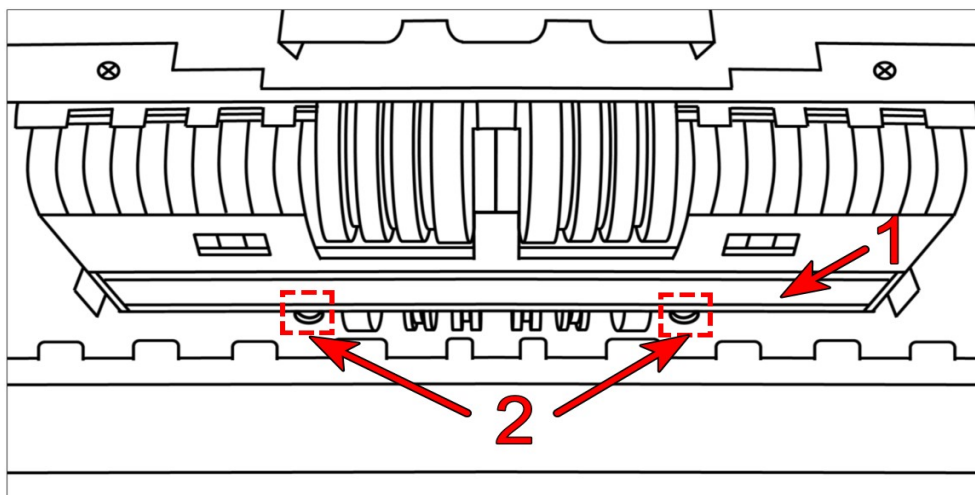


Figure 81

3) Wipe the lower CIS sensor of Mark 1 in one direction with a dust-free cloth, then clean the infrared receiving lamp of Mark 2 and the lower ultraviolet lamp of Mark 3 with a clean brush.

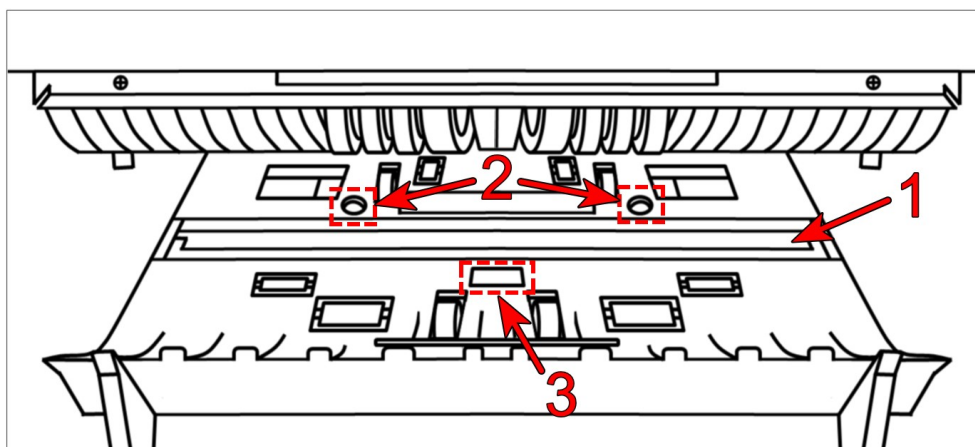


Figure 82

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	Cause	Troubleshooting
QT(101)	hopper sensor	The start sensor is blocked	Check whether the sensor is dusty or blocked.
ST(102)	Stack sensor	The stack sensor is blocked	Check whether the sensor is dusty or blocked.
			Check whether the sensor harness falls off.
IRL(103)	Left infrared emitting tube and photosensitive receiving tube	The left infrared emitting tube and photosensitive receiving tube is blocked	Check whether the infrared emitting tube and photosensitive receiving tube are dusty or blocked.
			Check whether the sensor harness falls off.
IRR(104)	Right infrared emitting tube and photosensitive receiving tube	The right infrared emitting tube and photosensitive receiving tube is blocked	Check whether the infrared emitting tube and photosensitive receiving tube are dusty or blocked.
			Check whether the sensor harness falls off.
UVD(105)	Lower UV	Abnormal UV sampling	Check whether there are foreign matters on the lower UV surface in the passage.
ENC(107)	Encoding disk	Abnormal encoding disk signal	Check whether the encoding disk harness falls off.
			Check whether the startup motor rotates normally.
			Check whether the infrared emitting tube and photosensitive receiving tube of encoding disk abnormally.
PWR(108)	Power supply	Abnormal power supply	Check whether the power wiring harness falls off.
			Replace the power box.

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