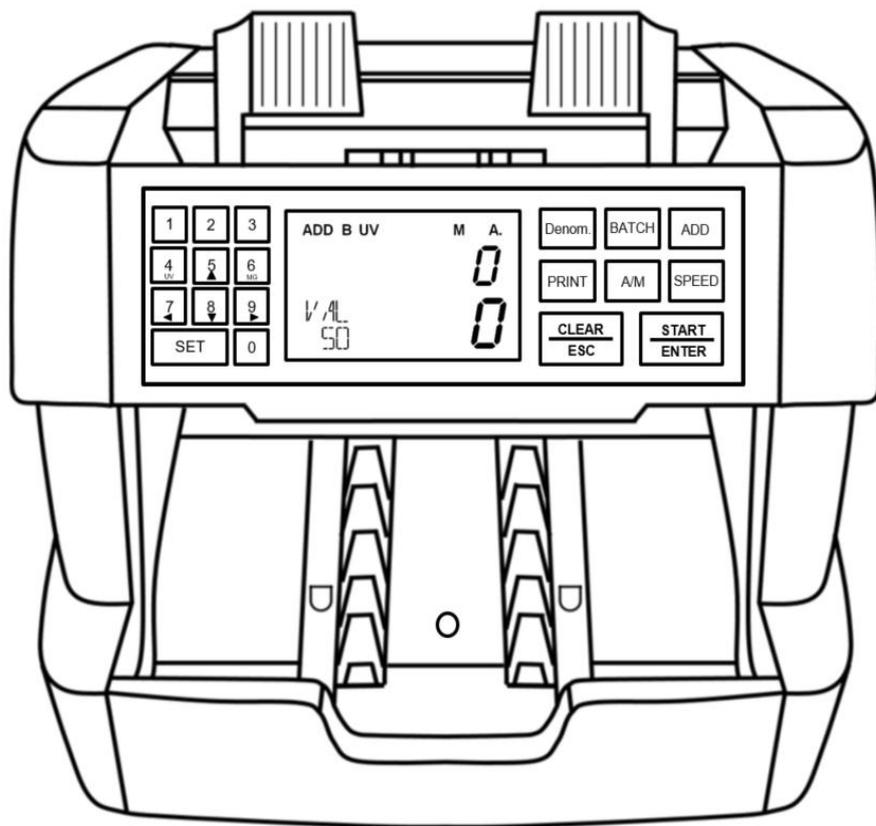


Currency Counter NC-5 User Manual



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1. Machine Overview

1.1 Safety Instructions

This product is intended for use in counting banknotes. We will not be liable for any damage caused by using this product for any purpose other than those described below without our permission, nor for any damage caused by any modification to this product not made by us or by any unauthorized agent. If you need to install or transport this product, please consult your local agent to minimize (avoid) damage to the product caused by incorrect installation or transport shock.

Please read this manual carefully before use in order 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 notice.

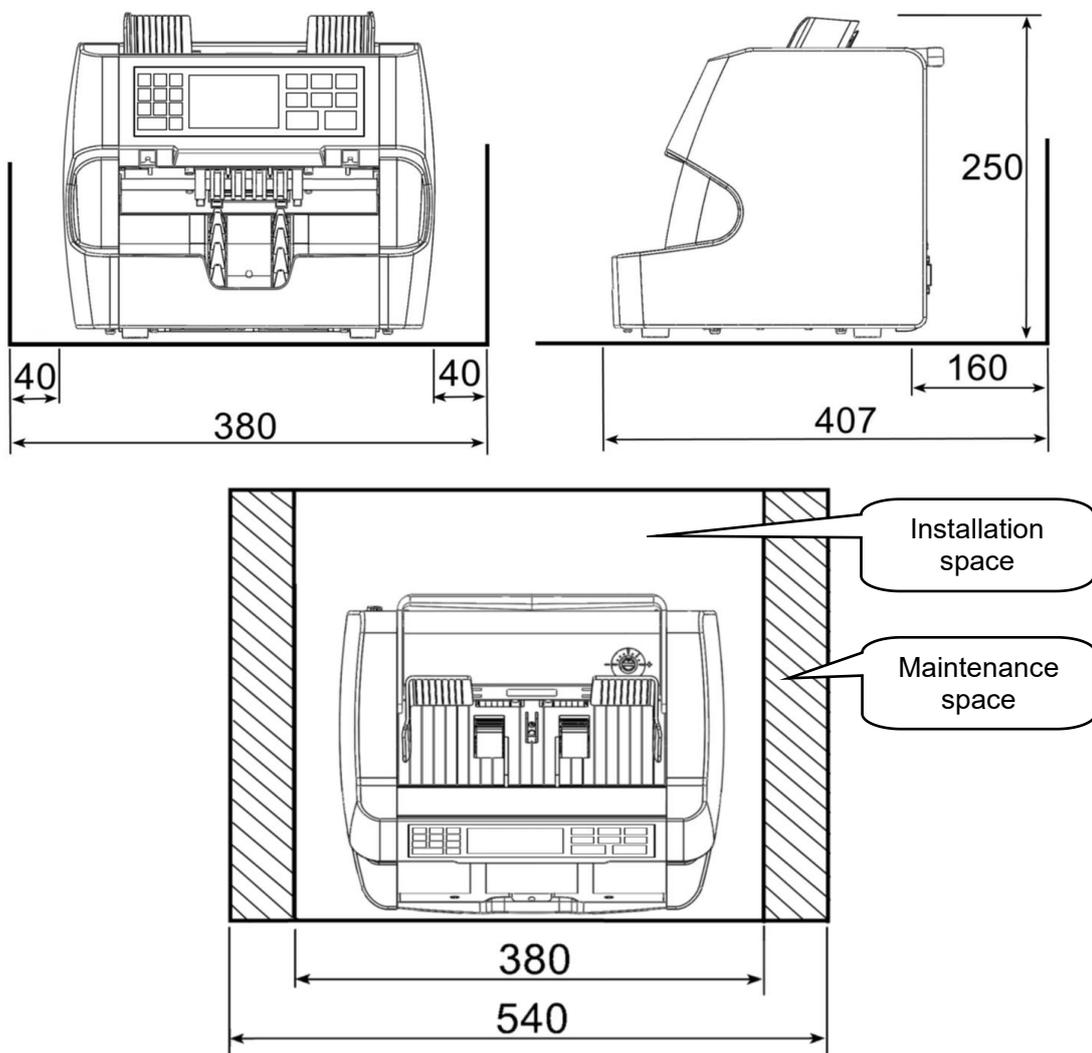
Warm Tips:

- This product is used to count banknotes as described in the user manual. Please do not use this product for any other purpose.
- This product is for use in the corresponding country or region only, and may not be used in other countries or regions due to differences in power supply specifications and safety standards.
- Please understand that the contents of this manual are subject to change without notice.
- The appearance and technical specifications of this product are subject to change without notice. Therefore, the actual product may differ from the description in this manual.
- No changes or modifications of any kind may be made to this product without the express written authorization of the Company.
- This machine is designed for indoor use. Do not install or use 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 flammable materials, flammable and volatile items such as thinner around/inside this product.
- Do not overbend the power cord or place heavy or sharp objects on top of the machine.
- Do not use this product in an excessively humid environment.
- Please avoid strong light and strong magnetic field interference.

- Turn off the machine switch when the machine is not in use. Prevent curtains and various tangled materials from being caught in the machine.
- When cleaning the machine, please turn off the machine switch first.

1.2 Installation Instruction

As shown in the Figure 1, please stay away from the surrounding walls and reserve sufficient operation space for placement of banknotes, opening or closing of the cover plate, as well as for maintenance.



Unit (mm)

Figure 1

1.3 Machine & Accessories

- | | |
|-------------------|------|
| 1. Machine | 1PCS |
| 2. User Manual | 1PCS |
| 3. Power Cable | 1PCS |
| 3. Cleaning Brush | 1PCS |

1.4 Appearance

1.4.1 Front Appearance

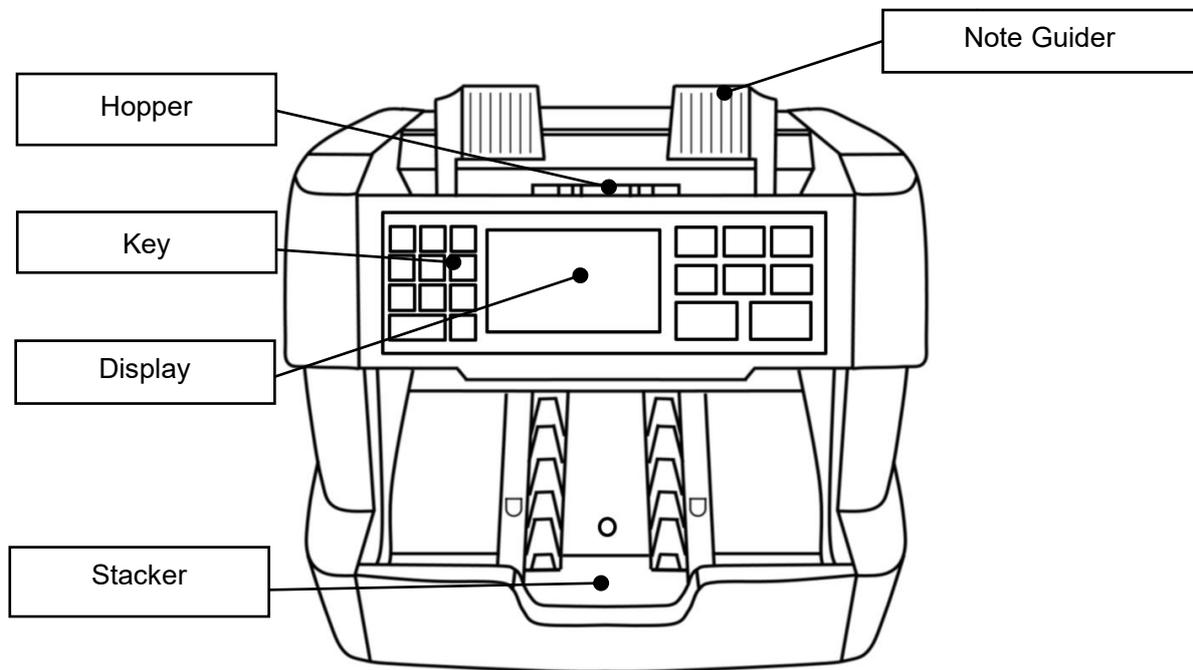


Figure 2

1.4.1 Back Appearance

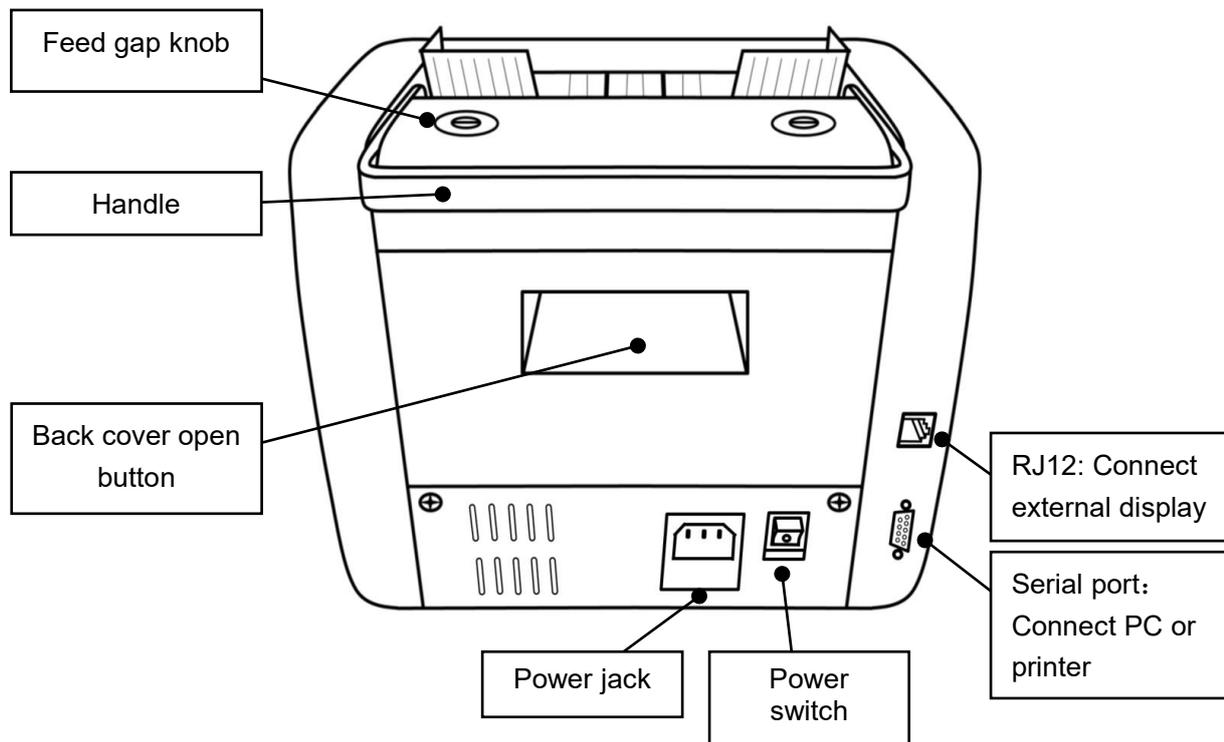


Figure 3

1.5 Technical Parameters

Dimension	(WxDxH)290mm×250mm×245mm
Net Weight	5.5KG
Currency support	Single
Power requirement	AC 100V-240V 50/60Hz ±10%
Counting Mode	Piece counting with preset value
Counting Speed	L(900 pcs/min)/M(1200 pcs/min)/H(1500 pcs/min)
Counterfeit Detection	UV, MG
Other Detection	Width Detection, Double Detection, Half Notes Detection
Batch number	0~999
Display	3.5 inch LED
Hopper Capacity	About 500pcs
Stacker Capacity	200pcs
Countable Notes Size	Length: 120mm~180mm

	Width: 50mm ~90mm
Countable Notes Thickness	0.05mm~0.15mm
Power Consumption	Sleeping Mode≤15W During Operation≤50W
Working Noise	Idle running ≤ 60dB, operation ≤ 75dB
Software Upgrade	RS-232 Port
External Display	Optional Part
Working Condition	Temperature (0~40°C)/ Humidity (40~90%) Air Pressure (70-106kpa)
Storing Condition	Temperature (-40~55°C)/ Humidity (10~95%) Air Pressure (70-106kpa)

1.6 Start-up

Plug in the power cord and connect it to the power supply and turn on the switch. The machine will enter the loading interface, displaying the firmware version as shown in Figure 4 below. After loading is complete the machine enters the main interface as shown in Figure 5 below.

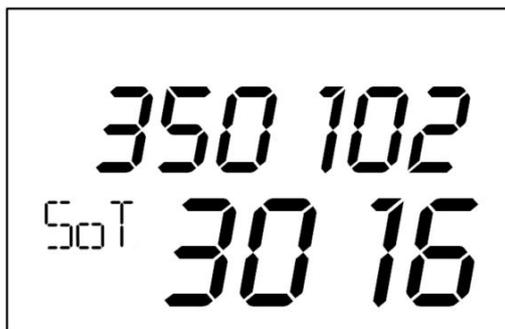


Figure 4



Figure 5

1.7 Notes Placement

- 1) Before counting the banknotes, place the handle of the machine on the back of the machine.
- 2) Please sort the banknotes to be counted by size first and then put them into the hopper. When the counted banknotes encounter folds or arches, they should be sorted in advance so as to improve the one-time passing rate of the count.

3) During the counting process, you need to adjust the limit positions of the left and right extended plates according to the largest size of the currently counted banknotes to ensure that the banknotes can be accurately recognized by the relevant sensors. Take USD as an example, please sort the banknotes first, then adjust the limit position of the extended plate according to the largest size of banknotes. Finally, place the banknotes into the hopper for counting, as shown in Figure 6 and Figure 7:

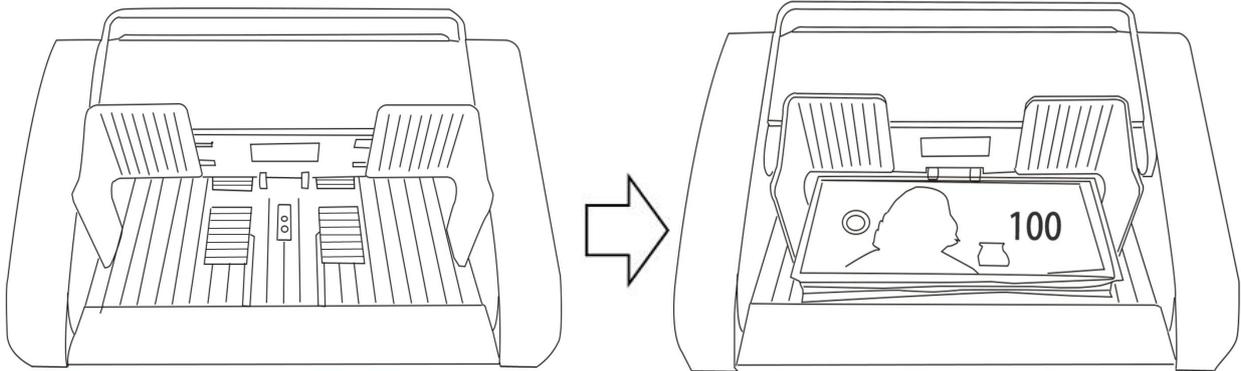


Figure 6

Figure 7

1.8 Counting error code

Error Code	Cause
111	Detect the back cover is opened and gives warning
121	Hopper sensor is covered for 3s but no notes pass
130	Inclined notes
133	Notes jam in the passage
134	Motor blocking
135	The motor is overloaded, as shown by the speed is significantly less than expected
151	Motor speed, drive circuit hardware failure
200	Double notes detected
251	Stacker is full
252	Accumulated amount exceeds the display maximum range
351	Left UV warning
450	Right UV warning

451	MG warning
452	Narrow notes detected
453	Half notes detected
454	Abnormal Width
455	Walk through the sensor timeout 200ms

2. Function Introduction

2.1 Function Introduction

2.1.1 Display Interface and Touch Screen Description

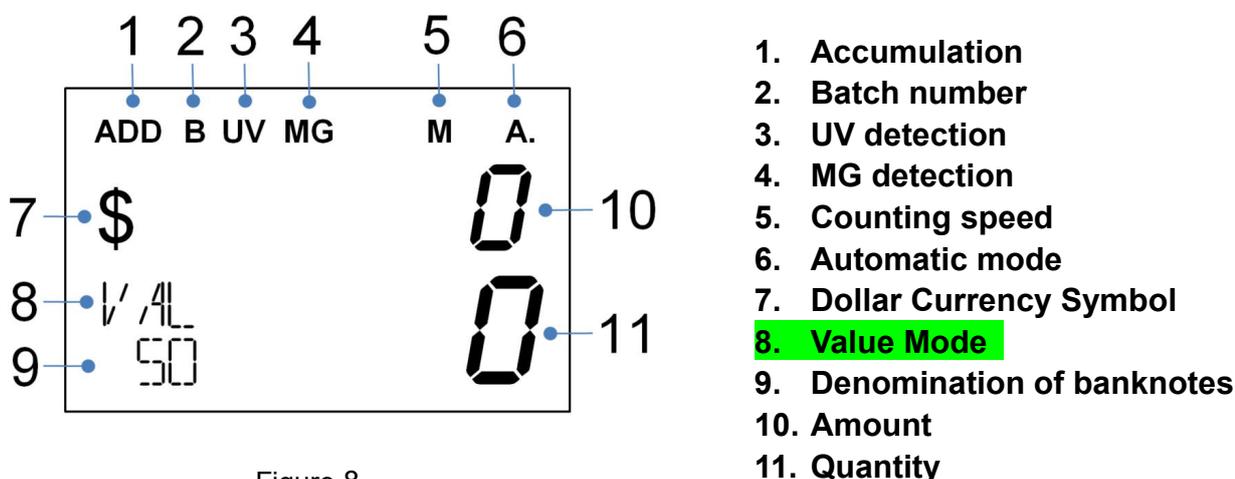


Figure 8

2.1.2 Operating Instructions for Function Keys

- | | | | |
|----------------------------------|--------------|---------------------------------------|------------------------------|
| <input type="button" value="1"/> | Number key 1 | <input type="button" value="Denom."/> | Denomination switch key |
| <input type="button" value="2"/> | Number key 2 | <input type="button" value="BATCH"/> | Batch number setting key |
| <input type="button" value="3"/> | Number key 3 | <input type="button" value="ADD"/> | Accumulative mode on/off key |

<div style="border: 1px solid black; padding: 2px; display: inline-block; text-align: center; width: 30px; height: 30px; margin-bottom: 5px;">4 <small>UV</small></div> <p>Number key 4; UV detection on/off</p>	<div style="border: 1px solid black; padding: 2px; display: inline-block; text-align: center; width: 30px; height: 30px; margin-bottom: 5px;">PRINT</div> <p>Print key</p>
<div style="border: 1px solid black; padding: 2px; display: inline-block; text-align: center; width: 30px; height: 30px; margin-bottom: 5px;">5 ▲</div> <p>Number key 5; Modify parameters in SET mode</p>	<div style="border: 1px solid black; padding: 2px; display: inline-block; text-align: center; width: 30px; height: 30px; margin-bottom: 5px;">A/M</div> <p>Auto/Manual mode switch key</p>
<div style="border: 1px solid black; padding: 2px; display: inline-block; text-align: center; width: 30px; height: 30px; margin-bottom: 5px;">6 <small>MG</small></div> <p>Number key 6</p>	<div style="border: 1px solid black; padding: 2px; display: inline-block; text-align: center; width: 30px; height: 30px; margin-bottom: 5px;">SPEED</div> <p>Speed switch key</p>
<div style="border: 1px solid black; padding: 2px; display: inline-block; text-align: center; width: 30px; height: 30px; margin-bottom: 5px;">7 ◀</div> <p>Number key 7; MG detection on/off</p>	<div style="border: 1px solid black; padding: 2px; display: inline-block; text-align: center; width: 30px; height: 30px; margin-bottom: 5px;">CLEAR ESC</div> <p>Clear the data; Escape to upper interface</p>
<div style="border: 1px solid black; padding: 2px; display: inline-block; text-align: center; width: 30px; height: 30px; margin-bottom: 5px;">8 ▼</div> <p>Number key 8; Modify parameters in SET mode</p>	<div style="border: 1px solid black; padding: 2px; display: inline-block; text-align: center; width: 30px; height: 30px; margin-bottom: 5px;">START ENTER</div> <p>Start key; Enter the function setting interface; Save settings.</p>
<div style="border: 1px solid black; padding: 2px; display: inline-block; text-align: center; width: 30px; height: 30px; margin-bottom: 5px;">9 ▶</div> <p>Number key 9</p>	<div style="border: 1px solid black; padding: 2px; display: inline-block; text-align: center; width: 30px; height: 30px; margin-bottom: 5px;">SET</div> <p>User setting key</p>
<div style="border: 1px solid black; padding: 2px; display: inline-block; text-align: center; width: 30px; height: 30px; margin-bottom: 5px;">0</div> <p>Number key 0</p>	

2.1.3 Auto/Manual mode setting

The machine has two counting modes: automatic counting mode and manual counting mode. Press the "A/M" button on the right to switch between automatic and manual counting modes.

Automatic mode: The "A." character appears in the upper right corner after successful setup, as shown in Figure 9. The machine will automatically count the banknotes by placing them in the hopper.

Manual mode: The "A." character will not appear in the upper right corner after successful setup, as shown in Figure 10. The machine will start counting the banknotes only after you press the "START/ENTER" button on the right side of the hopper.

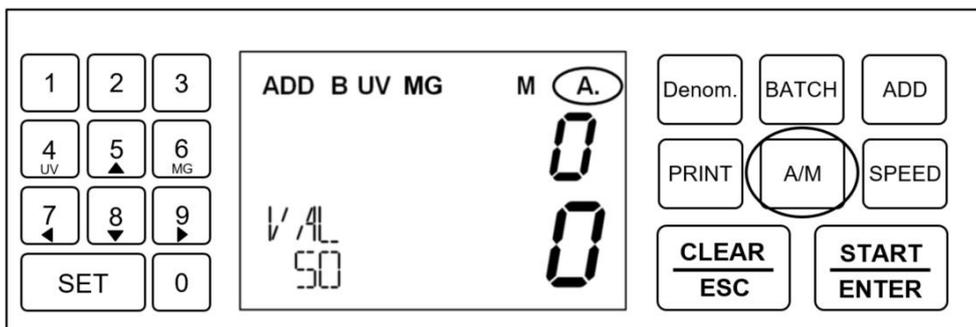


Figure 9 Auto Mode

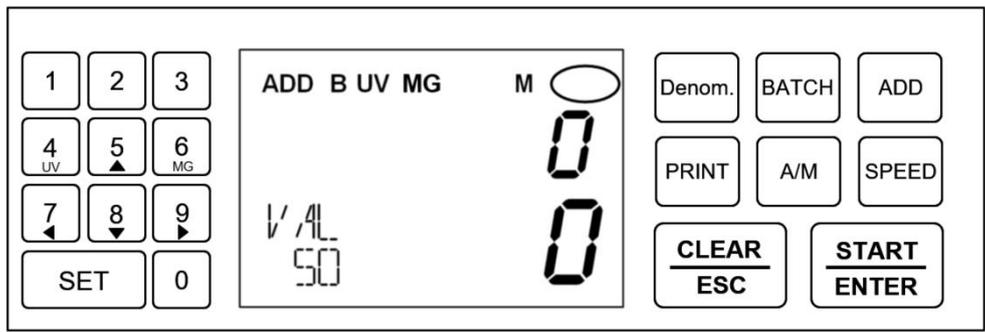


Figure 10 Manual Mode

2.1.4 Batch Set

2.1.4.1 Default batch number setting

In the main interface of the machine, press the "BATCH" button on the right to switch the default batch values. The default batch values are 200, 100, 50, 20, 10, 0 (displaying 0 means the batch function is off at this time). When the "BATCH" button on the right is pressed, the value will appear briefly on the display, as shown in 11 below: the batch value is 100.

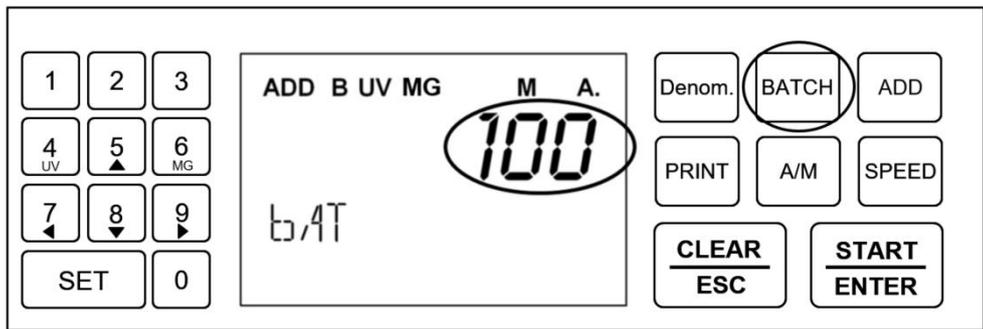


Figure 11

After the batch number is set successfully, the machine jumps to the main interface and the "B" character appears in the upper left corner of the display, as shown in Figure 12 below:



Figure 12

When the right "BATCH" button is pressed to switch to the value "0" (Figure 13 below), the "B" character disappears from the upper left corner of the display (Figure 14 below). At this point, the batch function is turned off.

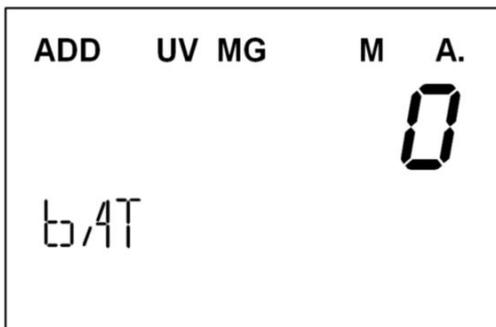


Figure 13



Figure 14

2.1.4.2 Customized batch number settings

Machine customized batch number range from 1-999. If the default batch number do not meet your needs, you can set the values manually as follows.

1) When the machine is in the main interface, press the "SET" button on the left side to enter the user setting mode, then the character "SET bAT" is displayed in the lower left corner, as shown in Figure 15 below.



Figure 15

2) Press the right "START/ENTER" key and the "bAT" character will start flashing.

3) Press the number key on the left and enter the value you want, for example, 155, as shown in Figure 16 below



Figure 16

4) After the value is entered, press the "START/ENTER" button again to save, then the "bAT" character will stop flashing. Press the "CLEAR/ESC" button on the right several times to return the display to the

main screen. Press the "BATCH" button on the right side again, the display will show the batch value of "155" as shown in Figure 17 below. After about 1 second, the display will automatically jump to the main screen, and then the machine will stop when the number of banknotes counted reaches 155.

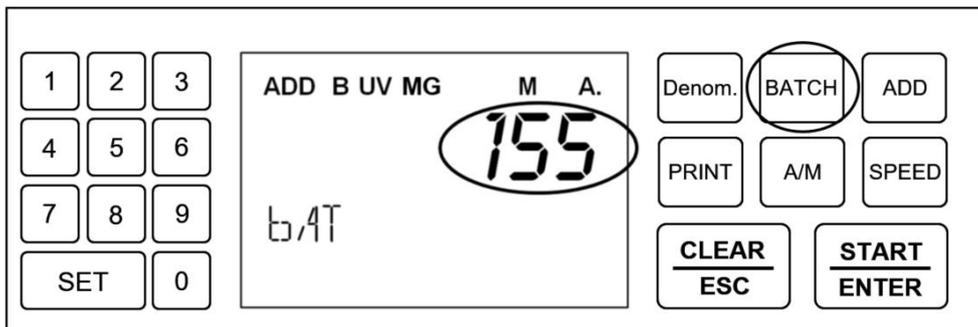


Figure 17

2.1.4.3 Customized batch shortcuts under the main interface

1) In the main interface of the machine, press and hold the "BATCH" button on the right side for about 4 seconds until the display jumps to the customized batch value setting interface shown in Figure 18 below. In this interface, the "bAT" character keeps flashing in the lower left corner.

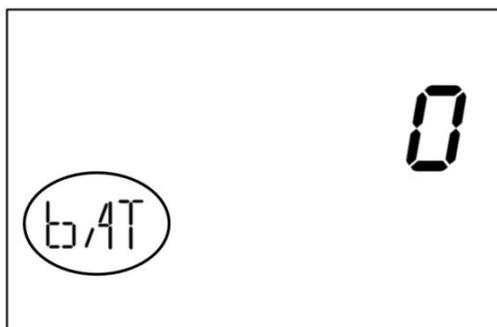


Figure 18

2) Press and hold the number keys on the left to enter the value you want. For example, enter the value "188" as shown in Figure 19 below.

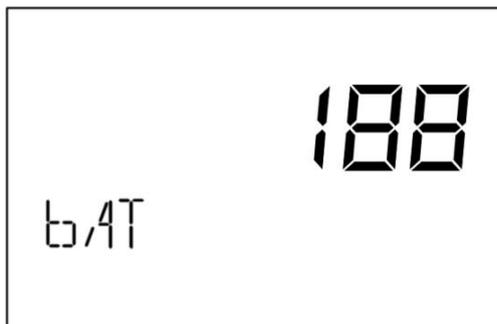


Figure 19

3) Please press the "START/ENTER" button on the right after you finish inputting, then the machine will return to the main interface automatically. Please press the "BATCH" button on the right side several

times until the "188" value you just set appears and stop pressing it. At this time, the machine will use this batch value to count the banknotes.

2.1.4.4 Delete customized batch numbers

If you need to delete a previously customized value, please proceed as follows.

1) When the machine is in the main interface, press the "SET" button on the left side to enter the user setting mode, then the character "SET bAT" is displayed in the lower left corner, as shown in Figure 15 below.



Figure 20

2) Please press the "**BATCH**" button on the right side to switch to the batch value you need to delete. For example, if you need to delete the value "188", press the "**BATCH**" button several times in the screen shown in Figure 20 until you reach the value "188", as shown in Figure 21 below.



Figure 21

3) Press the "**START/ENTER**" button on the right, and the "bAT" character will start flashing in the lower left corner.

4) Press the "ADD" button on the right side again, and the value "188" flashes together with the "bAT" character in the lower left corner.

5) Finally, press the "**START/ENTER**" button on the right again, then the "bAT" character in the lower left corner stops flashing and the value "188" is deleted.

6) Press the right "CLEAR/ESC" key to return to the main screen.

2.1.5 Counterfeit Detection Set

In the main interface of the machine, press the number key "4 UV" on the left side, then the machine turns on the UV detection function, and the "UV" character appears on the top of the display, as shown in Figure 22 below. ", the machine turns off the UV detection function, and the "UV" character disappears from the top of the display, as shown in Figure 23 below.

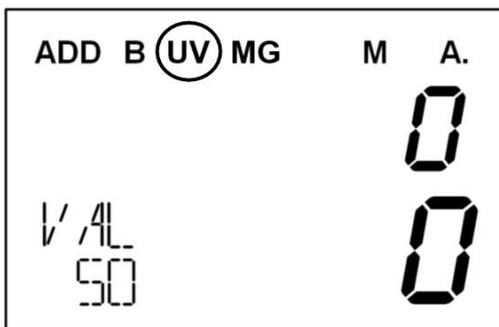


Figure 22



Figure 23

In the main interface of the machine, press the numeric key "6 MG", then the machine turns on the MG detection function, and the character "MG" appears on the top of the display, as shown in Figure 24 below. Press the number key "6 MG" again, the machine turns off the UV detection function, and the "MG" character disappears from the top of the display, as shown in Figure 25 below.

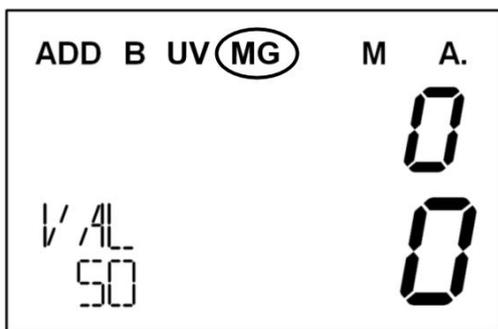


Figure 24

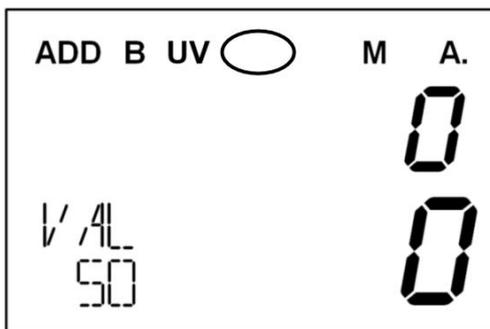


Figure 25

2.1.6 Speed Set

The machine has a total of three grades of counting speed, H, M and L. The corresponding counting speed details are shown in the table below.

Speed levels	Counting speed
H (High level)	1500 pcs/min
M (Medium level)	1200 pcs/min



Press the "SPEED" button on the right to switch the speed of counting. After successfully switch, the corresponding characters of H, M and L will appear in the upper right corner of the display, as shown in Figure 26: the machine is at the medium-grade counting speed of 1200 pcs/minute.

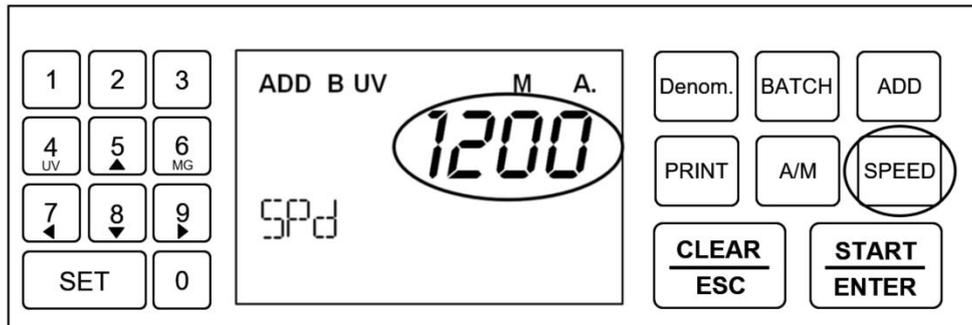


Figure 26

2.1.7 Accumulative Counting (ADD) Set

Press the "ADD" button on the right side at any counting speed to turn on and off the accumulative function.

The character "ADD" appears in the upper left corner of the display, indicating that the accumulative function is on, as shown in Figure 27 below.

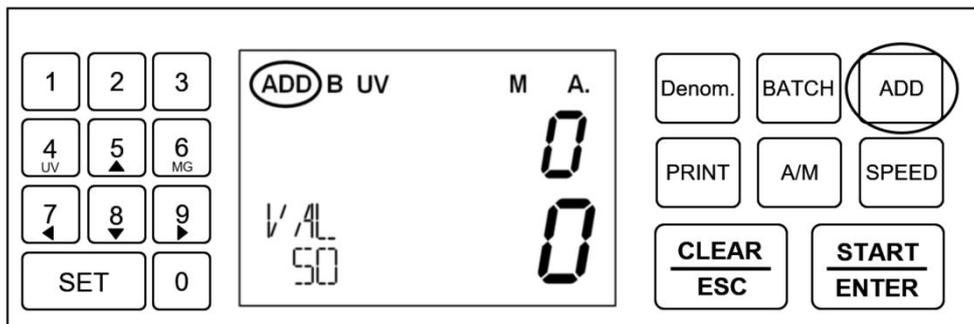


Figure 27

A) When the accumulative function is on, the character "ADD" appears in the upper left corner of the display. The machine displays the details of the counted banknotes at this time. Then take a handful of banknotes and put them into the machine for counting, and do not take away the banknotes in the hopper after the counting is finished, at this time the machine shows the details of the banknotes counted. The machine will add up the details of this time and the previous time after taking away the banknotes from the hopper. The machine will continue to add up the counting details when the banknotes are counted again. Press the "CLEAR/ESC" button once to flick the details of the current count. Pressing the "CLEAR/ESC" button again will clear all the banknote count details.

B) When the accumulative function is off, the "ADD" character does not appear in the upper left corner of the display. When you put a banknote into the machine for counting, the display shows the details of the banknote counted after the count is finished. When you put a handful of banknotes into the machine again for counting, only the details of the current count will be displayed after the count is completed and the previous count will not be displayed after the banknotes are removed. Pressing the "CLEAR/ESC" button will clear all the details of the counted banknotes.

C) If the machine stops and reminds you of the error code, you need to remove the suspicious banknote and press the "START/ENTER" button again to continue counting.

2.1.8 Denomination Setting

2.1.8.1 Default denomination setting

1) In the main interface of the machine, you can switch the denomination by pressing the "Denom" button on the right side.

2) For example, if you need to count \$100, press the "Denom" button several times until "100" appears on the display, then stop pressing the button, as shown in 28 below.

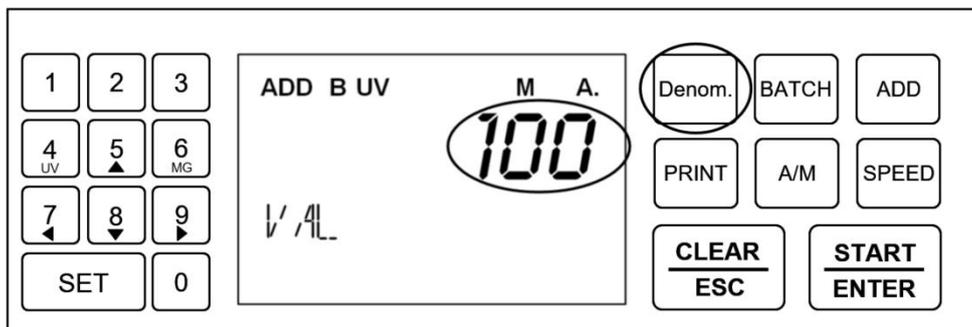


Figure 28

3) After selecting the corresponding denomination and stopping for 1 second, the machine enters the screen shown in Figure 29 below: the character "VAL 100" appears in the lower left corner of the display, indicating that it is in the mode of counting USD 100. In this screen, you can count USD 100 banknotes.

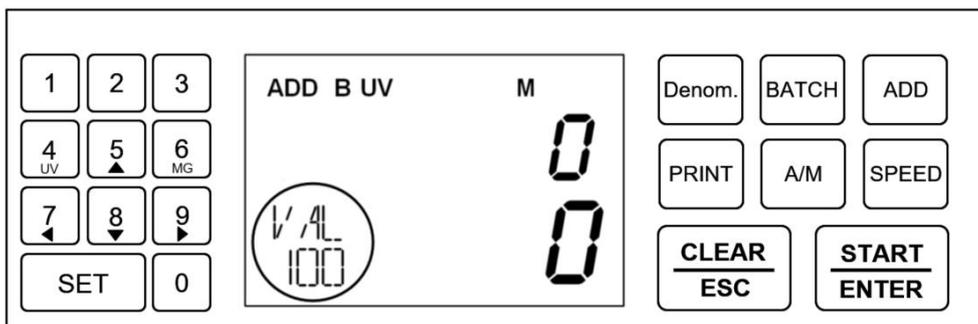


Figure 29

2.1.8.2 Customized denomination shortcut set

1) In the main interface of the machine, press and hold the "Denom." key for about 4 seconds until the display jumps to the interface shown in Figure 31 below: the "VAL" character appears in the lower left corner of the display, and the character keeps flashing.



Figure 31

2) In the interface shown in Figure 31, enter the value, the default value of the machine is one decimal point, so when setting the customized value, you need to add a "0" after the set value. Example: the customized value to be added is 20, then you need to press the left numerical keys "2" "0" "0", so that the display will show the value of "20", as shown in Figure 32 below.



Figure 32

3) When you have finished inputting, press "START/ENTER" to save, the machine will automatically return to the main interface and display the customized value, as shown in Figure 33 below. At this point, you can count the currency with a face value of 20.

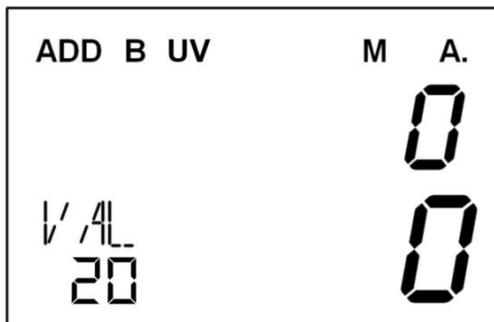


Figure 33

2.1.8.3 Customized denomination value deletion

- 1) If you need to delete a previously set customized batch value, please do so as follows.
- 2) In the main interface, press the "SET" key on the left side to enter the user setting interface, and then press the "SET" key continuously until the "SET VAL" interface appears in the lower left corner of the display, as shown in Figure 34 below.



Figure 34

- 3) Press the "**Denom.**" button on the right to switch to the denomination you need to delete. For example, if you need to delete the value "20", press the "**Denom.**" button several times in the screen shown in Figure 21 until you reach the value "20", as shown in Figure 35 below.



Figure 35

- 4) In the screen shown in Figure 35, press the "**START/ENTER**" button on the right side, and the "VAL" character will start flashing in the lower left corner.
- 5) Press the "**ADD**" button on the right side again, and the value "20" will flash together with the "VAL" character in the lower left corner.
- 6) Press the "**START/ENTER**" button, the value "20" will be cleared, and the "VAL" character will stop flashing in the lower left corner.
- 7) Press the "**CLEAR/ESC**" key on the right to return to the main screen.

2.1.9 CNT Mode

In CNT counting mode, the machine only counts the number of banknotes, not the amount. If you need to count different denominations, you need to turn off the "DD" width detection function and "UV" fluorescence detection function, and keep only the "DB" re-sheet detection function. The specific operation is as follows.

1) In the main screen of the machine, press the "**Denom**" button on the right side several times to adjust the denomination value to "1", as shown in Figure 36 below.

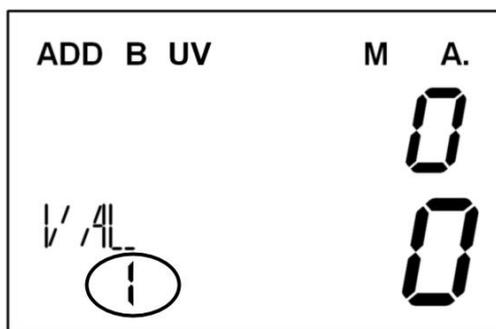


Figure 36

2) Press the "**4 UV**" button on the left to turn off the "UV" function, and then press the "**6 MG**" button on the left to turn off the "MG" function (the UV and MG characters disappear to indicate that the function is turned off), as shown in 37 below. Depending on your needs, you can also turn off the "ADD" accumulative function and the "B" batch function.

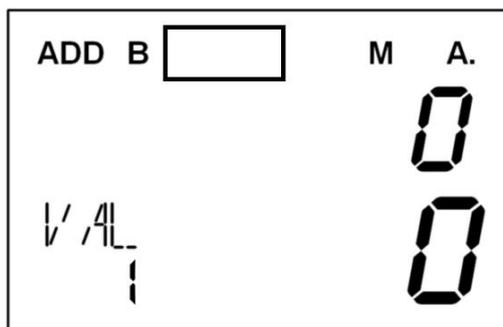


Figure 37

3) Press the "**SET**" key on the left side to enter the user setting interface, as shown in Figure 38 below. Then press the "**SET**" key several times until the character "SET dd" is displayed in the lower left corner of the display, and stop pressing the key, as shown in Figure 39 below.



Figure 38



Figure 39

4) In the screen shown in Figure 39, press the left numer key "5/▲" or "8/▼" to adjust the value "2" to "0", as shown in Figure 40 below. The value "0" means the DD width detection function is off.

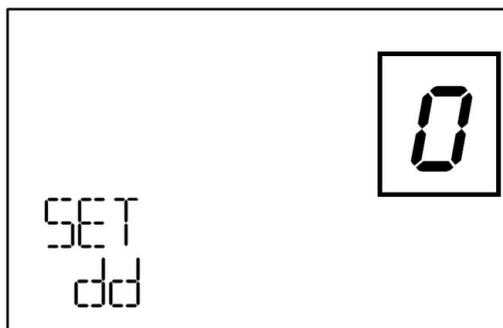


Figure 40

5) 按动右侧“CLEAR/ESC”键退回主界面。此时，可以进行钞票张数清点，清点完成后出现如下图 41 所示界面。

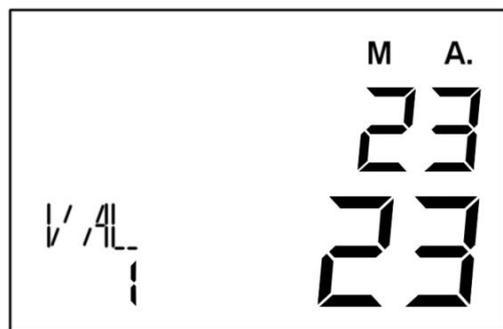


Figure 41

2.1.10 Check counting details

If you need to count multiple denominations of currency and need to see the quantity and amount of each denomination after the count is completed, you can do the following:

1) You can only view the counting details of multiple denominations after counting when the ADD accumulative function is turned on. Therefore, please first press the "ADD" button on the right side, and the "ADD" character will appear in the upper left corner of the display to indicate that the accumulative function is on, as shown in Figure 42 below.

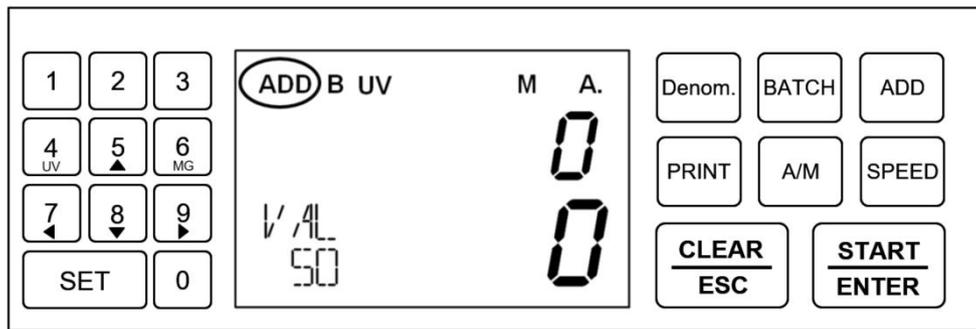


Figure 42

2) You can set the denomination by pressing the "Denom" button. After one denomination is counted, you can switch to another denomination for counting and view the details of the count after it is completed.

3) For example, you have \$1 and \$5 banknotes that need to be counted. After sorting, you can press the "Denom" button to adjust the denomination to "VAL 1", as shown in Figure 43 below. Then count the \$1 banknotes and the main screen will be as shown in Figure 44 below.

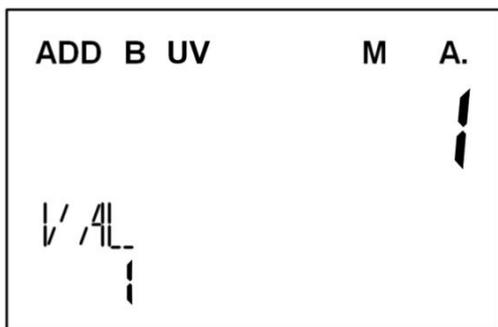


Figure 43

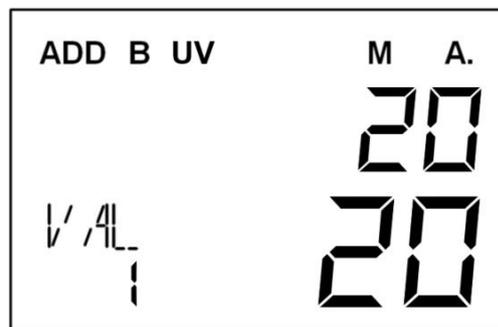


Figure 44

3) When \$1 are counted, take out the banknotes from the stacker, and then press the "Denom." button to adjust the denomination to "VAL 5", as shown in Figure 45 below. Then count \$5 and the main screen will be as shown in Figure 46 below.

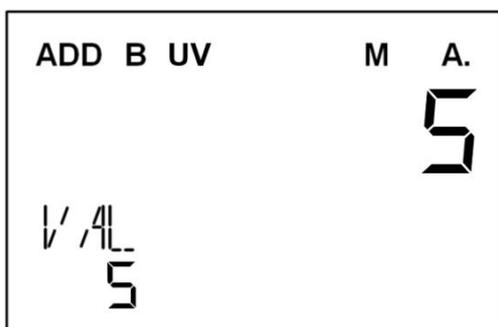


Figure 45

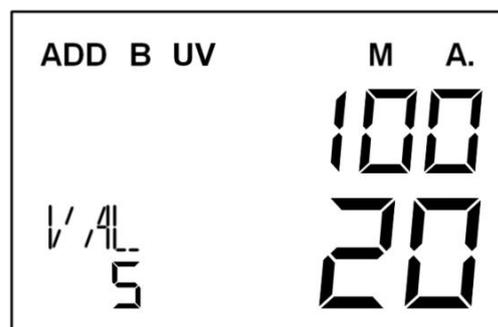


Figure 46

4) When the count of \$5 is completed and the banknotes in the stacker are removed, the machine adds up the details of the 2 counts (including the total number and total amount) as shown in Figure 47 below.

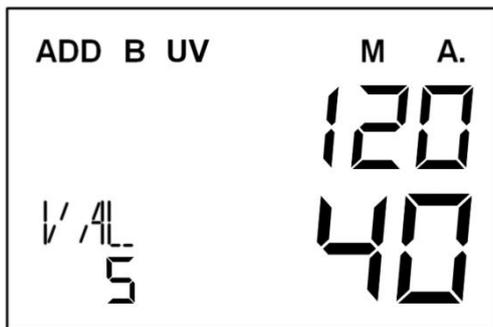


Figure 47

5) Press the "8/▼" button on the right to enter the screen of counting detail. The Count Detail screen will be arranged in descending denomination order. The first screen will display the details of the largest denomination banknote (only \$5 and \$1 will be counted, with \$5 in front, as shown in Figure 48 below). Click the "8/▼" button to switch to the next denomination of the banknote counting details screen (\$1 counting details, as shown in Figure 49 below).

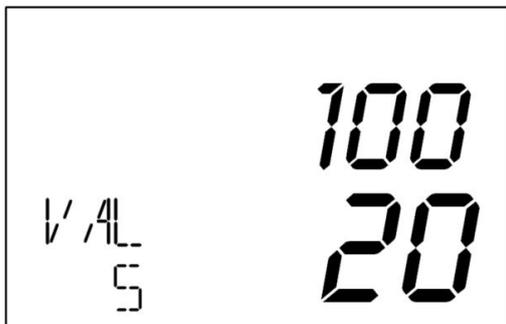


Figure 48

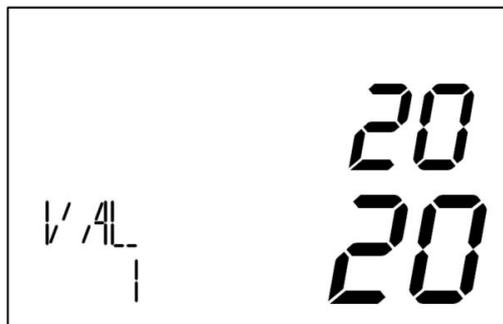


Figure 49

6) Press the "CLEAR/ESC" key to return to the main screen.

2.1.11 User Setting

In the main interface, press the "SET" button on the left to enter the user settings interface, as shown in Figure 50 below. In the user setting interface, according to the characters provided in the lower left corner, there are 11 options, which will be cycled as bAT-UV-MG-dd-db-VAL-bUZ -dLd-bAd-PTM-CUT for cycling.

2.1.11.1 Batch number setting

The "SET BAT" batch value setting screen is shown in Figure 50 below. Please refer to "2.1.4 Batch Set" for the operation.



Figure 50

2.1.11.2 UV detection level setting

Press the "SET" button on the left, the lower left corner of the display shows "SET UV" character, indicating that it enters the UV detection level setting interface. The range is 0~3. The value 0 means the function is off, the value 3 means the highest detection capacity. The factory default detection level is 2.

If you need the machine to check the counterfeit level, please press the left "5/▲" or "8/▼" button to adjust the gear in the interface shown in Figure 51 below. The machine will save automatically after the setting is completed.

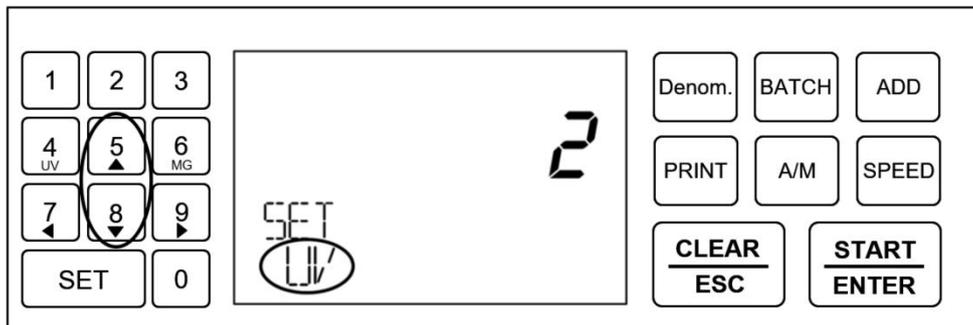


Figure 51

2.1.11.3 MG detection level setting

Press the "SET" button on the left side, and the character "SET MG" will be displayed in the lower left corner of the display, indicating that it enters the interface of MG detection level setting. The range of gear setting is 0~3. The value 0 means the function is off, and the value 3 means the highest detection capacity. The factory default detection level is 2.

If you need the machine to check the counterfeit level, please press the left "5/▲" or "8/▼" button to adjust the level in the interface shown in Figure 52 below. The machine will save automatically after the setting is completed.

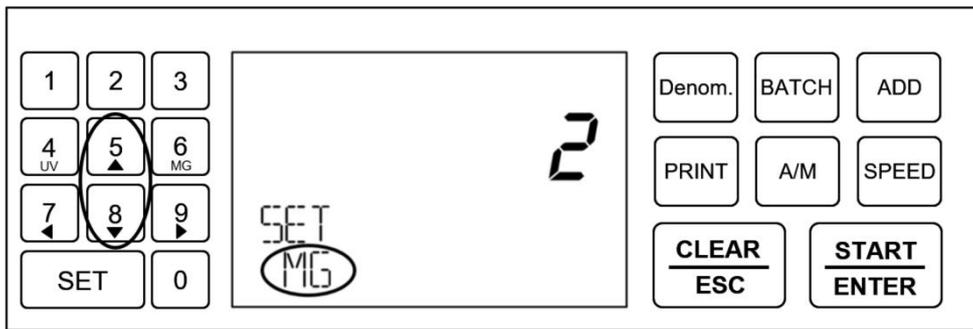


Figure 52

2.1.11.4 DD (width) detection level setting

Press the "SET" button on the left side, and the character "SET dd" will be displayed in the lower left corner of the display, indicating that it enters the DD width detection level setting interface. The setting range is 0~3. The value 0 means the function is off, the value 3 means the highest detection capacity. The factory default detection level is 2.

If you need the machine to check the counterfeit level, please press the left "5/▲" or "8/▼" button to adjust the level in the interface shown in Figure 53 below. The machine will save automatically after the setting is completed.

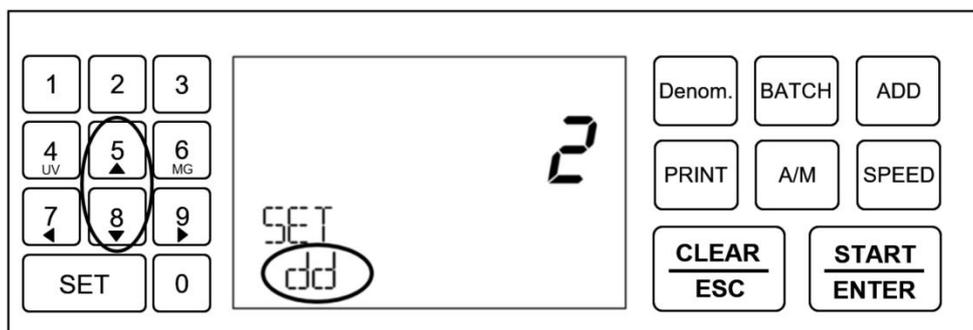


Figure 53

2.1.11.5 DB (double notes) detection level setting

Press the "SET" button on the left side, and the character "SET db" will be displayed in the lower left corner of the display, indicating that it enters the DB detection level setting interface. The setting range is 0~3. The value of 0 means the function is off, and the value of 3 means the highest detection capacity. The factory default detection level is 2.

If you need the machine to check the counterfeit level, please press the left "5/▲" or "8/▼" button to adjust the level in the interface shown in Figure 54 below. The machine will save automatically after the setting is completed.

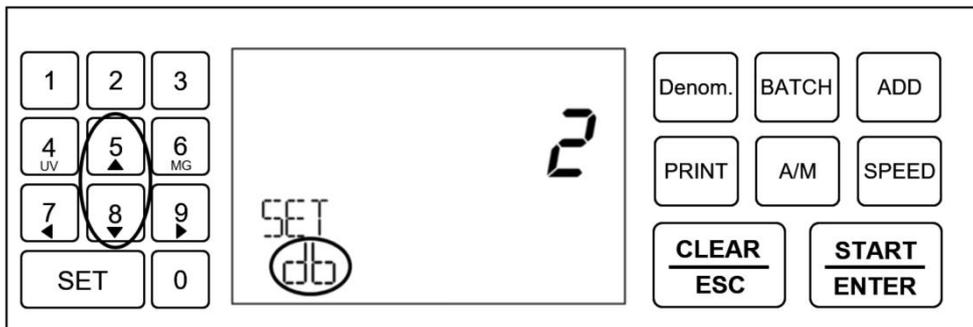


Figure 54

2.1.11.6 Denomination setting

Press the "SET" button on the left side, and the character "SET VAL" will be displayed in the lower left corner of the display, indicating that you have entered the denomination setting interface, as shown in Figure 55 below.



Figure 55

In the screen shown in Figure 55, press the "Denom." button on the right to change the denomination. This screen shows the denominations that have been set according to the customer's needs. If you do not need to add a new denomination, you can skip this setting. If you need to set a new denomination, then please refer to "2.1.8 Denomination Setting".

o

2.1.11.7 Buzzer setting

Press the "SET" button on the left side, and the character "SET BUZ" will be displayed in the lower left corner of the display, indicating that it enters the buzzer switch setting interface, as shown in Figure 56 below.

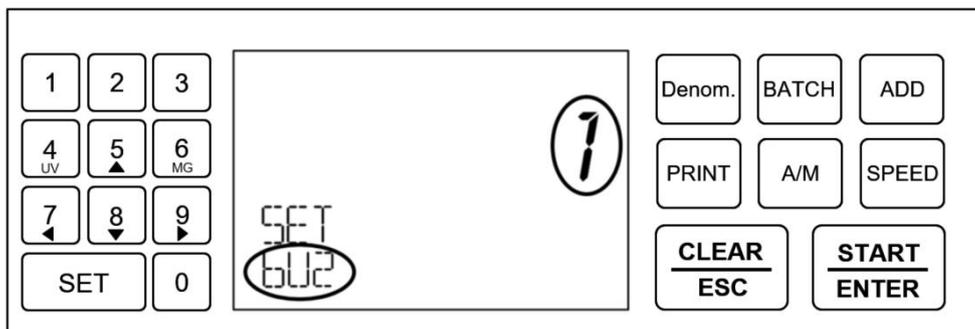


Figure 56

In the screen shown in Figure 56, the value 1 means the buzzer is on and the value 0 means the buzzer is off. The default setting is 1 and the buzzer is on.

If you need to turn off the buzzer, press the "5/▲" or "8/▼" button on the left to adjust the value to 0.

When the adjustment is complete, turn off the buzzer. As shown in Figure 57 below:

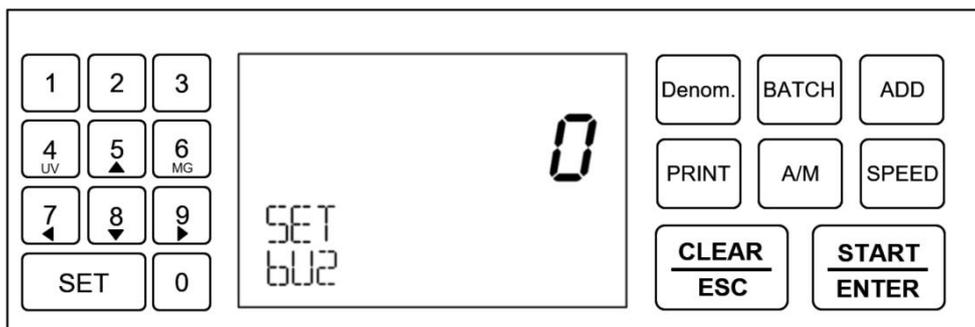


Figure 57

2.1.11.8 Dollar currency symbol "\$" on and off

Press the "SET" button on the left side, and the character "SET dLd" will be displayed in the lower left corner of the display, indicating that the currency symbol "\$" is turned on and off, as shown in Figure 58 below.

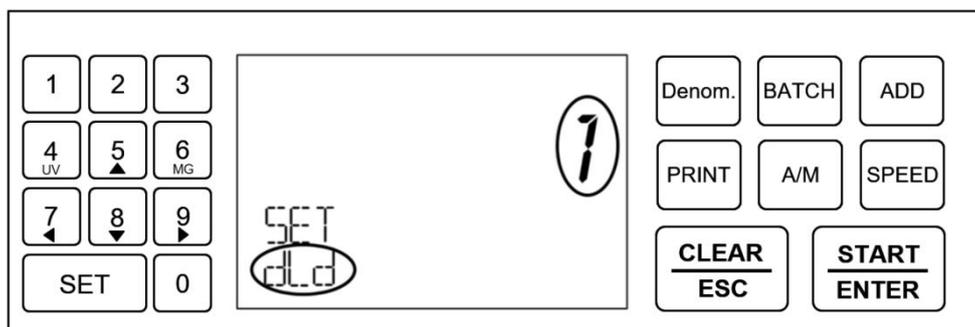


Figure 58

In the screen shown in Figure 58, the value 1 indicates that the symbol is on and the value 0 indicates that the symbol is off. If you need to turn off the dollar currency symbol, please press the "5/▲"

or "8/▼" button on the left side of this screen to adjust the value to 0 to turn off this function, as shown in Figure 59 below.

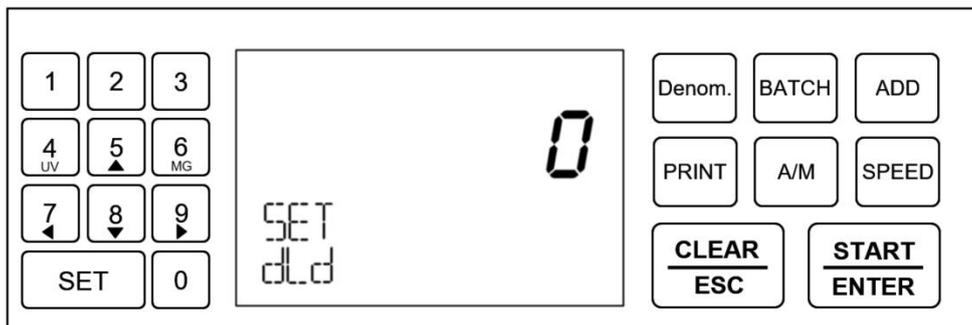


Figure 59

2.1.11.9 Baud rate setting

The baud rate setting of the machine is used to connect the printer and PC.

Press the "SET" button on the left side, and the character "SET bAd" will be displayed in the lower left corner of the display, indicating that it enters the baud rate setting interface, as shown in Figure 60 below.

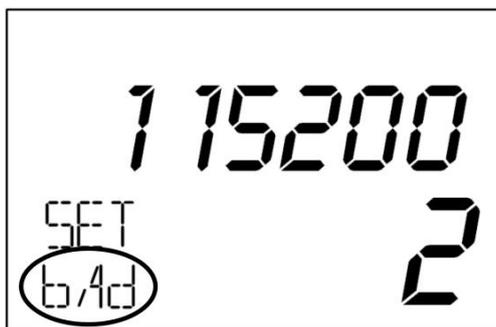


Figure 60

In the interface shown in Figure 60, there are 3 baud rates of the machine, and their corresponding number and baud rate values are shown in the table below. The default factory baud rate of the machine is 115200.

Number	Baud rate value
0	4800
1	9600
2	115200

If you need to modify the baud rate of the machine, please press the "5/▲" or "8/▼" button on the left side to adjust the value under the interface of Figure 60. The machine will save automatically after the adjustment is finished.



Figure 61



Figure 62

2.1.11.10 PTM(External device selection settings)

Press the "SET" button on the left side, and the character "SET PTM" will be displayed in the lower left corner of the display, indicating that it enters the external setting selection setting, as shown in Figure 63 below.



Figure 63

In the interface shown in Figure 63, the machine's external device selection can be set in three modes, and their corresponding value codes and output functions are shown in the table below. The factory default value of the machine is 0: automatic recognition of the printer or PC.

Number	Output Mode
0	Automatic printer or PC recognition
1	Connected printer mode
2	Connected PC mode

If you need to modify the external device selection of the machine, please do the following according to your actual needs. Press the "5/▲" or "8/▼" button on the left to adjust the value. The machine will save automatically after the adjustment is completed.

2.1.11.11 Print paper cutting method setting

Press “SET” key to enter into setting interface until the left corner shows “SET CUT” , as shown in Figure 64.



Figure 64

In the interface shown in Figure 61, you can set three printer cutting mode, they correspond to the numbers and modes shown in the table below: factory default number 0: no paper cutting.

Number	Print paper cutting method
0	No paper cutting
1	Half-cut paper
2	Full cut paper

Please adjust the value by pressing the "5/ ▲" or "8/ ▼" button on the left side according to the manual of the printer you purchased, and set the cutter method for printing paper on the machine first. If the printer you purchased is a printer without cutter, you can skip this setting and can connect to the machine directly.

2.2 Connection to printer

2.2.1 Baud rate setting

- 1) If you are purchasing a serial thermal printer. Please confirm the baud rate of the printer according to the printer's manual.
- 2) The factory default baud rate of the machine is 115200. If the baud rate is the same as the printer you purchased, you can skip the following operation. If the baud rate is different, you will need to adjust the machine's baud rate to match the printer.
- 3) The machine is turned on and enters the main interface.

4) Press the "SET" button on the left to enter the user setting interface, and then press the "SET" button several times until the character "SET bAT" is displayed in the left corner, as shown in Figure 65 below.



Figure 65

5) If you need to change the baud rate, please press the left numeric key "5/▲" or "8/▼" according to the table below to adjust the baud rate value.

Number	Baud rate value
0	4800
1	9600
2	115200

2.2.2 External device selection

1) After setting the baud rate, that is, under the interface shown in Figure 65. You can press the "SET" button on the left side again to switch the character in the lower left corner to "SET PTM", and the machine will enter the external device selection interface as shown in Figure 66 below.



Figure 66

2) Please press the left "5/▲" or "8/▼" button to adjust the value to 0 or 1 according to the number and output mode shown in the table below.

Number	Output Mode
0	Automatic printer or PC recognition
1	Connected printer mode

2	Connected PC mode
---	-------------------

2.2.2 Print Counting Details

Connect the printer to the power supply, then connect the printer to the machine and turn on the printer and machine switches.

When the machine accumulative function is on, the machine can print all the counting details through the printer.

When the machine accumulative function is off, the machine can print only the current counting details.

2.2.2.1 ADD function off printing

When the ADD function is on, you can count different denominations of banknotes and also print details of all the denominations counted (including the number of pcs and amount of each denomination, the total number of pcs and the total amount). For example, you need to count three denominations of \$1, \$5, and \$50. Once the count is complete, you need to print the number of pcs and amounts for each denomination and the total number of pcs and amounts for the banknotes. The operation is as follows:

- 1) Please start by sorting the three denominations of banknotes.
- 2) Under the main interface of the machine, press the "ADD" button on the right side, and the "ADD" character appears in the upper left corner of the machine to indicate that the accumulative function is turned on. As shown in Figure 67 below:

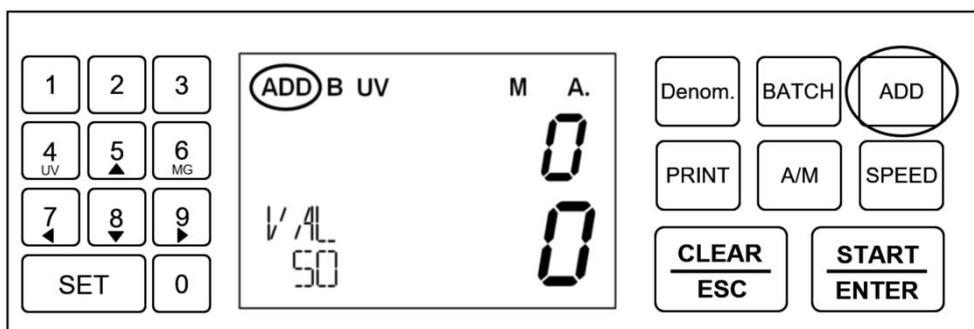


Figure 67

- 3) Press the "Denom" button on the right to set the denomination to "VAL 1", then put the sorted \$1 banknotes into the machine to count, and take them away when it is finished. Press the "Denom" button on the right side to set the denomination to "VAL 5", and then put the sorted \$5 banknotes into the

machine to be counted. Press the **"Denom"** button on the right side to set the denomination to "VAL 50", and then place the \$50 banknotes into the machine to be counted.

4) When the count is complete, the following screen will appear on the display: the number and amount of banknotes counted three times will be added up, as shown in Figure 68 below:

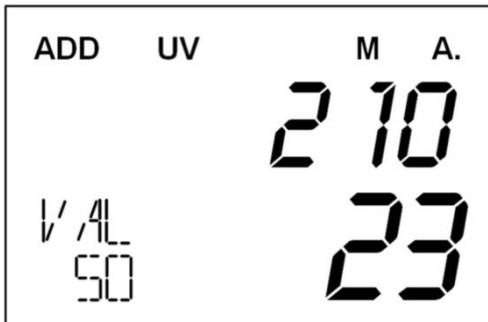


Figure 68

5) Press the **"PRINT"** button on the right side to print out the counting details through the printer, as shown in Figure 69 below. At the same time, when the machine is in the interface of Figure 68, press the number key "8/▼" on the left side to enter the interface of counting detail view. Press the number key "8/▼" to switch to view the number of banknotes counted and the amount of each denomination.

CUSTOMER ID :		

Currency : USD-EUR-GBP-SRD		
Denom.	Count	Value
50	3	150
5	10	50
1	10	10
Total:	23	210

Figure 69

2.2.2.2 ADD function off printing

1) When ADD Accumulation mode is off, you can print only the number and amount of banknotes of this denomination that are currently counted.

2) For example, \$50 banknotes need to be counted.

3) Press the **"Denom."** button on the right side several times, and stop pressing the button after the denomination is adjusted to "VAL 50". Then put the \$50 banknotes into the machine for counting, and remove the banknotes after the counting is completed. The display will appear as shown in Figure 70.

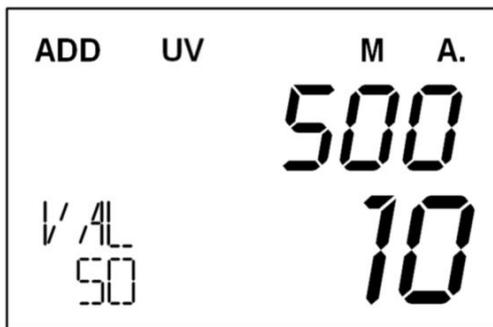


Figure 70

4) Click on the "PRINT" button on the right to print out the details of the current count, as shown in Figure 71 below.

CUSTOMER ID :		

Currency : USD-EUR-GBP-SRD		
Denom.	Count	Value
50	10	500
Total:	10	500

Figure 71

2.3 Connect to PC and upload counting details

2.3.1 Preparation of tools

- 1) PC
- 2) USB to RS232 female wire harness
- 3) Upper computer software installation program
- 4) USB to RS232 serial port driver

2.3.2 External device selection

1) Press the left "SET" key to enter the user settings interface, and then press the "SET" key several times to switch the lower left character to "SET PTM", the machine then enters the external device selection interface, as shown in Figure 72 below.



Figure 72

2) Please press the left "5/▲" or "8/▼" button to adjust the value according to the number and output mode shown in the table below, and adjust the machine value to 0 or 2.

Number	Output Mode
0	Automatic printer or PC recognition
1	Connected printer mode
2	Connected PC mode

3) Press the "CLEAR/ESC" button on the right side to return the machine to the main screen.

2.3.3 PC software installation

1) Please install the software provided by our company to your PC and get the folder named "Release", as shown in Figure 73 below.

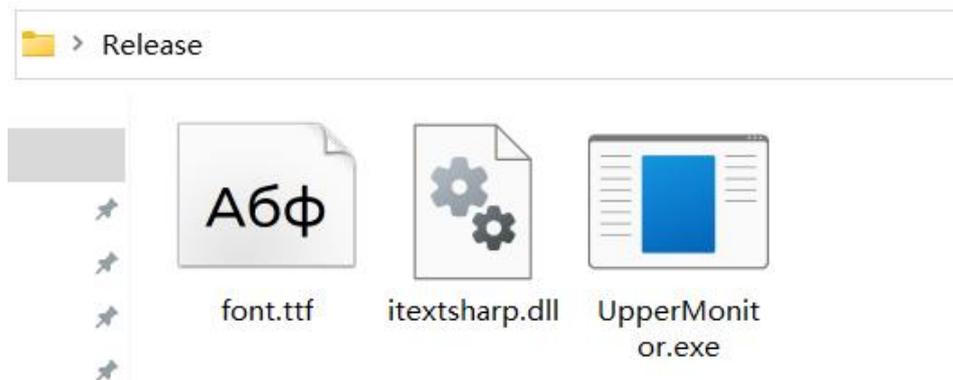


Figure 73

2) Please check whether your PC has installed the USB to RS232 program driver, if not, please install the driver provided by our company according to the installation instructions. (Special reminder: Since different versions of PC compatibility are inconsistent, we suggest you copy or unzip the driver to a non-Chinese path location)

2.3.4 Upload counting details to PC

1) Open the application named "UpperMonitor.exe" in the "Release" folder installed on the PC side to enter the main interface of the software, as shown in Figure 74 below:

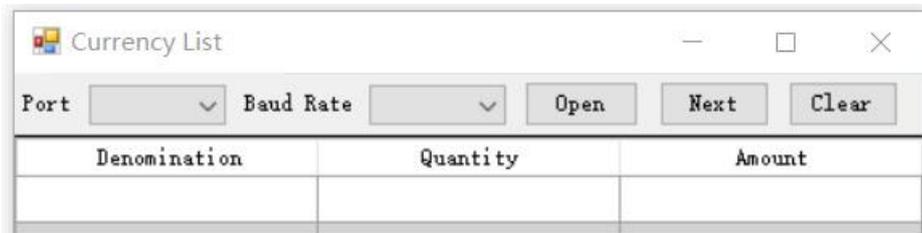


Figure 74

2) Plug the USB end of the USB to RS232 female serial cable into the PC and the RS232 female end into the RS232 port on the back of the machine.

3) The PC automatically recognizes the USB to RS232 harness. Select the corresponding serial port in the Port column of the software interface (different harnesses have different serial ports for different machines, the serial port number shown in Figure 75 below is COM7), and then select 115200 in the Baud Rate column.

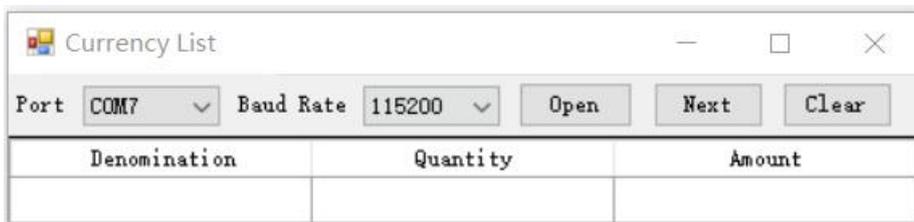


Figure 75

4) Click the "Open" button, then "Open" becomes "Close", and the Port and Baud Rate options become unmodifiable gray, indicating that the software has been successfully connected to the machine. As shown in Figure 76 below.

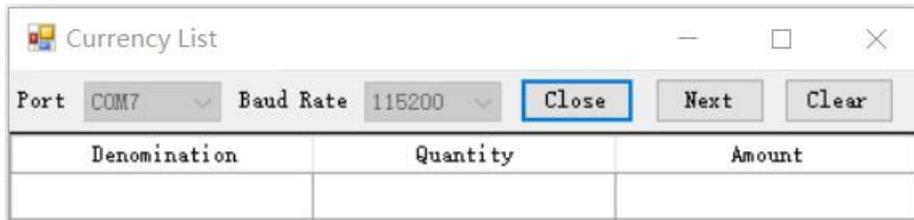


Figure 76

5) The machine is in the main interface, please turn on or off the ADD function first according to your needs. Then count the banknotes.

When the ADD function is on, every time counts a banknote and takes it away, the counting details will be totalized and the software will automatically total and update the counting details once, as shown in Figure 77 below.

The screenshot shows a window titled 'Currency List' with a port set to 'COM7' and a baud rate of '115200'. It contains a table with three columns: Denomination, Quantity, and Amount. The table lists three denominations: 100 (35 units, 3500 amount), 50 (35 units, 1750 amount), and 20 (35 units, 700 amount). A 'Total' row is highlighted in blue, showing a total quantity of 105 and a total amount of 5950. Below the table is a scrollable area with columns for 'NO.', 'Deno', and 'SN'. At the bottom, there are status indicators: 'Success', 'Currency: NGN; ADD: ON; MEX', and a checked 'PDF' checkbox.

Denomination	Quantity	Amount
100	35	3500
50	35	1750
20	35	700
Total:	105	5950

When ADD function is turned off, the machine only counts and records the current banknote details, and the software will only display the current counting details, as shown in Figure 78 below:

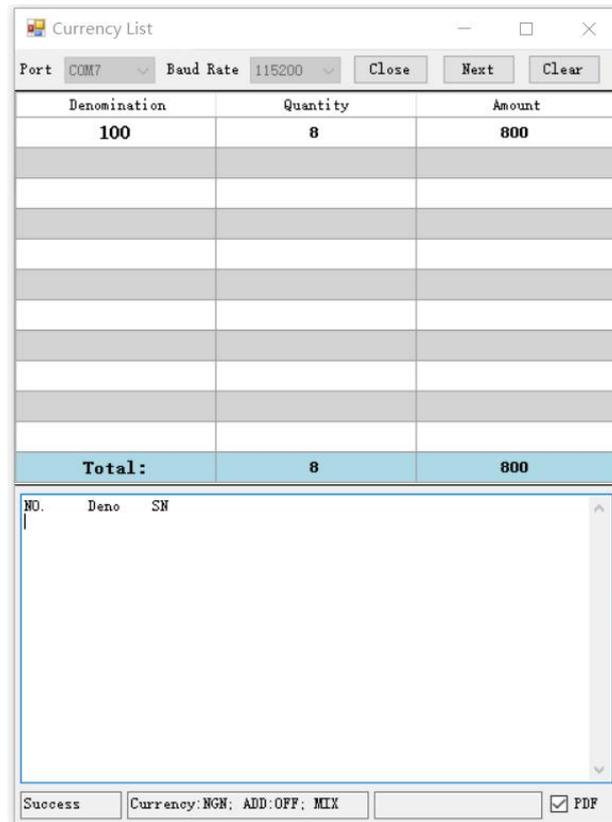


Figure 78

6) A "Data" folder will be automatically created under the root of the "Release" folder. Double-click the Data folder and the folder with the collection date will appear, as shown in Figure 78 below.

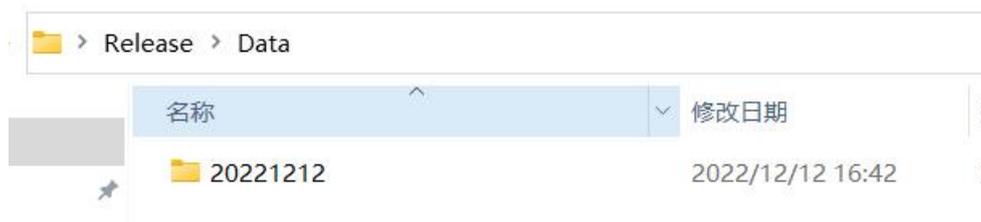


Figure 78

7) The files under the date folder are the details of the captured banknotes, as shown in Figure 79 and Figure 80 below.

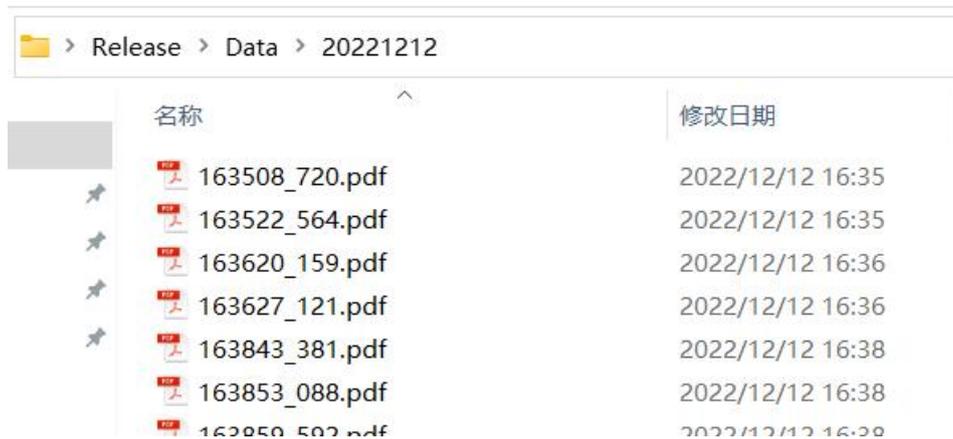


Figure 79

Currency	NGN	
ADD	ON	
MODE	MIX	
DENO	QTY	AMT
10	9	90
5	61	305
TOTAL	70	395

Figure 80

3. Maintenance Instruction

3.1 Firmware Upgrade

The software can be upgraded through RS232 serial port using a special upgrading tool. Please contact the supplier (service@nucoun.com) for more information.

3.2 Daily Clean instruction

Any dust, dirt or other material adhering to the sensor will interfere with the proper operation of the sensor and cause erroneous counting results. Therefore, the sensor must be cleaned daily as needed using the included cleaning tool.

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

Do not use chemicals such as benzene, thinner or water, which may cause the machine to fade or crack.

3.2.1 Clean the start-up sensor

Clean the start-up sensor with a cleaning brush or cleaning cloth as shown in Figure 81.

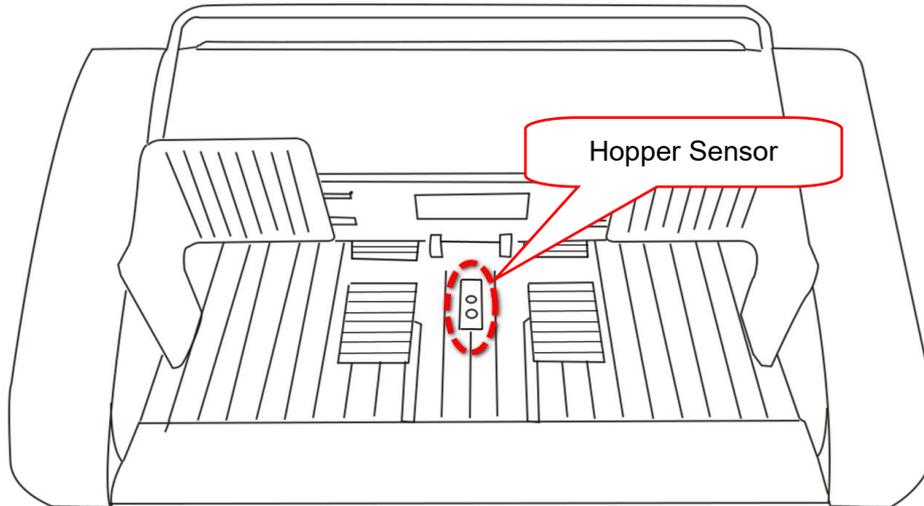


Figure 81

3.2.2 Clean the nudge rubber and feed roller rubber

As shown in the following Figure 82, clean the nudge rubber and feed roller rubber with cleaning brush or cleaning cloth.

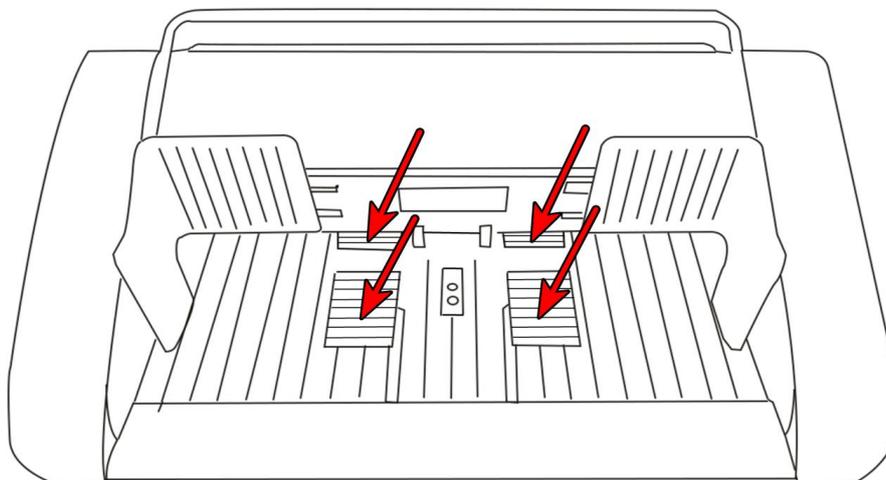


Figure 82

3.2.3 Clean the stacker sensor

As shown in the following Figure 83, clean the stacker sensor with cleaning brush or cleaning cloth.

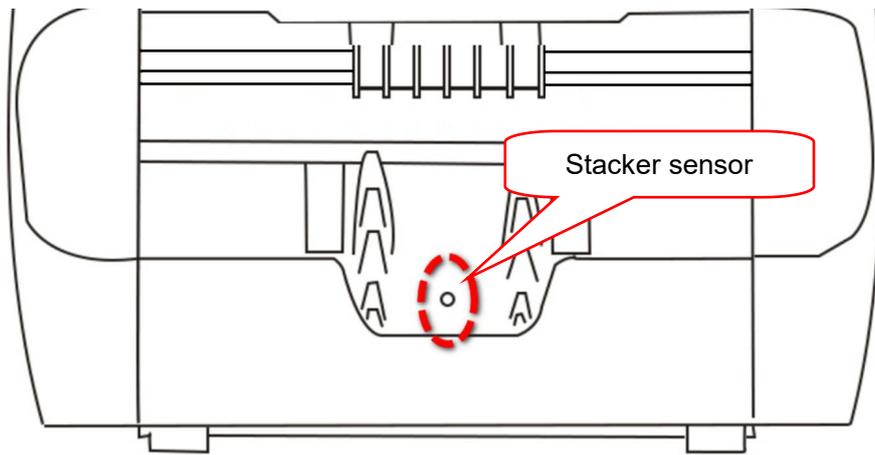


Figure 83

3.2.4 Clean the channel internal sensors

1) Pull the back cover to open the machine channel as shown in Figure 84 below.

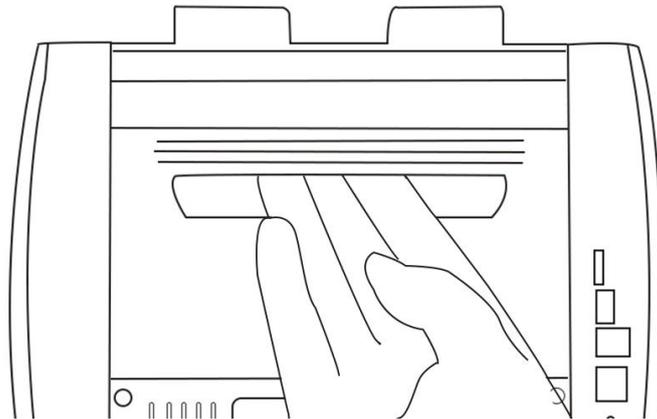


Figure 84

2) Please use a cleaning brush or cleaning cloth to clean surface of the lower UV and IR receiving board.

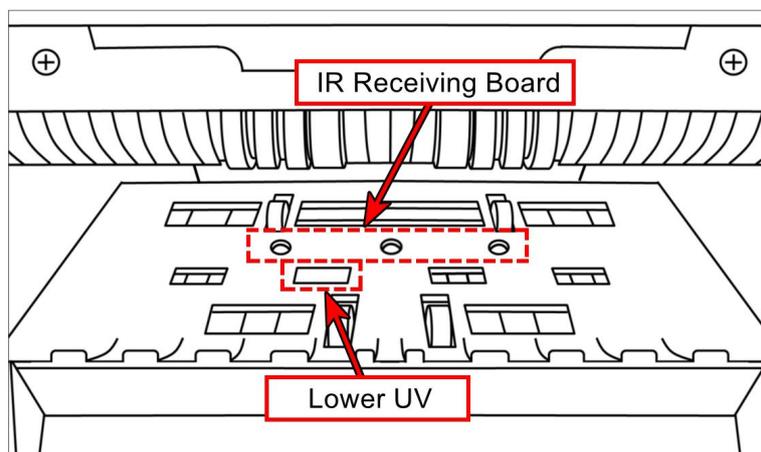


Figure 85

3) Please use a cleaning brush or cleaning cloth to clean surface of the IR emission board.

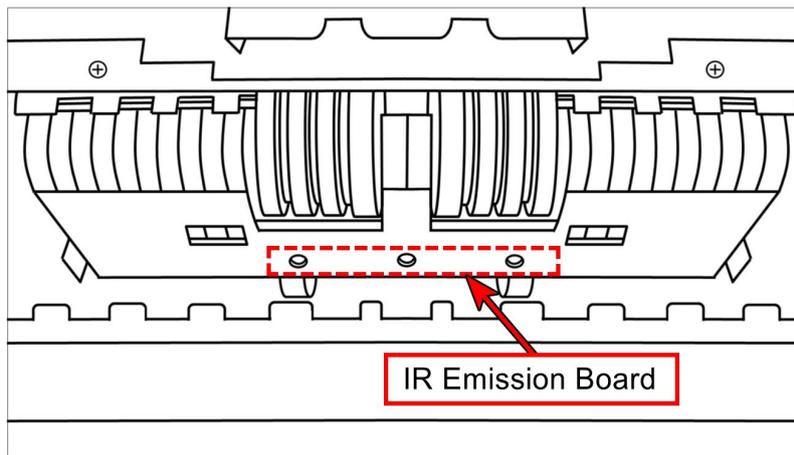


Figure 86

3.3 Common Faults and Corresponding Descriptions

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

Self-test error

Code	Error position	Cause	Trouble shooting indication
190	Middle MG sensor	Middle MG quantity >1	Check if there are banknotes in passage.
191	Left MG sensor	left MG quantity >1	Check if there are banknotes in passage.
192	Right MG sensor	Right MG quantity >1	Check if there are banknotes in passage.
193	Hopper sensor	Hopper sensor signal is abnormal	Check if the sensor is covered by dust or blocked.
194	Stacker sensor	Hopper sensor is blocked	Check if the sensor is covered by dust or blocked.
195	Left IR	Left IR is blocked	Check if the sensor is covered by dust or blocked.
188	Middle IR	Middle IR is blocked	Check if the sensor is covered by dust or blocked.
196	Right IR	Right IR is blocked	Check if the sensor is covered by dust or blocked.

197	Left UV	UV signal is abnormal	Check if there are foreign items inside passage.
198	Right UV	UV signal is abnormal	Check if there are foreign items inside passage.
199	Encode disk	Encode disk signal is abnormal	Check if the encode disk cable is loose.
			Check whether the motor is run normally when it is turned on.
			Check if the encode sensor is abnormal.
189	No calibration for IR and UV	Upgrade new software	Enter debug mode for calibration.

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