OPERATION MANUAL

Content

1. Illustration 3

2. Specifications 5

4. Operation 9

1）Turn on/off the machine 9

2）AUTO or MANUAL mode 10

3）ADD function 10

4）Batch mode 11

5）Counting speed setting 11

6）Hopper adjustment 12

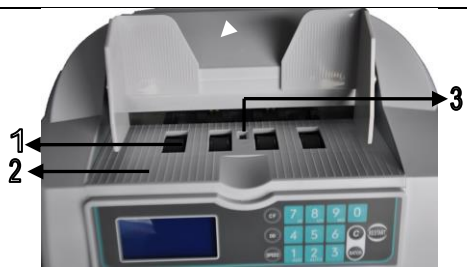
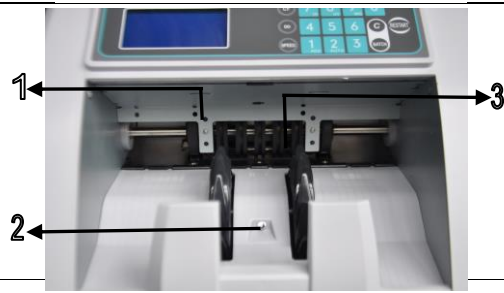
7）Restore to the factory default 13

5. Counterfeit detection setting 13

1）DD detection function 13

2）UV detection function 14
3）MG detection function 15
4）IR detection function 16
6、Error message and solutions 18
7. Fault messages and solutions 19
8. Precautions for handling the machine 21
9. Cautions 22
10. Maintenance 23
11. Warning 23

1. Illustration

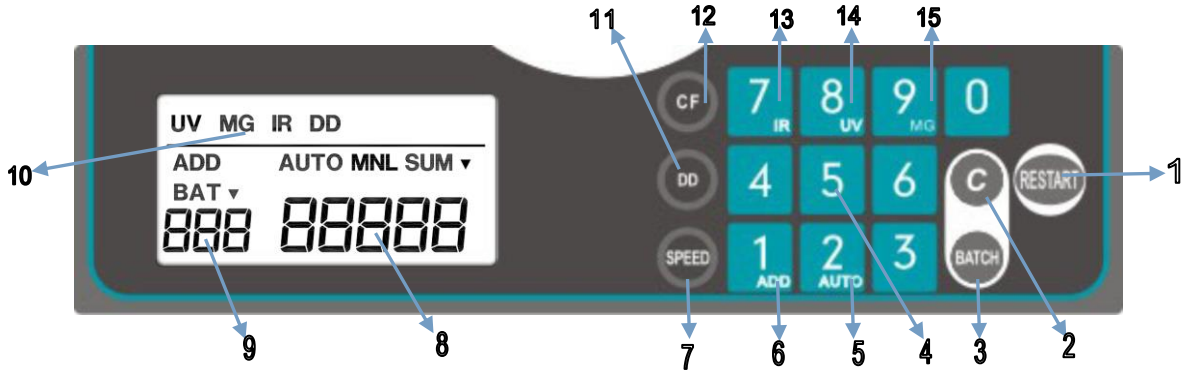
	1. Counting guide 2. Display		1. Impeller 2. Stacker
	1. Feeding roller 2. hopper 3. Feeding sensor		1. Counting tube 2. Reset sensor 3. Output roller

	1. Handle 2. Power switch 3. External display jack 4. Power outlet 5. Adjustment screw		External display

2. Specifications

Voltage/Frequency/Currency	100－240V～/50－60Hz/400mA
Power consumption	55W(Max)
Counting range	5 digit
Counting speed	1600、1400、1100、800pcs/min
Feeding system	roller friction
Batching range	1-999PCS
Banknote size	L:50～100mm W:90～190mm
Banknote thickness	0.075～0.15mm
Hopper capacity	300PCS
Stacker capacity	200PCS
Net weight	5.3kg
Dimension	298mm×251mm×248mm

3. Display and function keys



No.	Key	Function Introduction
1	RESTART	1.Start counting in the following cases: a.Clear or recover the error messages when counting, then start counting； b. In the manual mode，press “RESTART” to count 2. In the state of sensitivity setting, press “RESTART” to save the data and exit.
2	C Key	1. Exit the batch mode 2. Press this key for 3 seconds, then restore to the factory defaults 3. In the state of sensitivity setting, press “RESTART” to save the data and exit.

3	BATCH Key	1.Press this key to turn on the batch function, then press again the user can choose the batch number among 10, 20, 25, 50, 100, or can input the batch number(less than 999) by pressing the numeric keys, then press “C” key to save and exit the batch mode. 2. In the batch mode, press “1238” numeric keys then press “RESTART”, the user can check the total counting number since the machine left from the factory
4	0-9 Numeric Key	Only in the batch mode or sensitivity setting, the numeric is valid
5	2/AUTO Key	1. It is number 2 2. Press “CF” first then press this key to switch the counting mode, “AUTO”-- automatic mode, “MUL”-- manual mode
6	1/ADD Key	1. It is number 1 2. Press “CF” first then press this key to turn on/off the ADD function. This function can work under the batch mode
7	SPEED	Press this key can switch the counting speed (800, 1100, 1400, 1600 pcs/min)
8	Count display	Show the counting number of the notes
9	Batch	Show the batch number or the counting number (one time counting)

	display/Check display	
10	Function display	Display which function is on or off
11	DD Key	1. Press this key to turn on or off the DD detection function 2. Press “DD” key for 3 seconds to set the DD sensitivity level, “1 “is the lowest, “9” is the highest, “0” is off
12	CF Key	Function selection key （press “CF”, then press”IR”, “UV”,”MG”,”ADD” or “AUTO” to turn on or off the according function)
13	7/IR Key	1. It is the number 7 2. Press “CF” key, then press this key to turn on/off the IR function 3. Press “IR” key for 3 seconds to set the IR sensitivity level, “1 “is the lowest, “9” is the highest, “0” is off
14	8/UV Key	1. It is the number 8 2. Press “CF” key, then press this key to turn on/off the UV function 3. Press “UV” key for 3 seconds to set the UV sensitivity level, “1 “is the lowest, “9” is the highest, “0” is off

15	9/MG Key	1. It is the number 9 2. Press “CF” key, then press this key to turn on/off the MG function 3. Press “MG” key for 3 seconds to set the MG sensitivity level, “1 “is the lowest, “9” is the highest, “0” is off

4. Operation

User can select the function according to their needs when count the notes

1）Turn on/off the machine

By pressing the power switch

NOTES：Turn on the machine, both count display and batch/check display will show the software version (eg. *0106) firstly, then show the model number (eg. 900), at last show all “8” after self-detection. In the process of self-detection, if the machine has sensor fault, it will display the error code in the count display.(details in the Error messages and solutions)

2）AUTO or MANUAL mode

By pressing the “2/AUTO” to select the automatic or manual mode

“AUT”is automatic counting mode: when place the notes in the hopper, then machine will start counting automatically.

“MNL” is manual counting mode: when place the notes in the hopper, should press “RESTART” to start counting

Notes: In the “AUTO” mode, if the notes is very old or deteriorated, it will lead to feeding sensor does not work.

3）ADD function

By pressing the “ADD” to turn on/off the ADD function. When the ADD is showed in the display, it means the ADD function is on; vice versa. And the ADD function can work combined with the batch mode.

In the ADD mode, when the number of the counted notes in the stacker reached up to 100 pcs, the machine will stop counting and the display will show “FUL” to notice the user the stacker is full and remove

the notes from the stacker.

4）Batch mode

By pressing “BATCH” to turn on/off the Batch function, then press “0-9” numeric key to set the batch number(range from 0-999)

In the batch mode, press “1238” numeric keys then press “RESTART”, the user can check the total counting number since the machine left from the factory

Notes: When the machine is stop in the mode of BATCH, there is no notes in the hopper and the count number is the same with the batch number, user should remove the notes from the stacker in case the last notes will be jammed in the machine.

5）Counting speed setting

The user can choose the counting speed among “800, 1100, 1400, 1600pcs/min” by pressing “SPEED” key

Note: when the counting speed reached up to 1600pcs/min, the machine does not have the MG and DD detection.

6）Hopper adjustment

When the feeding of the notes is faulty, for example it comes up with the problem of double-note (error code: dbl), chain note (error code: CHN))and incorrect count, user should rotate the adjusting screw to the anticlockwise direction until the problem is solved.

When the feeding of the notes is faulty,for example it comes up with the problem of counting is not smooth, and the notes become deformed and broken after counting, user should rotate the adjusting screw to the clockwise direction until the problem is solved.

Notes: Each machine is tested before leaving from our factory, so there is no need to adjust at the first use. After a long time of using, the user maybe should have to make a little adjustment to make the count smoothly.

7）Restore to the factory default

Press the “C” key for 3 seconds to restore to the factory defaults, after you hear one “beep” sound, it is completed.

5. Counterfeit detection setting

User can select the detection function according to the local currency.

1）DD detection function

——Press “DD” to turn on or off the DD function; the DD function is on when the “DD” is showed in the display, otherwise, is off.

——-If the machine detects a counterfeit note when counting, it will stop and emit “beep” sound, and the display will show the error code “dd” (alerting the user there is a dubious bill). The dubious bill will always be the last one on the stacker. Remove the dubious bill, press “RESTART” key to continue or remove all of the bill then recount.

——The sensitivity of DD detection can be adjusted. Press “DD” key for 3 seconds, the display will show the current sensitivity level(range from 0-9), then press numeric key 0-9 to choose the desired sensitivity level (1 is the lowest, 9 is the highest, o is off). After choosing of the level, press “RESTART”key to confirm.

Notes: In the DD mode, the machine will alert the user when the detection accuracy(width) is more than 5mm

he measurement of the DD detection is the average of the length of the first and second notes. When mixed with the smaller notes (the difference is more than 5mm), the machine will stop and alert.

2）UV detection function

——Used for detecting the bills with UV specialty

——Press “CF”, then press “UV” to turn on or off the UV function; the UV function is on when the “UV” is showed in the display, otherwise, is off.

——-If the machine detects a counterfeit note when counting, it will stop and emit “beep” sound, and the display will show the error code”uu” (alerting the user there is a dubious bill). The dubious bill will always be

the last one on the stacker. Remove the dubious bill, press “RESTART” key to continue or remove all of the bill and recount.

——The sensitivity of UV detection can be adjusted. Press “UV” key for 3 seconds, the display will show the current sensitivity level(range from 0-9), then press numeric key 0-9 to choose the desired sensitivity level (1 is the lowest, 9 is the highest, o is off). After choosing of the level, press “RESTART”key to confirm.

3）MG detection function

——Used for detecting the bills with MG specialty

——Press “CF”, then press “MG” to turn on or off the MG function; the MG function is on when the “MG” is showed in the display, otherwise, is off.

——-If the machine detects a counterfeit note when counting, it will stop and emit “beep” sound, and the display will show the error code”nng” (alerting the user there is a dubious bill). The dubious bill will always be the last one on the stacker. Remove the dubious bill, press “RESTART” key to continue or remove all of the

bill and recount.

——The sensitivity of MG detection can be adjusted. Press “MG” key for 3 seconds, the display will show the current sensitivity level(range from 0-9), then press numeric key 0-9 to choose the desired sensitivity level (1 is the lowest, 9 is the highest, o is off). After choosing of the level, press “RESTART”key to confirm.

4）IR detection function

——Used for detecting the bills with MG specialty

——Press “CF”, then press “IR” to turn on or off the IR function; the IR function is on when the “IR” is showed in the display, otherwise, is off.

——-If the machine detects a counterfeit note when counting, it will stop and emit “beep” sound, and the display will show the error code”dbl” (alerting the user there is a dubious bill). The dubious bill will always be

the last one on the stacker. Remove the dubious bill, press “RESTART” key to continue or remove all of the bill and recount.

——The sensitivity of IR detection can be adjusted. Press “IR” key for 3 seconds, the display will show the current sensitivity level(range from 0-9), then press numeric key 0-9 to choose the desired sensitivity level (1 is the lowest, 9 is the highest, o is off). After choosing of the level, press “RESTART”key to confirm.

—— The measurement of the IR detection is the average of the first note.

6、Error message and solutions

The batch display may show some error messages when counting, which means there are some problems with the machine. Refer to the following diagram to find way to solve it.

Error code	Messages	Solutions
UU (uv)	Suspicious bill detected by UV function；	Remove the suspicious bill from the stacker, press “RESTART”to continue;
		Remove all the bill from the stacker, press “RESTART”to continue;
	Problem with the UV function	Lower the UV sensitivity level
MG (mg)	Suspicious bill detected by MG function;	Remove the suspicious bill from the stacker, press “RESTART”to continue;
		Remove all the bill from the stacker, press “RESTART”to continue;
	Problem with the MG function	Lower the MG sensitivity level
dbL (dbl)	Suspicious bill detected by IR function;	Remove all the bill from the stacker, press “RESTART”to continue;
	Problem with the IR function	Lower the MG sensitivity level

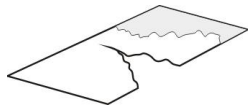
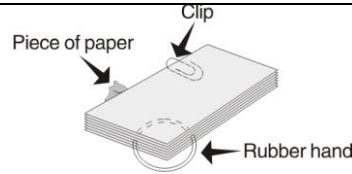
dd(dd)	Suspicious bill detected by DD function;	Remove the suspicious bill from the stacker, press “RESTART”to continue;
		Remove all the bill from the stacker, press “RESTART”to continue;
	Problem with the DD function	Lower the DD sensitivity level
CHN (chn)	Chain note	Remove all the bill from the stacker, press “RESTART”to continue;

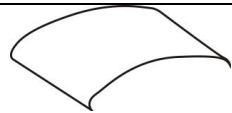
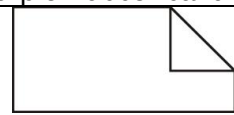
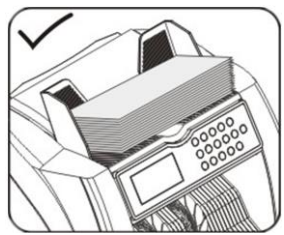
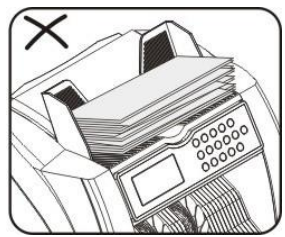
7. Fault messages and solutions

Fault code	Messages	Solutions
EA0(ea0)	Problem with the right inner counting sensor.	Clean the sensor or replace it.
EA1(ea1)	Problem with the left inner counting sensor.	Clean the sensor or replace it.
EA2(ea2)	Problem with the reset sensor or control circuit; if there is something in the stacker when turn on the machine, also will come up with this fault code.	Remove the things in the stacker, if the problem not solved, should replace the reset sensor or remove the main board
EA3(ea3)	Problem with the the main motor and the control circuit	Replace the main motor or the main board

	Driving belt is damaged	Replace the driving belt
	Problem with the feeding sensor or the control circuit	Replace the feeding sensor or the main
EA4(ea4)	The way to judge the feeding sensor can work or not: to turn on the machine with hands covering the feeding sensor, if it shows " ea4", it means the feeding sensor works normally; otherwise, there is some problem with the feeding sensor and control circuit.	Clean the feeding sensor or replace it.
EA5(EA5)	Problem with the left outer counting sensor.	Clean the sensor or replace it.
EA6(EA6)	Problem with the right outer counting sensor.	Clean the sensor or replace it.

8. Precautions for handling the machine

<table>
<tr><td colspan="3">The user should pay attention to the following items when using this machine:</td></tr>
<tr><td rowspan="3">1.Damp and/or badly stained notes should be avoid；
2.Check there is no other things(paper clip, rubber band, pieces of paper etc.)mixed in the notes
3.Folded or curled notes should be straightened before counting
4.As for the bundle of new notes, should bend and flex before counting
5.The notes should be tidied up before counting, or it will lead to the some problem</td><td> 
Damp and/or badly stained note</td><td> 

mixed with pieces of paper, clip or rubber band</td></tr>
<tr><td> 
Curled note</td><td> 
Folded note</td></tr>
<tr><td>  </td><td>  </td></tr>
</table>

when the machine work.		

9. Cautions

Please read the all the instructions as below before using the machine, or it will lead to some danger and fault

——Avoid exposing the product to the sunlight

——The product should have well earthing performance

——The product may affected by the wireless device interference(like phone, intercom etc.)

——Please use the qualified power cable

——Turn off the product or pull out the power plug before moving it

——Do not put tools, hand, hair or cloth close to the rotating parts of the machine, in case of some danger

——Do not press the keys with pointed thing

——Keep the machine in the condition of dry, this machine is not waterproof

——Do not repair the machine by yourself, should ask qualified service person to repair and maintain it

10. Maintenance

The counting sensor and the start sensor belongs to the optical equipment. If there is some dust and dirty things covering the sensor, it will lead to the fault when the machine work. The user should clean the machine after using.

11. Warning

Turn off the machine or pull out the power plug before cleaning the machine.

Do not use chemical cleaning agent to clean the machine.