# **CURRENCY SORTER**

# MANUAL





## I. Instructions before the Operation:

A. Connect the machine to the power supply:

Plug the power cord to the power supply of 220V~50Hz/110~60Hz;

If the user needs to print the counting result, please connect the printer to the printer interface;

If the user needs to store the data to a U disk, please connect the U disk to the USB interface; Please make sure that the machine is well grounded for safety and anti-static electricity; Please make sure the operation desk is secure, durable and without inclination;

B. The Correct Way:

Before starting to count the banknotes, please first tidy up the banknotes on an even desk, and then set the position of the paper guide to be 2mm to 3mm longer than the banknotes to be counted. Finally put the banknotes onto the input hopper of the machine and start to count.

## SAFTY USE NOTICE !

- 1. This machine volt adopt to: AC 220V 50HZ  $\slash\hspace{-0.4em}/$  AC 110V 60HZ.
- 2. Shall use ground protection socket.
- 3. Cut off the power when the machine is not in use for a longtime
- 4. Do not drop conductive objects such as paper clips, pins, coins, etc. into the machine or splash oil into the machine to prevent internal short circuit.
- 5. Do not clean the machine with chemical solvents such as gasoline, benzene, and acidic liquids.
- 6. If you need to open the back cover for maintenance or other needs, cut off and disconnect the power.



## **II. Brief Introduction to the Machine:**



### A. Machine Introduction



### **B.** Main Display:



- 1. The current date and time;
- 2. The current counting mode;
- 3. The current counting currency ;
- 4. The current counting speed;
- 5. The summary area for the display of denomination and pieces counted;
- 6. The function of face or orientation sorting
- 7. The total pieces of the banknotes counted;
- 8. The total value of the banknotes counted.



### C. The Functional Keys on the Front Panel



MODE	The button is used to switch among CNT mode (count),SDC mode (Single Denomination Count) & MDC mode (Mixed Denomination Count)
START	Short press this button is starting or back to upper level. Long press this button is used to switch the manual counting/auto counting function.
CUR	This button is to show up the available currency names in your machine and press the key to choose the current counting currency.
ватсн	Short press this button is used to switch on/off batch mode.When BATCH is on, then use numeric buttons to input the batch number. Long press this button is aging test for the machine.
ADD	Short press this button is used to switch on/off Add mode. Long press this button is used to enter Sensor dates of the machine.
SORT	Press this button is used turn on/off the face or orientation sorting function under the main interface
REPORT	Press to check the count details, denomination& PCS& serial numbers Press twice to check serial numbers
<b>†</b> /+	Upward navigation button. When BATCH is on, press to add 1. Also can choose speed 800/1000/1200 notes/min for CNT mode, 800/1000 notes/min for SDC & MDC modes





## **III.** Technical Parameters

Dimensions	W300XD330XH 370mm		
Package	W480XD480XH 480mm		
N.Weight	Approx.11.0Kg		
G.Weight	Approx.12.0Kg		
Counting Spood	800/1000 notes/min(MDC SDC and CNT		
Counting Speed	MODE) 1200 notes/min(CNT MODE only)		
Display	TFT 3.5		
Display Language	English or Customized		
	Maximum 185x90 mm		
Size of Countable notes	Minimum 110x60 mm		
	Thickness: 0.08~0.12		
	mm		
Available Currencies	8 Currencies		
Feed system	Roller Friction System		
Hopper Capacity	Approx.500 notes		
Stacker Capacity	200 notes		
Reject Stacker Canacity	Approx.50 notes(Adjustable from 25~100		
Reject Stacker Capacity	notes)		
Power Supply	AC 100~240V $\pm 10\%50/60$ Hz		
Maximum 1.8A(100~240 VAC)			
Power Consumption	Iding 0.2A(100~240 VAC) 120W		
Tempareature 0°C~35°C(Operating)			
Usage Environment	-10°C~60°C(Stock)		
Humidity	20%~90%(no condensation)		
PC Terminal	Interface(RS-232C)		
Interface	Printer Inter Interface(RS-232C)		
U Disk	USB2.0 USB3.0 Interface		



## **IV.Operation Modes**

### 1. CNT mode

Press button MODE to select CNT mode. In this mode , you can switch on ADD or BATCH or ADD +  $\mathsf{BATCH}$  .

### 2. SDC mode

Press button MODE to select SDC mode. This mode is to count a single denomination bill . The system will take the first note as the benchmark , and will stop counting when meeting a different denomination .

### 3. MDC mode

Press button MODE to select MDC mode. This mode is value counting mode for mixed denominations , and press REPORT button to check the counting details .

## V. Setting Menu

### 1. User Menu and Service Menu

(1) Press button "OK" button for 5 seconds, you will be requested to input a password with the following interface. The default password is 5555:

SET MENU		
HON	1E	
	1 User Menu	
	2 CIS Calibration	
	3 CIS ColorBalance	
	4 Version Number	
	5 Data Collection	OFF
	6 Restore Factory Settings	
OK/Ch	oke Up, Down/Adj START/Save BAT/RET	

Use the cursor to select which sub-menu you want to enter, and press OK button to confirm, press BAT to back and press button START to Save.

After enter "1.User menu", there are four pages interface will be the showed :



		SET MENU		
SET MENU		HOME=>USER MENU		
HOME=>USER MENU		7-UV Threshold		
1-Image Sensitivity		8-Width Threshold		
2-MGS Sensitivity		9-Height Threshold		
3-MGB Sensitivity		10-Start Sensor Sensitivity		
4-Double Sensitivity		11-Clear Sensor Sensitivity		
5-Sensor Static data		12-Recklight Time		
6-Sensor Dynamic data		12-backught time		
OK/Choice +-/Adj START/Exit BAT/RET	-1-	OK/Choice +-/Ad) START/EXIT BAT/RET		
SET MENU		SET MENU HOME=>USER MENU		
HOME=>USER MENU		19-Buzzer Switch	ON	
13-Screen Brightness		20-Currency Switching Mode		
14-Printers Baud Rate Set		21-Debug Print Mode	OFF	
16 Peaks Time Consultan		22-Power Off Memory		
17-Time Correction		23-Magnetic Integrative Detection	OFF	
19 Alarm Counting Colorian	NO COUNT		OIT	
18-Alarm Counting Selection	NO COUNT			
	the second s			

Use the cursor to select which sub-menu you want to enter, and press OK button to confirm, press BAT to back and press button START to Save.

## (Please do not change the default dates without communicating with the manufacturer or your local distributor.)

### **2**TIME SETTING

**PIs find the 3th page and enter** "**17.**Time setting ",you will see the following interface,input your time and dates **by press** ↑↓ **to choose it** , **then press** "**OK**" **to save it**.

SET MENU	2
HOME=>USER MENU	
13-Screen Brightness	
14-Printers Baud Rate Set	
15-Stacker Capacity	
16-Brake Time Correction	
17-Time Setting	
18-Alarm Counting Selection	NO COUNT
OK/Choice +-/Adj START/Exit BAT/RET	- 3 -





### 2.CIS Calibration +3. CIS Color Balance

#### Step1:firstly ,do CIS Calibration

a. open the behind cover and put the white plastic strip in the machine, when need ,pls clear the sensors firstly:





b .Enter the "SET menu ",choose option "2.CIS calibration " to press "OK" to start it.





( when CIS adjust succeed)





Note:After put the white plastic film in the machine, the mostly important thing is closing the back cover should smoothly, if have resistance, pls shift the white plastic film , otherwise white film will be broked and affect the CIS sensors working.

### Step2 :next do CIS Color Balance

After you do the "**2.CIS Calibration**", take the white plastic film out ,press "OK" button to continue "CIS Color Balance", put the red bills to count it,



### steps for CIS adjustment.



### 4..VERSION NUMBER:



### **5.Date Collection**

- press "OK" button to choose "OFF", "Warning","All".
- "OFF": close the dates collection
- "Warning": collect the Error bills images
- "All":collect all the bills images

### **6.RESTORE FACTORY SETTINGS**

press"OK" button to enter it ,you can find the following warning:





If Yes, pls press"OK" button to restore ,if No ,pls press "BATCH" button to cancel.

## **VI.Maintenance and troubleshooting**

After start ,the machine will go on self-check automatically. If preset window show the following error code ,generally speaking, it is because of dust on the surface or sensor blocked by notes. So please clear the dust of the surface or sensor with brush or soft cloth, or take the notes away. Then restart the machine.

### **1.Self check Error Code**



A.Hopper Sensor Error (Something cover the hopper Sensor or the hopper sensor damaged).



B.Stacker Sensor Error (Something covered the stacker sensor or stacker sensor damaged.)



C.Main motor Error (Motor problem or speed sensor damaged)



### 2. Error code reference

①Main Erro Code

ERROR	SENSOR PROBLEM
CE01	UV SENSOR
CE02	SPEED SENSOR
CE03	RIGHT COUNTING SENSOR
CE04	LEFT COUNTING SENSOR
CE05	STACKER START ( HOPPER ) SENSOR
CE06	MG SENSOR
CE07	KEYBOARD
CE08	STACKER SENSOR

### ②Other Error code reference

E1UV ERROR	· Suspicious Note Detected .	·Remove the suspicious Note .
	· The image or integrated UV	·Follow the cleaning
	feature of notes may become	procedure if the error persists
	weaker when a note is old ,	·Consider reducing the UV
	heavily used or when it has	sensitivity
	accidentally been washed .	
E2DOUBLE ERROR(	·Two or more notes passed	•Ensure that there are no
DD)	together ( partially overlap ).	banknotes stuck , folded or
		glued together .
		· Check the banknote quality .
E3CHAIN ERROR		If no obvious visible issues are
		found, count the notes again
		and check if the problem
		persists .
		• The hopper may be set too
		loose . Adjust the hopper
		screw in clockwise direction .
		Check Thickness Wheel
		Adjustment Procedure .
E4HALF ERROR	·An incomplete,torn or half-size	· Check the banknote quality .
	note has been detected	If no obvious visible issues are
		found, count the notes again
		and check if the problem
		persists .



E10IMAGE ERROR	·Suspicious note by CIS Image	· Try pass it again and If the
	detection .	error persists, proceed with
		the CIS calibration
E11WIDTH ERROR (	·Suspicious Non - conforming	· Check the banknote quality .
DB)	size has been detected	If no obvious visible issues are
		found, count the notes again.
		·Contact the Support Team
E13FACE IMAGE	·Different denomination notes	•Ensure the bills are stacked in
ERROR	detected	an orderly manner and count
		the notes again
E14DENOMINATION	·Different denomination notes	·Remove the top note from the
ERROR	detected in SDC mode	stacker and resume the count
E15 IMAGE SIGNAL	·No Image Signal	·Contact the Support Team
ERROR		
E16FACE ERROR	•Different Side detected	·Remove the top note from the
LIG THEL LIGKOR	from the Initial note side	stacker and resume the count
F17ORIENT FRROR	Different Side or Direction	Remove the top note from the
EI/ORIENT ERROR	detected from the Initial	stacker and resume the count
	note side and direction	stacker and resume the count
E20MT ERROR	·Incorporated in the center MG	·Adjust the MG Sensitivity or
		Replace the Center MG
E21MG ERROR	·Suspicious Note Detected (Side	·Remove the suspicious Note
	MG )	.Follow the cleaning
		procedure if the error persists
		.Consider reducing the MG
		sensitivity
E30IR ERROR	·Suspicious Note Detected	Remove the Suspicious Note
	•The image or integrated IR	If you encounter too many IR
	feature of notes may become	errors, proceed with CIS
	weaker when a note is old,	calibration
	heavily used or when it has	·if the error persists , contact
	accidentally been washed	the Support Team



### 3. hopper adjustment:

When improper feeding of bills occur, adjust the bills thickness in

the hopper by turning the bill adjustment which local in the top of

the machine.

When the hopper is too tight ,pls loosen it by turn to "-"

When the hopper is too loose ,pls tighten it by turn to "+"

**VII.** The positions where can be opened the machines:

When bills are stucked in the machines ,pls open the machine the take bills out .









