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USER MANUAL

CURRENCY SORTER



Thank you for purchasing our Currency Sorter with value counting. This guide will provide you with safety information, instructions for optimal use, and proper care and maintenance for your product. Please read this manual carefully before operation.

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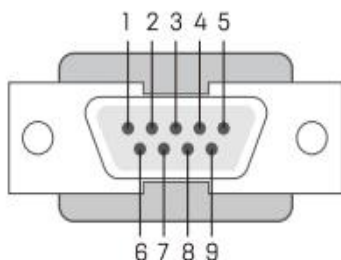
FOREWORD

Thank you for purchasing our 1+1 Pocket Mixed Bill Value Counter & Sorter Machine. This user manual will help you to get started with your 1+1 Pocket Mixed Bill Value Counter & Sorter Machine and describes the setup and operating procedures. We recommend you to read carefully of the operating instructions before using the device.

ABBREVIATIONS AND ACRONYMS USED

UV	Ultraviolet
IR	Infrared
MG	Magnetic
CIS	Contact Image Sensor
PC	Personal Computer
LCD	Liquid Crystal Display
USB	Universal Serial Bus
LAN	Local Area Network

RS232



Pin	Signal
1	Data Carrier Detcet
2	Received Data
3	Transmitted Data
4	Data Terminal Ready
5	Signal Ground
6	Data Set Ready
7	Request to Send
8	Clear to Sead
9	Ring Indicator

UNPACKING



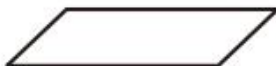
- 1+1 Pocket Mixed Bill Value Counter & Sorter Machine



- User Manual



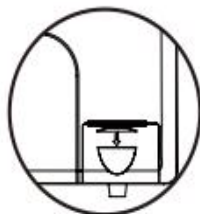
- Power Cords



- Maintenance Kit (brush, calibration paper, screwdriver)

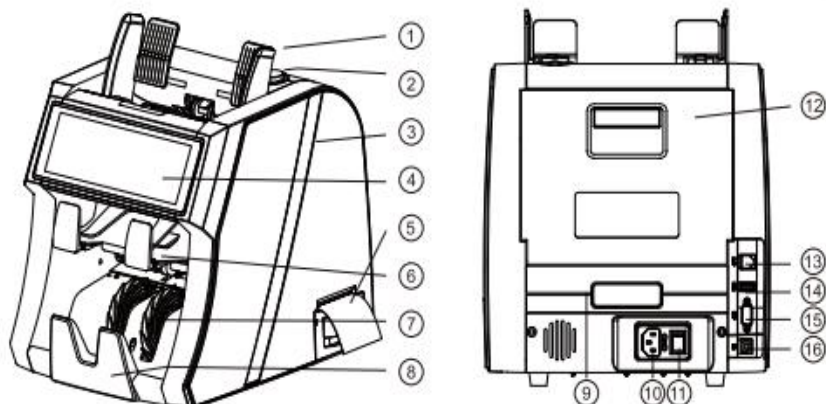


- External Display (optional)



- Build in Printer (optional)

EXTERIOR



NO.	Item	Usage
①	Hopper Guide	Adjust to guide note feeding position
②	Adjust knob	Adjust the feeding gap of thickness
③	Side Cover	Protect the component parts
④	7.84 inch touch screen	To show UI and sending order
⑤	Printer(option)	For printing counting result
⑥	Reject pocket	Accepting error notes
⑦	Impeller	Taking the notes
⑧	Stacker	Accepting genuie notes
⑨	Drawer	For banknote passage
⑩	Power cord jack	Power cable connection
⑪	Power switch	Turn on and off device
⑫	Back cover	To protect the component parts
⑬	LAN port	To connect with external display
⑭	USB port	To collect data and update
⑮	RS232 port	To connect with printer
⑯	PC port	To connect with PC

SAFETY

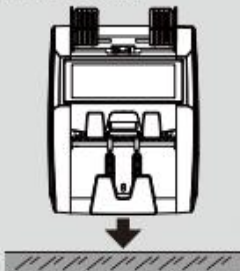
To avoid damage the machine and/or personal injury, read the following carefully before the first use!



- Do not place the machine in dusty or dirty environments.
- Do not place the machine in direct sunlight or near heat sources or air conditioners.
- Always disconnect the power cord before performing maintenance on the machine.
- Always connect the machine to an earthed socket outlet.
- Use only the supplied power cord.
- Do not use the machine outdoors.
- Do not expose the machine to liquids.
- This machine contains rotating parts. Never touch the moving parts when the machine is switched ON.
- Please ensure that no foreign objects (coins, paper clips, staples,) fall into the machine, these may block the mechanical parts and the sensors of the machine and damage or break them and will void your warranty.
- Keep jewellery, long hair, ties and other protruding parts away from machine while operating it
- Never disassemble the machine.
- To prevent shock hazard, do not touch the power cable with wet hands.
- To prevent fire or short circuit, unplug the unit if you want to move it to another position.
- Hold the plug when disconnecting the unit from the power outlet, never pull the cord.

OPERATING

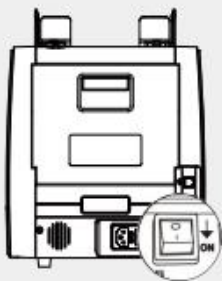
1. Put the unit on a solid flat surface, and machine must be properly grounded to ensure safe and stable operation.



2. Plug the supplied power cord into a grounded outlet only.



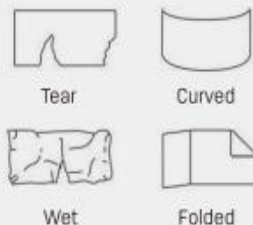
3. Switch ON at the back of unit and turn on the unit.



4. Press the national flag icon to select currency.






5. Correct way to place bills in hopper.



UI INTRODUCTION



All functions can be controlled with touch-screen display

NO	Item	Function
①	Functional area	 Menu
		 Detailed counting report
		 Printer the counting report
②	Status area	Display the current settings of the machine
③	Shortcut menu area	Expand the settings area after pulling the symble down
④	Start/ESC/Mode	Start counting money / clear the counting result
⑤	Currency counting result area	Display the current counting result
⑥	Counting report area	Display current money counting report



Simplified interface will pup up automatically when it start counting

1.FUNCTIONAL AREA UI INTERFACE


Explanation of menu interface



Press the MENU button, then click on the icon to enter the submenu

<p>SERVICE MENU</p>		<p>Service Menu is password protected, please ask to our local agent to unlock this part.</p>
<p>USER MENU</p>		<p>Operators can make basic settings for the machine in this page</p>
<p>SYSTEM VERSION</p>		<p>SW1: Main and image version number SW2: Boot version number SW3: Fpga version number SW4: System upgrade time SW5: Screen file version number</p>
<p>TIME SET</p>		<p>Press the number icon to set the year (YYYY), month (mm), day (DD), and time (in hours (hh) and minut (mm)), and press the "Enter" icon to save.</p>

USER MENU

BEEP SETTING	To turn on and off the sound of the buzzer.
SCREEN BRIGHT ADJUST	Swipe the  icon on the touch screen to adjust screen brightness. Swipe left to darken the screen, slide right to brighten the screen.
MACHINE DEBUG	<p>CIS CALIBRATION</p> <p>Unprofessional CIS calibration can cause multi error. Please contact your distributor before you do CIS calibration. About to Enter CIS calibration interface. Please be careful with the operation.</p> <p>Step1. Clean CIS with dry cloth</p> <p>Step2. Put the calibration paper over the CIS and close the back cover.</p> <p>Step3. Press Enter to start.</p> <p>Adjustment successful.</p> <p>Step4. Remove the calibration paper and restart machine.</p>
	<p>SENSOR VALUE</p> <p>Enter to view the voltage of the sensor. Under normal circumstances, the sensor voltage value is white. If the value turns red, it indicates an abnormal state that may be covered by paper money or dust.</p>
	<p>ENCODER VALUE</p> <p>This interface is used by technicians to view the cycle, interval, and other numerical values of the code disk.</p>
MACHINE FUNCTION	<p>REJECT CAPACITY SET</p> <p>To set the maximum capacity of the refund port, swipe the screen to select the number (50/60/70//80/90/100) and press the Enter button to save.</p>
	<p>SN CONTRAST</p> <p>Used to set whether the serial number of the currency is read</p>
	<p>SN READING</p> <p>Used to set whether the serial number of the currency is read .</p>
	<p>BATCH COMPLETED SET</p> <p>When the operator sets the number of BATCH, after activating the ADD function, when the number of BATCH is full and there is no currency in the cash dispenser, the counting quantity will continue to accumulate. After activating CLEAR, the counting quantity will be cleared.</p>
	<p>LCD SLEEP TIME</p> <p>You can select how long it takes for the screen to enter the screen after counting: 1)Always on 2)5min 3)15min 4)30 min 5)1 hours.</p>
LANGUAGE	Press the language what you need, then press the Enter icon to change the system language.

EXPLANATION OF THE COUNTING REPORT INTERFACE




Click on the PRINT button to view a more detailed report

①	This area will display counting report, including the denomination, quantity, and amount of the banknotes.
②	This area will display the denominations and serial numbers of the counted currencies. The operator can flip the page through the slider on the right side
③	This area will display a rejection report, sort the rejected currencies, and explain the reasons for the rejection. The operator can flip the page through the slider on the right side.
◀ ▶	You can select the button on the left or the button on the right to view the counting report of the previous currency or the counting report of the next currency.
COUNT HISTORY	You can view banknote counting records within a certain period of time and view the detailed report of banknote counting at a certain time.
PRINT	The operator can print a cash counting report and choose whether to include a serial number in the printed report. When the desired printing mode is pressed, the button turns blue and the machine starts printing the counting report.

Explanation of error interface

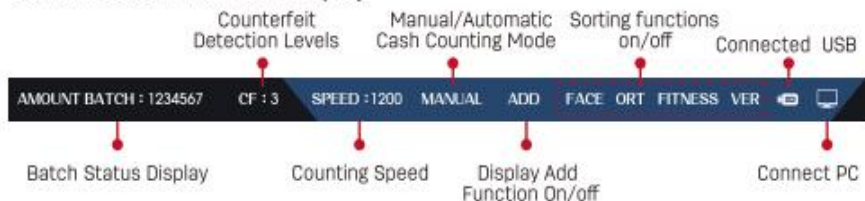


Please refer to P19-20 for error message details

Press  the button to return to the main menu with just one click

2.EXPLANATION OF STATUS BAR

Current State Parameter Display



3.EXPLANATION OF SHORTCUT MENU BAR

Pull Down To Access The Shortcut Menu



Press the icon to switch modes

Auto/Manual Start Mode



To operate the machine device with Automatic start(set as default)or manual start, follow the steps below:

- 1.Press the "A./M." icon to switch between Auto/Manual Start Mode.and press "ENTER" to save.
- 2.The text show AUTO means Automatic start is on and Show MANUAL means that Manual start is activated.

ADD MODE

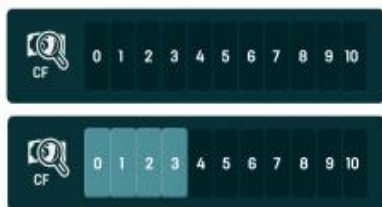


ADD feature is used to accumulate piece and value counting results for continuous stacks of banknotes processed.

Press "ADD"icon on the touch screen to enable or disable the ADD function,and press "ENTER" to save.

When ADD is activated, the icon becomes brighter. When ADD is turned off, the icon displays white.

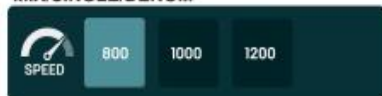
Counter Detection level



To activate Suspicious or Counterfeit Detection (CF), press or slide the "0-10" number button on the screen and press "Enter" icon to save. The larger the number, the higher of counterfeit notes detection level, usually suggest to keep it at level"5".

Counting Speed

MIX/SINGLE/DENOM



COUNT

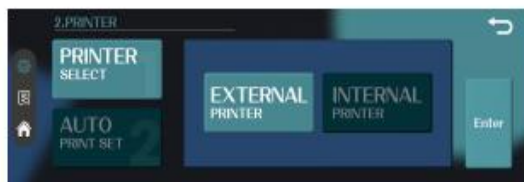


The machine device is defaulted from factory to count circulated banknotes in all discriminating, sorting and Piece count modes at high-speed of 1200(discriminating modes)or 1500(Piece count)banknotes per minute,however,software allows operator to adjust to lower counting speed to count worn out banknotes for less stoppage for non-recognition as well as prevent device to further damage conditions of banknotes.

To adjust to counting speed in various Discriminating and Sorting modes **MIX/SINGLE/DENOM/COUNT**,follow the step below:

- 1.Touch "speed" icon on the touch screen display to switch between various speed setting in any discriminating modes or Count mode.
- 2.Three different counting speed can be set for all discriminating modes **MIX/SINGLE/DENOM/COUNT**,however,1000speed is default and more suitable for higher recognition of worn out and circulated banknotes and less jamming.

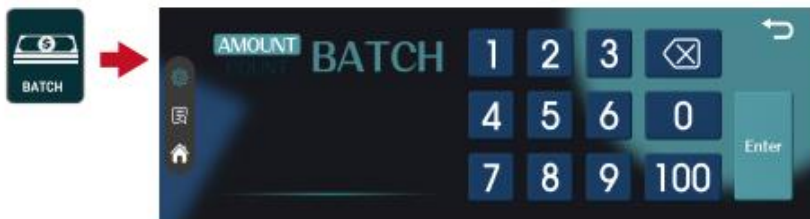
Print key



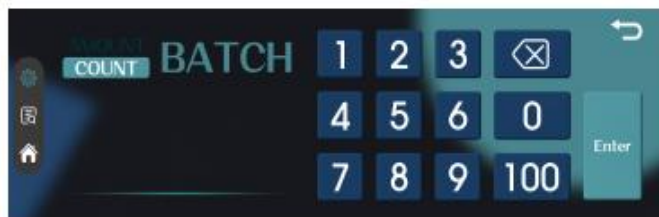
Choose build in printer or external printer accordingly. And setting printer the serial number or not .



Various Batch Setting

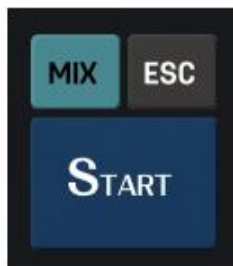


Operator can set up Batch by a specific amount(AMOUNT) to be strapped in single or mixture denominations of banknotes. Swipe the screen to select AMOUNT BATCH, and then push Enter .



Operator can set up Batch by quantity in most counting modes in which device will stop when pieces of preset batch number is reached. This batch function is useful in COUNT or MIX mode.

4.START / ESC / MODE



MODE: Swith Mode to MIX/DENOM/COUNT/SINGLE

ESC: Clear the number of counted banknotes

START: Start counting

EXPLANATION OF THE COUNTING MODE INTERFACE



Press the "MODE" button and swipe up and select the counting mode. When the text becomes brighter, it indicates that it is selected.

MIX	Under MIX mode, the machine will count the mixed denomination banknotes of a given currency. When the counting is complete, press "REPORT" icon to get detailed report of counting results. You can turn on function ADD Or BATCH under this mode.
DENOM	Under DENOM mode, the machine counts and names the first detected banknote with a "standard" denomination, and stops at different denominations or suspicious banknotes. Once the storage box and stacker are empty and a new count begins, the denomination "standard" will be reset to the first recognized banknote.
COUNT	Under COUNT mode, the machine only counts the number of bills, all counterfeit detection is turned off. When the counting is complete, press "REPORT" icon or touch on screen to get detailed report of counting results. You can turn on function ADD Or BATCH under this mode.
SINGLE	Under SINGLE mode, the machine only counts the denomination has been chosen and reject all others. When the counting is complete, press "REPORT" icon on screen to get detailed report of counting results.
VER	This is used to distinguish versions of currency. For example, the USD has a 1996 version and a 2003 version.
FACE	Place a stack of single or mixture denomination of currency on the hopper to start counting. The machine will process banknotes which are having same face (front face or back side) as the face of very first bill counted and other different bills will go to the reject pocket.
ORIENT	For ORIENT mode to be functional, all banknotes must be organized in same face. Perform FACE function first before proceeding to ORIENT function. Place a stack of single denomination of currency on the hopper to start counting. The machine will process banknotes having same face and same direction as the very first bill passed through, recognized to be counted and other orientation bills will go to the reject pocket.
FITNESS	After activating the FITNESS function, the machine will check the banknotes for stains, glue, damage, etc.

5. CURRENCY COUNTING RESULT AREA

Currency Selection



1. Press the "  " on the touch screen to prompt the currency selection screen

2. Select your desired currency and return to the main screen. If the operator selects another currency, it will display on the same area with the selected country's flag.



6. COUNTING REPORT AREA

Currency Selection

DENOM	PCS	AMOUNT
100	0	0
50	0	0
20	0	0
10	0	0
5	0	0
2	0	0
1	0	0
TOTAL	0	0

This area will display a simplified counting report, including the denomination, quantity, and amount of the banknotes.

The operator can flip the page through the slider on the right side.

EXTERNAL DEVICE

How to connect with customer display

- Setting customer display: MENU→2.SERVICE MENU (input the password) →1.EXTERNAL DEVICE→1.EXTERNAL DISPLAY(LED)
- Connect the customer display to the machine by R45 port(in red circle)



How to connect with thermal printer

- Setting thermal printer: MENU→2.SERVICE MENU (put on the password)→1.EXTERNAL DEVICE→2.PRINTER →3.PRINTER SELECT (Choose External Printer)→ BAUD RATE SET
- Select the baud rate you need
- Connect the thermal printer to the machine by RS232 port (in red circle)



MACHINE SPECIFICATION

Counterfeit Detection Denominating sensor	IR(Infra-red),MT(Mr-array),MG head,UV(Ultra-violet) DUAL CIS(Contact Image Sensor)sensors
Counting speed	800/ 1000/ 1200 notes/min (MIX, SDC, SG) 800/ 1000/ 1200/ 1500 notes/min (CNT)
Hopper capacity	500 PCS (with hopper guider)
Reject capacity	100 PCS
Stack capacity	200 PCS
Countable Note size	110×50 ~180×90mm
Display	7.84 inch Touch Panel screen
Power supply	100-240 V / 50-60 Hz
Power consumption	170 W (MAX)
Noise Level	Around 60-75 dB
Port	USB port (Data collection and machine update) RS232 port (connect with Printer) LAN port (connect with external display) PC port (connect with PC)
Dimensions	333×277×302 MM
Weight	10 KGS
Package	400*340*405MM

USB PORT FUNCTIONS

Data collection

New issued banknotes:

- Choose COUNT mode on machine
- Connect an empty USB driver(4-32GB) to machine, machine will show "USB IN" on screen
- Count the new issued banknotes by 4 orientations, 10 pcs for each denomination together
- Machine will save the data automatically
- Connect the USB driver with PC to zip all the files in the USB driver and send to distributor

Error happen to genuine notes or counterfeit don't catch:

- Choose MIX mode on machine
- Connect an empty USB driver(4-32GB) to machine, machine will show "USB IN" on screen
- Count the error genuine notes or counterfeit separately without any mix
- Machine will save the data automatically
- Connect the USB driver with PC to zip all the files in the USB driver and send to distributor

Machine update

- Download the software from distributor to an empty USB driver(4-32GB) without change the name of software
- Connect USB driver with machine
- Turn on machine, it will update automatically
- Take off USB driver and reboot machine

DAILY MAINTENANCE

Machine daily cleaning

How to clean the surfaces of machine :

- Prepare a mixture of a gentle kitchen-use detergent (one that does not contain abrasive powder or strong chemicals such as acid or alkaline.) Use 5 parts water to 1 part of detergent.
- Absorb the diluted detergent into a sponge.
- Squeeze excess liquid from the sponge.
- Wipe the cover with the sponge, use a circular motion and take care not to let any excess liquid drip into the interior of the machine.
- Wipe the surface to remove the detergent.
- Rinse the sponge with clean, running water.
- Wipe the cover with the clean sponge.
- Wipe the surface again with a dry, soft lint-free cloth.
- Wait for the surface to dry completely and remove any fibers.

How to cleaning the Bill Path of machine:

- Open the Upper Bill Path.
- Gently wipe or dust the Bill Path with a small, soft lint-free cloth.
- If stains remain, moisten a soft, lint-free cloth with water or a 50/50 mixture of isopropyl alcohol and water that does not contain impurities.
- Wring out as much of the liquid as you can.
- Wipe the Bill Path and the sensor surface again; do not let any liquid drip into the machine.
- Repeat 1-5 to clean the Lower Bill Path.

***NOTE: Avoid spraying cleaner directly on machine and be sure to dry the Bill Path before closing it.**

TROUBLE SHOOTING LIST

Error code	Reason	Solution
E1: UV Error	UV Fake	<ul style="list-style-type: none"> Count the banknotes again to check if the problem persists. Make sure that the device is not under any direct strong light source as this is the UV sensors can interfere. Clean the sensors and remove dust who accidentally blocked the sensors. If the bill is genuine, lower it the UV sensitivity and count the bill again.
E2: DB	Double Notes	Tight the feeding gap
E3: Chain	Chain Notes	
E4: S.Skew	Skew Notes	
E5: Full	Reject Pocket Or Stacker Full	Remove the notes from the pocket
E6: Half Note Error	Half Notes	Pick out the half notes
E7: Interval Error	Notes Distance Anomalous	Tight the feeding gap
E8: Width Error	Shorten Notes	Pick out the error notes
E9: Signal T Error	Communication Abnormalities	Check the connection of the main board with display board
E10: Data Process	No Data	Need count again or collect data
E11: Denomination Error	Single counting With Different Denominations	Change to MIX mode
E12: Image1 Error	Unrecognized denomination	<ul style="list-style-type: none"> Remove the bill from the machine and re-do counting. If not solved ,collect the data of bills and sent to your technician/dealer.
E13: Orient Check	Targeted at Identifying Anomalies	
E14: Orient Size	Abnormal Size Recognition	
E15: Image2 Error	Facing Unrecognized	

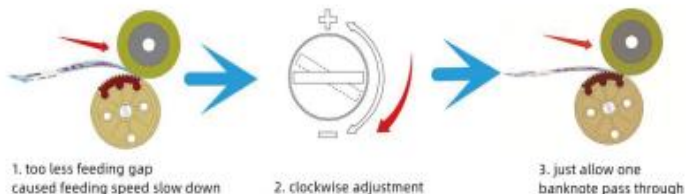
Error code	Reason	Solution
E16: Face Error	Face Difference	Remove the bill from the machine ,sort the bills according to the face and re-do counting
E17: ORT Error	Orientation Difference	Remove the bill from the machine ,sort the bills according to the orientation and re-do counting
E18: DOI Error	Split Set	Different sets
E19: Version Error	Notes Issue Version Difference	Turn off the sorting function
E20: MT Error	Magnetism in Counterfeit Currency	Collect the data of bills and sent to your technician/dealer.get the new software and update the software.
E21: OCR Error	The serial number of the notes have issue	<ul style="list-style-type: none"> • Remove the bill from the machine and re-do counting. • if not solved ,collect the data of bills and sent to your technician/dealer.
E22: MT1 Error	Magnetic Edge of Counterfeit Currency	Collect the data of bills and sent to your technician/dealer.get the new software and update the software.
E23: MT2 Error		
E24: MT3 Error		
E25: MT4 Error		
E26: S.Skew2 Error		
E27: IR110	Black list	
E28: Count Batch	Banknote count preset full	Pick out the notes
E29: Amount Batch	Amount preset to full	
E30-E49: IRI-16	Counterfeit infrared, real currency false alarm infrared	Collect the data of bills and sent to your technician/dealer.get the new software and update the software.

COMMON ISSUE REFERENCE

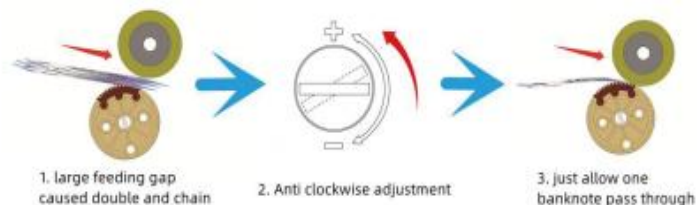
Adjusting feeder's aperture

The adjusting screw of the feeder aperture on the top cover has already been set at the factory. You may need to adjust the feeder aperture if the following problems occur during counting/sorting:

Frequent jams, or banknotes pass the feeder with difficulty - turn the adjusting screw clockwise to make the aperture wider.



Frequent "double notes" or "chained notes" error message - turn the adjusting screw anti clockwise to make the aperture smaller.



Note: The adjusting screw is very sensitive, move only one notch at a time!

Electromagnetic issue

Problem Description	1.Machine happens BC error 2.Jam issue 3.PS2 4.PS3
Reason	Electromagnetic reaction problem
Solution	1.Check the shelf holder of electromagnetic if loosen 2.Check the electromagnetic itself can be movable 3.The plastic of toggle bill part if change of shape during using

Display issue

Problem Description	1.Machine display happens splash screen 2.white screen or no response when touching it 3.The count remain 0 during counting
Reason	1.Display itself problem 2.Display board has unsolder problem 3.Mainboard problem
Solution	1.Replace the display 2.Replace the display board 3.Replace mainboard

Mainboard issue

Problem Description	1.Machine display happens splash screen 2.CIS calibration failed 3.Too much error happen 4.Mainboard error 5.Machine doesn't count
Reason	Mainboard chip damaged or unsolder problem
Solution	Replace the mainboard

CIS issue

Problem Description	1.All notes rejected 2.CIS calibration failed
Reason	CIS or CIS cable damaged
Solution	Replace CIS

WARRANTY CARD

Thank you for your purchase of our products. The interests of customers who purchase our products will be protected. For any malfunction due to product quality problems. Please contact authorized local dealers or service centers with this receipt and the warranty card.

Warranty terms:

1. For product failures occurring under normal operating circumstances, free of charge repair and spare parts replacement service shall be provided by our company within one year commencing from date of purchase.
2. Customers are required to present this warranty card and the original purchase invoice to our company upon request for warranty service. This warranty card shall be valid only after the following form is filled out in details and affixed with official seal of the dealer.
3. No free of charge repair service shall be provided in the event of any of the following circumstances:
 - (1) Expiration of the warranty period;
 - (2) Damages caused by improper use, maintenance or storage not in accordance with the requirements of the user manual;
 - (3) Failure or damage resulting from unauthorized disassembly, repair or modification;
 - (4) Failure or damage caused by force majeure;
 - (5) Wear parts or accessories.

This warranty card is being delivered with the product, one card for one product. Please keep this warranty card in proper condition for free warranty service. There is no replacement if lost.

WARRANTY CARD

Date of Purchase: _____ Y _____ M _____ D

Product Information	Product Name				Serial Number		
	Product Model Number				Manufacturing Date		
Customer Information	Company Name				Contact		
	Address				Phone		
Sales Information	Dealer Name				Contact		
	Address				Phone		
	Date of Purchase				Invoice No.		
Maintenance Record	Description of Malfunction	Maintenance Results	Customer Signature	Maintenance Technician Signature	Maintenance Date		

This copy shall be cut along the dotted line and kept by the dealer.

Product Information	Product Name				Serial Number		
	Product Model Number				Manufacturing Date		
Customer Information	Company Name				Contact		
	Address				Phone		
Sales Information	Dealer Name				Contact		
	Address				Phone		
	Date of Purchase				Invoice No.		
Maintenance Record	Description of Malfunction	Maintenance Results	Customer Signature	Maintenance Technician Signature	Maintenance Date		

CERTIFICATE

Inspector: _____

Date of Manufacture: _____

DELI GROUP CO., LTD.

301 Xuxiake Ave. Ninghai County
Ningbo 315600 China Made in China
info@nbdeli.com www.deliworld.com



**KEEP FOR
FUTURE USE**

Version: 1.0
Date: 11-2025