

Smart Deposit Safe

USER'S GUIDE



Preface

Dear user

Welcome to use the series of deposit machines produced by SCAN COIN AB.

In order to ensure the normal operation and operation of the product, please read the instructions carefully before use and operate according to the instructions.

SCAN COIN AB

Note

This product is used to count banknotes and has the function of temporary cash storage.

SCAN COIN AB shall not be responsible for any loss caused by the application of this product for purposes other than the above without the permission of the company, and for any loss caused by the modification of this product by employees or distributors not authorized by SCAN COIN AB.

If you need to install or transport this product, please consult an authorized distributor or sales representative.

- **This product is used to count the notes described in the specification.**

Do not use this product for other purposes.

- **This product is only used in corresponding countries or regions.**

Due to the difference between power supply specifications and safety standards, this product cannot be used in other countries or regions.

- **Please understand that there may be no prior notice of changes to the items recorded in this book.**

- **The company is making unremitting efforts to improve product quality.**

Therefore, the actual product will differ from the description in this book.

- **When the patent right or other rights of a third party are infringed due to the use of the materials in this book, the company will not bear the corresponding responsibility.**

- **The company will not be liable for the loss caused by the damage, deterioration and theft of the paper money and the compensation liability caused by the criminal acts such as forgery, adulteration and destruction.**

- **It is forbidden to reprint the contents of this book for profit.**

- **Unauthorized change or modification without the explicit authorization of the company will cause the user to lose the right to operate the equipment.**

Please take attention that changes or modification not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) This device must accept any interference received, including interference that may cause undesired operation.

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

- (1) This device may not cause interference.
- (2) This device must accept any interference, including interference that may cause undesired operation of the device.

L'appareil contient des émetteurs/récepteurs exempts de licence qui sont conformes aux CNR exempts de licence d'Innovation, Sciences et Développement économique Canada. L'exploitation est soumise aux deux conditions suivantes :

- (1) l'appareil ne doit pas produire de brouillage,
- (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

This equipment complies with FCC/IC RSS-102 radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

ce matériel est conforme aux limites de dose d'exposition aux rayonnements, FCC / CNR-102 énoncée dans un autre environnement. cette équipement devrait être installé et exploité avec distance minimale de 20 entre le radiateur et votre corps.

C o n t e n t s


Safety cautions	1
● Warning symbols and explanation	1
● Safety cautions to be observed before use	1
➤ Installation	1
➤ Power	1
➤ Operation	2
➤ Maintenance	2
Instruction before use	3
● Installation	3
● Name and function of each part of the complete machine	6
● Cautions during operation	8
➤ Load banknotes	8
➤ Top cover	9
➤ Back cover	9
➤ Dust collecting box	10
➤ Safe Door	10
➤ Clean the banknote hopper and identification sensor	12
➤ Clean the sensors at banknote rejection pocket	13
➤ Clean the banknote output path	13
➤ Clean the back device path	14
➤ Cash bag replacement	14
Firmware	16
➤ Guidance documents in English and Chinese for combination locks, as follows	16
Firmware	17
➤ Error code list	17
Others	23
● Product specification list	23
● External interface settings	25

Safety cautions

This section introduces the relevant items that should be abided by during safely operation of this product, in order to avoid bringing damage to your body and property. Please read this manual carefully before use and operate the product correctly.

● Warning symbols and explanation


The meanings of the symbols in the diagram are as follows:

 The meanings of each iconic symbol are as follows:


 This symbol indicates the precautions when operating this product.

● Safety cautions to be observed before use

➤ Installation

 Please contact our sales representative or authorized distributor when installing and moving this product.


Improper installation may cause overturning, electric shock, fire or burn.

 When installing and moving this product, please confirm whether the fixed bracket or anti-overturning clamp is installed correctly. If the installation is unstable, accidents may occur.


When installing and using this product, please leave enough space to ensure that the cover can open and close freely.


 Please avoid installing the Banknote sorter at the following places:

- Away from volatile combustible matter or curtain within 1meter.
- Away from heating appliances like electric heater, electric radiator, etc. within 1 meter.
- Place exposed to direct wind like air-conditioner, ventilator scoop, etc.
- High-temperature, moisture, low-temperature.
- With long-time direct sunshine.
- With much dust.

 Forbid pressing or impacting, for example, place heavy object or liquid on the equipment.

➤ Power

 Please don't remold, dispose or maintain the power cables and the power plug arbitrarily. Furthermore, please replace the three-pole power plug with double-pole power plug.

 Please abide the following items in order to avoid the electric shock or fire caused by damage of power cables.

- Please don't drag the power cables while pulling out the power plug.

- Don't place any objects on the power cable.
- Don't let the power cables pass across the heat source.
- Don't bend or squeeze the power cables.
- Don't trample or twist the power cables.
- Don't spill the chemical materials onto the power cables.
- Don't tie up the power cables while using.
- Don't fix it with stapler.

➤ Operation



Please operate the product in the environment stipulated in this manual; otherwise, it may cause fire and electric shock.

During the process of operating the product, please don't turn off the power, pull out the power plug or open the cover plate of the product.



Please don't miss the paper clip and the staple inside the product or in the gap in order to avoid their contacting with circuit and thus leading to fire.



Please remember to turn off the power when needing to contact the inside of machine for check with fingers.



Forbid contacting the LCD and button with sharp materials like ball pen, nail, etc.

➤ Maintenance



Please contact with our sales representative or authorized dealer for the product maintenance.

If the maintenance is not thorough, then it may cause fire, electric shock or hurt.



When smoke, peculiar smell and abnormal noise occur on the product, please stop using it immediately, turn off the power, pull out the power plug from the socket and then contact with our sales representative or authorized dealer.



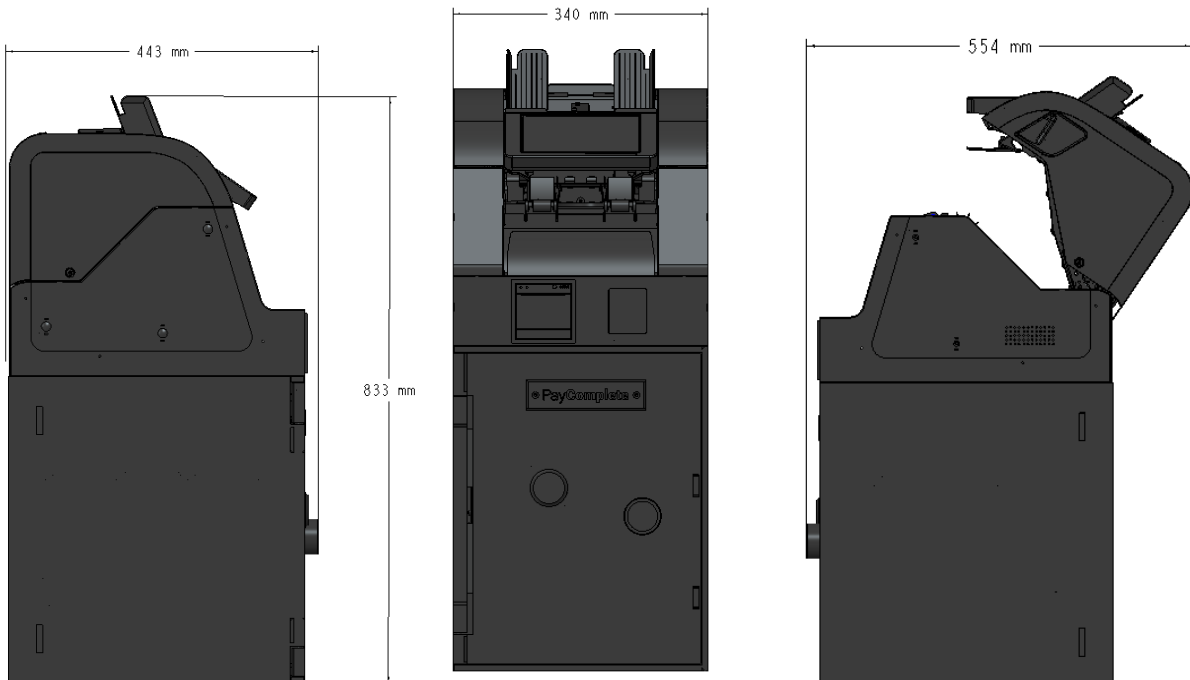
Please check and clean the power plug and the power cables regularly. When power plug or power cable has been damaged, please stop using the product and contact with nearby dealer for change.

Instruction before use

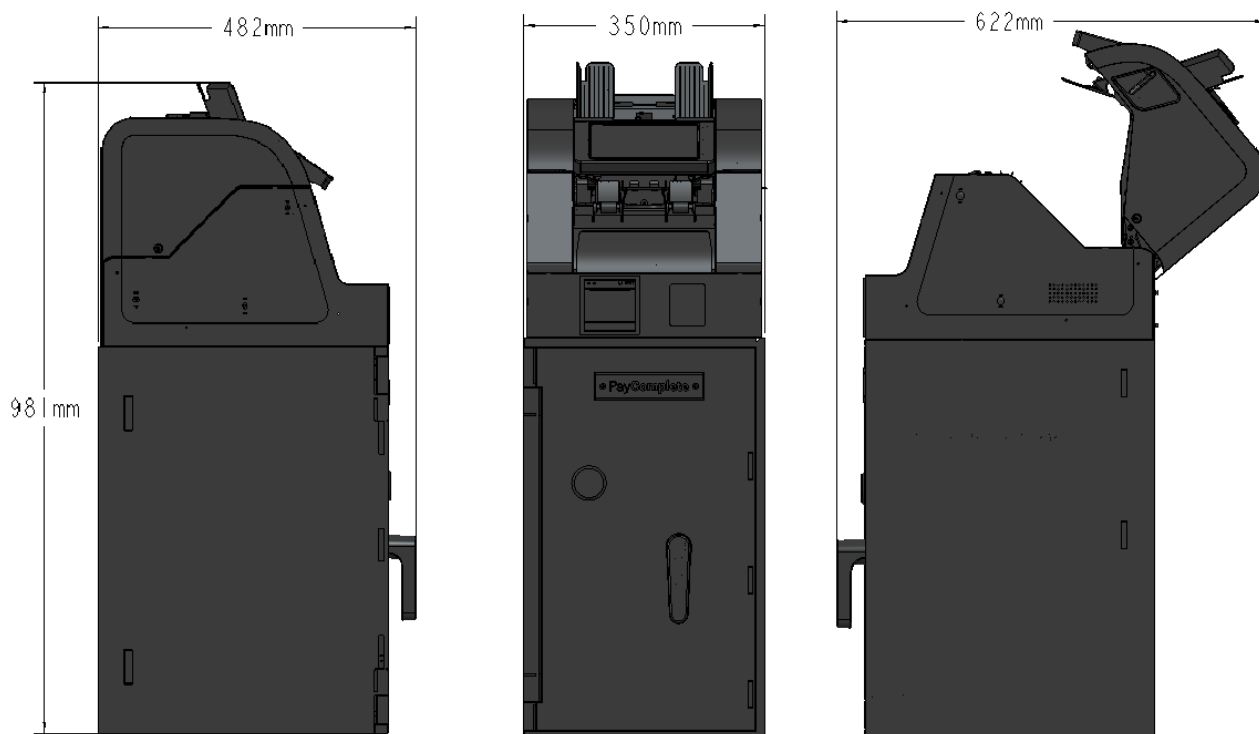
● Installation

If you need to install the product, please contact with nearby point of sale or our designated dealer.

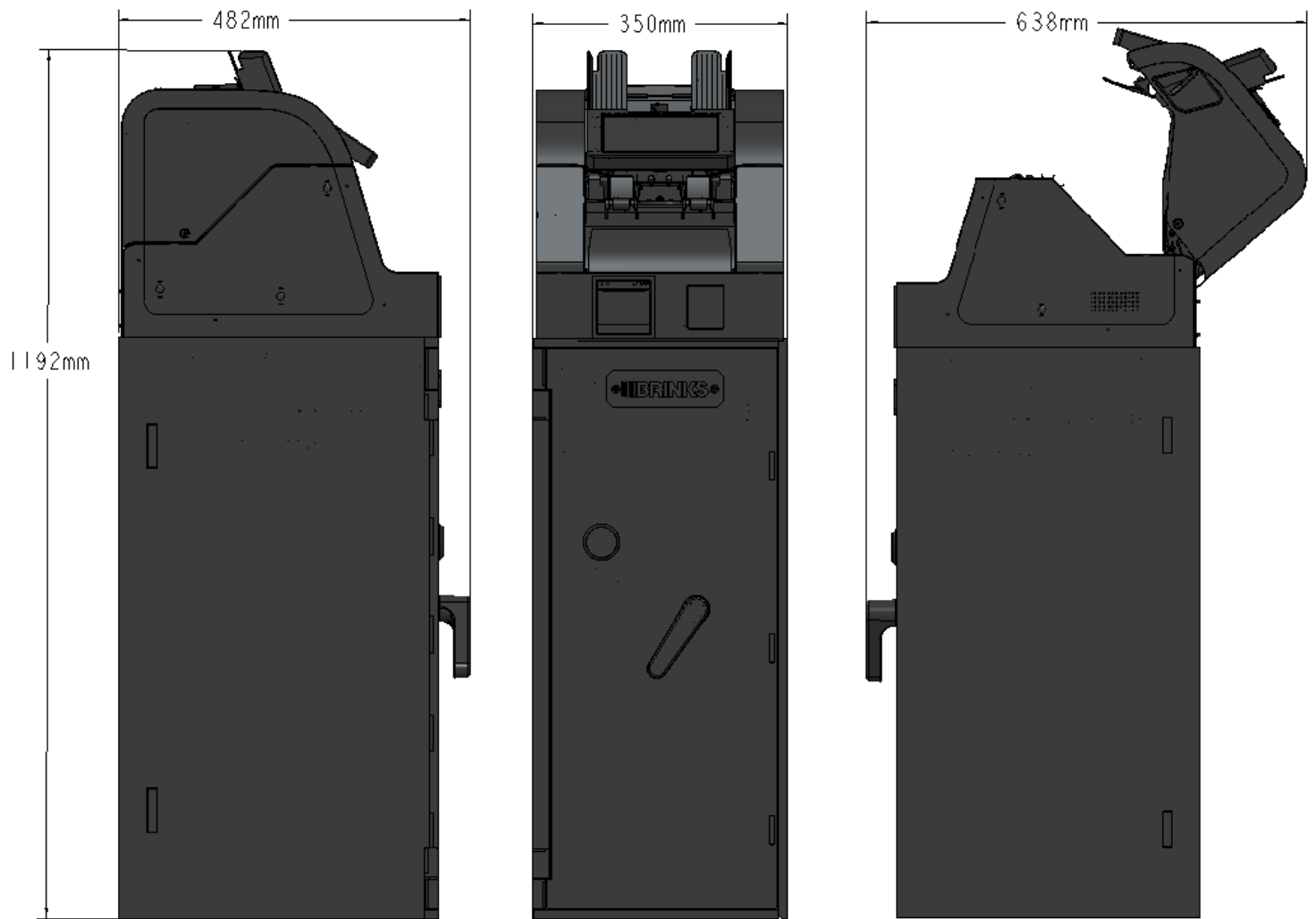
- This product is designed for internal use; please don't install it outside the room.
- Please don't install the product at the place that cannot bear the weight of it and either install the product at a slanting or uneven place.
- Please install the product at a place that can do daily management sufficiently.
- Please reserve adequate operating space for filling of banknotes and opening or closing of the cover plate, and also reserve the space for maintenance.



SDS-500 dimension



SDS-520 dimension



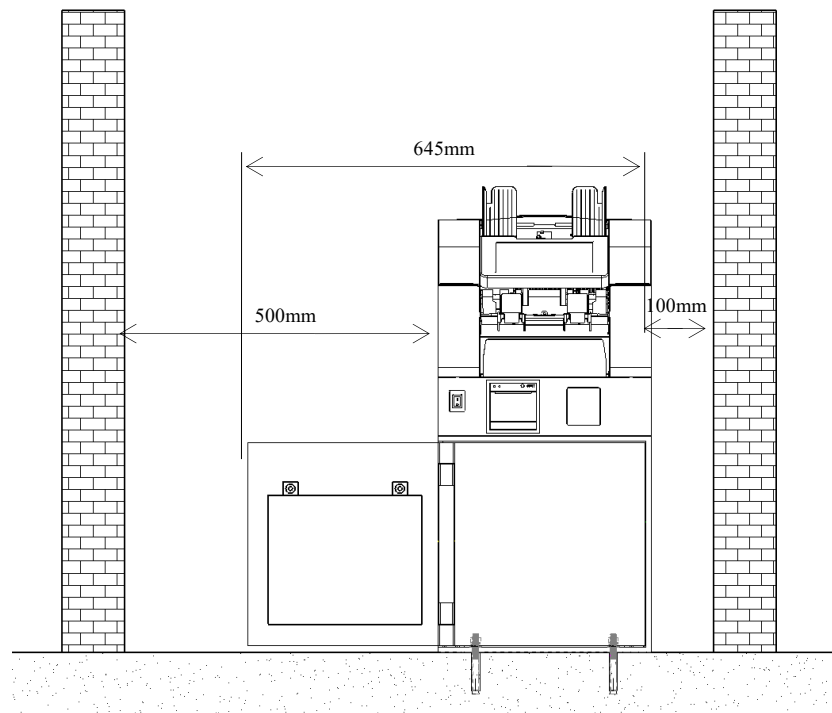
SDS-550 dimension

- The following dimensions are the minimum conditions for the maintenance area

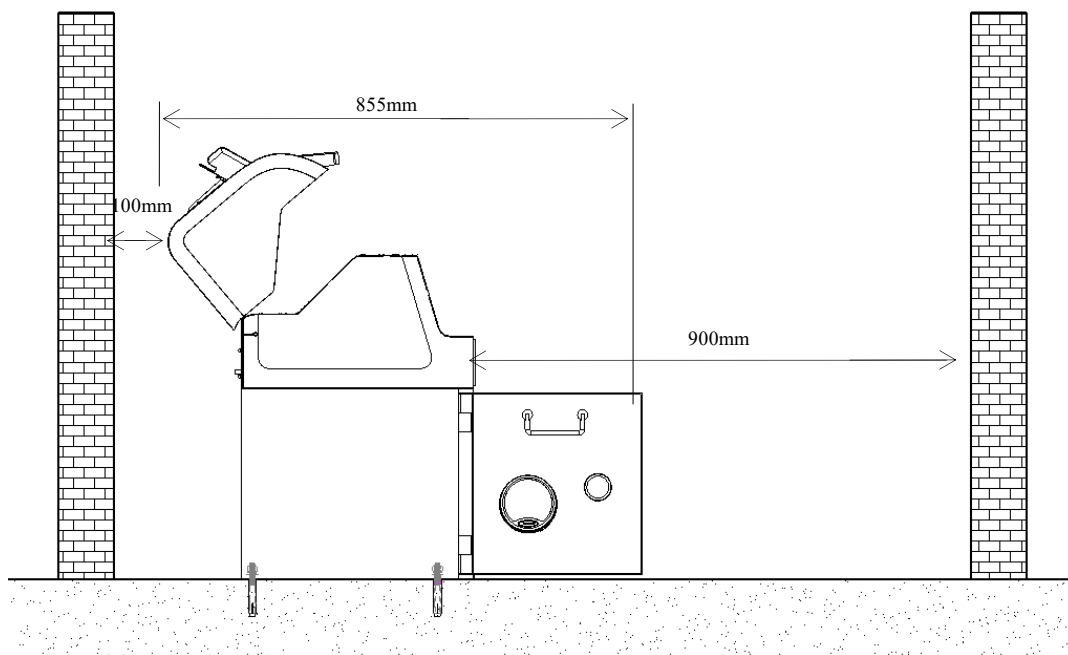
(Front view)

The equipment adopts the front door maintenance mode. When designing the installation position, there must be enough space for daily maintenance.

The following figure shows the minimum installation and maintenance area required for the cash deposit machine.



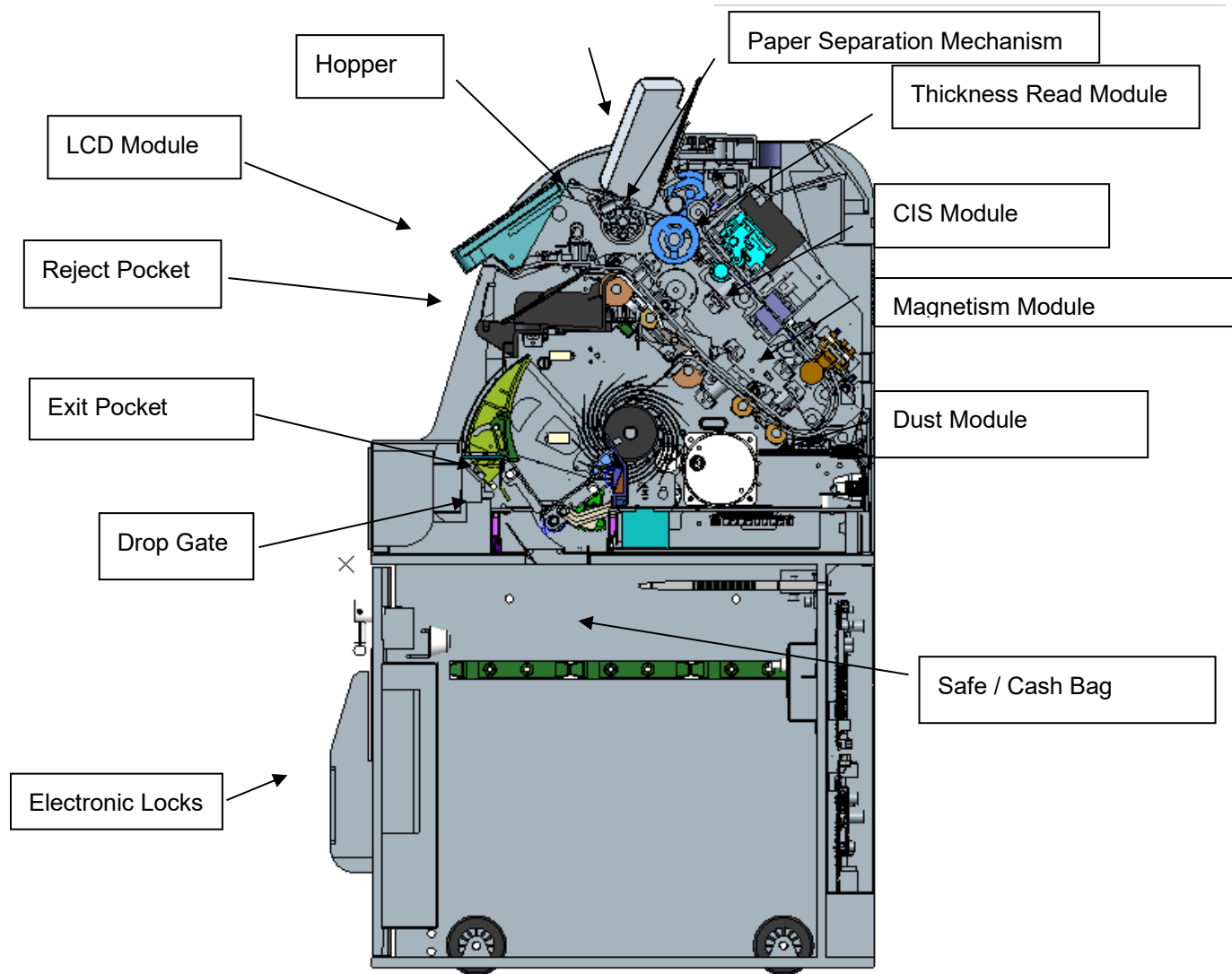
Minimum left and right installation and maintenance area



Minimum front and rear installation and maintenance area

- Name and function of each part of the complete machine

Force
Cardboard



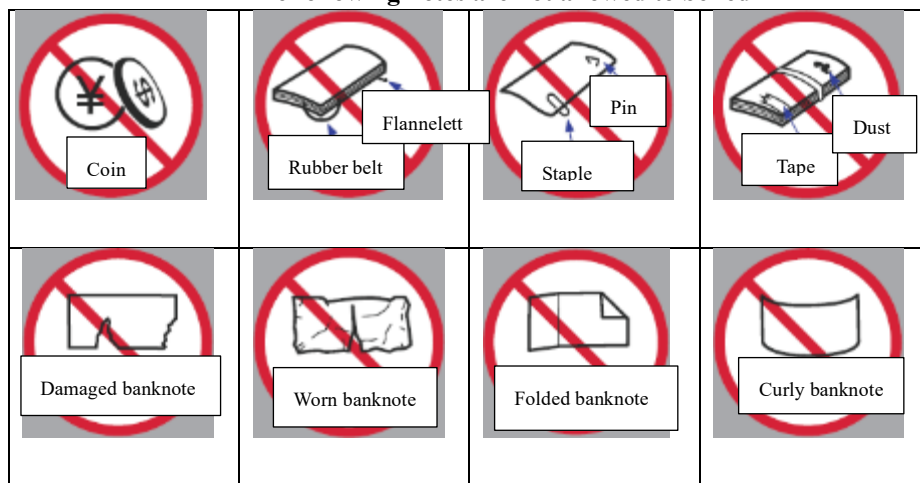
- LCD Module: Complete machine operation control area
- Cash feeding table: Banknote entry prevention area
- Force Cardboard: Banknote induction mechanism of cash feeding table
- Paper Separation Mechanism: Guarantee the entry of single note
- Thickness Read Module: Check the note thickness
- CIS Module: Collect banknote image
- Magnetism Module: Collect banknote magnetic signal
- Dust Module: Collect machine dust
- Reject Pocket: Collect suspicious/Counterfeit banknotes
- Exit Pocket: Count normal banknotes
- Drop Gate: Normal banknotes are stored in cash bags
- Electronic Locks: Enter the password to unlock the safe
- Safe / Cash Bag: Store notes

1. Daily operation

● Cautions during operation

- Please don't handle wet or heavily polluted banknotes.
- Please don't handle broken or severely wrinkled banknotes; otherwise banknote jamming will occur.
- Please confirm whether there are sundries, pin, stitching needle or rubber band attached on the banknotes; otherwise malfunction or banknote jamming will occur.
- Please scatter the new banknotes and then put in the product, otherwise banknote jamming will occur
- Please press the banknotes that are curled in the middle and folded in half to the natural state, and then feed them, otherwise it may cause the banknotes to fail.

The following notes are not allowed to be fed



➤ Power on

- Use the power cable provided in the machine accessory kit and plug it in at the location shown to turn on the power.
- Power on



➤ Load banknotes

- Please straighten the banknotes completely, align them and put them in vertically (place them at the inner side).
- Please put in the banknotes according to the direction shown in the following figure.
- Please make sure that the alignment edge is in the paper feeding direction for mixed banknotes



Normally feed banknote



Align edge feed banknotes for mixed value

Method for opening/closing each parts

Note: Make sure to open / close each parts with specified handles, or you may pinch your fingers if grip other parts.

➤ Top cover

- Open



- Close



➤ Back cover

- Open



- **Close**



- **Dust collecting box**



- **Safe Door**

Enter the password to unlock the password lock:



Turn the turntable on the right side of the code lock to the right to open the safe door




Pull the printer wrench to turn on the printer

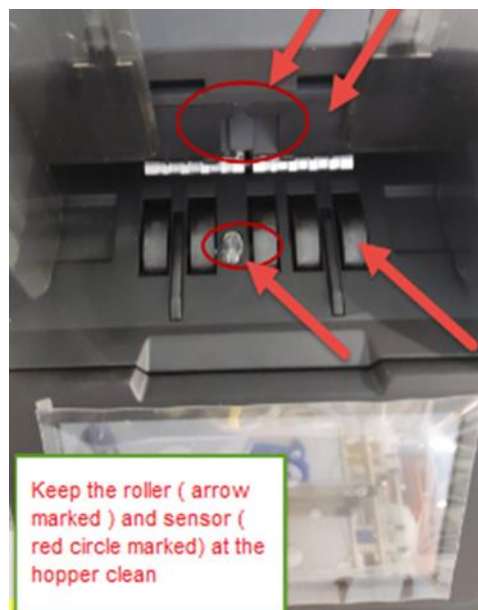


Cleaning

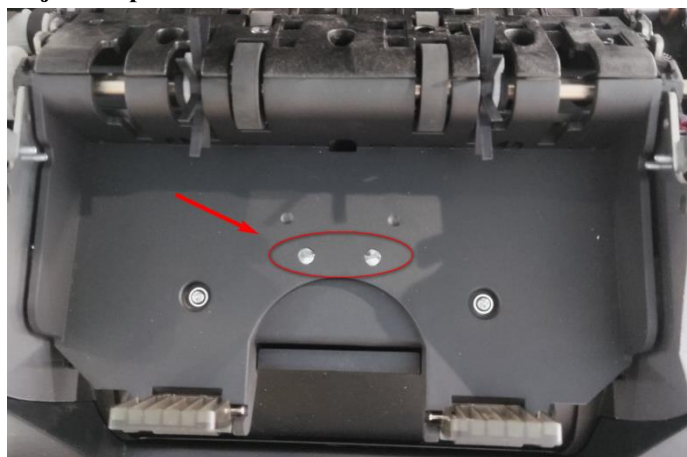
The sensor will be attached with dust and dirt after using for a long time, which would lead to malfunction and/or errors, please clean it according to the following steps to ensure the product durability.

 Caution	Make sure the power is off when clean the inside. Otherwise may cause electric shock or body hurt.
	Do not use neutral detergent, thinner, and/or compound wax to clean the product. Otherwise may cause product discoloration, breakage and poor running

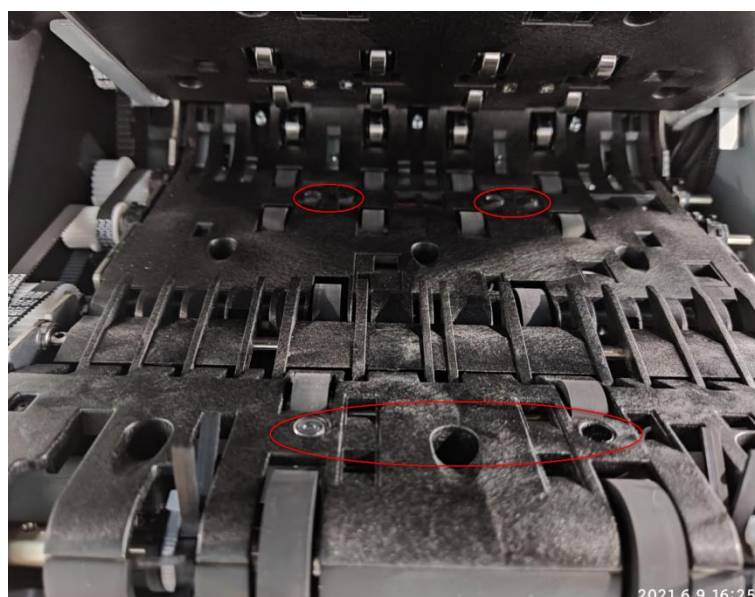
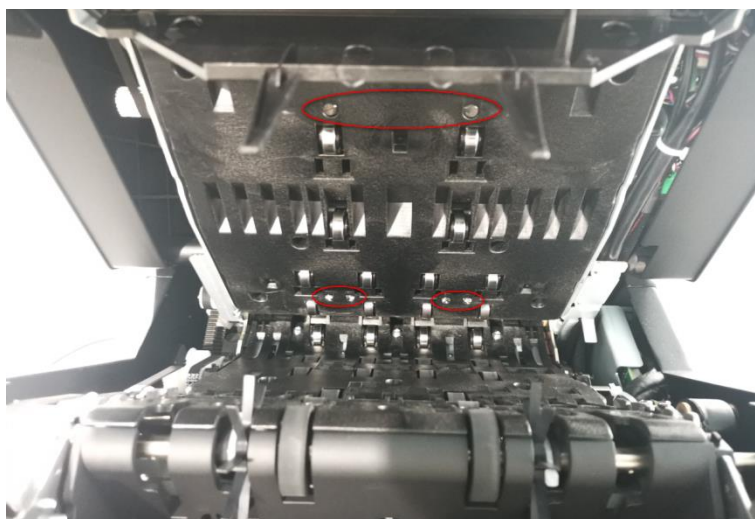
- **Clean the banknote hopper and identification sensor**



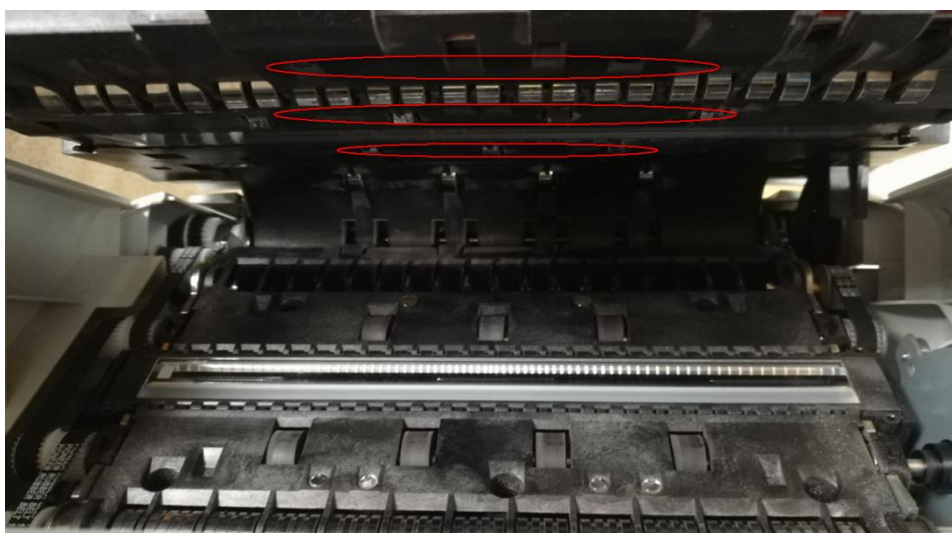
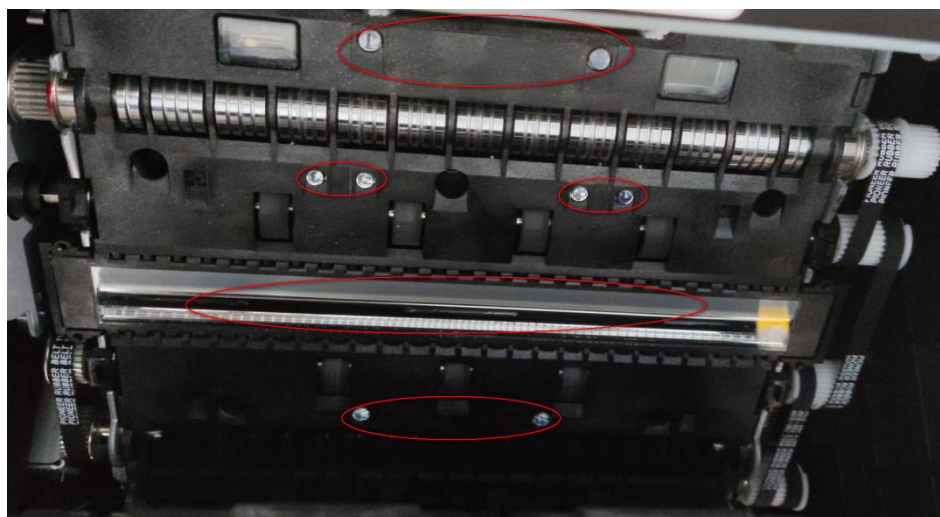
- **Clean the sensors at banknote rejection pocket**



- **Clean the banknote output path**



➤ **Clean the back device path**



➤ **Cash bag replacement**

1. Press the metal buttons on both sides of the cash deposit bag slide to release the limit.



2. Pull out the cash bag:



2. Push in the cash bag whose upper cover has been opened and closed once. Do not push too hard. If it cannot be pushed in, pull out the cash bag to check whether the status indicator point of the cash bag indicates in the red position.



3. Use the key to open and remove the top cover of the bag, recover the top cover and lock it, recheck the status indication point of the bag to the green position and push it into the bag.



Firmware

- Guidance documents in English and Chinese for combination locks, as follows



ECSL-中文指导文
件.pdf



SafeLogic D - Op
erating Instructior

Firmware

➤ Error code list

➤ For the handling measures of the following error codes, please refer to "SUZOHAPP Troubleshooting Guide.docx"

Error code	Meaning
00000001	Main motor error
00000002	Banknote feeding motor error
00000004	Banknote jamming error
00000008	Banknote feeding / jamming error
00000010	Banknote jamming error in the data grabbing path
00000020	Banknote jamming error at the bending path
00000040	Banknote output path error
00000080	Banknote feeding failure
00000100	Electromagnet 1 switching error
00000400	Banknote jamming error at stacker 1
00001000	Banknote jamming error at rejection pocket
00002000	Top cover lift up error
00004000	CIS module error
00008000	Reading magnetic module error
00010000	Thickness measurement module error
00020000	Deposit hopper shutter error
00040000	Shutter error
00080000	Shutter locker error

1. Sensor abnormality investigation method

Sensor name	Status when machine in normal	Status when machine in abnormal	Handling Measures
Escrow gate open sensor	Unblocked(when gate is closed)	Blocked	1) Open the gate, check if the sensor status changed or not 2) If no change, please check if hardware connection cable is secure 3) Confirm the connection is secure, please follow the hardware maintenance manual for troubleshooting

Escrow gate close sensor	Blocked(when gate is closed)	Unblocked	1) Open the gate, check if the sensor status changed or not 2) If no change, please check hardware connection cable is secure Confirm the connection is secure, please follow the hardware maintenance manual for troubleshooting
Banknote drop gate open sensor	Unblocked (when the drop gate is closed)	Blocked	1) Open drop gate, check if the sensor status changed or not 2) If no change, please check hardware connection cable is secure 3) Confirm the connection is secure, please follow the hardware maintenance manual for troubleshooting
Banknote drop gate close sensor	Blocked (when drop gate is closed)	Unblocked	1) Open drop gate, check if the sensor changed or not 2) If no change, check if hardware connection cable is secure 3) Confirm the connection is secure, please follow the hardware maintenance manual for troubleshooting
Lock open sensor	Unblocked (when the gate is closed)	Blocked	1) Open drop gate, check if the sensor changed or not, 2) If no change, check if hardware connection cable is secure 3) Confirm the connection is secure, please follow the hardware maintenance manual for troubleshooting
Lock Close sensor	Blocked (when the gate is closed)	Unblocked	1) Open the gate, check if the sensor is changed or not 2) If no change, check if hardware connection cable is secure 3) Confirm the connection is secure, please follow the hardware maintenance manual for troubleshooting
Turn Right Sensor	Unblocked	Blocked	1) Open the back cover, check if the sensor is changed or not 2) If no change, check if hardware connection cable is secure 3) Confirm the connection is secure, please follow the hardware maintenance manual for troubleshooting
Turn Left Sensor	Unblocked	Blocked	1) Open the back cover, check if the sensor is changed or not 2) If no change, check if hardware connection cable is secure

			3) Confirm the connection is secure, please follow the hardware maintenance manual for troubleshooting
Escrow count sensor	Unblocked	Blocked	1) Use the medium to block the middle (refer to the position of escrow pocket counting sensor in the structure maintenance manual for details), between wind impeller and channel in escrow pocket; 2) If no change, check if hardware connection cable is secure 3) Confirm the connection is secure, please follow the hardware maintenance manual for troubleshooting
Back Device HD sensor	Unblocked	Blocked	1) Open the back cover, check if the sensor is changed or not 2) If no change, check if hardware connection cable is secure 3) Confirm the connection is secure, please follow the hardware maintenance manual for troubleshooting
Reject Pocket Full Inspection Sensor	Unblocked	Blocked	1) Raise the reject pocket pressure plate, check if the sensor is changed or not; 2) If no change, check if hardware connection cable is secure 3) Confirm the connection is secure, please follow the hardware maintenance manual for troubleshooting
Reject Pocket Inspection Sensor	Unblocked	Blocked	1) Put a banknote into the reject pocket, check if the sensor is changed or not; 2) If no change, check if hardware connection cable is secure; 3) Confirm the connection is secure, please follow the hardware maintenance manual for troubleshooting;
Feed Banknote In Position Sensor	Unblocked	Blocked	1) Open the back cover, check if the sensor is changed or not 2) If no change, check if hardware connection cable is secure 3) Confirm the connection is secure, please follow the hardware maintenance manual for troubleshooting
CIS Right Sensor	Unblocked	Blocked	1) Open the back cover, check if the sensor is changed or not 2) If no change, check if hardware connection cable is secure

			3) Confirm the connection is secure, please follow the hardware maintenance manual for troubleshooting
Thickness Read Sensor	Unblocked	Blocked	1) Open the back cover, check if the sensor is changed or not 2) If no change, check if hardware connection cable is secure 3) Confirm the connection is secure, please follow the hardware maintenance manual for troubleshooting
CIS Left Sensor	Unblocked	Blocked	1) Open the back cover, check if the sensor is changed or not; 2) If no change, check if hardware connection cable is secure 3) Confirm the connection is secure, please follow the hardware maintenance manual for troubleshooting
Feed Banknote Sensor	Unblocked	Blocked	1) Put a banknote into the banknote feeder, check if the sensor is changed or not; 2) If no change, check if hardware connection cable is secure 3) Confirm the connection is secure, please follow the hardware maintenance manual for troubleshooting
Escrow Inspection Sensor	Unblocked	Blocked	1) Open the gate and put a banknote into the Escrow pocket, check if the sensor is changed or not; 2) If no change, check if hardware connection cable is secure 3) Confirm the connection is secure, please follow the hardware maintenance manual for troubleshooting
Back Anti-phishing Sensor	Unblocked	Blocked	1) Open the gate, check if the sensor is changed or not 2) If no change, check if hardware connection cable is secure 3) Confirm the connection is secure, please follow the hardware maintenance manual for troubleshooting
Middle Anti-phishing Sensor	Unblocked	Blocked	1) Open the gate, place a medium on the sensor, check if the sensor is changed or not; 2) If no change, check if hardware connection cable is secure 3) Confirm the connection is secure, please follow the hardware maintenance manual for troubleshooting

Left Anti-phishing Sensor	Unblocked	Blocked	<p>1) Open the gate, check if the sensor is changed or not</p> <p>2) If no change, check if hardware connection cable is secure</p> <p>3) Confirm the connection is secure, please follow the hardware maintenance manual for troubleshooting</p>
Right Anti-phishing Sensor	Unblocked	Blocked	<p>1) Open the gate, check if the sensor is changed or not</p> <p>2) If no change, check if hardware connection cable is secure</p> <p>3) Confirm the connection is secure, please follow the hardware maintenance manual for troubleshooting</p>
Front-Left Anti-phishing Sensor	Unblocked	Blocked	<p>1) Open the gate, check if the sensor is changed or not</p> <p>2) If no change, check if hardware connection cable is secure</p> <p>3) Confirm the connection is secure, please follow the hardware maintenance manual for troubleshooting</p>
Front-right Anti-phishing Sensor	Unblocked	Blocked	<p>1) Open the gate, check if the sensor is changed or not</p> <p>2) If no change, check if hardware connection cable is secure</p> <p>3) Confirm the connection is secure, please follow the hardware maintenance manual for troubleshooting</p>
Left drop banknote sensor	Unblocked	Blocked	<p>1) Open the gate, open the drop door, put a banknote on the sensor, and check whether the sensor status has changed;</p> <p>2) If no change, check if hardware connection cable is secure</p> <p>3) Confirm the connection is secure, please follow the hardware maintenance manual for troubleshooting</p>
Right drop banknote sensor	Unblocked	Blocked	<p>1) Open the gate, open the drop door, put a banknote on the sensor, and check whether the sensor status has changed;</p> <p>2) If no change, check if hardware connection cable is secure</p> <p>3) Confirm the connection is secure, please follow the hardware maintenance manual for troubleshooting</p>

Cash box in place sensor	In place	Not in place	<p>1) Pull out the cash box to check whether the sensor status has changed;</p> <p>2) If no change, check if hardware connection cable is secure</p> <p>3) Confirm the connection is secure, please follow the hardware maintenance manual for troubleshooting</p>
Door Opening and Closing Sensor	Door closed	Door opened	<p>1) Open the cabinet door and check whether the sensor status has changed;</p> <p>2) If no change, check if hardware connection cable is secure</p> <p>3) Confirm the connection is secure, please follow the hardware maintenance manual for troubleshooting</p>
Cash box is almost full sensor	Non-full	Full	<p>1) Pull out the cash box to check whether the sensor status has changed;</p> <p>2) If no change, check if hardware connection cable is secure</p> <p>3) Confirm the connection is secure, please follow the hardware maintenance manual for troubleshooting</p>
Cash box is full sensor	Non-full	Full	<p>1) Pull out the cash box to check whether the sensor status has changed;</p> <p>2) If no change, check if hardware connection cable is secure</p> <p>3) Confirm the connection is secure, please follow the hardware maintenance manual for troubleshooting</p>

Others

● Product specification list

Serial number	Index classification	Function item	Parameters and related performance
1	Structure appearance	Machine dimension	SDS-550: 482*1192*350mm SDS-520: 466*971*340mm SDS-500: 468*751*340mm
		Bare weight	SDS-550: Actual measurements need to be revised SDS-520: Actual measurements need to be revised SDS-500: Actual measurements need to be revised
		LCD	7 inch capacitive screen, 800x480dpi, TFT LCD
2	Module Components	Linux PC Board	Linux system (RK3399), OTG USB interface * 1, USB2.0 * 3, USB3.0 interface * 1, serial port * 2, Ethernet port, RAM: 2G, HDD: 16G
		Printer module	56mm thermal printer, Print width 48mm, 30mm/sec, Print paper width 56.5±0.5mm, Outer diameter of paper roll 50mm Print as voucher
		QR identification module	For QR code recognition, with a decoding time of less than 0.3 sec.1D SUPPORT: industrial 25、standard、matrix 25、code 11、codabar、MSI/Plessey、code39(standard 39 & full ASCII code 39)、code 32、code 93、code128、UPCA、UPCE、EAN13、EAN8、UPC/EAN、ISBN、ISSN、GS1(RSS) RSS-14、LIMITED、EXPENDED、include GS1 STACK 2D SUPPORT: pdf417, data matrix ,qr code
		RF module	NFC: operating frequency 13.56MHz RFID: operating frequency 865.7-867.5MHz Or 902.5-926MHz
		Safe	SDS-500: thickness 8mm; SDS-520: thickness 8mm; SDS-550: thickness 12.7mm;
3	Foreign currency	Support currency	CNY USD EUR JPY HKD GBP INR PKR RUB BRL THB NPR BDT MOP PHP AZN MYR IDR SGD CHF EGP BYR MXN AED IRR AUD ZAR CAD ARS TRY LKR CLP KZT COP etc.
4	Speed	Counting speed	720PPM
5	Banknote capacity	Hopper Capacity	Max. 500 notes
		Escrow Capacity	Max. 200 notes
		Rejection Pocket	Max. 100 notes
6	Currency size	Support currency size	Long side: 120mm~170mm; Short side: 60mm~85mm。
7	Capacity of cash bag	Capacity of cash bag	1. SDS-500: 3500 (max, Circulating banknotes); 2. SDS-520: 5000 (max, Circulating banknotes); 3、SDS-550: 10000 (max, Circulating banknotes)
8	Authentic identification	Authentic identification method	White light image, infrared image, multi-spectral image, ultraviolet optical characteristic, infrared optical characteristic, fluorescent characteristic analysis

			and identification technology, safety line magnetic characteristic analysis and identification technology, thickness, magnetic image, variable light ink.
9	Tolerance	Jam rate	$\leq 0.02\%$ (Circulating banknotes, neatly stacked, single denomination)
		Reject rate	$\leq 1\%$ (Circulating banknotes, neatly stacked)
		Misrecognition rate	0
		Misidentification rate	$\leq 10^{-8}$ (Denomination recognition error)
10	Power supply	Input voltage	AC220V ($\pm 10\%$) 50Hz/60Hz (standard configuration, support optional 110V or 110-240 wide range power supply)
		Energy consumption	$\leq 300W$
		Power switch	Located behind the machine
	Reliability	MTBF	3000 hours
		MCBF	MCBF ≥ 5000 times
		MTTR	MTTR no more than 30 minutes
		Machine life	5 years or 20 million sheets (not including critical wear parts)
	Environment	Storage temperature and humidity	1. Temperature: $-40^{\circ}C$ - $55^{\circ}C$, Temperature difference: 1 hour $\leq 10^{\circ}C$; 2. Relative humidity: 5% - 95% RH, Non-condensing。
		Operating temperature and humidity	1. Temperature: $-5^{\circ}C$ - $45^{\circ}C$, Temperature difference: 1 hour $\leq 10^{\circ}C$; 2. Relative humidity: 10%-90%RH, Non-condensing。
	Immunity	Surge immunity	Wiring (DC port): 1KV applied voltage, 5 times each pulse applied at 0° , 90° , 180° , 270° phase. Grounding wire: 2KV applied voltage, 5 times each pulse applied at 0° , 90° , 180° , 270° phase. Meet the B level requirements of <i>GB/T 17626.5-2019 Electromagnetic compatibility—Testing and measurement techniques —Surge immunity</i>

- **External interface settings**



USB / Ethernet