HYOSUNG TNS

Operator Manual

MONIMAX8300I C TYPE

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Revision History

Operator Manual - MX8300I C TYPE

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Chapter1. Preface

Purpose

▶ This manual is produced to describe how the customers operate Hyosung TNS's MX8300I.
This manual details how the customers replenish the notes and paper and how they remove the jam at the MX8300I.

Audience

▶ Customers and staffs of Hyosung TNS who use and operate the MX8300I in each branches of bank.

Support Information

▶ If any question or error occurs while operating MX8300I in compliance with this manual, please contact maintenance staffs of Hyosung TNS.
For the contact of maintenance staffs of Hyosung TNS, see the E-mail addresses and telephone numbers provided separately.

What is in This Manual

▶ MONIMAX referred to as "MX"

▶ This manual is designed to provide the operation guide for the MX8300I and the detailed description of the following:
- Replenishing the notes and the receipt paper
- Emptying the notes and the checks
- Removing the jam like the notes, the checks and the receipt paper

▶ All information described in this manual is a licensed product of Hyosung TNS.

Some of the information in this manual may differ according to the network processor to be connected and may be subsequently updated by the bank's needs or the improvement by Hyosung TNS.

It is the policy of Hyosung TNS to improve products as new technology, components, software, and firmware become available. Therefore Hyosung TNS reserves the right to change specifications without notice.

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Terminologies

▶ In this document the terminology listed below is used as follows:

- Customer and consumer refer to any person who transacts business through the ATM.
- Device and unit refer to the standard and optional ATM equipment, such as monitor, card reader, printer and dispenser.
- Fascia refers to the entire front portion of the unit, including the portion where the customer transacts business.
- Module refers to a plug-in device that can be serviced or replaced.
- Note(s) and bill(s) refer to the individual documents loaded into and dispensed from the dispenser.
- Servicing and maintenance refer to the supervisor, operator and technician's tasks performed to keep the ATM operational.
- Screen refers to the text appearing on the customer display.

Abbreviations

► In this document the abbreviations listed below is used as follows:

#	Abbreviations	Description
1	AD board	Analog to Digital conversion board
2	ADA	The American Disabilities Act
3	ALG	Alignment Module
4	AP	Application Program
5	Assy	Assembly
6	BATT S/W	Battery Switch
7	CAM	Camera Unit
8	CCIM	Cash & Check In Module
8-①	BND	Bulk Note Separation Module
8-②	SCM	Separator Control Module
8-③	BC	Bill Checker Module
8-④	ALG	Alignment Module
8-⑤	REC	Recognition Module
8-⑥	BM2	Body Module2
8-⑦	BM1	Body Module1
8-⑧	BM3	Body Module3
8-⑨	ESC	Escrow Module

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#	Abbreviations	Description
8-⑩	RJ	Reject Module
8-⑪-1	PRT(Ink)	Endorsement Module
8-⑪-2	PRT(Felt)	Ink Head Cleaner
8-⑫	BOT	Body Module4
8-⑬	~~CST 1~~	~~Cash Cassette~~
8-⑭	CST 2	Check Cassette
8-⑮	RT&A6	Retract & A6 Cassette
9	CCR	Contactless Card Reader
10	CDU	Cash Dispenser Unit
11	CE	Control Electronics
12	Earphone Jack	Voice Converter for Visually Disabled Persons (ADA)
13	EMV	Europay, Mastercard, Visa
14	EP	Elementary Program
15	EPP	Encryption PIN Pad
16	H/W	Hardware
17	I/F	Interface
18	ISO	International Standard Organization
19	JPR	Journal Printer
20	LCD	Liquid Crystal Display
21	MCU	Magnetic Card Unit
22	OPL	Operation Panel for Customers to Operate
23	OSD board	On Screen Display Board
24	P/S	Power Supply
25	PIN	Personal Identification Number
26	PNC	Panel Control Board
27	PTR	Printer (mainly Receipt Printer)
28	S/W	Switch
29	SIU	Sensor and Indications Unit
30	SP	Service Provider
31	SPR	Slip Printer (Receipt Printer)
32	TTU	Text Terminal Unit (OPL or SPL)
33	VFD	Vacuum Fluorescent Display

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Safety Precautions (English)

▶ Common Safety Precaution

Precautions outlined this manual provide information on safe and proper handling of the product. Non-compliance of the precautions may result in injury or damage to the product.
This precaution symbol with sample term tells you safety warnings during equipment handlings.

▶ Please read the following instructions before operating equipment.

- Operate equipment in the order outlined in this manual.
- Follow precautions indicated in this manual, as well as the equipment itself. Failure to properly address these precautions may lead to injury or damage to the product.
- Avoid operations not addressed in this manual.
- If you cannot remedy system problems using the methods outlined in this manual, please refer to contact information listed in the manual.
- Any change or modifications in construction of this device which are not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

<Note!>

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

▶ Description of Precaution Symbols

Symbol	Description
	Electrical Shock Warning ▪ Do not remove cover. Only a maintenance engineer is allowed to open the cover. ▪ Do not touch. You may receive electric shock. ▪ Make sure to turn off the power when servicing the equipment.
	High Temperature Warning ▪ Do not touch the equipment when it is running. ▪ The equipment can get extremely hot and may cause a burn. ▪ Make sure to close the cover before running the equipment.

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Symbol	Description
	Use Precaution when Moving ▪ The equipment is heavy. Make sure at least 2 people lift or move the equipment. ▪ Do not attempt to move the equipment alone. You may be injured from dropping the heavy equipment.
	Fire Hazard ▪ Place the equipment in an area away from any combustible materials. ▪ The equipment may catch on fire from overheating or short circuit of the power supply unit.
	Disassembly Warnings ▪ Do not disassemble or modify the equipment unless you are a certified engineer. ▪ Contact the service center for maintenance, adjustments and repairs. ▪ Improper disassembly may cause fire or electrical shock.
	Collapse Precautions ▪ Do not place the equipment where the floor cannot sustain the weight of the equipment, or on slanted or unstable surface. ▪ Equipment may fall and cause injury or damage.
	Unplug the Equipment ▪ Stop using the equipment immediately if it smokes, emits an unusual smell, makes abnormal sounds, or if liquids or other foreign materials enter the equipment. ▪ If the above-mentioned abnormalities occur, immediately turn off the power, unplug the equipment and contact the service center. ▪ If you ignore these symptoms, the equipment may catch on fire or cause electric shock.

<CAUTION>

1. TO REDUCE THE RISK OF FIRE, USE ONLY No. 26 AWG OR LARGER TELECOMMUNICATION LINE CORD
2. RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE. DISPOSED OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS
3. FOR PLUGGABLE EQUIPMENT, THE SOCKET-OUTLET SHALL BE INSTALLED NEAR THE EQUIPMENT AN SHALL BE EASILY ACCESSIBLE
4. THE EQUIPMENT IS TO BE SECURED TO THE BUILDING STRUCTURE BEFORE OPERATION

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Précautions pour la sécurité (French)

► Précaution générale pour la sécurité

Précautions décrits de ce manuel fournissent des informations sur une manipulation sûre et appropriée du produit. Le non-respect des précautions peut causer des blessures ou endommager le produit.
Ce symbole de précaution avec le terme d'example vous indique des consignes de sécurité lors de la manipulation de l'équipement.

► Veuillez lire des instructions suivantes avant d'utiliser l'équipement

- Fonctionner l'équipement dans l'ordre indiqué dans ce manuel.
- Suivre les précautions indiquées dans ce manuel, ainsi que l'équipement lui-même. Le défaut de traiter correctement de ces précautions peut entraîner des blessures ou endommager le produit.
- Évitez des opérations non traitées dans ce manuel.
- Si vous ne pouvez pas résoudre des problèmes du système en utilisant des méthodes décrites dans ce manuel, veuillez se référer aux informations de contact figurant dans le manuel, s'il vous plaît.
- Certain changement ou des modifications dans la construction de ce dispositif qui ne sont pas expressément approuvés par la partie responsable de la conformité pourraient annuler l'autorité de l'utilisateur de faire fonctionner l'équipement.

<REMAQUE!>

Cet équipement a été testé et fondé pour se conformer aux limites pour un équipement numérique de classe A, conformément à la partie 15 des règles FCC. Ces limites sont conçues pour fournir une protection raisonnable contre des interférences nuisibles lorsque l'équipement est utilisé dans un environnement commercial. Cet équipement génère, utilise et peut émettre des fréquences radios et, s'il n'est pas installé et utilisé conformément aux instructions de ce manuel, peut causer des interférences nuisibles aux communications radios.
Le fonctionnement de cet équipement dans une zone résidentielle est susceptible de provoquer des interférences nuisibles dans le cas, l'utilisateur devra corriger ces interférences à ses propres frais.

► Description des symboles de précaution

Symbole	Description
	Choc électrique • Ne pas retirer le couvercle. Seul le technicien d'entretien est autorisé à ouvrirle couvercle. • Ne pas toucher. Vous pouvez avoir un choc électrique. • Assurez-vous d'éteindre l'appareil lors de l'entretien de l'équipement.

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Symbole	Description
	À haute temperature • Ne pas toucher l'équipement quand il est en marche. • L'équipement peut devenir extrêmement chaud et peut provoquer une brûlure. • Assurez-vous de fermer le couvercle avant de lancer l'équipement.
	Soyez prudent lors du déplacement • L'équipement est lourd. Assurez-vous d'au moins 2 personnes pour soulever ou déplacer l'équipement • N'essayez pas de déplacer l'équipement seul. Vous pouvez être blessés par la chute de l'équipement lourd.
	Risque d'incendie • Placer l'équipement dans une zone éloignée de tous les matériaux combustibles. • L'équipement peut s'enflammer de surchauffe ou de court-circuit de l'unité d'alimentation.
	Démontage • Ne pas démonter ou de modifier l'équipement, sauf si vous êtes ingénieur certifié. • Contacter le centre de service pour l'entretien, le réglage et la réparation. • Le mauvais démontage peut provoquer un incendie ou un choc électrique.
	Tomber • Ne pas placer l'équipement dont le sol ne peut pas supporter le poids de l'équipement, ou sur une surface inclinée ou instable. • L'équipement peut tomber et provoquer des blessures ou des dommages.
	Débrancher l'équipement • Cessez d'utiliser l'équipement immédiatement si il fume, émet une odeur inhabituelle, fait des bruits anormaux ou si des liquides ou d'autres matériaux étrangers dans l'équipement. • Si les anomalies mentionnées ci-dessus se produisent, éteignez immédiatement la puissance, débranchez l'appareil et contactez le centre de service. • Si vous ignorez ces symptômes, l'équipement peut prendre feu ou provoquer un choc électrique.

AVERTISSEMENT :

1. POUR RÉDUIRE LES RISQUES D'INCENDIE, UTILISEZ UNIQUEMENT AWG n ° 26 OU LA LIGNES DE TELECOMMUNICATION PLUS GROSSE
2. RISQUE D'EXPLOSION SI LA BATTERIE EST REMPLACEE PAR UN TYPE INCORRECT. DISPOSER POUR UTILISATION DES BATTRIES SELON LES INSTRUCTIONS
3. POUR LES APPAREILS RACCORDES, LA PRISE DOIT ETRE INSTALLEE PRES

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D’EQUIPEMENT POUR ÊTRE FACILEMENT ACCESSIBLE

4. L’EQUIPEMENT DOIT ETRE SECURISE A LA STRUCTURE DU BATIMENT AVANT D'UTILISER

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Related Document

► The related documents are listed as follows. If needed, please contact staffs of our technical support team and maintenance team.

- Installation Manual
- Service Manual
- VDM Manual (Diagnostic)
- Quick Reference Guide
- Error Code Manual

For the contact of maintenance staffs of Hyosung TNS, see the E-mail addresses and telephone numbers provided separately.

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Chapter2. Introduction

About the MX8300I

► The MX8300I is a full service ATM. Cardholders and/or customers deposit and withdraw the cash and receive the transaction records with MX8300I ATM
The MX8300I is a versatile, easily maintained delivery system that can be modified to keep pace with the bank's changing needs.

► The benefits that the new concept MX8300I provides are as follows.

Removes inconvenience which occurs when bank clerks directly handle cash with customers and relieves workload upon tellers by processing withdrawal of cash automatically.

Allows tellers to calculate and close amount faster than the existing manual calculation.

Allows easy and quick installation and maintenance.

<Note!>
The figures/photos/diagrams in this manual are for well understanding therefore they may be different from real machines.

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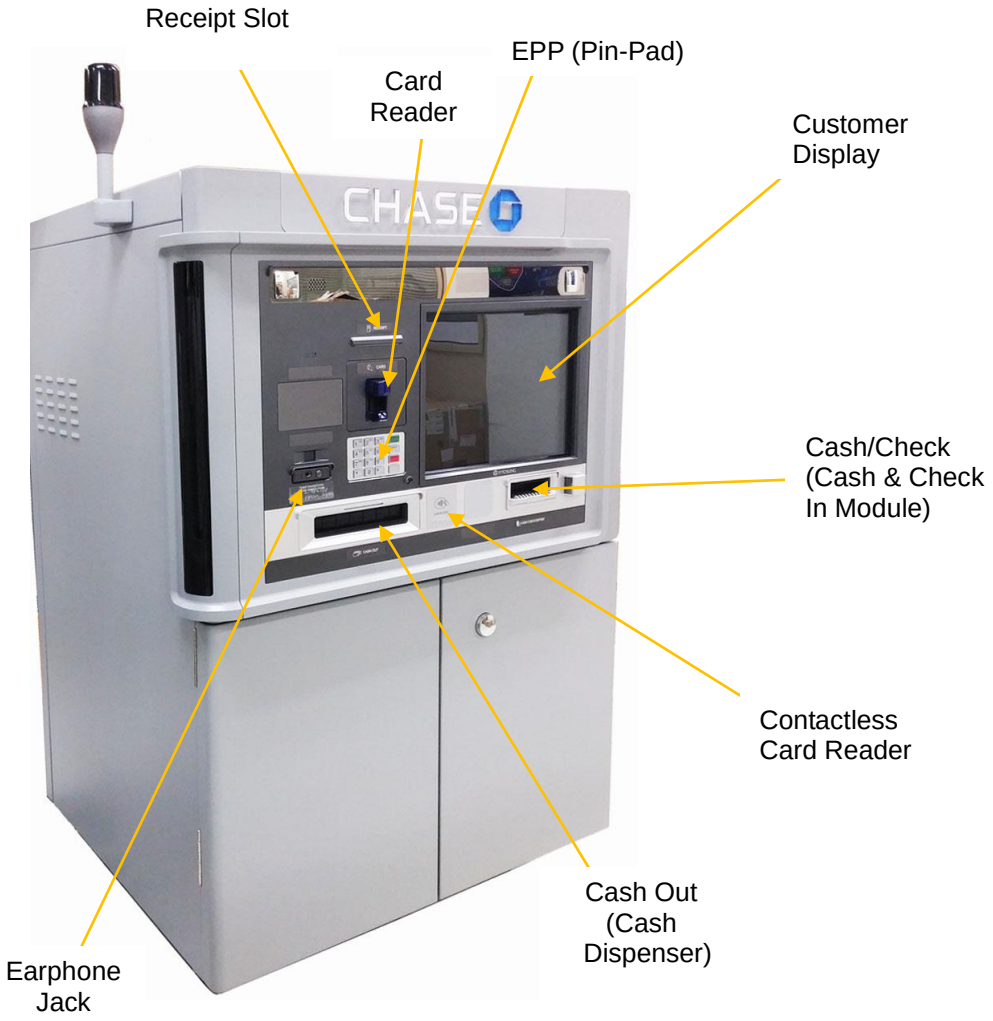
Fascia Devices and Access Points

► The fascia provides the interface between the customer and MX8300I.
The customer selects transactions and requests information at the fascia.

Many of the consumer interfaces have labels to explain their use and/or lighted indicators to guide the consumer through the transaction sequence. The fascia includes the following features and interfaces (all features might not be included in your system):



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Basic Features

▶ Important features of the MX8300I is highlighted in the following list:

<Note!>

1. Your MX8300I may not contain all the devices described in this section. Some devices are optional and some devices cannot be used in combination with other devices (mutually exclusive combinations).
2. Option : ▭

Item			Specification	Remarks (Option)
Main Controller (ASROCK Q87-mini**)**	CPU		I5-4590S (3.3GHz)	
	Memory	DDR Memory	4GB	DDR-III
	Storage Device	SSD	128 GB	SATA TYPE
		HDD	None	500GB
		ODD	DVD-RW	SATA TYPE
	Operating System		Windows 7	with Service Pack 1 (Eng)
	Expansion Slots		2-PCI, 1-PCI-Express x16, 1-PCI-Express x4	Q87-mini Main B/D
	Serial Ports		-	
	USB Ports		22 Ports Main Board 4 Ports + 4HUB X1 + 7 HUB X 2	
	VGA	Onboard	On-Board Dual VGA(DVI, HDMI)	Intel Q87 express chipset
		VGA CARD	None	
	LAN		10/100/1000Mbps On-Board	
Customer Display	Display	Type	19” TFT LCD	Resolution : 1920X1080
		Brightness	1,500 cd/m² (SunLight Viewable)	
	Privacy Filter		None	Option
	Guide Light	Flicker	White:SPR/CDU/CCIM/MCU/RF	
		Open/Close	Top Indicator : White/OFF	
			Side Indicator : Green/Red	
Customer Input Method	Pin-Pad		PCI 3.0 EPP(PCI Compliant)	Poly-Carbonate Button
	Function Key		Touch Screen	IR Touchscreen
Supervisor Operation	Display Module		10.1” TFT LCD, 200cd/m^2	Resolution : 1024X768
	Input Method		Touch Screen	Res Touchscreen
Advertisement	Display Module		None	32” TFT LCD, 300c d/m^2
Cash Dispenser (CDU10**)**	Sutter type		Automatic Shutter	
	Denomination		US $20,20,20,20,20(ID 1,2,3,4,5)	-
	Maximum Dispense		50 Notes/1 transaction	-
	Number of cassettes		5 Cassettes	-
	Cassette Capacity		3,000 notes/1 cassette	-
	Cassette Key		Non Locking Key	
	Dispensing Speed		8 notes/sec	-
	Reject Type		Note by Note Reject (300 bills Max)	Reject / Retract BOX
	Retract		Bundle Retract (100 bills Max)	
	Number of Near-End Sensing		500 Notes Max	100 to 500, 5 Step
Card Reader	Type		Sankyo MCU (DIP)	

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Item			Specification	Remarks (Option)
(SANKYO**)**	Magnetic Stripe		ISO 1,2 Read	-
	IC card Support		Support	-
	Security		None	Option, Anti-Skimming
Receipt Printer (K-SPR11**)**	Printing Type		Thermal Line Printing	
	Printing speed		100mm/sec	-
	Printing Width		80mm Max	-
	Paper Specification	Type	Thermal Roll Paper	
		Width	Max. 80mm	-
		Outer Diameter	Max. 210Φ	-
	Paper Roll Capacity		5,000 Transaction/Roll	Depends on Format
	Black Mark Paper Support		None	Black Mark Paper Option
Cash & Check In Module (CCIM17**)**	Media Size	Width	Min : 60 mm (2.36 inch) Max : 96 mm (3,78 inch)	Available option Max 102 mm (4.01 inch)
		Length	Min : 110 mm (4.33 inch) Max : 230 mm (9.055 inch)	
		Thickness	Min : 0.0762 mm (0.003 inch) Max : 0.203 mm (0.0079 inch)	STANDARD : 0.11 mm
	Bundle Capacity		Max 50 Mixed Notes and Checks /1 transaction	One Single Deposit Slot
	Deposit Direction		4 way	
	Capacity	Deposit Cassettes	About 2,000 notes/1 cassette About 2,000 checks/1 cassette	Criteria for Deposit New Notes & Checks
		Retract Cassettes	Max 50 Mixed Notes and Checks	
		Article6 Cassettes	Max 10 Mixed Notes and Checks	
		Escrow	Max 50 Mixed Notes and Checks /1 transaction	
	Capacity	Deposit Reject	Max 50 Mixed Notes and Checks /1 transaction	
	Processing Time	Deposit Time	1 Note : 1 Seconds, 1 Check : 1.2 Seconds	
		Deposit Time	8 Notes & 2 Checks : Less than 20 Seconds	
			25 Notes & 25 Checks : : Less than 60 Seconds	
		Storage Time	1 Sheet : - Seconds	
			10 Sheets : - Seconds	
			50 Sheets : - Seconds	
	Image scanning		Double side scanning	200 dpi
	MICR		CMC-7, E13-B	
	Endorsement Print		One side printing, Ink jet	
	Shutter Type		Automatic Shutter	
JPR	Journal Printer		Electronic Journal	Dot JPR/ T-JPR Option
Safety	Safety		UL 291 Level-1(Front Access)	-

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Item		Specification	Remarks (Option)
& Security	Body Cover	Steel	
	Locking device	Cencon Lock	Dual Lock (Dual Combo Lock), Single Combo Lock Option
	Key Lock	Lever Key	
	Alarm	Seismic + Heat Sensor	-
	Security	Terminal Block (External I/F)	-
	Camera	CCD 1EA(HAND) 180° Camera 1EA IP Camera(Axis F44 1EA+ F1005 2EA)	
	Camera I/F	Video Port /w Pig Tail for internal Cam Video Power /w Pig Tail for Cam	-
	Anti-Skimming Device	None	Sankyo Anti-Skimming
	Mirror	Awareness Mirror	
Contactless Card Reader (VivoPay)	Audio guidance	Beeper	
	Transaction Interface	KIOSK-III 13.56MHz ISO14443 Type A,B, NFC and MiFare	
	Payment Applications	American Express-Express Pay Discover Zip, JCB J/speedy Mastercard *PayPass* Mstripe Visa payWave MSD	
Additional function	Audio guidance	Sound Card On-Board	-
	ADA Audio guidance	Available(/w Earphone jack cover/plug)	
	Air-con	KG4269(SEIFERT), 500W@60Hz	

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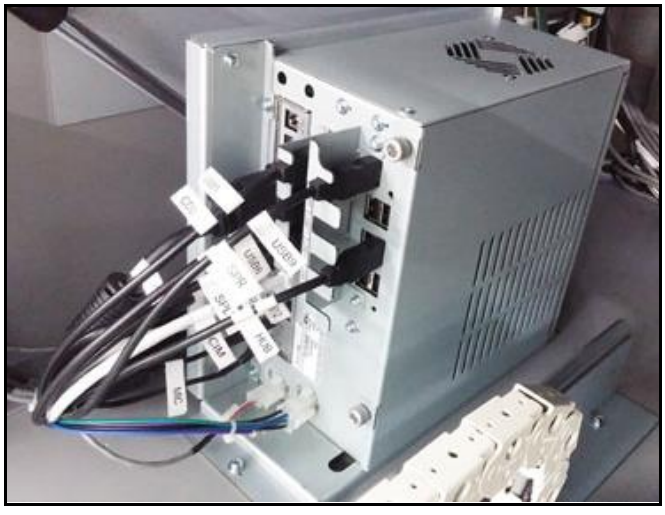
Devices of MX8300I

CE (Control Electronics, PC)

► The Control Electronics mainly consist of a motherboard, HDD, DVD-RW, multiple serial card, and so on.
Basic functions of the control electronics used in this ATM is similar to that of a personal computer you may have in your office or home with exception of a multiple USB HUB used to communicate with several devices such as a cash dispenser, card reader, receipt printer and EPP.

Basic Specification & Sample Picture

Item		Specification	Remarks (Option)
CPU		I5-4590S (3.3GHz)	
Memory	DDR Memory	4GB	DDR-III
Storage Device	SSD	128 GB	SATA TYPE
	HDD	None	500GB
	ODD	DVD-RW	SATA TYPE
Operating System		Windows 7	with Service Pack 1 (Eng)
Expansion Slots		2-PCI, 1-PCI-Express x16, 1-PCI-Express x4	Q87-mini Main B/D
Serial Ports		-	
USB Ports		22 Ports Main Board 4 Ports + 4HUB X1 + 7 HUB X 2	
VGA	Onboard	On-Board Dual VGA(DVI, HDMI)	Intel Q87 express chipset
	VGA CARD	None	
LAN		10/100/1000Mbps On-Board	



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Customer Display & Keypad

► The customer display welcomes the customer and provides instructions for performing transactions at the ATM. During the transaction sequence, the ATM prompts the customer to use the customer keypad to enter transaction information. The 16-key keypad uses a security module and encryption PIN pad technology to secure the information entered by the customer at the keypad. The optional function keypads are made up of four keys mounted on each side of the customer display. The customer selects from the choices shown on the consumer display and presses the corresponding function key. A touch screen display eliminates the need for function keypads.

Basic Specification & Sample Picture

Item			Specification	Remarks (Option)
Customer Display	Display	Type	19" TFT LCD	Resolution : 1920X1080
		Brightness	1,500 cd/m² (SunLight Viewable)	
	Privacy Filter		None	Option
	Guide Light	Flicker	White:SPR/CDU/CCIM/MCU/RF	
		Open /Close	Top Indicator : White/OFF	
			Side Indicator : Green/Red	
Customer Input Method	Pin-Pad		PCI 3.0 EPP(PCI Compliant)	Poly-Carbonate Button
	Function Key		Touch Screen	IR Touchscreen

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Supervisor Operation (SPL, Teller Display)

► **Basic Specification & Sample Picture**

Item	Specification	Remarks (Option)
Display Module	10.1" TFT LCD, 200cd/m²	Resolution : 1024X768
Input Method	Touch Screen	Res Touchscreen

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Cash Dispenser Unit

► The cash dispenser delivers media (cash) to the customer after the customer's request is processed by the network and the software. The media is drawn from the cassettes and transported to an entrance in the fascia of the ATM, where the customer can receive it. If the media is too mutilated or wrinkled to dispense, or if a multiple pick occurs, the dispenser sends the notes to the reject/retract cassette.

Basic Specification & Sample Picture

Item	Specification	Remarks (Option)
Sutter type	Automatic Shutter	
Denomination	US $20,20,20,20,20(ID 1,2,3,4,5)	-
Maximum Dispense	50 Notes/1 transaction	-
Number of cassettes	5 Cassettes	-
Cassette Capacity	3,000 notes/1 cassette	-
Cassette Key	Non Locking Key	
Dispensing Speed	8 notes/sec	-
Reject Type	Note by Note Reject (300 bills Max)	Reject / Retract BOX
Retract	Bundle Retract (100 bills Max)	
Number of Near-End Sensing	500 Notes Max	100 to 500, 5 Step

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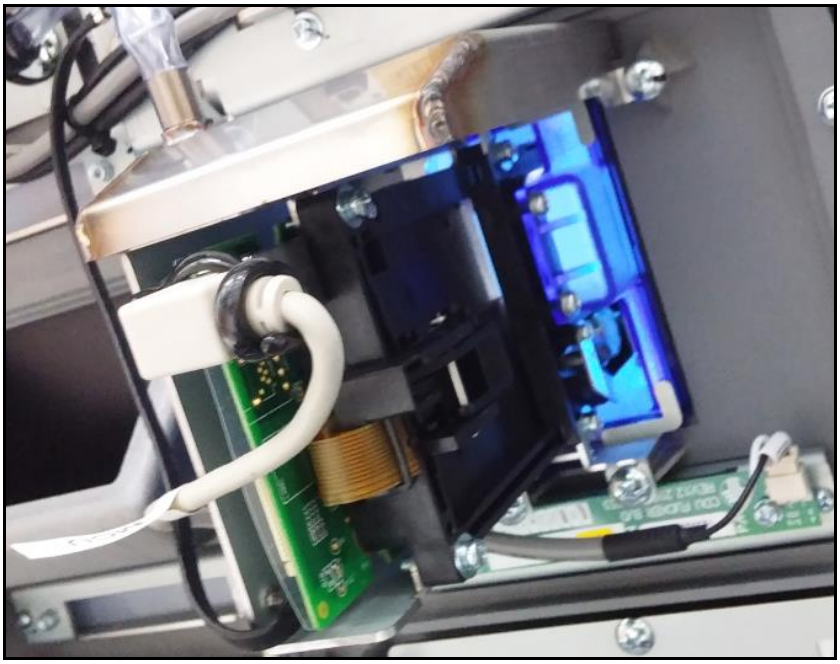
Card Reader

► The dip card reader is a manually operated device mounted directly to the ATM fascia. The consumer inserts an ATM card in the card entry slot and then removes the card to begin the transaction. The dip card reader can read magnetic stripe cards and memory chip cards. The dip card reader cannot retract, capture, or retain cards.

Basic Specification & Sample Picture

Item	Specification	Remarks (Option)
Type	Sankyo MCU (DIP)	
Magnetic Stripe	ISO 1,2 Read	-
IC card Support	Support	-
Security	None	Option, Anti-Skimming



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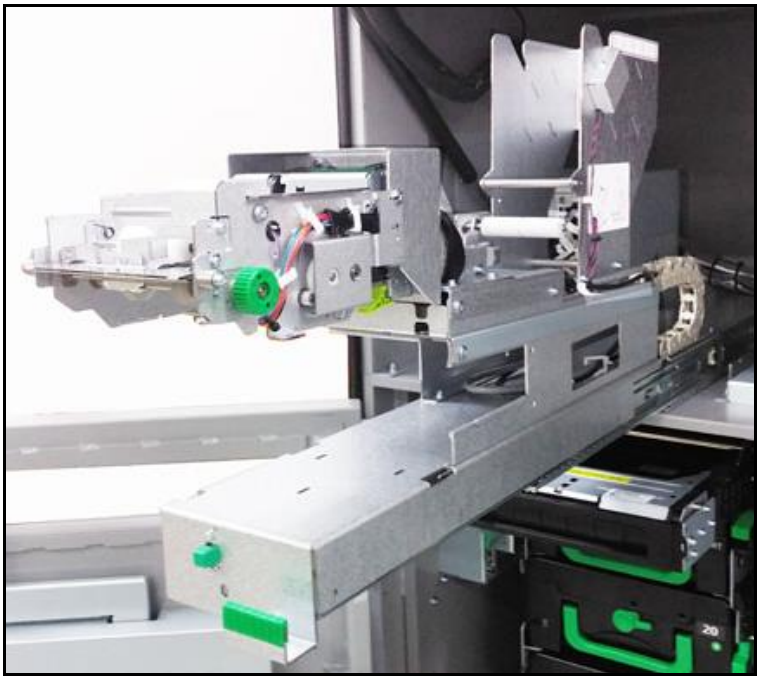
Receipt Printer

► The receipt printer provides a printed receipt of the customer's transaction. The transaction information can include the customer's name, the amount of withdrawals, deposits or transfers, the ATM number and location, and other desired information.
After the consumer uses the ATM, a printed record of the transaction information is presented through the appropriate printer slot.

Basic Specification & Sample Picture

Item		Specification	Remarks (Option)
Printing Type		Thermal Line Printing	
Printing speed		100mm/sec	-
Printing Width		80mm Max	-
Paper Specification	Type	Thermal Roll Paper	
	Width	Max. 80mm	-
	Outer Diameter	Max. 210Φ	-
Paper Roll Capacity		5,000 Transaction/Roll	Depends on Format
Black Mark Paper Support		None	Black Mark Paper Option



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CCIM (Cash & Check Inert Module)

► The Cash & Check in Module is designed to be integrated in automated teller machines and full-function self-service terminals. It enables cash deposit and automated check handling. Banknotes and checks deposited by the customer are stored in cassettes. The type of document for each cassette is defined on the basis of the bank's application.

Basic Specification & Sample Picture

Item		Specification	Remarks (Option)
Media Size	Width	Min : 60 mm (2.36 inch) Max : 96 mm (3,78 inch)	Available option Max 102 mm (4.01 inch)
	Length	Min : 110 mm (4.33 inch) Max : 230 mm (9.055 inch)	
	Thickness	Min : 0.0762 mm (0.003 inch) Max : 0.203 mm (0.0079 inch)	STANDARD : 0.11 mm
Bundle Capacity		Max 50 Mixed Notes and Checks /1 transaction	One Single Deposit Slot
Deposit Direction		4 way	
Capacity	Deposit Cassettes	About 2,000 notes/1 cassette About 2,000 checks/1 cassette	Criteria for Deposit New Notes & Checks
	Retract Cassettes	Max 50 Mixed Notes and Checks	
	Article6 Cassettes	Max 10 Mixed Notes and Checks	
	Escrow	Max 50 Mixed Notes and Checks /1 transaction	
Capacity	Deposit Reject	Max 50 Mixed Notes and Checks /1 transaction	
Processing Time	Deposit Time	1 Note : 1 Seconds, 1 Check : 1.2 Seconds	
	Deposit Time	8 Notes & 2 Checks : Less than 20 Seconds	
		25 Notes & 25 Checks : : Less than 60 Seconds	
	Storage Time	1 Sheet : - Seconds	
		10 Sheets : - Seconds	
		50 Sheets : - Seconds	
Image scanning		Double side scanning	200 dpi
MICR		CMC-7, E13-B	
Endorsement Print		One side printing, Ink jet	
Shutter Type		Automatic Shutter	

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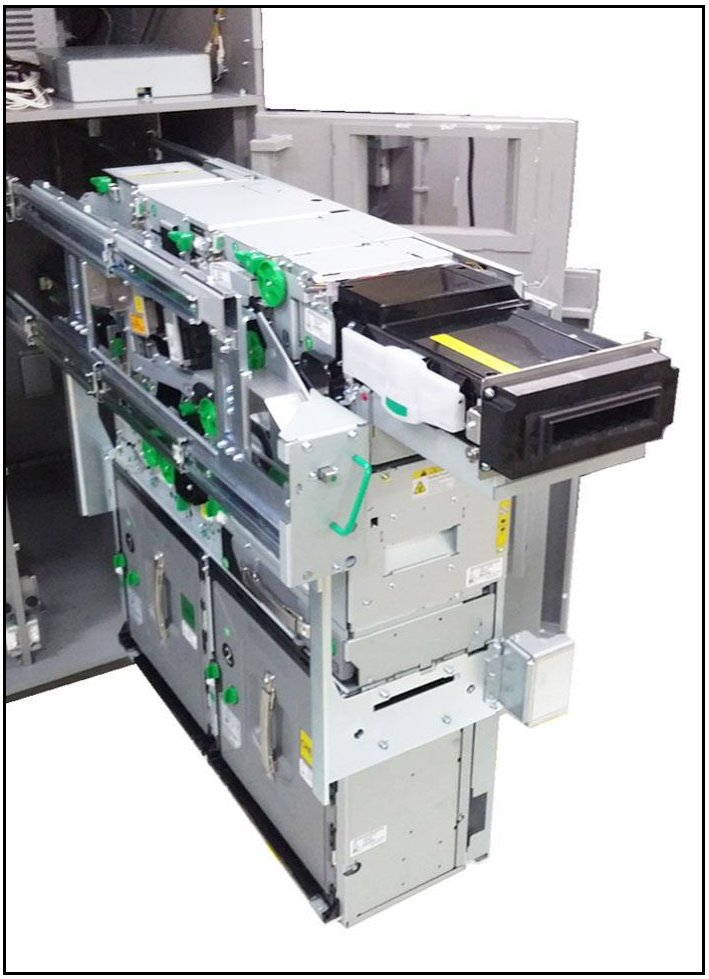

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Contactless Card Reader (RF Reader)

► The RF Reader (contactless card reader) is designed to support contactless transactions. It is composed of a compact controller module and an antenna module.

Basic Specification & Sample Picture

Item	Specification	Remarks (Option)
Audio guidance	Beeper	
Transaction Interface	KIOSK-III 13.56MHz ISO14443 Type A,B, NFC and MiFare	
Payment Applications	American Express-Express Pay Discover Zip, JCB J/speedy Mastercard *PayPass* Mstripe Visa payWave MSD	

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Chapter3. For the beginning operator

Opening the Upper Front Hatch

► Opening the upper chassis as follows

1. Open the lower exterior door using key.
2. Insert the key into the lock on the upper front hatch and turn the key clockwise
   Then open the upper front hatch pulling it upward.
3. To close, use the reverse order of above.

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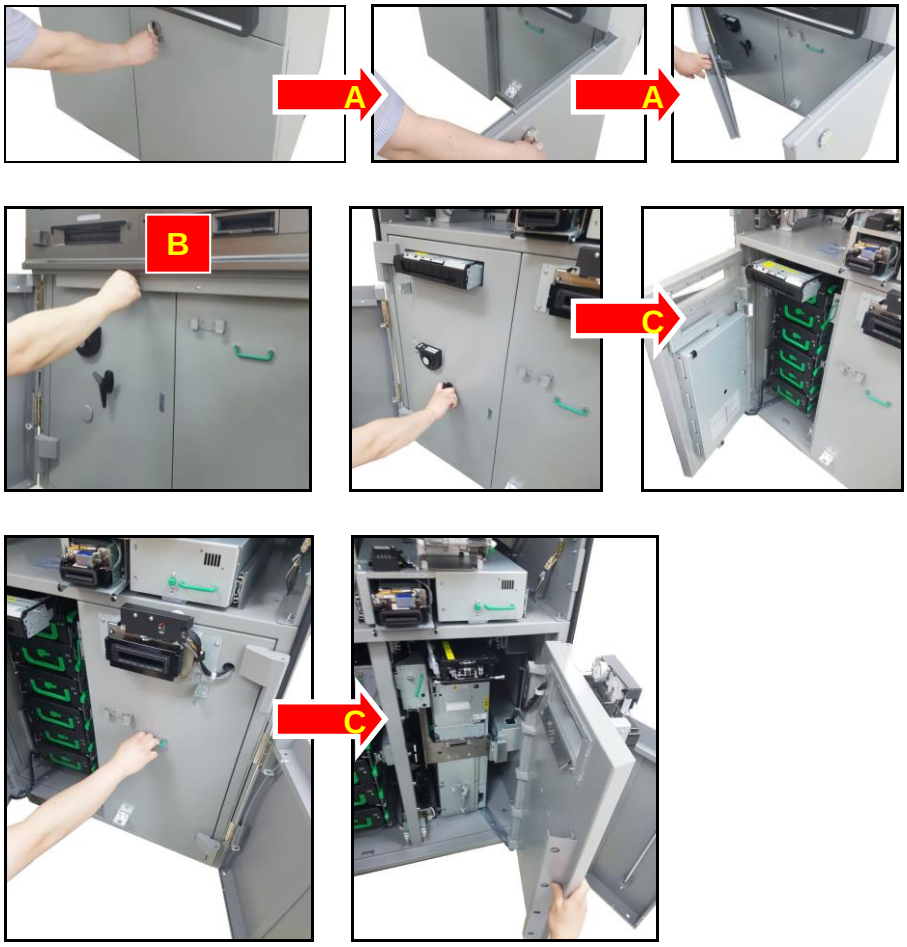
Opening the Security Enclosure

► Opening the lower exterior door and the safety door

1. Open the lower exterior door (A)
2. Open the upper front hatch (B)
3. Unlock the locking device and open the safety door. (C)
   (→ Refer to the section of “Locking Devics”)



► Closing the lower exterior door and the safety door

1. Close the safety door.
2. Close the upper front hatch.
3. Close the lower exteroir door using key.

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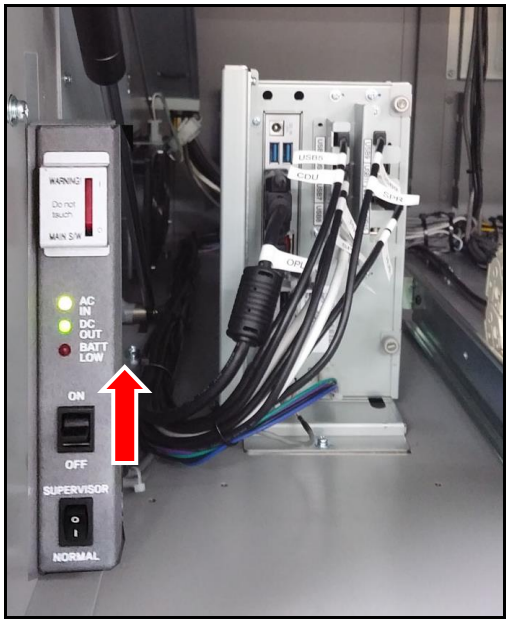
Switching Power On

► The power supply unit converts AC power to DC power and provides the voltage to various modules within the system. The power supply unit allows the user to turn on/off the system, enter power-failure mode, and perform other sequences.

The system turning-on process is as follows,

1. Press the standby switch to “ON” side (1)
   (Main power switch should be turned “ON” (2))
2. The system will be turn on automatically



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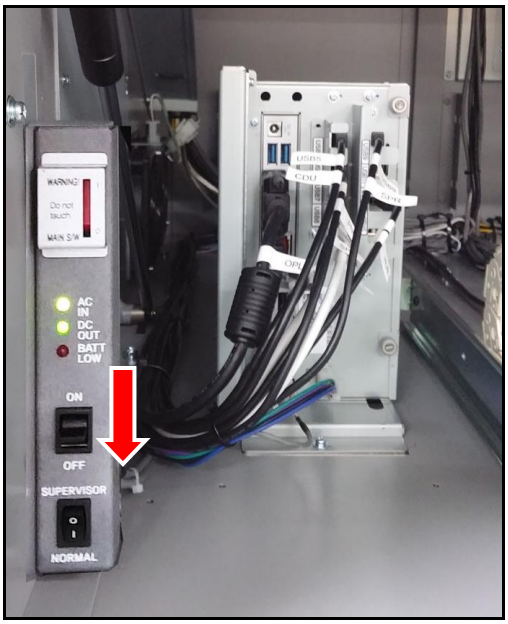
Switching Power Off

▶ The system turning-off process is as follows

1. Press the standby switch to “OFF” side for 1 second
2. The system will be shut down automatically
3. The operating system will shut down then power will turn off.

WARNING:
Do **NOT** operate Main Switch when you would like to turn off the power.
It may cause damage to operate system or destabilize control electronics in ATM.



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Power Supply Status

▶ LED and Switch Functions

- [AC IN]: Turned on upon AC power supply.
- [DC OUT]: Turned on upon DC power supply.
- [BATT LOW]: Turned on when the battery voltage is 21V or less or when the battery cable is not connected.
- [MAIN S/W]: Supplies or stops AC power.
- [STAND-BY S/W]: Turns on/off the system.

▶ Switch Status

- [Main S/W] is pressed on “ON” position
  AC power is being supplied to the power supply unit, and only [AC IN] LED is turned on.
- [Main S/W] is pressed on “OFF” position
  AC power is not supplied to the power supply unit and all status LEDs are turned off.
- [STAND-BY S/W] is pressed on “ON” position
  The system is turned on and [AC IN] and [DC OUT] LEDs are turned on.
- [STAND-BY S/W]s pressed “OFF” position
  <System Off> procedure starts and only [AC IN] LED is turned on.
- In case power failure occurs during normal system operation, the system will enter <Power Failure Mode> and only [DC OUT] will be turned off.

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Locking Device - Cencon Lock

▶ The MX8300I has locks for the Vault.

Security Door with Cencon

The Cencon lock is highly-secured, advanced-design lock. Even though the lock is electromechanical, they require no wiring or batteries for opening the lock because they are self-powered. Power is generated by turning the dial knob on the lock to the left (counter-clockwise). After several turns of the knob, enough power is generated to allow the microprocessor in the lock to function.

Opening and closing the Security Door

Each Cencon Lock is shipped from the factory in Shelved Mode. The One Time Combination feature which requires a Smart Key is not available when the lock is shelved. Instead, the Shelved Mode combination is used to open the lock without any Smart Key. The default Factory Combination is set to 50-25-50. Practice opening the lock in shelved mode with the default factory combination until you are comfortable with its operation. The default combination may be changed, in which case the new combination would be used to open the lock while in Shelved Mode. The correct opening procedure for a shelved lock in:

1. Turn the dial to the left (CCW), using full wrist turns, until the letters “EC” (Enter Combination) appear on the LCD.

<Note!>

If you are operating a Cencon lock and **–dL** appears on the display during an operation, it indicates that you should **d**ial **L**eft (Counter Clockwise). The purpose is both to give the lock additional power and to ensure the lock bolt is fully extended.

CW = Clockwise; CCW = Counter Clockwise

2. Enter the factory combination of 50-25-50 by sequentially pressing those six buttons. The LCD will display the entered number.

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3. When the combination has been correctly entered, the LCD will read “OPr” meaning “Open right.”

4. Turn the dial right (CW) until it stops. The lock’s bolt is now retracted and the lock is open.

5. Turn the handle to the left (CCW) and open the security door.

7. Turn the dial a minimum of one complete rotation to the left (CCW) to extent the bolt.

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<Note!>
After opening and closing any lock, you should always check to ensure that the lock is physically relocked (i.e., bolt fully extended and locked in place) by turning the dial to the right. If the bolt does not retract, you can be assured the lock is secured.

Helpful Hint:
At any point while entering the combination during an opening sequence, if you notice that an incorrect number was pressed on the keypad, you may clear the entire operation and start again by pressing the star (*) key. This allows you to return to the EC prompt without getting a wrong try error (lightning bolt).

Caution - Lock Out (LCO):
When the combination is incorrectly entered, a lightning bolt error will flash on the display (with no other numbers following it). To clear this error and start again, press and hold the star (*) key. Even in Shelved Mode, it is important to avoid getting 5 wrong combination attempts in a row without a successful opening in between because the lock will be put into Lock-Out condition, displaying, "LCO." Clearing the LCO condition in Shelved Mode requires waiting 5 minutes and then entering the correct combination.

▶ Changing Shelved Mode Combination

For Cencon Locks with a code level of 71[1], or greater, you may change the Shelved Mode combination. You may change the default Factory Combination of 50-25-50 to a new combination to be used while the lock is still in Shelved Mode. Once you have changed the combination for the first time, you may want to change the combination again to a different Shelved Mode combination. You can even change it back to the Factory combination of 50-25-50.

This is an option that is only available while the lock is in Shelved Mode and is intended only for temporary use after the ATM is deployed but before the lock is activated. It is not recommended to keep the Cencon lock in this Shelved Mode condition, due to lack of security and control.

Required Items:
Change Key, Current Shelved Mode Combination

<Note!>
You can only change the Shelved Mode combination while operating in Shelved Mode. Once a lock is “activated” in any mode, the Shelved Mode combination returns to the Factory Default

[1] It is sometimes necessary to determine the level of the Cencon Lock with which you are working. This can be done by entering a command via the keypad. The lock level will then be displayed on the LCD. Use the following procedure:
1) Power the lock by turning the dial to the left (counter clockwise) until EC is displayed.
2) Enter the # 1 keypad command. Then the lock displays a string of characters on the LCD, displaying two characters at a time. The best thing to do in analyzing the lock level is to write down the entire string and then pick out the portions of it that are significant to you, or if you are experiencing a problem with the lock, report the entire string to the Tech Support group.

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of 50-25-50

To change the Shelved Mode Combination:

1. Power Lock → EC
   Turn the Dial to the left (CCW) until “EC” (Enter Combination) is displayed.

2. EC → Enter Shelved Mode Combination → OPr
   Enter the current Shelved Mode combination (either 50-25-50 or a changed Shelved Mode combination) by sequentially pressing those digits on the lock keypad. The numbers will be displayed on the LCD as they are entered. When the combination has been correctly entered, the LCD will read **OPr**, meaning "**OP**en **r**ight."

3. OPr → Retract Bolt
   Turn the Dial to the right (CW) to retract the bolt

4. Open Door

5. Insert Change Key
   Insert the change key into the change key socket on the back of the lock.

   WARNING:
   Do not close the door.
   Leave the door open during this process until your are comfortable opening the lock with the new combination.

6. Extend Bolt
   Turn the Dial to the left (CCW) to extend the bolt.

7. Power Lock →
   Turn the dial to the left (CCW) until (the Change Key symbol along with Enter Combination) is displayed.

8. → Press #8 → EcF
   Press the “**#**” button followed by the “8” button. EcF (Enter current Factory combination) will be displayed

9. EcF → Enter Current Shelved Mode Combination → EnF
   Enter the current shelved mode combination, “EnF” (Enter new Factory combination) will be displayed.

10. EnF → Enter New Combination → Cnf
    Select and enter the new combination. “CnF” (confirm new Factory combination) will be displayed

11. Cnf → Enter New Combination → POC
    Enter new combination again to confirm. POC (Pull Out Change key) will be displayed.

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WARNING:
Record the new combination and store it in a secure place. If this combination is lost or forgotten, there is no alternate way to open the lock.

12. POC → Remove Change Key → EOP
    Remove the change key. EOP (End Operation) is displayed.

13. EOP → Power Lock → EC
    Turn the dial to the left (CCW) until EC (Enter Combination) is displayed.

14. EC → Enter New Shelved Mode Combination → OPr
    Enter the new shelved mode combination by pressing those digits on the lock's keypad. The numbers will be displayed on the LCD as they are entered. When the combination has been correctly entered, the LCD will read OPr, meaning "**OP**en **r**ight."

15. OPr → Retract Bolt
    Turn the Dial to the right (CW) to retract the bolt.

16. Close Door

17. Extend Bolt
    Turn the Dial to the left (CCW) to extend the bolt.

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Optional Locking Deivce - Electronic Lock

▶ Opening the locks

1. Enter valid six (6) digit combination. (Factory set to 1-2-3-4-5-6)
2. The lock will confirm a valid combination entry with a double signal.
3. Within four (4) seconds, turn the keypad to the open position (clock-wise) if using a dead bolt style lock, or turn the handle to the open position if using a swing bolt style lock.
4. Pull door open.

Invalid Combination Entry

- Lock will signal three (3) times.

WRONG TRY PENALTY

▪ Entry of four (4) consecutive invalid combinations starts a five (5) minute delay period.

- LED flashes red at ten (10) second intervals.

Audio and Visual Signal

▪ Double signal - two (2) LED flashes and two (2) beeps - indicates entry is valid or accepted.

▪ Triple signal - three (3) LED flashes and three (3) beeps - indicates invalid or not accepted.

▶ Changing your combination

▪ ALWAYS PERFORM THIS OPERATION WITH THE DOOR OPEN

1. Enter “1-2-3-4-5-6” and hold down the last digit until unit double signals.
2. Enter “0” one time.
3. Enter your NEW six (6) digit combination two times.
4. If a mistake is made wait thirty (30) seconds and repeat steps 1 - 3.
5. Test lock operation several times before closing the door.

<**CAUTION**>

When selecting a combination do not use birthday or other predictable data that could give correlation between the user and combination. Keep the combination secret.

▪ Valid Combination Entry - Double signal after valid six (6) digit combination is entered.

▪ Invalid Combination Entry - Triple signal indicates the old combination is still valid.

▶ Battery Low Warning

Repeated LED flashing and beeping during an opening indicates that the battery is low and needs immediate replacement.

Use only alkaline batteries (Example: Duracell ™or Eveready™ alkaline batteries)

▪ Use one (1) 9-Volt alkaline battery in the Small Battery Box or six (6) “C” cell alkaline batteries in the Large Battery Box.

It is recommended that batteries be replaced at least once a year.

If the battery is depleted and will not allow the lock to open:

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▪ Hold a new 9-Volt alkaline battery on the contact points located on the front of the keypad (large battery terminal to large keypad contact, small battery terminal to small keypad contact).
▪ Enter a valid combination to open the lock (see OPENING THE LOCK).

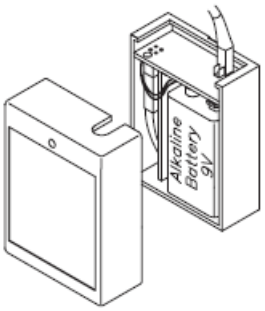
<**NOTE!**>
You must maintain battery contact at all times throughout the procedure. Change batteries as directed below.

The lock contains a non-volatile memory, and even with batteries removed, the lock will retain all programming.

▶ Changing Batteries

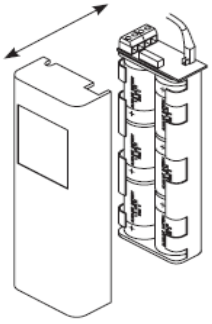
▪ Small Battery Box:

1. Open safe door.
2. Remove battery box cover by pulling the front portion away from the safe door.
3. Remove battery by unsnapping it from the connector. CAUTION: Hold onto the battery connector to avoid pulling the wires out o f the board.
4. Connect a new 9-Volt alkaline battery to the battery connector.
5. Push the battery and the leads completely into the battery compartment.
6. Replace the cover and test the lock several times before closing the door.



▪ Large Battery Box:

1. Open safe door.
2. Remove battery box cover by pulling the front portion away from the safe door.
3. Remove the six old “C” cell alkaline batteries.
4. Insert six new “C” cell alkaline batteries
5. Replace the cover and test the lock several times before closing the door.



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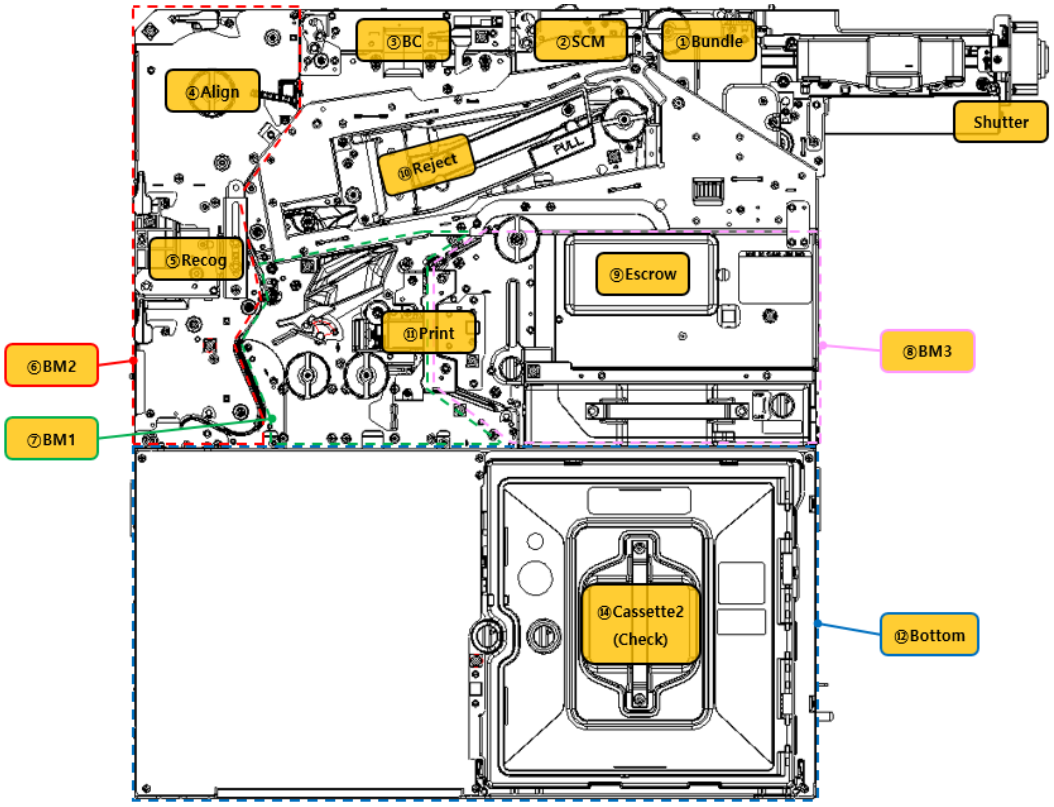
Chapter4. Check In Module (CCIM17 : UL Type)

▶ The Check in Module is designed to be integrated in automated teller machines and full-function self-service terminals. It enables cash deposit and automated check handling.
Banknotes and checks deposited by the customer are stored in cassettes. Which type of document is stored in which cassette is defined on the basis of the bank's application.
The diagram below shows the overall configuration of the Check In Module and the function of the main module is described in the next paragraph.

▶ The shutter of CCIM17 is mounted on unit.



ALG Section
To read MICR of checks, auto-alignment is executed in this section.

Separation Section
The cash and check deposited together is separated by sheets on the separation section. In case of the transaction cancellation, cash and check in reject section is ejected to the customer in a lump by the command of higher rank.

BC (Bill Checker)
This section verifies the image data on both sides of cash for identification

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Reject Section
When the reject condition is occurred, the media is temporarily stacked. After the calculation of the media is completed, they are returned in a lump to the separation section by the command of the higher rank.

Retract Section
Retract: The cash/check in an unclaimed or retrieved condition is stored in this section.
Article 6: The media in a condition corresponded to the regulation of ECB are stored by force. At this time, they don't pass through the temporary stack section.

RECOG (Recognition Module)
This section reads the MICR character written on the checks through the magnetic head.

Escrow Section
In this section, cash and check that are receivable is stacked in a lump and they are fed to the cash/check cassette or rejection section by the command of the higher rank.

Bundle Section
This section accepts Cash & Check in Bundles and separates it.

Cassette Section
Check received are stored in the cassette by sheets.
The cassettes can be mounted or demounted from the unit with the key. And also cassette's door can be opened using the key.

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Basic Specification of Check In Module

▶ Basic Specification of Check In Module

Item		Denomination		Remarks
Supported Denomination	Deposit	Various Denominations		
Supportable Note Size	Short Way	60.0~102.0 mm (W) (2.36~4.01inch)		AMERICA:ANSI E13B Up to 93.142mm
	Long Way	110.0~230.0 mm(L) (4.33~9.06inch)		Check
	Thickness	0.075 ~0.2 mm (0.003~0.008inch)		
Maximum Number of Deposit	Deposit	Up to 75 Notes(Mixing) *		
Storage Capacity	Deposit Cassette	~~Cash~~	~~1ea~~	~~227 mm (8.94inch) (Max.2,000 with New Notes)~~
		Check	1ea	227 mm (8.94inch) (Max.2,000 with New Notes)
	RT/A6 Cassette	Retract	1ea	20.0 mm (0.79inch) (Max.50 with New Notes)
		A6		7.0 mm (0.28inch) (Max.10 with New Notes)

* It is the reference value when the thickness of bill used is 0.1mm (0.0039inch).

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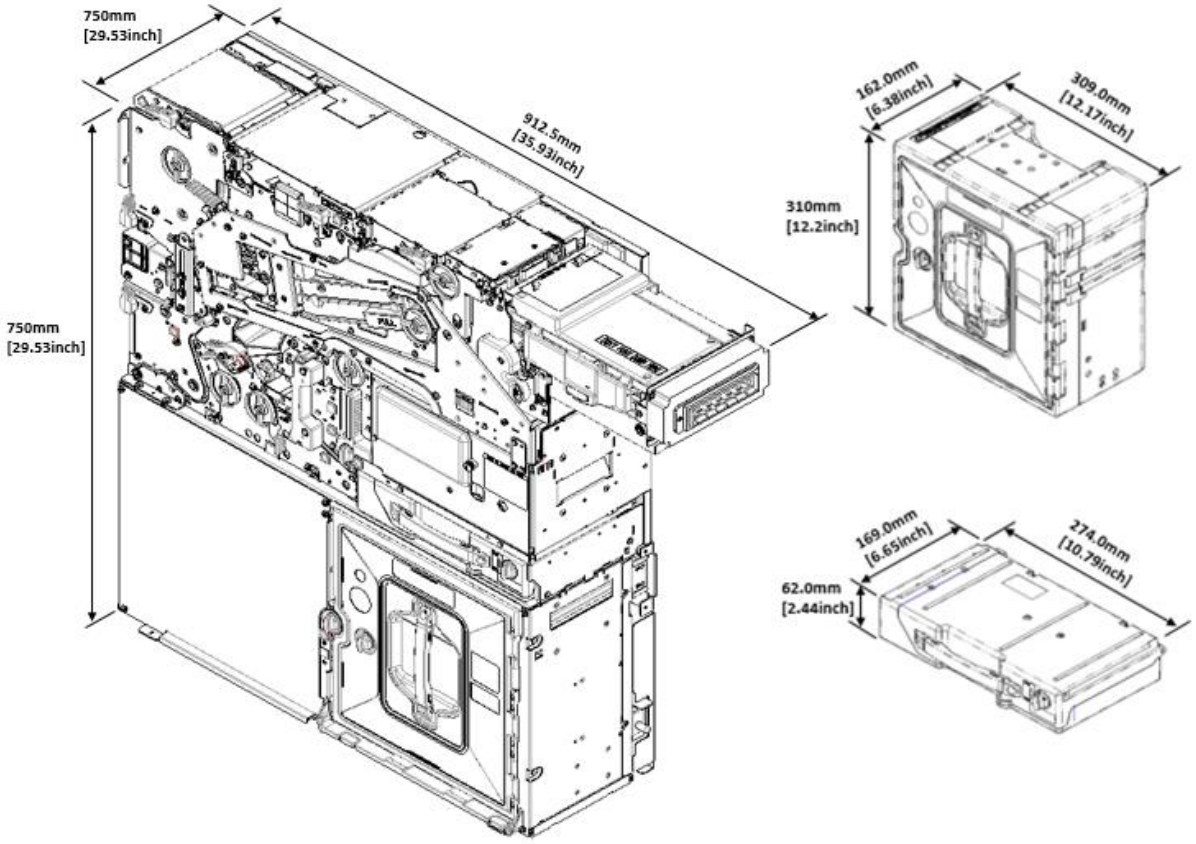
Specification of External Appearance

▶ Specification of External Appearance

Item		Specification
CCIM17	Dimensions	Width: 232.2 ± 2 (mm) (9.14 ± 0.08inch) Length: 912.5 ± 2 (mm) (35.93 ± 0.08inch) Height: 750 ± 2 (mm) (29.53 ± 0.08inch)
	Weight	83 Kg(183lb) (except Cash & Check weight)
Deposit Cassette (Check)	Dimensions	Width: 309 ± 2 (mm) (12.17 ± 0.08inch) Length: 162 ± 2 (mm) (6.38 ± 0.08inch) Height: 310 ± 2 (mm) (12.20 ± 0.08inch)
	Weight	4.7 Kg(Cash) & 4.4Kg(Check) (13lb & 12.35lb, except Cash & Check weight)
RT/A6 Cassette	Dimensions	Width: 274 ± 2 (mm) (10.79 ± 0.08inch) Length: 169 ± 2 (mm) (6.65 ± 0.08inch) Height: 62 ± 2(mm) (2.44 ± 0.08inch)
	Weight	1 Kg (2.20ib, except Cash & Check weight)



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Cash & Check Conditions

► Please refer to “Bill Conditions” in the chapter5.

Environmental Condition

Item		Specification		Remarks
Installation Condition		Interior or Outdoor Installation of Bank for ATM There should be no direct sunlight for the outdoor installation of bank.		
Temperature	Operating	5 ~ 50℃		
	Non-operating	-10 ~ 50℃		
	Storage	-20 ~ 50℃		
	Transportation	-20 ~ 60℃ (Within 48H)		
Humidity	Operating	30 ~ 80 %		
	Non-operating	10 ~ 90 %		
	Storage	10 ~ 90 %		
	Transportation	10 ~ 90 %(30℃ Within 48H)		
Vibration	Transportation	There should be no defect or problem in the functional operation and external appearance after vibration test of transport mode.		
		Frequency	5 ~ 100 Hz	
		Acceleration / Displacement	Random Wave	
		Overall RMS	0.69G	
		Vibration Direction	Up and down	
		Test Time	20minute	
Electrostatic Noise		±4Kv (Contact)		

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Maintenance Requirement

Item		Specification	Remarks
Maintenance Condition	Maintenance Unit	Refer to Maintenance Manual	
	Regular Maintenance Period	2times / year	
MTTR		30minutes	

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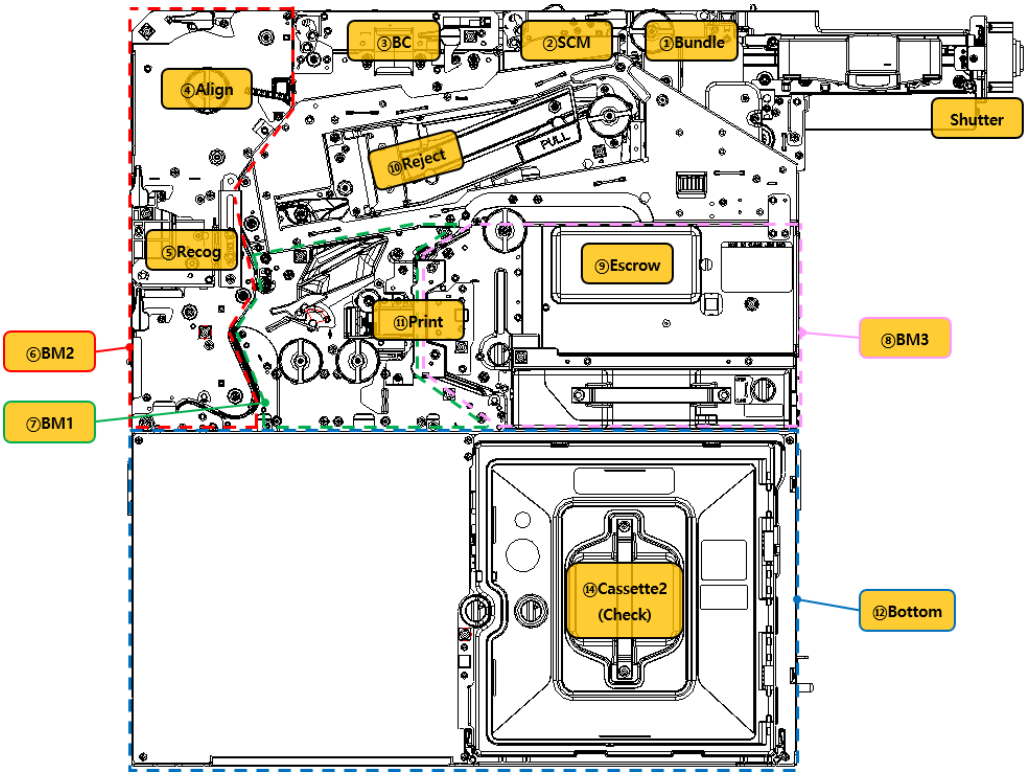
How to remove jam from each section

► This chapter describes removing jam from each section where jam occurs on CCIM.

CAUTION:
Be sure to use the appropriate tools (e.g. pincette) when removing jam not to hurt your hand.

<Note!>
Any branch personnel should not attempt to remove any jams without powering down the ATM.

► Location Map to remove jam.
The Cash & Check In Module (CCIM) can be divided into 12 modules as follows.
BM3 Module includes ESCROW Module and RT/CASSETTE Module.
BOTTOM Module includes CASH CASSETTE Module and CHECK CASSETTE Module.



Zone	Abbreviation	Description
①	BND	Bulk Note Separation Module
②	SCM	Separator Control Module
③	BC	Bill Checker Module
④	ALG	Alignment Module

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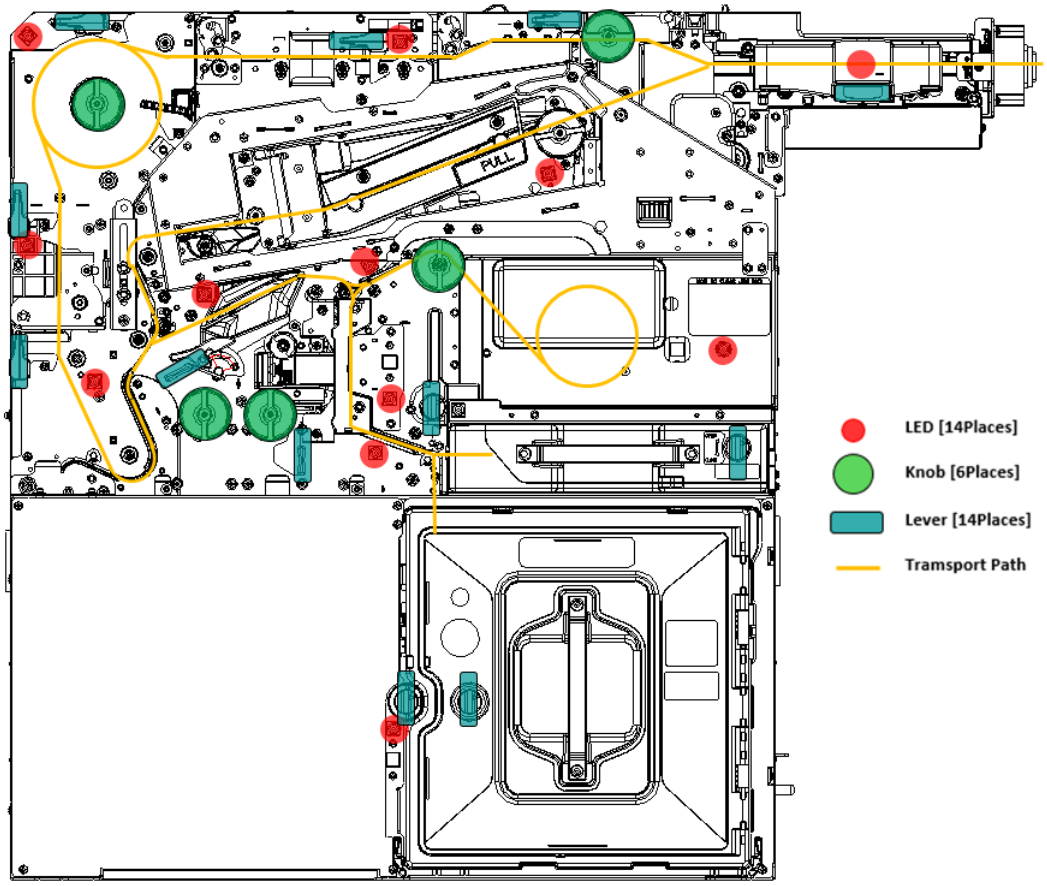
Zone	Abbreviation	Description
⑤	REC	Recognition Module
⑥	BM2	Body Module2
⑦	BM1	Body Module1
⑧	BM3	Body Module3
⑨	ESC	Escrow Module
⑩	RJ	Reject Module
⑪-1	PRT(Ink)	Endorsement Module
⑪-2	PRT(Felt)	Ink Head Cleaner
⑫	BOT	Body Module4
~~⑬~~	~~CST 1~~	~~Cash Cassette~~
⑭	CST 2	Check Cassette
⑮	RT&A6	Retract & A6 Cassette

► LED Lighting of Unit Transport Path



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How to setting DIP switch of CCIM Main Board

▶ Description of DIP Switch

# DIP SW	Setting	Description	Factory Default
1	ON	Change to clear mode of Print Ink Count	**OFF**
	OFF	**Normal operation**	
2	**ON**	**Normal operation**	**ON**
	OFF	Test mode	
3	**ON**	**Normal operation**	**ON**
	OFF	NA	
4	**ON**	**Capacity of Bundle/Escrow/Reject is 75**	**ON or OFF**
	OFF	**Capacity of Bundle/Escrow/Reject is 50**	
5	ON	Degug mode	**OFF**
	OFF	**Normal operation**	
6	ON	NA	**OFF**
	OFF	**NA**	
7	ON	EP download via USB in debug mode	**OFF**
	OFF	**EP download via UART in debug mode**	
8	ON	Change to EP download mode	**OFF**
	OFF	**Normal operation**	

▶ Setting the DIP Switch of CCIM17

Dip Switch No.	1	2	3	4	5	6	7	8
On		○	○	○				
Off	○				○	○	○	○

OR

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The troubleshooting method of CCIM30 includes all modules of CCIM17

Remove jam from Bundle Module

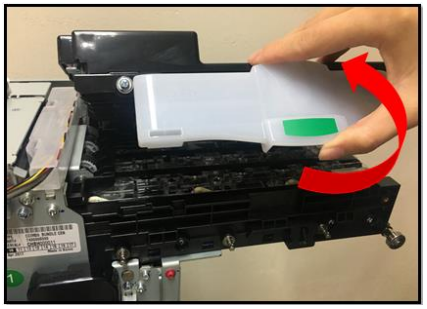
- ▶ Zone ①, Inside the Bundle Section.
- ▶ Location LED A Blinks

Case1.

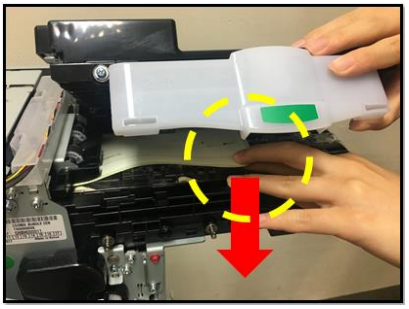
1. If there is a jam on Bundle Module, open the door as shown in the picture below picture.
2. While holding Bundle door and pressing Bill-press, Remove a jammed note or foreign substances.
3. After checking if the jammed note is removed, close the door.

Case2.

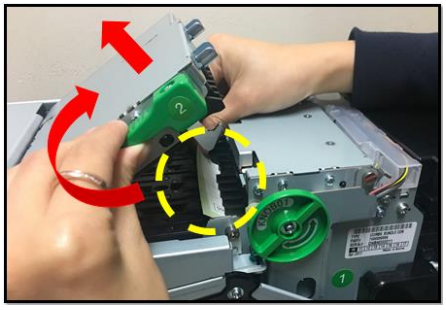
1. After opening the Bundle Module and SCM, remove a jammed note.



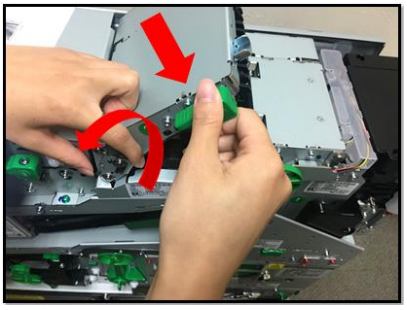
Open Bundle door.



While holding Bundle door and pressing Bill-press, Remove bills and remained substance



Once you open SCM using lever, Remove bills and remained substance



Close SCM using PL lock and lever (Caution; Risk of pinching hand)

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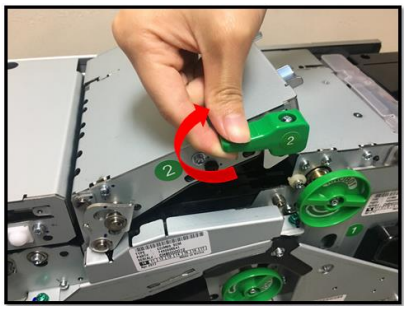
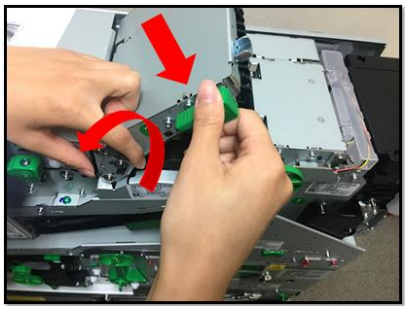
Remove jam from the First Transport Path

- ▶ Zone ②, Inside the SCM or Bundle Section.
- ▶ Location LED A or B Blinks

1. If there is a jam on the first transport path, push the lock lever in the arrow direction as shown in the picture and open the First Transport Path.
2. Remove a jammed bill or foreign substances.
3. After checking if the jammed bill is removed, completely close the First Transport Path pushing the SCM lever in the arrow direction as shown in the picture.



Once you open SCM using lever,
Remove bills and remained substance



Close SCM using PL lock and lever
(Caution; Risk of pinching hand)

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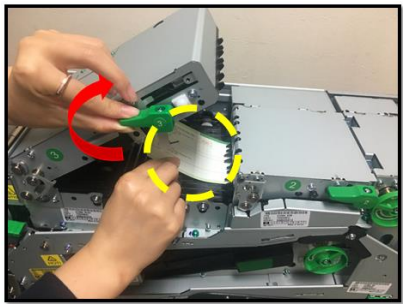
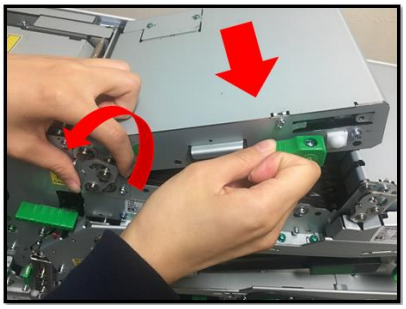
Remove jam from BC

- ▶ Zone ③, BC or SCM or ALG.
- ▶ Location LED B Blinks

1. If there is a jam on BC section, push the lock lever in the arrow direction as shown in the picture and open the BC section.
2. Remove a jammed Note or foreign substances.
3. After checking if the jammed Note is removed, completely close the BC section by pushing the lever and PL lock in the arrow direction as shown in the picture.



Once you open BC using lever,
Remove bills and remained substance



Close BC using PL lock and lever
(Caution; Risk of pinching hand)

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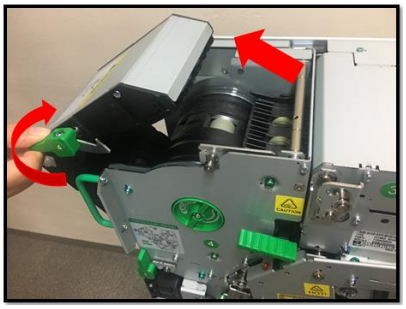
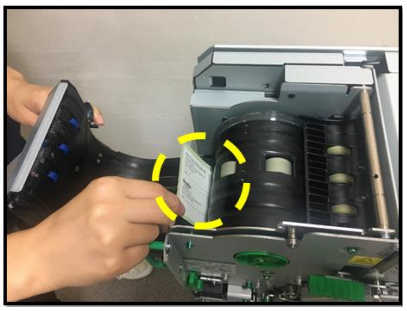
Remove jam from ALG

- Zone ④, Inside the ALG.
- Location LED C Blinks

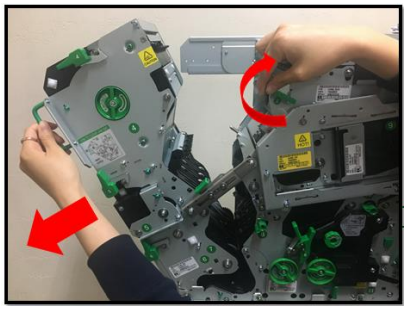
1. If there is a jam on Zone ④, push the ALG lever in the arrow direction as shown in the picture and open the ALG section.
2. Remove a jammed Note or foreign substances. If necessary, turn the green knob clockwise or counterclockwise to easily remove the jammed Note as shown in the picture below.
3. After checking if the jammed Note is removed, completely close the ALG section.



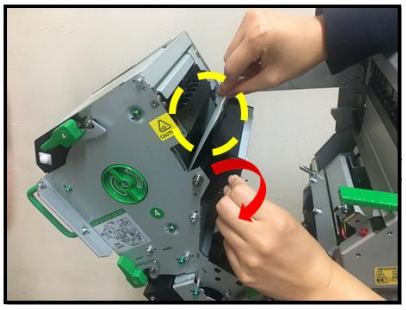
Open ALG using lever.



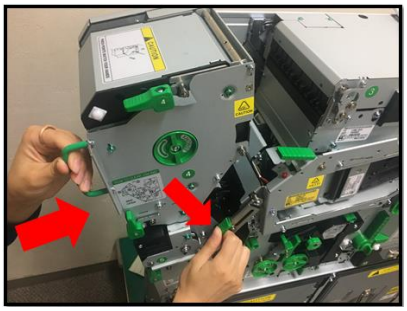
Remove bills and remained substance



Open BM2 using lever.



While opening guide, Remove bills and remained substance



Close BM2 pushing PL lock and handle
(Caution; Risk of pinching hand)

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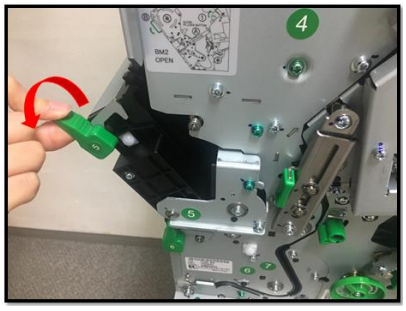
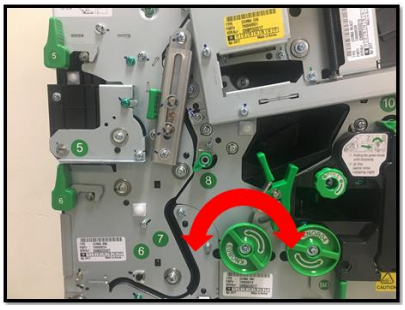
Remove jam from Recog Transport Section

- ▶ Zone ⑤, Inside the Recog.
- ▶ Location LED D Blinks

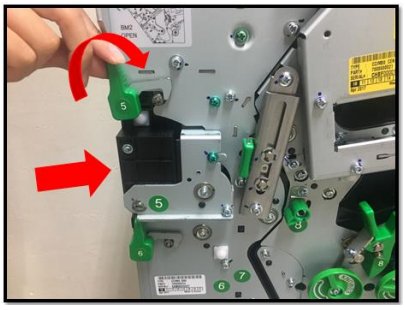
1. If there is a jam on Zone ⑤, pull the Recog lever in the arrow direction as shown in the picture and open the Recog Transport Section.
2. Remove a jammed Note or foreign substances. If necessary, turn the green knob clockwise or counterclockwise to easily remove the jammed Note as shown in the picture below.
3. After checking if the jammed Note is removed, completely close the Recog Transport Section.



Open Recog using lever



Remove bills and remained substance



Close Recog using lever
(Caution; Risk of pinching hand)

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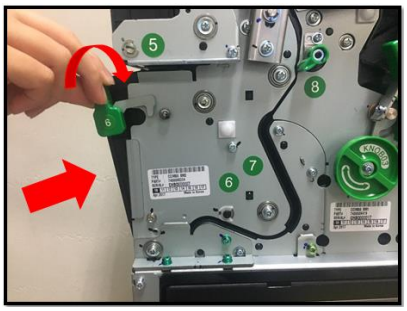
Remove jam from the B2 Upper Transport Path of BM2

- ▶ Zone ⑥, B2 Upper Transport Section of BM2.
- ▶ Location LED E Blinks

1. If there is a jam on Zone ⑥, push the lever lever in the arrow direction as shown in the picture and open Zone ⑥.
2. Remove a jammed Note or foreign substances. If necessary, turn the green knob clockwise or counterclockwise to easily remove the jammed Note as shown in the picture below.
3. After checking if the jammed Note is removed, completely close Zone ⑥ as shown in the picture.

Once you open BM2 using lever,
Remove bills and remained
substance rotating KNOB three or four times



Close BM2 using lever

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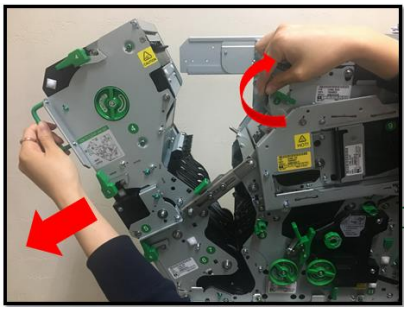
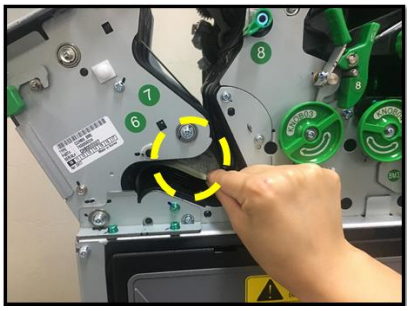
Remove jam from B2 Reject Transport Section

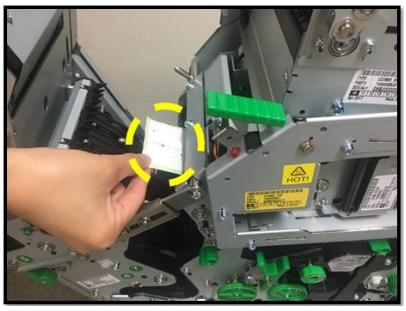
- ▶ Zone ⑦, B2 Bottom Transport Section of BM2.
- ▶ Location LED E or F Blinks

1. If there is a jam on Zone ⑦-1, ⑦-2, push the lever in the arrow direction as shown in the picture and open the BM2 Transport Section.
2. Remove a jammed Note or foreign substances.
3. After checking if the jammed Note is removed, completely close BM2 Transport Section as shown in the picture.
4. If it is necessary to remove the inside jam of REJECT

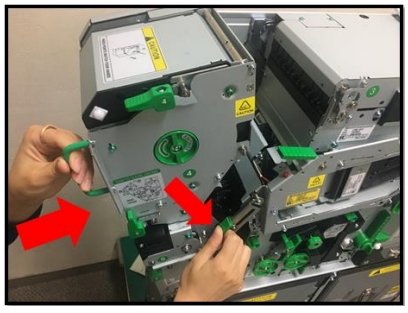


Once you open BM2 using lever,
Check bills and remained substance





Remove bills and remained substance.



Close BM2 pushing the PL lock and handle
(Caution; Risk of pinching hand)

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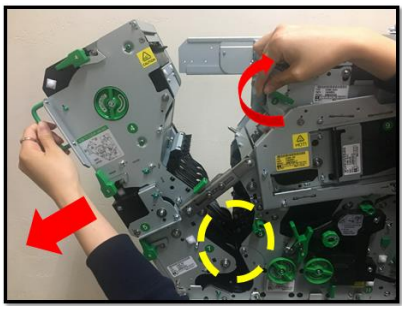
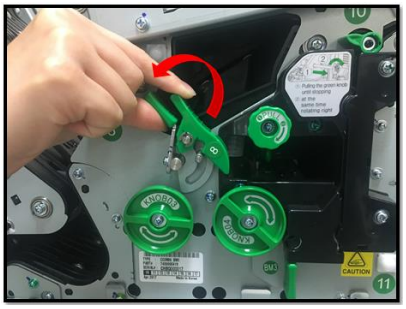
Remove jam from B3 Transport Section

- Zone ⑧, 3WAY1
- Location LED F Blinks

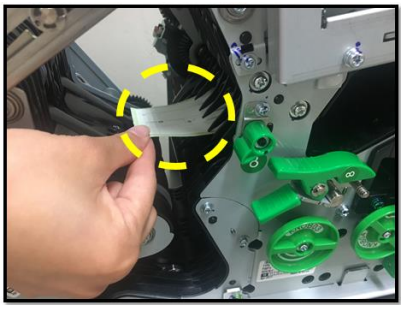
1. If there is a jam on Zone ⑧, push the lever L7 in the arrow direction as shown in the picture and open Zone ⑧.
2. Remove a jammed Note or foreign substances. If necessary, turn the green knob 3 clockwise or counterclockwise to easily remove the jammed Note as shown in the picture below.
3. After checking if the jammed Note is removed, completely close Zone ⑧ as shown in the picture.



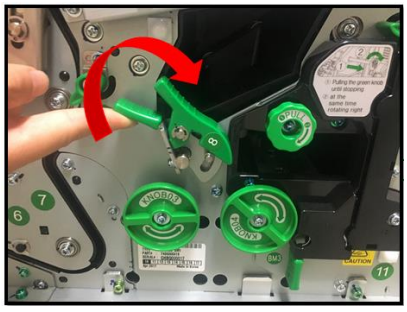
Once you open BM2 using lever,
Check bills and remained substance



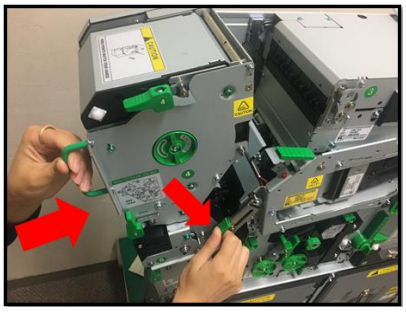
Open guide using lever.



Remove bills and remained substance



Close guide pushing lever.



Close BM2 pushing the PL lock and handle
(Caution; Risk of pinching hand)

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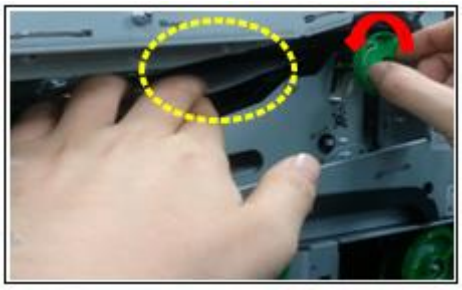
Remove jam from Reject Section

- ▶ Zone ⑨, Reject Module
- ▶ Location LED I Blinks

1. If there is a jam on Rejection Section, open the door as shown in the picture.
2. Remove a jammed Note or foreign substances. If necessary, turn the green knob 6 clockwise or counterclockwise to easily remove the jammed Note as shown in the picture below.
3. After checking if the jammed Note is removed, completely close the door.

Once you open RJ cover,
Check bills and remained substance



While holding RJ door,
Remove it rotating KNOB06 three or four times

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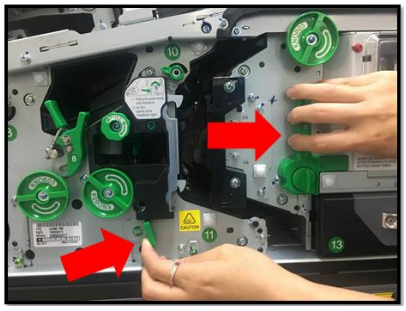
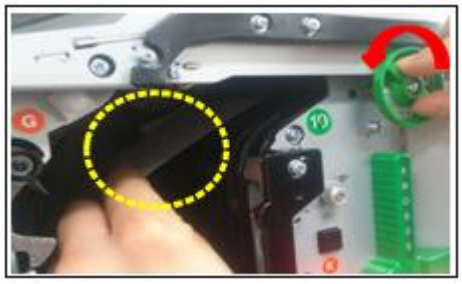
Remove jam from B3 Escrow Transport Section

- Zone ⑩, 3WAY 2
- Location LED G Blinks

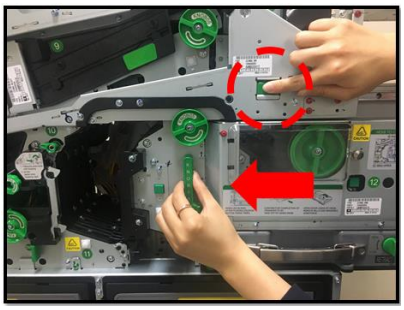
1. If there is a jam on Zone ⑩, first push the BM3 lever in the arrow direction, and then push the BM3 in the arrow direction as shown in the picture.
2. Remove a jammed Note or foreign substances. If necessary, turn the green knob clockwise or counterclockwise to easily remove the jammed Note as shown in the picture below.
3. After checking if the jammed Note is removed, completely close Zone ⑩ as shown in the picture.



Open BM3 using lever



Remove bills and remained substance
rotating KNOB three or four times



Close BM3 pushing the arrow direction KNOB and PL lock
(Caution; Risk of pinching hand)

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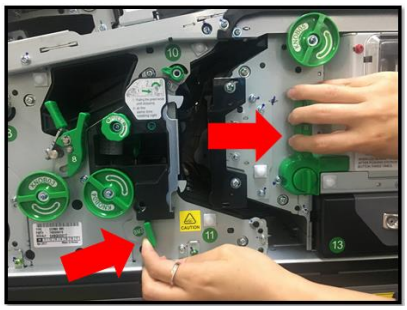
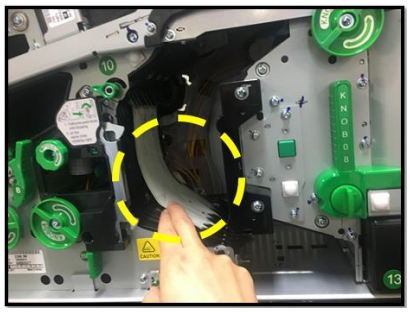
Remove jam from B4 Transport Section

- ▶ Zone ⑪ (B4 GUIDE)
- ▶ Location LED G, K, L or N Blinks

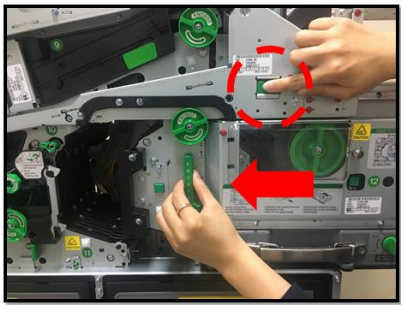
1. If there is a jam on Zone ⑪, first push the BM3 lever L9 in the arrow direction, and then push the BM3 in the yellow arrow direction as shown in the picture.
2. Remove a jammed Note or foreign substances. If necessary, turn the green knob4&5 clockwise or counterclockwise to easily remove the jammed Note as shown in the picture below.
3. After checking if the jammed Note is removed, completely close Zone ⑪ as shown in the picture.



Open BM3 using lever



Remove bills and remained substance



Close BM3 pushing the arrow direction KNOB and PL lock
(Caution; Risk of pinching hand)

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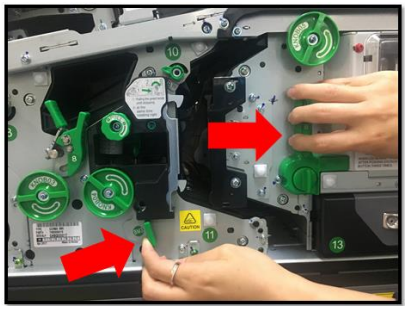
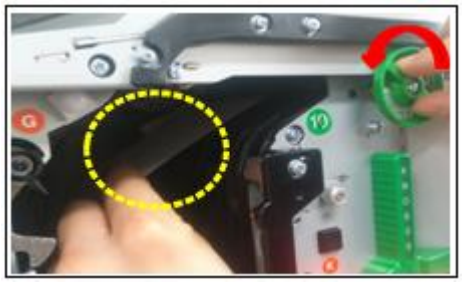
Remove jam from Escrow

- ▶ Zone ⑫, Escrow Module
- ▶ Location LED G or H Blinks

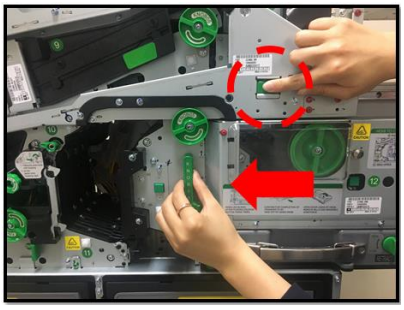
1. If there is a jam on Escrow, remove a jammed Note or foreign substances from the position where the arrow pointed in upper figure. If it is a heavy jam, call the service engineer for clearing it.
2. If necessary, turn the green knob5 clockwise or counterclockwise and move the BM3 (Refer to figures below) to remove the jammed Note more easily.
3. Be careful for the film inside the Escrow not to be missed or damaged during removing the jammed Note or foreign substances.
4. After checking if the jammed Note is removed, completely close BM3 Module.
5. Pushing Escrow button three times, Confirm for completion of transfer to RT.
6. And then come out one note from the escrow module. And remove the note as shown in lower figure. If necessary, repeat it to end.



Open BM3 using lever



Remove bills and remained substance
rotating KNOB05 three or four times



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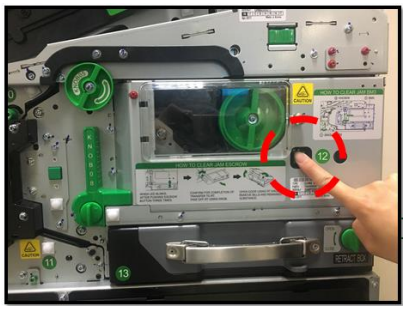
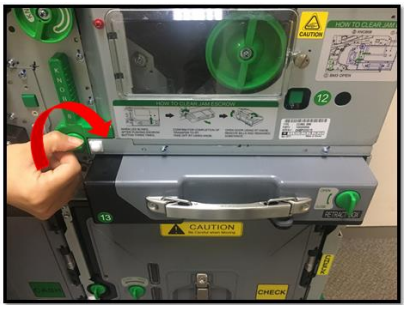
Close BM3 pushing the arrow direction KNOB and PL lock
(Caution; Risk of pinching hand)



After pushing Escrow button three times,
Confirm for completion of transfer to RT



Take off RT using KNOB

Open door using RT KNOB.

Once you open RT guide,
Remove bills and remained substance

Once you close RT door,
Lock RT door using KNOB

Add on RT

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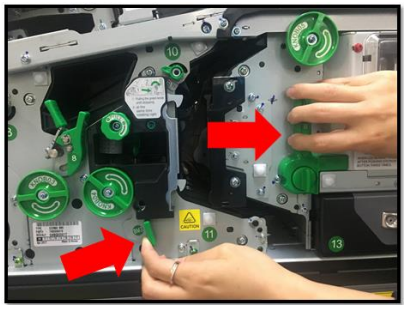
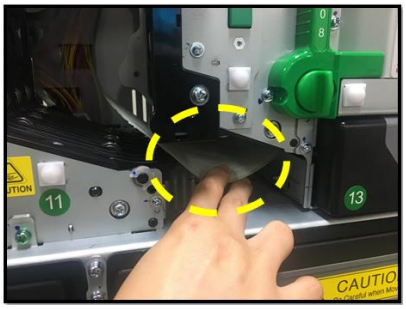
Remove jam from RT/A6 Cassette

- ▶ Zone ⑬, Retract & A6 Cassette
- ▶ Location LED N Blinks

1. To remove the jammed Note more easily, move the BM3 as shown in the picture of “Moving BM3”. (Refer to the picture in the page of “removing jam from Zone ⑪). And check the jammed Note or the foreign substance with naked eyes and remove it as shown in the picture of “Moving BM3”.
2. If there is a jam in RT/A6 Cassette, separate the RT/A6 Cassette using knob as shown in the picture of “Separating Retract BOX”.
   And remove a jam as shown in the picture of Removing jam from Retract.
3. To remove a jam or media from inside the RT/A6 Cassette, open the door with the knob (Refer to the picture of “Opening or closing the door of Retract BOX”) and remove the jam by lifting up the A6 Guide as shown in the picture of “Removing jam from Retract Section”.
4. After removing jam, close the door and turn the knob to the left.
5. Then mount the RT/A6 Cassette.



Open BM3 using lever



Remove bills and remained substance

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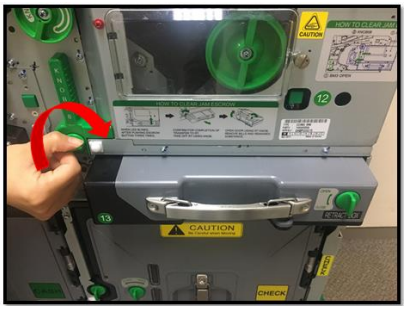


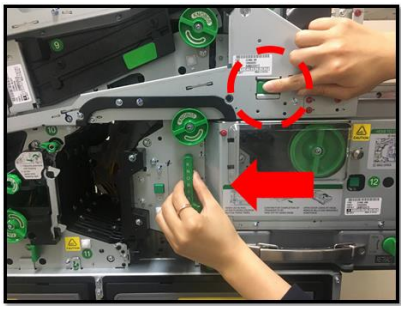
Take off RT using KNOB

Open door using RT KNOB.

Once you open RT guide,
Remove bills and remained substance

Once you close RT door,
Lock RT door using KNOB

Add on RT



Close BM3 pushing the arrow direction KNOB and PL lock
(Caution; Risk of pinching hand)

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Remove jam from Cassette

- ▶ Zone ⑭, ⑮, Cash & Check Cassette
- ▶ Location LED J or M Blinks

1. If there is a jam in Cassette, separate the Cassette using knob as shown in the picture.
2. Check the jammed Note or the foreign substance with naked eyes and remove it as shown in the picture. To easily remove the jammed Note, turn the green knob 3&4 clockwise or counterclockwise.
   To remove a jam or media from inside the Cassette, open the door with the knob. And drop down the Push Plate by pressing the lever to remove the jammed Note.
3. After removing jam, close the door and turn the knob to the left. And then it is locked.
4. To mount the Cassette, turn the knob to the left and remove it.

Take off Cassette using KNOB

Once you check bills and remained substance in display, Remove it

Open Cassette door using KNOB and handle

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While pushing Cassette lever,
Pull down Push-plate

Remove bills and remained substance

Once you close Cassette door,
Lock Cassette door using KNOB

Add on Cassette(into the bottom)

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How to change PRT Maintenance Module

How to replace Ink cartridge

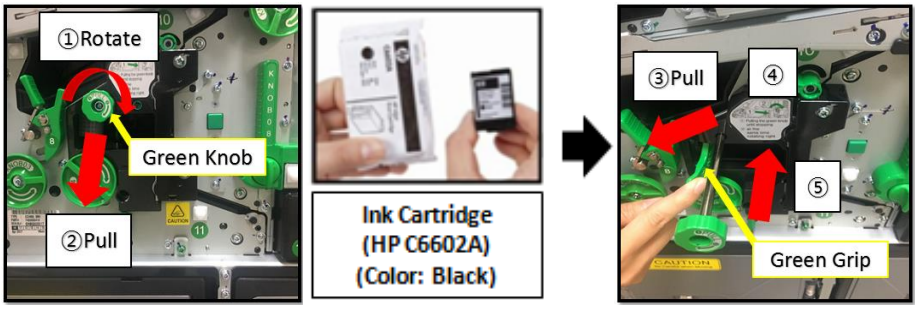
▶ How to replace Ink cartridge

1. Pull out the black knob until stopping (①), at the same time rotate it clockwise (②), and pull it completely as shown in the picture.
2. After opening the black grip (③), insert Ink Cartridge in the cartridge adaptor (④) as shown in the picture. And then release the black grip. Ink cartridge will be locked.

<Note!>
Before mounting Ink Cartridge, see Ink Cartridge installing guide in the packing bag

3. Push the black knob completely in the green arrow direction (⑤) until you hear the click of the latch, and then it is locked automatically as shown in the picture.

※ After replacing Ink Cartridge, you have to reset "PRT Cartridge Count".
And you may need to replace Ink Head Cleaner Felt if necessary



Installing Ink Cartridge

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How to reset PRT Cartridge Count

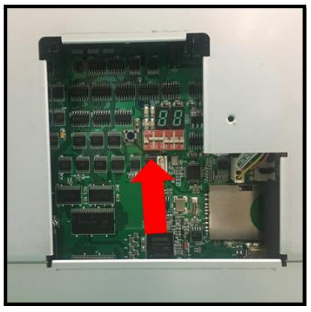
▶ How to reset PRT Cartridge Count

<Note!>

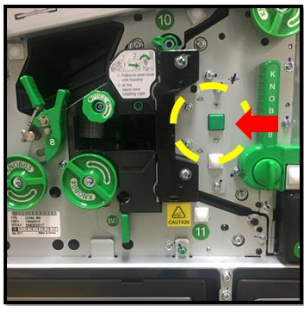
There are 2 ways to reset PRT Cartridge Count. One is using DIP switch and the button on CCIM. Other is using VDM.
As it is alternative, they can choose one of them for their convenience.

Case 1. Using DIP switch and the button on CCIM30

1. Replace Ink Cartridge (Refer to "1) How to replace Ink Cartridge"
2. Lift up the DIP Switch 1 as shows the picture (DIP Switch 1).
3. Press the green button on PRT capping module installed BM3 for 3 seconds as shows the picture (Pressing the green button).
4. Push down DIP Switch 1



DIP Switch up 2,3,4



Pressing the green button

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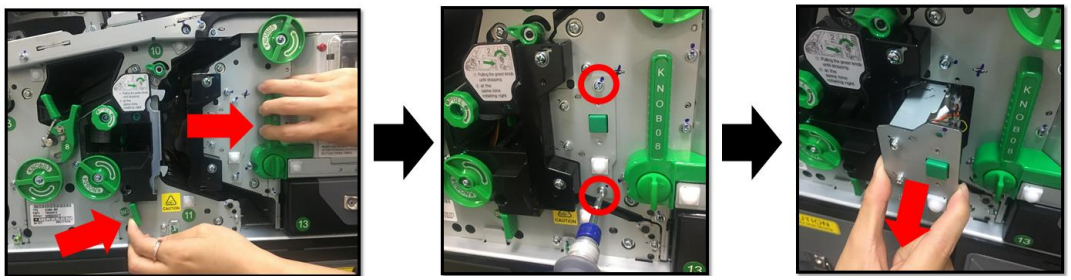
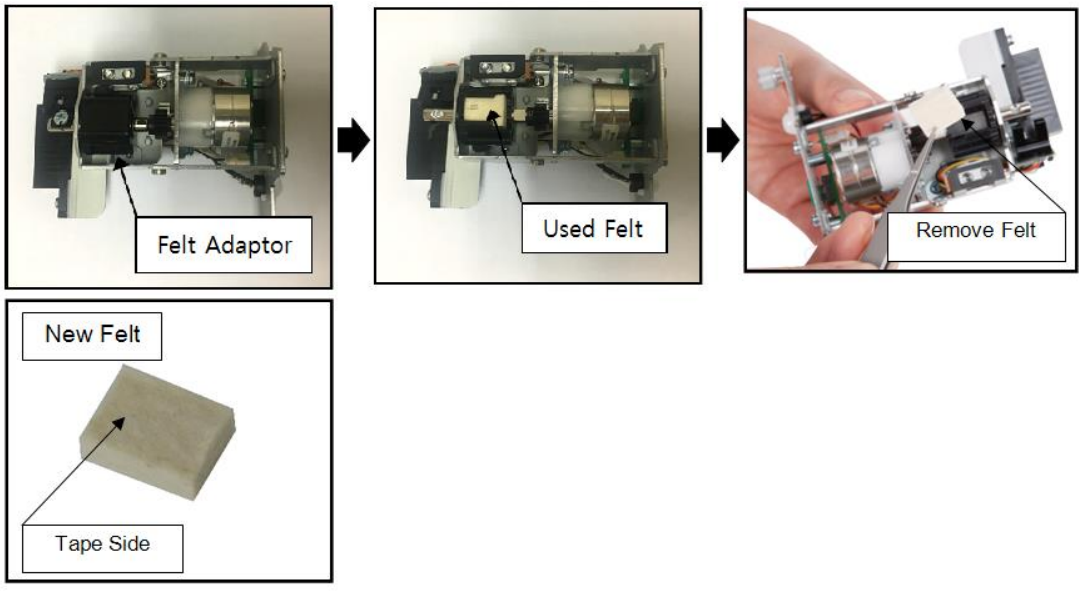
How to replace Ink Head Cleaner Felt

▶ How to replace Ink Head Cleaner Felt

1. Open BM3 using lever and disassemble the felt unit step by step as shows the picture (Dissembling the Felt Unit).
   At that time, Rotate two captive screws counterclockwise completely
2. Rotate the felt adaptor as shows the picture (Replacing Ink Head Cleaner Felt), and remove the old one by using the pin set.
3. After replacing the new one by removing the tape, assemble the felt unit in the reverse process



Dissembling(Bolt two M3) the Felt Unit



Replacing Ink Head Cleaner Felt

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Chapter5. Cash Dispenser

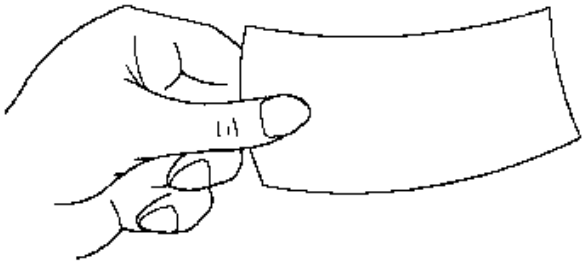
Bill Conditions

Acceptable condition

▶ 1. Bill which is very clean and can readily be recognized as a true bill

2. Bill has sufficient life or sizing to be handled easily

3. Bill which can be manually held straightly when one end is held by a hand and the bill is slightly curved vertically.



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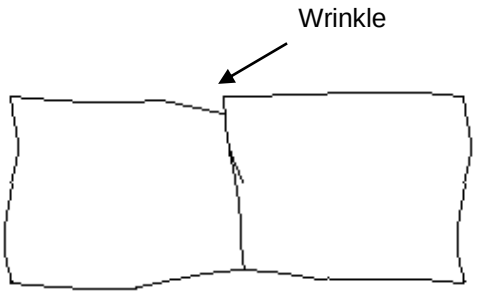
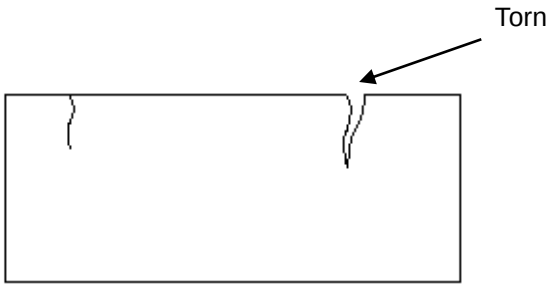
Unacceptable condition

▶ 1. Bill with serious wrinkles, torn or broken section wherein paper fiber is broken and separation begins.

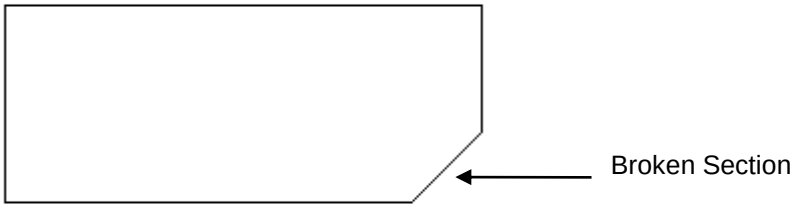
▪ Wrinkle



▪ Torn



▪ Broken section



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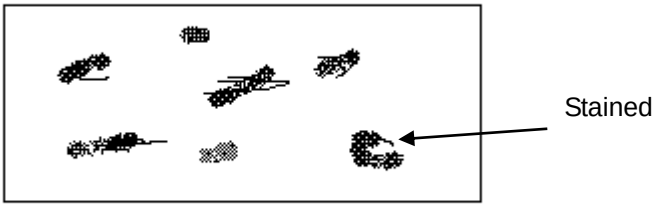
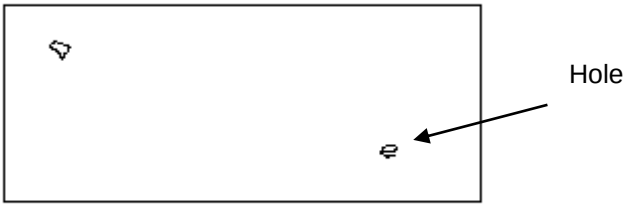
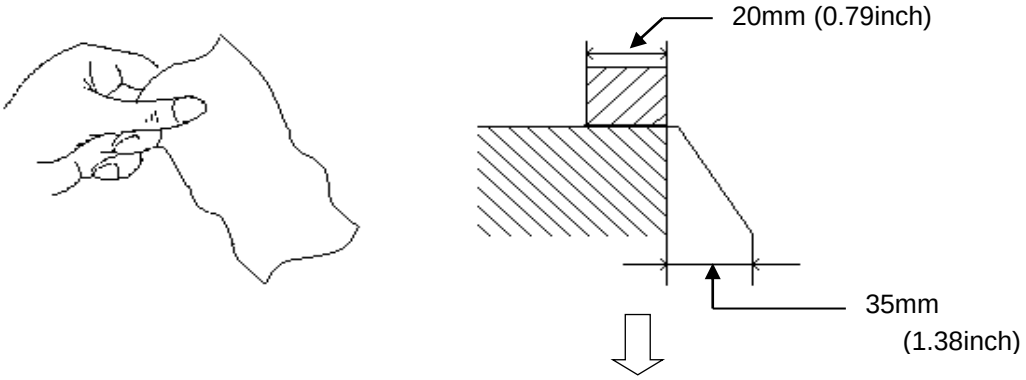
2. Bill having adequate life or sizing, but stained seriously



3. Bill with holes (Perforated bill)



4. Bill ragged and cannot be held straightly when one end is supported by a hand



When the bill is held by 20mm (0.79inch) and the straightness of the bill is 35mm (1.38inch) or less, it cannot be used

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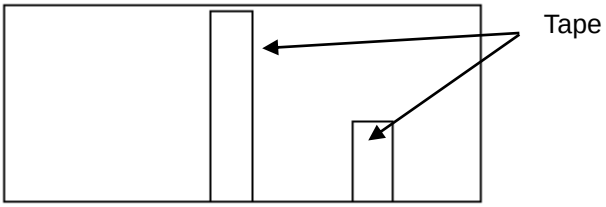
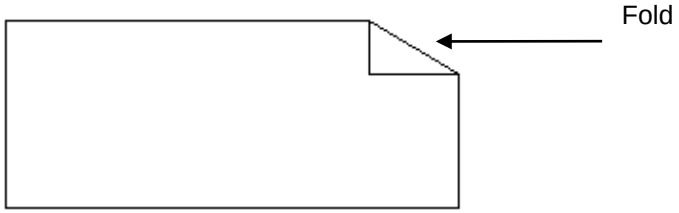
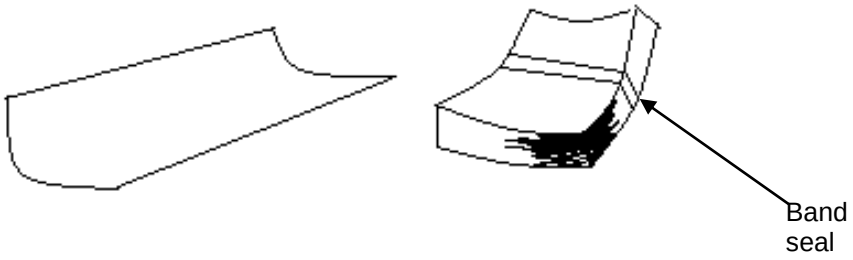
5. Bill with cellophane tape, scotch tape, etc



6. Bill with folds



7. Gradually curved bill (bills tied by hand seal, etc)



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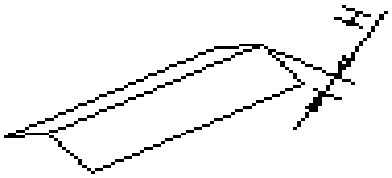
8. Bill with folded lines

Case 1

Case 2

Case 3



<Note!>

Bill distortion should not exceed 10 mm (0.39inch).

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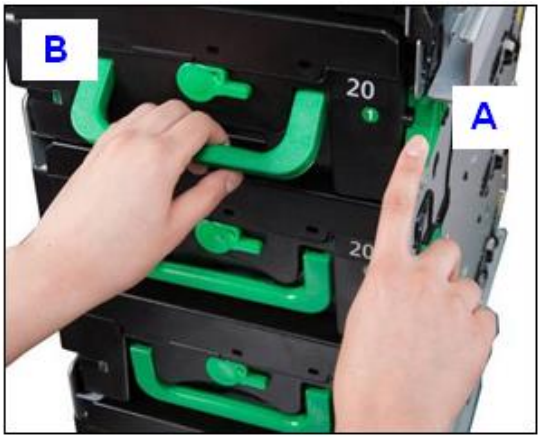
How to Replenish the Cash Cassette

▶ 1. Push the lever **A** and holding a cassette handle **B** with the other hand pull out slightly, and support the cash cassette from bottom with the hand pushed the lever **A**, and pull out to the end of the cassette.



2. Place the cash cassette on a flat level platform and turn the green lever clockwise to unlock a cassette cover. Then lift up the cassette cover.

<Note!>

1) Completely open the cassette cover as picture below when replenishing a cash cassette.

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2) If you have the key type cassette, open the cassette cover using the key like the picture below.

3. Pull black push-plate back completely until it is locked against the cash plate latch.
4. Pull the Push-Plate after pressing the Green Color Button (**C**).

5. Set the bills and push the Push-Plate to the location where the bills are set.

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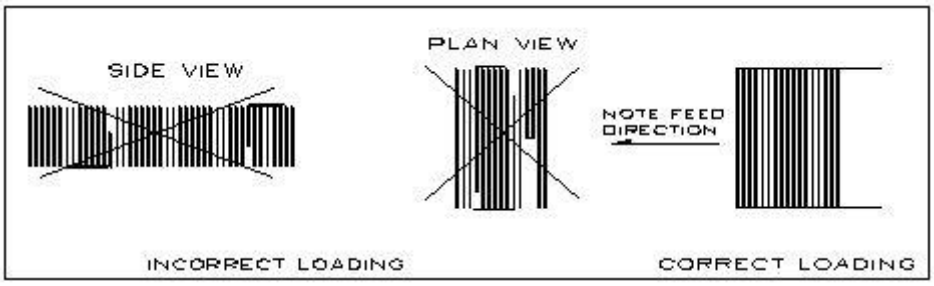
CAUTION:

Be sure to keep in mind the followings prior to replenishing the cash cassette with the bills,

1) Fan the bills so that the bills are not sticking together.
2) Remove all bills with holes or bills that are torn.
3) Unfold the folded bills.
4) Place the bills correctly.



6. Turn the green lever clockwise and completely close the cassette cover.

<Note!>

1) If you have the key type cassette, close the cassette cover using the key like the picture below.

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7. Holding a cassette handle with one hand and supporting the cassette from the bottom with the other hand, place the cassette carefully on the set guide of the CDU and push it completely until it is locked in place.

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How to Empty the Reject/Retract Box

▶ Reject & Retract Box is an integral system that transfers defective bills from cash cassette to Reject Compartment while sending the bills withdrawn but not taken by customers to the Retract Compartment where the bills can be safely stored.

All bills in the retract area of the box can be reused and bills found in the reject area may not be reused. Any bills rejected will be rejected again and it may cause a major bill jam taking the CDU down.

<Note!>
After all jams have been removed it is imperative that you test the complete unit via diagnostics.

1. Push the lever (**A**) and holding a Reject/Retract Box handle (**B**) with the other hand pull out slightly, and support the Reject/Retract Box from bottom with the hand pushed the lever (**A**), and pull out to the end of the cassette.

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2. Turn the green lever clockwise and open the box lid.

<Note!> If you have the key type Reject/Retract box, open it using the key like the picture below.

3. Remove both rejected and retracted bills from the box. Push the edge of transparent component when remove retracted bills.

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PRE CAUTION:
Don’t recycle rejected bills any more. Doing so will cause not only the same reject problem but other unexpected problems such as jams on cash dispenser.

4. Use the reverse order of 1)~3) to put Reject/Retract Box together into cash dispenser again.
   The Reject/Retract Box must be fully inserted. Otherwise, it will happen problems and the error code will display at monitor promptly.

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How to Clear Jamming in cash dispenser

▶ 1. Turn ATM power off, this will initiate an ATM stop process and shut down process, when SHUTDOWN is displayed you may release the switch, wait until machine shuts down completely to clear jams.

<Note!>
Any branch personnel should not attempt to remove any jams without first powering down the ATM.

2. Undock the CDU and slide out completely. Then perform the following steps for each case to clear the obstruction.

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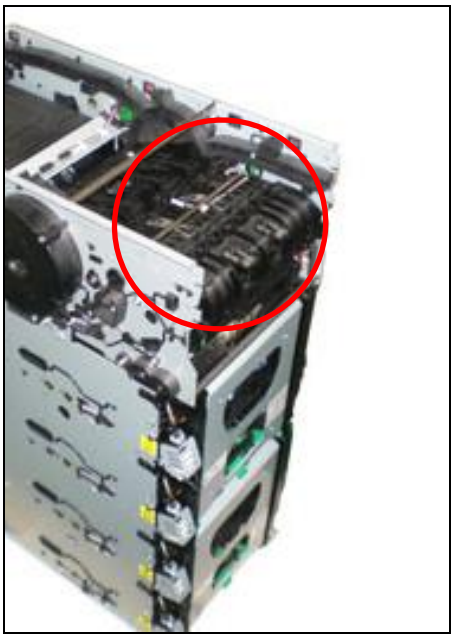
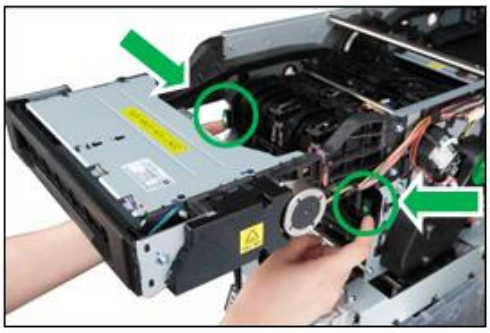
Remove jam from the upper horizontal transport path

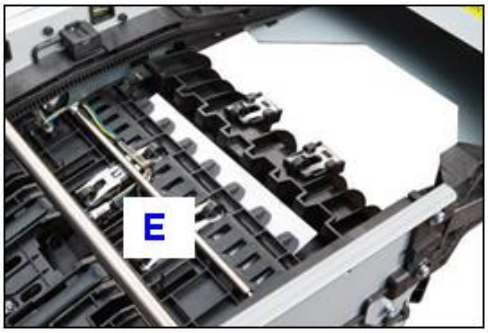
▶ Remove jam from the upper horizontal transport path



1. Pull the lever with both hands while pressing it inward and then remove the bill.



2. Pull the lever with both hands while pressing it inward (see the picture of 1)) and lift up **E** part as the below picture. Then remove the jammed bill.



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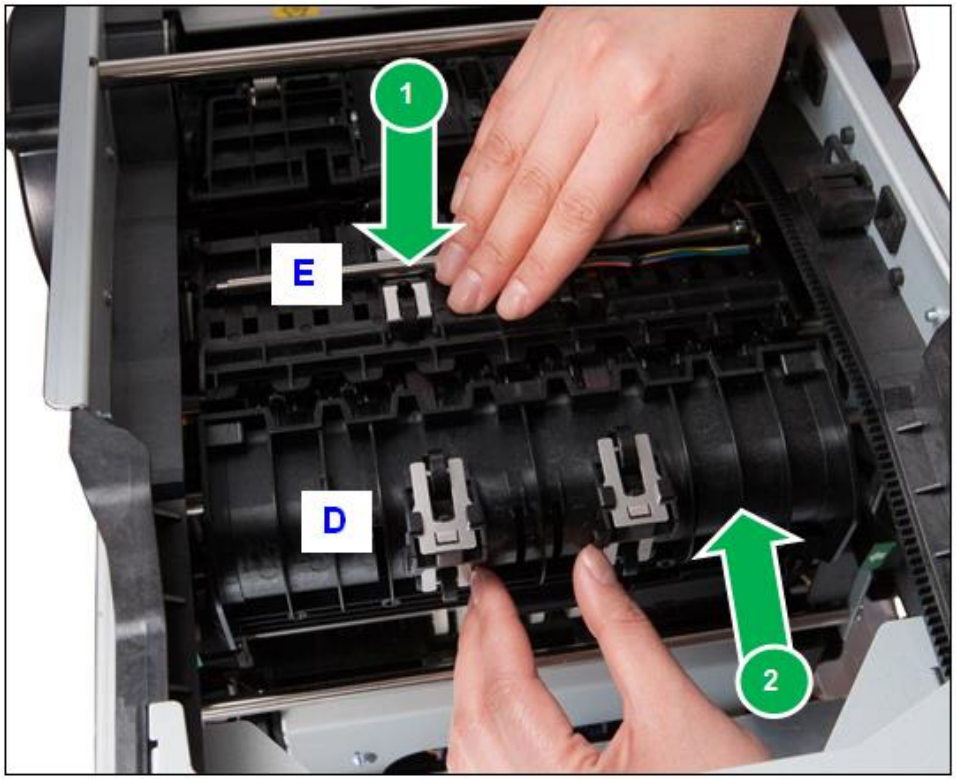
3. Put down the **E** part and press the **D** part in the direction of arrow until it fixes.



CAUTION:
DO NOT put down the E part after first closing the D part.

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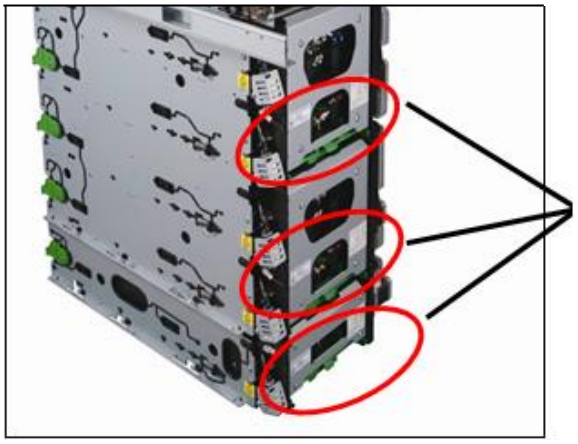
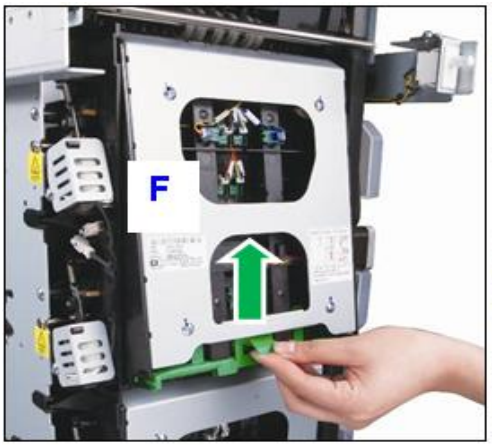
Remove jam from the vertical transport path

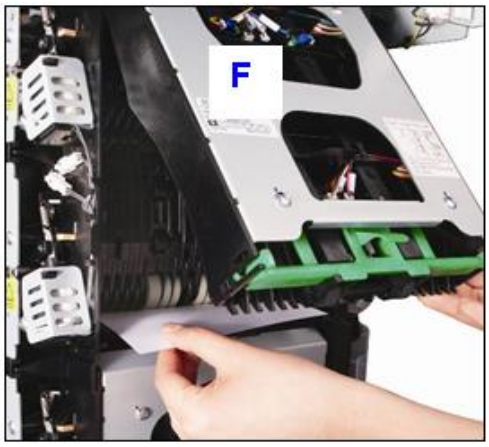
▶ Remove jam from the vertical transport path



This position is where the jammed bill is

1. Pull the green lever of the bottom with lifting it up and open the **F** part. Then remove the bill.





2. Press the lever with hand as the below picture until the **F** part fixes.

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Remove jam from the carriage

▶ Remove jam from the carriage

1. Rotate the carriage by turning the knob (G) and remove the jammed bill.

2. After removing the jammed bill, turn the knob (**G**) and return the carriage to the original position.

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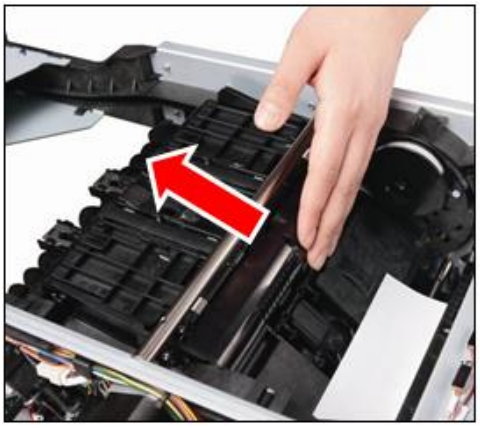
Remove jam from the transport path of the main body

▶ Remove jam from the transport path of the main body

1. Turn the knob (**G**) and match the tooth form.

2. Lift up the carriage with hand and move it to the throat.



3. Turn the knob (G) and move the jammed bill to the location to clear it easily. Then remove the jammed bill.

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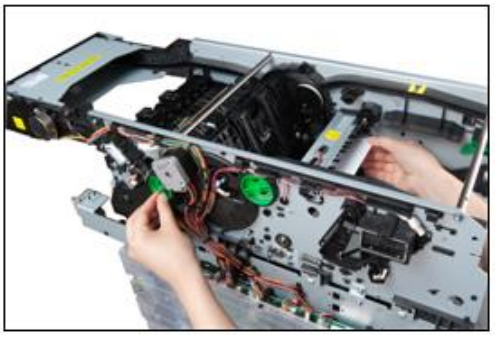
Remove jam from the transport path of RJ/RT box

▶ Remove jam from the transport path of RJ/RT box

1. Demount the Reject/Retract Box.
   (Refer to “How to empty the Reject/Retract Box.”)

2. Remove the jammed bills.



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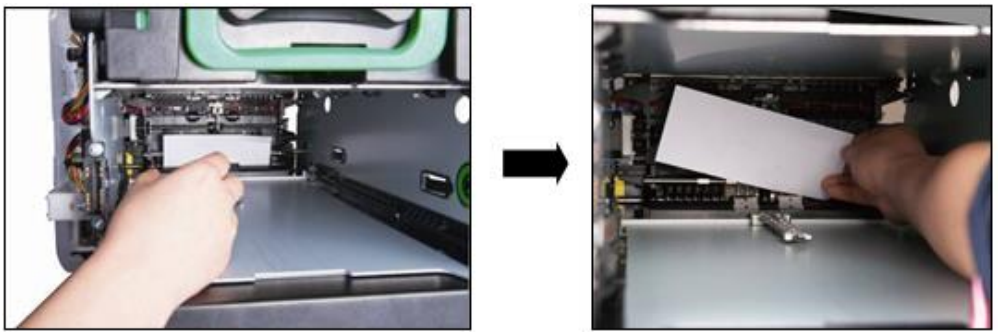
Remove jam from the separation part

▶ Remove jam from the separation part

1. Demount the cassette.
   (Refer to “How to replenish the Cash Cassette.”)

2. Remove the jammed bill as shown in below picture



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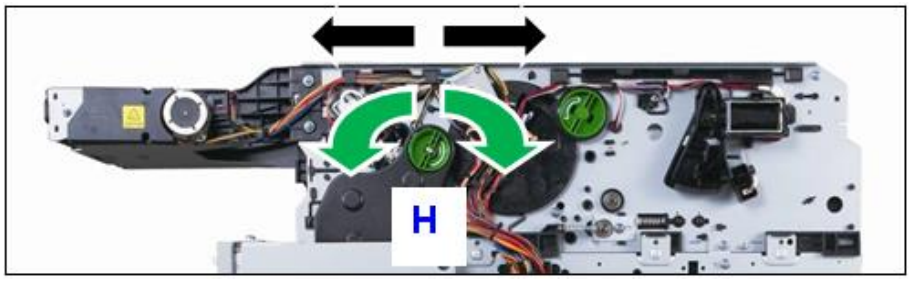
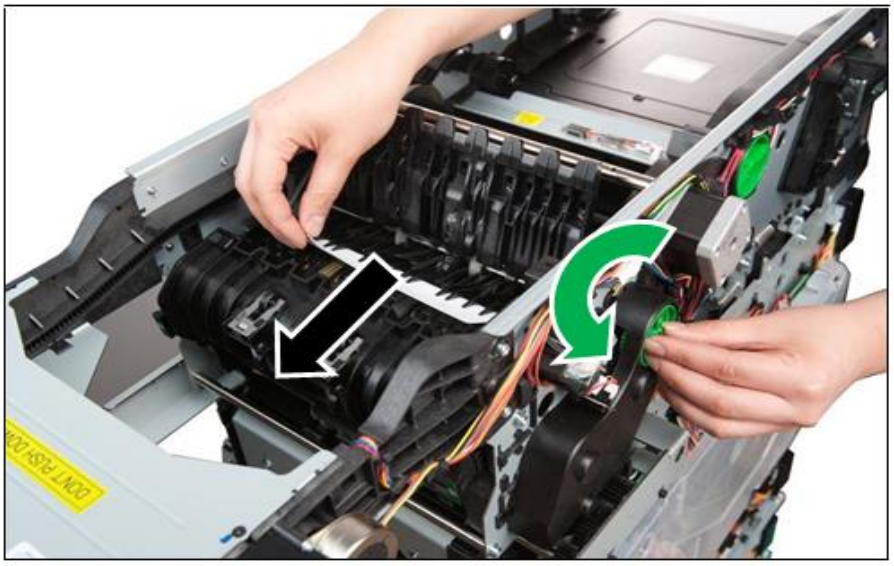
Remove jam from the transport path of reject

▶ Remove jam from the transport path of reject

1. Turn the Knob (H) clockwise or counterclockwise according to the location of the jam and remove the jammed bill.



2. If turning the Knob (H) counterclockwise, the jammed bill will move in the direction of the Transport Path.



3. If turning the Knob (H) clockwise, the jammed bill will move in the direction of the RJ/RT Box.

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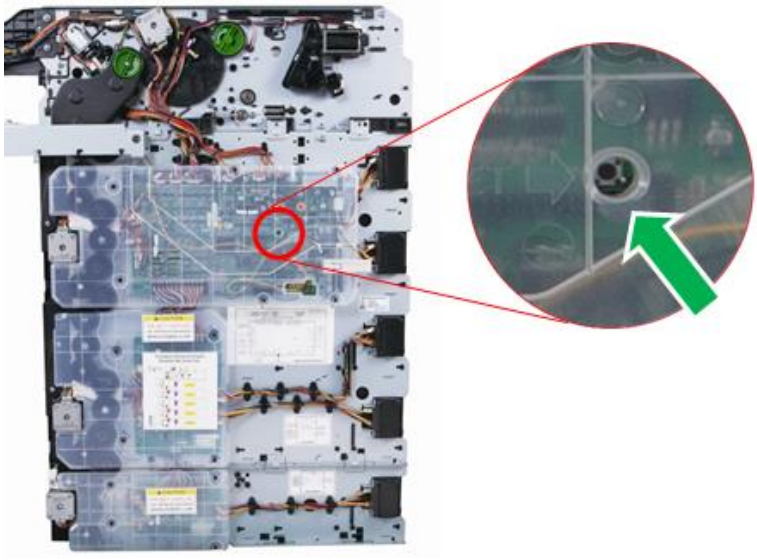
How to Reset Main Board

▶ How to Reset Main Board

1. Press the hole in the red circle with a stick and reset.



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How to set the Cassette for Each Denomination

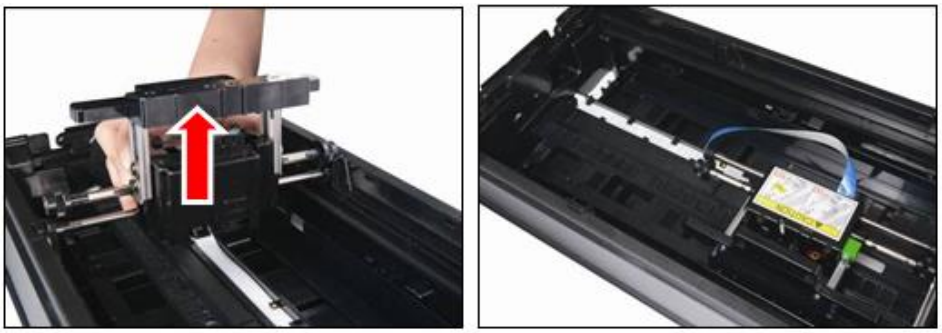
Cassette Base Guide Setting for the Horizontal Size of Each Denomination

▶ Cassette Base Guide Setting for the Horizontal Size of Each Denomination

1. Open the cassette cover as shown in below picture.

2. Pressing the green parts on the end of the shaft supporting the Push Plate with one hand, lift up the Push Plate and take it out with the other hand. Also take out the Push Plate on the other side in the same way.

3. Completely take out the Push Plate and gently place it inside the box.



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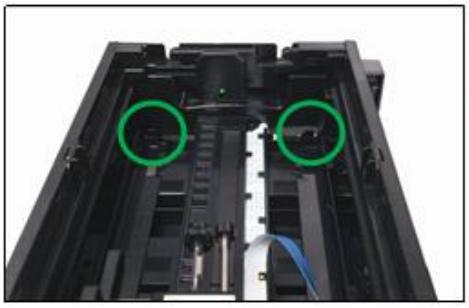
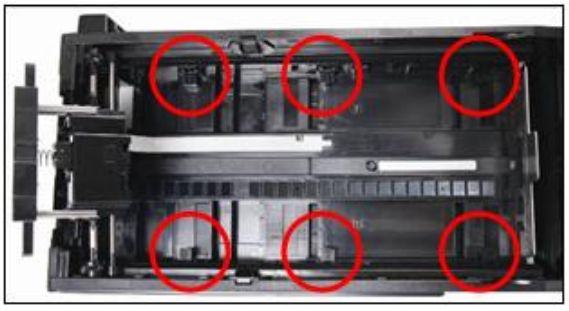
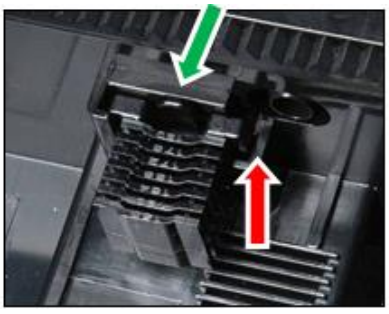
4. Pressing the green part and slightly lifting it up, take out the Hook.



5. After taking out the Hook Part, push the Guide in the direction of yellow arrow and take it out.

6. Remove current 6 LOWER NOTE SPACER as shown in below. Press HOOK in the green arrow and pull up the Spacer.

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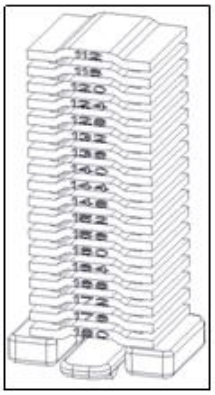
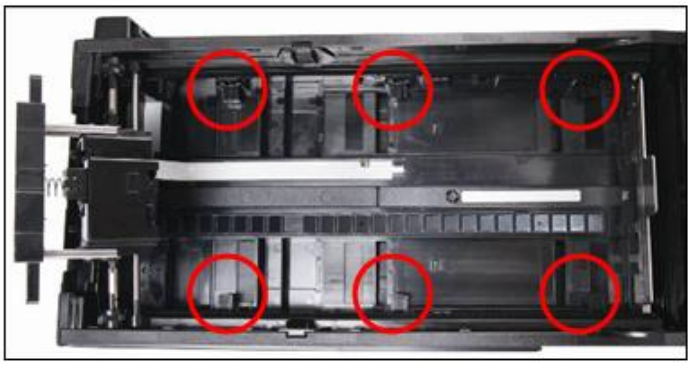
7. Install proper new LOWER NOTE SPACER

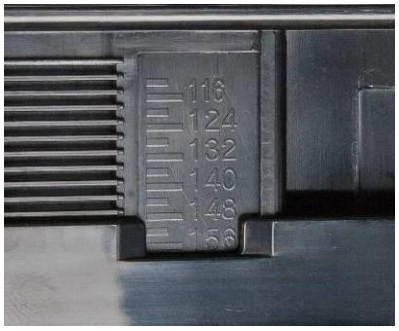




SPACER:NOTE_LOWER					
NO	**PART NO.**	**SIZE (mm)**	**NO**	**PART NO.**	**SIZE (mm)**
1	4460000158	112	9	4460000166	144
2	4460000159	116	10	4460000167	148
3	4460000160	120	11	4460000168	152
4	4460000161	124	12	4460000169	156
5	4460000162	128	13	4460000170	160
6	4460000163	132	14	4460000171	164
7	4460000164	136	15	4460000172	168
8	4460000165	140	16	4460000173	172

Recommended spacer for note size

8. For the desired denomination size, mount the Guide matching it with the white line. Press it until clicking sounds. (Mount the remaining guide in the same way.)



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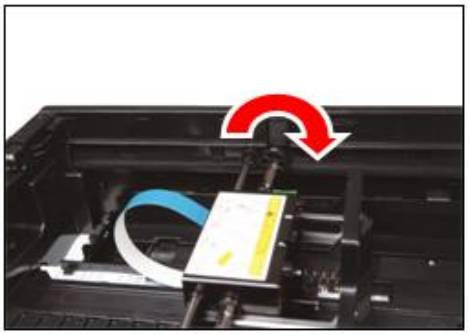
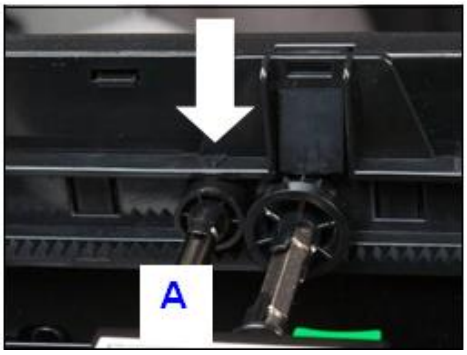
9. Vertically insert two kinds of Shaft and turn the hand holding the Push Plate.



10. Then chck whether A Shaft matches the white arrow. (The other side is same.)



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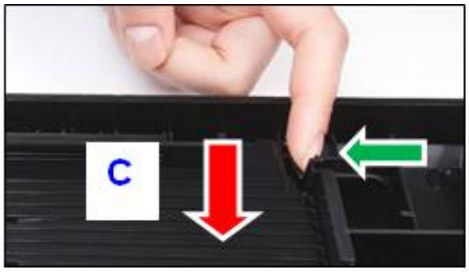
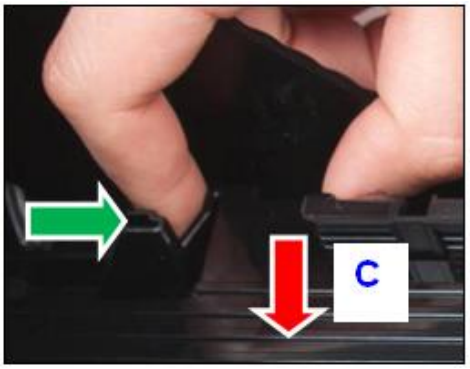
Cassette Cover Guide Setting for the Vertical Size of Each Denomination

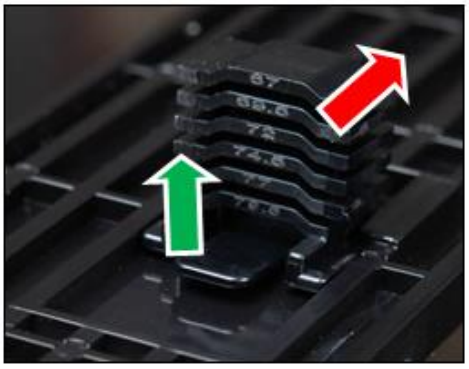
▶ 1. Unfasten the caught Hook in the arrow direction and gently take out the Guide pulling it in the **C** direction.



2. Also unfasten the Hook on the other side in the arrow direction and completely take out the Guide pulling it in the **C** direction.



3. Remove 6 Upper note SPACER. Then lift up HOOK and pull out Spacer from guide



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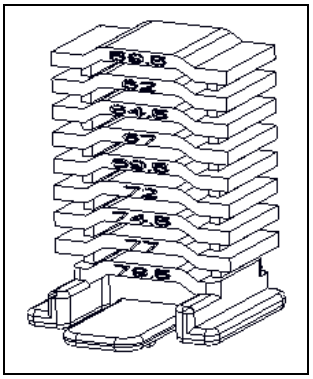
4. Install proper new SPACER:NOTE_UPPER to Guide.



SPACER:NOTE_UPPER					
No.	**PART No.**	**SIZE (mm)**	**NO**	**PART NO.**	**SIZE (mm)**
1	4460000149	59.5	6	4460000154	72.0
2	4460000150	62	7	4460000155	74.5
3	4460000151	64.5	8	4460000156	77.0
4	4460000152	67	9	4460000157	79.5
5	4460000153	69.5			

Recommended spacer for note size

5. After matching the height (white line) with the desired bill size, push it in the arrow direction.
   However, be sure to push it after matching the height of the other side of the Guide.

6. After also matching the other side of the Guide with the height of the desired bill size, push it with both hands until the Hook is caught.

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Change Note Index

▶ Change Note Index

1. After change, Change the denomination label

1	2	5
10	20	50
100	200	500
1,000	2,000	5,000
10,000	20,000	50,000
100,000	200,000	500,000
1,000,000	2,000,000	5,000,000

Label Part No.: 5721001326

2. After adjust cassette have to change assigned denomination value in Supervisor mode.

<Note!>

To assign new denomination in supervisor mode, please contact software develops part or Technical Support Center.

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Chapter6. Receipt Printer

Receipt Paper

► Basic specifications of receipt paper are summarized as follows.

Item	Specifications	Note
Paper Type	Inside Printing Thermal Roll Paper	Paper detects heat.
Paper Width	3.13±0.02inch (79.5±0.5mm)	
Paper Exterior	Max. φ210mm ± 2	
Paper Inside Diameter	18.0mm	
Print Color	Black	
Type of Paper Setting	Semi-Auto loading	

► Printing specification of the black mark

1. Use black without dark or bright shades.
2. Use the oil ink. (no surface gloss)
3. Permeation ratio: Less than 10%
4. Reflection ratio - PCS 0.9 or higher (Less than Mark GBase PCM II 900nm)
5. Thickness should take precedence over reflection ratio.
6. The slippery gap between the black mark and the rule mark should be less than 0.5mm.

►Paper Handling Precautions

1. Store it away from high temperature and humidity:
   If the paper is stored in a place where temperature is above 50℃ or humidity is above 90% RH, the coloring capability may deteriorate or the paper surface may inflate.
2. Refrain from exposing to direct sunlight:
   The paper surface can be inflated if you expose it to direct sunlight or leave it under the fluorescent lamp for a long time.
3. Keep it away from the organic solvents:
   Paper color may change if the paper comes in contact with organic solvents or glues containing organic solvent.
4. Keep it away from plastics:
   If the paper comes in contact with materials containing plastics, its coloring capability may deteriorate or de-coloring of the paper may occur.
5. Store the paper roll separately to prevent damage to the paper.
6. Do not connect the papers with tape.
7. Make sure the paper end is not attached to the paper pipe.
8. Make sure the paper is rolled evenly.
9. Miscellaneous:
   If the paper comes in contact with carbon copy paper or if the paper surface is scratched with a metallic object, de-coloring may occur.

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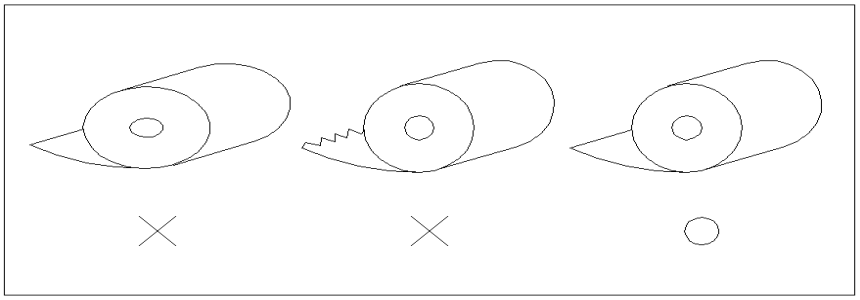
How to load the receipt paper

► Prior to loading the receipt paper, the following must be kept in mind.

<Note!>

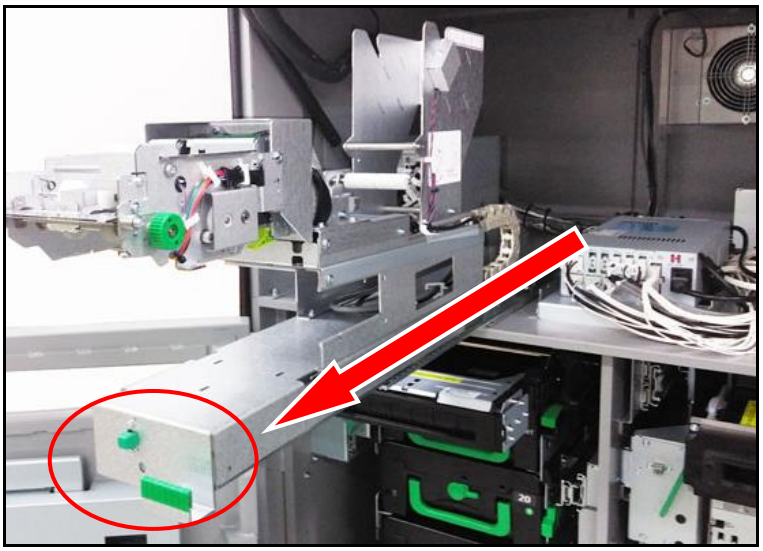
▪ Load a paper roll into the unit with the shape of the roll kept intact.
(Deformed roll may cause jamming.)



▪ The leading edge of the roll shall neatly be cut prior to loading the roll.

► To load the paper roll into the printer, please follow the procedure below.

1. Open the upper front door with key.
2. Rack out the receipt printer by pressing the button and pulling the handle towards you.



3. Insert the paper axis into the center of receipt roll and mount it onto the charger.
4. Have receipt paper go down the white tension bar as shown in the picture and then pull it forward.

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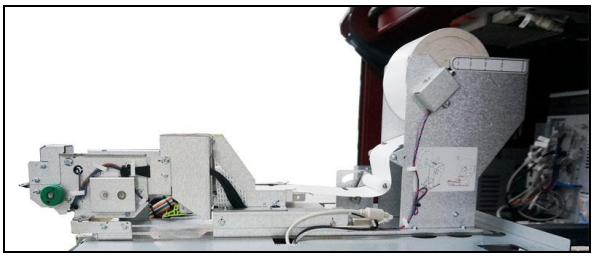
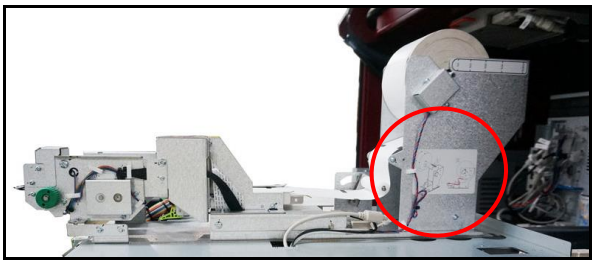
5. Push the receipt paper inside the supporting bracket, as shown in the picture. Then it will be set automatically if turning on the power



<Note!>

1. Refer to diagram stickers placed on either side of the center section of the thermal printer.



2. A test receipt will print. Remove the test receipt from the printer after it finishes printing.

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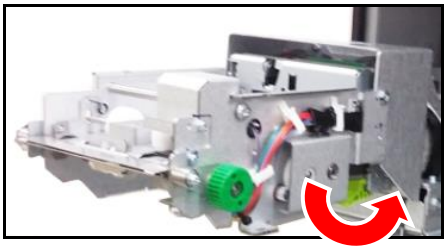
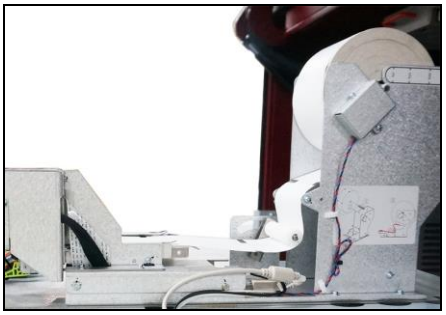
How to clear jamming in receipt printer

► How to clear receipt jam from the Printer

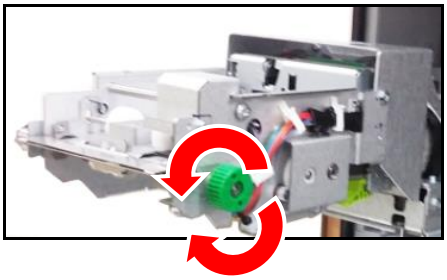
1. Release green lever by moving it to the left (CCW). Listen for a click.



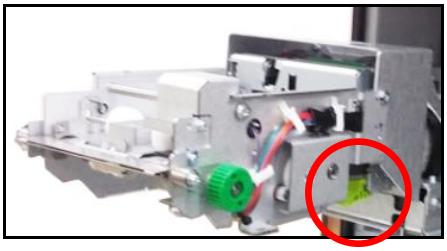
2. Gently pull paper away from the print head.



3. Search for jammed paper and carefully remove it. Rotate the green wheel clockwise or counterclockwise to assist in removing jammed paper



4. Push the green lever to lock it back in place. Listen for a click.



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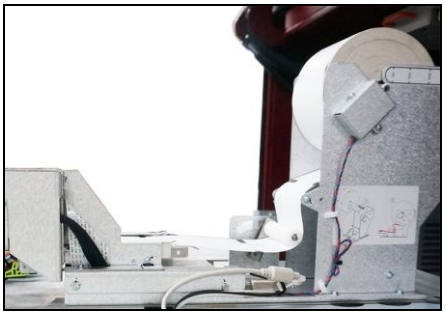
5. Reinsert the paper back into printer. Run diagnostics if necessary.



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Memo

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