

American Changer



AC7914 Installation, Operation, and Service Manual



Changing the IndustrySM

! WARNING

Improper installation, adjustment, alteration, service, maintenance, or use of this machine can result in death, injury or property damage.

Installers & Service Technicians

Read and understand the instructions detailed in this manual.

Owners & Operators

Keep this manual in a safe place to provide to any service technicians working on this machine.

American Changer

1400 N.W. 65th Place, Ft. Lauderdale, FL 33309

Tel (954) 917-3009 • Fax (954) 917-3079

www.americanchanger.com www.hoffmanmint.com

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Section 1 – Product Overview

1.1 – Machine Specifications

Operating Voltage (selectable by switch on power supply)	Set at 115VAC: 90 ~ 132VAC 4.0A Set at 230VAC: 180 ~ 264VAC 6.0A
Power Consumption	10.5 amps
Operating Temperature	41°F to 104°F / 5°C to 40°C
Interface to Bill Dispenser	24VDC ± 10%, 10.5 amps max
Interface to Bill Validator	24VDC, 2.0 amps max
Cabinet Dimensions	20" W x 50" H x 30" D 51cm W x 127cm H x 76cm D
Machine Dry Weight	292 lbs / 132kg

***Note:** Specifications stated herein may vary without notice. Capacities are approximations and may vary.

1.2 – Warranty Information

PLEASE REFERENCE SECTION 4.4 ON PAGE'S 53 AND 54 FOR AMERICAN CHANGER'S DETAILED LIMITED WARRANTY AND EXCLUSIVE REMEDIES. SOME HIGHLIGHTS FROM SAID SECTION ARE:

Bill Validators and Bill Dispensers

Validators and Bill Dispensers are warranted for two years from date of purchase.

Coin Hopper(s) and Logic Board

These items are warranted for one year from date of purchase.

COVERED

- Manufacturers' defects in workmanship or materials

NOT COVERED

- Damage caused by shipping or physical abuse
- Misapplication
- Vandalism
- End users' attempt, on their own, to repair components
- Cleaning and maintenance
- Power surges and lightning strikes

A Return Material Authorization number (RMA #) must be obtained from American Changer Corporation before returning a unit for repair; warranty or otherwise. A copy of invoices must accompany any and all warranty work.

Section 1.3 – Machine Safety

Your safety and the safety of others are very important to American Changer.

We have provided important safety messages in this manual and on your machine. Always read and obey all safety messages.



This is a safety alert symbol.

This symbol alerts you to potential hazards that can kill or hurt you and others. All safety messages will follow the safety alert symbol and either “DANGER”, “WARNING”, or “CAUTION”.

These words mean:



You can be killed or seriously injured if you don't immediately follow instructions



You can be killed or seriously injured if you don't follow instructions



You can be injured if you don't follow instructions

All safety messages will tell you what the potential hazard is, tell you how reduce the risk of injury, and tell you what can happen if the instructions are not followed.

The California Safe Drinking Water and Toxic Enforcement Act requires the Governor of California to publish a list of substances known to the state of California to cause cancer, birth defects, or other reproductive harm, and requires businesses to warn of potential exposure to such substances.

WARNING

This machine contains, and dispenses, items which contain chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. For more information please visit www.P65Warnings.ca.gov.

Important Safety Instructions

DANGER: To reduce the risks of severe injury secure the machine to a stable structure.



Severe Injury Hazard

This machine is to be secured to a stable structure.
 Equipment will fall if not properly secured to a stable structure.
 Failure to follow these instructions may result in death, injury, product damage, or property damage.

WARNING: To reduce the risk of electrical shock, disconnect all electrical power to the machine before servicing.



Electric Shock Hazard

Disconnect all electrical power to the machine before servicing.
 Electric shock will occur while servicing the machine with electrical power applied to it.
 Failure to follow these instructions may result in death, injury, product damage, or property damage.

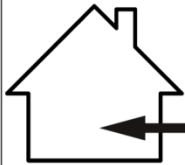
NOTICE: For indoor use only.



For indoor use only.

Solo para usos en el interior.

Pour une utilisation en intérieur uniquement.



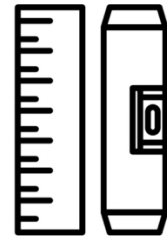
NOTICE: Ensure this machine is level when installed



Ensure this machine is level when installed.

Asegurarse que esta máquina esté nivelada cuando haya sido instalada.

S'assurer que la machine soit de niveau lorsqu'installée.



SAVE THESE INSTRUCTIONS

American Changer does not guarantee machines (products) or services to be 100% secure against criminal attempts. All machines (products) and services are to be used in accordance with business best practices and the owner's or operator's best judgement.

Installation, use, service and maintenance must be performed in accordance with applicable machine (product) manuals provided by American Changer and comply with any and all pertinent laws or regulations.

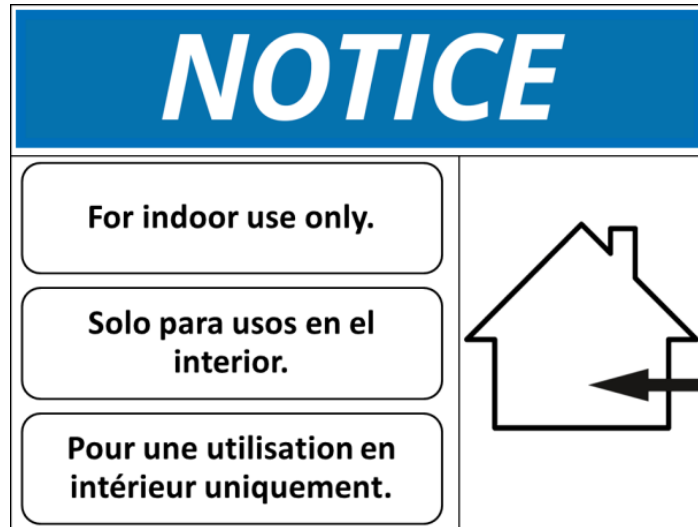
Inspect your machine (product), at a minimum annually, by a qualified service technician.

Dimensions and weights are reasonably close estimates. Specifications in this manual can vary without notice.

Section 2 – Setup & Installation

2.1 – Setup

NOTICE: THIS MODEL MACHINE IS FOR INDOOR USE ONLY.



Inspect for any connectors or components that may have been dislodged during shipping. The lock and keys for your changer will be inside the manila envelope along with this manual and other pertinent information. To install the lock, insert the cylinder into the hole in the middle of the T-handle and push until it stops. Turn the key until you hear it “snap.” Turn the key counterclockwise $\frac{1}{4}$ turn and remove the keys.

NOTE: The only way to get a duplicate set of keys made is to save the tag that comes with the keys. This ID # starts with “AC or ACC #####.” If you purchased Medeco locks with your machine the ID will begin with “7RA #####.”

CHECKING SHIPMENT: Be sure to check the shipment against the Bill of Lading for shortages. Also, check for external damage to the packaging. Note any shortages and/or damage to the packaging on the Bill of Lading in the presence of the carrier and ask the carrier to initial on the Bill of Lading accordingly. Immediately report any shortages or damage to the packaging to the carrier and American Changer.

TEST: Before permanently installing the changer, do a functional test to verify that there is no shipping damage to your new changer.

Plug the power cord into a ***dedicated, grounded 120VAC outlet***. The machine is preset to accept \$5, \$10, \$20, \$50, and \$100 U.S. dollar bills and pay out \$1's (unless otherwise specified at the time of purchase).

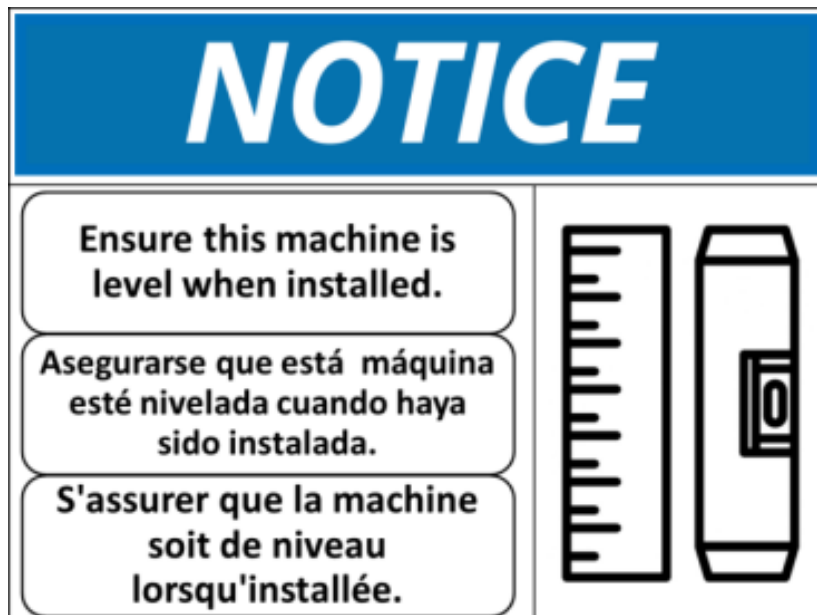
Fill each of the bill dispenser's cassettes with a minimum of 100 bills to a maximum of 2000 bills. On the Main Logic Board, turn the switch on the bottom right corner "ON." *The rocker switch has an "I" and "O" printed on it. When the "I" is pressed down, the changer is "ON."*

If the machine does not function properly please contact American Changer's Technical Support Department at service@americanchanger.com or 1-888-741-9840.

2.2 – Mounting Instructions

This machine must be installed in accordance with local codes. If you are unsure in any way what your local codes are or unsure of anything in the following steps, please hire a licensed professional to mount your machine.

1. Disconnect any and all AC power going to the machine. (Unplug AC line cord from the wall.)
2. Note: You will need to verify with the building code enforcement to see if it is allowable to plug the changer into a 3-prong grounded outlet. If it is not, there must be 120VAC run through conduit or other means to meet local codes to the changer. If it is not required, proceed to step #6.
3. Have a licensed electrician run the conduit, install the new breaker, wire and help decide how the wiring will enter the changer (from the back or the bottom).
4. After the conduit has been installed, proceed with securing the machine to a stable structure.
5. Find an appropriate stable structure which to secure the machine to.
6. **NOTICE: BEFORE SECURING ENSURE THE MACHINE IS LEVEL.**



7. **⚠ DANGER**: PROPERLY SECURE MACHINE (PRODUCT) TO THE FLOOR SO THE MACHINE (PRODUCT) CANNOT BE MOVED OR TIPPED. USE STRUCTURAL SOUND FASTENERS THAT CAN BE PROPERLY TIGHTENED AND SECURE THE MACHINE (PRODUCT) THROUGH EACH OF THE HOLES IN THE BASE OF THE MACHINE (PRODUCT) TO THE APPLICABLE SURFACE TO WHICH IT IS BEING SECURED.



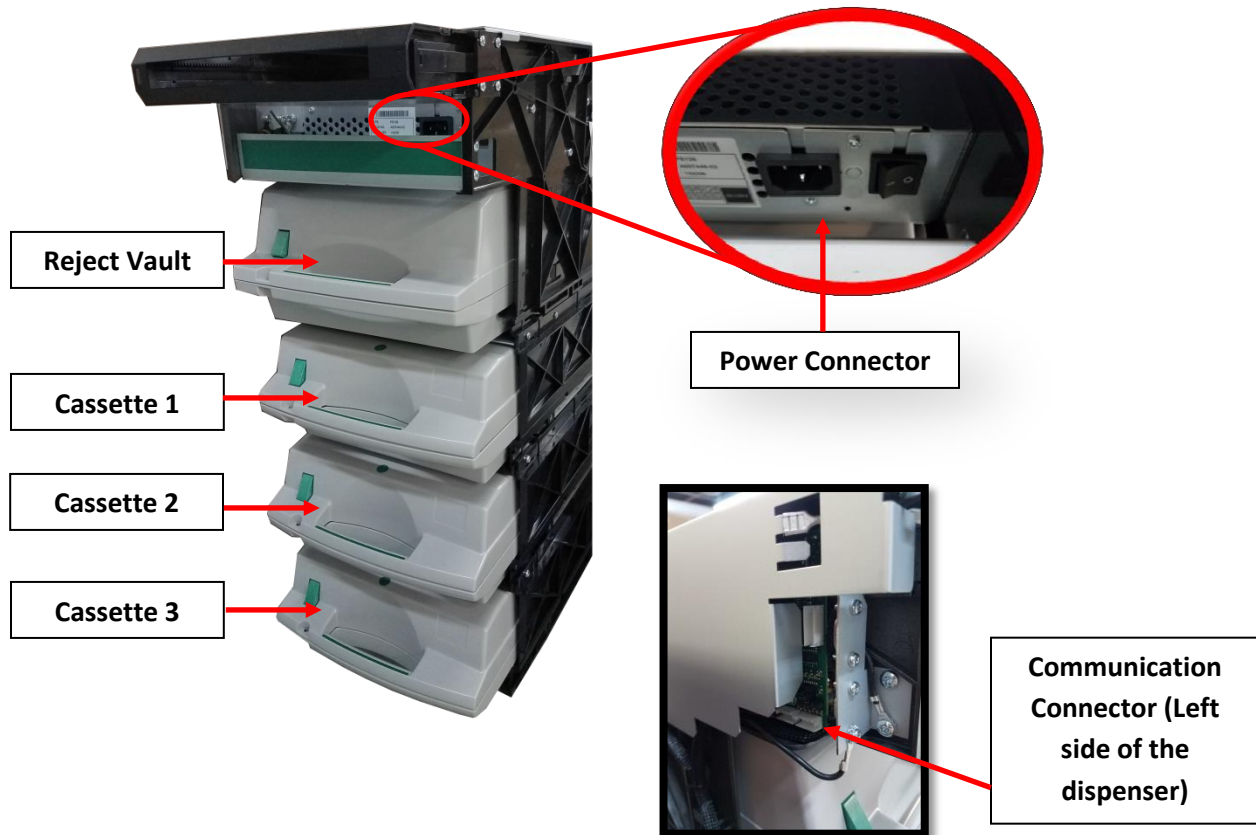
8. Use the four holes located in the bottom of the cabinet to secure the machine to a stable structure.
9. Verify that the machine is properly secured to the stable structure.
10. Feed the AC line cord out the bottom or the back of the machine by moving the “L” bracket if necessary, and perform the following:
- Plug the male end into the AC wall outlet. **Do not use an extension cord unless allowed by the building electrical code.**
 - Installation is completed. Proceed to the “Programming the Changer” section.

Section 3 – Operational Overview

3.1 – Component Description

Bill Dispenser

The bill dispenser can dispense bills ranging in size from 100mm to 162mm wide and 62mm to 78mm high. This machine's bill capacity is approximately 2000 per cassette.

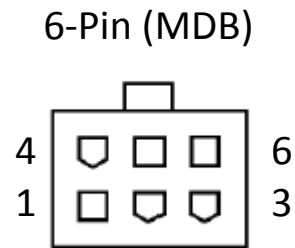


Bill Validator

The machine comes with a 24VDC bill validator using the MDB protocol. The bill validator bill box can hold approximately 1000 bills.

6-Pin (MDB) Connector Pinout:

- Pin #1 - +24VDC Power
- Pin #2 - DC Power return
- Pin #3 - Not Used
- Pin #4 - Master Receive
- Pin #5 - Master Transmit
- Pin #6 - Communications Common



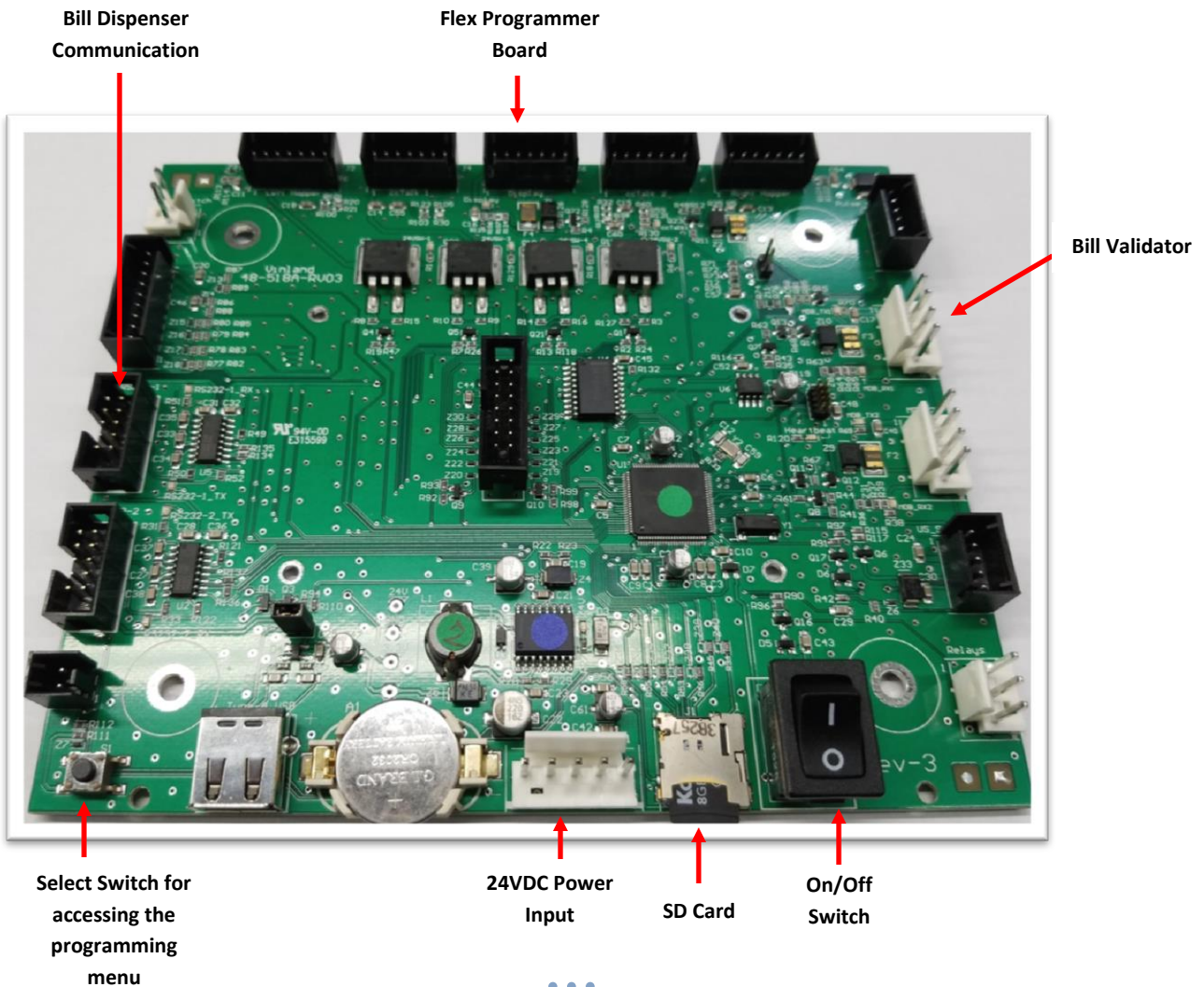
Flex Programmer Board

This device is used to view and edit the machine's settings. When in normal operation the Flex Programmer Board displays payout information to the person using the machine.

Connection to
Flex-2 Main
Logic Board



Flex-2 Main Logic Board



3.3 – Out-of-Service Conditions & Error Codes

System Failures

Below are conditions that will cause the machine to go into an “Out-of-Service” mode. The message “Temporarily out of Service” will be displayed on the Flex Programmer Board when the machine is in an “Out-of-Service” mode.

Bill Validator

Bill Validator Error Conditions

- Motor** Validator stacker/transport motor has failed
- Sensor** Sensor failure
- Checksum** Indicates error with file stored on validator main board
- Jammed** A bill or debris is jammed in the validator bill path
- Cashbox** The cashbox is not installed on the bill validator
- No Comm.** The Flex-2 main logic board is unable to communicate with the bill validator.
- Can't Enable** The Flex-2 main logic board has tried to enable the validator several times without success.

Bill Dispenser

Software includes three cassettes and a reject vault.

- Unit Errors** **These errors disable the unit. User interaction is needed to clear these errors.**
- No Comm** Lost communication with NMD100
- Parity Err** Multiple frames sent and exceeded the parity error counter allowed
- LRC Error** Multiple frames sent and exceeded the LRC error counter allowed
- Reject Vau** Reject Vault fatal error
- Rjct V Opn** Reject Vault was not locked in
- No casset** All cassettes are either out, has an error, empty or a mix of the before mentioned issue
- Transmissi** Transmission error

Not In	Illegal command
Comm Timeo	Communication timeout
Low Level	Cassette almost empty
Empty	Cassette Empty
Machine Op	Machine not opened
Reject Nts	Rejected Notes
Diverter	Diverter Failure
Feed Fail	Feed Failure
Note Quali	Jam in note qualifier
NC not prs	Note cassette not present or properly inserted
Retracted	No notes retracted
RV not prs	Reject vault not present or properly inserted
Delivery F	Delivery failure
Reject F	Reject failure
Too many N	Too many notes
Jam Feed T	Jam in note feeder transport
Reject alm	Reject vault almost full
Failure	Cassette Failure
Main motor	Main Motor Failure
Reject Chq	Rejected Cheque
Qualifier	Note Qualifier Faulty
NF Exit Sn	NF exit sensor failure

Shutter F	Shutter Failure
Bundle Out	Notes in Bundle Output Unit
C Identify	Cassette not Identified
RV full	Reject Vault Full
Throat	Error in Throat
Sensor Cvr	Sensor Err or Sensor Cover
NMD Intern	NMD Internal Failure
Lock Fault	Cassette Lock Faulty
Stacking A	Error in Note Stacking Area
Module Srv	Module Need Service
No message	No message to send
Cassette O	Cassette out on close command
General Status	Bill Dispenser Status Messages
Unlocked!	Unit is being serviced, all cassettes can be removed.
Unlocking!	Unlocking cassettes from the NMD100 for servicing.
Locking!	Locking cassettes to the NMD100 for regular operation.
Locked!	Existing cassettes have been locked.
Not available..	A new cassette value was requested, but the cassette was either not in, empty, or under error condition.

3.4 – Out-of-Service Conditions & Error Codes Continued Dispenser Module Status

Cassette Internal Status – User interaction is required to clear these errors

Flex-2 Error Code	Corresponding NMD100 Error Code	Definition
Not in..	FDR_NO_CASS_IN_MODULE	There is no cassette in the actual feeder position.
Srvc rqst!	FDR_SERVICE_REQUEST	Service requested on the actual feeder.
Almst Empt	FDR_CASS_ALMOST_EMPTY	Low level in the cassette.
Is Empty	FDR_EMPTY_DETECTED_NOT_LOW	Empty has been detected w/out having low level in cassette.
Empty & L	FDR_EMPTY_DETECTED_LOW	Empty has been detected with low level in cassette.
Change Ovr	FDR_EMPTY_CHANGE_OVER	Empty has been detected but feeding continues from another feeder.
Marked Emp	FDR_CASS_EMPTY	Cassette is marked empty.
Feed error	FDR_FEED_ERROR	The feeder has not been able to feed the notes.
Note Retry	FDR_RETRY_NOTE	Feeding is interrupted due to a possible jam between feeder and the Note Qualifier. A retry is made on this error.
Sensor err	FDR_SENSOR_ERROR	A sensor is broken or a note is stuck under the exit sensor.
Abort err	FDR_ABORT_ERROR	Feeding is aborted. RV single department is getting full.
Trans retr	FDR_RETRY_TRANS	Feeding is aborted. A bundle reject is performed. All notes are fed again.

Lock err	FDR_CASS_LOCK_ERROR	It was not possible to open or close the cassette.
COM Close	FDR_COM_CLOSE_ERROR	Communication error with feeder/cassette during Open/Close.
COM err	FDR_COM_ERROR	Communication error with feeder.
Out err	FDR_CASSETTE_OUT_ERROR	Cassette out error during closing the cassette. Only when item 240 is set.
SW Failure	FDR_SW_FAILURE	Not possible to access feeders from a task. Another task has access to the feeders.
SW Fatal	FDR_FATAL_SW_FAILURE	Not possible to create mailboxes & queues. Task will not start.

Reject Vault(RV) Internal Status – User interaction is required to clear these errors.

Flex-2 Error Code	Corresponding NMD100 Error Code	Definition
Almst Full	REJ_CASS_ALMOST_FULL	RV is almost full.
Is full	REJ_CASS_FULL	RV is full.
Not in..	REJ_NO_CASS_IN_MODULE	No RV inserted.
Stack err	REJ_STACK_REJECT_ERROR	Error when RV shutter was moved to the stack reject position.
Close err	REJ_CLOSE_ERROR	Error when closing RV.
Single err	REJ_SINGLE_ACCEPT_ERROR	Error when RV shutter was moved to the single accept position.
Stack acpt	REJ_STACK_ACCEPT_ERROR	Error when RV shutter was moved to the stack accept position.

Data chksm	REJ_CASS_DATA_ERROR	Checksum error in the RV internal data.
Jam NQ	REJ_JAM_IN_QUA	A note has jammed between the NQ and the Reject sensor. (Located in the diverter).
Note Jam	REJ_NOTE_JAMMED	A note has jammed in the Reject sensor.
Note Stckr	REJ_NOTE_IN_STK	A note that was intended to be single rejected was seen in the Note Stacker inlet.
Comm in RV	REJ_COM_ERROR	Error in communication with the Reject Vault

Main Motor Drive Status – User interaction is required to clear these errors

Flex-2 Error Code	Corresponding NMD100 Error Code	Definition
Miss Pulse	TRP_MISSING_PULSE	Transport clock pulses are missed, probably due to dust on transport clock sensor.
Start Fail	TRP_MOTOR_START_FAILURE	Main motor transport did not reach stipulated speed within timeout.
MotorSpd L	TRP_MOTOR_SPEED_TOO_LOW	Speed is lower than the speed tolerance, probably due to a jam in the transport path
MotorSpd H	TRP_MOTOR_SPEED_TOO_HIGH	Speed is higher than the speed tolerance.
SW Failed	TRP_SW_FAILURE	It was not possible to access the main motor transport from a task. Another task has the access to main motor transport.
Fatal Fail	TRP_FATAL_SW_FAILURE	It was not possible to create mailboxes and queues, the task will not start at all.

Note Qualifier Internal Status – User interaction is required to clear these errors.

Flex-2 Error Code	Corresponding NMD100 Error Code	Definition
Config err	QUA_CONFIG_DATA_ERROR	Error in the note data table was detected during power on. All notes have to be learned again.
Write E2	QUA_WRITE_E2_ERROR	Error was detected when writing note data table to the eeprom.
Many reject	QUA_TOO_MANY_REJECTS	More than five rejects without any OK notes between.
Jam Trans	QUA_JAM_NOTE_TRANSPORT	A note has left the Note Feeder exit sensor & is not seen in the Double detect sensors.
Check Fail	QUA_CHECK_FAILURE	Error was detected when ongoing calibration was made on the Double detect sensors. Error is cleared if the next ongoing calibration is successful.
Learn Fail	QUA_LEARNING_FAILURE	Error was detected during the learning note sequence.
DD Fail	QUA_DD_FAILURE	Error was detected, when a calibration from a command was made on the Double detect sensors.
Lid Open	QUA_LID_OPENED	The lid in the Note Qualifier is detected as opened.
SW Fail	QUA_SW_FAILURE	Not possible to access the qualifier a task, or it was not possible to post the note data to the Stacker control task.
Fatal Fail	QUA_FATAL_SW_FAILURE	Not possible to create mailboxes & queues. Task will not start.

Note Diverter Internal Status – User interaction is required to clear these errors.

Flex-2 Error Code	Corresponding NMD100 Error Code	Definition
Sensor err	DIV_SENSOR_ERROR	Not possible to calibrate the Note Diverter sensor. Sensor is located in the note path to single reject area. Reason for this error could be a broken sensor or sensor is covered with a note.
SW Fail	DIV_SW_FAILURE	Not possible to post the note data to the Stacker control task.

Note Stacker Internal Status – User interaction is required to clear these errors.

Flex-2 Error Code	Corresponding NMD100 Error Code	Definition
Inlet Note	STK_UNEXPECTED_NOTE	An unexpected note was seen in the Note stacker inlet sensor. The note has not passed the Double detect sensors.
Enable err	STK_ENABLE_ERROR	It was not possible to enable the Note Stacker.
Jam NQ	STK_JAM_IN_QUA	A note has jammed between the Note Qualifier and the Note Stacker inlet sensor.
Note Jam	STK_NOTE_JAMMED	A note has jammed under the Note Stacker inlet sensor.
Note rjctd transport.	STK_NOTE_IN_REJ	A note that was intended to be stacked was rejected instead.
Move err	TK_MOVEMENT_ERROR	Stacker wheel has not made a proper movement between notes or at emptying of stacker wheels.
Prstr Comm	PRS_COMMUNICATION_ERROR	Communication error with the SPC or Reject Vault.
SW Fail	PRS_SW_FAILURE	Not possible to access presenter from a task. Another task has the access to main motor

Data Handler Internal Status – User interaction is required to clear these errors.

Flex-2 Error Code	Corresponding NMD100 Error Code	Definition
Check Sum	DAT_CASS_DATA_ERROR	There was a checksum error in the cassette data area.
Comm err	DAT_CASS_COMM_ERROR	Communication error with the cassette.
SW Fail	DAT_SW_FAILURE	Not possible to access the cassettes. Another task has the access to the cassettes.
Fatal Fail	DAT_FATAL_SW_FAILURE	Not possible to create semaphores. The task will not start at all.

3.5 – Programming Menu

To enter the programming menu, begin by pressing the “Select Switch” on the Flex-2 main logic board.

Pressing the select switch will bring the display to show “Enter Access Code.”

Use the Flex Programmer Board to enter the access code. The default code from the factory is “1234”

To exit the programming menu or the “Enter Access Code” screens press the “Select Switch”

Use the Flex Programmer Board to navigate the menus. Press the “Cancel” button and enter a menu number to be brought immediately to that menu or press the **Back/Next** button to step through the menus.

All the menus work the same:

No/Yes: Selects status

Back/Next: Selects the item

Exit: Exits the setup menu

NOTE: ALL MENUS MAY NOT APPLY TO YOUR SPECIFIC MODEL MACHINE. UNUSED MENUS WILL BE IDENTIFIED BY AN ASTERISK *.

Menu 01 – Print Help Menu

A list of the menus and their corresponding numbers is printed by the printer if a printer is available.

Menu 02 – System Info

The payout information and configuration settings are printed by the external printer. Aside from those, the following information is also included in the System Info printout:

Software Revision
Valid1 Status
Valid2 Status*
Hopper #1 Status*
Hopper #2 Status*
Hopper #3 Status*
Hopper #4 Status*
Credit Status*
Printer Status
Coin Acceptor*
Bill Dispense
Temperature Info
IP Address*

Menu 03 – Enable Bills

This system uses MDB validators. The display will toggle between the bill denominations the validator accepts.

Menu 04 – Payout Table

Only bills enabled in **Menu 03** will be available in this menu. Enter the # of bills dispensed for each bill denomination by using the Flex Programmer Board. If all cassettes have the same denomination with no commission, there is no need to setup the payout table.

Menu 05 – Enable Hoppers*

Menu 06 – Hopper Coin Value*

Menu 07 – Enable Coin Acceptor

Enable or disable if a coin acceptor is being used. Also enable or disable which coin denominations are accepted. When using a coin acceptor, the unit will dispense the lowest bill value set, if those cassettes report with no errors.

Menu 08 – System Disable

This disables the system if any of the selected devices experience an error. This is only applicable when bill dispenser has two denominations.

Menu 09 – Dump Hoppers*

Menu 10 – Audit Information

Provides a summary of all the sales by print out or is viewable using the Flex Programmer Board. There are separate counters for credit cards and items/change dispensed from each hopper.

Reset – Prints 2 copies of all the audit report, if a printer is available, and resets all of the “**Resettable Counters**” to 0. Every time the **Reset** button is pushed the audit sequence number on the print out increases by one.

Print – Pushing the **Print** button prints all the audit values without resetting. All the values are max 99,999 except for the **Total Cash** value which is \$100,000.00.

Disp – Displays the audit data on the Flex Programmer Board.

Menu 11 – Date Setup

Enter the date in this format: 20YY-MM-DD.

Menu 12 – Time Setup

Enter the time in this format: HH:MM. 24 hour format.

Menu 13 – Machine Number

Assign a machine number.

Menu 14 – Access Code

Setup a new access code.

Menu 15 – Cassette Value

Set the bill value in each of the cassettes. Cassette values can't be entered while the unit is initializing. Before changing cassette values, check that the cassette of interest is not reporting an error. This menu will only be accessible after the unit has completed its initialization phase otherwise the display will read:

“Bill Dispenser Not ”

“Ready!! Exit ”

If the note is new then unit enters a learning mode and will cycle through the following messages:

“Learning new value..”

“Unlocking cassettes ”

“Pull all for 5 sec. ”

After pulling all cassettes out for a minimum of 5seconds, then pushing them back in, press the Lock button to prompt the NMD100 to continue the learning cycle.

“Locking cassettes ”

“Testing note cycle ”

At this point the NMD100 will dispense a single note.

“Test note dispensing”

“Successful ”

Note: When changing cassette value, the test bill dispensed will be added to the total number of bills dispensed in the audit report.

Menu 16 – Cassette Limit

If this option is set to “0” the bill dispenser’s low level sensor will be used. If a number is entered in this menu the machine will assume that number is how many bills are in the cassettes. The machine will go out of service when the machine cannot dispense bills based on the low level sensor or the number entered.

Menu 17 – Validator Enable

Enable or disable the bill validator.

Menu 18 – Country*

Menu 19 – WebServer

Configure WebServer. Please refer to the WebServer section on Page 24 in this manual.

Menu 20 – Anti-Stringing

Setup max cash amount, max time, and shut-off system time for anti-stringing purposes.

3.6 – Software Features and Dispense Setup

Software Features – This is an overview of some of the software features available for use with this model machine.

1. **Commission** – The payout table is setup to pay bills less than the inserted bill. For example, \$5 = 4 bills dispensed, \$10 = 8 bills dispensed, etc.
2. **Bonus** – The payout table is setup to pay notes (not bills) more than the inserted bill. For example, \$5 = 6, \$10 = 12, etc.
3. **Out-of-Service Condition** – The display alternately shows "Temporarily Out of Service" and "Cash Owed XXX" message if any money is owed.

Dispense Setup – This is an overview of how to set up the payout of the machine.

1. **Same Denomination** – If all cassettes have the same denomination, no commission, then there is no need to setup a payout table.
1. **Two Denominations** – In a two denomination setup the cassettes can be placed on any tray and order, however since the cassettes hold the denomination it's important that the same cassette is used for the same denomination. If the cassette has the wrong denomination it was configured for, the payouts will be incorrect and there will be no way of knowing it.

It is recommended that some type of label is used on the cassettes to identify the denomination it is configured for.

2. Payout Table Configuration – **Before** using the payout table, it is important that the **Unit Configuration** has been completed and the proper hardware has been setup.

Example of a payout table using 2 denominations (***) indicate no payout):

Payout Table		
Denomination Inserted	\$1	\$5
\$1	***	***
\$2	2	***
\$5	5	***
\$10	5	1
\$20	10	2
\$50	20	6
\$100	50	10

To verify that the payout table is setup properly, print the System Info receipt from Menu 02. The display should also show the payout. Finally perform test transactions to ensure setup is accurate.

3.7 – Webserver

The webserver is an optional add-on that allows the owner of the machine to “log in” to the machine. From there one can view the status of the machine and make changes to the payouts.

The screenshot displays the American Changer webserver interface. At the top, there is a navigation bar with tabs for Login, Home (selected), Audit Information, Configuration, Network Settings, and Email. The main content area is divided into several sections:

- Sales:** A table showing Total Cash of \$20,180.00.
- Equipment Status:** A table listing various components and their states.
- Time/Date:** A table showing Current Time (15:22) and Current Date (11/07/16).
- Last Transaction:** A table showing Amount Inserted (\$100.00), Amount Dispensed (\$151.00), and Amount Owed (\$0.00).
- System Software:** A table showing Flex Software (FX2V-1A-A09) and Website (NBFQ-0A-E07).

At the bottom of the interface, there is a location field with the text "Menu 22 For Heading".

Home Tab – Sales, Equipment Status, Time/Date, Last Transaction, and System Software are displayed in this Tab.



AMERICAN CHANGER

Changing the IndustrySM

Login Home **Audit Information** Configuration Network Settings Email

Description	Reset Counters	Non Reset Counters
\$ 1	0	0
\$ 2	0	0
\$ 5	108	108
\$ 10	100	100
\$ 20	87	87
\$ 50	108	108
\$ 100	115	115
Cassette1	23,626	NA
Cassette2	29,504	NA
Cassette3	26,876	NA
Cassette4	25,540	NA
Bills Rejected	0	NA
Total Cash	\$20,180.00	\$20,180.00
Sequence Number		0

Reset Counter

Status:

Audit Information Tab

Audit Information Tab – Resettable and Non-Resettable Counters are displayed in this tab. The counters can be reset from this tab as well.

Payout Table	Current Payout	NA	Current Payout	NA
\$ 1	NA	<input type="text"/>	NA	<input type="text"/>
\$ 2	NA	<input type="text"/>	NA	<input type="text"/>
\$ 5	NA	<input type="text"/>	NA	<input type="text"/>
\$ 10	NA	<input type="text"/>	NA	<input type="text"/>
\$ 20	NA	<input type="text"/>	NA	<input type="text"/>
\$ 50	NA	<input type="text"/>	NA	<input type="text"/>
\$ 100	NA	<input type="text"/>	NA	<input type="text"/>

Enter number of bills: 1, 5, 10, etc.

Time & Date	Current(Time & Date)	Entry Field
24 Hour Time(hh:mm)	15:23	<input type="text"/>
Date(MM/DD/YY)	11/07/16	<input type="text"/>

Current Location Name	New Location Name
Menu 22 For Heading	<input type="text"/>

Submit Changes

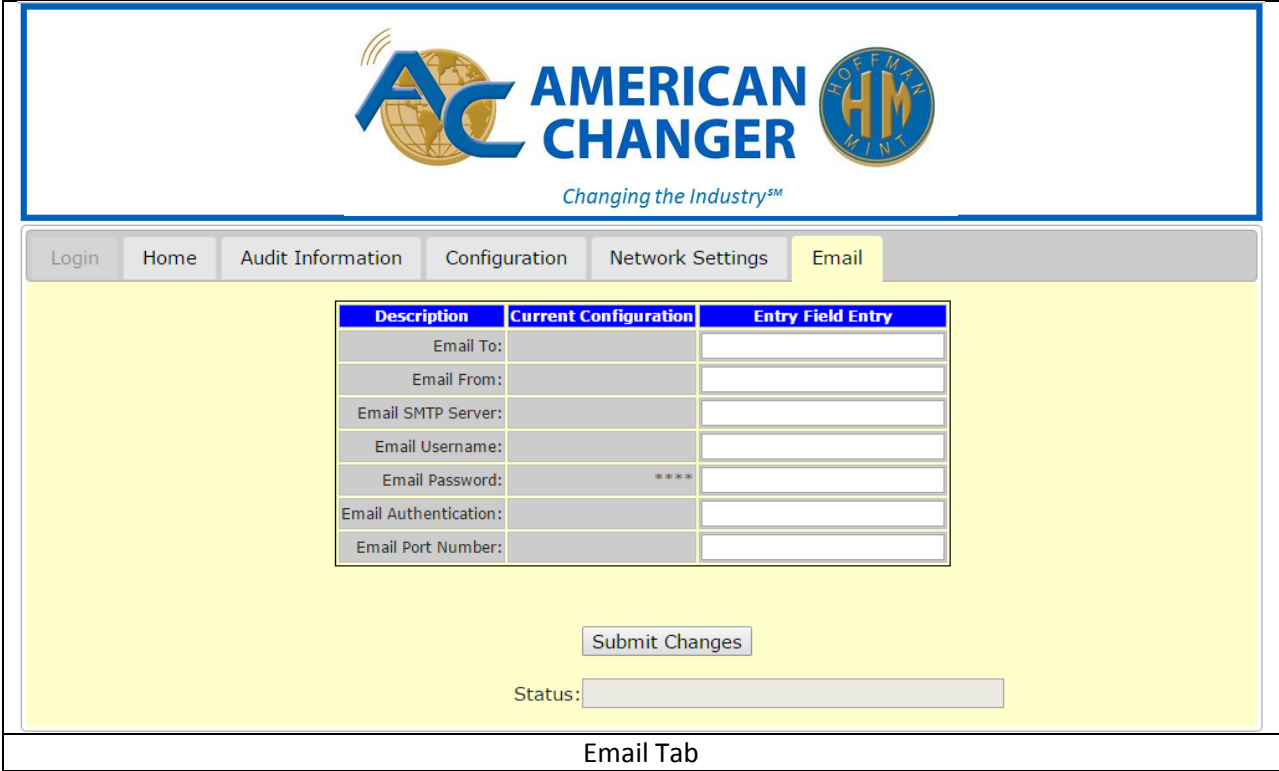
Configuration Tab

Configuration Tab – This tab allows the operator to send a new payout configuration, time, and date to the machine.

Description	Settings
IP Address	192.168.1.13
Network Mask	255.255.255.0
Gateway	192.168.100.1
DNS Server	192.168.100.1
Port	80

Network Settings Tab

Network Settings Tab – This tab displays the IP Address, Network Mask, Gateway, DNS Server, and Port settings



The **Email To** from the picture above is to an AT&T SMS account. Below is a list of additional US and Canada SMS accounts:

AT&T: 10digitphonenumber@txt.att.net

MetroPCS: 10digitphonenumber@mymetropcs.com

Sprint: 10digitphonenumber@messaging.sprintpcs.com

T-Mobile: 10digitphonenumber@tmomail.net

Verizon: 10digitphonenumber@vtext.com

Max is 64 characters per email. Below is an example:

Machine;000 Val;Fail/Ok C1;Fail/Ok C2;Fail/Ok C3;Fail/Ok C4;Fail/Ok Pt;Fail/Ok

Where: **Val:** Validator Status
C1,C2,C3, C4: Cassette Status
Pt: Printer Status

3.8 – Remote Loading Software to the Flex-2 Board

1. What you need

- 1.1 Windows XP, or later pc with MicroSD port or USB to MicroSD card reader
- 1.2 MicroSD card (comes installed in the Flex-2 main logic board)

2. Transferring the file into the MicroSD card

- 2.1 Turn power off to the controller board.
- 2.2 Remove SD card.
- 2.3 The software is in a zip format and will be sent as an attachment to an email.
- 2.4 Save the zipped file and then unzip it.
- 2.5 **Do not change the name or the file extension!!!**
- 2.6 Copy the program file to the SD card.

3. Loading the file from the MicroSD card to the controller board

Note: All system settings will be erased once software is updated!!! We recommend making a print out of the settings before doing anything.

- 3.1 Turn power off to the controller board.
- 3.2 Gently push the MicroSD card into the MicroSD connector on the board.
- 3.3 Turn power on while holding the Button on the board for 2 seconds then release.

Update Software? Press **Yes** to continue loading the software. Press **Exit** to cancel.

- 3.4 Once the **Yes** key has been pressed a brief reminder will be displayed followed by a confirmation.

System Settings will be erased if Updated – This reminder will stay on for a few seconds before transitioning to the final confirmation message.

Update: XXXX-XX-XXX Start Next Exit – Press **Start** to load the software. Press **Next** view the next file loaded on the MicroSD card or Press **Exit** to cancel.

- 3.5 Software updating and completion.

Update: XXXX-XX-XXX Addr : 0x00012000 – Software name and flash memory address being programmed. Address should be cycling every ½ second.

Software Updated! Please Cycle Power – Cycle power to complete update.

4 Error messages:

One of the following messages may occur if there is **a problem loading the software**. In that case, remove the MicroSD card and check that the correct file is loaded on the MicroSD card.

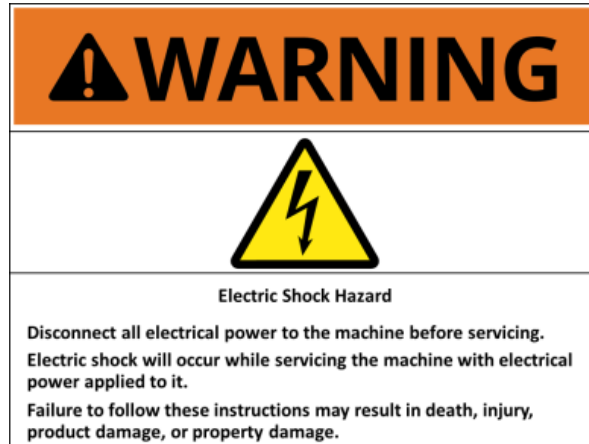
- 4.1 **EEPROM Error Please Try Again** – EEPROM error.
- 4.2 **Main CRC Error V:XXX Update Required!** – The computed main program CRC is incorrect.
- 4.3 **Frame Error V:XXX While Reading File** – There was a checksum error while reading one of the files entries.

THE FOLLOWING IS A FATAL ERROR AND THE BOARD CAN NOT BE USED!!

- 3.4 **Fatal Error V:XXX Invalid Boot CRC!** – Do not load any software if this message occurs.

Section 4 – Maintenance

⚠ WARNING : DISCONNECT ALL ELECTRICAL POWER TO THE MACHINE BEFORE SERVICING.

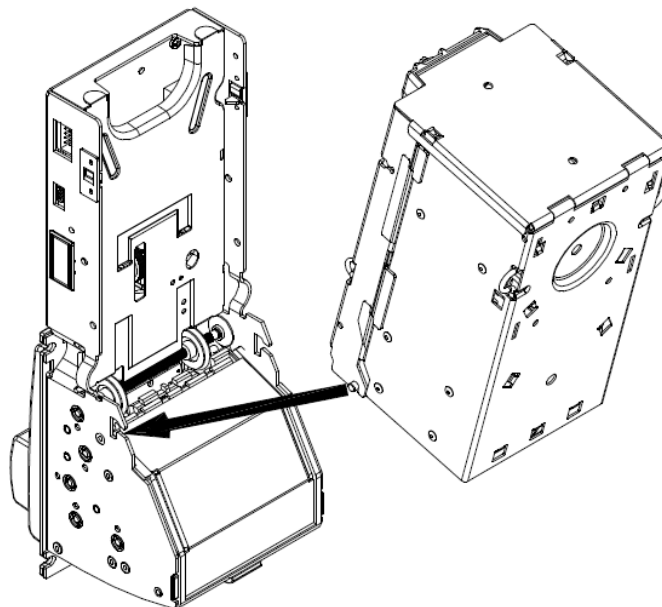


4.1 – Bill Validator Maintenance

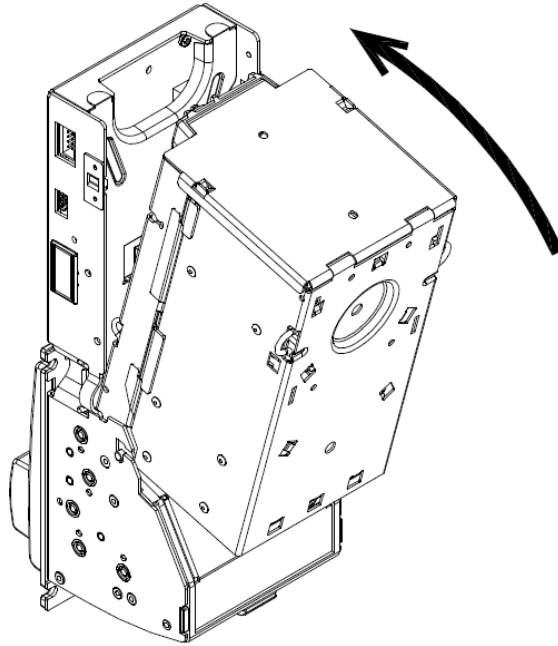
This model machine is sold with a CPI SM-2317US8724 series bill validator. If anything other than an CPI SM-2317US8724 series bill validator is being used please refer your bill validator's user manual for proper cleaning and maintenance procedures.

Cassette Removal and Installation

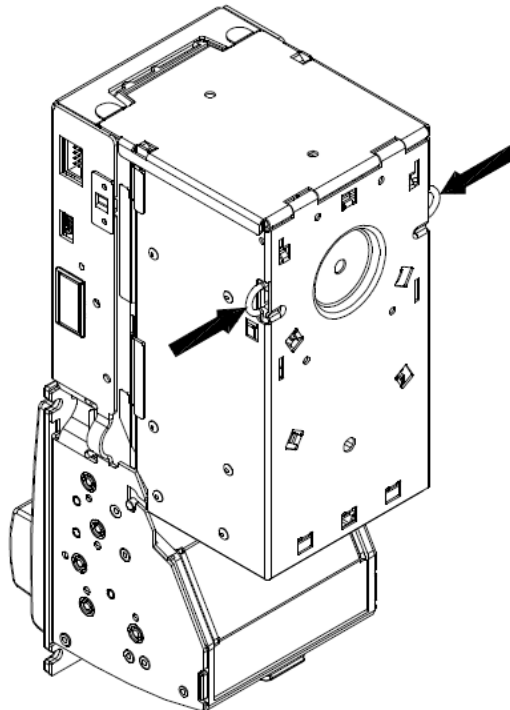
To install the cassette into the bill validator direct two bosses of the cassette to corresponding slots in the validator housing.



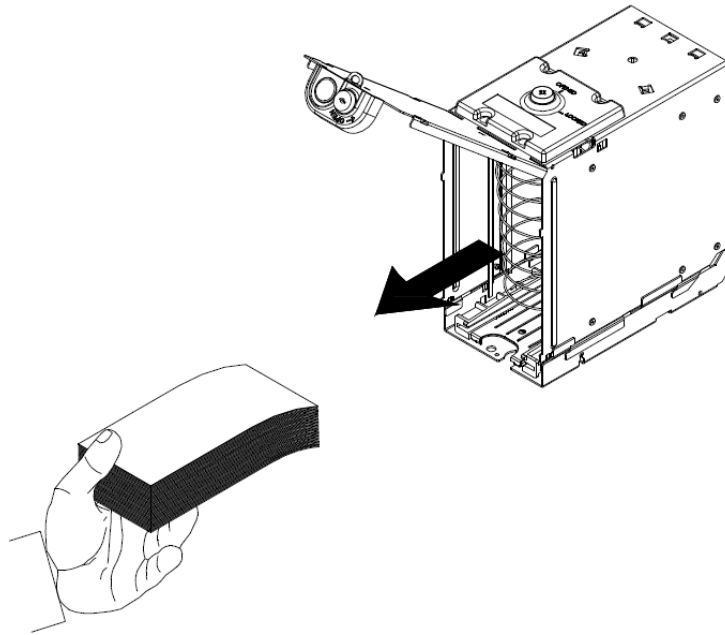
Rotate the cassette in the direction of arrow till fasteners of the cassette hook the latches at the validator housing. This action can be done for all types of cassettes whether they are equipped with second metal lock or not, as well as for the “gaming” cassette.



To remove the cassette, squeeze the two fasteners at the rear side of the cassette and pull the cassette. If the cassette carries additional locks, unlock them first.



To collect bills from the cassette unlock security locks and open the cover. Remove bills. Close the cover.



Periodic Maintenance

During normal operation dust and dirt accumulate on the optical sensors and the rollers. This could result in reduced acceptance rate. It is recommended to clean the bill path as explained below every 6 months or 60,000 bills whichever comes first.

Remove the cassette.

Open the clamshell by pushing the button as shown on the next page.

Ensure:

No scratches present on the guides and optical sensors.

No dirt or cracks present on the surface of the transport rollers

No dirt on the surface of the optical sensors.

The entire bill path is clean of paper debris or residue.

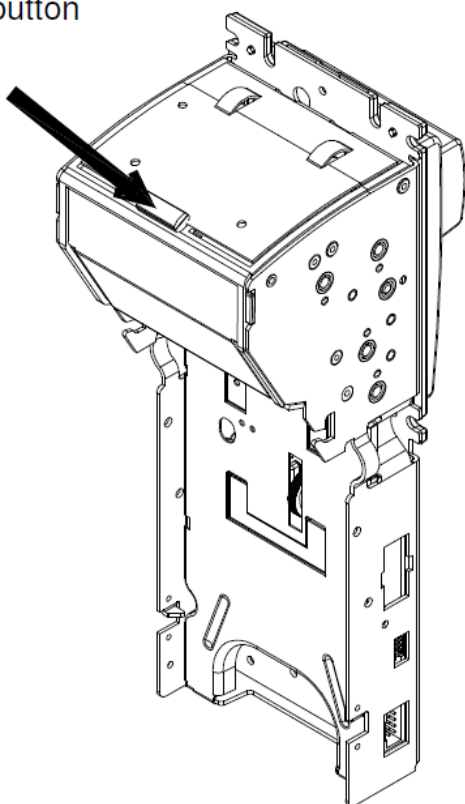
All dirt must be cleaned with soft moistened cloth. Isopropyl Alcohol is recommended for cleaning excessively dirty rollers.

DO NOT USE ACETONE OR PETROLEUM BASED PRODUCTS AS THEY COULD CAUSE DAMAGE TO PLASTIC PARTS.

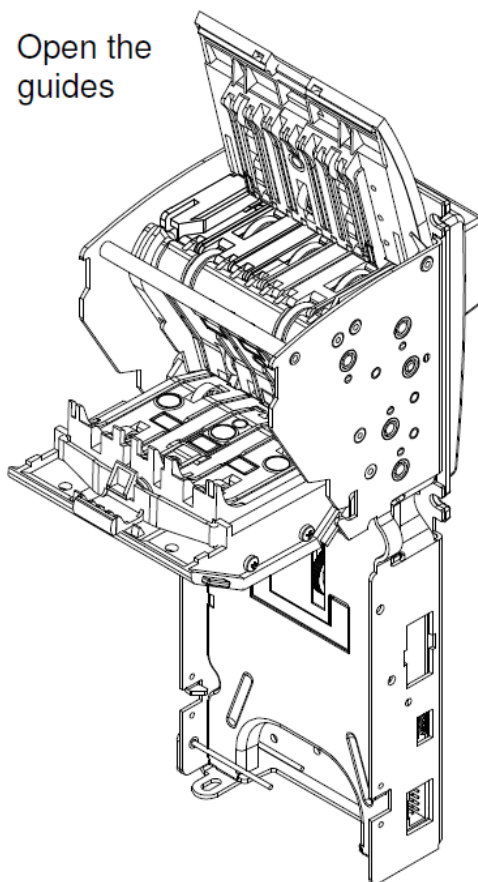
Inspect the cassette chamber to see no bill fragments or paper residue is left behind.

This may be blown away with the use of compressed air.

Push the
button

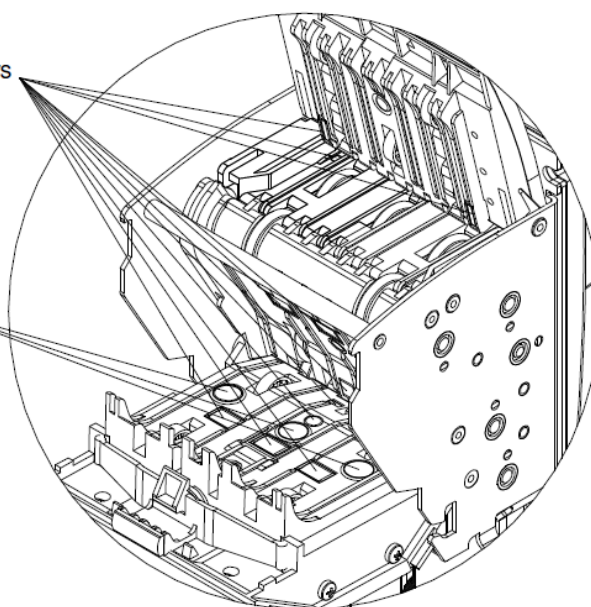


Open the
guides



Optical sensors

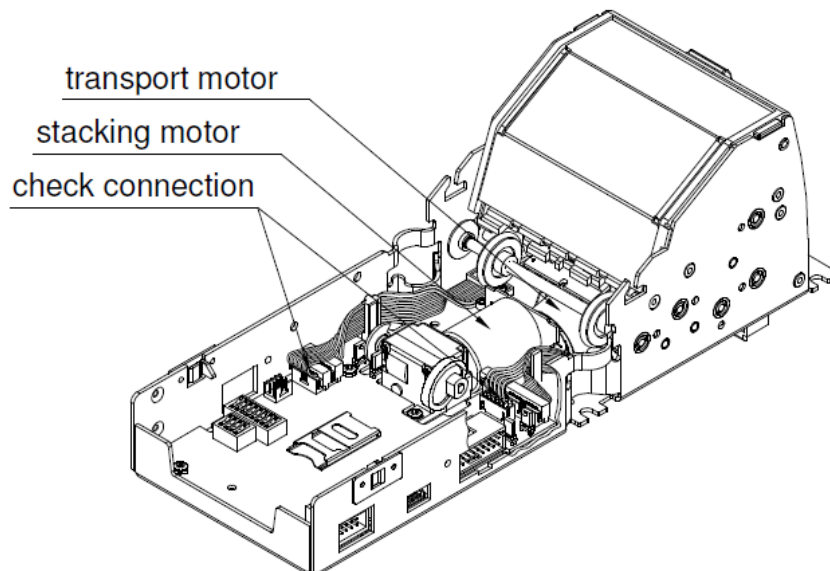
Inductive sensors



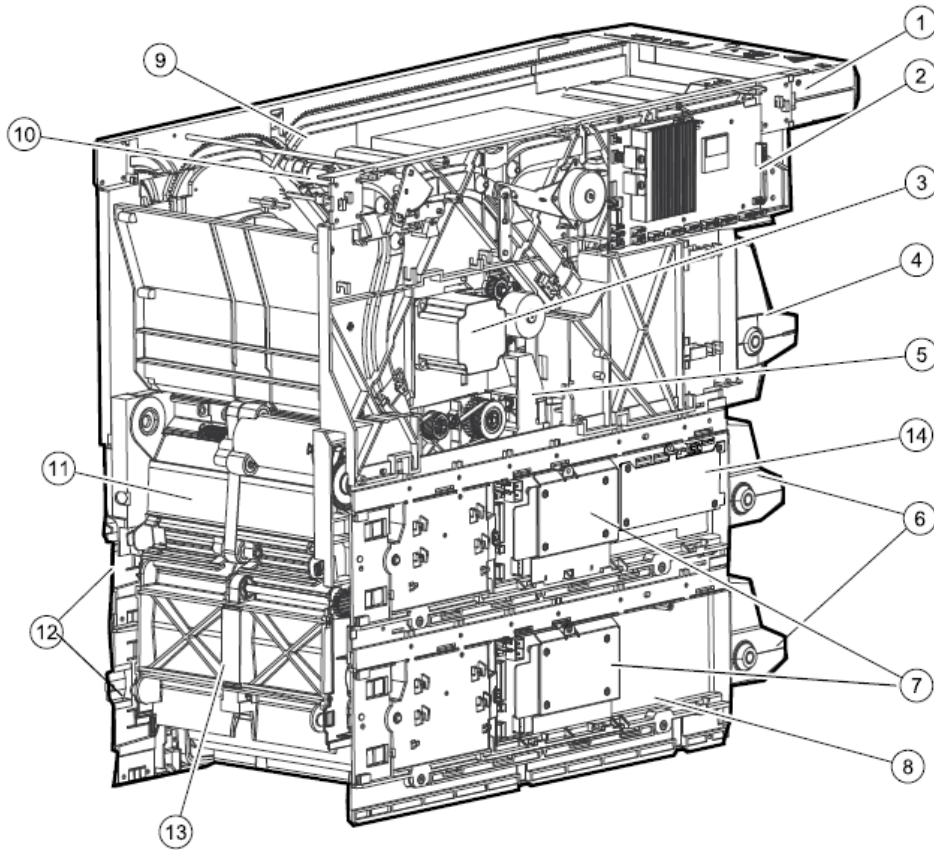
TROUBLESHOOTING

CashCode SM Bill Validator is equipped with a self-diagnostic feature to aid in repair and maintenance. At power on, the Bill Validator performs a self-diagnostic test. On completion of this the status light will turn green if no errors are detected. The light will flash red if an error is detected. The number of red light flashes is an indication of a specific problem or malfunction. A detailed list of these errors and corrective action is provided below.

Number of red flashes	Error description	Fault - handling
1	Cassette is removed from the bill validator	Check if cassette is installed correctly
2	Wrong type of sensors or no communication with sensors	Check reliability of electrical connection to processor board
3	Cassette is full	Replace the cassette with empty one
4	Mechanical jam in cassette or stacker motor failure	<ol style="list-style-type: none"> 1. Remove the cassette from the bill validator and remove jammed bill 2. Turn power on and check stacking motor operation
5	Failure of dielectric sensors	
6	Failure of optical sensors	Open the guides and clean optical sensors.
7	Failure of inductive sensors	Open the guides and clean inductive sensors.
8	Failure of transport motor	<ol style="list-style-type: none"> 1. Open the guides and clean the bill path. 2. Remove the cassette from the bill validator and open the cover. Check mechanical and electrical connections
11	Bill pathway is not empty	Open the guides and check the condition of the bill path
12	Bill jam in entry slot of the cassette. No credit issued.	Remove the cassette from the bill validator and clean the bill path.



4.2 – Bill Dispenser Maintenance



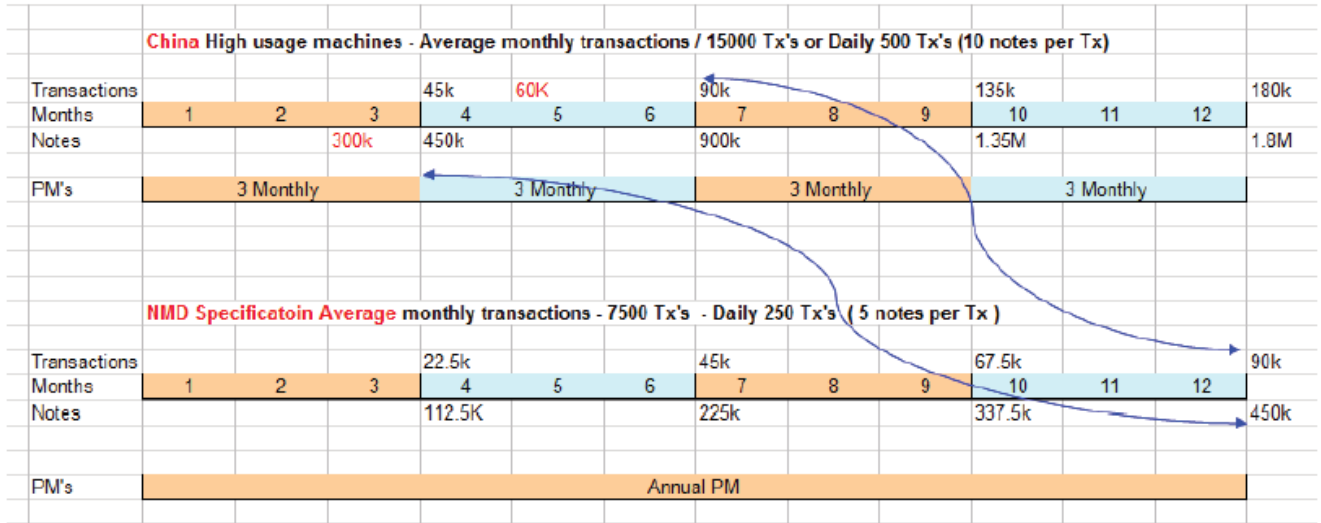
Pos	Description	Pos	Description
1	BOU	8	DE
2	CMC	9	SPR/SFF
3	NS	10	BCU
4	RV or RB	11	NQ
5	ND	12	FR
6	NC	13	NF
7	NFC	14	SNR PCB Assy (Optional)

Preventive Maintenance Instruction

Introduction

Table 1 Maintenance instructions

No.	Description
1	Based on NMD100 specification average monthly transactions as per below figure.
2	This is subject to transaction rate, note quality, operational environment, and level of service, etc.
3	Based on 4 denominations



Regular maintenance on the NMD dispenser is essential in order to achieve optimal efficiency with minimal down time. Please ensure the completion of all maintenance tasks recommended within this document.

Where possible, maintenance periods break down into monthly, biannual, and annual periods. Please adjust maintenance schedules according to the local environmental conditions of the installation. For example, constant processing of very dirty currency requires more frequent cleaning of the mechanism.

Use ESD protection to minimize the risk of damage caused by static electrical discharge use. Avoid contact with the device pins. Ensure that the pins are strapped together with conductive tape or placed on a suitably earthed metal plate when removing them from a PCB. This procedure ensures that all pins remain at the same potential.

Note: Do not lubricate any of the components!

Dust and dirt removal

In dusty environments there is a risk that contamination will build up in the mechanism this in combination with dust and ink from notes may degrade performance of the NMD.

We recommend that you check and clean the machine according to this document on every service visit.

Required equipment:

- Water or cleaning fluid (Iso Prop Alcohol).
- Pure compressed air i.e. no added fluid or gas that might leave residue or affect mechanism.
- A soft clean brush.
- A soft clean cloth.
- Empty Note Cassette.
- Standard service tools.
- ESD wristband – mandatory when conducting any type of repair or work to the dispenser.
- Test notes.

Note: Do not to spread dust in the machine when using compressed air, brush or cloth. Do not use lubricants except when the service manual or a technical bulletin states otherwise.

Note: Isopropyl-Alcohol should only be used on rubber belts and rollers.

Note: This instruction is based on NMD100 specification average monthly transactions as shown in Table one “Maintenance Instructions”. This is subject to transaction rate, note quality, operational environment, and level of service, etc.

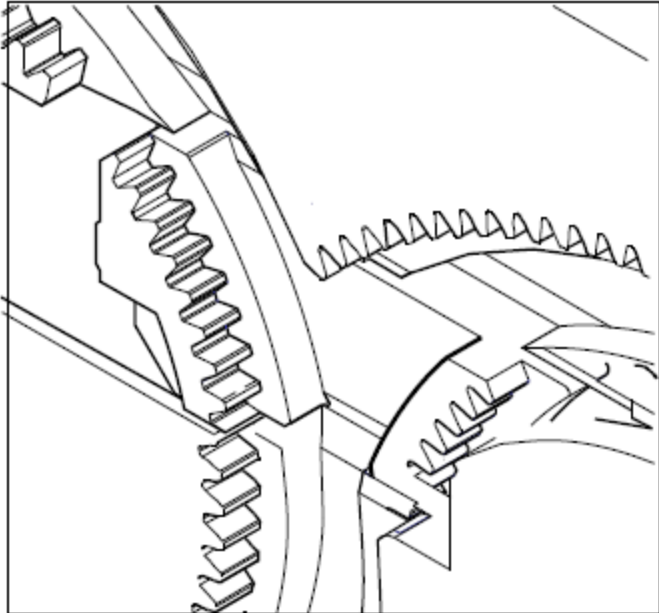
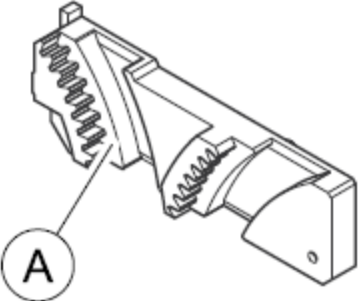
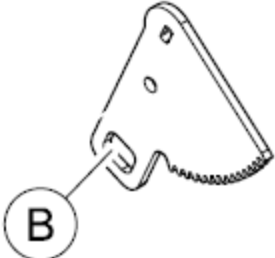
The routines listed below should be completed every 62,500 notes fed (15,625 notes fed per feeder). Refer to diagram on Page 35 for Module locations.

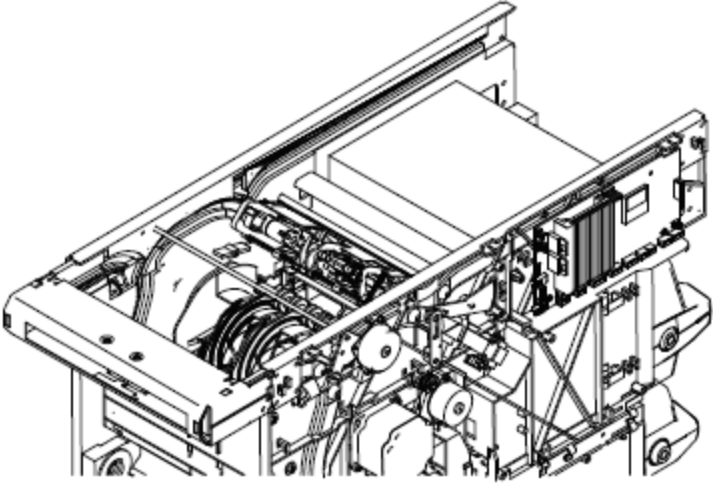
Rou-tines	Module	Action	Time in minutes
CC1	NC301	The cassette should be cleaned if dusty.	2
CC2	NC301	Inspect the gear quadrant for any obvious damage. If needed, please repair or replace the module.	2
CC3	NC301	Inspect the shutter package / locking plate for any obvious damage or skew.	2
CC4	NC301	Inspect the clutch / clutch spring for damage and proper functionality.	2
CC5	RV301	Inspect the shutter for any obvious damage. If needed, please repair or replace the module.	2
CC6	Machine	Inspect the remaining parts with the machine and clear any dust using a brush and soft cloth	3
		Total:	13

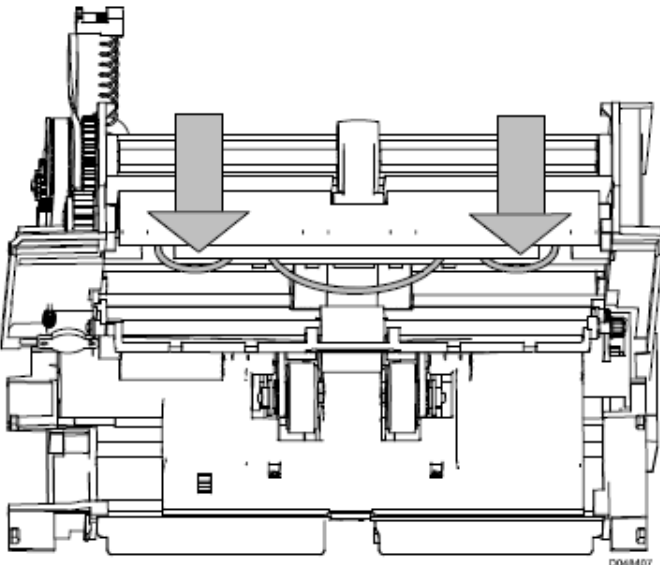
The routines listed below should be completed every 62,500 notes fed (15,625 notes fed per feeder). Refer to diagram on Page 35 for Module locations.



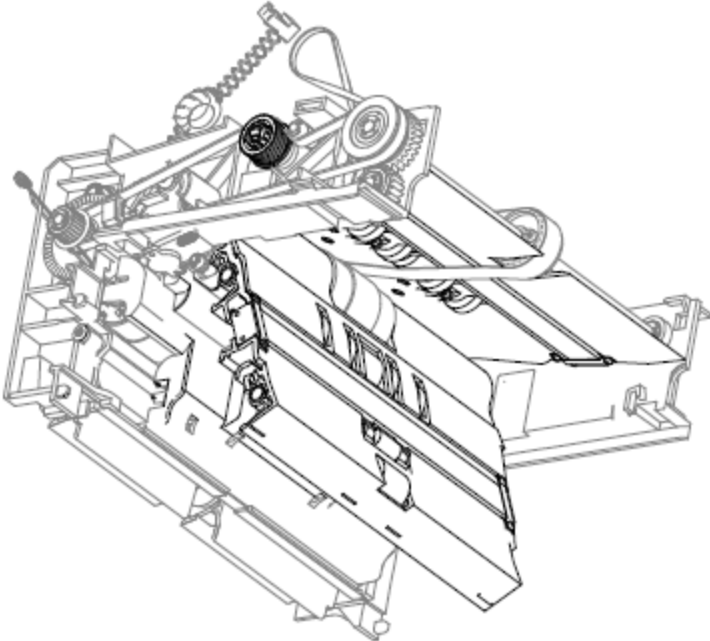




Routines	Module	Action	Time in minutes
CC7	ND200	The Note Diverter should be cleaned if dusty.	5
CC8	ND200	Inspect the diverter for obvious damage, or note jam. Move the diverter blade by hand, it should move freely without any obstruction. If needed, please repair or replace the module.	3
CC9	NS200 (NMD100 only)	Inspect the stacker wheels for any obvious damage, particularly on the edge of the stacker wheels where it is important to have an even and smooth surface to be able stack up notes correctly.	2
CC10	NS200 (NMD100 only)	<p>The Prism should be cleaned if dusty. The prism is sensitive for scratches, and we recommend not to touch it at all, but to gently blow away the dust.</p> <p>Remove dust from the prism:</p> <ul style="list-style-type: none"> • Rotate the prism by hand and remove dust. • Activate the NMDW test program and command WD/217/1. The the rollers will rotate for 20 seconds. Remove the dust. 	3

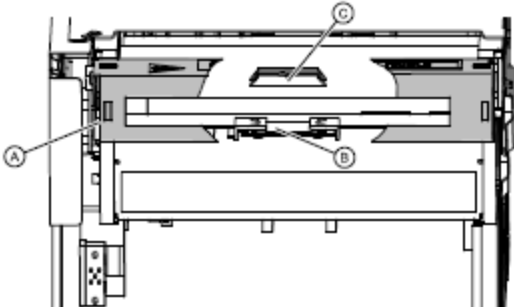
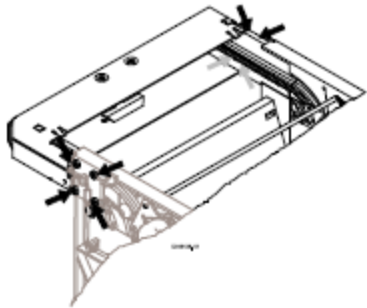

	<p>WARNING Isopropyl-Alcohol should only be used on rubber belts and rollers.</p>
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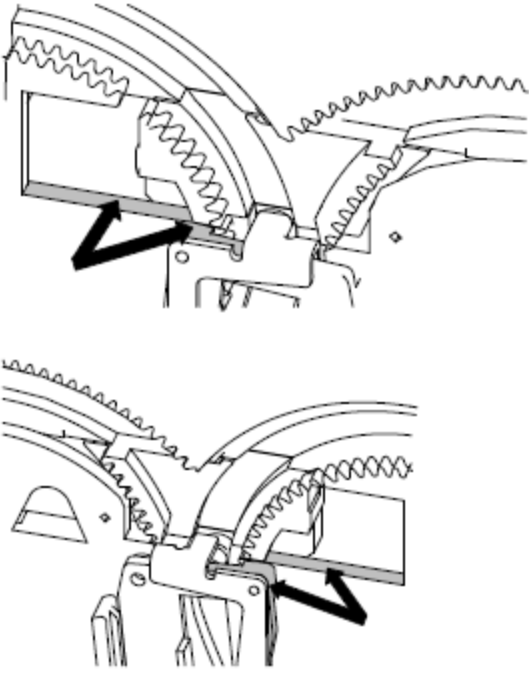
Routines	Module	Action	Time in minutes
CC11	SP200 (NMD100 only)	<p data-bbox="500 268 1179 323">Inspect the cog track in the Stack Presenter. Check that no cog is damaged or severely worn.</p>  <p data-bbox="1084 953 1208 982">D048404</p>   <p data-bbox="500 1325 1170 1379">Particularly inspect the cog track area around the diverters (A) and way switches (B)</p>	3

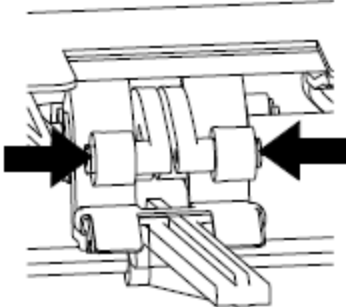
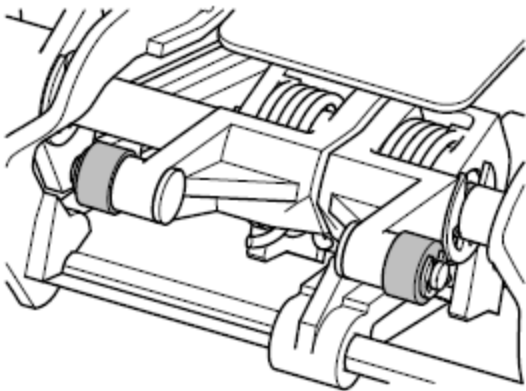
Routines	Module	Action	Time in minutes
CC12	SP200 (NMD100 only)	Use a brush or clean cloth to remove any dust or small particles if needed.	5
			
CC13	SP200 (NMD100 only)	Inspect the Power Supply base plate for damage. Inspect the left side. If needed, replace the module.	2
CC14	NQ200 NF200 NQ300 NF200	Remove dirt and dust with a soft cloth or a brush. Inspect the module for damaged parts. Open the lids to check for note jams. Insure that the are easily opened and closed.	5

Routines	Module	Action	Time in minutes
CC15	NQ200 NQ300	Check underneath the lid. When closing the lid, ensure that it is properly closed on both sides.	2
			

Routines	Module	Action	Time in minutes				
CC16	NQ200 NF200 NQ300 NF300 NQ300-SNR	<p>Remove dirt and dust. Extra check all components that come into contact with notes.</p> <p>Use clean water or isopropyl alcohol on a clean cloth.</p> <table border="1" data-bbox="505 384 1211 548"> <tr> <td data-bbox="505 384 597 548"></td> <td data-bbox="597 384 1211 548"> WARNING Do not over use! Do not soak rollers and belts in liquid. Extensive cleaning adds wear to the surface of belts and rollers and should be carried out sparingly. </td> </tr> </table> <table border="1" data-bbox="505 573 1211 667"> <tr> <td data-bbox="505 573 597 667"></td> <td data-bbox="597 573 1211 667"> WARNING Isopropyl-Alcohol should only be used on rubber belts and rollers. </td> </tr> </table> <p>Use a soft brush or cloth to remove dust and clean the upper and lower sensors bars. The sensor bars should be cleaned at this interval and also at every regular ATM PM which is typically 4 times per year.</p> <p>Do not scratch the sensor bars and do not use any cleaning fluids. Ensure the lid is properly closed on both sides when you close the lid.</p> 		WARNING Do not over use! Do not soak rollers and belts in liquid. Extensive cleaning adds wear to the surface of belts and rollers and should be carried out sparingly.		WARNING Isopropyl-Alcohol should only be used on rubber belts and rollers.	10
	WARNING Do not over use! Do not soak rollers and belts in liquid. Extensive cleaning adds wear to the surface of belts and rollers and should be carried out sparingly.						
	WARNING Isopropyl-Alcohol should only be used on rubber belts and rollers.						

Routines	Module	Action	Time in minutes
PM1	BOU101	<p data-bbox="521 264 1211 296">Bundle Output Unit hold /delivery(A), exit and empty (B) sensors</p> <ul data-bbox="521 306 1211 443" style="list-style-type: none"> <li data-bbox="521 306 1211 359">• Clean the Bundle Output Unit empty receiver and transmitter LED's (B) using a soft brush and cloth <li data-bbox="521 369 1211 443">• Clean the Bundle Output Unit prisms (C) using a soft clean cloth and also check for visible damages such as scratches or cracks.  <ul data-bbox="521 810 1211 863" style="list-style-type: none"> <li data-bbox="521 810 1211 863">• Check that the Bundle Output Unit is correctly fitted and snapped in on both sides.  <div data-bbox="521 1241 1211 1325" style="border: 1px solid black; padding: 5px;">  <p data-bbox="618 1241 724 1262">WARNING</p> <p data-bbox="618 1272 1195 1325">Isopropyl-Alcohol should only be used on rubber belts and rollers.</p> </div>	2


Routines	Module	Action	Time in minutes
PM2	BCU101	<p>Inspect the alignment of the Bundle Carriage Unit when mounted into the Stack Presenter. Verify that it is correctly mounted and not skewed. This is verified by comparing the location of the left and right hand side of the Bundle Carriage Unit when placed in the same position in the stacker presenter.</p> <p>Before the Bundle Carriage Unit can be manually moved inside the Stack Presenter, the cable attached to the CMC200 board has to be disconnected. A misaligned Bundle Carriage Unit has to be removed from the Stack Presenter unit and reinserted, at the same time verifying alignment.</p> <p>Either pull the Bundle Carriage Unit to the location of the Stack Presenter way switches or to the output (Bundle Output Unit). In the illustrations below, the Bundle Carriage Unit is pulled up from its home position to the RS way switches. Compare left and right hand side, these should be at the same level.</p> <p>Verify the alignment of the Bundle Carriage Unit according to the above.</p>  <p>The illustrations show a Bundle Carriage Unit at the position of the way switches, where both left and right hand side is correctly aligned.</p>	5

Routines	Module	Action	Time in minutes
PM3	BCU101	<p>Check the rubber rollers/gripping fingers – verify they are in place and not missing or damaged.</p>  <p>If needed, please repair or replace the module.</p>	2
PM4	BCU101	<p>Inspect roller 7 on the rear side of the Bundle Carriage Unit. The rollers should rotate freely. Also check for wear or damage, correct roller should be round.</p> <p>If needed, repair or replace the module.</p>  <p style="text-align: center;">D048399</p>	2
PM5	BCU101	Use a soft cloth and a brush to clean from dust and dirt.	3
PM6	BCU101	Replace the 4 ball bearing at the outer corner of module at 300'000 transactions	5
PM7	BCU101	Remove the Bundle Carriage Unit from the dispenser, inspect the Bundle Carriage Unit for signs of wear or damage. If dusty or dirty, clear away dirt/dust by using a soft brush and/or lint free cloth. Any parts showing wear must be replaced; inspect the back stop (1), leaf spring (2).	5

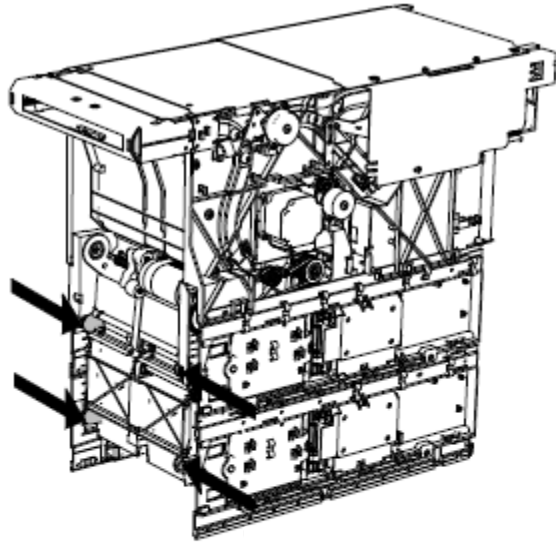
Troubleshooting NMD100

Jam in the Note Feeder (NF)

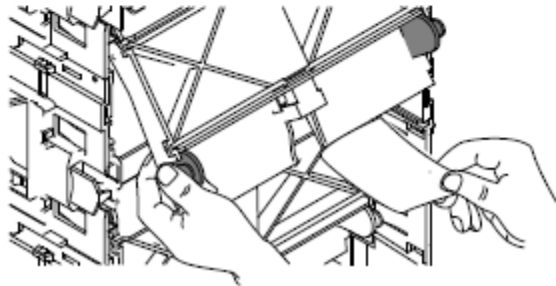
1. Remove the Note Cassettes and the Reject Vault.

	ATTENTION
	Always switch the power off before clearing jams.

2. Open the jam clearance lids by pressing the yellow snap-fits, open and remove any stuck notes or other obstructions.



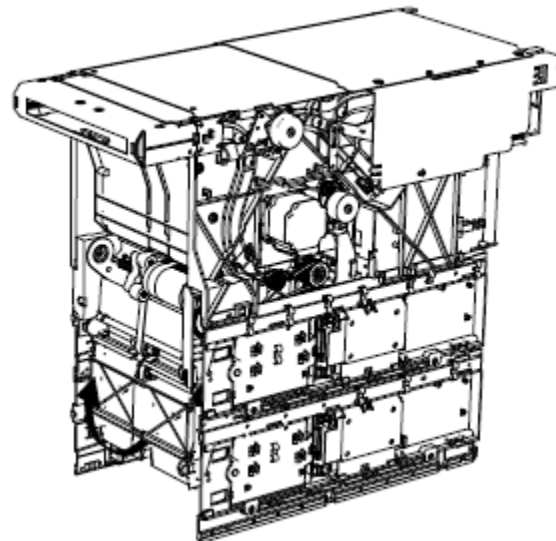
3. Open the jam clearance lid and remove the note.



4. Close the lids carefully.

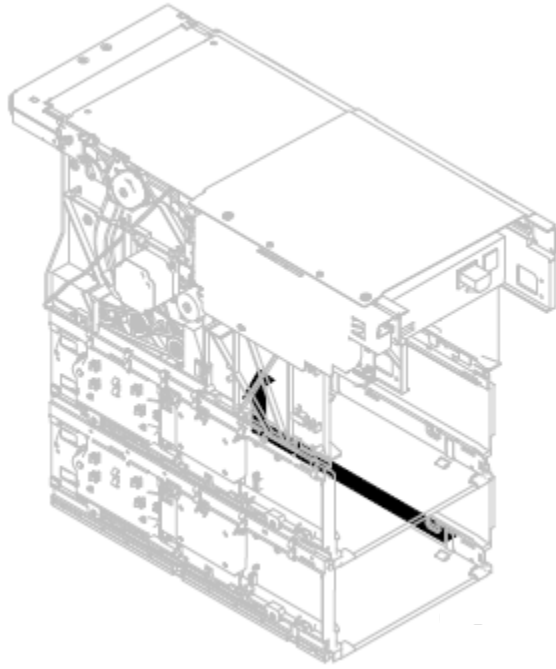
Note:

If the trouble still remains, call for an NMD service engineer.

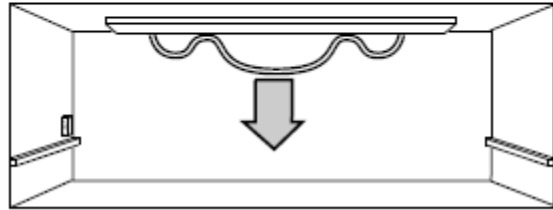
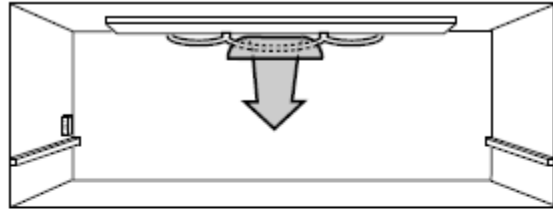



Jam in the Note Qualifier (NQ)

1. Remove NCs' and the Reject Vault.
2. Release the yellow handle inside the upper most note cassette compartment by pushing it inwards and pulling down.



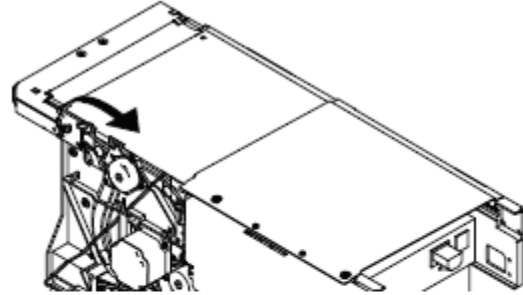
3. Remove jammed notes or other obstructions.
4. Any notes removed from the mechanism must be handled according to local procedures.
5. Make the Note Qualifier lid closed properly and that the yellow handle snaps in position at both sides.



	ATTENTION
	If the yellow handle can be released just by pulling it downwards, it has not been properly fastened.

Jam in Stack Presenter or Bundle Carriage Unit (BCU)

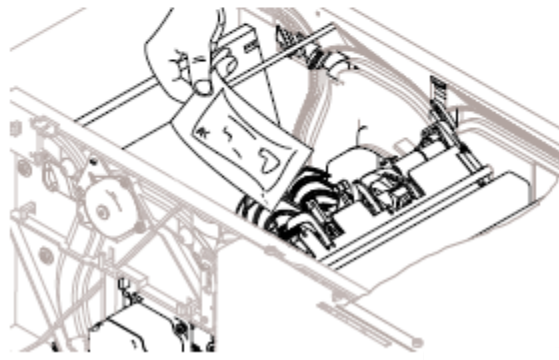
1. Open the top lid of the NMD.



2. Remove all jammed notes. Be careful not to damage the stacker wheels.
3. Close the top lid carefully.

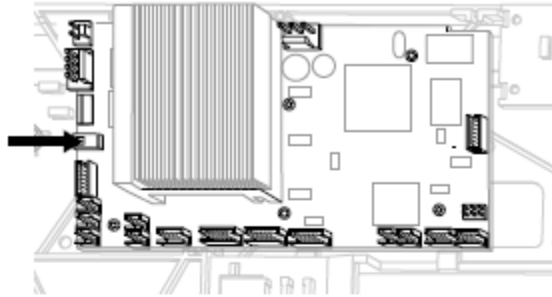
Note:

If the trouble still remains, call for an NMD service engineer.

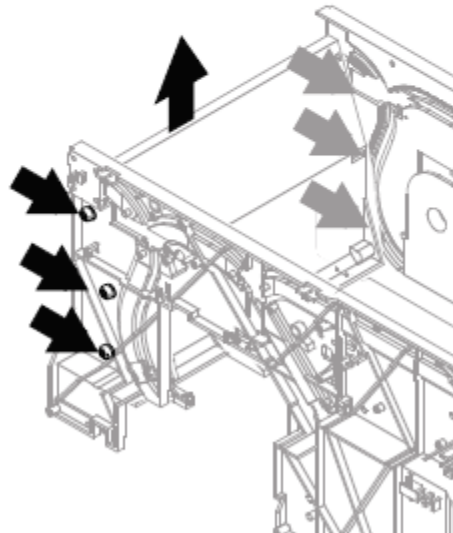


In cases where the Bundle Carriage Unit fingers do not fully open

1. Disconnect the cable between Bundle Carriage Unit — Central Machine Controller.
Gently pull the Bundle Carriage Unit by the protection plate from its home position.



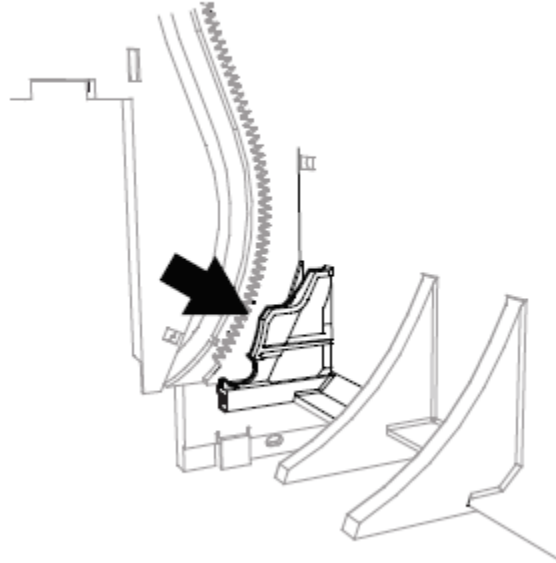
2. Loosen but not remove the six screws as shown in the illustration.
3. Adjust the base plate so that is mounted in its uppermost position.



4. Tighten the screws.

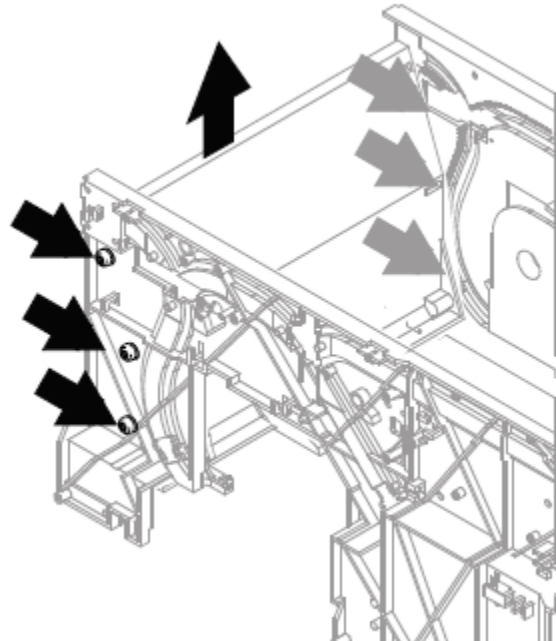
Test of Bundle Carriage Unit function

1. Assemble the covers and connect the GND cables.
2. Turn the power on
Use the test program to issue a reset command. The Bundle Carriage Unit will move to its home-position and the fingers should now not interfere with the note path of the stacker wheel. If the Bundle Carriage Unit fingers still do not open wide enough please check for mechanical interference, misaligned Bundle Carriage Unit or cracks in the base plate.



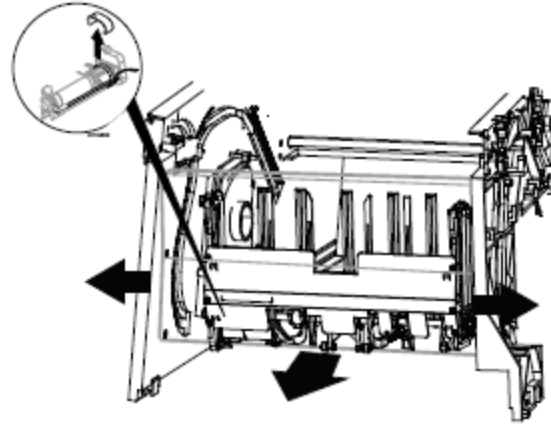
If the Bundle Carriage Unit is stuck in the Stack Presenter

1. Remove the 6 screws as indicated
Remove the base plate.



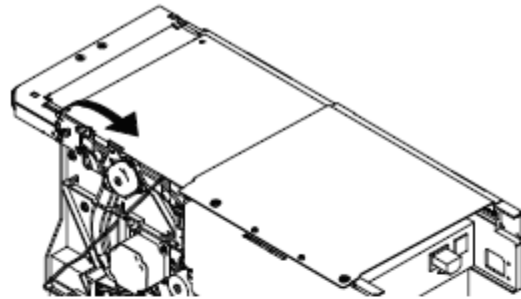
2. Remove the Bundle Carriage Unit.

- Gently try to free the Bundle Carriage Unit and remove it from the Stack Presenter.
- Inspect the Stack Presenter and Bundle Carriage Unit for damage, and replace any defective parts.
- Replace the Stack Presenter base plate.
- The Bundle Carriage Unit should be mounted as previously described in this manual, see above chapters.

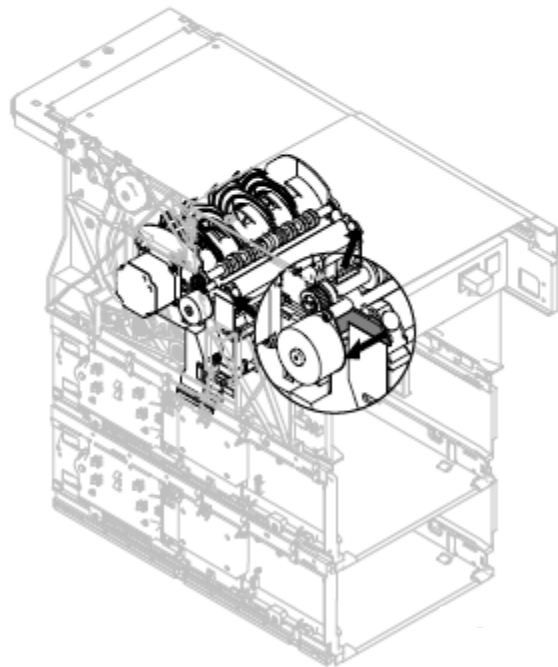


Jam in the Note Diverter

1. Remove reject vault.
2. Open the top lid of the NMD100.



3. Open the note diverter lid by releasing the snap fits and folding the lid.
4. Remove all jammed notes.
5. Close the note diverter lid by pressing the outer ends of the lid. Be careful not to damage the snap fits.



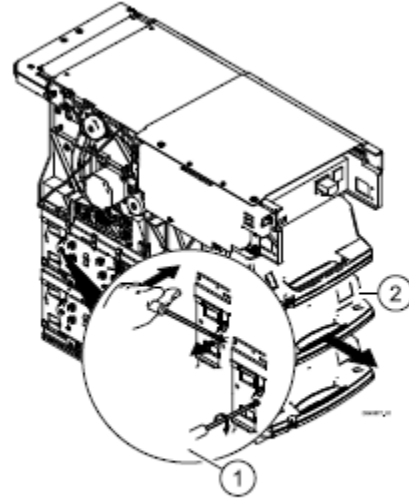
Recovery Procedure for a Jammed Note Cassette

Note:

The below procedure is only be used in case of an unrecoverable state where the cassette cannot be freed using the regular commands.

Switch the power off.

1. If the note jam is in a cassette with a Note Qualifier, use a small flat screwdriver and break the seal covering the end of the frame motor shaft.
 - Turn the cog wheel (1) manually clockwise until it comes to a stop.
 - Turn the cogwheel exactly 2 rotations counter clockwise.
 - Remove Cassette (2).
2. If the note jam is in a cassette with a Note Feeder, remove the Note Feeder first. Use NMDW test to close and remove the cassette.

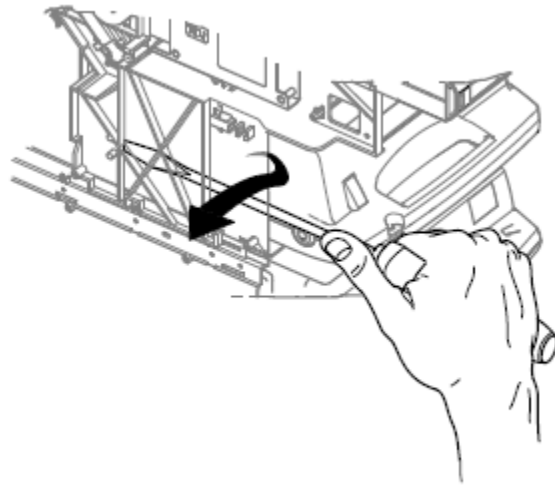


Recovery Procedure for a Jammed Reject Vault

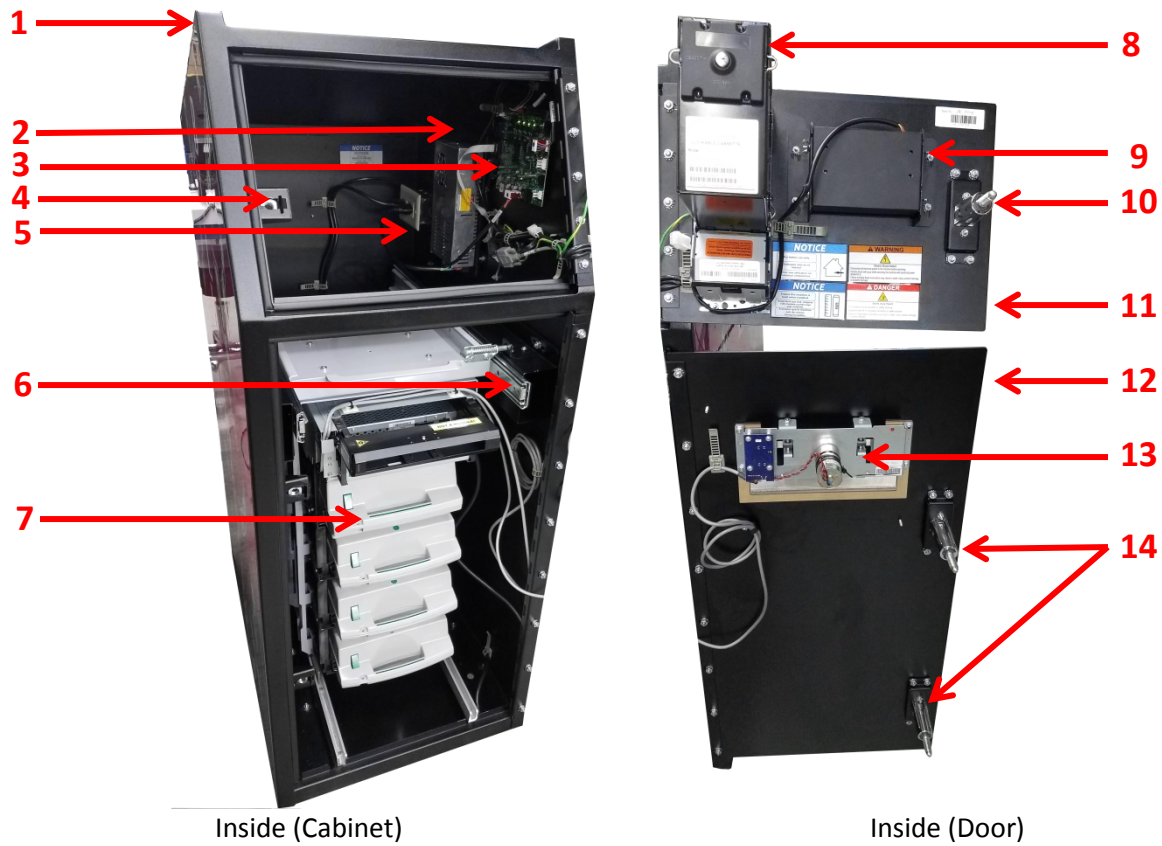
Note:

The below procedure is only be used in case of an unrecoverable state where the Reject Vault cannot be freed using the regular commands.

1. Use a long flat screwdriver.
2. Carefully insert at the height of the key lock, and aim / align with the line between cassette lid and tray.
3. Push the screw driver inwards, wiggle the cassette so that the black lock-bar climbs over its seat (1) and the cassette is free.



4.3 – Parts List



Number	American Changer Part #	Description
1	AC7914-10	Cabinet
2	AC3078-PSY	SE-350-24 Power Supply
3	AC8001-FLEX2BD	Flex-2 Main Logic Board
4	AC6000-LB	Lock Bracket
5	AC9000-GFCI	15A 125VAC GFCI
6	AC3307-26D	26" Triple Slide for Glory Dispenser Mount
7	AC7046.1	Glory Bill Dispenser
8	AC9061-USA	CPI SM-2317US8724
9	AC8001-FLXPBD	Flex Programmer Board
10	AC5080-QSPINS	T-Handle with Drill Resistant Pins
11	AC7914-DOOR	Top Door for AC7914
12	AC7914-BASE DR	Bottom Door for AC7914
13	AC7046.3	Shutter
14	AC5080-QSPINS	T-Handle with Drill Resistant Pins

4.4 – Warranty Terms and Conditions

LIMITED WARRANTY AND EXCLUSIVE REMEDIES – The goods delivered hereunder are subject to the terms of American Changer Corporation’s (Seller or Seller’s) Limited Warranty provided with the deliverable, or if there is no such warranty, the terms set forth herein. In the event of any inconsistency between the written warranty provided with deliverable, and the description of the warranty set forth herein, the written warranty shall govern.

Seller warrants that its new products and parts are free from defects in material or workmanship in normal use for one year from the date of shipment by Seller. In addition, this warranty will be extended for a second year for Bill Validators. Refurbished parts carry a six-month warranty from date of shipment by Seller.

Seller will furnish without charge, F.O.B. Fort Lauderdale, repair or replacement of any defective part qualifying for repair and/or replacement under the terms of its warranty, within one year of the date of delivery. Any transportation, diagnosis calls, or similar expenses are not included. The warranty for any replacement part will only apply to the remainder of the warranty period.

This warranty may not be changed or modified without the consent of an Executive Officer of Seller.

To make a claim under this warranty, Buyer must call Seller’s Service Department and provide the model number and serial number of the goods. If the goods were purchased from a reseller, Buyer must provide the name, address and telephone number of the reseller. Seller reserves the right to request proof that the reseller purchased the goods from the Seller.

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This warranty is void if: (I) repairs and/or replacement are performed by anyone other than Seller or a qualified repair technician; (II) the goods were purchased in a used condition or not in the original packaging; (III) the goods have any defects or damage due to any alterations, or damage caused by improper electrical supply, shipping and handling, fire, flood, misuse, vandalism, or any other condition or event outside of Seller’s control, or the goods are used, stored or operated in a manner that fails to comply with any applicable law, rule, or regulation,

including, without limitation any local labeling requirements or labeling required under California’s Safe Drinking Water and Toxic Enforcement Act of 1986 (also known as “Proposition 65”) and its implementing regulations; (IV) the failure to clean and maintain the product in accordance with the owner’s manual supplied with the goods or comply with all applicable law and regulations and any applicable labeling requirements; (V) the goods are operated, used, or stored in weather or outdoor conditions which do not comply with the guidelines set forth in the owner’s manual.

The owner is responsible for: (I) using the goods supplied by the Seller in accordance with the installation, start-up, use, storage, inspection, and service requirements, and all other instructions set forth in the owner's manual supplied with the goods; (II) providing normal cleaning and maintenance in accordance with the owner's manual supplied with the goods; (III) operating, using, and storing the goods in accordance with the owner's manual supplied with the goods and in compliance with all applicable laws, rules, or regulations, including any local labeling requirements or labeling required under California's Safe Drinking Water and Toxic Enforcement Act of 1986 (also known as "Proposition 65") and its implementing regulations; (IV) contacting American Changer during the warranty period to obtain a Return Material Authorization to make a claim under this warranty; (V) providing proof of purchase if requested, and if the goods were purchased from a reseller, the name, address, and telephone number of the reseller; (VI) providing any other information American Changer may reasonably request to confirm that the goods are eligible for repair/replacement under this warranty; (VII) paying for any repairs or replacement of parts outside the scope of this warranty; (VIII) paying any shipping costs.

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