NMD-100 Quick Reference

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TDN 07103-00454 Rev B

REVISION HISTORY

ECO	Document 07103-00454 Revision	Date	Description
1033437	A	1/29/2023	Original, TDN 07103-00454 Rev A. Requested as first line to help customer
	B	1/17/2024	Corrected Signals to CMC200 Cable Connections 4, 8, 11, 16

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Please visit www.triton.com for additional information for the FT ATMs that use the NMD100 dispenser.

PURPOSE

This guide covers NMD100 status report, identifying dispenser components, and how to check the alignment of the Bundle Output Unit.

SCOPE

This manual applies to all service personnel involved in installing, configuring, or upgrading Triton ATM's dispensers nationwide and abroad.

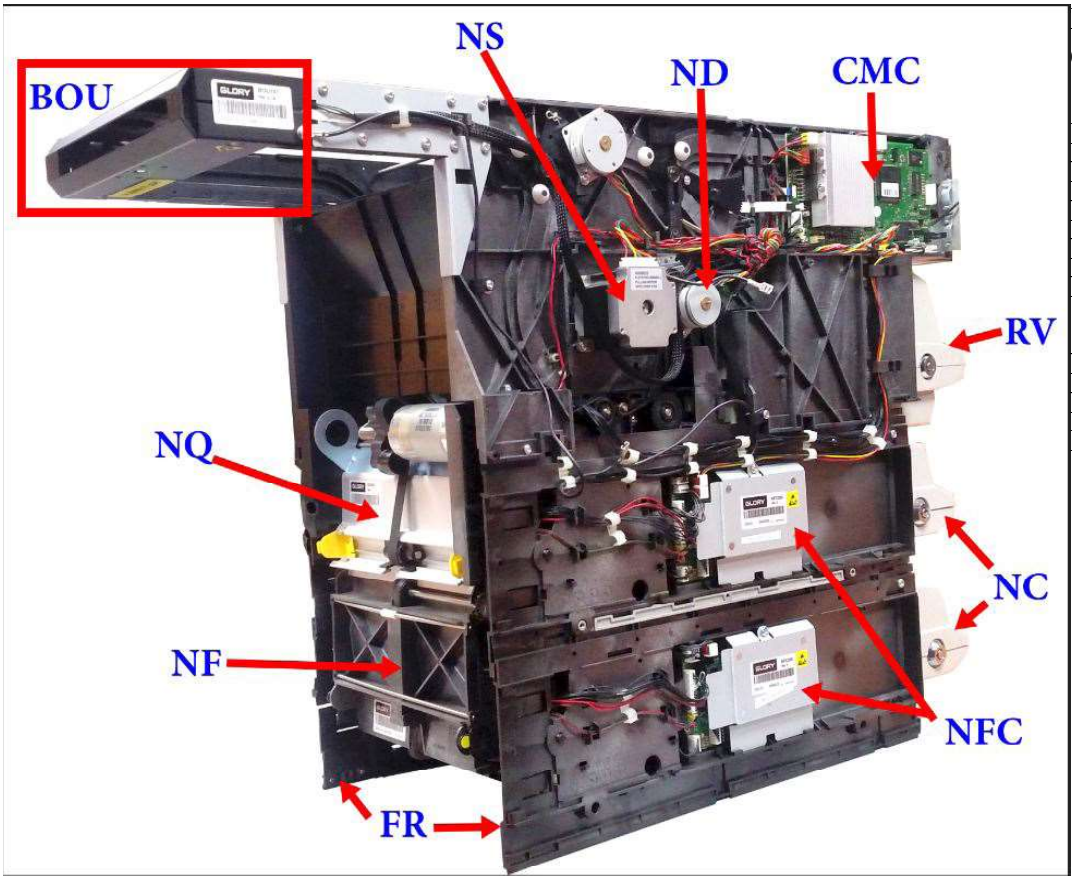
APPLICATION

This reference guide provides basic information for the NMD100 dispenser.

GLOSSARY

BCU	Bundle Carriage unit
BOU	Bundle Output Unit
CMC	Central Machine Controller
FR	Frame
NC	Note Cassette
ND	Note Diverter
NF	Note Feeder
NQ	Note Qaulifier
NS	Note Stacker
RV	Reject Vault
SPF/SPR	Stacker Presenter Front / Stacker Presenter Rear

NMD100 Components



BOU Bundle Output Unit
CMC Central Machine Controller
FR Frame
NC Note Cassette
ND Note Diverter
NF Note Feeder
NFC Note Feeder Controller
NS Note Stacker
NQ Note Qualifier
RV Reject Vault

Navigate to *Management Functions* > *Diagnostics (2)* > *Dispenser (4)* > **Cash Dispenser Status (1)**. On the Cash Dispenser Status screen, print the report, save the report a flash drive, or email it to a valid email address. The report contains information needed to troubleshoot and answer Technical Support questions for specific information.

The sensors are paired, Emitter/Receiver. Most Status lines are self-explanatory. Sensors status: (1) The sensor blocked. (0) The sensor not blocked.

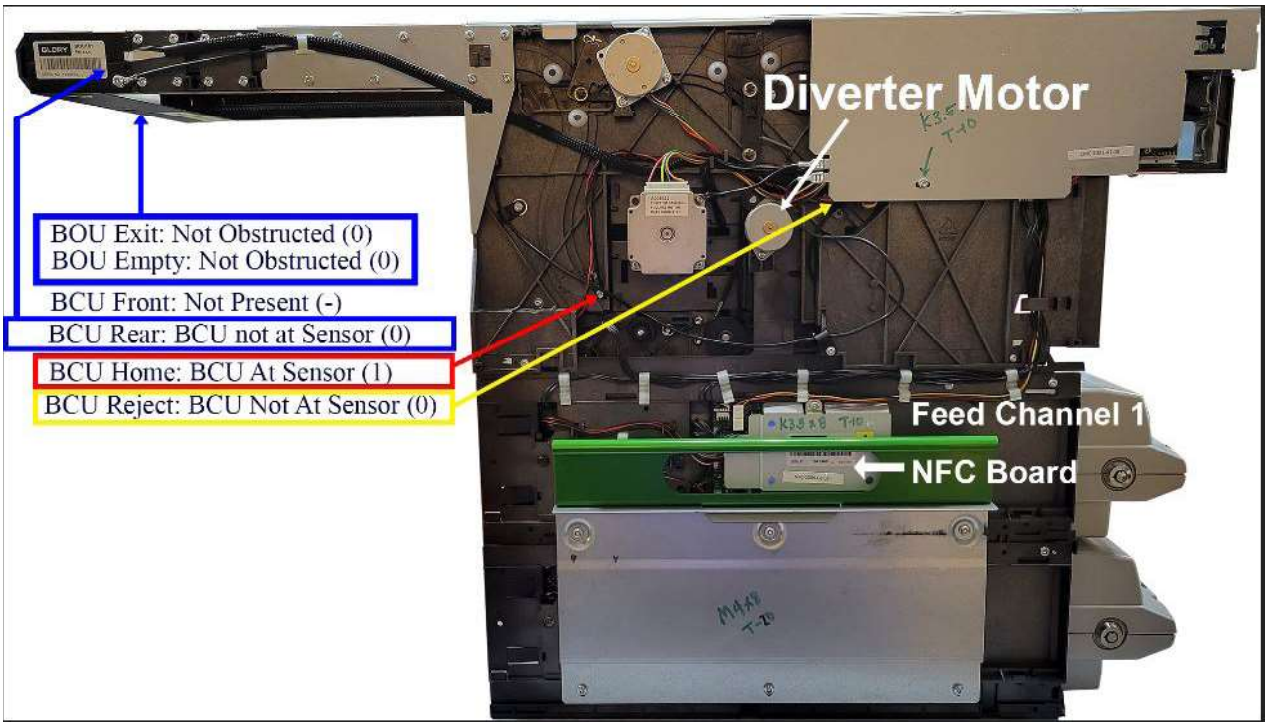
Example of a Cash Dispenser Status report:

Device ID: NMD 100
Firmware Ver: NMD 100 CMC 101:2001-41.BD
Cash Dispenser Status: Success (0)
Reject Sts: Success (30)
Security Module Sts: Success (0)
Security Module Version: SM-01.01.011
Security Module Keys Synchronized: Yes
SM Protocol Support: no
CMC Firmware: CMC 2001-41.BD
RVC Firmware: RVC 2037-01.01
BOU Exit: Not Obstructed (0)
BOU Empty: Not Obstructed (0)
BCU Front: Not Present (-)
BCU Rear: BCU Not At Sensor (0)
BCU Home: BCU At Sensor (1)
BCU Reject: BCU Not At Sensor (0)
Spare: Not Present (-)
Shutter Open: Shutter Not Open (0)
Shutter Close: Shutter Closed (1)
BOU Exit Sensor Cal Value: 15
BOU Empty Sensor Cal Value: 15
ND Rej Exit: Not Obstructed (0)
ND Rej Cal Value: 3
Reject Vault Present: Yes (1)
RV Shutter: Not Obstructed (0)
RV Shutter Single: Obstructed (1)
RV Shutter Stack. Acc: Not Obstructed (0)
RV Sutter Stack Ret: Not Obstructed (0)
Cassettes Lid: Not Present (-)
Lid Solenoid Sts: Not Present (-)
Transport Clock: Obstructed (1)
Transport Clock Cal Value: 092

Expand on the Status report:

BLUE arrows show BCU Rear, BOU Exit, and BOU Empty sensors.
RED arrow shows BCU Home sensor.
YELLOW arrow shows BCU Reject sensor.
All three BCU sensors will show the Bundle Carriage Unit's physical location during normal operations.

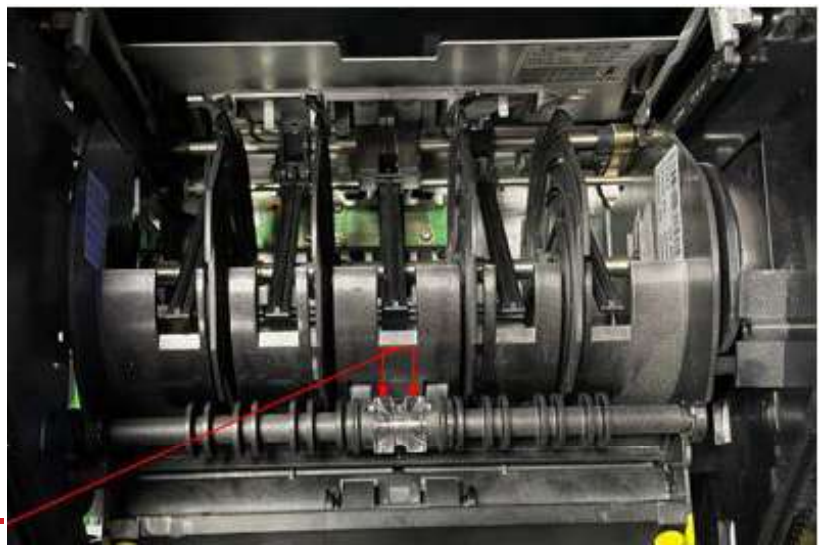
In the next image look at the Cash Dispenser Status and follow arrows to the component location.
BOU Exit: Not obscured (0)
BOU Empty not obscured (0)
BCU Rear: BCU not at Sensor (0)
BCU Home: BCU at Sensor (1)
BCU Reject: BCU not at Sensor (0)



The **RED** arrow shows the status of the Note Diverter (ND) exit sensor: ND Rej Exit: Not Obscured (0). This sensor looks for notes sent to either the Note Stacker or the Reject Vault.

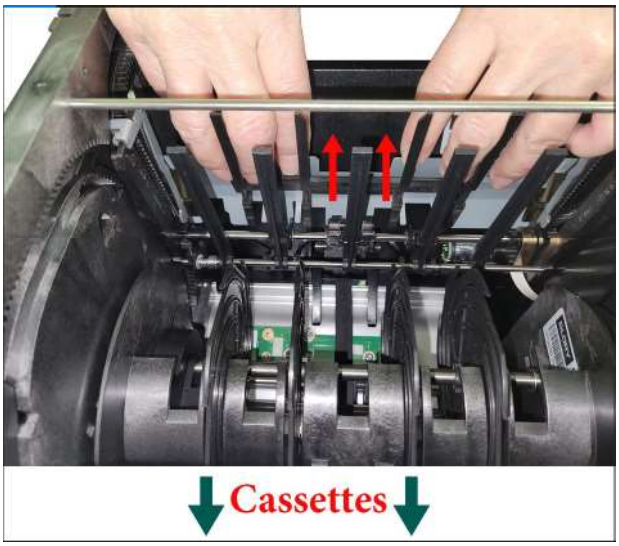
*** Cash Dispenser Status ***

BOU Empty: Not Obstructed (0)
BCU Front: Not Present (-)
BCU Rear: BCU Not At Sensor (0)
BCU Home: BCU At Sensor (1)
BCU Reject: BCU Not At Sensor (0)
Spare: Not Present (-)
Shutter Open: Shutter Not Open (0)
Shutter Close: Shutter Closed (1)
BOU Exit Sensor Cal Value: 15
BOU Empty Sensor Cal Value: 15
ND Rej Exit: Not Obstructed (0)

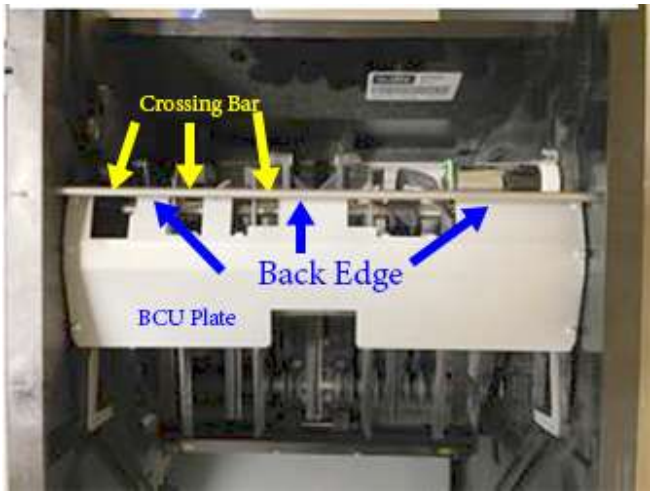


BCU Alignment

The Bundle Carriage Unit must be aligned in the track to transport the notes to the exit properly. To check the alignment, power the dispense OFF. Pull the BCU plate to align the BCU metal frame to the Stack Presenter. The Yellow lines in the Left and Right side-views show the ends of the BCU frame align to the Stack Presenter frame references.

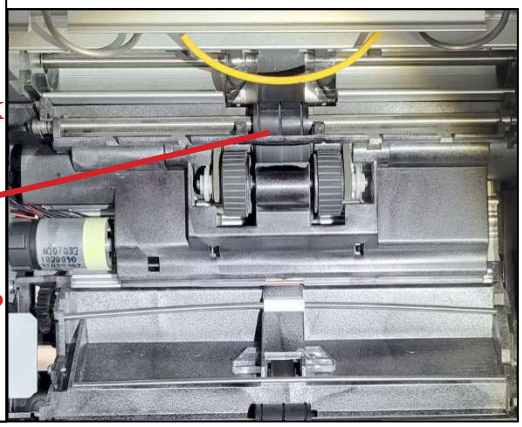


*M*ove the BCU up and confirm the back edge of the BCU frame aligns with the crossing support bar.



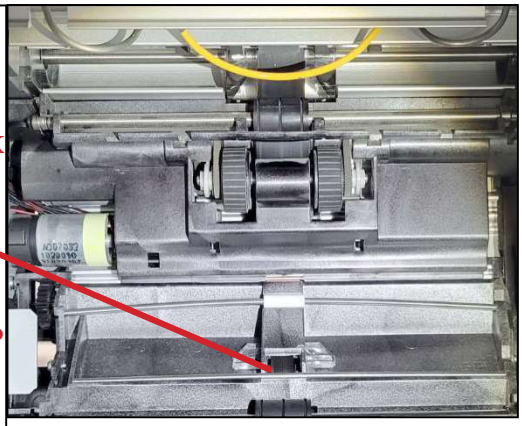
Feed Channel 1 Status

Feed Channel 1
...
Cassette ID: A (1)
...
Status: Success (30) — Everything OK
Multiple Amount: $20.00 — Cassette Denomination
...
Exit Sensor: Not Obstructed (0)
...
NC Shutter 1: Obstructed (1)
NC Shutter 2: Obstructed (1)
NC Shutter 3: Not Obstructed (0)
} Cassette is Locked into Dispenser
...



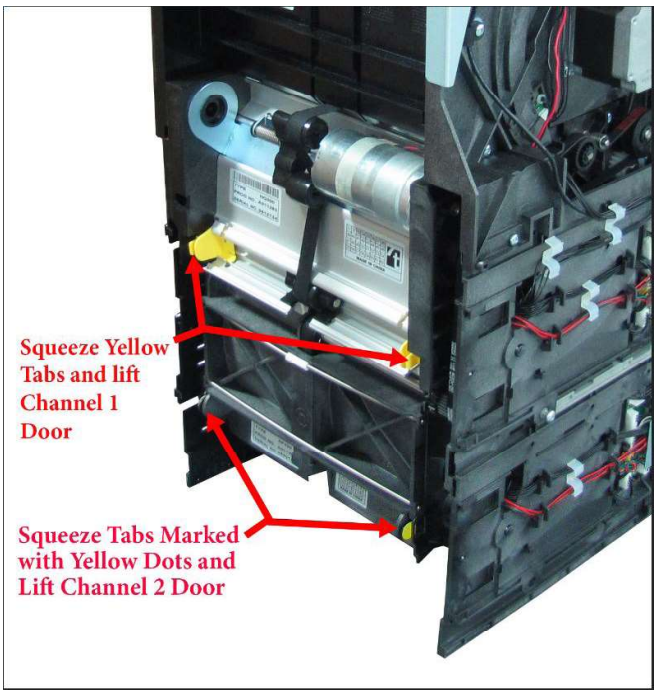
Feed Channel 2 Status

Feed Channel 2
...
Cassette ID: B (2)
...
Status: Success (30) — Everything OK
Multiple Amount: $10.00 — Cassette Denomination
...
Exit Sensor: Not Obstructed (0)
...
NC Shutter 1: Obstructed (1)
NC Shutter 2: Obstructed (1)
NC Shutter 3: Not Obstructed (0)
} Cassette is Locked into Dispenser
...



Feed Channel Jam Clearance

Squeeze the Yellow tabs on Channel-1 Note Qualifier and lift door. Squeeze tabs marked with Yellow Dots on Channel-2 Note Feeder and lift door. Carefully remove any Notes.



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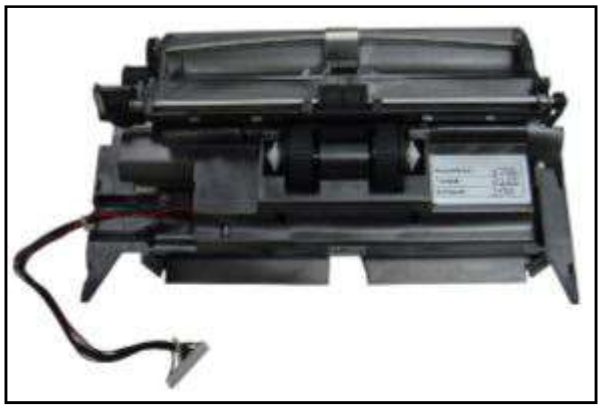
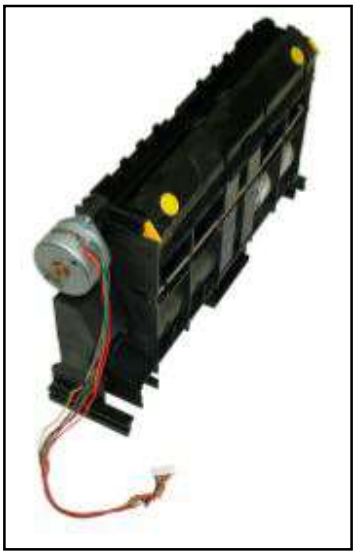
NF = Note Feeder, picks notes from note cassettes, contains notes transport path from previous and to next NF, and contains sensors for note counting, feed pressure control, and empty cassette detection.



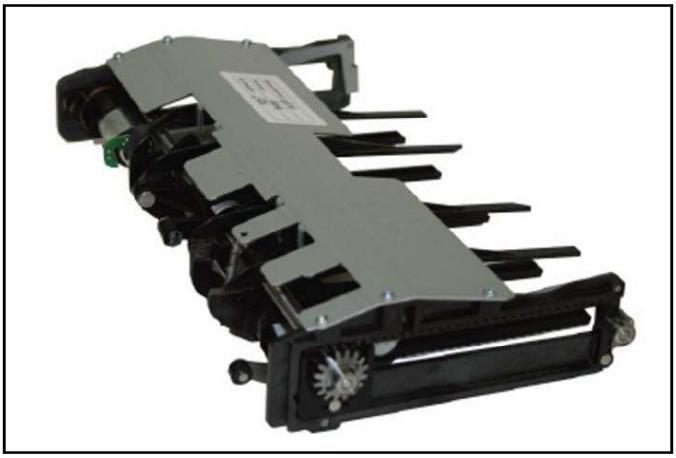
NQ = Note Qualifier, consists of the main motor that drives the main note transport throughout the machine, the first Note Feeder and double detect sensors.

ND = Note Diverter, receives notes from the NQ and transports notes to the Note Stacker or diverts rejects to Reject vault.



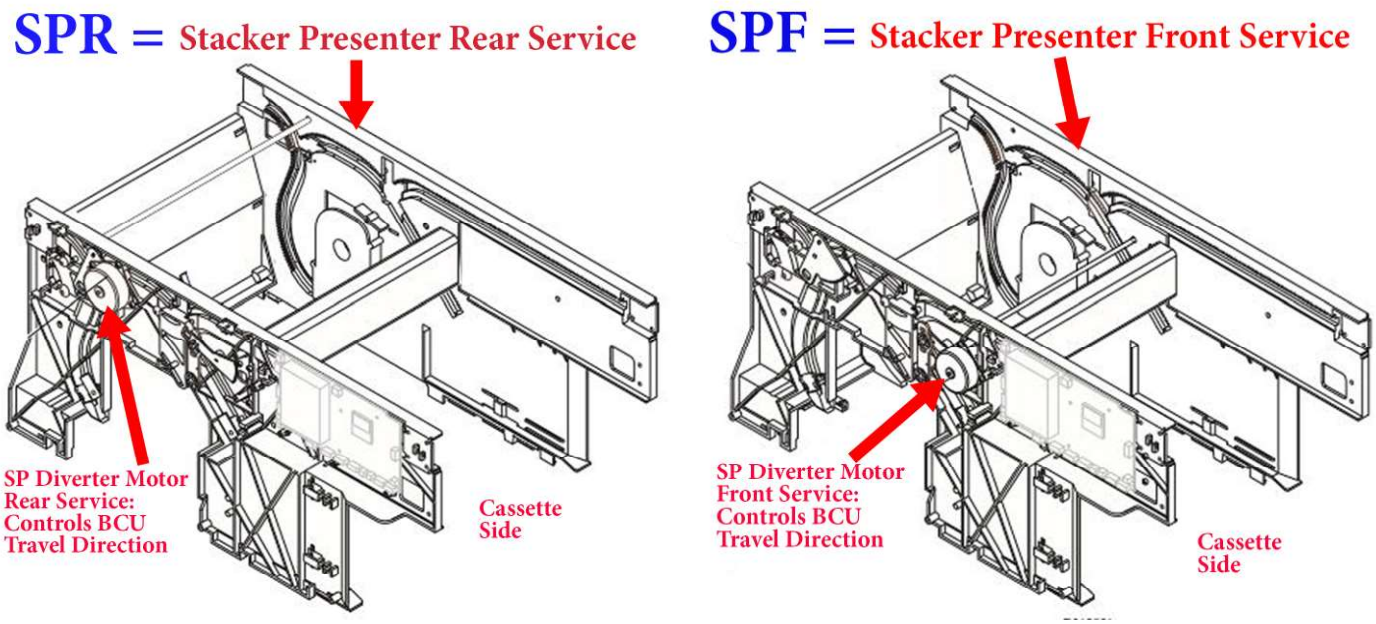
NS = Note Stacker, notes are captured one by one in a stepped stacker wheel controlled by pair of entrance sensors and moved to the Bundle Carriage Unit to form a bundle.

BCU = Bundle Carriage Unit, receives completed stack of notes from the Note Stacker and moves the notes along a tracked path to either the Bundle Output Unit or the Reject Vault.

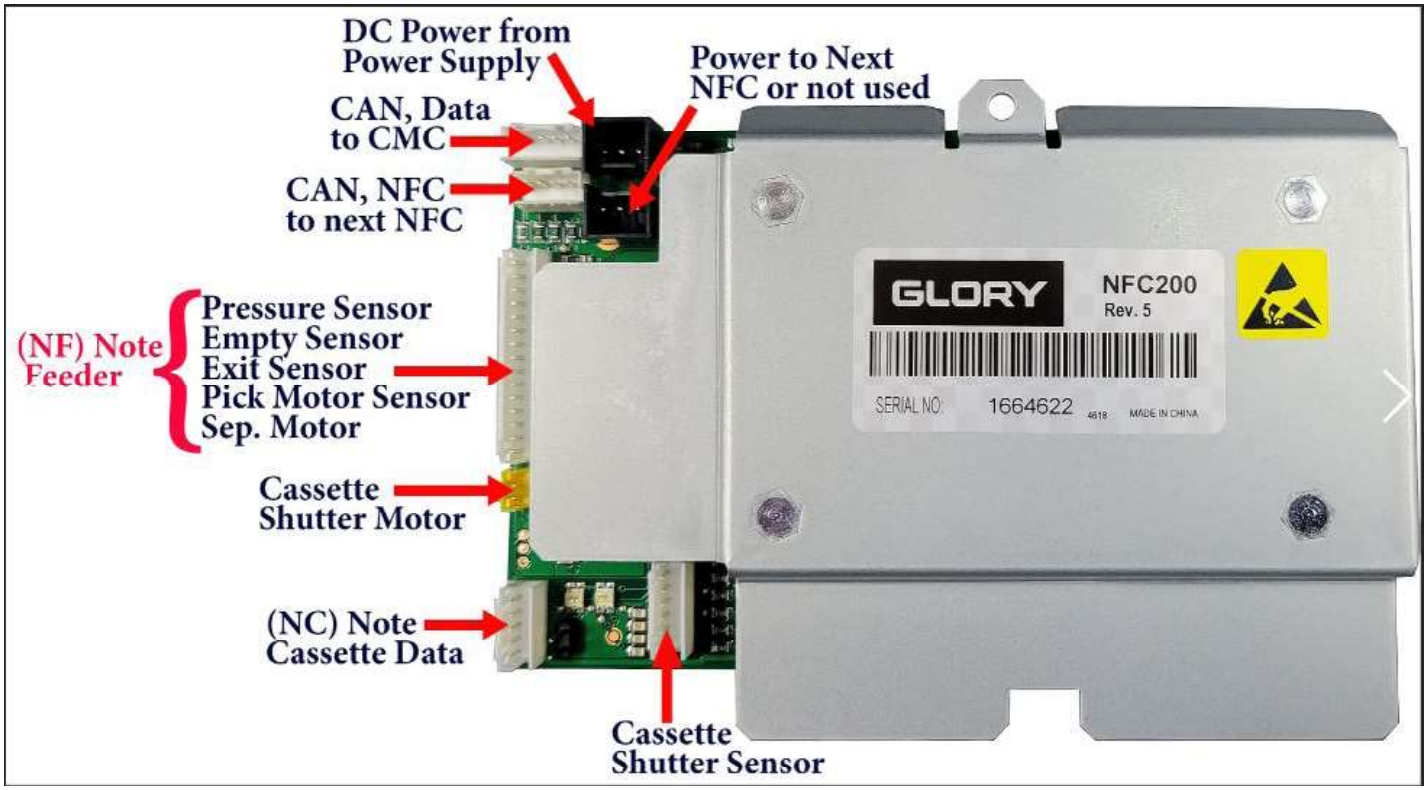


BOU = Bundle Output Unit, is the exit for the notes to the customer.

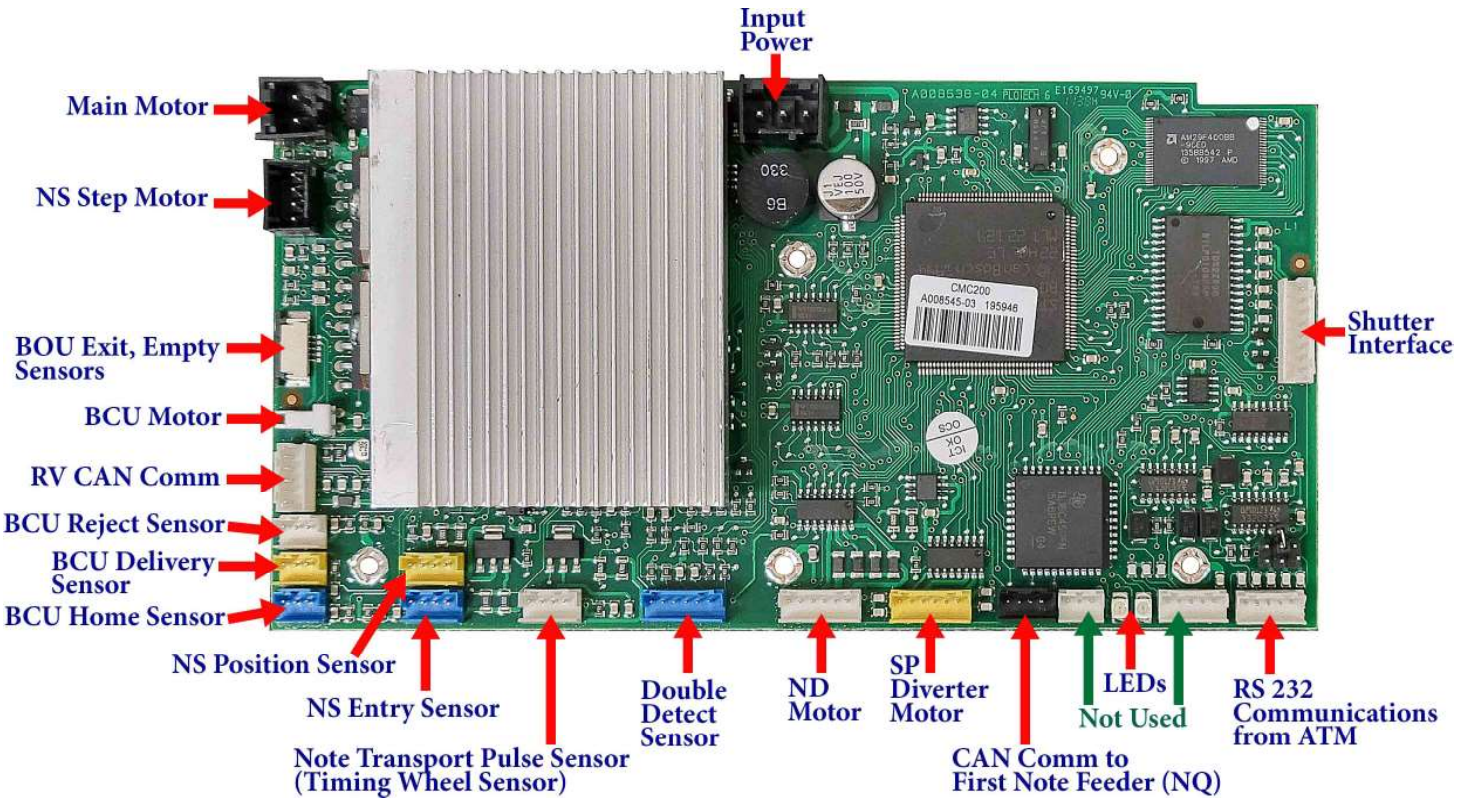
SP* = *Stack Presenter, receives a bundle of notes in the Note Stacker and delivers notes to customer via Bundle Carriage Unit. NOTE: BOU and Extensions are not part of SP.
SPR* = *Stack Presenter Rear, delivers the notes to the rear of the unit (Opposite side as cassettes). NOTE the Diverter motor's location.
SPF* = *Stack Presenter Front, delivers the notes to the front of the unit (Same side as cassettes). NOTE the Diverter motor's location.



NFC200 CONNECTOR PORTS

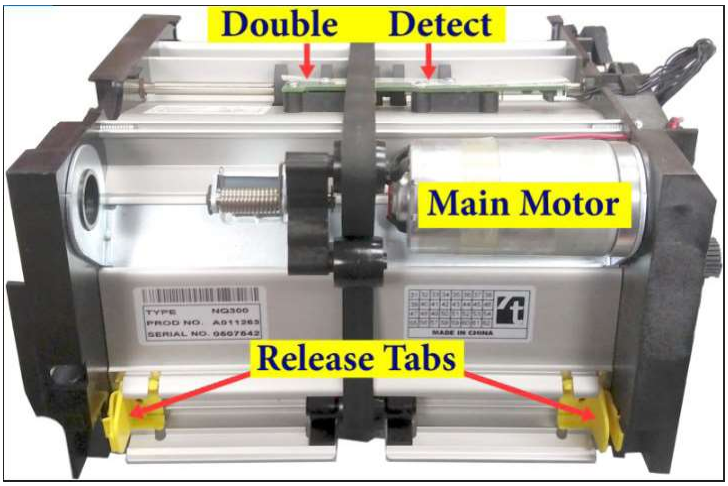


CMC 200 CONNECTOR PORTS



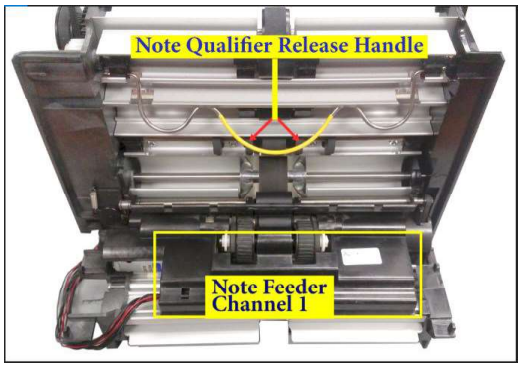
NOTE QUALIFIER EXTERIOR

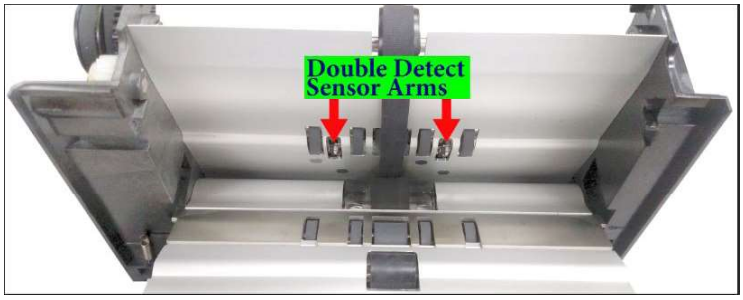
The Main Motor drives the dispenser's note transport system. Squeeze the yellow Release Tabs to open door and remove a note jammed in Note Qualifier. The Double Detect Sensor Arms are no visible from exterior of Note Qualifier, but the board assembly is identified for reference.



NOTE QUALIFIER INTERIOR

Remove Channel-1 cassette from dispenser. *Left Image,* Shows the Note Feeder for Channel 1 and the release Handle to check for a note jam in the qualifier. *Right image,* with the release door open shows the Double Detect Sensor Arms.

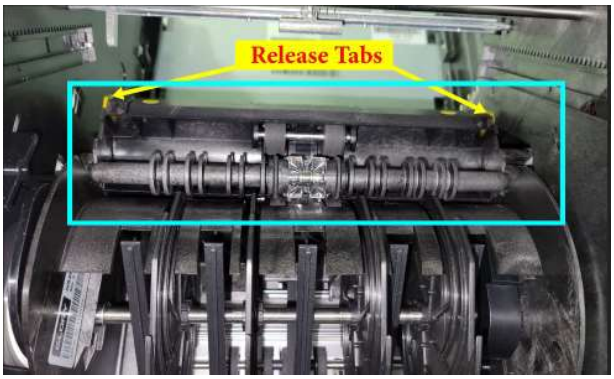




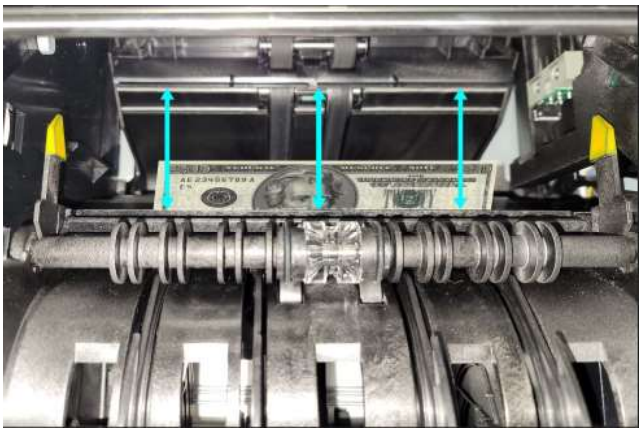
A 53-seconds video is available for the Note Qualifier. Copy/Paste address (https://triton.com/products/argo-ft/) to web browser. Click tab 'Manuals and Doc'; Click 'Clearing an NMD Note Qualifier Jam Video Guide'. Click white Arrow to start the video.

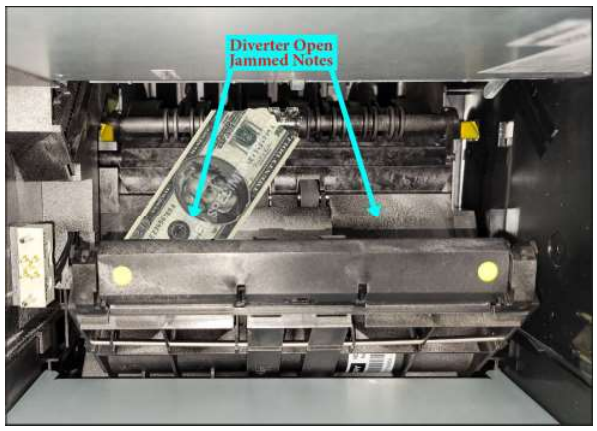
NOTE DIVERTER

Blue rectangle shows the Note Diverter in its normal closed position. If suspect a note jam, remove the Reject Vault and Channel-1cassette from dispenser. CAREFULLY, push the two yellow Release Tabs, **Yellow** arrows, outwards to open diverter.



Remove the notes through top of dispenser, *Left image* or via the reject channel, *Right image*.





CAREFULLY, push on both **Yellow** dots to close the diverter. DO NOT force it close or could bind the diverter on the next note. NOTE: If the tabs break off, replace the diverter. Insert Reject Vault and Channel-1cassette into dispenser.

LOADING NOTE CASSETTES

Each Stack contains 50x $1.00 notes

NMD-100

340mm/3000 Notes

(2750 Notes)

Depending on Note Quality

Do not overload the cassette. *Left image* show overfilled cassette. *Center image* show a close-up of the overfilled cassette. The notes extend into the **RED** area. *Right image* show notes properly loaded in the **Green** area.

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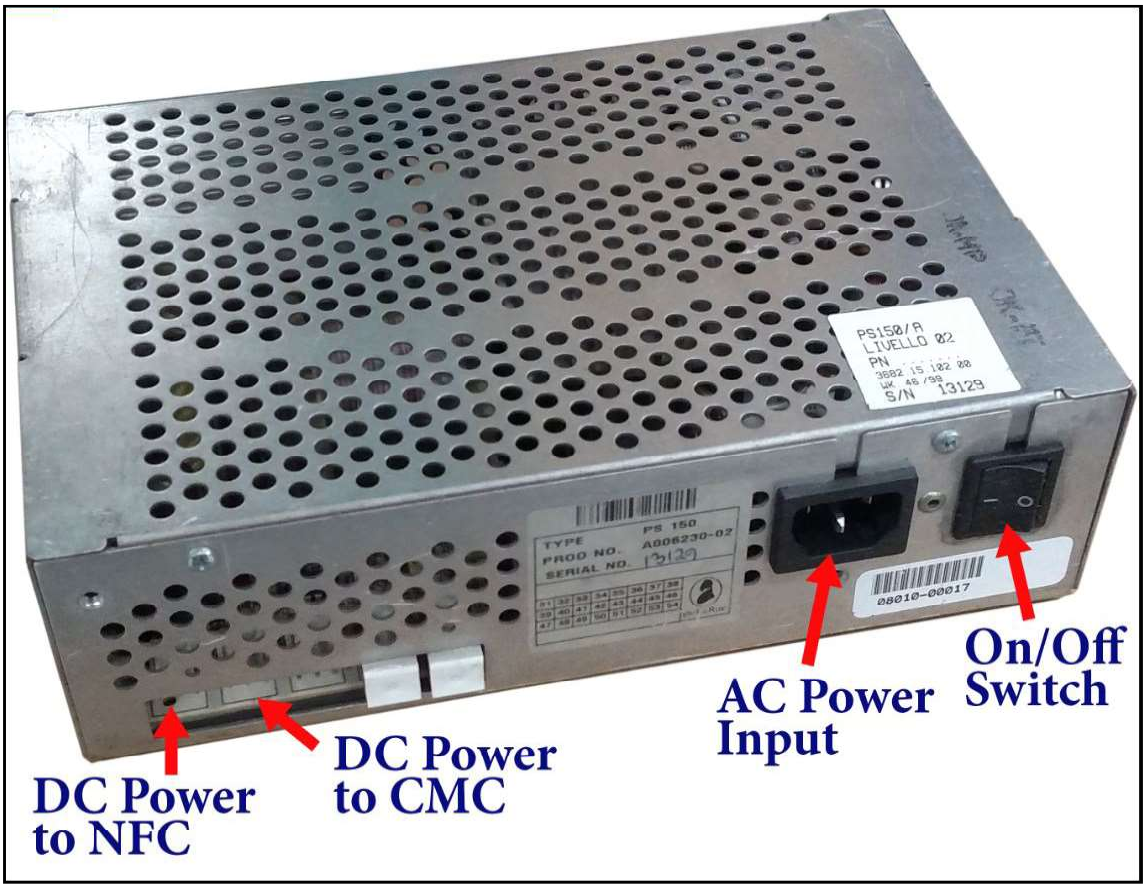
NMD100 POWER SUPPLY



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