

Opteva® 740 ATM Operating Guide

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Diebold Nixdorf, Inc.
Att: Documentation Services 9-B-16
5995 Mayfair Road
North Canton, OH 44720

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Section 1

Introduction

The Opteva® 740 ATM is a full-service terminal that allows consumers to deposit and receive cash, obtain transaction records, and perform other financial tasks available on a full-service ATM.

The ATM has the following characteristics:

- Installed through the exterior wall of a building in locations with motor vehicle access, such as bank buildings
- Has a weather-resistant design
- Supplies are replenished from the rear of the ATM
- Maintenance is performed from the front and the rear of the terminal

1.1 Before Performing Maintenance Procedures

You should be familiar with the following information before performing the maintenance procedures in this manual:

- The features and equipment on your ATM
- The maintenance option your institution has selected for its ATM(s)

Standard and Optional Equipment

Depending on the requirements of your institution, your ATM might not have all the features described in this manual. Refer to the documents listed in Appendix A for more information about standard and optional equipment.

Maintenance Options

Your institution can select from several maintenance options; determine which option your institution has selected before servicing the ATM. Your ATM manager or supervisor can provide this information.

1.2 Maintenance Tasks

Maintenance keeps the ATM operational on a day-to-day basis and includes, but is not limited to, the following tasks:

- Retrieving jammed, retained or captured cards from the card reader
- Replenishing printer paper, clearing paper jams and replacing printer cartridges
- Removing jammed cash from cash dispensing or cash accepting modules

1.3 Using this Manual

This manual provides the following information:

- A description of devices used in the ATM (Section 2)
- Maintenance procedures for the top chassis and safe (Section 3)
- Related documentation (Appendix A).
- Cleaning the exterior of the ATM (Appendix B)

1.4 Observing Safety Precautions

General Safety Precautions

Strictly observe the following safety precautions during maintenance. By following these precautions, you can reduce the risk of equipment damage, severe personal injury, or death.



You must observe the following precautions when performing maintenance on the ATM to avoid risk of death, severe personal injury, or equipment damage:

- *Do not wear loose clothing or jewelry that can become caught in the equipment.*
- *Use caution to prevent long hair from getting caught in the equipment.*
- *Never insert screwdrivers, pens, or other instruments into any ATM module or device (unless you are expressly instructed to do so in this document). Severe bodily injury, death from electrical shock, or equipment damage can result.*
- *Always turn off the ATM before removing or installing modules.*

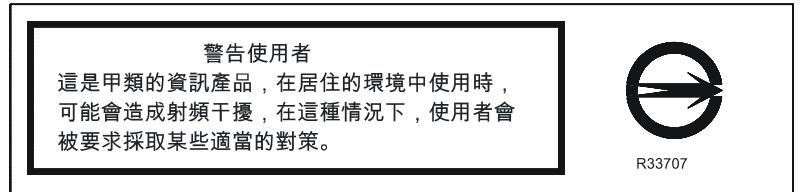
Warning and Caution Labels

The ATM might have any of the warning or caution labels shown below. **Strictly** observe the following safety concerns to reduce the risk of severe personal injury, or death.

Label	Definition	Safety Concern
	Electrical shock hazard	An electrical shock hazard exists in the area of the label. Do not remove covers. Remove power before servicing.
	Warning or danger	A personal injury can occur. Look for nearby warning label (electrical shock, pinch point, moving machinery, high temperature hazard) or refer to the module or ATM operating guide for the specific hazard.
	Pinch point	An area that can pinch (or cut) you exists in the area of this label. Keep your hands and fingers clear of pinch points.
	Moving machinery hazard	Moving parts that can snag or pull clothing, hair, skin, or jewelry into the mechanism are present in the area of this label. Keep clothing, hair, skin, and jewelry out of the mechanism.
	High temperature hazard	High temperatures that can cause pain or burns are present in the area of this label. Do not touch until cooled.

1.5 Taiwan Class A Radio Interference Label

A warning label (Figure 1-1) is included on ATMs available in Taiwan to meet Taiwan Class A regulatory requirements for radio frequency interference.



m29094u

Figure 1-1 Taiwan Class A Label

1.6 Terminology

This document uses the following terms:

- *ATM* refers to the complete Opteva 740 terminal.
- *Note(s)* refers to the documents of monetary value that are stored in the cassettes and dispensed from the dispenser.
- *Consumer* refers to any person who uses the ATM to transact business.
- *Device* refers to the small and large electrical and mechanical components that make up the ATM.
- *Dispenser* refers to the module that takes media from the cassettes and transports it through a slot in the fascia to the consumer.
- *Fascia* refers to the front portion of the ATM, including the area where the consumer transacts business.
- *Institution* refers to any bank or business that might purchase the ATM.
- *Maintenance* refers to the routine tasks performed by the operator to keep the ATM operational.
- *Media* refers to any type of document (such as a bank note, bill, ticket, coupon, etc.) that is stored in the cassettes and dispensed from the dispenser.
- *Module* refers to the major electro-mechanical devices that make up the ATM, such as displays, printers, and dispensers.
- *Operator* refers to a person who performs routine maintenance tasks, such as replenishing supplies. The operator might also resolve common problems, such as removing paper jams.

Section 2

ATM Devices

This section describes the devices available on the Opteva 740 ATM. These devices are located in either the top chassis or in the safe. For more information about individual devices, refer to the documents listed in Appendix A.

NOTE

Your ATM might not contain all the devices described in this section. Some devices are optional and some devices cannot be used in combination with other devices, such as mutually exclusive combinations.

2.1 Devices and Access Points on the Fascia

The consumer selects transactions, specifies amounts, deposits bills and documents, receives dispensable media, and receipts, and requests information at the fascia.

2.1.1 Consumer Interface

The consumer interface provides an access point for consumer devices or features. The labels on many of the access points explain how to use the device and lighted indicators guide the consumer through the transaction sequence. The consumer interface includes the following features and interfaces (your ATM might not have all these features).

NOTE

The locations for some of the items might vary, depending on the devices and features that are installed in the ATM. See Figure 2-1 and Figure 2-2 for the various fascia configurations.

Fascia Lighting

A light located near the top of the fascia illuminates the fascia. An optional lighted signage panel, which includes an exterior fluorescent light and cover, can be mounted on top of the fascia.

Speakers

Speakers in the top of the fascia can guide consumers through the transaction.

Motorized Card Reader Slot

To use the motorized card reader, the consumer inserts an ATM card in the card slot to begin a transaction. The card reader automatically pulls the card into the ATM and returns the card when the transaction is completed.

Dip Card Reader

To use the dip card reader, the consumer inserts an ATM card in the card slot and then removes the card to begin a transaction. The dip card reader can read magnetic stripe cards and memory chip cards. The dip card reader cannot retract, capture, or retain cards.

Bar Code Scanner

The consumer places the bar code that is printed on certain materials, such as utility bills, on the scanner shelf. The bar code scanner above the shelf reads the bar code for information about the account.

Consumer Keypad

During the transaction sequence, the ATM prompts the consumer to use the consumer keypad to enter transaction information. The 16-key keypad uses a security module and encrypting PIN pad technology to secure the information entered by the consumer at the keypad.

Function Keypads

There are four keys on each side of the consumer display. The consumer presses the function key that corresponds to an option on the consumer display.

Consumer Display

The consumer display welcomes the consumer and provides instructions for performing transactions. An optional touch screen display eliminates the need for function keypads.

Headphone Jack

Visually impaired consumers can plug headphones into a jack on the fascia to receive voice guidance. The fascia speakers do not function when the headphone jack is being used.

Camera Window

The fascia has a window for an optional camera security system.

Printer Slot

At the end of a transaction, the consumer receives a printed record through the printer slot.

Envelope Depositor Slot

The consumer obtains envelopes and makes deposits through the envelope depositor slot. The deposited envelopes are transported to a secure cassette inside the safe.

Intelligent Depositor Module (IDM) Slot

The consumer deposits single checks without envelopes through the slot for the intelligent depositor module. The intelligent depositor module scans the check for information about the account and the amount data and then stores the checks in an open bin.

Intelligent Depository Module Bulk Document (IDM-BD) Slot

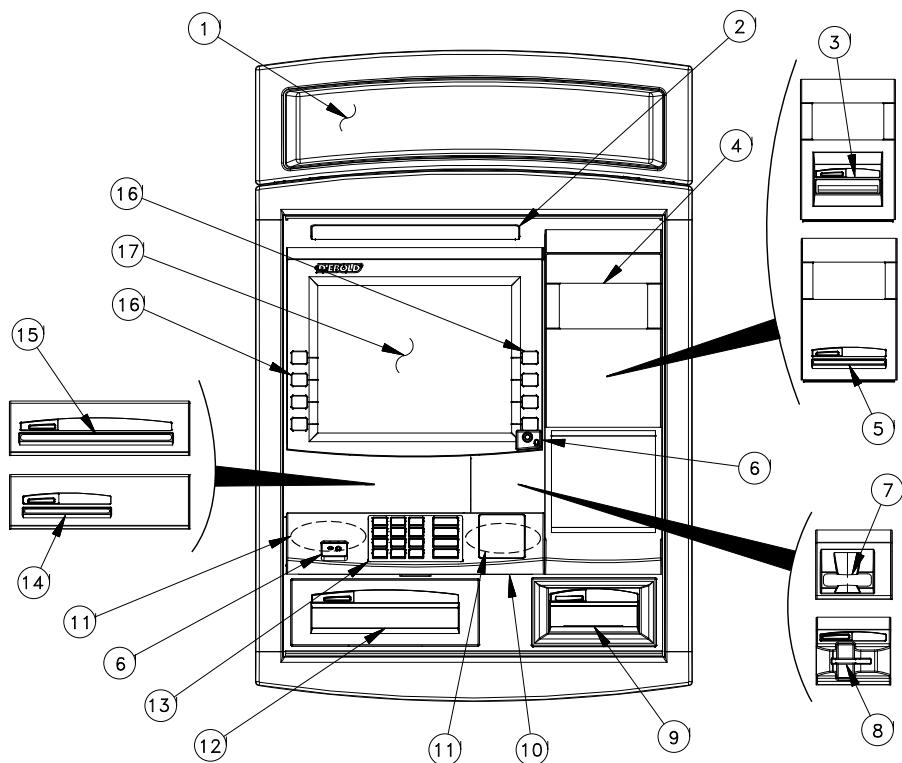
The consumer deposits a stack of up to 30 documents through the intelligent depository module bulk document (IDM-BD) slot. Documents can be inserted face up or face down with the short edge first. The intelligent depository module scans the check for information about the account and the amount data and then stores the checks in an open bin.

Dispenser Slot

Bank notes and other media are presented to the consumer through the dispenser slot.

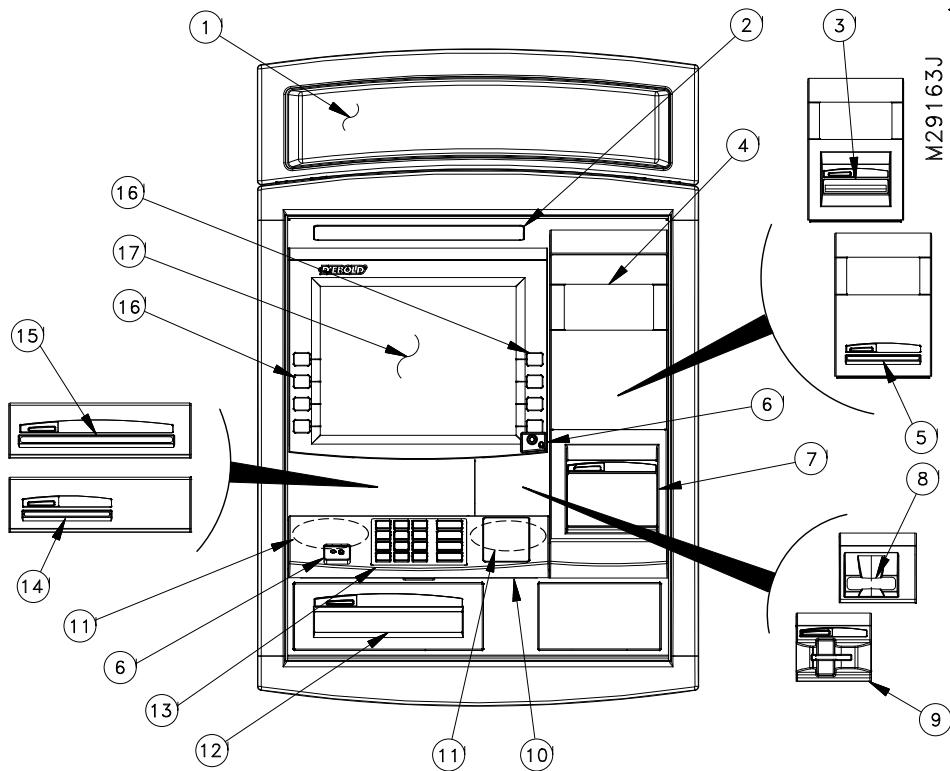
Bulk Note Acceptor Opening

The consumer can deposit unbound stacks of notes into the opening for the bulk note acceptor. The notes are first validated and acceptable notes are stored in a secure cassette inside the safe.



1	Lighted signage panel
2	Fascia task light
3	Intelligent depository module slot (IDM V or IDM-BD)
4	Camera window
5	Receipt printer or graphical printer slot
6	Headphone jack (can be in either position, depending on installed components)
7	Motorized card slot
8	Dip card reader
9	Envelope depositor slot
10	Bar code scanner
11	Speakers (mounted on inside of fascia)
12	Dispenser slot
13	Consumer keypad
14	Receipt printer or graphical printer slot
15	Statement printer slot
16	Function keypad
17	Consumer display

Figure 2-1 Opteva 740 Fascia Features (without bulk note acceptor)



1	Lighted signage panel
2	Fascia task light
3	Intelligent depository module slot (IDM or IDM-BD)
4	Camera window
5	Receipt printer or graphical printer slot
6	Headphone jack (can be in either position, depending on installed components)
7	Bulk note acceptor opening
8	Motorized card slot
9	Dip card reader
10	Bar code scanner
11	Speakers (mounted on inside of fascia)
12	Dispenser slot
13	Consumer keypad
14	Receipt printer or graphical printer slot
15	Statement printer slot
16	Function keypad
17	Consumer display

Figure 2-2 Opteva 740 Fascia Features (with bulk note acceptor)

2.1.2 Lead-through Indicators

Lead-through indicators (Figure 2-3) guide the consumer through the transaction by calling attention to the next step in the sequence. These indicators display three single colors: red, green, or yellow. Lead-through indicators are provided at the following access points:

- Dip card reader
- Envelope depositor (with integrated dispenser)
- Dispenser
- Receipt printer
- Statement printer
- Intelligent depository module (IDM V or IDM-BD)
- Bulk note acceptor

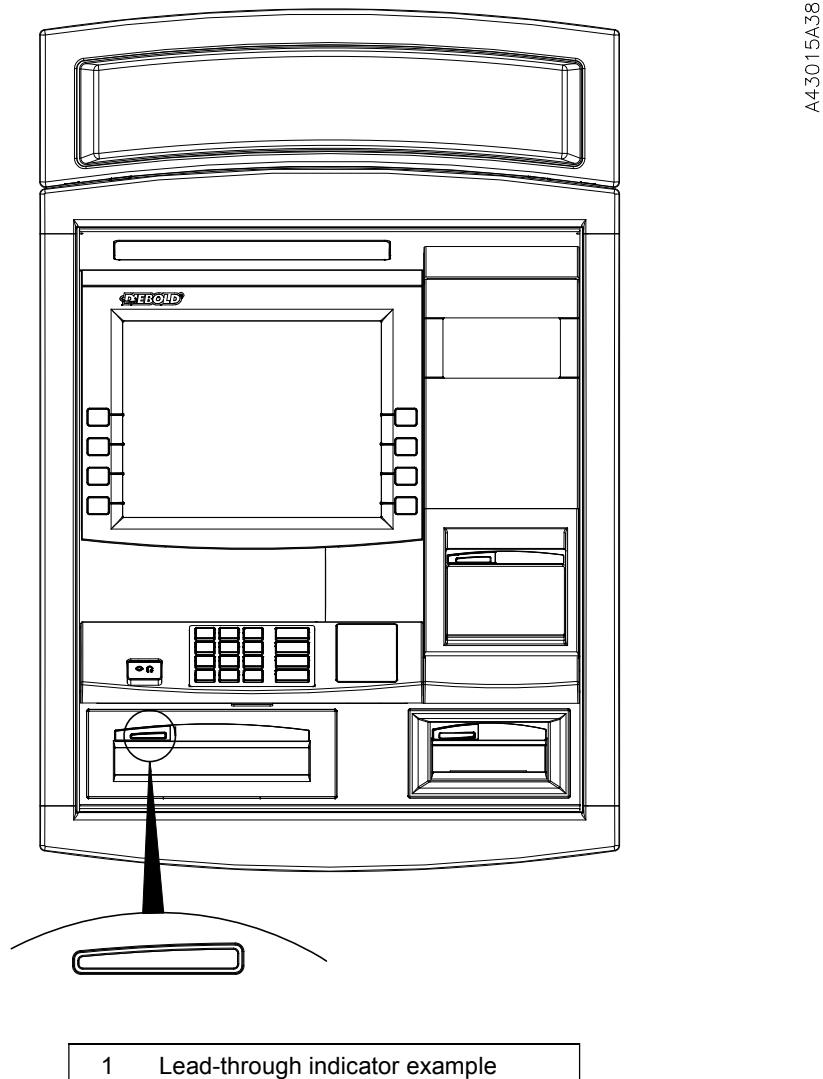


Figure 2-3 Lead-through Indicators

2.2 Devices in the Top Chassis

There are two types of devices in the top chassis:

- Devices used by the consumer (Section 2.2.1)
- Devices used by the operator (Section 2.2.2)

NOTE

Your ATM might not contain all the devices described in this section. Some devices are optional and some devices cannot be used in combination with other devices, such as mutually exclusive combinations.

2.2.1 Devices Used by the Consumer

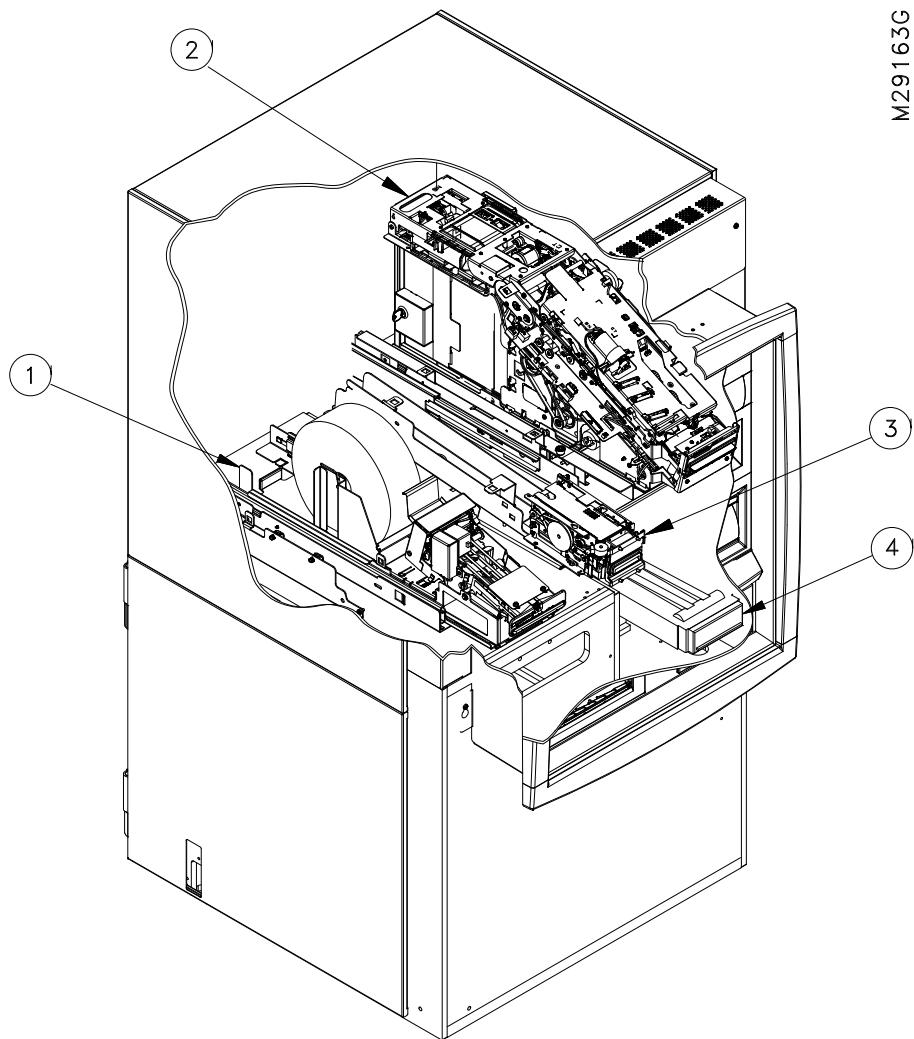
The following devices in the top chassis can be used by the consumer:

- Dip card reader or motorized card reader
- Intelligent depository module (IDM)
- Intelligent depository module bulk document (IDM-BD)
- Receipt printer
- Graphical printer
- Statement printer
- Bulk note acceptor
- Envelope depositor (with integrated dispenser)
- Bar code scanner

The location of these devices is shown in Figure 2-4 and Figure 2-5 (see Figure 2-1 and Figure 2-2 for the location of the bar code scanner). The following paragraphs contain a brief description of each device.

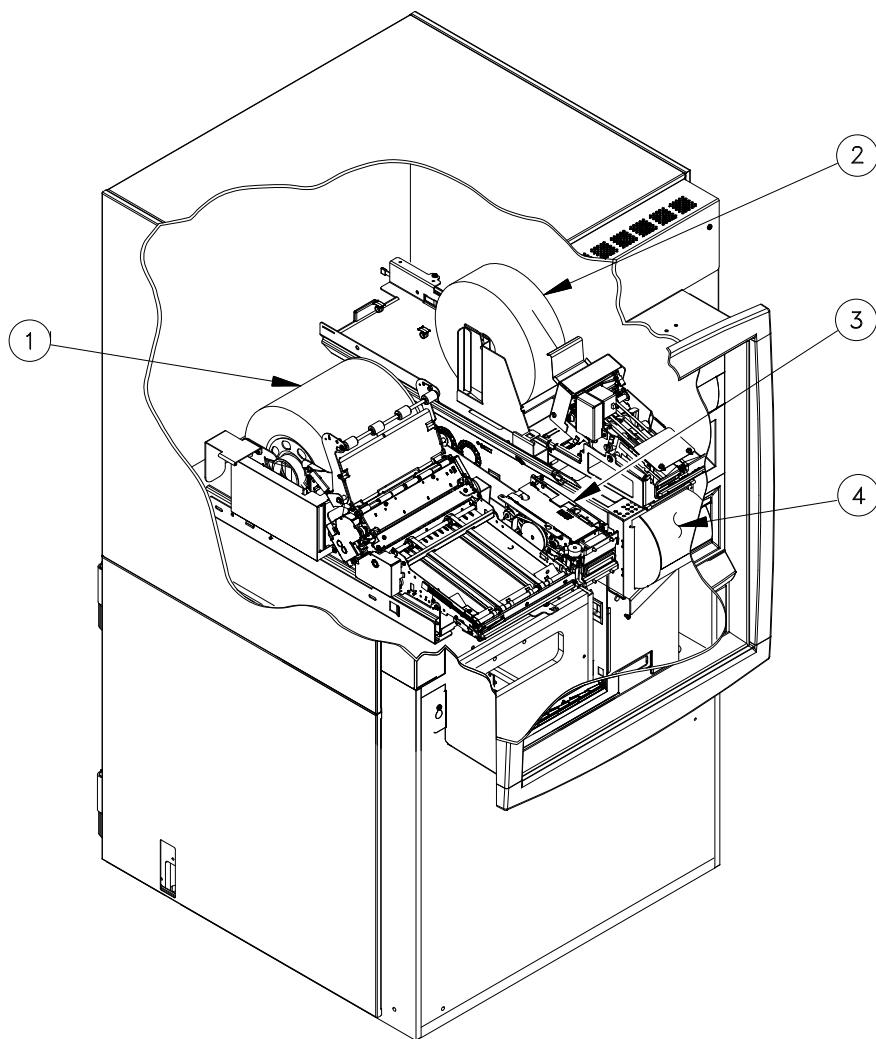
NOTE

Additional consumer interface devices are located on the ATM fascia assembly. Refer to Section 2.1.1 and see Figure 2-1 and Figure 2-2 for information about these devices.



1	Statement printer, graphical printer, or receipt printer (receipt printer shown)
2	Intelligent depository module (IDM V or IDM-BD), receipt printer, or graphical printer (intelligent depository module shown)
3	Motorized card reader
4	Envelope depositor (with integrated dispenser)

Figure 2-4 Devices in the Top Chassis (without bulk note acceptor)



1	Statement printer, graphical printer, or receipt printer (statement printer shown)
2	Intelligent depository module (IDM or IDM-BD), receipt printer, or graphical printer (receipt printer shown)
3	Motorized card reader
4	Bulk note acceptor

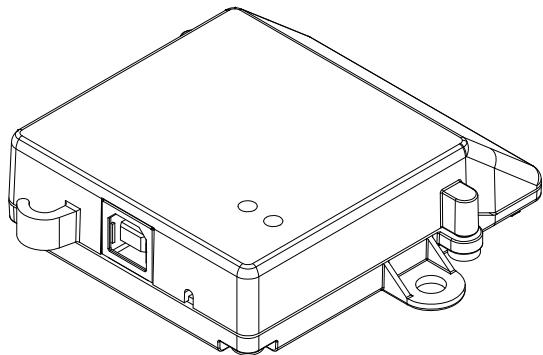
Figure 2-5 Devices in the Top Chassis (with bulk note acceptor)

Bar Code Scanner

The bar code scanner (Figure 2-6) reads and decodes bar codes, which are used during a transaction for tracking and routing purposes.

The consumer places the bar code of a document, such as a utility bill, on the scanner shelf. The beam from the scanner reads the bar code and processes the information.

Refer to the *Consumer Bar Code Scanner Operating Guide* (TP-820813-001A) for more information.



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Figure 2-6 Bar Code Scanner

Fifth-generation Intelligent Depository Module

The intelligent depository module (Figure 2-7) reads information from a check and deposits the amount into the consumer's account. The intelligent depository module does not accept envelopes. After the intelligent depository module reads the check, it is transported to a bin at the rear of the module.

Refer to the *Fifth-generation Intelligent Depository Module Operating Guide* (TP-820903-001C) for more information.

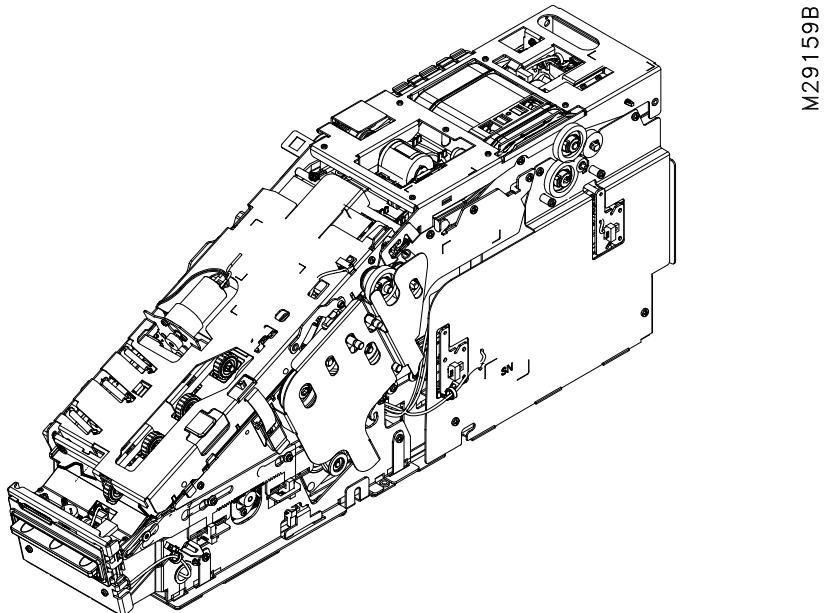


Figure 2-7 Fifth-generation Intelligent Depository Module (IDM V)

Intelligent Depository Module Bulk Document (IDM-BD)

The intelligent depository module bulk document (IDM-BD) (Figure 2-8) accepts a stack of up to 30 documents and provides MICR data and images of each document. Documents can be inserted face-up or face-down with the short edge first for correct orientation. At the completion of the transaction, the IDM-BD can print up to 80 characters on the bottom of the document and stamp the top of the document with a predefined mark. The IDM-BD deposits the documents into the appropriate bin. Bin 1 can hold approximately 1000 documents, the exception bin holds up to 50 documents.

Refer to the *Bulk Document Intelligent Depository Module (IDM-BD) Operating Guide* (TP-820901-001B) for more information.

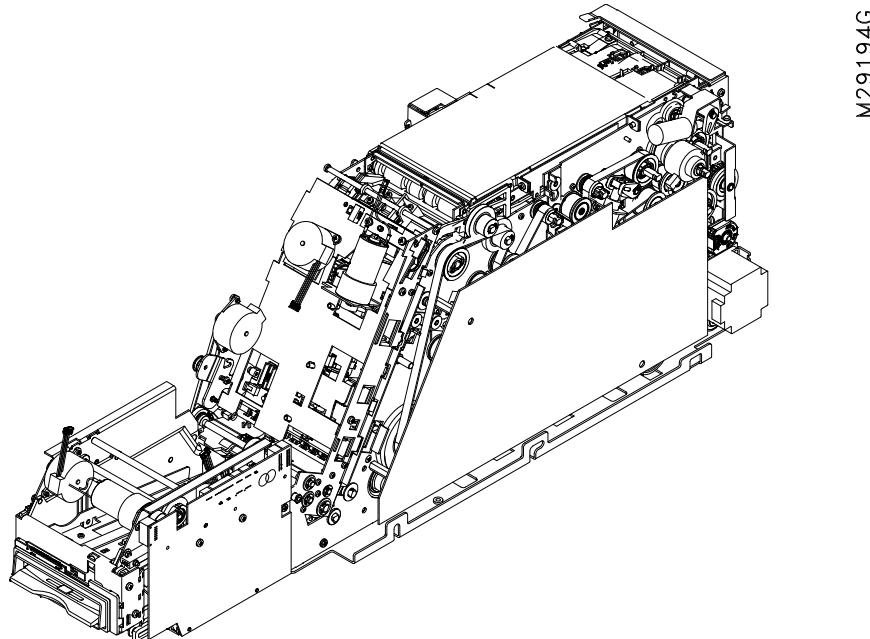


Figure 2-8 Bulk Document Intelligent Depository Module (IDM-BD)

Motorized Card Reader

The motorized card reader (Figure 2-9) reads and writes magnetic stripe cards and memory chip cards (smart or memory cards compliant with ISO 7816). The card reader reads and writes tracks 1, 2 and 3 (or any combination of tracks 1, 2 and 3) of magnetic stripe cards. To minimize errors, the card is held in the transport and the card reader can read tracks with errors again, for corrections, when it is necessary. A gate prevents cards without chips or cards without track 2 from entering the card reader/writer. The gate also prevents incorrect card insertion.

CIM86 or Watermark security systems are available options with the reader/writer

The card reader is equipped with an open card retain bin or a locked card retain bin to hold retained cards. The card retain bin holds all cards that are not returned to consumers. A card can be retained for the following reasons:

- The network commands the ATM to retain the card.
- The card cannot physically be returned.
- The consumer fails to take the card within the time allowed after the transaction session ended.
- A power failure occurs while the card is in the card reader, and the option to return the card on power failure is not present.

Refer to the *Motorized Card Reader (with chip, 123) Operating Guide* (TP-820815-001C) for more information.

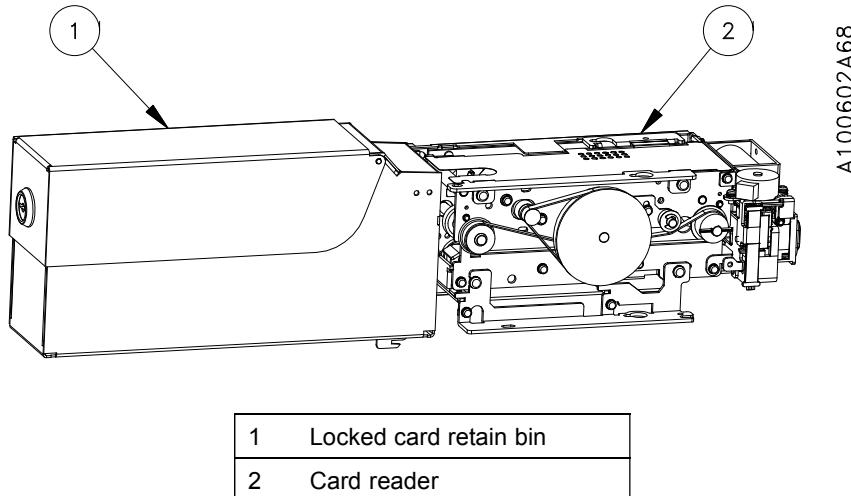


Figure 2-9 Motorized Card Reader

Dip Card Reader

The dip card reader is a manually operated device mounted on the ATM fascia. The consumer inserts an ATM card in the card 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.

Refer to the *Dip Card Reader (with chip, 123) Operating Guide* (TP-820814-001B) for more information.

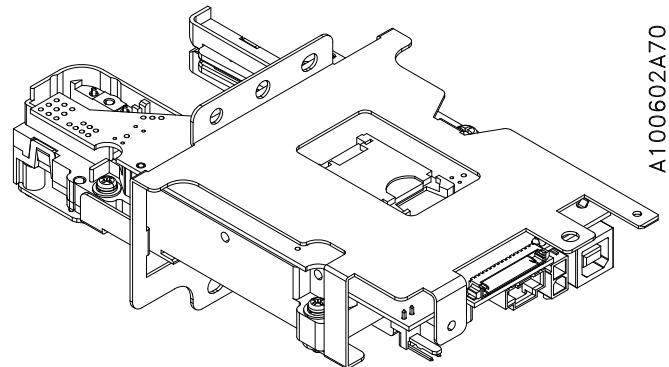


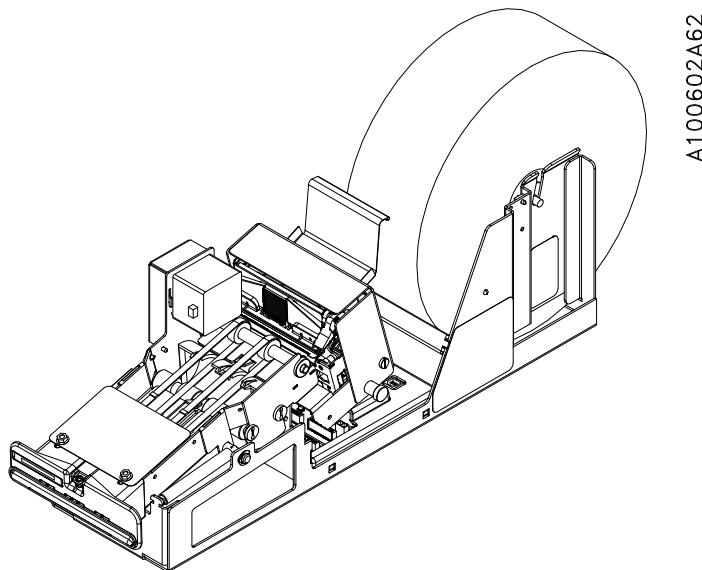
Figure 2-10 Dip Card Reader

Graphical Receipt Printer (80 mm)

The receipt printer (Figure 2-11) provides a printed receipt of the transaction. The transaction information can include the consumer's name, the amount of withdrawals, deposits or transfers, the ATM number and location, and other desired information.

The receipt printer uses rolled paper 80 millimetres (3.15 inches) wide and up to 254 mm (10.0 inches) in diameter. The paper receipt can have optional top-of-form marks. The receipt length is also programmable to suit the needs of the institution.

Refer to the *Two-color Graphical Receipt Printer Operating Guide* (TP-820710-001C) for more information.



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Figure 2-11 Graphical Receipt Printer (80 mm)

Graphical Receipt Printer (112 mm)

The graphical printer (Figure 2-12) prints a receipt of the customer's transaction. The receipt can be printed in one or two colors in either portrait or landscape orientation. The transaction information on the receipt can include the consumer's name, the amount of withdrawals, deposits or transfers, the ATM number and location, and other desired information.

The graphical printer uses a paper roll 112 millimetres (4.4 inches) wide and up to 254 mm (10.0 inches) in diameter. The paper can have optional top-of-form marks. The receipt length is also programmable to suit the needs of the institution.

Refer to the *Two-color Graphical Printer (112 mm, 4.4") Operating Guide* (TP-820890-001D) for more information.

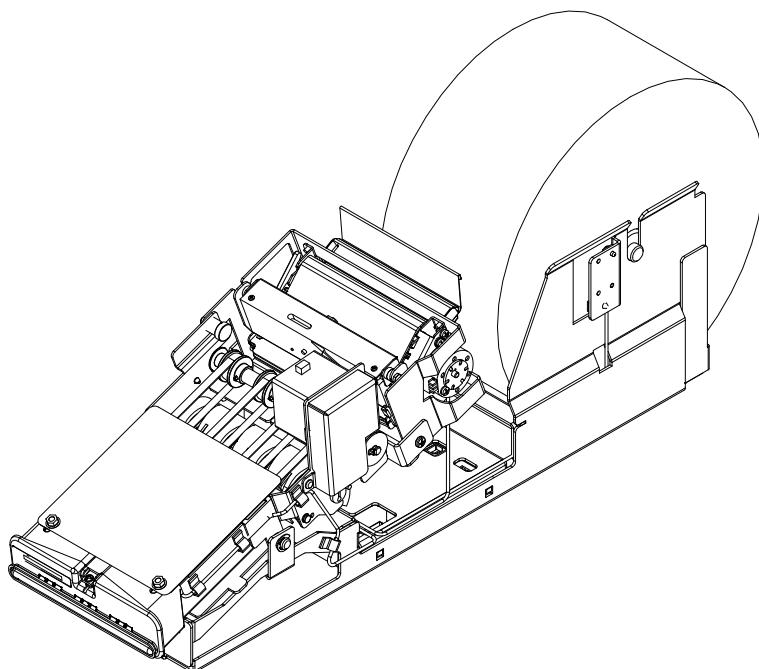


Figure 2-12 Graphical Receipt Printer (112 mm)

Statement Printer

The statement printer (Figure 2-13) prints a detailed record of the transaction using letter quality and high-resolution graphic printing. The transaction information can include the consumer's name, the amount of withdrawals, deposits or transfers, the ATM number and location, and other desired information. The printer uses thermal printing and does not need a ribbon cartridge.

The statement printer uses rolled paper either 210 millimetres (8.27 inches) or 216 millimetres (8.5 inches) wide. The statement length is programmable to suit the needs of the institution.

Refer to the *Two-color Graphical Statement Printer Operating Guide* (TP-820818-001G) for more information.

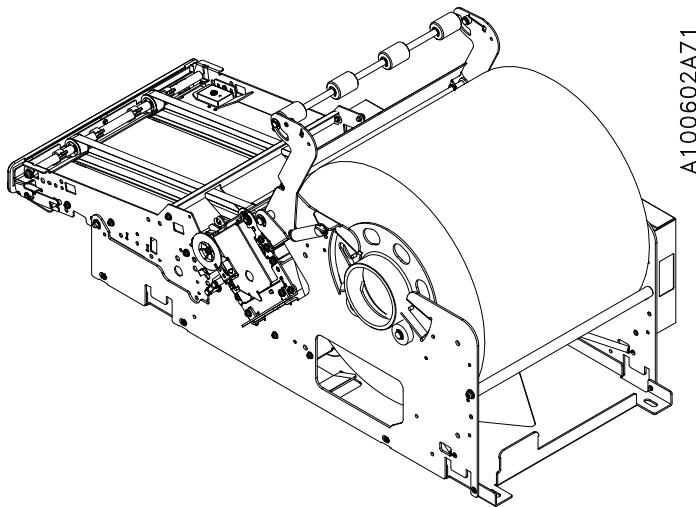


Figure 2-13 Statement Printer

Bulk Note Acceptor

The bulk note acceptor (Figure 2-14) accepts unbound stacks of notes through its fascia opening, validates the notes, and stores acceptable notes in a secure cassette inside the safe. The bulk note acceptor accepts notes short-edge first in stacks of 100 notes or less. The notes can be made up of multiple denominations, stacked randomly, and of varying quality, including notes that have holes, tears and bent corners.

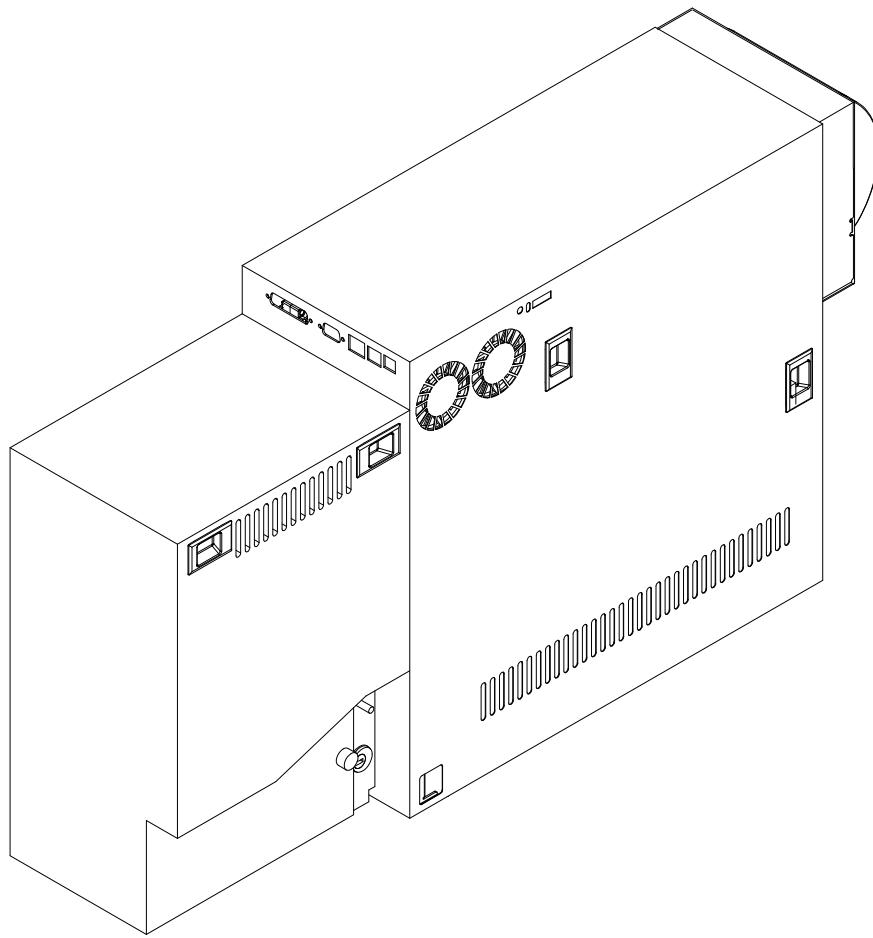
If notes cannot be accepted, the bulk note acceptor returns the notes to the customer, except under certain government regulations when the notes are suspected to be counterfeit. In these cases, suspect and counterfeit notes are retained by the module and linked to the corresponding transaction data, such as the cardholder or account holder. The escrow location can hold up to 100 notes.

The bulk note acceptor must be unlatched and retracted for maintenance tasks, such as accessing retracted or counterfeit notes or clearing jams. An optional keylock is also available (see Figure 2-15).



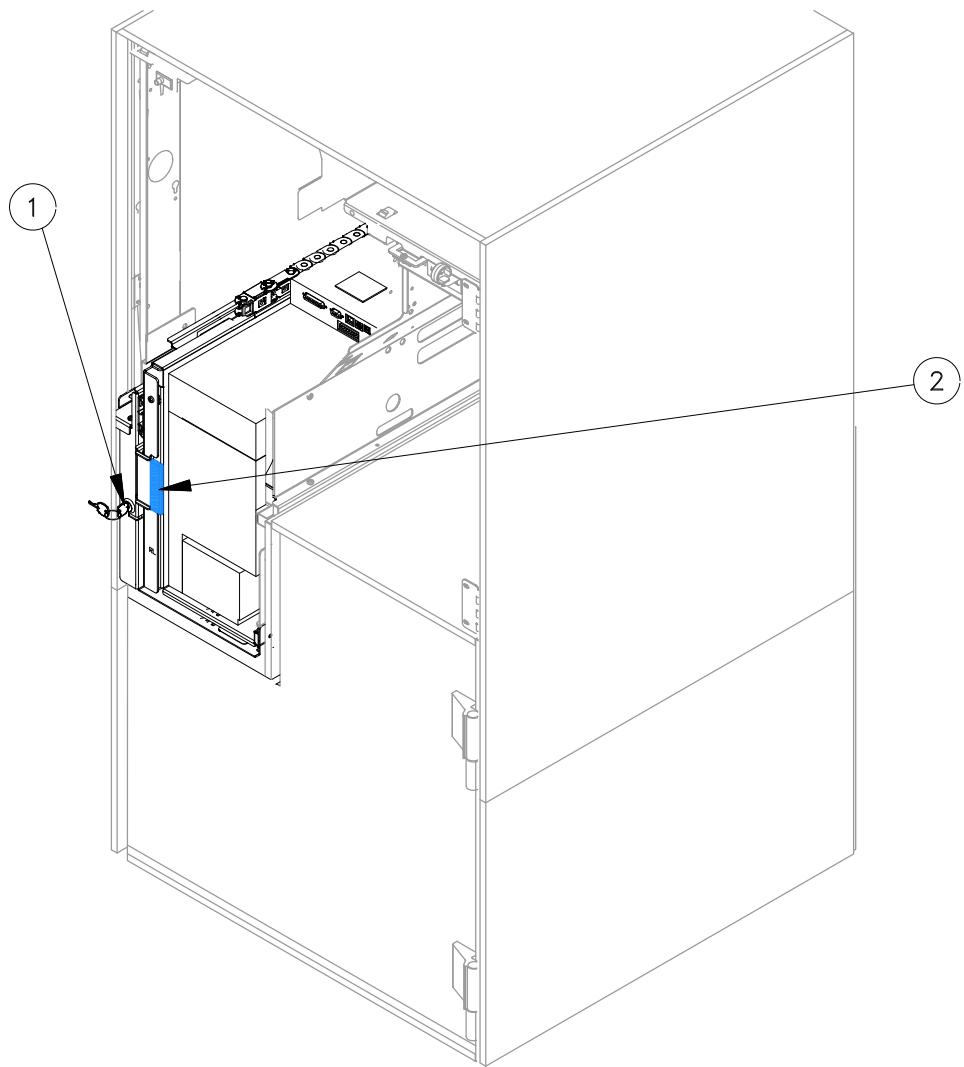
The mounting hardware of the bulk note acceptor can pinch your fingers if you hold the optional keylock while unlatching the mounting hardware. To avoid pinching your fingers always release the key before you use the latch.

Refer to the *Bulk Note Acceptor Operating Guide* (TP-820811-001A) for more information.



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Figure 2-14 Bulk Note Acceptor



1	Bulk note acceptor optional keylock
2	Bulk note acceptor latch

Figure 2-15 Bulk Note Acceptor Access

Envelope Depositor (with integrated dispenser)

The envelope depositor can accept and process deposit envelopes and can issue empty envelopes (with the optional integrated dispenser) . Envelopes are dispensed and accepted short-edge first through the same fascia opening. Envelopes deposited into the envelope depositor must be within the dimensions shown below.

Width	Height	Thickness
163 mm (6.4 inches) to 241 mm (9.5 inches)	92 mm (3.6 inches) to 116 mm (4.5 inches)	0.21 mm (0.008 inches) to 15 mm (0.6 inches)

The envelope depositor (with the integrated dispenser) has a capacity of 300 envelopes and sends a notification when the envelope supply is low or empty. Envelopes that are not removed by the customer will be retracted and placed in the envelope depositor cassette.

Refer to the *Envelope Depositor with Integrated Dispenser Operating Guide* (TP-820709-001E) for more information.

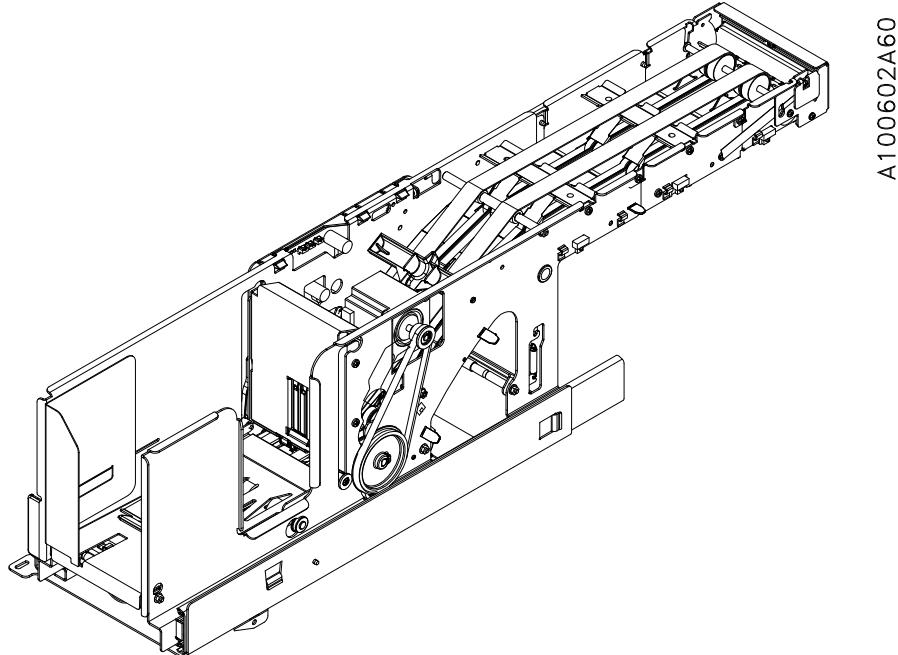


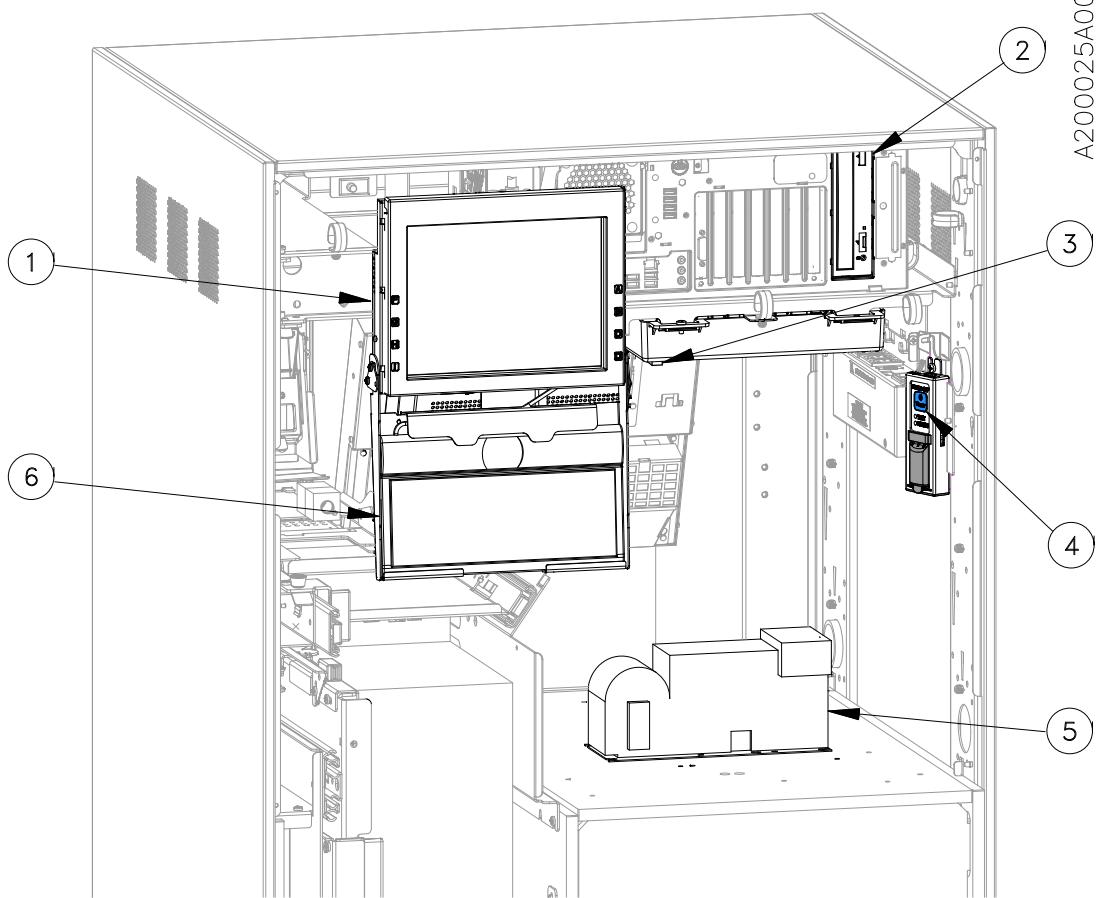
Figure 2-16 Envelope Depositor (with integrated dispenser)

2.2.2 Devices Used by the Operator

The operator uses the devices described in this section (Figure 2-17) to perform routine maintenance tasks, such as daily balancing, replenishing supplies, and determining the cause of certain problems. These devices can also be used for occasional operations, such as setting up the cash dispenser and diagnosing problems.

The maintenance interface for the ATM is made up of a rear-mounted color LCD, an alphanumeric keyboard with integrated pointing device and an optional pointing device. The operator uses the maintenance mode switch, terminal power (on/off) push button, and status indicator with the operator interface. The rest of this section describes the following devices on the operator interface:

- Rear operator display
- Maintenance keyboard
- Pointing device (optional)
- Maintenance mode switch
- Terminal power (on/off) push button
- Disk drive assemblies
- Journal printer



1	Rear operator display
2	Disk drive assemblies
3	Maintenance mode switch
4	Terminal power (on/off) push button (see Figure 2-19)
5	Journal printer
6	Maintenance keyboard

Figure 2-17 Devices in the Top Chassis Used by the Operator

Rear Operator Display

The rear operator display (Figure 2-18) supplies information for routine maintenance, balancing, and monitoring supplies and maintenance. The display can be viewed with the rear door of the top chassis either closed (through the rear door window) or open. The display also provides ATM status information using the following three status colors:

- Green light – the ATM is available for transactions.
- Yellow light – a device is running low on supplies.
- Red light – the ATM is not in service to the consumer.

The display can also be adjusted to different angles and positions to improve readability. Refer to Section 3.4 for information about adjusting the rear operator display. A color touch screen is available as an optional rear operator display.

Maintenance Keyboard and Pointing Device

The maintenance keyboard (Figure 2-18) is mounted under the rear operator display. The keyboard can be raised and fixed in a typing position to enter information for the maintenance tasks. Refer to Section 3.4 for information about adjusting the keyboard position. The keyboard is available with various language options.

NOTE

An optional pointing device with the same functionality as a PC mouse can be installed and used with the maintenance keyboard.

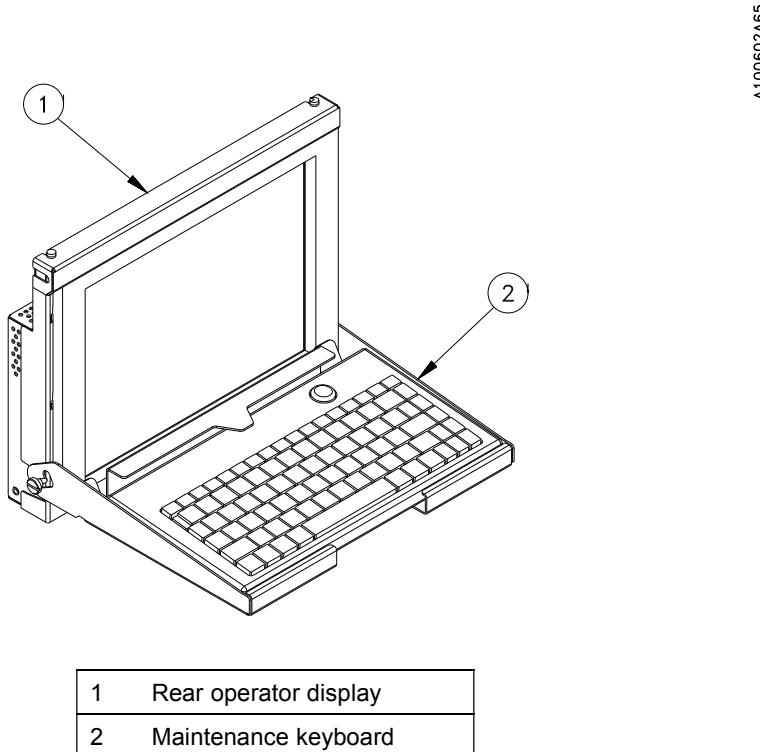


Figure 2-18 Rear Operator Display and Maintenance Keyboard

Terminal Power (on/off) Push Button

The terminal power push button (Figure 2-19) allows the operator to turn the ATM on and off.

Press and release the terminal power push button to turn on the ATM. The on/off indicator will light and the wait indicator will flash. After the ATM has completely powered up, the wait indicator will turn off and the ATM's operating system will load. While the wait indicator is flashing, the terminal power push button is deactivated. If the error indicator turns on, call your service provider.

Press and release the terminal power push button to turn off the ATM. The wait indicator will flash while the ATM is turning off. It might take several minutes for the ATM to completely turn off. When the ATM does turn off, the wait LED will stop flashing and the ON/OFF LED will then turn off.



To completely remove AC power to the ATM, the ATM power cord must be removed from its receptacle or the AC power to the ATM must be removed at the quick disconnect device (such as a circuit breaker) for the ATM.



ATM AC power outlets (Figure 2-19) are for service use and limited use of approved devices only. They are not intended for providing a permanent power source for devices that might create electrical interference and affect ATM operation.



The service buttons under the rubber cover (Figure 2-19, View B) are not for customer operations. If these buttons are used inappropriately, the ATM will exit service.

Maintenance Mode Switch

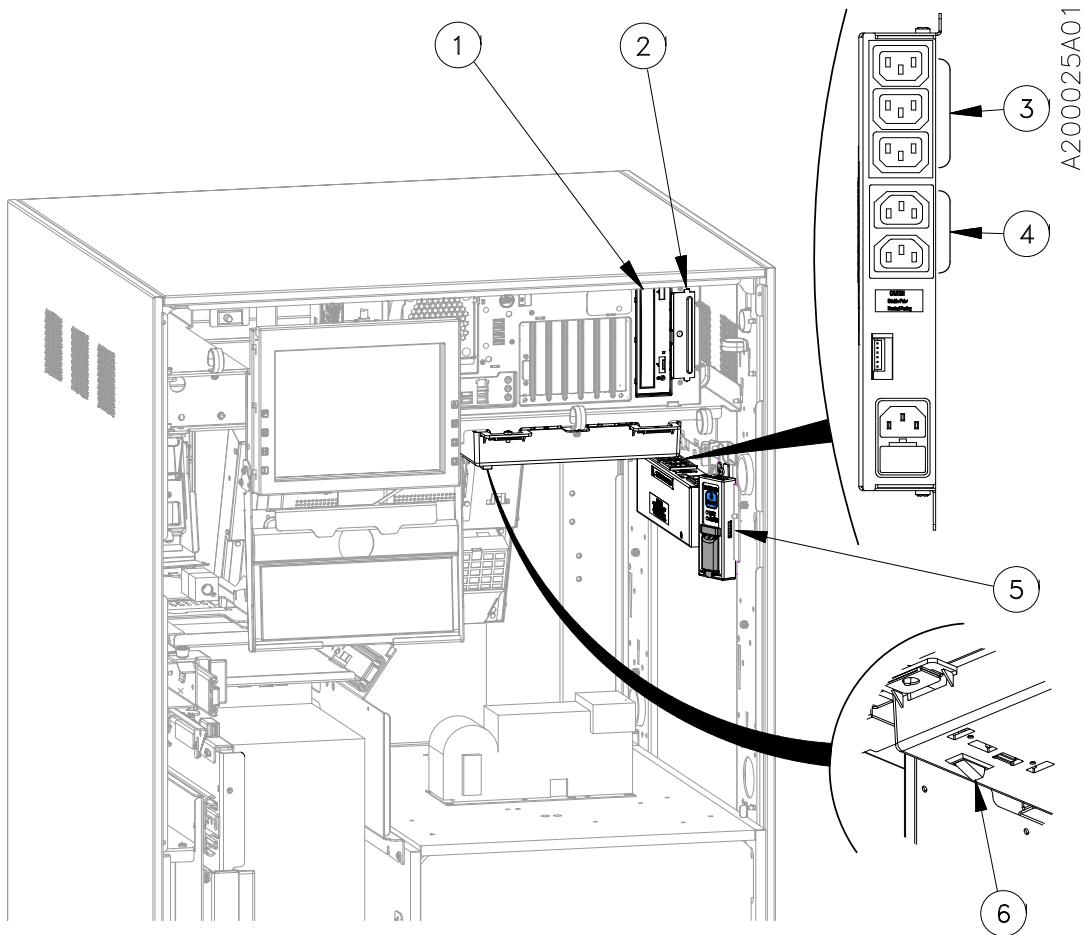
Use the maintenance mode switch located under the ATM processor (Figure 2-19) to remove the ATM from consumer service and place it in the maintenance mode.

When you press the maintenance mode switch, the consumer display might display a message indicating that the ATM is temporarily out-of-service. Refer to the *Agilis 9Ix XV Maintenance Manual* (TP-820744-001I) or the documentation for the terminal control software for information about placing the ATM in maintenance mode.

Disk Drives

The disk drives are located in the ATM processor (Figure 2-19). You can use disk drives to load or store software, images or ATM data. The Opteva 740 ATM is available with three types of disk drives.

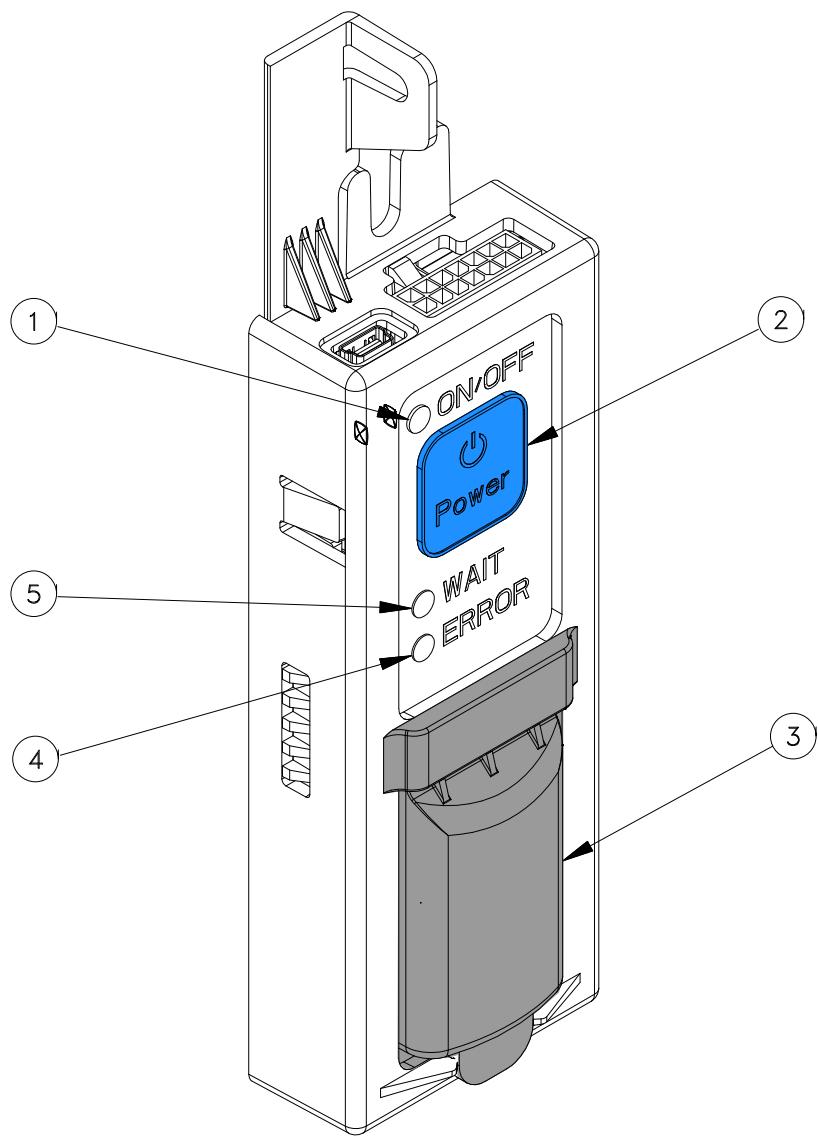
- Floppy disk drive (3.5 inch 1.44 MB)
- Compact disk (CD) drive
- Hard disk drive (10 GB minimum), internal to ATM processor (not shown in Figure 2-19)



1	Compact disk (CD) drive
2	Floppy disk drive
3	Switched AC outlets [1]
4	Unswitched AC outlets [1]
5	Terminal power (on/off) push button (see Figure 2-19, View B)
6	Maintenance mode switch
[1] AC outlets are for service use and limited use of approved devices only. They are not intended as permanent power sources for devices that might create electrical interference, which can affect how the cash dispenser operates.	

View A General Devices

Figure 2-19 Maintenance Mode Switch, Disk Drive Assemblies, Terminal Power Push Button, and AC Outlets.
(sheet 1 of 2)



1	Power (On/Off) indicator
2	Power (On/Off) push button
3	Service access cover
4	Error indicator
5	Wait indicator

View B Terminal Power (On/Off) Push Button

Figure 2-19 Maintenance Mode Switch, Disk Drive Assemblies, Terminal Power Push Button, and AC Outlets.
(sheet 2 of 2)

Journal Printer

The journal printer (Figure 2-20) supplies a detailed audit of all consumer transactions. Typically, the time, date, and type of transaction are printed. The journal printer can print text and graphics in two colors.

Depending upon the software application, the journal printer can also be programmed to provide a variety of data, such as status messages, maintenance actions, commands, and reports.

Refer to the *Journal Printer Operating Guide* (TP-820817-001A) for more information.

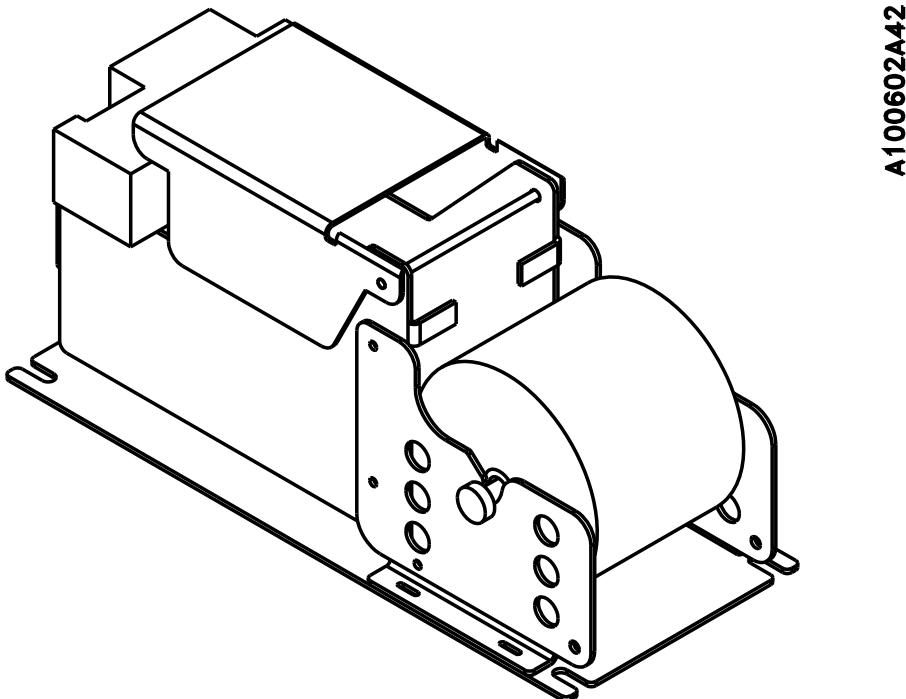
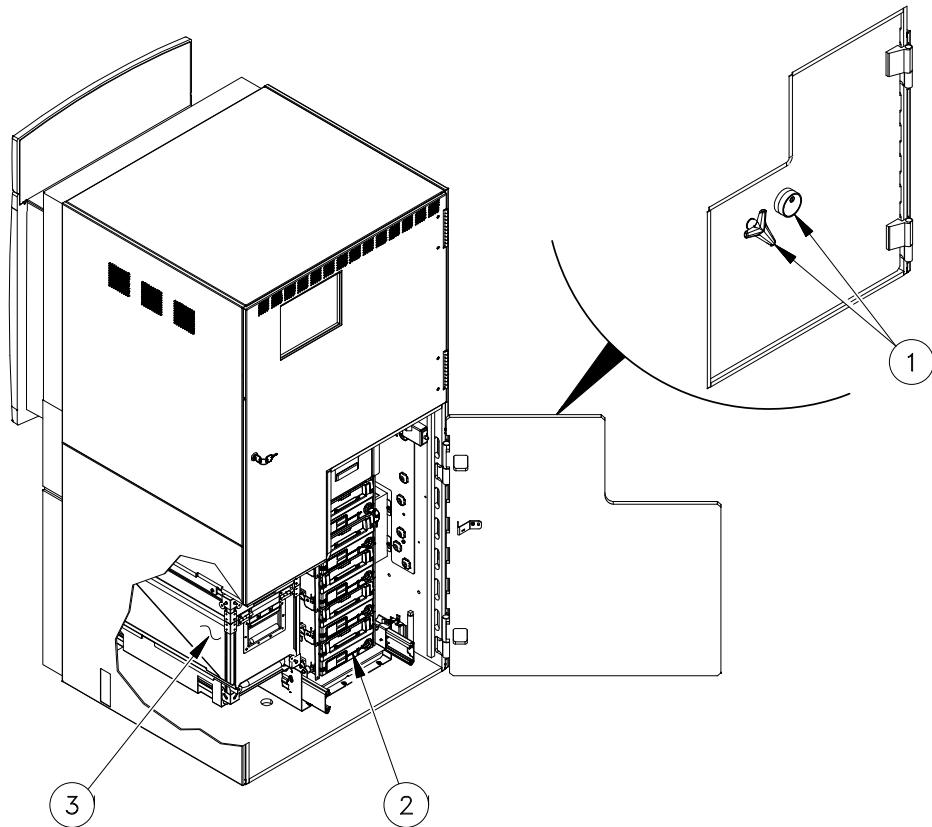


Figure 2-20 Journal Printer

2.3 Devices in the Safe

The following devices are installed inside the safe of the ATM (Figure 2-21). Some devices are optional and might not be installed in your ATM.

- Dispenser (Section 2.3.1)
- Divert/Retract cassette and divert bin (Section 2.3.2)
- Dispense cassettes (Section 2.3.3)
- Bulk note acceptor free-fall cassette (Section 2.3.4)
- Opteva stacking cassette module (OSC) for the bulk note acceptor (Section 2.3.5)
- Deposit cassette (Section 2.3.6)
- Safe door locks (Section 2.3.7)
- Alarm sensors (Section 2.3.8)
- Seismic detectors (Section 2.3.9)
- Heat thermostat (Section 2.3.10)

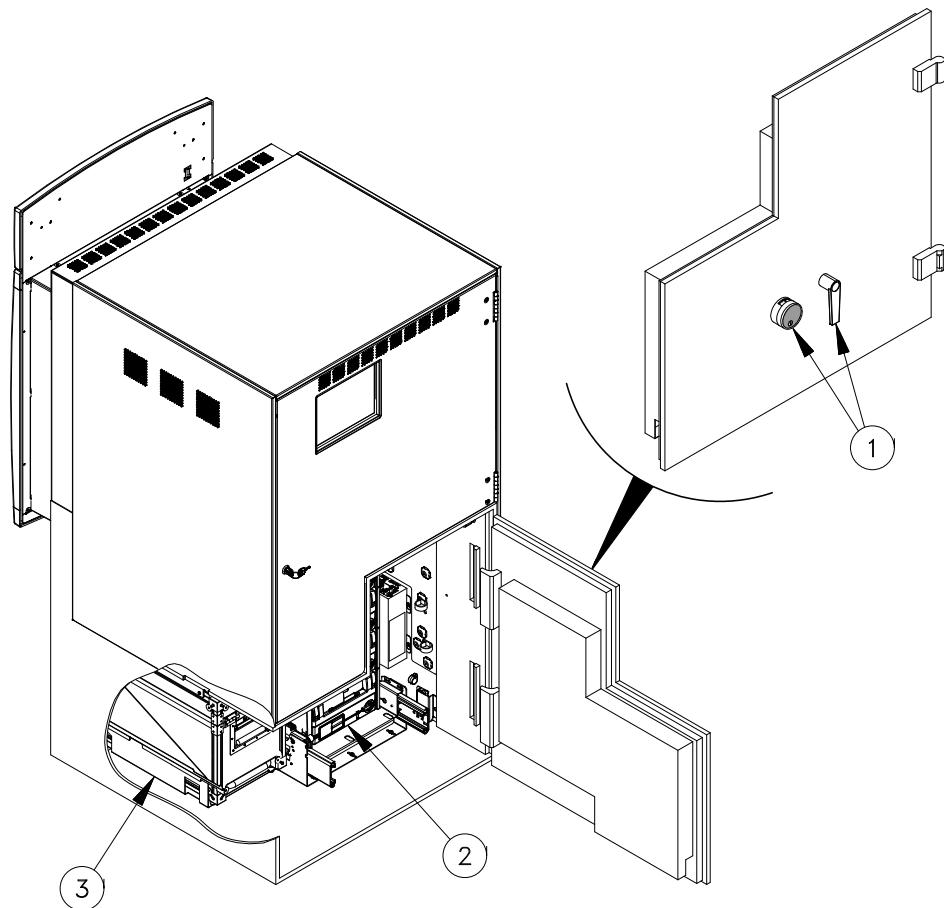
**NOTE**

For security reasons the location of the alarm sensors, seismic detectors, and heat thermostat are not shown.

1	Safe door lock and handle
2	Dispenser with divert and dispense cassettes
3	Bulk note acceptor cassette or envelope depositor cassette (bulk note acceptor cassette shown)

View A UL Safe

Figure 2-21 Safe Devices (sheet 1 of 2)

**NOTE**

For security reasons the location of the alarm sensors, seismic detectors, and heat thermostat are not shown.

1	Safe door lock and handle
2	Dispenser with divert and dispense cassettes
3	Bulk note acceptor cassette or envelope depositor cassette (bulk note acceptor cassette shown)

View B CEN -L Safe

Figure 2-21 Safe Devices (sheet 2 of 2)

2.3.1 Dispenser

When a consumer initiates a withdrawal transaction, the dispenser removes notes or other dispensable media from the dispense cassettes, stacks it, and transports it through the dispenser (Figure 2-22). The dispenser then presents a stack of notes to the consumer through the slot in the fascia.

If a bill is unacceptable (for example, it is too mutilated or crumpled to dispense), or if multiple notes are picked instead of just one note, the dispenser diverts the notes(s) to the divert cassette.

If the consumer fails to remove the stack of media, it is drawn back into the cash dispenser and dumped into the divert cassette. The terminal is now prepared for the next dispense.

Refer to the *Advanced Function Dispenser Operating Guide* (TP-820714-001C) for more information.

NOTE

In some software applications, it might be possible for the dispensed media to remain in the presenter and be available to the next consumer. Refer to the software documentation for your cash dispenser for specific details.

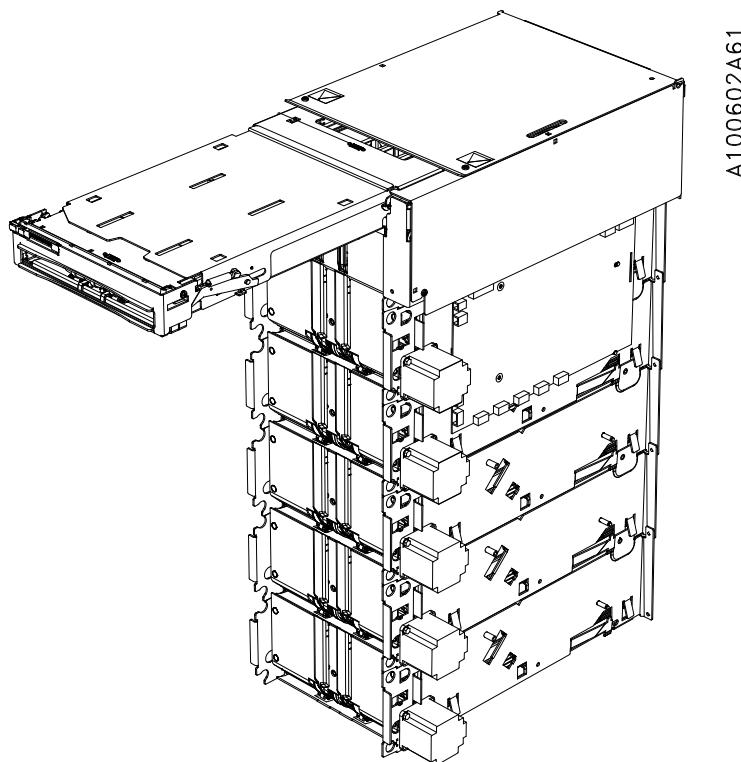
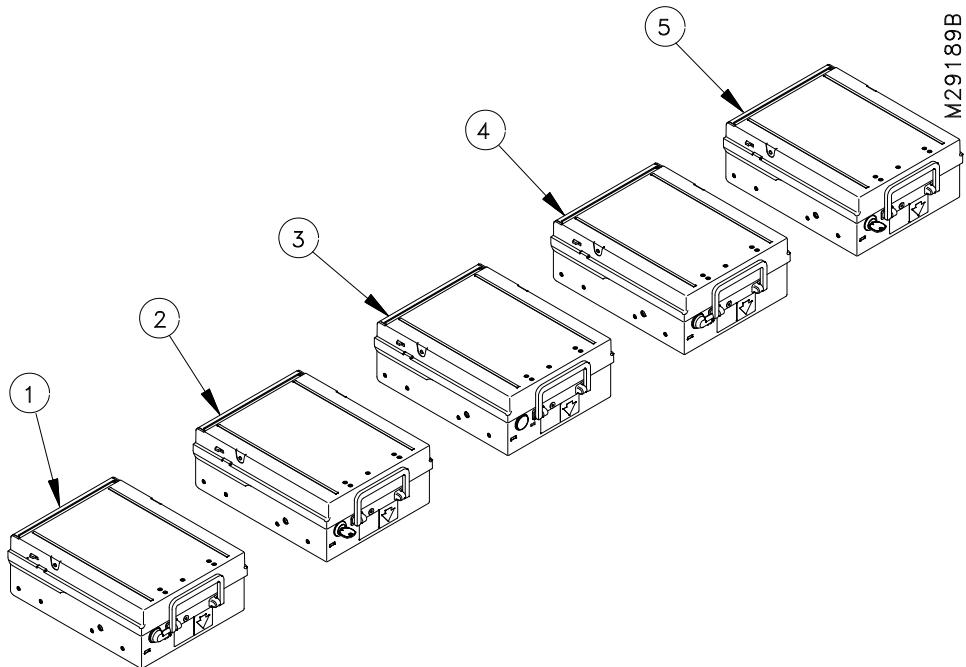


Figure 2-22 Dispenser

2.3.2 Divert/Retract Cassette and Divert Bin

Both the divert/retract cassette and divert bin (Figure 2-23) store notes that are diverted from the dispenser. The divert/retract cassette is available as a secure cassette (with a tamper indicator) or a convenience cassette (without a lock). The divert bin is available without a lid, a lock, or security features.

Refer to the *Advanced Function Dispenser Operating Guide* (TP-820714-001C) for more information.



1	Convenience divert/retract cassette
2	Tamper-indicating divert/retract cassette
3	Divert bin
4	Convenience divert/retract cassette (no partition)
5	Tamper-indicating divert/retract cassette (no partition)

Figure 2-23 Divert/Retract Cassette and Divert Bin

2.3.3 Dispense Cassettes

Dispense cassettes (Figure 2-24) store bills (or other dispensable media). Dispense cassettes can contain media that meets the following size limitations.

Maximum Size	Minimum Size
95.00 x 182.10 mm (3.74 x 7.17 inches)	45.00 x 85.10 mm (1.77 x 3.35 inches)

Cassettes can contain a stack of media up to 340 mm (13 inches) deep.

Dispense cassettes are available with no lock (convenience) or with standard locks (tamper indicating). Refer to the *Advanced Function Dispenser Operating Guide* (TP-820714-001C) for more information.

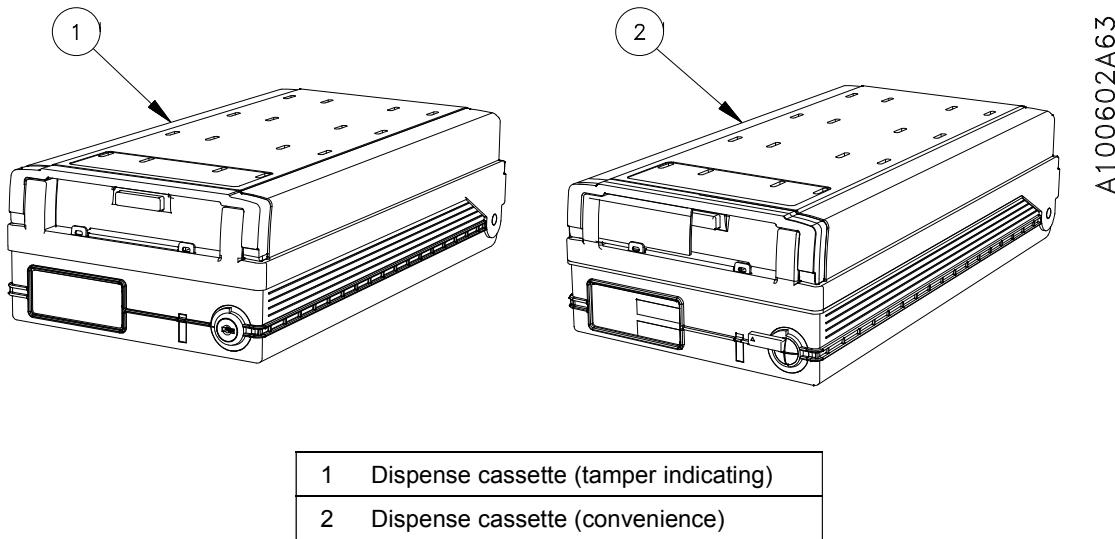
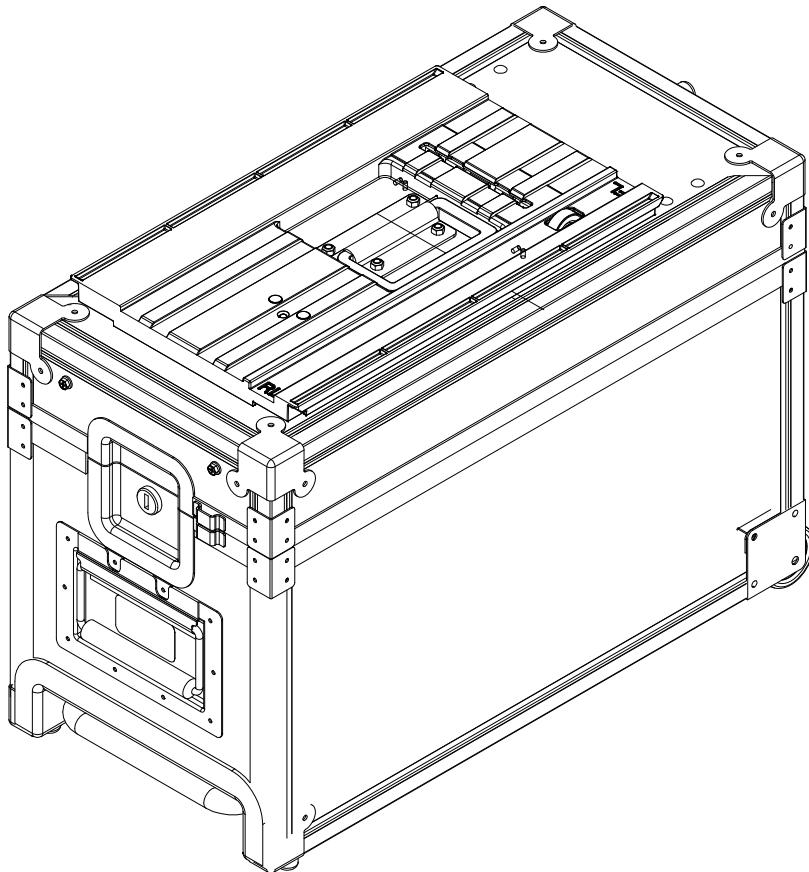


Figure 2-24 Dispense Cassettes

2.3.4 Bulk Note Acceptor Free-Fall Cassette

The bulk note acceptor free-fall cassette (see Figure 2-25) is located under the bulk note acceptor module inside the safe. The cassette stores a maximum of 6000 notes accepted by the module and is available as a lockable, tamper-indicating cassette.

Refer to the *Bulk Note Acceptor Operating Guide* (TP-820811-001A) for more information.



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Figure 2-25 Bulk Note Acceptor Free-Fall Cassette

2.3.5 Opteva Stacking Cassette Module (OSC) for the Bulk Note Acceptor

The Opteva stacking cassette module (Figure 2-26) is an alternative to the bulk note acceptor free-fall cassette. The Opteva stacking cassette module accepts deposited currency from the bulk note acceptor and then neatly stacks the mixed currency into one or two removable cassettes.

Stacking cassettes each have 250 mm of storage capacity or approximately 1500 notes in mixed orientations. The cassettes are available with a keylock (secure cassette) or without (convenience cassette).

Refer to the following manuals for more information:

- *Opteva® Bulk Note Acceptor Stacking Cassette Module Operating Guide* (TP-821265-001D)
- *Bulk Note Acceptor Operating Guide* (TP-820811-001A)

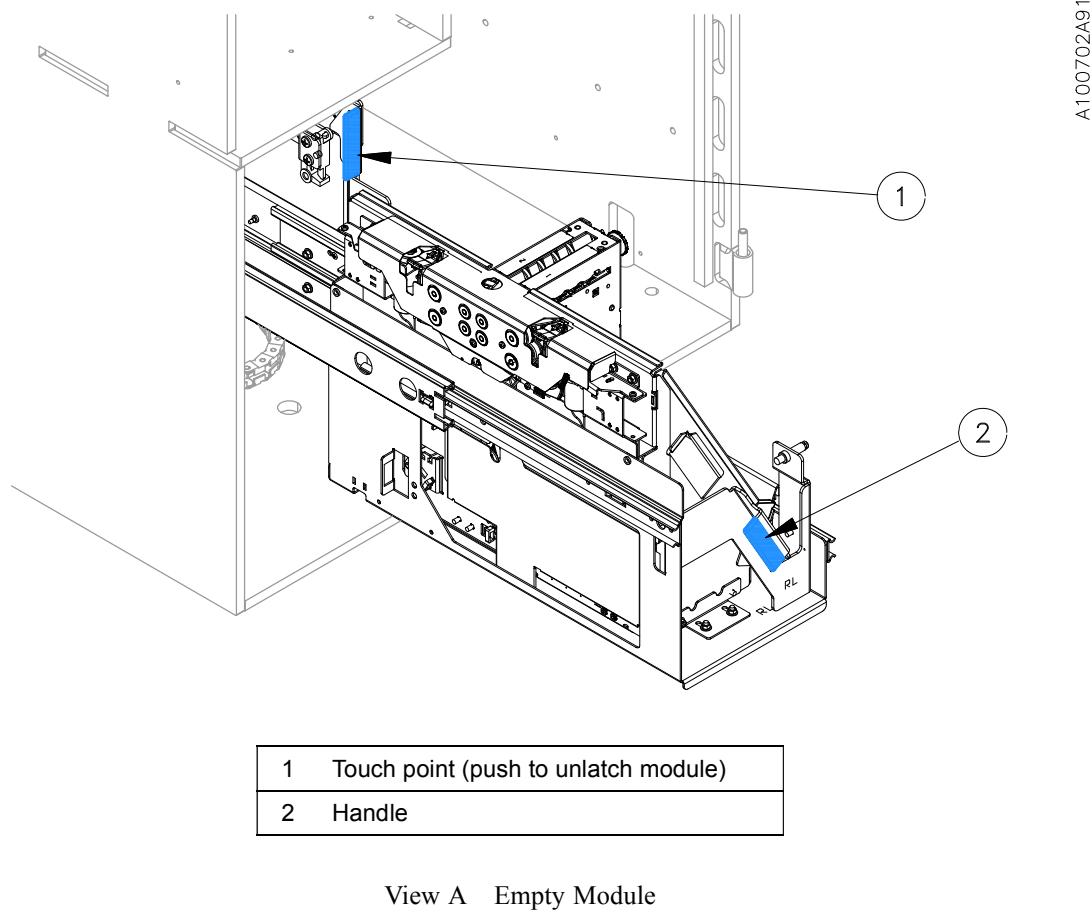
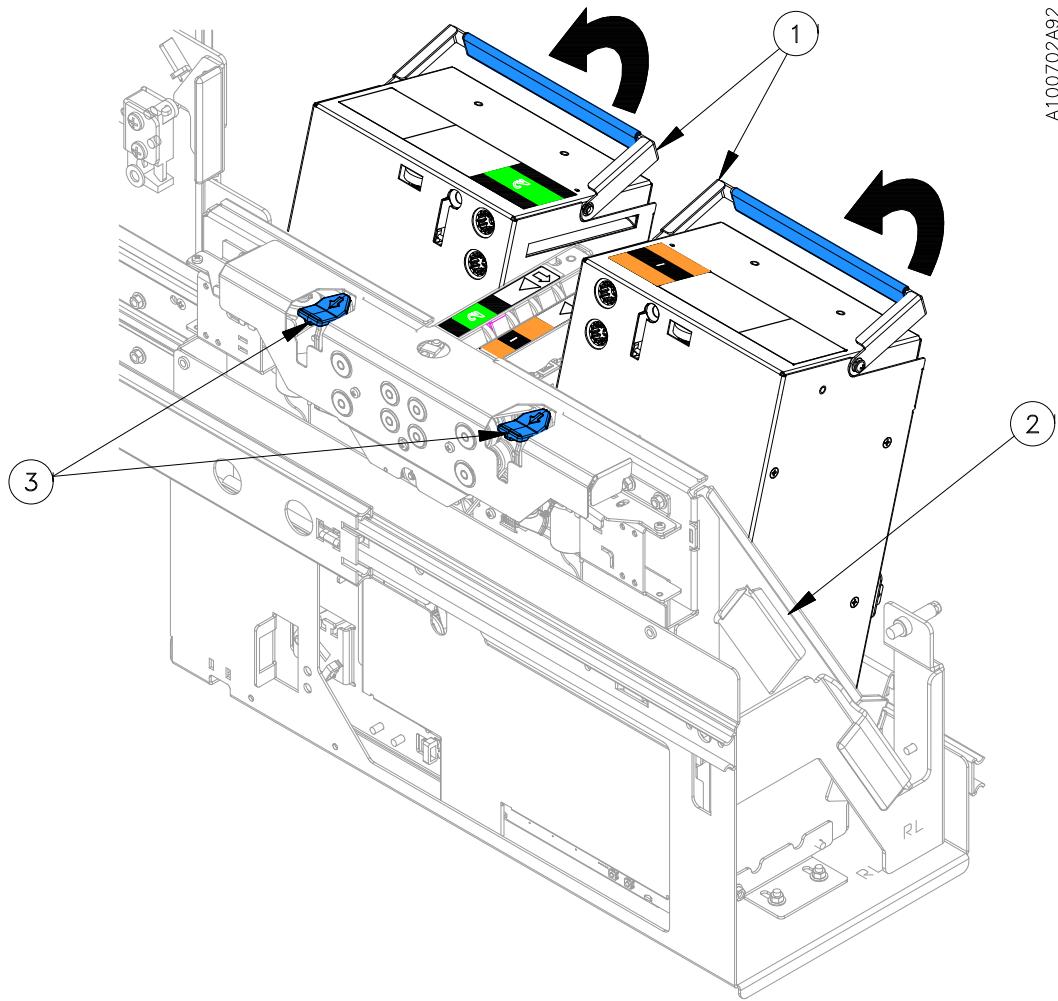


Figure 2-26 Opteva Stacking Cassette Module (OSC) for the Bulk Note Acceptor (sheet 1 of 3)

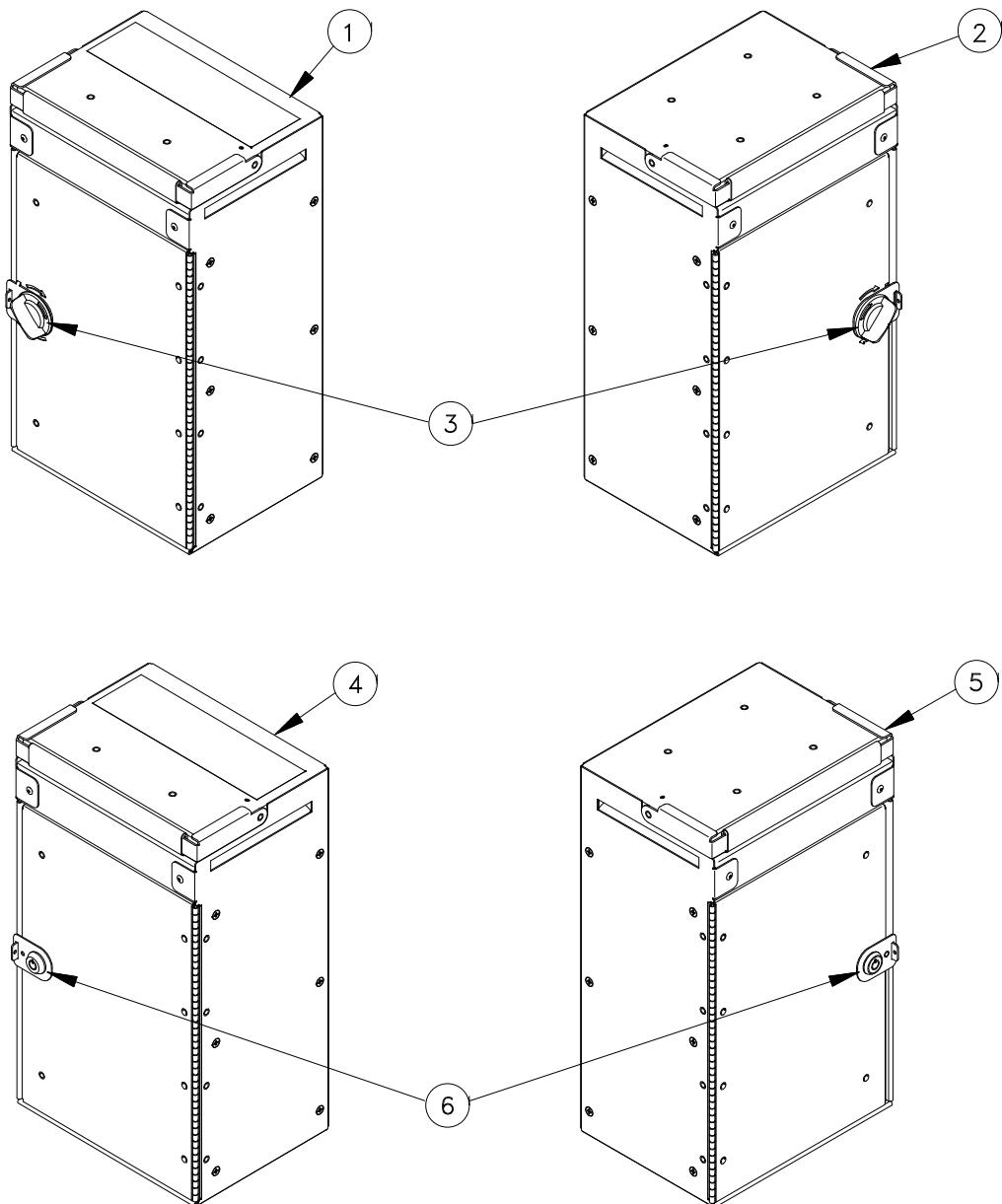


1	Cassettes
2	OSC Module
3	Touch points (push to release cassette)

View B With Cassettes

Figure 2-26 Opteva Stacking Cassette Module (OSC) for the Bulk Note Acceptor (sheet 2 of 3)

A100702A93



1 Convenience cassette (number 1)	4 Secure cassette (number 1)
2 Convenience cassette (number 2)	5 Secure cassette (number 2)
3 Convenience cassette lever	6 Secure cassette keylock

View C Cassette Types

Figure 2-26 Opteva Stacking Cassette Module (OSC) for the Bulk Note Acceptor (sheet 3 of 3)

2.3.6 Deposit Cassettes

After the deposit envelope is processed by the depositor, the envelope is delivered to the deposit cassette (Figure 2-27). A deposit cassette can hold between 30 and 300 filled deposit envelopes (depending on thickness). Deposit cassettes are available in the following configurations:

- Secure deposit cassette (closes and locks automatically when removed)
- Non-secure deposit cassette (self-closing, but non-locking when removed)
- Open cassette (interchangeable with the deposit cassette but without a lid, a lock, labels, a tambour door, or security features)

Refer to the *Envelope Depositor with Integrated Dispenser Operating Guide* (TP-820709-001E) for more information.

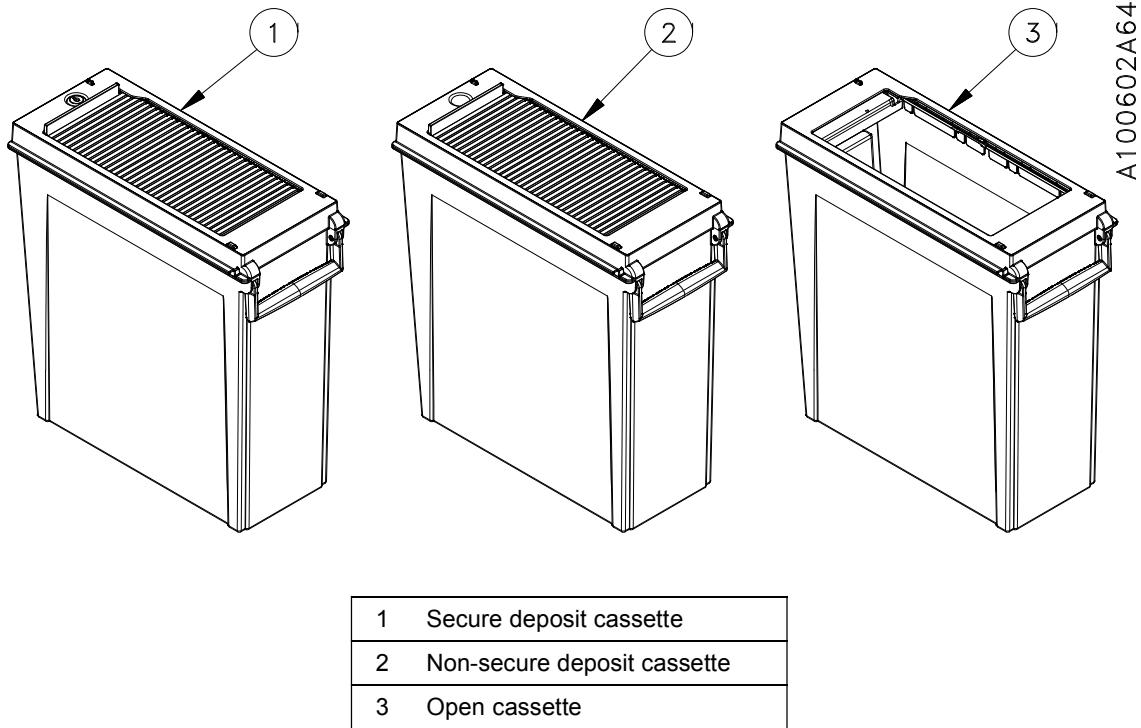


Figure 2-27 Deposit Cassettes

2.3.7 Secure Safe Door Lock

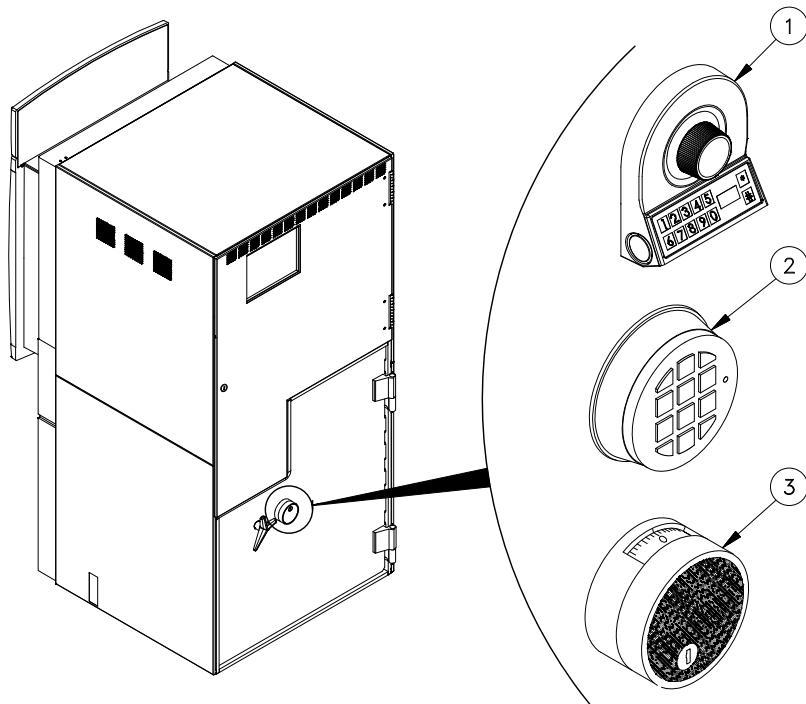
NOTE

The safe door locks described in this section are for ATMs with UL-type safes. Other safe models can have similar locks but will vary depending on the safe and lock models used.

The Opteva 740 ATM with UL safe can have a Cencon® system 2000 electronic lock, a SafeGard™ electronic lock, or a keylocking, group 2M mechanical combination lock (Figure 2-28, View A).

The Opteva 740 ATM with safe with CEN-L safe can have a Cencon® system 2000 GEN 2 electronic lock, an electronic combination lock (S&G 6124), or a keylocking, group 2M mechanical combination lock (Figure 2-28, View B). Cencon and electronic locks are available with such features as a single combination, dual combinations, remote access combination, etc.

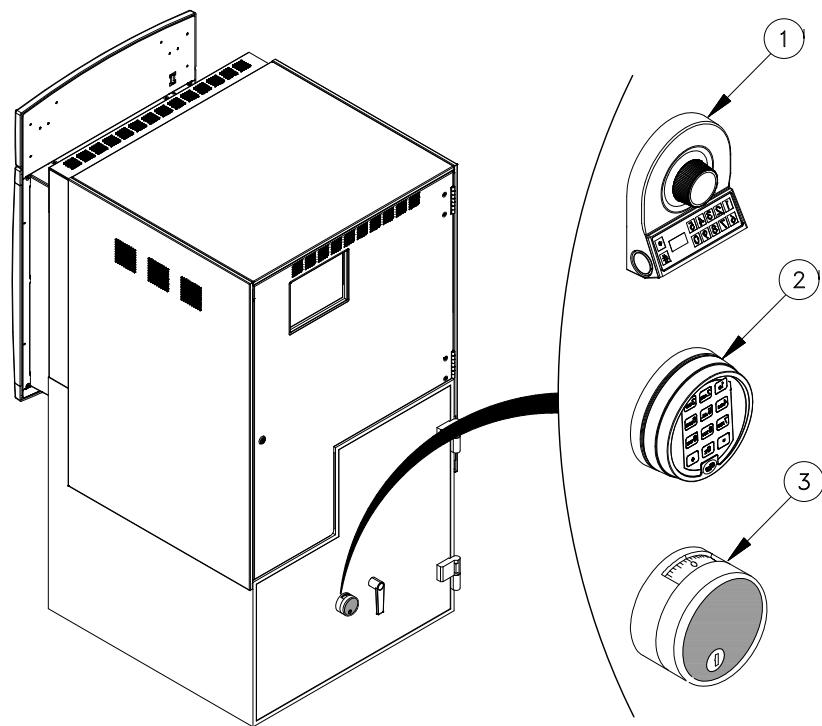
Refer to Section 3.3 for information about using the lock to open and close the safe door. Refer to the lock operating instructions listed in Appendix A for more information about your lock.



- | | |
|---|-------------------------------------|
| 1 | Cencon® system 2000 electronic lock |
| 2 | SafeGard™ electronic lock |
| 3 | Mechanical combination lock |

View A UL Safe

Figure 2-28 Safe Door Locks (sheet 1 of 2)



1	Cencon® system 2000 GEN 2 electronic lock
2	Electronic combination lock (S&G 6124)
3	Mechanical combination lock

View B CEN-L Safe

Figure 2-28 Safe Door Locks (sheet 2 of 2)

2.3.8 Alarms Sensors

Alarms Sensors

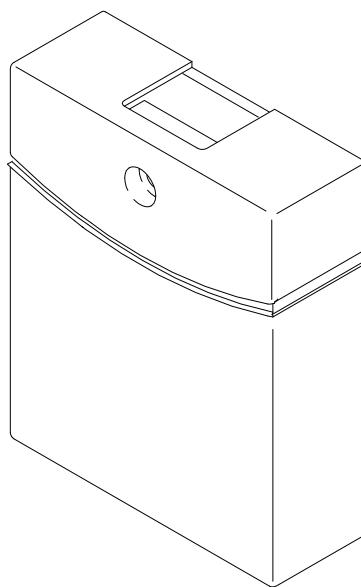
Alarm sensors with a network interface report to a network and send alarm signals to an alarm-monitoring system. Alarm sensors report during or after one of the following events:

- The safe door is opened (door status).
- The safe door is opened, but the combination was not entered (burglary).
- The duress combination is entered (anti-ambush).
- The presence of a blowtorch or similar heat source is detected on the surface of the safe.
- The safe door is closed.

Alarm sensors with a network interface provide their own battery backup. The ATM uses the safe door switch to distinguish between an authorized or unauthorized entry before sending an alarm signal.

2.3.9 Seismic Detectors

Seismic detectors (Figure 2-29) sense physical blows to or torch attacks on the ATM safe. Alarm sensors with a network interface must be present for the seismic detectors to function.

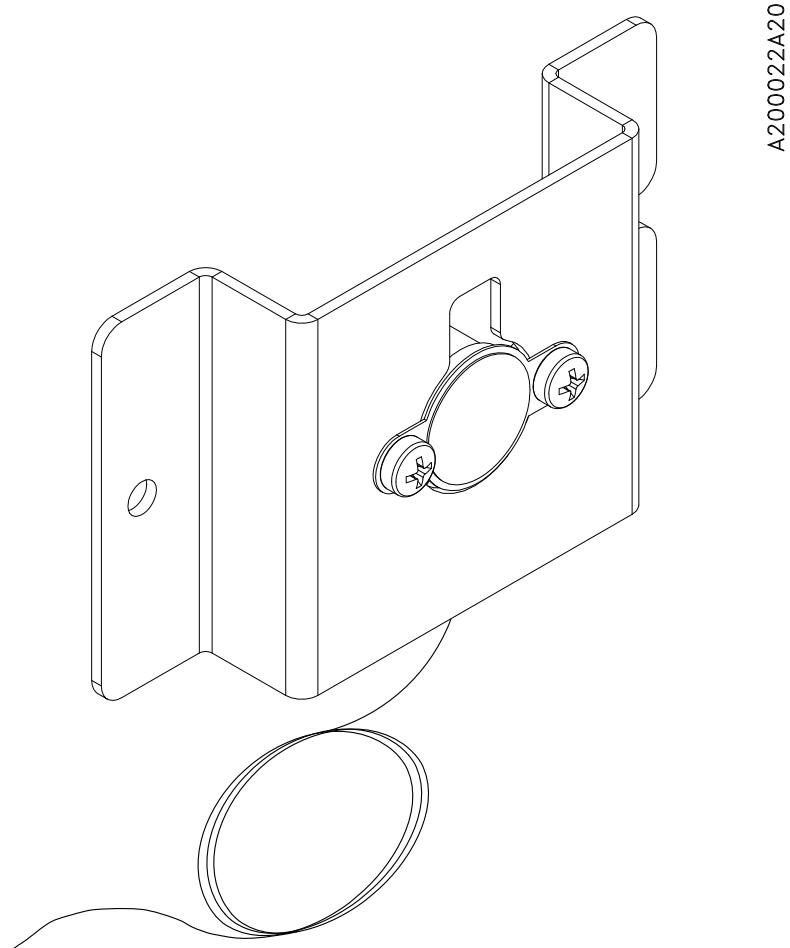


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Figure 2-29 Seismic Detector

2.3.10 Heat Thermostat

The heat thermostat (Figure 2-30) senses when the temperature inside the ATM safe exceeds a certain level and then initiates an alarm.



A2000022AA20

Figure 2-30 Heat Thermostat

Section 3

Maintenance Procedures for the Top Chassis and Safe

This section contains the following information:

- Section 3.1, ATM and device touch points
- Section 3.2, Opening the top chassis
- Section 3.3, Accessing the safe
- Section 3.4, Positioning the rear operator display and maintenance keyboard



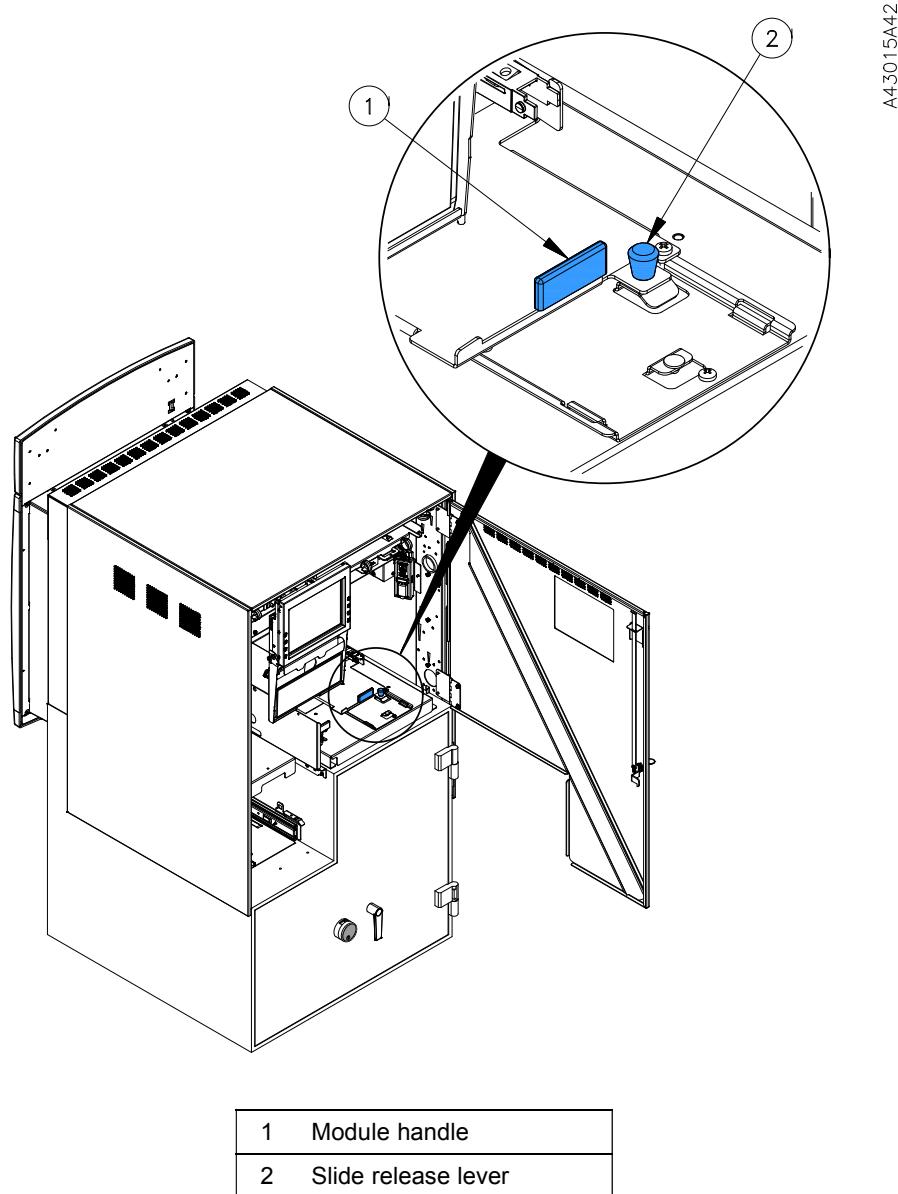
To avoid risk of death, severe personal injury, or equipment damage, always follow the written maintenance procedures for the ATM and its individual modules.

NOTE

For maintenance procedures for the individual ATM modules, refer to the module operating guides listed in Appendix A

3.1 ATM and Device Touch Points

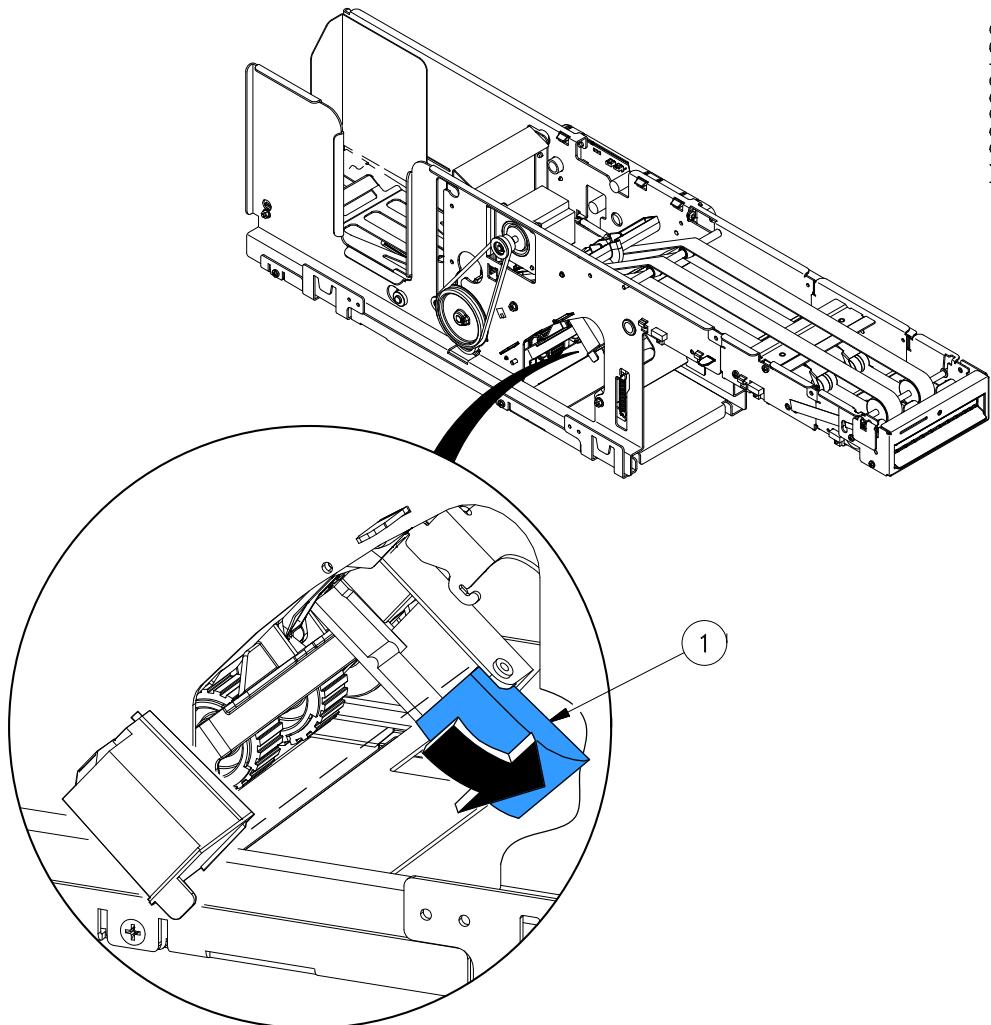
Touch points are designed for accessing and handling devices during the standard maintenance procedures. Touch points are color coded blue or green and include, but are not limited to, slide assembly release levers, module handles, device levers, knobs, etc.). Refer to Figure 3-1 for examples of these touch points.



View A Slide Release Lever and Module Handle

Figure 3-1 Touch Point Examples (CEN-L safe shown) (sheet 1 of 2)

A100602A86



1 Ink cartridge release lever

View B Ink Cartridge Release Lever

Figure 3-1 Touch Point Examples (CEN-L safe shown) (sheet 2 of 2)

3.2 Opening the Top Chassis

The following procedures describe how to open the top chassis.

1. Insert the key into the lock on the door (Figure 3-2).
2. Turn the key clockwise.
3. Open the top chassis door.
4. Refer to the *Agilis 91x XV Maintenance Manual* (TP-820744-001I) or the documentation for the terminal control software for information about placing the ATM in maintenance mode.
5. Refer to the operating guides listed in Appendix A for information about completing the maintenance procedures.

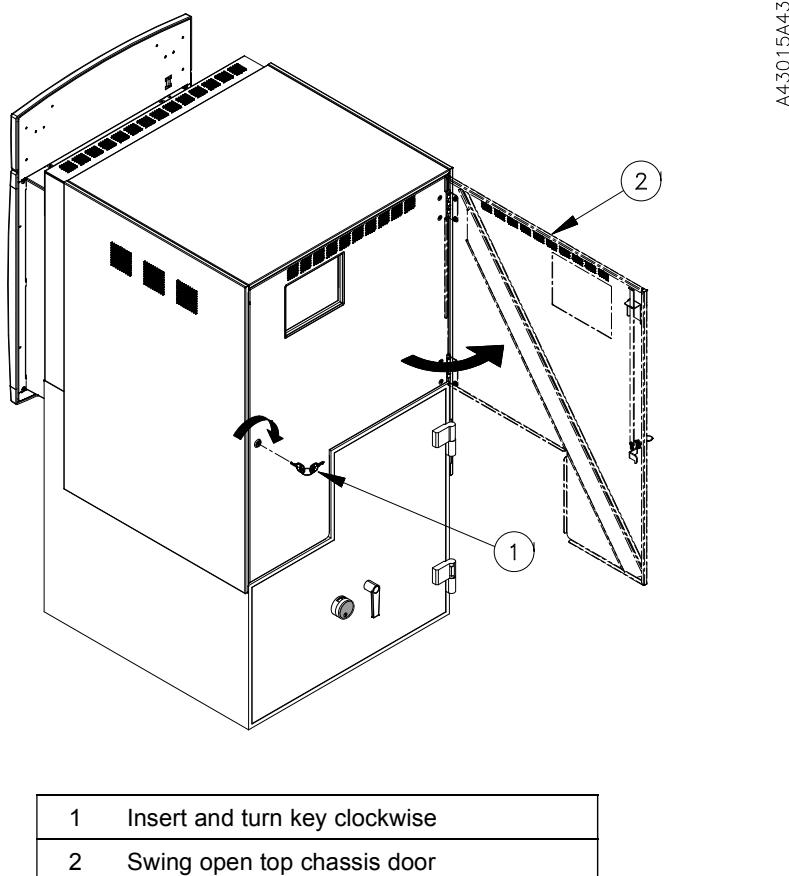


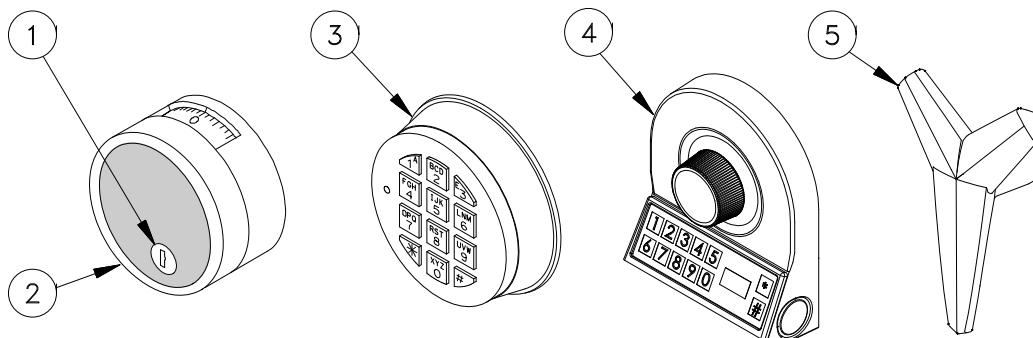
Figure 3-2 Opening the Top Chassis (CEN-L safe shown)

3.3 Accessing the Safe

NOTE

The information in this section applies only to ATMs equipped with a UL-type safe. To open non-UL-type safes, refer to the safe and lock manufacturer's instructions. For added security, change the factory supplied safe lock combination as soon as possible. Refer to the lock operating guides listed in Appendix A for information about changing lock combinations.

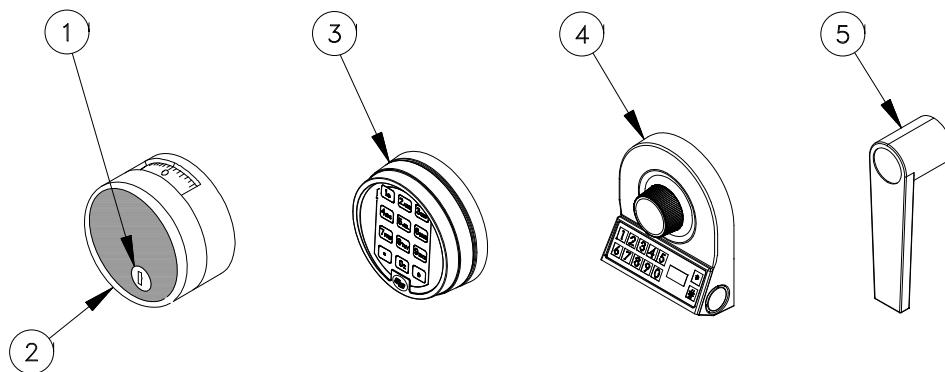
The safe door lock will be either a mechanical combination lock or an electronic combination lock (Figure 3-3). A safe handle is used to release the safe door after the correct combination is entered.



A100901A01

1	Keylocking feature
2	Mechanical combination lock
3	SafeGard electronic lock
4	Cencon® system 2000 electronic lock
5	Safe handle

View A UL Safe Door Locks and Handles



A43015A39

1	Keylocking feature
2	Mechanical combination lock
3	Electronic combination lock (S&G 6124)
4	Cencon® system 2000 GEN 2 electronic lock
5	Safe handle

View B CEN-L Safe Door Locks and Handles

Figure 3-3 Safe Door Locks and Handles

Mechanical Combination Lock

Mechanical combination locks use a predetermined set of numbers to open the safe door. A mechanical combination lock also has a keylocking feature that prevents the dial from rotating until it is unlocked with the key.

Electronic Combination Lock

Electronic locks have a keypad for entering the combination. Different versions of the lock use a single combination, a dual combination, or a remote access feature to unlock the safe door.

Safe Handle

Safe handles are present with single mechanical combination locks and with electronic combination locks. Safe handles are used to release the safe door after you enter the correct combination on the mechanical combination lock or electronic combination lock keypad.

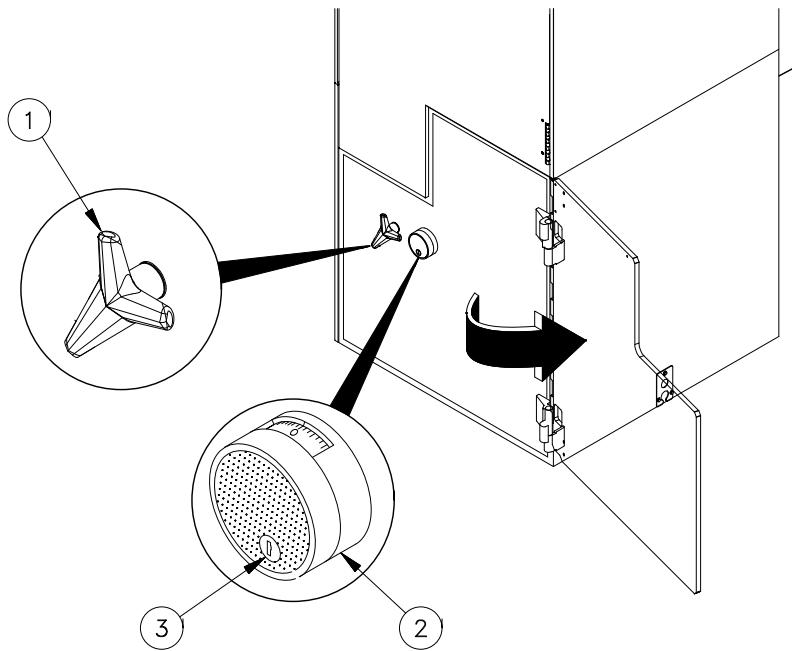
Section 3.3.1 and Section 3.3.3 describe the procedures to open these locking systems.

3.3.1 Opening Safe Doors with Mechanical Combination Locks

Follow the procedure below and see Figure 3-4 to open safe doors with mechanical combination locks.

1. If necessary, refer to Section 3.2 for information about opening the top chassis door and placing the ATM in maintenance mode.
2. Insert the key into the key slot and turn it clockwise until the key stops.
3. Remove the key from the lock.
4. Dial the combination selected for the ATM. Refer to the *ATM Mechanical Combination Lock Operating Instructions* (TP-820610-001A) for more information.
5. Turn the dial clockwise until it stops.
6. Turn the safe handle clockwise until it stops.
7. Open the safe door and complete all maintenance. Refer to the operating guides listed in Appendix A for more information.

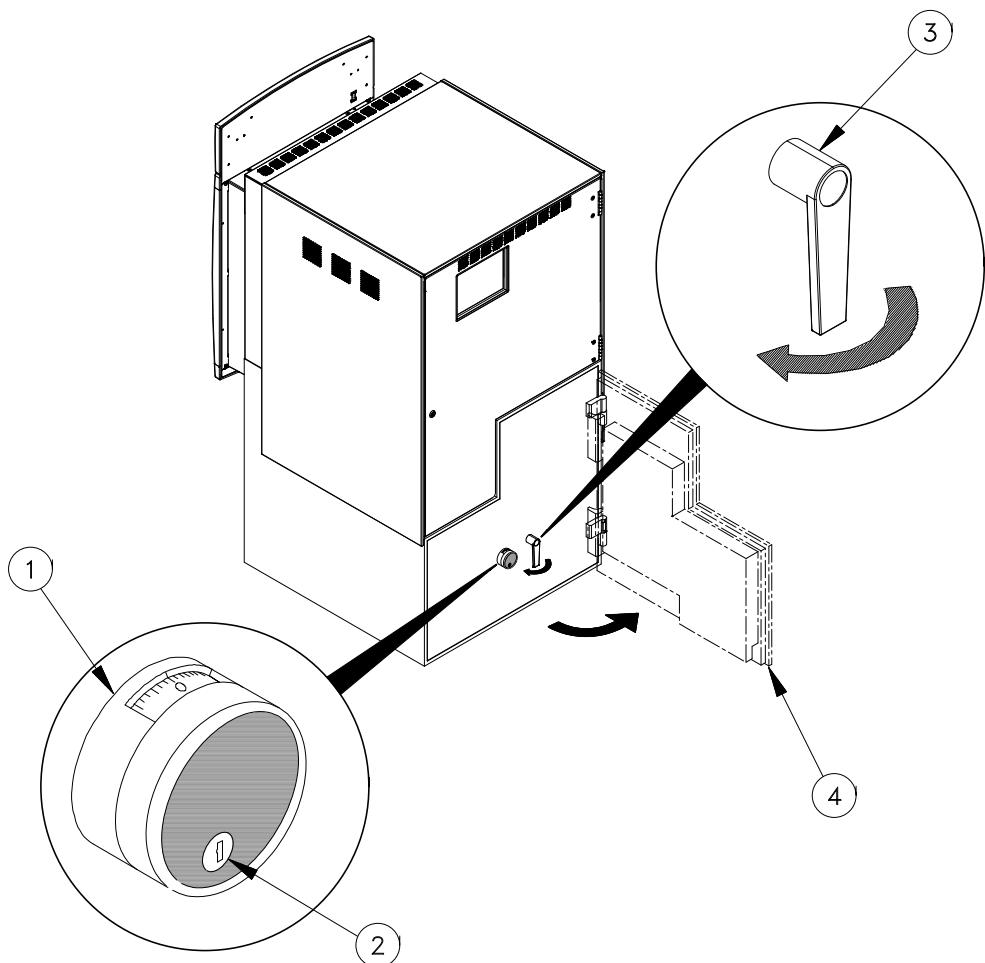
A2000022A29



1	Safe handle
2	Mechanical combination lock
3	Keylocking feature

View A UL Safe

Figure 3-4 Opening Safe Doors with Mechanical Combination Locks (sheet 1 of 2)



1	Mechanical combination lock
2	Keylocking feature
3	Turn the handle clockwise
4	Open the safe door

View B CEN-L Safe

Figure 3-4 Opening Safe Doors with Mechanical Combination Locks (sheet 2 of 2)

3.3.2 Closing and Securing Safe Doors with Mechanical Combination Locks

Perform the following steps to close and secure a safe door with a mechanical combination lock. See also Figure 3-4.

1. Close the safe door.
2. Follow the steps below to lock the mechanical combination lock.
 - a. Rotate the safe handle counterclockwise to lock the door.
 - b. Rotate the lock dial at least three complete revolutions counterclockwise and stop the dial at 0 to scramble the combination.
3. Insert the safe door key into the key slot and turn it counterclockwise until it reaches the locked position.
4. Remove the key from the dial.
5. Pull firmly on the safe door to confirm that the safe is secure.

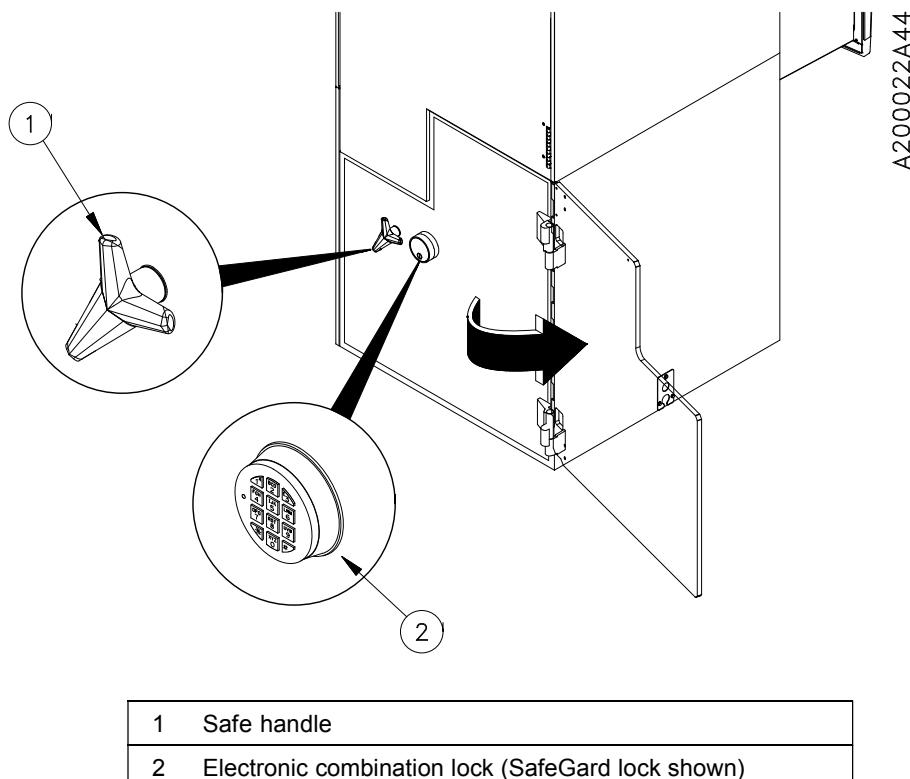
3.3.3 Opening Safe Doors with Electronic Combination Locks

Perform the following steps and see Figure 3-5 to open safe doors with an electronic combination lock.

NOTE

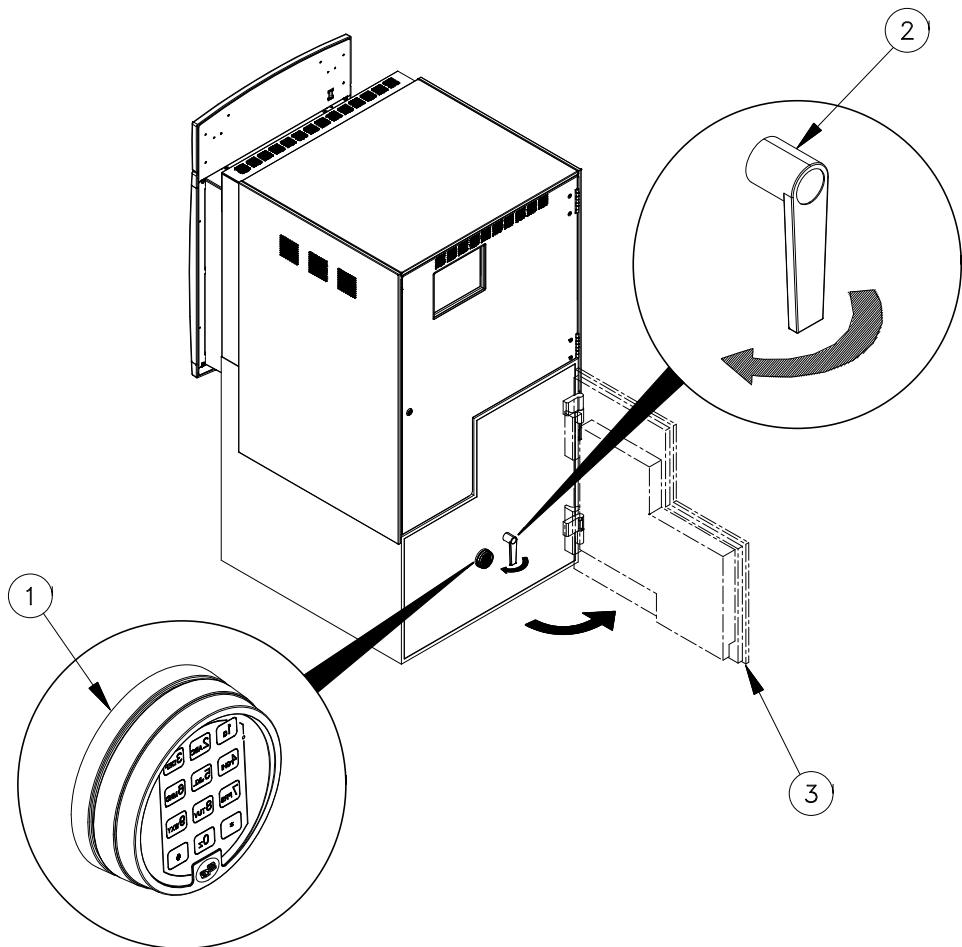
If the electronic lock has the remote access feature, a remote access signal might be required to complete this procedure. Follow your institution's procedures for the remote access feature.

1. If necessary, refer to Section 3.2 for information about opening the top chassis door and placing the ATM in maintenance mode.
2. Perform the procedure to enter the combination. Refer to the lock operating guides in Appendix A or your institution's procedures for information about entering the combination).
3. Turn the safe handle clockwise until it stops.
4. Open the safe door and complete all maintenance. Refer to the operating guides in Appendix A for information about the maintenance procedures.



View A UL Safe

Figure 3-5 Opening Safe Doors with Electronic Combination Locks (sheet 1 of 2)



1	Electronic combination lock (S&G 6124)
2	Turn the handle clockwise
3	Open the safe door

View B CEN-L Safe

Figure 3-5 Opening Safe Doors with Electronic Combination Locks (sheet 2 of 2)

3.3.4 Closing and Securing Safe Doors with Electronic Combination Locks

Perform the following steps to close and secure a safe door with an electronic combination lock. See Figure 3-5 for an illustration of the procedure steps.

1. Close the safe door.
2. Rotate the safe handle counterclockwise to lock the door.
3. Perform the necessary steps to secure the electronic combination lock. Refer to the lock operating guides in Appendix A or your institution's procedures for information about securing the lock.
4. Make sure that the safe handle does not rotate.
5. Pull firmly on the safe door to confirm that the safe is secure.

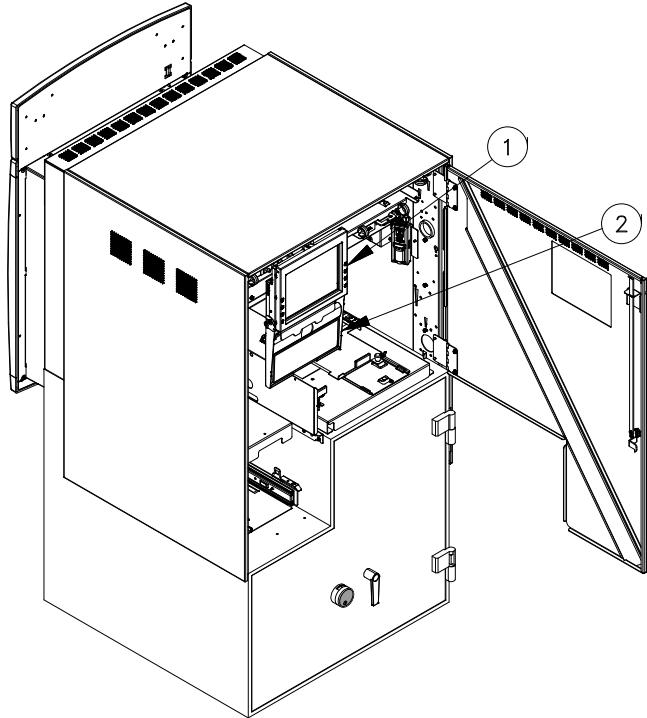
3.4 Positioning the Rear Operator Display and Maintenance Keyboard

Section 3.4.1 through Section 3.4.2 explain how to place the rear operator display and maintenance keyboard at various positions and angles. The position and angle can vary, depending on factors, such as the ambient lighting conditions, the maintenance operation required, and the operator's personal preference.

NOTE

For information about operating the rear operator display and maintenance keyboard to perform specific maintenance procedures, refer to the *Agilis 91x XV Maintenance Manual* (TP-820744-001I) or the documentation for the terminal control software.

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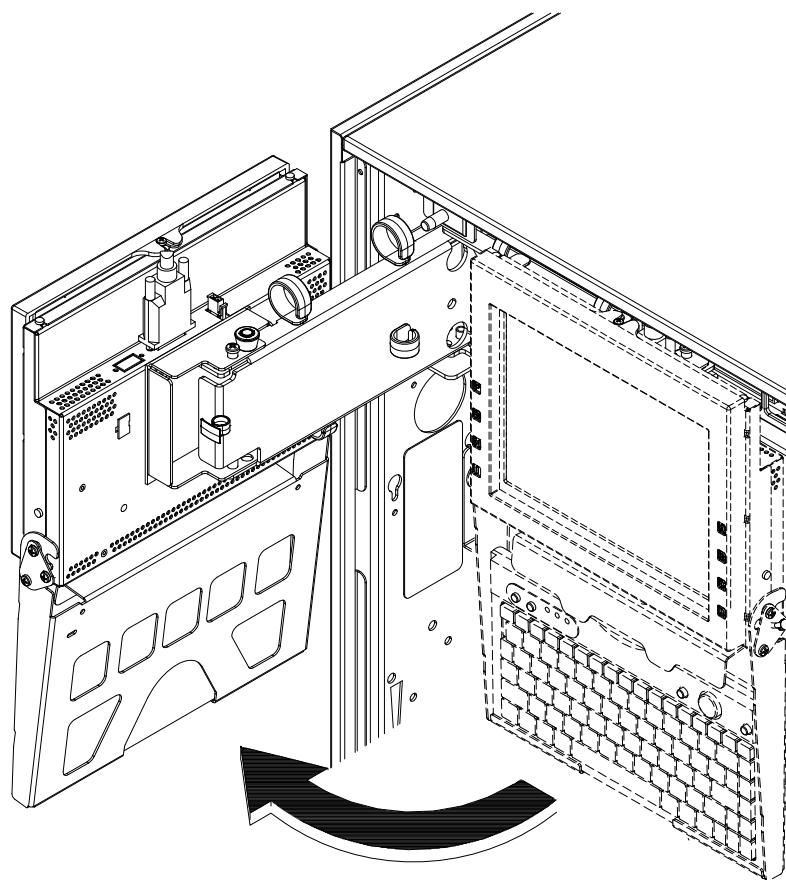
1	Rear operator display
2	Maintenance keyboard

Figure 3-6 Rear Operator Display and Maintenance Keyboard

3.4.1 Extending the Rear Operator Display and Maintenance Keyboard

Extending the rear operator display and maintenance keyboard away from the ATM can provide a more convenient location for operating the display and keyboard or allow access to certain ATM devices. Once in the extended position, the display and keyboard can be further adjusted to either a left-facing, rear-facing, or right-facing position. Perform the following steps to move the rear operator display and maintenance keyboard from their normal retracted position to the extended position.

1. Perform the steps in Section 3.2 to open the top chassis door.
2. Swing the rear operator display and maintenance keyboard away from the ATM until it locks in place (approximately perpendicular to the rear of the ATM). This is the left-facing extended position (see Figure 3-7).



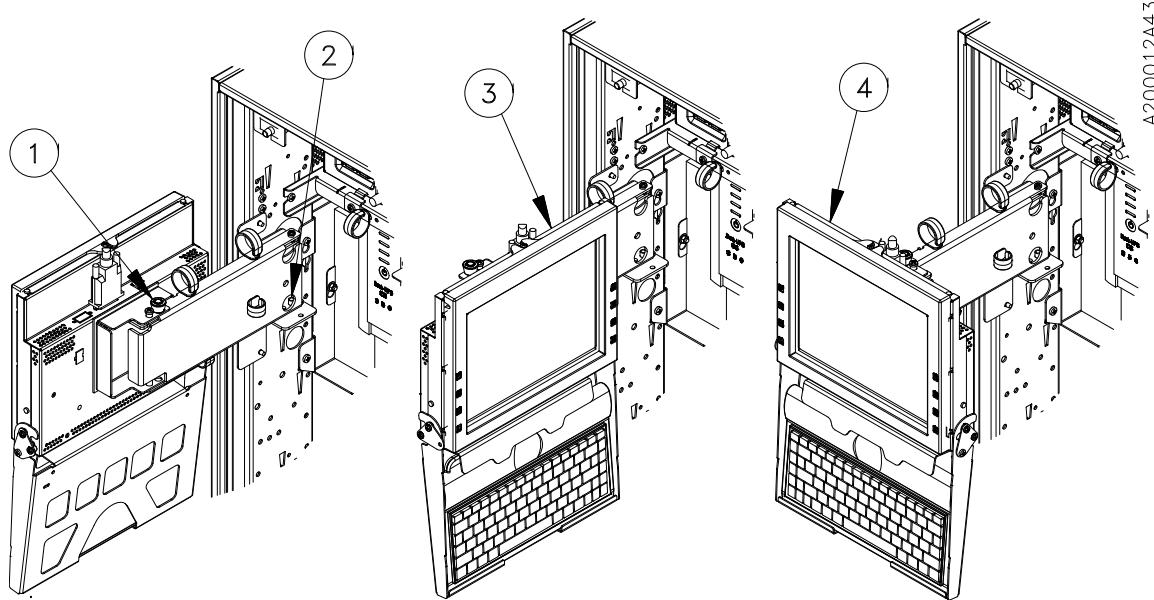
A2000022A45

Figure 3-7 Left-facing Extended Position

3. To rotate the display and keyboard to a rear-facing or right-facing position, lift up the top release pin (shown in Figure 3-8) and begin to swing the display and keyboard to the right.
4. Let go of the release pin and continue to swing the display and keyboard to the right until it locks in place
5. To return the display and keyboard to its retracted position, first place the display and keyboard in the left-facing position. Then simultaneously pull down on the bottom release pin (shown in Figure 3-8) and swing the display and keyboard back toward the ATM (the display and keyboard do not lock in the retracted position).



Make sure to completely retract the rear operator display and keyboard into the ATM before attempting to close the top chassis door. Attempting to close the top chassis door without placing the display and keyboard in the correct position can damage the display and the keyboard.



1	Top release pin (for left-facing, rear-facing, and right-facing positions)
2	Bottom release pin (for retracted position)
3	Right-facing position
4	Rear-facing position

Figure 3-8 Rear-facing and Right-facing Extended Positions

3.4.2 Changing the Angle of the Maintenance Keyboard

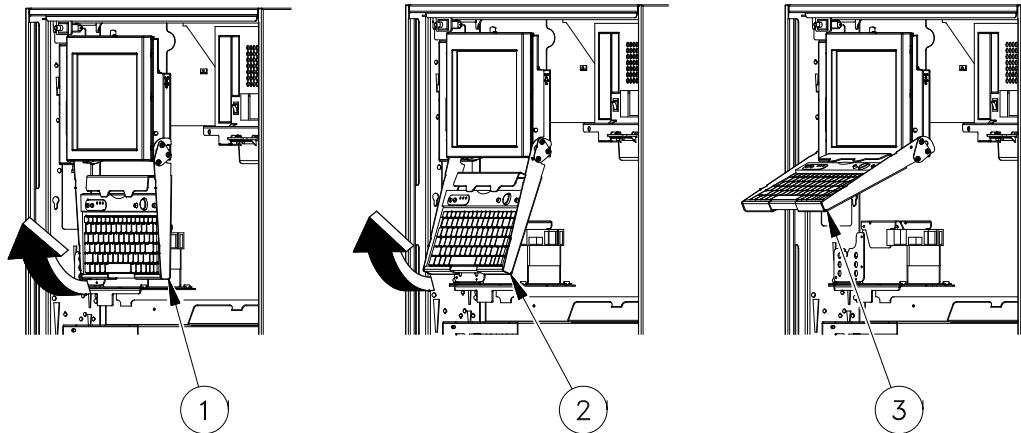
The maintenance keyboard is stored in the ATM in a vertical position directly under the operator display. The keyboard can also be placed at two different typing angles to make entering data easier for the operator. Perform the following steps and see Figure 3-9 to change the position of the maintenance keyboard.

1. Open the top chassis door according to the steps in Section 3.2.
2. If desired, place the rear operator display and keyboard in one of the extended positions (refer to Section 3.4.1).
3. Lift up the front of the maintenance keyboard until the keyboard locks into the first typing position.
4. Lift up the front of the maintenance keyboard again until the keyboard locks into the second typing position.
5. Perform the following steps to place the keyboard back in the vertical position.
 - a. Lift up the keyboard and its mounting bracket until the slots on each side of the bracket disengage from the pins that lock it in place.
 - b. Move the keyboard and bracket back slightly and rotate them down to the vertical position.
6. If necessary, return the display and keyboard to the retracted position (refer to Section 3.4.1).



Make sure to place the maintenance keyboard in the vertical position and completely retract the rear operator display and keyboard into the ATM before attempting to close the top chassis door. Attempting to close the top chassis door without placing the display and the keyboard in the correct position can damage the display and/or keyboard.

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1	Vertical position
2	First typing position
3	Second typing position

Figure 3-9 Adjusting the Position of the Maintenance Keyboard

Appendix A

Related Documentation

Refer to the following manuals for more information.

Table A-1 Related Documentation

Manual Title	Part Number
Advanced Function Dispenser Operating Guide	TP-820714-001C
Agilis 91x XV Maintenance Manual ^[1]	TP-820744-001I
ATM Mechanical Combination Lock Operating Instructions	TP-820610-001A
Bulk Note Acceptor Operating Guide	TP-820811-001A
Opteva Bulk Note Acceptor Stacking Cassette Module Operating Guide	TP-821265-001D
Bulk Document Intelligent Depository Module (IDM-BD) Operating Guide	TP-820901-001C
Coin Dispenser Operating Guide	TP-820812-001A
Consumer Bar Code Scanner Operating Guide	TP-820813-001A
Dip Card Reader (with chip, 123) Operating Guide	TP-820814-001B
Envelope Depositor with Integrated Dispenser Operating Guide	TP-820709-001E
Fifth-generation Intelligent Depository Module Operating Guide	TP-820903-001C
Journal Printer Operating Guide	TP-820817-001A
Motorized Card Reader (with chip, 123) Operating Guide	TP-820815-001C
Passbook Printer III Operating Guide	TP-820816-001A
SafeGard Electronic Lock Customer Operating Instructions	TP-820466-001A
Two-color Graphical Receipt Printer (112 mm, 4.4 inch) Operating Guide	TP-820890-001D
Two-color Graphical Receipt Printer Operating Guide	TP-820710-001C
Two-color Graphical Statement Printer Operating Guide	TP-820818-001G
[1] Available in English language only	

Appendix B

Cleaning the Exterior of the Terminal

Observe the following requirements when cleaning the exterior of the ATM:

- Use only mild soap and water with a soft cloth
- Wipe completely dry with a soft cloth
- Commercial glass cleaners can be used (with a soft cloth) on the consumer display (vandal shield or touch screen), if necessary
- **DO NOT** use harsh chemicals such as solvents or paint thinners
- **DO NOT** use abrasive cleaning compounds
- **DO NOT** use abrasive scouring pads (such as steel wool, Scotch Brite®, and so forth)
- **DO NOT** use high-pressure cleaning systems (such as power washers)
- On terminals not rated for weather exposure, use caution when cleaning exterior surfaces. **DO NOT** use more liquids than necessary.