

# MODEL 9100 Automated Teller Machine

# **USER / INSTALLATION MANUAL**

# VERSION 5.0

## TDN 07100-00008F 01/2004

CORPORATE HEADQUARTERS:

RMA (RETURN MATERIAL AUTHORIZATION) RETURN ADDRESS:

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## DISCLAIMER

The manufacturer of the Automated Teller Machine (ATM) product(s) described herein makes no representations or warranties, either expressed or implied, by or with respect to anything in this manual, and shall not be liable for any implied warranties of fitness for a particular purpose or for any indirect, special, or consequential damages. Information in this document is subject to change without notice and does not represent a commitment on the part of the manufacturer.

# USE OF THIS PRODUCT IN A MANNER OTHER THAN THOSE DESCRIBED IN THIS MANUAL MAY RESULT IN PERSONAL INJURY.

## FCC COMPLIANCE

Statement of Compliance: This equipment complies with Part 68 of the FCC rules. Located in the control area of the ATM is the product label. This label lists the FCC registration number and ringer equivalence number of the unit. If requested, this information must be provided to the telephone company. USOC/FIC Codes: When ordering service from the telephone company for the 9100 series ATM, the following information should be supplied: Universal Service Order Code (USOC): RJ-11C

The Facility Interface Code (FIC): 02LS2

Plug and Jack: The plug and jack used to connect this equipment to premise wiring and telephone network must comply with the applicable FCC Part 68 rules and requirements adopted by ACTA. A compliant telephone cord and modular plug is provided with this product. The telephone cord is designed to be connected to a compatible modular jack that is also compliant.

Ringer Equivalent Number (REN): The REN is used to determine the number of the devices that may be connected to a telephone line. Excessive RENs on a telephone line may result in the devices not ringing in response to an incoming call. In most but not all areas, the sum of the RENs should not exceed five (5). To be certain of the number devices that may be connected to a line, as determined by the local RENs, contact the local telephone company.

Harm to the Network: If the 9100 series ATM causes harm to the telephone network, the telephone company will notify the customer that a temporary discontinuous of service may be required. If advanced notice is not possible, the telephone company will notify the customer as soon as possible. You will be advised of your right to file a complaint with the FCC if you believe it's necessary.



Notification of Changes in Telephone Company Equipment: The telephone company may make changes in its facilities, equipment, operations, or procedures that could affect the operation of the equipment. If this happens, the telephone company will provide advanced notice in order for you to make necessary modifications to maintain uninterrupted service.

Repairs and Returns: If telecom compatibility trouble is experienced with the 9100 series ATM, you may contact for repairs and warranty information: Triton at 1-228-868-1317

Triton Systems of Delaware, Inc. 522 East Railroad Street Long Beach, MS 39560

If the equipment is causing harm to the network, the telephone company may request that you disconnect the equipment until the problem is resolved. Repairs should be made only by qualified factory representatives.

Party Lines: The 9100 series ATM must not be used on party lines.

Alarm Equipment: The 9100 series ATM should have its own dedicated phone line. Do not install the 9100 series on the same line as alarm equipment.

Electrical Safety Advisory: Telephone companies report that electrical surges, typically lightening transients, are very destructive to customer equipment connected to AC power sources. This has been identified as a major nationwide problem. A commercially available, power surge suppressor, is recommended for use with the 9100 to minimize damage in the event of an electrical surge.

# CANADIAN IC COMPLIANCE

# NOTICE:

The Industry Canada label identifies certified equipment. This certification means that the equipment meets telecommunications network protective, operational, and safety requirements as prescribed in the appropriate Terminal Equipment Technical Requirements document(s). The department does not guarantee the equipment will operate to the user's satisfaction.



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Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations.

Repairs to certified equipment should be coordinated by a representative designated by the supplier. Any repairs or alterations made by the user to this equipment or equipment malfunctions may give the telecommunications company cause to request the user to disconnect the equipment.

Users should ensure for their own protection that the electrical ground connections of the power utility, telephone lines and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas. Caution: Users should not attempt to make such connections themselves, but should contact the appropriate electric inspection authority or electrician, as appropriate.

#### NOTICE:

The Ringer Equivalence Number (REN) assigned to each terminal device provides an indication of the maximum number of terminals allowed to be connected to a telephone interface. The termination on an interface may consist of any combination of devices subject only to the requirement that the sum of the Ringer Equivalence Numbers of all the devices does not exceed 5.

## AVIS:

L'étiquette d'Industrie Canada identific le matériel homologué. Cette étiquette certifie que le matériel est conforme aux normes de protection, d'exploitation et de sécurité des réseaux de télécommunications, comme le prescrivent les documents concernant les exigences techniques relatives au matériel terminal. Le Ministère n'assure toutefois pas que le matériel fonctionnera à la satisfaction de l'utilisateur.

Avant d'installer ce matériel, l'utilisateur doit s'assurer qu'il est permis de le raccorder aux installations de l'entreprise locale de télécommunication. Le maté-riel doit également être installé en suivant une méthode acceptée de raccordement. L'abonné ne doit pas oublier qu'il est possible que la comformité aux conditions énoncées cidessus n'empêche pas la dégradation du service dans certaines situations.



Les réparations de matériel homologué doivent être coordonnées par un représentant désigné par le fournisseur. L'entreprise de télécommunications peut demander à l'utilisateur de débrancher un appareil à la suite de réparations ou de modifications effectuées par l'utilisateur ou à cause de mauvais fonctionnement.

Pour sa propre protection, l'utilisateur doit s'assurer que tous les fils de mise à la terre de la source d'énergie électrique, des lignes téléphoniques et des canalisations d'eau métalliques, s'fl y en a, sont raccordés ensemble. Cette précaution est particulièrement importante dans les régions rurales. Avertissement: L'utilisateur ne doit pas tenter de faire ces raccordements lui-même; il doit avoir recours à an service d'inspection des installations électriques, ou à un électricien, selon le cas.

#### AVIS:

L'indice d'équivalence de la sonnerie (IES) assigné à chaque dispositif terminal indique le nombre maximal de terminaux qui peuvent étre raccordés à une interface. La terminaison d'une interface téléphonique peut consister en une combinaison de quelques dispositifs, à la seule condition que la somme d'indices d'équivalence de la sonnerie de tous les dispositifs n'exède pas 5.

# UNITED KINGDOM

This equipment has been approved in accordance with Council Decision 98/482/ EC for pan-European single terminal connection to the Public Switched Telephone Network (PSTN). However, due to differences between the individual PSTNs provided in the different countries, the approval does not, of itself, give unconditional assurance of successful operation on every PSTN network termination point. In the event of problems, contact your equipment supplier in the first instance. This unit uses only Dual-Tone Multi-Frequency (DTMF) address signaling.

# **EMISSIONS (EMI)**

This device complies with Part 15 of the FCC rules. Operation is subject to the following two (2) conditions:

1) This device may not cause harmful interference.

2) This device must accept any interference received, including interference that may cause undesired operation.



#### Note:

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense. Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

## CANADIAN EMISSION REQUIREMENTS

This digital apparatus does not exceed the Class A limits for radio noise emissions from digital apparatus set in the Radio Interference Regulations of the Canadian Department of Communications. This Class A digital apparatus complies with Canadian ICES-003.

Le present appareil numerique n'emet pas de bruits radioelectriques depassant les limites applicables aux appareils numeriques de la Class A prescrites dans le Reglement sur le brouillage radioelectrique edicte par le ministere des Communications du Canada. Cet appareil numerique de la classe A est conforme a la norme NMB-003 Canada.

# **UK / AUSTRALIAN EMISSION REQUIREMENTS**

## Warning:

This is a Class A product. In a domestic environment, this product may cause radio interference in which case the user may be required to take adequate measures.



# MODEL 9100 USER / INSTALLATION MANUAL

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# Warranty Statement

Manufacturer warrants that the products delivered to a distributor will perform in accordance with the Manufacturer's published specifications for thirteen months from date of shipment in Long Beach, MS.

Manufacturer's warranty shall not apply to any damage resulting from abuse, negligence, accident, or to any loss or damage to the products while in transit.

Written notice and explanation of circumstances surrounding any claims that the goods have proved defective in material or workmanship shall be given promptly from the distributor to the manufacturer. No claim may be made, or action brought, by or through a distributor after the expiration of 14 months following any alleged breach of warranty.

Distributor's sole and exclusive remedy in the event of defect is expressly limited to the replacement or correction of such defective parts by manufacturer at its election and sole expense, except there shall be no obligation to replace or repair items which, by their nature, are expendable. If Manufacturer is unable to replace or repair the defective parts, Manufacturer shall refund to Distributor that portion of the purchase price allocable pays to such goods.

No representation or other affirmation of fact not set forth herein, including but not limited to statements regarding capacity, suitability for use, or performance of the goods, shall be or be deemed to be a warranty or representation by Manufacturer for any purpose, nor give rise to any liability or obligation of Manufacturer whatever.

Except as specifically provided in this document, there are no other warranties expressed or implied including, but not limited to, any implied warranties or merchantability or fitness for a particular purchase.

# Limitation of Liability

In no event shall manufacturer be liable for loss of profits or incidental, indirect, special, consequential or other similar damages arising out of any breach of this contract or obligations under this contract.

# **Defense of Infringement Claims**

If notified promptly in writing of any action (and all prior claims relating to such action) brought against the Distributor based on a claim that Distributor's use of the goods infringes a patent or other intellectual property right, and if given access by Distributor to any information distributor has regarding such alleged infringement, Manufacturer agrees to defend Distributor in such action at its expense and will pay any costs or damages finally awarded against Distributor in any such action, provided the Manufacturer shall have had sole control of the defense of any such action and all negotiations for its settlement or compromise.



In the event that a final injunction shall be obtained against the Distributor's use of the goods or any of their parts by reason of infringement of a patent or other intellectual property right or if in Manufacturer's opinion the goods are likely to become the subject of a claim of infringement of a patent or other intellectual property right, Manufacturer will, at its option and at its expense, either procure for the Distributor the right to continue using the goods, replace or modify the same so they become non-infringing or grant the Distributor a credit for such goods as depreciated and accept their return. The depreciation shall be an equal amount per year over the lifetime of the goods as established by Manufacturer.

Manufacturer shall not have any liability to the Distributor under any provision of this clause if any infringement, or claim thereof, is based upon: (i) the use of the goods in combination with other goods or devices which are not made by Manufacturer; (ii) the use of the goods in practicing any process; (iii) the furnishing to the Distributor of any information, date, service, or applications assistance; or (iv) the use of the goods with modifications made by the Distributor. The Distributor shall hold Manufacturer harmless against any expense, judgment or loss for infringement of any patent or other intellectual property right which results from Manufacturer's compliance with the Distributor's designs, specifications or instructions. No costs or expenses shall be incurred for the account of Manufacturer without the written consent of Manufacturer. The foregoing states the entire liability of manufacturer with respect to infringement of patents or other intellectual property right by the goods or any part thereof, or by their operation.

# Interpretation and Other Parole Evidence

This writing is intended by the parties as final expression of their agreement and is intended also as a complete and exclusive statement of the terms of their agreement. No course of prior dealing between the parties and no usage of the trade shall be relevant to supplement or explain any term used in these terms and conditions. Acceptance or acquiescence in a course of performance rendered under these terms and conditions shall not be relevant to determine the meaning of these terms and conditions even though the accepting or acquiescing party has knowledge of the performance and opportunity for objection. Whenever a term defined by the Uniform Commercial Code, as adopted in Mississippi, is used in these terms and conditions, the definition contained in the code is to control.

## Modifications

These terms and conditions can be modified or rescinded only by writing signed by both the parties or their duly authorized agents.



## Waiver Ineffective

No claim or right arising out of or relating to a breach of these terms and conditions can be discharged in whole or in part by a waiver or renunciation of the claim or right unless the waiver or renunciation is supported by consideration and is in writing signed by the aggrieved party. Waiver by either Manufacturer or Distributor of a breach by the other of any provision of these terms and conditions shall not be deemed a waiver of future compliance therewith, and such provisions shall remain in full force and effect.

#### **Statute of Limitations**

Any action by the Distributor or Manufacturer for breach of these terms and conditions must be commenced within one (1) year after the cause of action has accrued.

## Applicable Law

These terms and conditions shall be governed by and construed in accordance with the provisions of the Uniform Commercial Code as adopted by the State of Mississippi.

# Bankruptcy

In the event of any proceedings, voluntary or involuntary, in bankruptcy or insolvency by or against Distributor, or in the event of the appointment, with or without the Distributor's consent, of an assignee for the benefit of creditors or of a receiver or of a liquidator, then Manufacturer shall be entitled to cancel any unfilled part of these terms and conditions without any liability whatsoever.

## Parts Only Limited Manufacturer's Warranty

Triton Systems of Delaware, Inc. warrants the components of each Model 9100 series ATM, excluding software and related documentation, against any defect in materials and/or workmanship for a period of 13 months from the shipping date. If a component fails due to defects in materials and/or workmanship within the warranty period, Triton will furnish a new or refurbished component, at its discretion. Triton shall not be responsible for labor or other costs associated with installing the components and the failed component shall be returned to Triton at the purchaser's expense. Triton shall not be responsible for misuse or abuse of a unit and any attempts to remove or deface the serial number or date code on a unit or any component thereof, or any attempt to repair a unit or to repair or replace any component by anyone other than a service technician authorized by Triton shall void this warranty.



# Limited Warranty covers normal use. Triton does not warrant or cover

## damage:

- occurring during shipment of the equipment or components from or to Triton's facilities;
- caused by accident, impact with other objects, dropping, falls, spilled liquids, or immersion in liquids;
- caused by a disaster such as fire, flood, wind, earthquake, lightning, or other acts of God;
- caused by failure to provide a suitable installation environment for the equipment, including but not limited to, faulty wiring in the building in which the equipment is installed, installation in a facility with uncontrolled environmental conditions, failure to provide a dedicated electrical circuit on which the equipment operates, and/or lack of proper earth grounding for the equipment;
- caused by the use of the equipment for purposes other than those for which it was designed;
- resulting from improper maintenance;
- caused by any other abuse, misuse, mishandling, or misapplication.

Under no circumstances shall Triton or its suppliers be liable for any special, incidental, or consequential damages based upon breach of warranty, breach of contract, negligence, strict liability, or any other legal theory. Such damages include, but are not limited to, loss of profits, loss of revenue, loss of data, loss of use of the equipment or any associated equipment, cost of capital, cost of substitute or replacement equipment, facilities or services, down time, purchaser's time, the claims of third parties, including customers, and injury to property.

# **Disclaimer of Warranties**

The warranty stated above is the only warranty applicable to this product. All other warranties, expressed or implied (including all implied warranties of merchantability or fitness for a particular purpose or quality of service), are hereby disclaimed. No oral or written information, or advice given by Triton, its agents or employees shall create a warranty or in any way increase the scope of this warranty.

# **Shipping Damage**

All equipment is shipped Free On Board (FOB), Triton's facilities. The organization or individual who has purchased the equipment assumes responsibility for the equipment once it leaves Triton's facilities.

Should your equipment be damaged in the process of shipment or delivery to your place of destination, we recommend the following course of action:



- If possible, call the shipping company before the driver leaves your delivery site. Make note of the damage on the "receipt of delivery" paperwork. If this is not possible, call them as soon as possible to report the damage.
- Take photographs of the damaged packaging prior to opening the boxes. If this is not possible, make note of key points, such as whether the equipment is on a pallet, if the banding is intact, how the boxes are damaged, etc. Keep all of the packaging for inspection by the shipping company.
- If you unpack the equipment, take photographs of the damaged equipment. If this is not possible, make note of the damages.
- You must file a claim with the shipper for shipping damages immediately after reporting the damages.

Should you specify the carrier, we recommend that you explore with this chosen carrier the policies and procedures regarding shipping damage claims prior to selecting them as your preferred carrier.

If the equipment receives structural damage and is in an un-installable condition, Triton will work with you to arrange for a replacement unit to be shipped as soon as possible. The purchaser will be billed for the replacement unit. Triton's repair technicians will repair the damaged unit after it is returned to our facilities. We will credit the purchaser's account for the full purchase price of the damaged unit, minus the cost of returning the unit to 'like new'' condition. Under no circumstances does Triton authorize anyone to complete structural damage repairs in the field. Therefore, we will not ship primary structural parts, such as a cabinet head or main cabinet body for repair in the field.

## Authorized Installation and Service Providers

Triton utilizes several nationwide and regional authorized third party maintenance providers. All ATMs must be installed and serviced by service technicians certified by Triton. This includes authorized third party service technicians and technicians who have been factory trained by Triton to service ATM equipment. Installation or repairs attempted by unauthorized service technicians automatically voids the warranty on the product.

Please contact Triton's Technical Services department at (800) 259-6672 for a list of our third party service providers and/or to obtain information on the requirements and procedures for becoming a certified Triton service technician.



# **Triton's Technical Services Department**

The primary purpose of the Technical Services Department is to provide assistance to customers in the operation, trouble shooting, and repair of equipment manufactured by Triton. A toll-free phone number (1-800-259-6672) is provided for convenience. The Technical Services department operates to serve our customers. The staff is trained to follow our policies and procedures to ensure fair and uniform treatment of all our customers.

#### Automated Voice Mail System

Our goal is to have a 'live' person answer 100% of all incoming calls (during regular support hours). On occasion, however, call loads may exceed the capacity of the staff. When this occurs, an automated voice mail system will answer the call, indicate to the caller that all Technical Support specialists are busy assisting others, and ask the caller to leave detailed information about the nature of the call.

Should it become necessary to leave a voice mail message, the caller should state:

- their name,
- the organization for which they work,
- the serial number of the equipment they are calling about,
- detailed description of the problem that they are experiencing, and
- phone number where they can be reached, including area code.

As Technical Support specialists become available, they check for voice mail messages and return calls in the order in which they were received. By providing the information requested in the voice mail, the technician can be prepared when your call is returned. Triton asks you to be patient if you must leave voice mail and assures you that your call is important to us and that we will respond promptly.

## Calls for Service or Repair

Calls for service or repair will be accepted from authorized service technicians only. End users must contact either the sales organization that placed the equipment or an authorized third party service organization to obtain service. The sections that follow describe the policies and procedures that relate to the repair and replacement of malfunctioning equipment.



#### **Questions on Operation of Equipment**

Technical support is available to owners of Triton equipment and to qualified service personnel. When calling for help with the configuration or operation of a Triton product, the caller must provide either positive identification as a service technician or the serial number of a Triton terminal. Technical support is provided during normal business hours for the life of the product.

When calling for help with an operational problem, please have available information pertaining to the nature of the trouble. This includes the type of equipment, examples of what is or is not happening, and the name of the processor that supports your terminal.

All questions pertaining to the settlement of accounts, transaction inquiries, and fund status must be directed to the processor. Triton does not have access to the information needed to answer questions relating to specific transactions.

# **CONTACT INFORMATION**

TRITON 21405 B STREET LONG BEACH, MS 39560

#### Sales:

1 (800) 367-7191 1 (228) 868-1317 1 (228) 868-0437 FAX

#### Service:

1 (800) 259-6672 (Technical Support) 1 (228) 575-3229 FAX (Training/Technical Support) 1 (228) 868-0859 FAX (Parts)



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# SECTION 1 INTRODUCTION



# WHAT'S IN THIS MANUAL

This User / Installation manual describes the operating features of the Model 9100 series ATM and shows how to perform the procedures that would typically be performed by the owner or operator personnel. It also includes installation procedures for the terminal.

The User Manual is divided into the following sections:

**Section 1, Introduction**. Summarizes the basic features of the Model 9100 series ATM.

**Section 2, Basic Operation**. Describes the ATMs user interface, explains how to access Management Functions, and provides a basic description of operation during typical customer transactions.

Section 3, Initial Setup. Lists the ATMs setup parameters and Management Function flowchart.

**Section 4, Currency Handling.** Describes the standards for evaluating note quality and describes how to replenish the cash in the note cassettes and how to check for rejected notes.

Section 5, Management Functions. Describes the functions available and procedures for day-to-day operations. Options available include Close, Diagnostic, and Journal functions. This section only covers functions available with AD-MINISTRATIVE password access.

Section 6, Maintenance. Describes normal preventative and corrective maintenance procedures appropriate for user personnel.

**Section 7, Error Recovery**. Describes the ATM's error reporting features and error codes, gives a general error recovery procedure, and provides error recovery procedures to follow in case of specific error conditions.

**Appendix A, Installation Procedures.** Provides step-by-step procedures for completing physical installation of the Model 9100 ATM.

**Appendix B, Combination Locks.** Covers how to change combinations for mechanical and electronic locks. Also provides procedures for changing the battery in the electronic lock.



# FEATURE HIGHLIGHTS

Important features of the 9100 series ATM are highlighted in the following list:

- □ Supports dial-up communications, using 2400 or 33.6K baud modems.
- □ Single cassette design using either a TDM-100/150 or Mech 10 (MiniMech) dispensing mechanism. New protective plastic cover for TDM dispensers firmware (available as optional kit for older TDM-100 mechanisms).
- □ Satisfies Americans with Disabilities Act (ADA) specifications for height and access.
- Dip-style card reader.
- □ Intuitive, user-friendly keypad and display interface.
- $\Box$  60 mm thermal printer designed for quiet operation.
- □ Manual or electronic combination lock .
- □ 320-by-240, high-contrast monochrome or 16-color display screen supports attention-getting graphics and textual messages.
- □ Supports remote setup, configuration, and monitoring via Triton Connect<sup>TM</sup> ATM monitoring software.
- Dispenses U.S. and international currency types.
- High-capacity electronic journal stores transaction details for later printout and analysis.
- □ Modular architecture eases troubleshooting and servicing.
- □ Supports backlit signage option (topper attachment).
- □ Small footprint design makes placement easier.
- □ Choice of control panel and fascia color available in either blue or bronze .

DIMENSIONS			
Width:	16 inches	405 mm	
Depth:	16 inches	405 mm	
Height:	49 inches (w/o topper)	1245 mm	
Height:	60 inches (incl. topper)	1524 mm	



# STANDARD FEATURES

- □ Management Functions. Enable extensive control and customization of the ATM's operating parameters.
- **EPROM Functions**. The EPROM function provides low-level diagnostic and software update operations.
- □ **Password Protection**. Access to Management Function and EPROM areas is protected with passwords.
- □ MAC Encryption Support. Message Authentication Code (MAC) data encryption protocol. Provides increased protection for message traffic to and from the ATM. *Triple DES compliant*.
- □ SPED PIN Entry Device Support. Secure PIN Entry Device (SPED) encrypts the customer PIN during a transaction.
- □ Multi-Language Support. Enables the customer to select a preferred language (such as French or Spanish) for customer screens and receipts.
- □ **Transaction and Account Type Configuration**. Enables selection of transactions (transfers or balance inquiries) or accounts (savings or credit card) that will be presented to the customer. Does not affect availability of checking account withdrawal.
- □ **Cassette and Day Close Reports**. Provide summary information about the number and type of transactions being performed by the ATM.
- □ Electronic Journal. Stores the details of each transaction in solid-state memory. Journal data can be retrieved, printed out at the receipt printer, and transferred to a remote Triton Connect computer.
- □ AD Screens. An Ad screen is a promotional or advertising graphic that is displayed on the LCD screen during idle periods. Ad screens are downloaded to the terminal by a remote Triton Connect computer. Text-only (non-graphic) Ad screens can also be displayed.
- □ **Receipt Printer Graphics**. This feature allows informational or promotional graphics to be printed on customer receipts.



#### INTRODUCTION

- □ **Messages**. Informational and promotional messages that are displayed to the customer on-screen, or printed on receipts.
- Coupons. Coupons are printed by the receipt printer and prizes awarded to customers based on random and/or withdrawal amount-based transactions. Coupon text can be entered locally or downloaded along with coupon graphics using Triton Connect software.
- □ **Status Monitoring.** The ATM can periodically transfer status information to the host processor. In addition, Triton Connect remote monitoring software can be used to view the journal, monitor operation and alarm conditions, update operating parameters, and reset the terminal.
- □ UL 291 certified for Business Hours service. This means that the currency should be removed from the dispenser and stored in a safe location when the business is closed to the public.
- □ **Front-access cabinet**. Allows access to the dispensing mechanism and currency cassette from the control-panel side of the unit.



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# SECTION 2 BASIC OPERATION

# Introduction

This chapter describes the basic operation of the terminal. The following topics are covered:

- 1. Control Panel Layout. Describes the layout of the terminal's control panel.
- 2. Keypad Operation. Describes the use of the alphanumeric keypads.
- 3. **Menu-Based Operation.** This section gives a general overview of the terminal display interface.
- 4. Accessing Management Functions. Describes the password entry procedure that must be followed in order to access the Management Functions area.
- 5. **Customer Transactions.** Summarizes the actions involved in typical customer transactions. In addition, the voice-enabled transactions feature is described.

# **Control Panel Layout**

The user interface of the terminal consists of the LCD screen, receipt chute, card reader, headphone jack (visually impaired) and 24 keys on three keypads. The Function keys are arranged in two four-key groups, one group on either side of the LCD display. The main keypad consists of 10 alphanumeric keys, two arrow keys and four large control keys, all located in a 16-key group beneath the LCD screen. The main keypad and control keys have an integral raised Braille symbol to conform to the requirements of the Americans with Disabilities Act. (See Figure 2-1)





# **BASIC OPERATION**

# **Keypad Operation**

The primary menu navigation keys, called Function keys, are arranged in two fourkey groups, one group on either side of the LCD screen. A Function key is only active when a function or menu option name is displayed (If the display is "grayed out", that option is not available). The Function keys are designated F1 through F8, as shown in Figure 2-2.

The entry of numeric characters via the keypad is straightforward: simply press the desired key. However, in certain Management Function screens it may be necessary to enter alphabetic characters, a procedure that requires a little more explanation. On such screens a flashing cursor will be evident on the display, representing the location where the next character you enter will be displayed. To enter a letter or punctuation mark, you will first press the <CTRL> key (the blank key in the lower right-hand corner of the keypad), and then you will press the number that has the letter or other character you want.

Each of the numbered keys (<0> through <9>) has six characters available. See Figure 2-3, Alphanumeric keypad, and Table 2-1, Keypad characters. On most of these keys (<2> through <9>), the first three of the available characters are alphabetic, and are printed on the keycap above the number character. Two keys, the <0> and <1>, are different. The <0> key does not show any additional characters, while the <1> key shows two alphabetic characters ('QZ').

The first character on the first key (0-9) you press after the  $\langle CTRL \rangle$  key will be displayed at the current cursor position. Pressing the same key repeatedly (X1-X6) will cycle the displayed letter through the available character choices for that key.

When the desired character is displayed, press the <RIGHT ARROW> key to 'lock it in' and move the cursor to the next position. Repeat these steps to enter the next character.

The <RIGHTARROW> and <LEFTARROW> keys are used in most alphanumeric data entry situations. The <LEFTARROW> is used to back up and erase a character. The <RIGHT ARROW> is used to lock in a character. These keys will autorepeat if held down for more than one second.

The <CLEAR> key can be used to clear an entry and start over. The <CANCEL> key will abort the current transaction.





Figure 2-2. Function key layout.



Fig. 2-3. Alphanumeric keypad.

TABLE 2-1 - KEYPAD CHARACTERS						
	X1	X2	X3	X4	X5	X6
1	Q	Z	Space	~	!	@
2	A	В	С	#	\$	%
3	D	E	F	۸	*	-
4	G	н	I	(	)	
5	J	К	L	1	1	
6	м	N	o	;	:	' Single Quote (Open)
7	Р	R	S	?	<	>
8	Т	U	V	[	]	ñ
9	w	x	Y	{	}	Single Quote (Close)
0	,		-	&	=	+

Table 2-1. Keypad characters.



## MENU-BASED OPERATION

The terminal operates as a menu driven system. Messages and menu options presented on the LCD display screen guide the user's actions. The desired menu option is selected by pressing one of the keys located to the left and right of the display. For the purpose of security many screens timeout after a preset time interval, usually 30 seconds. The timeout length may vary depending on the function being performed.

When a screen timeout occurs, a screen is presented which asks the user if more time is needed. If the user chooses NO, the Customer Welcome screen will be presented. If YES is chosen, the user is returned to the function that was active prior to the timeout. If the user does not make a selection within an additional 30-second countdown period the terminal will automatically go to the Customer Welcome screen.

When the unit is turned on, the dispenser will beep once and the Top menu, shown in Figure 2-4, will appear on the display screen after a few seconds. From the Top menu, you can either:

1. Activate the terminal to perform customer transactions by pressing the key next to CUSTOMER TRANSACTIONS.

2. Enter the terminal system management area by pressing the key next to MANAGEMENT FUNCTIONS. *Note: You will have to enter an appropriate password to view the Management Functions menu.* 

If you do not select a menu choice within 30 seconds the terminal will automatically default to the Customer Welcome screen (a benefit of this feature is that in the event of a power interruption the terminal will automatically begin accepting customer transactions shortly after power is restored).

CUSTOMER TRANSACTIONS	MANAGEMENT FUNCTIONS
Versi	on Date
EPROM PROGRAM TABLE PARAM. LOAD	

Fig. 2-4. Top menu screen.



# ACCESSING MANAGEMENT FUNCTIONS

Follow these steps to access the terminal MANAGEMENT FUNCTIONS main menu screen:

- 1. At the Customer Welcome screen, press and hold down the <CTRL> key; while holding down the <CTRL> key, press the <1> key. Release both keys. After a moment the Top menu screen will be displayed, as shown in Figure 2-4.
- 2. The Top menu allows you to choose one of two options, CUSTOMER TRANSACTIONS or MANAGEMENT FUNCTIONS. Select MANAGEMENT FUNCTIONS. The password entry screen appears, as shown in Figure 2-5.
- 3. Enter the Master or Administrative password and press the <ENTER> key. The MANAGEMENT FUNCTIONS main menu screen appears, as shown in Figure 2-6.

#### \*\*WARNING\*\*

If you have the same password for both the Master and Administration functions, the ATM defaults to the <u>Administration</u> functions, the lowest level options. The passwords can only be changed when the Master password is entered in the Management Functions, so <u>never</u> use the identical password for both Master and Administration.



Fig. 2-5. Password entry screen.







# **CUSTOMER TRANSACTIONS**

A customer begins a transaction by selecting a service from the Customer screen options. ( PaySpot<sup>TM</sup>, CashWorks<sup>TM</sup>, Western Union® or ATM- Get Cash Now) They insert their ATM card into the card reader of the terminal. The card must be inserted so that the magnetic stripe can be scanned by the card reader's sensor. If the customer inserts the card incorrectly, a warning message will be displayed, accompanied by several beeps to get their attention.

If there is a problem reading a card, make sure the customer is inserting the card correctly. Most problems are the result of inserting the card incorrectly.

Once the card has been read in successfully, a surcharge message, if applicable, may be displayed (the surcharge message may be displayed at the end of the customer's transaction selection). The customer must then enter their secret Personal Identification Number (PIN) code. Once the PIN has been entered, the transaction type and account are selected, and the desired amount of the transaction, if needed. The transaction will be processed, typically in a matter of seconds.

Figure 2-7 shows how ATM transactions are handled. If the transaction was processed successfully, the customer is prompted to retrieve the requested cash (for withdrawal transactions) and/or the applicable transaction receipt, as needed. If the transaction was declined, a short receipt indicating the problem is printed.



Figure 2-7. ATM transaction processing.



The ATM sends the customer transaction request to a processor. A processor is a financial intermediary, such as an Independent Sales Organization (ISO), bank, or other financial institution that provides transaction-processing services for ATMs. The ATM must be set up with a particular processor before customer transactions can take place.

The processor routes the transaction to the appropriate ATM network. An ATM network is a regionally or nationally organized clearing house for financial transactions, that deals directly with the appropriate financial institution, such as the customer's bank or credit card company, in order to complete the transaction. The processor will select the appropriate ATM network to use based on factors such as the type of ATM or credit card used, location of the customer's bank, or other considerations. The transaction may be transferred between several networks before ultimately reaching the customer's bank or credit card company.

The ATM network routes the transaction to the appropriate bank or other institution, confirms successful completion of the transaction, and sends a confirmation message back to the processor. If the request was for a cash withdrawal, an Electronic Funds Transfer (EFT) takes place to debit the funds (including any surcharge fee, if applicable) from the customer's bank account and credit the funds to the processor's bank account.

The processor forwards a confirmation message to the ATM (and an authorization to dispense currency, in the case of a cash withdrawal). The ATM dispenses the requested currency, if necessary, and provides the customer with a printed receipt as a record of the transaction.

The processor credits the merchant's account for the amount of any cash withdrawals (plus surcharge fees, if collected), typically by the end of the next business day.

## VOICE-ENABLED TRANSACTIONS

## (COLOR DISPLAY UNITS ONLY)

The terminal provides voice feedback via an integrated output jack, enabling sightimpaired users to plug in a set of headphones and receive spoken instructions to assist them in using the ATM. Figure 2-8, Headphone jack location, shows the location of the headphone jack on the 9100.

A raised symbol helps a user locate the headphone jack. The ATM will automatically detect when a headphone has been plugged into the jack, and will immediately switch into voice mode. Initially, a brief spoken tutorial will orientate the customer to the ATM control panel interface. Once the customer begins a transaction, spoken prompts will provide feedback and guide the customer through the successful accomplishment of the transaction.



# **BASIC OPERATION**



Fig. 2-8. Headphone jack location.



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# SECTION 3 Initial Setup

# **PARAMETER CATEGORIES**

There are a number of setup parameters that must be configured when an ATM is installed. Generally speaking, these parameters can be grouped into the following major categories.

	Languages
□ Security	Messages
□ Surcharging	Ad Screens
□ Currency Settings	Date/Time Settings
□ Cassette Setup	Status Monitoring
□ Transactions	Close
□ Receipts	User Interface
Coupons	Options

Each area consists of one or more individual parameters. In terms of ATM operation, the importance level of individual parameters within a category can be described as *Critical*, *Required*, *Important*, or *User-Defined*.


## PARAMETER IMPORTANCE LEVELS Critical

The parameters with this importance level are primarily those that represent the minimum number of parameters that must be correctly configured in order to process transactions. In addition, because of the importance of protecting access to the ATM Management Functions, the access password parameters are also included in this category. The primary parameters in this category include various Communications and Security (including access password) parameters.

#### **Required**

These parameters further satisfy your transaction processor's setup or operational requirements. Parameters in this area define the ability of your ATM to offer various types of transactions, to correctly present those transactions to the customer and to accurately record those transactions. Surcharging, Currency, Cassette and Transactions parameters fall into this category.

#### <u>Important</u>

These parameters are used to manage transaction activity record-keeping, enable remote monitoring of ATM operation, and to ensure receipts and other records are accurately annotated with the correct date and time. Status Monitoring, Close and Date/Time parameters are included in this category.

#### User-Defined

These parameters are configured at your discretion, and are used to customize the appearance and functionality of the ATM to meet the unique language needs of your intended customers, adjust user interface appearance, satisfy advertising or promotional requirements, or meet other locale-specific requirements. The management of optional features is also included in this area. Languages, Receipts, Coupons, Messages, User Interface and Options parameters fall into this category.

#### WAVES Options

These parameters are configured when WAVES (With Added Value Enabled Services) features are enabled. Options available are check cashing (CashWorks<sup>TM</sup>), cellular phone recharge (PaySpot<sup>TM</sup>), and money transfers (WESTERN UNION®). **Software with these options currently available on US shipped models only.** 



## **Setup Parameters**

The importance level of individual parameters as described in this manual is provided as a general guide, to assist you in understanding and prioritizing the setup requirements of your ATM. If, after evaluating your unique requirements, you feel that a parameter is more (or less) important to your particular needs, you are free to treat that parameter accordingly.

Tables 3-1 through 3-4 list Critical, Required, Important and User Defined parameters, respectively. Table 3-5 list WAVES option parameters. Each table lists the Management Function area, Function option, Parameter name, and Parameter option (if available).

IN TABLE 3-1, CRITICAL SETUPPARAMETERS, THE NAMES OFTHOSE PARAMETERS THATARE TYPICALLY THE MINI-MUM NUMBER REQUIRED IN ORDER TO PERFORM A TRANSACTION HAVE BEEN HIGHLIGHTED. CHECK WITH YOUR TRANSACTION PROCESSOR FOR YOUR SPECIFIC REQUIREMENTS!

**IMPORTANT**: Although many of the ATM's parameters have been set at the factory, it is important to verify that the settings are appropriate for your needs. Change the factory default values as necessary to reflect the actual settings you require.



## INITIAL SETUP

	TABLE 3-1 - CRITICAL SETUP PARAMETERS				
	MANAGEMENT FUNCTIONS AREA	FUNCTION OPTION	PARAMETER NAME	PARAMETER OPTION	
1	PASSWORD MAINTENANCE	MASTER PASSWORD			
2	PASSWORD MAINTENANCE	ADMINISTRATION PASSWORD			
3	TERMINAL CONFIGURATION	*ATM CONFIGURATION* SET TERMINAL PARAMETERS	SET TERMINAL #		
4	TERMINAL CONFIGURATION	*ATM CONFIGURATION* SET TERMINAL PARAMETERS	TELEPHONE	PRIMARY NUMBER	
5	TERMINAL CONFIGURATION	*ATM CONFIGURATION* SET TERMINAL PARAMETERS	TELEPHONE	BACKUP NUMBER	
6	TERMINAL CONFIGURATION	*ATM CONFIGURATION* SET TERMINAL PARAMETERS	KEY MANAGEMENT	ENTER PIN MASTER KEY	
7	TERMINAL CONFIGURATION	*ATM CONFIGURATION* SET TERMINAL PARAMETERS	KEY MANAGEMENT	DOWNLOAD WORKING KEYS	
8	TERMINAL CONFIGURATION	*ATM CONFIGURATION* SET TERMINAL PARAMETERS	CASSETTE SETUP (CASSETTE PARAMETERS)	VALUE	
9	TERMINAL CONFIGURATION	*ATM CONFIGURATION* SET TERMINAL PARAMETERS	CASSETTE SETUP	MAX AMOUNT (CASH)	
10	TERMINAL CONFIGURATION	*ATM CONFIGURATION* SET TERMINAL PARAMETERS	CASSETTE SETUP	FAST CASH AMOUNT	
11	TERMINAL CONFIGURATION	*ATM CONFIGURATION* SET TERMINAL PARAMETERS	SURCHARGE MODE	SURCHARGE AMOUNT	
12	TERMINAL CONFIGURATION	*ATM CONFIGURATION* SET TERMINAL PARAMETERS	SURCHARGE MODE	ENABLE/DISABLE	
13	TERMINAL CONFIGURATION	*ATM CONFIGURATION* SET TERMINAL PARAMETERS	KEY MANAGEMENT	ENTER MAC MASTER KEY	
14	TERMINAL CONFIGURATION	*ATM CONFIGURATION SET TERMINAL PARAMETERS	KEY MANAGEMENT	INJECT MASTER KEYS	
	* ATM C	ONFIGURATION OPTION AVAILAB	LE ON WAVES SOFTWARE.		



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	TABLE	3-2 - REQUIRED SI	ETUP PARAMETER	S
	MANAGEMENT FUNCTIONS AREA	FUNCTION OPTION	PARAMETER NAME	PARAMETER OPTION
1	TERMINAL CONFIGURATION	*ATM CONFIGURATION* CHANGE MESSAGES	SURCHARGE MESSAGE	
2	TERMINAL CONFIGURATION	*ATM CONFIGURATION* CHANGE MESSAGES	SURCHARGE OWNER	
3	TERMINAL CONFIGURATION	*ATM CONFIGURATION* SET TERMINAL PARAMETERS	SURCHARGE MODE	SURCHARGE PERCENT
4	TERMINAL CONFIGURATION	*ATM CONFIGURATION* SET TERMINAL PARAMETERS	SURCHARGE MODE	SURCHARGE LOCATION
5	CLOSE FUNCTION	CASSETTE CLOSE	SELECT CASSETTE	ENTER QUANTITY IN CASSETTE
6	TERMINAL CONFIGURATION	*ATM CONFIGURATION* SET TERMINAL PARAMETERS	CASSETTE SETUP	RELEARN BILL THICKNESS
7	TERMINAL CONFIGURATION	*ATM CONFIGURATION* SET TERMINAL PARAMETERS	CASSETTE SETUP	INTERNATIONAL CURRENCY
8	TERMINAL CONFIGURATION	*ATM CONFIGURATION* TRANSACTION TYPES	TRANSFERS ON/OFF BALANCE INQ. ON/OFF	
9	TERMINAL CONFIGURATION	*ATM CONFIGURATION* ACCOUNT TYPES	SAVINGS ON/OFF CREDIT CARD ON/OFF	
10	TERMINAL CONFIGURATION	*ATM CONFIGURATION* SET TERMINAL PARAMETERS	CASSETTE SETUP (MORE)	LOW CURRENCY EXTENDED AMOUNTS
11	TERMINAL CONFIGURATION	*ATM CONFIGURATION* SET TERMINAL PARAMETERS	TELEPHONE	COMPUSERVE ID
12	TERMINAL CONFIGURATION	*ATM CONFIGURATION* SET TERMINAL PARAMETERS	MORE	COMMUNICATIONS HEADER
	* ATM C	CONFIGURATION OPTION AVAILAE	LE ON WAVES SOFTWARE.	



## INITIAL SETUP

	TABLE 3-3 - IMPORTANT SETUP PARAMETERS				
	MANAGEMENT FUNCTIONS AREA	FUNCTION OPTION	PARAMETER NAME	PARAMETER OPTION	
1	CLOSE FUNCTIONS	SCHEDULE CLOSE	SCHEDULE CLOSE ON/OFF CHANGE SCHEDULE		
2	CLOSE FUNCTIONS	SEND TERMINAL TOTALS	REPORT TOTALS ON/OFF		
3	TERMINAL CONFIGURATION	*ATM CONFIGURATION* SET TERMINAL PARAMETERS	TELEPHONE	PREDIAL ON/OFF	
4	TERMINAL CONFIGURATION	*ATM CONFIGURATION* DATE/TIME FUNCTIONS	SET DATE FORMAT SET DATE/TIME		
5	TERMINAL CONFIGURATION	*ATM CONFIGURATION* SET TERMINAL PARAMETERS	MORE (TRITON CONNECT)	PRIMARY NUMBER	
6	TERMINAL CONFIGURATION	*ATM CONFIGURATION* SET TERMINAL PARAMETERS	MORE (TRITON CONNECT)	BACKUP NUMBER	
7	TERMINAL CONFIGURATION	*ATM CONFIGURATION* SET TERMINAL PARAMETERS	MORE (TRITON CONNECT)	ALARM NUMBERS	
8	TERMINAL CONFIGURATION	*ATM CONFIGURATION* SET TERMINAL PARAMETERS	MORE (TRITON CONNECT)	CALL BACK ON/OFF	
9	TERMINAL CONFIGURATION	*ATM CONFIGURATION* SET TERMINA L PARAMETERS	MORE (TRITON CONNECT)	TRITON CONNECT ON/OFF	
10	TERMINAL CONFIGURATION	*ATM CONFIGURATION* SET TERMINAL PARAMETERS	MORE (ATM MONITORING)	STATUS MONITORING ON/OFF	
11	TERMINAL CONFIGURATION	*ATM CONFIGURATION* SET TERMINAL PARAMETERS	MORE (ATM MONITORING)	HEARTBEAT MESSAGE ENABLE/DISABLE	
12	TERMINAL	*ATM CONFIGURATION* SET TERMINAL PARAMETERS	MORE (MORE)	ALARM THRESHOLDS	
13	TERMINAL CONFIGURATION	*ATM CONFIGURATION* SET TERMINAL PARAMETERS	MORE (MORE)	ZIP CODE	
14	TERMINAL CONFIGURATION	*ATM CONFIGURATION* SET TERMINAL PARAMETERS	MORE (MORE)	SPEECH ON/OFF	
	* ATM C	CONFIGURATION OPTION AVAILAB	BLE ON WAVES SOFTWARE		



## MODEL 9100 USER / INSTALLATION MANUAL

	TABLE 3	-4 - USER-DEFINE	D SETUP PARAMETE	RS
	MANAGEMENT FUNCTIONS AREA	FUNCTION OPTION	PARAMETER NAME	PARAMETER OPTION
1	LANGUAGE	ENGLISH/SPANISH/FRENCH		
2	LANGUAGE	CUSTOMER OPTION ENABLE/DISABLE	SURCHARGE OWNER	
3	TERMINAL CONFIGURATION	*ATM CONFIGURATION* PRINTER SETTINGS	SET PRINT LENGTH	
4	TERMINAL CONFIGURATION	*ATM CONFIGURATION* PRINTER SETTINGS	LOW RECEIPT PAPER (IN/OUT OF SERVICE)	
6	TERMINAL CONFIGURATION	*ATM CONFIGURATION* PRINTER SETTINGS	PRINTER GRAPHICS (ENABLE/DISABLE)	
7	TERMINAL CONFIGURATION	*ATM CONFIGURATION* DATE/TIME FUNCTIONS	SET DATE FORMAT SET DATE/TIME	
8	TERMINAL CONFIGURATION	*ATM CONFIGURATION* RANDOM/LEVEL PRIZE COUPONS	ENTER LEVEL PRIZE MSG ENTER RANDOM PRIZE MSG	
9	TERMINAL CONFIGURATION	*ATM CONFIGURATION* RANDOM/LEVEL PRIZE COUPONS	COUPONS ENABLE/DISABLE	
10	TERMINAL CONFIGURATION	*ATM CONFIGURATION* RANDOM/LEVEL PRIZE COUPONS	SET LEVEL PRIZE AMOUNT SET RANDOM WINNING %	
11	TERMINAL CONFIGURATION	*ATM CONFIGURATION* CHANGE MESSAGES	MARKETING MESSAGE WELCOME MESSAGE EXIT MESSAGE	
12	TERMINAL CONFIGURATION	*ATM CONFIGURATION* CHANGE MESSAGES	STORE MESSAGE TERMINAL OWNER	
13	TERMINAL CONFIGURATION	*ATM CONFIGURATION* SET TERMINAL PARAMETERS	MORE	RECEIPT OPTION
	* ATM (		ABLE ON WAVES SOFTWARE.	



## INITIAL SETUP

TABLE 3-5 - WAVES SETUP PARAMETERS				
MANAGEMENT FUNCTIONS AREA	ANAGEMENT FUNCTIONS AREA FUNCTION OPTION FUNCTION OPTION		PARAMETER OPTION	
	PA	ſSPOT™		
TERMINAL CONFIGURATION		PAYSPOT CONFIGURATIO	N	
	PAYSPOT ON/OFF	PRIMARY HOST PHONE		
	TERMINAL ID	BACKUP HOST PHONE #		
	CONFIGURE SERVICE		PREPAID CELLULAR ON/OFF	
CONFIGURE SERVICE			LONG DISTANCE CALLING PLAN (LONG DISTANCE ON/OFF) (FAST AMOUNTS)	
	CASH	IWORKS™		
TERMINAL CONFIGURATION		CASHWORKS CONFIGURA	TION	
	TERMINAL ID PRIMARY HOST PHONE #			
	CASHWORKS ON/OFF	CASHWORKS ON/OFF BACKUP HOST PHONE #		
	MAXIMUM AMOUNT			
	WESTE			
TERMINAL CONFIGURATION	WESTERN UNION CONFIGURATION			
	WESTERN UNION ON/OFF	PRIMARY HOST PHONE #		
	TERMNINAL ID	BACKUP HOST PHONE #		
	MULTIPLE AMOUNT	800 CUSTOMER HELP #		
	ACCOUNT TYPES		SAVINGS ON/OFF	
* ATM CONFIGURATION OPTION AVAILABLE ON WAVES SOFTWARE.				



## MODEL 9100 USER / INSTALLATION MANUAL

9100 Manag

	CI	LOSE FUN	ICTIONS
•	SCHEDULE CLOSE SCHEDULE CLOSE ON / OFF CHANGE SCHEDULE	•	SEND TERMINAL TOTALS REPORT TOTALS ON / OFF
923		•	TRIAL CASSETTE CLOSE (ALL)
:	DAY CLOSE	٠	CASSETTE CLOSE SELECT CASSETTE: A B C D TRIAL CASSETTE CLOSE SELECT CASSETTE
<u> </u>		DIAGNOS	CASSETTE CLOSE ENTER QTY IN CASSETTE
	CTATIN	DIAGNUS	TEST BECEIDT DDINTED
T .	514105		IESI RECEIFI PRIMIER
•	PURGE	•	VERSION #'S
•	TEST DISPENSE	+	MORE DIAGNOSTICS
٠	FORMAT GRAPHIC MEMORY		INJECT NEW CASSETTE ID PRINT DISPENSER STATUS RESET / TEST MODEM CLEAR DISPENSER STATUS MODEM SPEAKER ON / OFF SCAN CARD FORCE UNLOCK
	L	ANGUAGE	IDIOMA
•	ENGLISH / INGLES	•	ENABLE CUSTOMER OPTION
•	SPANISH / ESPANOL	•	DISABLE CUSTOMER OPTION
		JOURNA	L
•	PRINT JOURNAL	•	PRINT LAST X ENTRIES
•	CLEAR JOURNAL		
	CAS PUT CASSETTE: <u>A</u> <u>B</u>	SETTE SE <u>C</u>	RVICE <u>D</u> "INSERVICE"
	PASS	WORD MA	INTENANCE
•	MASTER PASSWORD	•	ADMINISTRATION PASSWORD VIEW CHANGE
-	CASHWO	ORKS CO	ONFIGURATION
•	TERMINAL ID	•	PRIMARY HOST PHONE #
٠	CASHWORKS ON/OFF	•	BACKUP HOST PHONE #
•	MAXIMUM AMOUNT		
	WESTERN	UNION	CONFIGURATION
•	WESTERN UNION ON/OFF	•	PRIMARY HOST PHONE #
•	TERMINAL ID	•	BACKUP HOST PHONE #
•	MULTIPLE AMOUNT	٠	800 CUSTOMER HELP #
•	ACCOUNT TYPES SAVINGS ON / OFF		



## INITIAL SETUP

ment Chart			
	TERMINAL (	CONFIGURATION	
	ATM CON	FIGURATION	
PRINTER SETTINGS     SET PRINT LENGTH PRI LOW RECEIPT PAPER ENV IN / OUT OF SERVICE	INTER GRAPHICS ABLE / DISABLE	DATE / TIME FU SET DATE FORMAT	UNCTIONS SET DATE / TIME SET DATE SET TIME
RANDOM/LEVEL PRIZE COU PRINTED COUPONS DISPE ENTER LEVEL PRIZE MSG, ENTER RANDOM PRIZE MSG ENABLE/DISABLE COUPONS SET LEVEL PRIZE AMOUNT SET RANDOM WINNING %	UPONS INSED COUPONS	<ul> <li>TRANSACTION TRANSFERS ON / O</li> <li>ACCOUNT TYPI SAVINGS ON / OFF</li> </ul>	TYPES IFF BALANCE INQ. ON / OFF ES CREDIT CARD ON / OFF
CHANGE MESSAGES     MARKETING MESSAGES     SURCHARGE MESSAGES     SURCHARGE MESSAGE     SURCHARGE OWNER	T MESSAGE DRE MESSAGE RMINAL OWNER		
•	SET TERMIN	VAL PARAMETERS	
SET TERMINAL #		KEY MANAGEMEN	
RESET SEQUENCE # SURCHARGE MODE SURCHARGE PERCENT	E F I	3NTER MAC MASTER KEY ENTER PIN MASTER KEY INJECT MASTER KEYS	ENTER MAC WORKING KEY DOWNLOAD WORKING KEYS
LESSER / GREATER CHANGE PERCENT AMOUNT ENABLE BLOCK ISOS DISABLE SURCHARGE LOCATION ENCHARGE LOCATION	, P E AMOUNT E F	TELEPHONE PRIMARY NUMBER BACKUP NUMBER PREDIAL ON / OFF	COMPUSERVE ID MODEM SETUP DIAL MODE MODEM SETUP STRING DIAL PATE PESET / TEST MODEM
CACCETTE CETIID		HODE	BAUD RATE
RELEARN BILL THICKNESS INT. CURRE	ENCY A F	MUKE ADJUST CONTRAST RECEIPT OPTION	AD SCREENS COMMUNICATION HEADER
MAAAMOONT (CASH) TAD. CAST	I I I I I I I I I I I I I I I I I I I		ALARM THRESHOLDS
MAX AMOUNT (NON-CASH) MORE CASSET'TE PARAMETERS	OW CURRENCY TENDED AMOUNTS	BACKUP# CALL BACK ON T BACKUP# TRITON CONNECT O ALARM NUMBERS	OFF ZIP CODE ON / OFF SPEECH ON / OFF SELECT FEATURE NUMBER
SELECT CASSETTE: A B C D	A	ATM MONITORING	
SET BILL DIMENSIONS CURRENCY DATA VALUE CASSETTE TYPE DESCRIPTION SERVICE		STATUS MONITORING (ENABLE / D HEARTBEAT MESSAGE (ENABLE /	NSABLE) / DISABLE / CHANGE DELAY PERIOD)
P	AYSPOT CON	FIGURATION	
• PAYSPOT ON/OFF	4	• PRIMARY HOST	"PHONE #
TERMINAL ID	4	BACKUP HOST	PHONE #
CONFIGURE SERVICES     PREPAID CELLULAR ON / OFF LO     LO	ING DISTANCE CAL	LING PLAN OFF FAST AMOUNTS	



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# SECTION 4 CURRENCY HANDLING

#### INTRODUCTION

The purpose of this section of the manual is to describe the procedures for:

Removing and replacing note cassettes.
 Loading cassettes.

(3) Removing and replacing the reject notes (as applicable).

Information concerning note handling and quality issues are explained where appropriate.

### **DISPENSING MECHANISMS**

The Model 9100 ATM uses either a TDM-100, TDM-150, or Mech 10 (MiniMech) dispensing mechanism. Currency capacity depends upon the dispenser mechanism installed in the ATM, but is also affected by note quality and thickness. Typical capacities are provided in the following table:

9100 MODEL FAMILIES				
DISPENSER CASSETTE		RECOMMENDED MAXIMUM CAPACITY		
TDM-100	Single Cassette	650 Notes		
TDM-150	Single Cassette	1300 Notes		
Mech 10 (MiniMech)	Single Cassette	750 Notes		

The dispensing mechanism delivers the appropriate number of notes from the note cassette to fulfill the customer's withdrawal request. The purpose of the reject area or cassette is to accept and hold notes that have been transferred from the note cassette but not dispensed. Some situations that could cause the mechanism to reject notes are: (1) multiple notes stuck together and (2) note width too short or long. Other conditions that could cause a reject are described in the next section, Note Condition.

#### LEARNING NOTES

**IMPORTANT!** The first time the dispense mechanism is used, the mechanism will enter a learning mode, during which it will reject some notes as it learns the average thickness of the currency. It is recommended that you remove the rejected notes from the unit before placing the ATM into service.

## **Note Condition**

If possible, store currency at room temperature for at least eight hours before dispensing from the cassettes.

The number of rejects can be directly influenced by the technique used to load the cassettes and the quality of the currency. Notes loaded into the cassettes must be in "fit" condition if a high level of performance (low reject and failure rate) is expected from the unit. "fit" notes do not possess any of the defects listed here:

#### **Used Note Defects**

- Adhesive or "sticky" substances on the surface of the paper.
- Tears extending more than 1/2" from the edge of the currency.
- Tears, holes, or missing sections in the body of the currency.
- Tape on the surface of the currency used for repairing, patching or any other purpose.
- Staples, pins, or any other foreign body attached to the notes.
- Corner folds of a size greater than 1/ 2" on either axis.



- Two or more notes joined by any means.
- Excessively crumpled or crinkled.

#### New or Uncirculated Note Defects

- All the conditions listed for used notes.
- Excessive bowing due to conditions of packing and storing.
- New or uncirculated currency must be "burst" and fully separated prior to loading into cassettes.

## **Preparing Notes**

Use the following procedures to prepare notes before inserting them into a note cassette.

#### **Preparing Used Notes**

- Remove the band around each bundle of notes.
- Remove foreign objects (e.g. pins, paper clips, crumbs, etc.).
- Remove torn or very worn notes.
- Straighten any folded notes.

# Preparing New or Uncirculated Notes

- Remove the band around each bundle of notes. Separate the notes from each other by:
- Striking the bundle hard against the edge of a table or similar object.
- Flipping through each bundle of notes in both directions at each end.
- Using a Note Counter.

### \*\*WARNING\*\* DO NOT RECYCLE REJECTED NOTES INTO A CASSETTE!

Doing so could cause more rejects and/or currency jams.



## **TDM-100/150 Dispensers**

# Removing the Currency Cassette

- 1. Ensure the terminal is not in use before removing the note cassette! Removing the note cassette while the machine is in operation (processing customer transactions, performing close operations, etc.) can cause the terminal to enter an "Out of Service" condition!
- Open the outer fascia panel to gain access to the security container door, using the key lock on the front of the panel. Open the mechanical or electronic lock on the security container door and open the door to gain access to the dispensing mechanism.
- 3. The TDM-150 employs a slide rail mounting system. Two levers are used to release the slide rail lock allowing the slide to be pulled out. Lift up on the locking levers of the dispenser slide tray and carefully pull the tray to its fully extended position as shown in Figures 4-1 and 4-2.



Figure 4-1. Lift up on slide tray locking levers.



Figure 4-2. Slide dispenser out to fully extended position.

The TDM-100 uses a fixed-tray mounting system. In this case the dispensing mechanism mounting tray does not slide out of the cabinet. You will simply rotate the mechanism to the service position (as described in the next step) in order to access the currency and reject cassettes.

4. To gain access to the cassettes, rotate the mechanism mounting platform to the service position. To do this, locate the spring-loaded locking pin on the underside of the slide tray. This pin lets you lock the dispenser's swivel mounting platform into half-turn access positions. (Figure 4-3)



*Figure 4-3. Pull release pin for swivel platform.* 



- 5. Pull the pin down to release the swivel mounting platform. Slowly turn the tray so that the note and reject cassettes can be accessed from the side. Release the locking pin and move the mounting platform back and forth slightly to ensure the pin snaps back into place, locking the mounting platform into the service position. (Figures 4-4 and 4-5)
- 6. To remove the note cassette, grasp the cassette handle and pull in a firm but controlled manner to release the cassette from the snap catches. Try to use only the minimum amount of force to release the cassette! The cassette will only move a few inches! Once released from the snaps you can slide the cassette out of the mechanism. Place the cassette on a level, flat surface for servicing. (Figures 4-6a and 4-6b)



Figure 4-4. Rotate mechanism to service position (clockwise).



Figure 4-5. Mechanism in service position.



Figure 4-6a. Removing note cassette. (TDM-100)



Figure 4-6b. Removing note cassette. (TDM-150)



## Loading the Currency Cassette

 Unlock the cassette and open the cassette lid using the supplied key. Move the pusher plate to the rear of the cassette (toward the handle). (Figures 4-7 and 4-8)

**Note:** The pusher plate action will depend on the type of cassette in use. Some cassettes require you to maintain pressure on the pusher plate as needed while loading notes. Other cassettes use a locking mechanism to hold the packer plate in the loading position. On these cassettes, pull the pusher-plate all the way back to the handle end of the cassette and turn the key to latch the pusher plate into the loading position.

2. **IMPORTANT:** The shape of some notes may be affected by conditions of storage or bundling, preventing them from forming neat, even piles. If not corrected, such conditions may cause notes to be rejected by the dispensing mechanism.

> To compensate for the most common conditions of slanting or cupped note piles, follow the directions given next.

> Notes with no apparent shape problems are referred to as "common" notes.

#### • Slanting Pile

To avoid dispensing problems caused by a "slanting" pile, put the notes in neat bundles of no more than  $\frac{1}{2}$  to  $\frac{3}{4}$  inches in thickness (100-200 notes). Turn every other bundle around to minimize slanting of the pile (bundle should have the same height on both sides, if possible).



*Figure 4-7. Unlock and open note cassette.* 



Figure 4-8. Pull the packer plate back. Some cassettes allow the pusher-plate to be latched in position using the key-lock.



#### • Cupped bundle

To avoid dispensing problems caused by cupped bundles, turn all the bundles with the cupped side towards the dispense opening of the note cassette (opposite end from the handle). (Figure 4-9)

## • Mixed (Slanting and Cupped) bundles

Separate the mixed currency into neat bundles of 100-200 notes of each type. Place the cupped bundles nearest the dispense opening of the cassette, with the cupped side facing the opening. Turn every other slanted bundle around to give the bundles the same height on both sides and place after the cupped bundles. (Figure 4-10)

#### • Old and New Notes

Always place the bundles containing old notes into the cassette first (nearest the handle) and bundles containing new notes last (nearest the dispense opening). (Figure 4-11)

• Common notes

Simply place the prepared bundles in the cassette.

- Make sure the note pile is as even as possible. If necessary, use your hands to smooth and level the pile.
- 4. On cassettes that do not use a pusherplate locking mechanism, release the pusher plate against the notes. If the cassette uses pusher-plate locking, turn the key to release the catch, allowing the pusher plate to compress the notes. (Figure 4-12)



Figure 4-9. Turn cupped sides toward dispense opening.



Figure 4-10. Alternate slanted bundles.





Figure 4-11. Place old notes together.



Figure 4-12. Load notes.



 Close and lock the cassette. Remove the key. Slide the cassette back into its compartment in the dispensing mechanism. Make sure the cassette is fully inserted! You will feel the cassette latch securely into the snap catches.

## **Removing the Reject Cassette**

The reject tray is located just above the currency cassette in the dispensing mechanism. Follow these steps to remove the reject tray:

 Slide the reject tray out of its compartment in the dispensing mechanism. Place the tray on a flat surface. (Figure 4-13)



Figure 4-13. Remove reject cassette.

 Unlock the tray using the supplied key. Flip the top back to gain access to the reject compartment. (Figure 4-14)



Figure 4-14. Unlock and open reject cassette.

- 3. Remove any notes in the reject compartment.
- 4. Close and lock the reject tray. Remove the key. Slide the cassette back into its compartment in the

dispensing mechanism. Make sure the reject cassette is fully inserted! You will feel the cassette snap securely into the catches.

You may wish to record the denomination and number of notes removed from the reject tray for use when balancing the note tray against the cassette/day close records.

#### **Rotate Dispenser Mechanism**

- After reinstalling the currency and reject cassettes, pull down on the swivel platform locking pin to allow the swivel platform to turn. (Figure 4-15)
- 2. Rotate the mechanism back to the operating position. (Figure 4-16)
- 3. Close and lock the security cabinet.



Figure 4-15. Rotate mechanism to operate position (counterclockwise).



*Figure 4-16. Mechanism in operating position.* 





## Mech 10 (MiniMech) Dispenser

## **Removing the Note Tray**

- Open the outer fascia panel of the security container, using the key lock on the front of the panel. Open the combination lock on the security container door and open the door to gain access to the dispensing mechanism.
- 2. To remove the note tray, grasp the tray handle and slide the tray out of the mechanism. (Figure 4-17) Place note tray on a flat level surface.



Figure 4-17. Removing note tray from the dispensing mechanism.

Remove any rejected notes. The reject compartment is located nearest the handle side of the tray. (Figure 4-18)



Figure 4-18. Removing rejected notes.

#### \*\*WARNING\*\* DONOT RECYCLE REJECTED NOTES INTO A CASSETTE!

Doing so could cause more rejects and/or currency jams.

Record the denomination and number of notes removed from the reject cassette for use when balancing the cassette against the Cassette Close records. See Section 5, Close Functions, for details on the Cassette Close procedure.

## Loading the Note Tray

1. Move the pusher plate to the rear of the tray (toward the handle). Ensure the pusher plate is fully back. Maintain pressure on the pusher plate as needed while loading notes (Figure 4-19).



Figure 4-19. Loading note tray with currency.

 IMPORTANT: The shape of some notes may be affected by conditions of storage or bundling, preventing them from forming neat, even piles. If not corrected, such conditions may cause notes to be rejected by the dispensing mechanism.



To compensate for the most common conditions of slanting or cupped note piles, follow the directions below. (Notes with no apparent shape problems are referred to as "common" notes)

#### • Slanting pile

To avoid dispensing problems caused by a "slanting" pile, put the notes in neat bundles of no more than  $\frac{1}{2}$  to  $\frac{3}{4}$  inches in thickness. Turn every other bundle around to minimize slanting of the pile (bundles should have the same height on both sides, if possible). (Figure 4-20)



Figure 4-20. Alternate slanted bundles.

#### • Cupped bundle

To avoid dispensing problems caused by cupped bundles, turn all the bundles with the cupped side towards the dispense opening of the note tray (opposite end from the handle). (Figure 4-21)



Figure 4-21. Turn cupped sides toward dispense opening.

#### Mixed (Slanting and Cupped) bundles

Separate the mixed currency into neat bundles of 100-200 notes of each type. Place the cupped bundles nearest the dispense opening of the tray, with the cupped side facing the opening. Turn every other slanted bundle around to give the bundles the same height on both sides and place after the cupped bundles.

#### • Old and New Notes

Always place the bundles containing old notes into the cassette first (nearest the handle) and bundles containing new notes last (nearest the dispense opening).

#### • Common notes

Place the prepared bundles in the cassette.

3. Make sure the note pile is as even as possible. If necessary, use your hands to smooth and level the pile (Figure 4-22)



Figure 4-22. Level the note pile.

4. Release the pusher plate against the notes. When loading the note tray to full capacity, make sure that the pusher plate has a leeway of approximately 1/4-inch (5 mm) between the wall plate and the pusher plate (Figure 4-23).





Figure 4-23. Release packer plate.

 Using the handle, slide the note tray into the dispensing mechanism. Make sure the note tray is fully inserted! (Figure 4-24)



Figure 4-24. Slide note tray into dispenser mechanism.

- 6. Close the vault door. (**Note**: Some cabinet doors require that you lift up on the door release lever to raise the lock bar before closing the cabinet door). Lock the vault. Close and lock the fascia panel.
- 7. Open the Control panel and turn the power switch to the ON (I) position.



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# SECTION 5 MANAGEMENT FUNCTIONS

## INTRODUCTION

This section describes the Management Functions available with the **ADMINIS-TRATIVE** password for accessing the ATM. When the Customer Welcome screen is displayed, you can access the Management Functions menu by following the procedure described next.

## Accessing the Management Functions Menu

- Press and hold down the <CTRL> key; while holding down the <CTRL> key, press the <1> key. Release both keys. After a moment the top menu will be displayed.
- 2. At the top menu (see Figure 5-1below), select MANAGEMENT FUNCTIONS by pressing the key next to Management Functions option.



Figure 5-1. Top menu.

3. Enter the User (Administrative) password at the password entry display (see Figure 5-2 below).



Fig. 5-2. Password entry screen.



To access Management Functions, enter an appropriate password in the dialog box that appears when the Management Functions option is selected. The password can consist of up to 12 digits. Press the **Enter** button to accept the entry or **Cancel** to exit. When a valid password is entered, the Main menu screen will be displayed. (Figure 5-3)

#### **DEFAULT PASSWORDS**

The default Master password is "123456" and the default Administrative password is "987654". To enter Management Functions as the Administrative user, enter "987654" and press ENTER (OK).

If you use the same password for both the MASTER and ADMINISTRATION functions, the ATM defaults to the ADMINISTRATION functions, the lowest level options. The passwords can only be changed when the MASTER password is entered in the Management Functions, so never use the identical password for both MASTER and ADMINISTRATION.

## **Function Availability**

Once you have entered the Main menu, you may perform any of the functions allowed by the *type* of password used (access level).

Each **Main Menu** option description will include the function name, instructions for accessing the function, a description of the function, and any associated factory default values.

The Main menu screen allows the service provider/terminal operator to access the following Management Functions: (Administrative)

- 1. **Close Functions**. Used to perform Cassette Close, Day Close, Trial Close, Send Terminal Totals, and Schedule Close functions.
- 2. **Diagnostics**. Used to perform terminal hardware testing, and to view test results.
- 3. **Electronic Journal**. Used to manage the ATM's journal functions, such as display/print and clearing actions.



Figure 5-3. Main menu screen.



## **CLOSE FUNCTIONS**

#### Introduction

Cassette and Day Close reports provide important information about the transactions being performed by your ATM. This information helps you manage the ATM more effectively.

The ATM's close functions are accessed through the Management Function's *Close Functions* menu.

### Cassette Close

The **Cassette Close** report shows current cassette activity, including total notes dispensed and remaining and the total value of those notes, since the previous Cassette Close was performed. This report can help you judge the volume of with-drawal activity and plan cassette replenishment activities accordingly.

#### **IMPORTANT**

- Perform a Cassette Close *before* replenishing the currency in the cassette. Cassette "A" will be the only available option (single cassette dispensers).
- Performing a Cassette Close will reset the cassette activity totals to zero (0). The **Enter Qty in Cassette** value is also reset to zero.
- After performing a Cassette Close and replenishing the cash in the cassette, enter the total number of bills loaded in the cassette using the *Enter Qty in Cassette* function.

It is very important that you always enter this value after performing a Cassette Close! The ATM uses this starting number to calculate the quantity and (monetary) amount of notes remaining in the cassette after each withdrawal. Failure to enter the cassette quantity will result in negative-numbered totals being listed in the Cassette Close report!

• After you enter the cassette quantity, perform a **Trial Cassette Close.** This printout verifies the total number of bills that you entered. The cassette totals will not be cleared. This is a record of the beginning cassette balance.



## Day Close

The **Day Close** report shows the cumulative value of all transactions (withdrawals, transfers and balance inquiries) performed by the ATM since the previous Day Close. The report also shows the corresponding host totals, allowing you to compare the ATM totals against the host processor records.

#### **IMPORTANT**

- Perform a Day Close once each business day. Because the host processor also performs a business-day close for the ATM, you should perform the Day Close at the same time each day, at the time specified by your host processor. This will help ensure the Day Close report reflects the host's current business- day totals for your ATM.
- To help ensure Day Closes are performed at the same time each day you can use the **Schedule Close** function, which automatically performs a Day Close each day, at a time specified by the **Change Schedule** function.
- The Day Close report shows totals accumulated by the host processor during the business day, as stated earlier. In some cases, the host processor can make use of the totals recorded by the ATM. In these cases, you can provide ATM totals to the host processor during the Day Close, using the **Send Terminal Totals** function.



#### **CLOSE FUNCTIONS**

#### FACTORY DEFAULT: N/A

#### ACCESS INSTRUCTIONS:

1. From the MAIN MENU screen, select the CLOSE option.

#### **DESCRIPTION:**

The **SELECT CLOSE Function** menu allows the terminal operator to perform the following functions:

- 1. Schedule Close. Used to enable/ disable and schedule automatic Day Closes.
- 2. **Trial Close**. Used to initiate a Trial Day Close.
- 3. **Day Close**. Used to initiate a Day Close.

MANAGEMENT FUNCTIONS		
CLOSE	CASSETTE SERVICE	
DIAGNOSTICS	TERMINAL CONFIGURATION	
JOURNAL	EXIT	

SELECT CLOS	SELECT CLOSE FUNCTION				
SCHEDULE SEND TERMINAL CLOSE TOTALS					
TRIAL CLOSE	TRIAL CASSETTE CLOSE (ALL)				
DAY CLOSE	CASSETTE CLOSE				
	EXIT				

- 4. **Send Terminal Totals (ON/OFF)**. Use to enable/disable automatic transmission of terminal close totals to your transaction processing service provider.
- 5. **Trial Cassette Close (All).** Used to provide a receipt/record of the cassette(s) balance. (**Note**: Function not available. For multi-cassette dispensers only)
- 6. **Cassette Close**. Used to access a menu of cassette close and replenishment functions.

#### **Error Conditions:**

There are no error conditions directly associated with this function.



#### SCHEDULE CLOSE

#### FACTORY DEFAULT: OFF

#### Access Instructions:

- 1. From the MAIN MENU screen, select the CLOSE option.
- 2. Select SCHEDULE CLOSE.
- 3. The current state of this feature is shown as either ON or OFF. Pressing this option toggles the state of the feature between the two.
- 4. If this function in turned ON, be sure to set a scheduled close time using the CHANGE SCHED-ULE function.

SELECT CLOSE FUNCTION				
SCHEDULE CLOSE	SEND TERMINAL TOTALS			
TRIAL CLOSE	TRIAL CASSETTE CLOSE (ALL)			
DAY CLOSE	CASSETTE CLOSE			
	EXIT			
SCHEDU				

#### **DESCRIPTION:**

This function allows you to turn **ON or OFF** the **SCHEDULE CLOSE** feature. It also provides access to the **CHANGE SCHEDULE** function, which allows you to specify the time of day when a Close process will be automatically initiated (if the Schedule Close feature is turned On). When the feature is turned Off, the close procedure must be initiated manually.

NOTE: The close information will be written to the Electronic Journal, allowing it to be printed out or retrieved by a remote computer equipped with Triton Connect software.

#### **Error Conditions:**

There are no error conditions directly associated with this function.



#### TRIAL CLOSE

#### FACTORY DEFAULT: N/A

#### ACCESS INSTRUCTIONS:

- 1. From the MAIN MENU screen, select the CLOSE option.
- 2. Select TRIAL CLOSE.

#### **DESCRIPTION:**

The **TRIAL CLOSE** function is used during the daily close procedure. It does the same thing as Day Close, except the totals are not cleared.

Typically, you would do a Trial Close to get the totals from the ATM. The report printed by the Trial Close is used to balance your ATM before you actually balance with your host processor.

The information reported by the Trial Close is the same as that provided by the Day Close. See the description of the Day Close report for more information.

A call to the processor host computer is required to complete the Trial Close operation. If the call to the host is not completed successfully, a warning (\*\*\*HOST TOTALS NOT RE-CEIVED\*\*\*) will be printed on the report.



Sample TRIAL DAY CLOSE receipt.



#### DAY CLOSE

#### FACTORY DEFAULT: N/A

#### **ACCESS INSTRUCTIONS:**

- 1. From the MAIN MENU screen, select the CLOSE option.
- 2 Select DAY CLOSE.

#### **DESCRIPTION:**

The DAY CLOSE function is used to complete daily balancing of the ATM with the processor. The Day Close is performed to clear the totals and switch to the next business day. This function prints a report summarizing all of the activity done by the ATM since the last Day Close was completed. The information includes a total of all transactions.

During the Day Close operation, the ATM contacts the host processor and downloads the totals it has accumulated for the transactions performed on the current business day.

The Day Close is normally completed as the final step in the daily balancing process. The report is printed to the receipt printer.

SELECT CLOSE FUNCTION				
CLOSE	E	SE	ND TERMINAL TOTALS	
TRIAL CLC	DSE	TR	IAL CASSETTE Lose (All)	
DAY CLOS	e )	CA	SSETTE CLOSE	
EXIT				
** THIS IS LINE ** THIS IS LINE	1 OF THE 2 OF THE	STC	DRE MESSAGE * DRE MESSAGE *	
** THIS IS LINE 3 OF THE STORE MESSAGE * ** THIS IS LINE 4 OF THE STORE MESSAGE *				
Term#00000000	0000000			
Date: Time: 03/11/01 10:04:45 AM				
ſ	DAY C	LO	SE	
	HOST		TERMINAL	
Withdrawals	1	100	100	
Transfers		0	0	
SETTLEMENT \$ 1000.00 1000.00				

The report shows the total number of customer transactions (Withdrawals, Inquiries and Transfers) recorded by the host processor and the terminal since the last Day Close was performed. The two-column format allows the host and terminal totals in each category to be easily compared. The 'Settlement \$' value is the host processor's record of the total currency dispensed from the terminal since the last Day Close was performed.

Ideally, the Settlement amounts for the host processor and the terminal should match. If they do not, contact your host processor for assistance in resolving the discrepancy. You may find it helpful to have a printout of the most current journal for reference in resolving any problems. See the Electronic Journal options for printing the journal.

#### IMPORTANT: If the DAY CLOSE is not performed at the same time as the processors' day close, the host and terminal totals may not match.

A call to the processor host computer is required to complete the operation. If the call to the host is not completed successfully, a warning (\*\*\*HOST TOTALS NOT RECEIVED\*\*\*) will be printed on the report.



#### SEND TERMINAL TOTALS

#### FACTORY DEFAULT: N/A

#### ACCESS INSTRUCTIONS:

- 1. From the MAIN MENU screen, select the CLOSE option.
- 2. Select SEND TERMINAL TO-TALS.
- 3. The current state of this feature is shown as either ON or OFF. Pressing this option toggles the state of the feature between the two.

#### **DESCRIPTION:**

The SEND TERMINAL TOTALS function allows you to turn ON or OFF the RE-PORT TERMINAL TOTALS feature. When the feature is turned On, the terminal will send accumulated totals information to the processor during the Day Close operation. Terminal totals include the total value of all withdrawal, inquiry and transfer transactions that have occurred since the last Day Close operation (see the description of the Day Close function on page 57 for additional information).





#### CASSETTES CLOSE FUNCTIONS

#### FACTORY DEFAULT: N/A

#### ACCESS INSTRUCTIONS:

- 1. From the MAIN MENU screen, select the CLOSE option.
- 2. Select CASSETTE CLOSE.
- 3. Select Cassette "A".

#### **DESCRIPTION:**

The CASSETTE CLOSE option is used to perform cassette-specific close operations. When the Cassette Close option is selected, a cassette selection screen "SELECT CAS-SETTE" is presented which allows the operator to select the specific cassette which will be the focus of the close operations. If Cassette "A" is visible and the rest are "grayed out", only that option is available due to the specific dispensing mechanism installed (Single-cassette) The cassette selection screen is followed by the cassette close options screen. The Cassette Close option screen provides access to the following functions:







- 1. **TRIAL CASSETTE CLOSE.** Prints a receipt summarizing activity on the selected cassette since the last Cassette Close was performed (Totals are not cleared or reported to the host).
- 2. CASSETTE CLOSE. This function is used to complete the balancing of the specified cassette. Prints a report summarizing all activity for the selected cassette since the last Cassette Close was accomplished. Completing a Cassette Close clears the cassette totals from the dispenser. It also resets the number of bills in the cassette to Zero (0). After performing a Cassette Close, use the "Enter Qty. in Cassette" function to enter the number of bills in the cassette.
- 3. **SELECT CASSETTE.** This option provides a convenient way to switch between cassettes when performing cassette-specific close operations. If any cassettes are "grayed-out", those options are not available due to specific dispensing mechanism installed.
- 4. **ENTER QTY. IN CASSETTE.** This allows entry of the number of documents in the cassette. This number is used as a starting point for the cassette close report. Enter the **Total** number of bills/documents in the cassette, **NOT** the value of those documents.



#### TRIAL CASSETTE CLOSE

#### FACTORY DEFAULT: N/A

#### ACCESS INSTRUCTIONS:

- 1. From the MAIN MENU screen, select the CLOSE option.
- 2. Select CASSETTE CLOSE.
- 3. Select CASSETTE "A".
- 4. Select TRIAL CASSETTE CLOSE.

#### **DESCRIPTION:**

The **TRIAL CASSETTE CLOSE** function prints a receipt summarizing activity on the cassette since the last Cassette Close was performed. The accumulated transaction totals are not cleared (set to zero) and the processor host system is not contacted. The following information is provided:

1. **Start.** Includes the starting quantity of notes in the cassette, and the total value of this quantity.

CASSETTE:A					
TRIAL CASS CLOSE CASSETTE C	ETTE	SELECT CASSETTE ENTER QTY. IN CASSETTE EXIT			
** THIS IS LINE ** THIS IS LINE ** THIS IS LINE ** THIS IS LINE	1 OF THE 2 OF THE 3 OF THE 4 OF THE	E STORE MESSAGE * E STORE MESSAGE * E STORE MESSAGE * E STORE MESSAGE *			
Term# 000000000000000					
Date: 03/11/01	Time: 10:04:4	5 AM			
TRIAL CASSETTE CLOSE					
	QTY	AMT			
START DISPENSED	500 100	5000 1000			
REMAINING	400	4000			
VALUE OF EAC	\$10.00				
TRANSACTION REJECTS:	IS:	100 0			

- 2. **Dispensed**. Shows the number of notes that have been dispensed and the value of this quantity of notes.
- 3. **Remaining.** Shows the number of notes remaining in the cassette, and the total value of these notes.
- 4. Value of each Doc. The denomination of the notes in the cassette.
- 5. **Transaction.** The number of withdrawal transactions that have occurred since the last cassette close.
- 6. **Rejects.** The number of reject events. Rejects can involve more than a single note per event.



#### CASSETTE CLOSE

#### FACTORY DEFAULT: N/A

#### ACCESS INSTRUCTIONS:

- 1. From the MAIN MENU screen, select the CLOSE option.
- 2. Select CASSETTE CLOSE.
- 3. Select CASSETTE "A".
- 4. Select CASSETTE CLOSE.

#### **Description:**

The CASSETTE CLOSE function is used to complete the balancing of the currency cassette in the dispenser. It prints a report summarizing all activity for the cassette since the last Cassette Close was accomplished. The following information is provided:

- 1. **START**. Includes the starting quantity of notes in the cassette, and the total value of this quantity.
- 2. **DISPENSED.** Shows the number of notes that have been dispensed and the value of this quantity of notes.

CASSETTE: A					
TRIAL CASSE CLOSE CASSETTE CI	ETTE (	SELE CASSE ENTER QI CASSE	CT TTE Y. IN TTE		
	l	EX1			
** THIS IS LINE 1 OF THE STORE MESSAGE * ** THIS IS LINE 2 OF THE STORE MESSAGE * ** THIS IS LINE 3 OF THE STORE MESSAGE * ** THIS IS LINE 4 OF THE STORE MESSAGE * Term#00000000000000					
Date: 03/11/01	Time: 10:04:4	5 AM			
CASSETTE CLOSE					
START DISPENSED REMAINING	QTY 500 100 400	AMT 5000 1000 4000			
VALUE OF EACH DOC. \$10.00					
TRANSACTION REJECTS:	NS:	100 0			

- 3. **REMAINING.** Shows the number of notes remaining in the cassette, and the total value of these notes.
- 4. VALUE OF EACH DOC. The denomination of the notes in the cassette.
- 5. **TRANSACTIONS.** The number of withdrawal transactions that have occurred since the last cassette close.
- 6. **REJECTS.** The number of reject events. Note: Reject events can involve more than a single note.

If rejected notes are found during cassette replenishment, the quantity and monetary amount of these notes must be subtracted from the <u>Dispensed and Amt</u> values and the <u>Remaining Qty and Amt</u> must then be recalculated in order to properly record the cassette's ending balance.

**IMPORTANT:** The Cassette Close operation resets the number of bills loaded in the cassette to zero (0). After performing a Cassette Close, use the **ENTER QTY IN CASSETTE** function to enter the number of bills in the cassette.



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#### ENTER QTY IN CASSETTE

#### FACTORY DEFAULT: N/A

#### **ACCESS INSTRUCTIONS:**

- 1. From the MAIN MENU screen, select the CLOSE option.
- 2. Select CASSETTE CLOSE.
- 3. Select CASSETTE "A".
- 4. Select ENTER QTY IN CAS-SETTE.

ENTER THE NUMBER OF BILLS THAT ARE IN THE CASSETTE NOW (NOT THE VALUE)	
AND THEN PRESS "ENTER"	

#### **DESCRIPTION:**

The ENTER QTY IN CASSETTE function allows entry of the number of notes in the cassette. This number is used as a starting point for the Cassette Close report.

## Important: Enter the total number of notes in the cassette, NOT the value of those notes!

Perform a Trial Cassette Close as the last step to verify the number entered is correct.


# DIAGNOSTICS

## Introduction

Diagnostics provide important information about the status of the ATM. It maintains an "historical" record of the operating system and associated hardware to determine system errors that have occurred.

The Diagnostics function also performs self-tests on the major components to help determine and isolate any malfunctions or errors.

# **Terminal Diagnostics**

Displays status reports and/or tests:

- A. Dispenser (Status, Purge, Test Dispense)
- B. Graphics (Format Graphic Memory)
- C. Printer (Test Receipt Printer)
- D. Operating Software (Versions)
- E. More Diagnostics (Reset/Test Modem, Print/Clear Dispenser Report, Scan Card)



#### DIAGNOSTICS

#### FACTORY DEFAULT: N/A

#### ACCESS INSTRUCTIONS:

1. From the MAIN MENU screen, select the DIAGNOSTICS option.

#### **DESCRIPTION:**

The **D**IAGNOSTICS menu allows the terminal operator to perform the following functions:

- 1. **Status**. Used to determine the operational status of the dispensing mechanism.
- 2. **Purge**. Performs a purge cycle of the dispensing mechanism.
- 3. **Test Dispense**. Performs a test dispense of the dispensing mechanism by sending a note to the reject cassette.

MANAGEMENT FUNCTIONS		
CLOSE	CASSETTE SERVICE	
DIAGNOSTICS	TERMINAL CONFIGURATION	
JOURNAL	EXIT	

DIAGNOSTICS		
STATUS TEST RECEIPT PRINTER		
PURGE	VERSION #'S	
TEST DISPENSE MORE DIAGNOSTICS		
FORMAT GRAPHIC MEMORY EXIT		

- 4. FORMAT GRAPHIC MEMORY. Erases the memory used to store AD graphics.
- 5. TEST RECEIPT PRINTER. Tests the operation of the receipt printer.
- 6. **VERSION #'s.** Displays a screen that provides version numbers for the various components of the terminal operating software.
- 7. **MORE DIAGNOSTICS.** Accesses additional diagnostics functions (modem, card reader, dispenser reports).



### STATUS

#### FACTORY DEFAULT: N/A

#### ACCESS INSTRUCTIONS:

- 1. From the MAIN MENU screen, select the DIAGNOSTICS option.
- 2. Select STATUS option.

#### **DESCRIPTION:**

The **S**TATUS feature presents the status checks on the primary functional areas of the dispensing mechanism. These areas are the current status of the Count sensors, Double Detect sensors, average note thickness, and average length of notes. The Return Code received as a result of initializing status testing may provide indications of error conditions in the dispensing mechanism.

DIAGNOSTICS		
STATUS TEST RECEIPT PRINTER		
PURGE	VERSION #'S	
TEST DISPENSE	MORE DIAGNOSTICS	
FORMAT GRAPHIC MEMORY	EXIT	

RETURN CODE: 40 40 20 20

PRESS CANCEL TO CONTINUE



## MODEL 9100 USER / INSTALLATION MANUAL

#### PURGE

FACTORY DEFAULT: N/A

ACCESS INSTRUCTIONS:

- 1. From the MAIN MENU screen, select the DIAGNOSTICS option.
- 2. Select PURGE option.

#### **DESCRIPTION:**

When the **PURGE** option is selected, a purge command is sent to the dispenser, instructing it to exercise its note transport system. No notes will be dispensed from the cassettes, but this action should remove any notes that may be present in the transport path of the dispensing mechanism.

DIAGNOSTICS		
STATUS TEST RECEIPT PRINTER		
PURGE	VERSION #'S	
TEST DISPENSE MORE DIAGNOSTICS		
FORMAT GRAPHIC EXIT		



The Return Code for a successful Purge is '20 20 20'. If any code other than '20 20 20' is displayed, contact your service provider for assistance. Press the <u>Cancel</u> key to return to the Diagnostics main menu.

#### **Error Conditions:**

The Return Code received as a result of initiating a Purge command may indicate an error condition in the dispensing mechanism.



## Test Dispense

#### FACTORY DEFAULT: N/A

#### ACCESS INSTRUCTIONS:

- 1. From the MAIN MENU screen, select the DIAGNOSTICS option.
- 2. Select TEST DISPENSE option.

#### **Description:**

The **TEST DISPENSE** command instructs the dispensing mechanism to dispense a single note from the note cassette to the reject cassette. This test exercises the dispenser without sending notes to the exit.

DIAGNOSTICS		
STATUS TEST RECEIPT PRINTER		
PURGE	VERSION #'S	
TEST DISPENSE	MORE DIAGNOSTICS	
FORMAT GRAPHIC MEMORY EXIT		

RETURN CODE: 202021 PRESS CANCEL TO CONTINUE

The Return Code for a successful Test Dispense is '20 20 21'. If any code other than '20 20 21' is displayed, contact your service provider for assistance. Press the <u>Cancel</u> key to return to the Diagnostics main menu.

#### **Error Conditions:**

The Return Code received as a result of initiating a Test Dispense command may indicate an error condition in the dispensing mechanism.



#### FORMAT GRAPHIC MEMORY

#### FACTORY DEFAULT: N/A

#### ACCESS INSTRUCTIONS:

- 1. From the MAIN MENU screen, select the DIAGNOSTICS option.
- 2. Select FORMAT GRAPHIC MEMORY.

#### **DESCRIPTION:**

**GRAPHICS MEMORY** must be formatted so that it is ready to accept downloaded files from a Triton Connect host computer. Graphics Memory is factory format Graphics Memory, the format operation can be accomplished from either the local terminal or through commands downloaded from a Triton Connect host computer.

To format Graphics Memory, select <u>Yes</u> at the continuation screen. When the <u>"Format Completed"</u> message appears (see the example figure to the right), press any key to return to the diagnostics main menu.

DIAGNOSTICS		
STATUS TEST RECEIPT PRINTER		
PURGE	VERSION #'S	
TEST DISPENSE	MORE DIAGNOSTICS	
FORMAT GRAPHIC MEMORY	EXIT	



#### \*\*CAUTION\*\*

Formatting Graphics Memory will erase all files currently stored in it. Do not format Graphics Memory unless you have the capability to download files to the terminal.



## TEST RECEIPT PRINTER

#### FACTORY DEFAULT: N/A

#### ACCESS INSTRUCTIONS:

- 1. From the MAIN MENU screen, select the DIAGNOSTICS option.
- 2. Select TEST RECEIPT PRINTER.

#### **DESCRIPTION:**

The **TEST RECEIPT PRINTER** command will print two lines of text on the receipt printer and then advance and cut the paper. The text should be 42 characters wide. The remainder of the information on the printed receipt is terminal configuration data. If the printer test fails to

DIAGNOSTICS	
STATUS TEST RECEIPT PRINTER	
PURGE	VERSION #'S
TEST DISPENSE	MORE DIAGNOSTICS
FORMAT GRAPHIC MEMORY	EXIT
RETURN CODE:	0
PRESS CANCEL	TO CONTINUE

print two lines of 42 characters, fails to advance the paper, or fails to cut the paper, contact your service provider for assistance. A return code of '0' indicates a successful printer test. Press the <u>Cancel</u> key to return to the Diagnostics main menu.

12345678901234567890123456789012 12345678901234567890123456789012		
Date: Time: 03/11/01 10:05:51 AM		
Mode: Demo		
Term# 000000000000000000000000000000000000		
Eprom Version:	SD02.02B60	05/24/99
Program Version: SA-DEMO.14 10/19/99		
Table Version: ST-9700.14 10/12/99		
SPED version: SP-01.00		
MACing is Disabled Printed date format: MMDDYY Language is ENGLISH		
Quad serial board is installed EPROM does support quad serial board LED sign is not installed		
Mkey index: 0 PIN Master Key Check Digits: E72B0A		

Primary Phone Number: 5555555 Secondary Phone Number: Compuserve Routing ID: Touch Tone, 1200 Baud, Dial Rate: 7 data bits, even parity	70
Surcharging is disabled	
Surcharge Owner: Surcharge Amount:	1.00 % 0
Bill Size: Maximum Withdrawal Amount: Cassette Low Checking is disabled	10.00 500.00
Fast Cash Amounts:	
	10.00
	20.00
	30.00
	40.00
	50.00
Prize Coupon printing is disabled	
Level prize amount: 50.00 Random prize %: 100	
Minimum lines per receipt: 35	

#### **Error Conditions:**

If any code other than "0" is displayed contact your service provider for assistance.



## **VERSION** #'S

#### FACTORY DEFAULT: N/A

**ACCESS INSTRUCTIONS:** 

- 1. From the MAIN MENU screen, select the DIAGNOSTICS option.
- 2. Select VERSION #'s.

#### **DESCRIPTION:**

This function displays the version information for the terminal software that is running in the ATM. Normally you do not need to access this function unless you are asked to by service personnel.

DIAGNOSTICS		
STATUS TEST RECEIPT PRINTER		
PURGE	VERSION #'S	
TEST DISPENSE	MORE DIAGNOSTICS	
FORMAT GRAPHIC MEMORY	EXIT	

PRESS	ANY KEY TO	CONTINUE
	Version	Date
EPROM PROGRAM TABLE		



#### MORE DIAGNOSTICS

#### FACTORY DEFAULT: N/A

#### ACCESS INSTRUCTIONS:

- 1. From the MAIN MENU screen, select the DIAGNOSTICS option.
- 2. Select MORE DIAGNOSTICS.

#### **Description:**

The **MORE DIAGNOSTICS** menu allows the terminal operator to perform the following functions:

 Inject New Cassette ID. Enables user to change the identification code of a cassette. (Note: Function not available. For multi-cassette dispensers only).

DIAGNOSTICS	
STATUS TEST RECEIPT PRINTER	
PURGE	VERSION #'S
TEST DISPENSE	MORE DIAGNOSTICS
FORMAT GRAPHIC MEMORY	EXIT

DIAGNOSTICS			
INJECT NEW CASSETTE ID	PRINT DISPENSER STATUS		
RESET/TEST MODEM	CLEAR DISPENSER STATUS		
MODEM SPEAKER OFF	SCAN CARD		
FORCE UNLOCK	PREVIOUS		

- 2. Reset/Test Modem. Performs a function test of the modem hardware.
- 3. MODEM SPEAKER ON/OFF. Allows speaker sound on or off. (Note: Function not available)
- 4. **FORCE UNLOCK.** Allows you to override the normal cassette unlocking mechanism. (**Note:** Function not available. For multi-cassette dispensers only)
- 5. **PRINT DISPENSER STATUS.** This function prints the "TDM Status" report. (Note: Available only when a TDM dispensing mechanism is installed)
- 6. **CLEAR DISPENSER STATUS.** Used to clear the "TDM status" report. (**Note:** Available only when a TDM dispensing mechanism is installed)
- 7. SCAN CARD. Enables testing an ATM or credit card for proper operation in the terminal card reader.



## **Reset / Test Modem**

#### FACTORY DEFAULT: N/A

#### ACCESS INSTRUCTIONS:

- 1. From the MAIN MENU screen, select the DIAGNOSTICS option.
- 2. Select MORE DIAGNOSTICS.
- 3. Select RESET/TEST MODEM.

#### **Description:**

The **RESET/TEST MODEM** diagnostic confirms that the CPU module (main board) can communicate with the modem and the modem can be configured. This test **does not** test the ability of the modem to communicate on the phone line. If this test fails, contact your service provider for assistance. Press the <u>Cancel</u> key to return to the More Diagnostics menu.

If the test is successful, the screen shown to the right will be displayed.





MODEM CONFIGURED AND TESTED OK

PRESS CANCEL TO CONTINUE

#### **Error Conditions:**

If the test fails, an error message will be displayed.



## PRINT/CLEAR DISPENSER STATUS

#### FACTORY DEFAULT: N/A

#### ACCESS INSTRUCTIONS:

- 1. From the MAIN MENU screen, select the DIAGNOSTICS option.
- 2. Select MORE DIAGNOSTICS.
- Select PRINT DISPENSER STA-TUS (available for TDM dispensing mechanism).

#### **D**ESCRIPTION:

The **PRINT DISPENSER STATUS** report prints the dispenser status for the TDM mechanism. This report provides useful information that can assist a service technician to determine the current status of the TDM-100/150 dispensing mechanism. DIAGNOSTICS

 STATUS
 TEST RECEIPT<br/>PRINTER

 PURGE
 VERSION #'S

 TEST DISPENSE
 MORE<br/>DIAGNOSTICS

 FORMAT GRAPHIC<br/>MEMORY
 EXIT



The **CLEAR DISPENSER STATUS** report resets the count in the <u>Since Reset</u> column on the Print Dispenser Status report to zero (0).

The following information is printed on the TDM Status report:

- 1. Feed Sensor status Clear or Blocked.
- 2. Exit Sensor status Cleared or Blocked.
- 3. Reset since last status (Yes/No) indication that the dispensing mechanism has been reset since the last status check.
- 4. The average thickness note thickness calibration.
- 5. Status of last dispense:
  - A. Error reported no error or number of the Error Code that occurred.
  - B. Bill Dispensed number of bills dispensed.
  - C. Bill Rejected number of bills rejected.
- 6. Click Counters (0 81) each click counter represents an Error Code for the TDM-100/150 dispenser. **Refer to pgs 67 and 68.**
- 7. Total indicates the number of times a documented TDM error has occurred. This is a cumulative total from the time the dispenser was first installed and <u>can not</u> be reset.



- 8. Since Reset indicates the number of times a documented TDM error has occurred since the last time the **Clear Dispenser Status** option was activated.
- 9. Bills Picked the total number of bills the dispenser has picked during its life cycle.
- 10. Thickness Array:
  - A. The low threshold is =
  - B. The high threshold is =
  - C. The middle is =

#### \* LEARN NOTE THICKNESS\*

If this option is available, selection will force the TDM100/150 dispenser to calibrate the double detect circuits. When the Learn Note Thickness function is selected, the dispenser will pick nine (9) notes from the cassette to learn the average thickness of the notes contained in the cassette. The notes picked are sent to the reject cassette. Once the function is completed, a report called "TDM Thickness Results" (below) is printed and presented to the service technician.

TOM

LEARN RESULTS

- D. The peak value is =
- E. Reserved for doubles



**TDM Status Report** 



TDM Learn Thickness Results

## Description for the TDM Click Counters (Dispenser Errors)

Dispenser	Description
Error #	Description
00	Unknown
01	Non Maskable Int
02	Stack Overflow
03	Stack Underflow
04	Trap ILLBUS
05	Trrap ILLINA
06	Trap ILLOPA
07	Class B Trap
08	Trap PRTFLT
09	Trap UNDOPC
10	Trap Unknown Trap
11	CTS Timeout
12	TX ACK Error
13	TX NAK Error
14	TX EOT Error
15	TX Response Error
16	LCR Error
17	Framing Error
18	Overrun Error
19	Parity Error
20	Verify Error
21	Process Error
22	NVRAM Read Error
23	NVRAM Write Error
24	Reject Rate Esceeded Error
25	Unexpected Note At Thickness
26	Buffer Overflow
27	Unknown
28	Unknown
29	Unknown
30	Unknown
31	Unknown
32	Unknown
33	Unknown
34	Pick Motor Timeout
35	Pick Motor Over Current
36	Thickness Sensor Unstable
37	Skew Timeout
38	Thickness Sensor Timeout
39	Number of Resets
40	Exit Sensor Timeout
41	Exit Sensor Training Edge Timeout



## Description for the TDM Click Counters (Dispenser Errors)

Dispenser	Description		
Error #	Description		
42	Diverter Timeout		
43	Reject Sensor Leading Edge Timeout		
44	Reject Sensor Training Edge Timeout		
45	Exit Blocked During Purge		
46	Diverter Timeout On Purge		
47	Width Sensor Blocked On Start of Dispense or Learn		
48	Exit Sensor Blocked On Start of Dispense or Learn		
49	Diverter In Dispense Position on Start of Dispense or Learn		
50	Reject Cassette Not Present (Error is not applicable.)		
51	Note Cassette Not Present (Error is not applicable.)		
52	Unexpected Note At Exit Sensor		
53	Unexpected Note At Width Sensor		
54	Diverter Moved to Exit Position During Reject or Purge		
55	Initial Status Check Failed		
56	Diverter Moved to Reject Position During Dispense		
57	Unexpected Note At Reject Sensor		
58	Excessive Skew On Leading Edge		
59	Excessive Skew On Trailing Edge		
60	Note Too Wide		
61	Note Too Narrow		
62	Note Too Thick		
63	Note Too Thin		
64	Solenoid Over Current		
65	Timeout Waiting For Diverter		
66	Trailing EdgeTimeout At Width Sensor		
67	Watchdog Reset		
68	UART Loop Back Failed		
69	CRC Flash Check Failed		
70	CRC NVRAM Check Failed		
71	Note Not Linear At Trailing Edge		
72	Trailing Edge Timeout At Thickness Sensor		
73	Oscillator Watchdog		
74	Forced Reject		
75	Timeout Waiting For Unexpected Note to Clear		
76	Error In Exit Accountancy		
77	Error In Reject Accountancy		
. 78	A2D Alignment Error		
79	Unable to Clear Width Sensor During Reject		
80	Total # of Retries		
81	Number of Retry Events		



# Electronic Journal Introduction

The ATM features an electronic journal that is integrated with the dispensing mechanism. The details of each transaction are stored in the journal's memory and can be retrieved at a later date. When needed, just the information desired can be recalled and a printout of the records made.

The journal data is either stored in an external Electronic Journal (terminals with a Mech 10 dispenser) or imbedded in the dispenser firmware (terminals with a TDM-100/150).

Old records are retained until **2304** records have been stored, at which time, the journal must be printed or cleared. (Error code 151)

Normally, journal data is printed by the unit's receipt printer, but with the optional Triton Connect software package the information can be sent to a remote PC for storage and subsequent analysis.

# Journal Functions

The following Management Functions enable you to display and/or print the journal.

**Print Journal.** Prints the journal entries to the receipt printer. After a journal entry is printed, it is marked as *audited* which allows the entry to be overwritten. Once an entry is audited, the Print Journal function will no longer print that entry. Typically, the journal should be printed whenever a Day Close is completed although this is not a requirement.

**Clear Journal.** Clearing the journal marks ALL entries as *audited*. This allows the journal to store new entries by overwriting the existing audited entries. The Clear Journal function <u>does not</u> print to the receipt printer.

**Print Last X Entries.** This function allows retrieval of both *audited* AND *unaudited* records even after the journal has been printed or cleared. Specify a starting point (ex: enter 300) and the receipt printer will print the last 300 records up to the most recent entry. You can retrieve the full 2304 entries with an external Electronic Journal (terminals with a Mech-10 dispenser). You can only retrieve the last **768** entries with a terminal using the TDM-100/150 dispenser installed.

**\*\*Warning\*\* (for units shipped with TDM-100's before Sep 03)** If printing or clearing journal, either from terminal or Triton Connect, the records will be *audited* and you will **NOT** be able to retrieve using the "Print Last X Entries" function. Only *unaudited* records may be retrieved!



# **Journal Entries**

Journal entries are created on a per-transaction basis. Each new entry begins with a blank line. The following is an example of a typical journal entry. In the case of a communications error, most of this information is omitted and an error code would be printed.



- \* Transaction types are described in the table on the next page.
- \*\* Dispenser error codes are described in Section 8, Error Recovery, in the User manual.



# **MANAGEMENT FUNCTIONS**

TRANSACTION TYPES			
Transaction Code	Transaction Type		
0	Invalid Transaction Type		
1	Withdrawal from Checking		
2	Withdrawal from Savings		
3	Withdrawal from Credit Card		
4	Transfer from Checking to Savings		
5	Transfer from Saving to Checking		
6	Transfer from Credit Card to Checking		
7	Transfer from Credit Card to Savings		
8	Balance Inquiry Checking		
9	Balance Inquiry Savings		
10	Balance Inquiry Credit Card		
11	Reversal		
12	Non-Cash Withdrawal from Checking		
13	Non-Cash Withdrawal from Savings		
14	Non-Cash Withdrawal from Credit Card		
15	Coupon		
16	PIN Change		



#### JOURNAL

FACTORY DEFAULT: N/A

ACCESS INSTRUCTIONS:

1. From the MAIN MENU screen, select the JOURNAL option.

#### **DESCRIPTION:**

The SELECT JOURNAL FUNCTION menu allows the terminal operator to perform the following functions:

- 1. **Print Journal.** Prints journal to receipt printer and marks records as *audited*.
- 2. **Clear Journal.** Clears all journal entries and marks as *audited*. Does not print to receipt printer.
- 3. **Print Last X Entries.** Retrieves *audited* AND *unaudited* records, amount dependent on external or dispenser imbedded electronic journal.

MANAGEMENT FUNCTIONS		
CLOSE	CASSETTE SERVICE	
DIAGNOSTICS	TERMINAL CONFIGURATION	
JOURNAL	EXIT	

SELECT JOURNAL FUNCTION			
PRINT JOURNAL	PRINT LAST X ENTRIES		
CLEAR JOURNAL	EXIT		



## PRINT JOURNAL

#### FACTORY DEFAULT: N/A

#### ACCESS INSTRUCTIONS:

- 1. From the MAIN MENU screen, select the JOURNAL option.
- 2. Select PRINT JOURNAL option to print all *unaudited* records stored in the journal.

#### **Description:**

The **PRINT JOURNAL** command is used to automatically print out any journal entries collected since the last time the journal was printed. <u>ALL</u> journal records will be printed, whether there are 1 or 2304 records. This command should be used regularly to print the audit trail of the terminal. This information should be maintained in case of an inquiry by a customer, and can also be useful in certain troubleshooting situations.

SELECT JOURNAL FUNCTION			
PRINT JOURNAL	PRINT LAST X		
CLEAR JOURNAL	EXIT		

JOURNAL PRINTING			
PLEASE WAIT			
ENSURE JOURNAL CLEARS BOTTOM OF PAPER CHUTE			

When this command is run, all unaudited records in the journal are immediately sent to the receipt printer, and subsequently marked as audited. Any record printed in this fashion will not be printed again by this command. When the journal has finished printing, the Select Journal Function screen will be displayed.

#### \*\*WARNING\*\*

In older TDM-100's, you WILL NOT be able to retrieve records using the "Print Last X Entries" if you have printed or cleared the journal previously.



### **CLEAR JOURNAL**

#### FACTORY DEFAULT: N/A

#### ACCESS INSTRUCTIONS:

- 1. From the MAIN MENU screen, select the JOURNAL option.
- 2. Select CLEAR JOURNAL option to mark all journal entries stores since last Clear Journal or Print Journal operation as *audited*..

#### **Description:**

The CLEAR JOURNAL command is used to mark all unprinted records in the journal as 'audited'. This means that they will not be printed out the next time a Print Journal command is performed. Audited records are not erased. They are marked as if they had been printed. When this function is selected, a confirmation screen prompts the user to answer "YES, CLEAR" to continue with operation or "NO, CANCEL" to quit. If the user answers "YES, CLEAR", the screen to the right will be displayed:

When the journal has been cleared, the Select Journal Function screen will be displayed.

SELECT JOURNAL FUNCTION			
PRINT JOURNAL	PRINT LAST X		
CLEAR JOURNAL	EXIT		



## **\*\*WARNING\*\*** In older TDM-100's, you WILL NOT be able to retrieve records using the "Print Last X Entries" if you have printed or cleared the journal previously.



## PRINT LAST X ENTRIES

#### FACTORY DEFAULT: N/A

#### ACCESS INSTRUCTIONS:

- 1. From the MAIN MENU screen, select the JOURNAL option.
- 2. Select PRINT LAST X ENTRIES option.
- Enter a value 'X' to establish the starting point for printing a subset of the entries stored in the journal. (1-2304 for an external electronic journal, 1-768 for a TDM-100/150 equipped terminal)

#### **DESCRIPTION:**

This command is used to reprint audited and unaudited records from the

electronic journal. Records printed out using this command are not marked in any way. This command will not affect the operation of the Print Journal command.

This command is used for several purposes. It can be used to reprint records for which the paper trail has been lost or destroyed. It can also be used to print out records for diagnostic purposes.

When using this command, the user is prompted to enter the number of the most recently collected records to be printed. It always operates on the last 'X' entries. If an operator needs to see a transaction that happened about 10 records earlier, entering '13' at the prompt will cause the last 13 records to be printed, but not cleared, from the buffer. This will ensure that the transaction in question is printed.

Subsequent uses of this command are not cumulative. No pointer is maintained that 'moves' each time this command is run. It always operates on the Last 'X' Entries.

Entering a number greater than the number of records in the buffer memory of the journal will cause all records to be printed (either 2304 or 768 records).

#### \*\*WARNING\*\*

In older TDM-100's, you WILL NOT be able to retrieve records using the "Print Last X Entries" if you have printed or cleared the journal previously.

SELECT JOURNAL FUNCTION			
PRINT JOURNAL	PRINT LAST X ENTRIES		
CLEAR JOURNAL	EXIT		
ENTER THE NUMB	ER OF RECORDS		
TO PRINT			
AND THEN PRESS 'OK'			



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# SECTION 6 MAINTENANCE

## Introduction

This chapter of the User manual covers preventive and corrective maintenance procedures appropriate for user personnel. The following areas are covered:

- 1. **Replenishing Receipt Paper**. Describes how to replace a spent receipt paper roll.
- 2. **Cleaning the Enclosure**. The proper way to clean the ATM housing.
- 3. **Card Reader Cleaning**. The recommended card reader cleaning technique.
- 4. **Card Reader Problems**. Servicing card reader problems.
- 5. **Communication Problems**. Servicing communications-related problems.

#### \*Important\*

Only qualified service personnel are authorized to repair or service the terminal. Should a malfunction occur, DO NOT attempt to service the unit yourself! Contact your Triton certified service provider!

# Replenishing the Receipt Paper

**NOTE:** This operation must be completed with the AC power applied to the ATM.

1. Open the top of the ATM by unlocking the top enclosure and pulling the hinged door forward.

#### \*\*Warning\*\*

The control panel is provided with a pneumatic piston to prevent the door from extending too far when opening and from being closed too quickly. In the unlikely event of the pneumatic piston not functioning properly, the panel should be prevented from opening too far and from being slammed when closing.

2. If paper remains on the roll, cut the paper between the roll and the printer with a pair of scissors, as shown in Figure 6-1.



Figure 6-1. Cut paper between the roll and the printer feed path with scissors.



3. Use the receipt printer feed button (as shown in Figure 6-2) to feed the paper through the paper path until all paper comes out the front of the printer.

#### \*\*Warning\*\*

Do not pull the paper backward through the printer. This may leave paper fragments that can cause paper jams.

- 4. Remove the paper spindle from the support bracket by sliding the slotted small end of the spindle out of bracket. (Figure 6-3)
- 5. Remove the tab securing the end of the new paper roll to itself. Use scissors to cut off all of the paper up to and including the glue tab.

Remove the plastic spindle from the old paper roll and insert the spindle into the new roll of paper (as shown in Figure 6-4). Use a 4-inch roll of 60 mm wide thermal paper.

Be sure the spindle is inserted so that the paper will feed from the top of the roll when it is installed on the paper bracket.

6. Place the new roll back on the paper bracket by sliding the small, slotted end of the spindle onto the slot in the bracket as shown in Figure 6-5. **Note that the paper feeds from the top of the roll**.



Figure 6-2. Paper feed button location.



*Figure 6-3. Removing paper roll from bracket.* 



Figure 6-4. Insert spindle into new paper roll.



Figure 6-5. Place paper roll on bracket. Paper feeds from top of roll!



- 7. Take end of paper roll and feed into the printer take-up slot, as shown in Figure 6-6.
- 8. The printer will activate and automatically feed the paper through the printer and out the exit (Figure 6-7).
- 9. If the printer does not feed automatically, open the printer assembly by loosening the thumbscrew on the side as shown in Figure 6-8.
- 10. Rotate the printer towards the front of the unit (Figure 6-9).
- 11. Check the blue lever to ensure it's in the correct position as shown in Figure 6-10. If it is not in the position shown, move the lever (moves in 3 positions) to the correct position. Close the printer assembly and perform steps 7 and 8 again.
- 12. Close and lock the control panel. Go to Management Functions, Diagnostics, and perform a <u>Test</u> <u>Receipt Printer</u>. If the test receipt is printed successfully, place the ATM back in service.



Figure 6-10. Blue tension lever (correct position).



*Figure* 6-6. *Feeding paper into the printer take-up slot.* 



Figure 6-7. A new roll of paper installed on the printer.



Figure 6-8. Thumbscrew location.



Figure 6-9. Thumbscrew location.



# **Cleaning the Enclosure**

The ATM front panel is highly durable, resisting scratches and finger smudges. However, occasional cleaning of the front panel and the plastic enclosure may be desirable. A soft dry or slightly damp cloth may be used for cleaning. For best results, use a weak solution of a mild detergent and water.

### \*\*WARNING\*\*

Avoid using abrasive cleaners on any surface of the terminal. Do not spray liquid cleaner directly on the unit.

# **Cleaning the Display**

The Liquid Crystal Display (LCD) on the front of the cash dispenser has a plastic protective window that should be cleaned only with a SOFT cloth, dampened with a weak solution of a mild detergent and water.

#### \*\*WARNING\*\*

Do not use any abrasive cleaners on the window, as it will scratch. Do not spray liquids onto the screen, as they may run down inside the unit and cause damage.

# **Card Reader Cleaning**

Special cleaning cards are available for proper maintenance of the card reader. The reader should be cleaned at least once a month by inserting and removing a cleaning card, as shown in Figure 6-11. It may be necessary to clean the card reader more often in locations that see heavy usage.



Figure 6-11. Use the cleaning cards on a monthly basis to maintain effective card reader operation.

# **Card Reader Problems**

The following procedures provide help in recovering from card reader problems.

## Can't Read Customer Card

- 1. Access Management Functions main menu.
- 2. Select the **Diagnostics** option. Select **More Diagnostics**, then **Scan Card.**



- 4. Insert and remove an ATM card. If no error message is received, but card still can't be read, contact your service provider. If an error message is received, continue with the next step.
- 5. Open the ATM control panel. Turn power OFF on the ATM. Remove and reconnect the data cable (ribbon-style cable) on the card reader and the main board. Turn power ON. Close the ATM control panel.
- 6. Re-attempt the **Scan Card** option. Try to read a card. If the problem still exists, contact your service provider.

#### **Can't Insert Card Fully**

- 1. Open the ATM control panel to allow light to shine through the card reader slot. Examine the slot from the rear of the card reader.
- 2. If a foreign object is discovered, try to dislodge it. Turn power OFF on the ATM. Use a thin, smooth strip of cardboard or wood (such as a tongue depressor) to remove the obstruction. Turn power ON.
- 3. Close the ATM control panel. Test the card reader. If a card still cannot be fully inserted, contact your service provider.

# **Communication Problems**

Follow these steps to recover from "System Unavailable" and "Communication Error" conditions. (Dial-up only)

- 1. Reset the ATM. If the problem still exists, continue with next step.
- 2. Open the ATM control panel. Plug the base unit of a telephone (NOT the handset) into the phone cable connected to the main board.
- 3. Listen for a dial tone. If there is a dial tone, unplug the telephone and reconnect the cable to the main board. Close the ATM control panel. Contact your service provider.
- 4. If there is no dial tone, plug the telephone into the wall jack for the ATM phone line. If there is no dial tone, there is a facility phone line problem. Contact your telephone service provider for assistance.



# SECTION 7 Error Recovery

# Introduction

The ATM operating system determines the operational status of each of its components by routinely performing a system status check. A status check is performed:

- 1. During power up.
- 2. Once every forty seconds while the dispenser is not in use.
- 3. Before leaving the Management Functions main menu screen.
- 4. After every transaction.

An error detected during a status check will place the ATM in an 'Out of Service' mode of operation and display an error message screen, as shown in Figure 7-1.



Fig. 7-1. The 'Out of Service' screen is displayed if the terminal detects an error condition.

OUT OF SERVICE			
ERROR CODE #XXX			
RESET	MANAGEMENT		

Fig. 7-2. This screen appears after recycling the terminal in an 'Out of Service' condition.

# Responding to 'Out Of Service' Conditions

In the 'Out of Service' mode of operation, the dispenser will not respond to any inputs to the keypad or card reader. Follow these steps to respond to the error:

- 1. Recycle the ATM (see next page for instructions on how to reset the ATM). The ATM will re-initialize and after a short interval the 'Out of Service' menu will be displayed, as shown in Figure 7-2.
- 2. Select the **Reset** option from the 'Out of Service' menu to initiate a status test of the ATM. If the condition that caused the error no longer exists, and if no additional errors exist, the error status will be cleared and the CUSTOMER WELCOME screen will appear.



- 3. If the CUSTOMER WELCOME screen appears, you can place the unit back in service; however, one further step is *highly recommended* in order to confirm that the overall ATM control system and dispensing mechanism are working normally, and that is to perform a **Test Dispense**. See page 8-4 for instructions on how to perform a Test Dispense. After performing a successful Test Dispense, place the ATM back in service.
- 4. If the Out of Service screen (Figure 7-1) appears again, look up the error code in Table 8-1 (pages 8-5 through 8-7), Error Codes / Recovery Procedures. Note the reference number for the recommended Error Recovery Procedure.
- 5. Follow the instructions in the applicable Error Recovery Procedure (see pages 8-8 through 8-11).
- 6. It is possible that more than one error condition exists. In these cases, after correcting the original error a different error may be displayed. Address each error condition by repeating Steps 1-5, until all error conditions have been cleared, or you are instructed to contact your service provider.

# **Recycling the ATM**

Cycle the power switch. Use this method in the event an error condition is preventing the ATM from responding to the <u>Reset</u> option.

#### Reset ATM using the Power Switch

Follow these steps to recycle the ATM using the power switch:

- 1. Unlock and open the ATM control panel.
- 2. Locate the power switch on the power supply module, as shown in Figure 7-3.
- 3. Turn the switch to the OFF (0) position. After 30 seconds, turn the switch to the ON (I) position. The ATM will perform a software initialization.

Fig. 7-3. Location of power switch.





## **Test Dispense Operation**

Follow these steps to perform a Test Dispense:

- 1. Access the MANAGEMENT FUNCTIONS main menu screen. Refer to Section 2, Basic Operation, for instructions on accessing the MANAGEMENT FUNCTIONS main menu.
- 2. Select **Diagnostics** from the MANAGEMENT FUNCTIONS screen.
- 3. Select the **Test Dispense** option. The Test Dispense operation will start. At the conclusion of the operation, a status screen will report the results.

#### **DESCRIPTION:**

The Test Dispense function causes the dispensing mechanism in the ATM to dispense a single note from the note cassette sending the note into the reject cassette or compartment (depending on dispenser type). This test exercises the dispenser without sending notes to the exit.

After completing the Test Dispense operation, a status code referred to as a *Return Code*, is displayed. A Return Code of <u>'20 20 21'</u> indicates a single successful Test Dispense. (Figure 7-3)

If any code other than what is indicated above is displayed, contact your service provider for assistance



Fig. 7-3. Successful test dispense.



# **ERROR RECOVERY**

ERROR CODES / RECOVERY PROCEDURES				
Error Code	TDM 100/150	Mech 10 (MiniMech)	Meaning	Recovery Procedure
33		Х	Feed failure	2
34		Х	Mistracked note at feed	2
35		Х	Mistracked note at double detect	2
36		Х	Mistracked note at exit	2
37		Х	Note too long at exit	2
38		Х	Blocked exit	2
39		Х	Too many notes	2
42		Х	Timing wheel error	1
44		Х	Bad roller profile	1
45		Х	Diverter error	1
46		Х	Exit quantified	1
47		Х	Note missing at double detect	2
48	Х	Х	Reject rate exceeded	2
49		Х	Jam at exit	2
50		Х	Interference recovery	2
51	Х	Х	Suspect exit accountancy	2
52		Х	Ram error	1
53		Х	Eprom error	1
54	Х	Х	Operation timeout	1
55		Х	Ram corruption	1
56		х	Link error	1
101	Х		Error (2 sec. timeout waiting for pick)	6
102	Х		Error (pick motor over-current)	6
103	Х		Thickness sensor unstable	6
104	Х		Unable to clear width sensors during reject	6



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ERROR CODES / RECOVERY PROCEDURES							
Error Code	TDM 100/150	Mech 10 (MiniMech)	Meaning	Recovery Procedure			
105	Х		Insufficient notes to learn	6			
106	Х		FIFO error	6			
107	Х		Suspect reject accountancy	6			
108	Х		Unexpected note at double detect	6			
109	Х		Timeout at exit sensor	6			
110	Х		Trailing edge timeout at exit	6			
111	Х		Diverter timeout	6			
112	Х		Timeout waiting for leading edge at reject	6			
113	Х		Timeout waiting for trailing edge at reject	6			
114	Х		Exit blocked during purge	6			
115	Х		Diverter timeout on purge	6			
118	Х		Exit sensor blocked on start of dispense	6			
119	Х		Diverter in dispense position on start of dispense or learn	6			
120	Х		Reject cassette not present	8			
121	Х		Note cassette not present	8			
122	Х		Unexpected note at exit	6			
124	Х		Diverter moved to exit position during reject/purge	6			
125	Х		Initial status check failed	6			
126	Х		Diverter moved to reject position during dispense	6			
128	Х	Х	Error in reply from dispenser	1			
129	Х	Х	Dispenser not responding	1			
130	Х	Х	No acknowledge from dispenser	1			
131	Х	Х	No CTS (Ready) from dispenser	1			
132	Х	Х	Reported bad double detect in previous dispense	1			
133	Х	Х	5 volts not present from dispenser	1			



# **ERROR RECOVERY**

ERROR CODES / RECOVERY PROCEDURES							
Error Code	TDM 100/150	Mech 10 (MiniMech)	Meaning	Recovery Procedure			
134	Х	Х	Status reported exit blocked	6			
135	Х	Х	Status reported feed sensor blocked	6			
136	Х	Х	Modem initialization failed	1			
138	Х	Х	Print failure to receipt	7			
139	Х	Х	Print controller not responding	7			
140	Х	Х	Time out waiting for printer to be ready	7			
141	Х	Х	Status reported paper jam	7			
142	Х	Х	Dispenser returned bad command error	9			
144	Х	Х	Security module not responding	9			
145	Х	Х	Security module bad reply	9			
146	Х	Х	Electronic journal not responding	9			
147	Х	Х	Electronic journal bad reply	9			
148	Х	Х	Electronic journal write failed	3			
149	Х	Х	Electronic journal read failed	9			
150	Х	Х	Electronic journal status failed	9			
151	Х	Х	Electronic journal full	3			
152	Х	Х	Electronic journal corrupt	9			
153	Х	Х	Electronic journal download failed	9			
154	Х	Х	Electronic journal bad	9			
155	Х	Х	EJ module failed	9			
156	Х	Х	No cassette	8			
157	Х	Х	EJ erase failed	9			
158	Х	Х	EJ format failed	9			
159	Х	Х	EJ test feature failed	9			
161	Х	Х	EJ clear feature failed	9			



# MODEL 9100 USER / INSTALLATION MANUAL

ERROR CODES / RECOVERY PROCEDURES						
Error Code	TDM 100/150	Mech 10 (MiniMech)	Meaning	Recovery Procedure		
162	Х	Х	EJ get serial number failed	1		
163	Х	Х	Terminal did not answer Triton Connect	1		
164	Х	Х	Terminal did not return call to Triton Connect	1		
165	Х	Х	EJ not present	1		
166	Х	Х	Bad dispenser	1		
167	Х	Х	Reported low cash to Triton Connect	5		
168	Х	Х	Software download to terminal failed	1		
182	Х	Х	Currency cassette low	5		
183	Х	Х	Receipt printer paper low	7		
185	Х	Х	Phone number not configured	3		
186	Х	Х	Bill size not configured correctly	3		
187	Х	Х	Maximum withdrawal not configured correctly	3		
188	Х	Х	Communications key not configured	3		
189	Х	Х	Terminal ID not configured	3		
190	Х	Х	Master key not configured	3		
191	Х	Х	Feed failure	2		
192	Х	Х	Communications error	1		
195	Х	Х	Receipt printer out of paper	7		
196	Х	Х	Card reader error	1		
203	Х	Х	SPED keypad is not replying to main board	1		
205	Х	Х	SPED keypad reported tamper condition	1		
206	х	Х	SPED could not perform a successful command within SPED_MAX_ATTEMPTS tries	1		
207	Х	Х	SPED not detected	1		
## ERROR RECOVERY PROCEDURE

- 1. Attempt to reset terminal error.
- 2. If the error clears, perform a Test Dispense.
- 3. If the Test Dispense works, place the unit back in service.
- 4. If the Test Dispense does not work, or the error occurs again, contact your service provider.



# ERROR RECOVERY PROCEDURE

- 1. Turn off the ATM and open the security container.
- **2.** Inspect the dispensing mechanism feed path for jammed currency and currency sticking together. Clear the feed path as needed.
- **3.** Remove and inspect the note cassette for damage that could prevent proper dispensing. Also, make sure the currency is fit for dispensing. If there is no currency in the cassette, or the currency level is too low, fill the cassette and reinstall.
- 4. Close and lock the security container. Attempt to reset terminal error.
- 5. If the error clears, perform a Test Dispense.
- 6. If the dispense works, place the unit back in service.
- 7. If the test dispense does not work, or the error occurs again, contact your service provider.





## ERROR RECOVERY PROCEDURE

- 1. Print or clear the journal. Refer to Section 5, Electronic Journal, for instructions on how to print/clear the journal.
- 2. Attempt to reset terminal error.
- 3. If the error clears, place the unit back in service.
- 4. If the error does not reset, contact your service provider.



## ERROR RECOVERY PROCEDURE

Refer to the Model 91XX /97XX Configuration Manual or Service Manual for procedures on configuring these terminal parameters.



# ERROR RECOVERY PROCEDURE

- 1. Follow the procedure in Section 4, Cash Replenishment, to access the dispensing mechanism and either turn the mechanism to the cassette servicing position (TDM100/150) or extend the dispenser to its extended position (Mech 10).
- **2**. Verify that the note and reject cassettes are present. If the cassettes are present, follow the applicable procedure to remove and replenish the note cassette.
- **3**. Follow the applicable procedure to return the dispenser to the operating position.
- **4.** Attempt to reset the terminal error. If the error clears, perform a Test Dispense.
- 5. If the Test Dispense works, place the unit back in service.
- **6.** If the Test Dispense does not work, or the error occurs again, contact your service provider.



## ERROR RECOVERY PROCEDURE

- 1. Follow the procedure in Section 4, Cash Replenishment, to remove power from the ATM and access the dispensing mechanism. For now, leave the dispensing mechanism in the *operating* position.
- 2. Check the dispenser shelf to ensure it is level. Look under the shelf and inspect the 4 mounting bolts/ nuts holding the shelf to the cabinet. The shelf has slots that should be resting on the bolts fully and secured by the nuts.
- 3. Locate the lower, middle and upper access doors, as shown in Figure 7-4. These doors allow you to check for jammed notes at key points in the feed path. Another door is located on the inside of the dispenser, and is accessible when the note and reject cassettes have been removed, as shown in Figure 7-5.

Each door is held closed using a *green knob*. Note the position of the knob when a door is locked: the knob is *horizontal*, as shown in Figure 7-6.

To unlock a door, grasp that door's knob and gently turn it a quarter-turn to the left or to the right (to the *vertical* position), as shown in Figure 7-6. This will allow the door to be opened so that any stuck notes can be retrieved.



Fig. 7-4. Location of upper, middle and lower access doors.



Fig. 7-5. Location of inner access door.



UNLOCKED



Fig. 7-6. Knob shown in locked and unlocked positions.



- 4. Release the lower access door (refer to Figure 7-7). Carefully lift the door to expose the feed path. Remove any notes.
- 5. Close the door. Apply gentle pressure to the door to hold it in place and twist the green knob a quarter-turn to the left or right to lock the door. *Make sure the door is locked securely in place!*
- 6. Release the middle access door (refer to Figure 7-8). Carefully lower the door to expose the feed path. Remove any notes.
- 7. Close the door. Apply gentle pressure to the door to hold it in place and twist the green knob a quarter-turn to the left or right to lock the door. *Make sure the door is locked securely in place!*
- 8. Release the **upper access door (refer to Figure 7-9)**. Gently lift the door to expose the feed path. Remove any notes.
- **9.** Close the door. Apply gentle pressure to the door to hold it in place and twist the green knob a quarter-turn to the left or right to lock the door. *Make sure the door is locked securely in place!*
- **10**. Follow the instructions in the Cash Replenishment procedure to turn the dispensing mechanism to the cassette service position. Remove the note and reject cassettes.



*Fig.* 7-7. Unlock and lift lower access door to check for stuck notes.



Fig. 7-8. Unlock and lower middle access door to check for stuck notes.



*Fig.* 7-9. Unlock and lift upper access door to check for stuck notes.



- **11.** Release the **inner access door (refer to Figure 7-10).** Gently lift the door to expose the feed path. Remove any notes.
- **12.** Close the door. Apply gentle pressure to the door to hold it in place and twist the green knob a quarter-turn to the left or right to lock the door. *Make sure the door is locked securely in place!*
- **13.** Follow the instructions in the cash replenishment procedure to open the note cassette. Pull the packer plate back and check the note stack for any bent, crumpled or otherwise unfit notes. If there is no currency in the note cassette, or the currency level is too low, fill the note cassette.
- 14. Reinstall the note cassette into the dispensing mechanism. If notes are removed or replaced, be sure to obtain an accurate count of the total number of notes in the cassette, for use when performing the *Enter Qty. In Cassette* procedure.
- **15.** Follow the instructions in the cash replenishment procedure to open the reject cassette. Remove any rejected notes and reinstall the cassette.



*Fig.* 7-10. Unlock and lift inner access door to check for stuck notes.

- **16.** Complete the Cash Replenishment procedure by returning the dispenser to the operating position, restoring power to the ATM (if applicable), and performing the *Enter Qty. In Cassette* procedure, if currency was added or removed.
- **17.** Select the <u>Reset</u> option at the 'Out of Service' menu. If the error clears, perform a Test Dispense.
- **18.** If the Test Dispense works, place the unit back in service.
- **19.** If the Test Dispense does not work, or the error occurs again, contact your service provider.



#### ERROR RECOVERY PROCEDURE

- 1. Unlock and open the ATM control panel and turn power OFF.
- 2. Cut paper between paper roll and printer with a set of scissors. Open printer by loosening the thumb screw on side of printer mechanism. Lift printer head and gently pull paper from front of printer. <u>NEVER PULL PAPER BACK-WARD FROM THE REAR OF PRINTER.</u>
- **3**. Check the blue tension lever located opposite side of printer. Blue lever should be actuating (touching) a clear plastic micro-switch that has white wires running to it. If it isn't, move lever until it's actuating switch. (Blue lever gets moved inadvertently sometimes when printer is opened)
- **4.** Turn power ON. With printer still open, touch manual feed button and watch roller turn. Inspect for any paper shreds in roller.
- **5.** Close printer and tighten thumb screw. Feed paper roll into printer. Paper should feed automatically for a short distance. Push manual feed button until receipt paper exits front of control panel.
- 6. If error is displayed on screen, try resetting error. If error clears, go to Management Functions, enter password, then to Diagnostics. Select <u>Test Receipt Printer</u> and wait for receipt. If receipt prints, exit back out to Customer screen
- 7. Other causes may be low or out of paper. See Section 6 for paper roll replacement procedure.
- 8. If the error appears again, call your service provider.



## ERROR RECOVERY PROCEDURE

- 1. Turn off the ATM and open the security container.
- 2. Ensure all cassettes are present. Remove and reinstall the cassettes.
- 3. Close and lock the security container. Attempt to reset terminal error.
- 4. If the error clears, perform a Test Dispense.
- 5. If the dispense works, place the unit back in service.
- **6.** If the test dispense does not work, or the error occurs again, contact your service provider.



# ERROR RECOVERY PROCEDURE

- **1.** Print or clear the journal.
- 2. Attempt to reset the terminal error.
- **3.** If the error clears, perform a Test Dispense.
- 4. If the dispense works, place the unit back in service.
- 5. If the test dispense does not work, or the error occurs again, contact your service provider.



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# APPENDIX A INSTALLATION PROCEDURES

## What's in This Installation Guide

This appendix gives step-by-step procedures for completing the physical installation of a Model 9100 ATM. The appendix is divided into the following sections:

- □ Introduction. Summarizes the basic steps that must be completed to physically install a Model 9100 ATM. Note: Configuration of operating parameters is not covered! Refer to the applicable Configuration and/or Service manual for instructions on configuring the operating parameters.
- □ ATM Installation for Accessibility. Describes the basic Americans with Disabilities Act (ADA) requirements for ATM location and access. Note: These are the general requirements that should be applicable to most installation locations. Please verify the specific requirements with the state where the ATM is to be installed prior to installation. For state contact information, you may call ADA information line at 1-800-514-0301.
- □ ATM Environmental Precautions Checklist. Describes the general environmental precautions considered when installing the ATM. To help ensure proper operation of the ATM, ensure the environmental criteria listed in this checklist are met.
- □ **Cabinet Installation Standard Anchors**. Describes how to install the ATM using standard (steel) anchor bolts. Note: To install the cabinet according to these instructions you must purchase the <u>optional</u> standard anchor install kit (P/N 06200-00066).
- □ **Cabinet Installation Chemical Bolts**. Describes how to install the ATM cabinet using a chemical anchoring process. Note: To install the cabinet according to these instructions you must purchase the <u>optional</u> chemical anchor install kit (P/N 06200-00060).
- □ **Power and Communication**. Describes how to connect the ATM to the facility power and telephone connections.
- Dispensing Mechanism Installation. Describes how to install the dispensing mechanism into the ATM security cabinet.



# ATM INSTALLATION FOR ACCESSIBILITY



# ATM Installation for Accessibility

- 1. This document supercedes all other information provided by Triton for ATM installation for accessibility.
- 2. The information provided is based on federal guidelines (ADAAccessibility Guidelines for Buildings and Facilities – ADAAG), as amended through January 1998. You should verify it has not been amended. States may also have accessibility codes. These codes may be more restrictive than the federal guidelines. Please verify this with the state where the ATM is to be installed prior to installation. For state contact information, you may call the ADA information line.
- **3.** For countries other than the US, please use the guidelines for accessibility for that country.
- 4. A complete copy of the ADAAG referred to here can be found at http://www.access-board.gov. Included in this document is the section of the ADAAG specifically for ATMs. For additional information on floor surfaces and other ADAAG requirements please see the complete specification.

#### 4.34 Automated Teller Machines.

- **4.34.1 General.** Each machine required to be accessible by 4.1.3 shall be on an accessible route and shall comply with 4.34.
- **4.34.2** Clear Floor Space. The automated teller machine shall be located so that clear floor space complying with 4.2.4 is provided to allow a person using a wheelchair to make a forward approach, a parallel approach, or both, to the machine.

#### 4.34.3 Reach Ranges.

(1) Forward Approach Only. If only a forward approach is possible, operable parts of all controls shall be placed within the forward reach range specified in 4.2.5.

(2) **Parallel Approach Only.** If only a parallel approach is possible, operable parts of controls shall be placed as follows:

(a) Reach Depth Not More Than 10 inches (255 mm). Where the reach depth to the operable parts of all controls as measured from the vertical plane perpendicular to the edge of the unobstructed clear floor space at the farthest protrusion of the automated teller machine or surround is not more than 10 inches (255 mm), the maximum height above the finished floor or grade shall be 54 inches (1370 mm).



(b) Reach Depth More Than 10 inches (255 mm). Where the reach depth to the operable parts of any control as measured from the vertical plane perpendicular to the edge of the unobstructed clear floor space at the farthest protrusion of the automated teller machine or surround is more than 10 inches (255 mm), the maximum height above the finished floor or grade shall be as follows:

ACCESSIBILITY SPECIFICATIONS				
REACH DEPTH			MAXIMUM HEIGHT	
Inches	Millimeters		Inches	Millimeters
10	255		54	1370
11	280		53 1/2	1360
12	305		53	1345
13	330		52 1/2	1335
14	355		51 1/2	1310
15	380		51	1295
16	405		50 1/2	1285
17	430		50	1270
18	455		49 1/2	1255
19	485		49	1245
20	510		48 1/2	1230
21	535		47 1/2	1205
22	560		47	1195
23	585		46 1/2	1180
24	610		46	1170

(3) Forward and Parallel Approach. If both a forward and parallel approach are possible, operable parts of controls shall be placed within at least one of the reach ranges in paragraphs (1) or (2) of this section.

(4) **Bins.** Where bins are provided for envelopes, waste paper, or other purposes, at least one of each type provided shall comply with the applicable reach ranges in paragraph (1), (2), or (3) of this section.

**EXCEPTION:** Where a function can be performed in a substantially equivalent manner by using an alternate control, only one of the controls needed to perform that function is required to comply with this section. If the controls are identified by tactile markings, such markings shall be provided on both controls.

**4.34.4** Controls. Controls for user activation shall comply with 4.27.4.

**4.34.5** Equipment for Persons with Vision Impairments. Instructions and all information for use shall be made accessible to and independently usable by persons with vision impairments.

(20) Where automated teller machines (ATMs) are provided, each ATM shall comply with the requirements of 4.34 except where two or more are provided at a location, then only one must comply.

**EXCEPTION:** Drive-up-only automated teller machines are not required to comply with 4.27.2, 4.27.3 and 4.34.3.



# 4.2.4\* Clear Floor or Ground Space for Wheelchairs.

**4.2.4.1 Size and Approach.** The minimum clear floor or ground space required to accommodate a single, stationary wheelchair and occupant is 30 inches by 48 inches (760 mm by 1220 mm) (see Fig. 4(a)). The minimum clear floor or ground space for wheelchairs may be positioned for forward or parallel approach to an object (see Fig. 4(b) and 4(c)). Clear floor or ground space for wheelchairs may be part of the knee space required under some objects.

# **4.2.4.2** Relationship of Maneuvering Clearance to Wheelchair Spaces. One full unobstructed side of the clear floor or ground space for a wheelchair shall adjoin or overlap an accessible route or adjoin another wheelchair clear floor space. If a clear floor space is located in an alcove or otherwise confined on all or part of three sides, additional maneuvering clearances shall be provided as

shown in Fig. 4(d) and 4(e).

**4.2.4.3 Surfaces for Wheelchair Spaces.** Clear floor or ground spaces for wheelchairs shall comply with 4.5.

**4.2.5\*** Forward Reach. If the clear floor space only allows forward approach to an object, the maximum high forward reach allowed shall be 48 inches (1220 mm) (see Fig. 5(a)). The minimum low forward reach is 15 inches (380 mm). If the high forward reach is over an obstruction, reach and clearances shall be as shown in Fig. 5(b).



Figure 4a. Clear floor space.



Figure 4b. Forward approach.



Figure 4c. Parallel approach.



**4.2.6\*** Side Reach. If the clear floor space allows parallel approach by a person in a wheelchair, the maximum high side reach allowed shall be 54 inches (1370 mm) and the low side reach shall be no less than 9 inches (230 mm) above the floor (Fig. 6(a) and 6(b)). If the side reach is over an obstruction, the reach and clearances shall be as shown in Fig 6(c).



NOTE: x ≤ 24 in (610 mm).

For a front approach, where the depth of the alcove is equal to or less than 24 inches (610 mm), the required clear floor space is 30 inches by 48 inches (760 mm by 1220 mm).



NOTE: If x > 24 in (610 mm), then an additional maneuvering clearance of 6 in (150 mm) shall be provided as shown.

For a front approach, if the depth of the alcove is greater than 24 inches (610 mm), then in addition to the 30inch (760 mm) width, a maneuvering clearance of 6 inches (150 mm) in width is required.



For a side approach, where the depth of the alcove is equal to or less than 15 inches (380 mm), the required clear floor space is 30 inches by 48 inches (760 mm by 1220 mm).

Figure 4d. Clear floor space in alcoves.



NOTE: If x > 15 in (380 mm), then an additional maneuvering clearance of 12 in (305 mm) shall be provided as shown.

For a side approach, where the depth of the alcove is greater than 15 inches (380 mm), then in addition to the 48-inch (1220 mm) length, an additional maneuvering clearance of 12 inches (350 mm) is required.

Figure 4e. Clear floor space in alcove.





Figure 5a. Forward reach, unobstructed.



NOTE: x shall be ≤ 25 in (635 mm); z shall be ≥ x. When x < 20 in (510 mm), then y shall be 48 in (1220 mm) maximum. When x is 20 to 25 in (510 to 635 mm), then y shall be 44 in (1120 mm) maximum.

Figure 5b. Forward reach, obstructed.



Figure 6a. Parallel approach - side reach.



Figure 6b. Parallel approach - high/ low side reach.







# ATM ENVIRONMENTAL PRECAUTIONS CHECKLIST



When installing an ATM some general environmental precautions need to be considered. Evaluate the location where the ATM will be installed. To help ensure proper operation of the ATM, ensure the environmental criteria listed in this checklist are met.

#### **TEMPERATURE/HUMIDITY**

1. The ATM needs to be in an environmentally-controlled location, with no extreme fluctuations in temperature or humidity.

> Generally, these parameters must fall within the following ranges:

- **Temperature** 
  - 10-40 Deg. C
  - 50-104 Deg. F

#### Relative Humidity

- 20% 80%
- (Non-Condensing)

Refer to the Service manual for information on ATM physical, electrical and environmental specifications.

#### AC POWER REQUIREMENTS

# 2. Ensure the following AC power requirements are met:

**Dedicated source.** The ATM AC power feed will be a dedicated line, to which no other electrical devices are connected. The ATM power line will be wired for a single "duplex"-style outlet and connected directly to the AC service panel. **Isolated Ground.** An equipment grounding conductor that is insulated from the conduit or raceway and all other grounding points throughout its entire length. The only points of electrical connection will be at the duplex outlet and service panel ends of the line.

#### **DEDICATED TELEPHONE**

#### 3. Ensure the following telephoneline requirements are met:

**Dedicated line.** The telephone line servicing the ATM will not be a "party" line or any other shared type connection.

**Proximity to Interference Sources.** The telephone line must not be in close proximity to "noisy" devices that could induce interference into the ATM communications channel. See the next section for additional information on "interference sources."

#### RFINTERFERENCE

- 4. Ensure there are no devices near the terminal that may cause RF interference, such as:
  - □ TVs
  - Coolers
  - Security devices
  - Neon signs
  - Devices with compressors



# CABINET INSTALLATION STANDARD ANCHORS



#### \*\*IMPORTANT\*\*

The following procedure applies to the **<u>OPTIONAL</u>** Standard Anchor Install Kit (06200-00066).

PARTS SUPPLIED					
4	1/2" x 4 1/2" Anchor Bolt 02316-00008	4	Flat Washer (1/2" ID / 1-inch OD) 02309-00014		
8	1/2" Nut 02301-00019	1	Drilling Template 03075-00024		
	REQUIRED TOOLS/EQUIPMENT				
1	1 Torque Wrench, Adjustable to at least 60 Foot-Pounds (or 3/4" Ratchet Wrench).				
1	Center Punch (or equivalent) for marking drilling points.				
1	3/4" Socket (For Tight- ening Anchor Bolts)	1	Hammer		
1	Large Flat Screwdriver	1	Bubble Level		
1	3/4" Heavy-Duty (Professional-Grade) Electric Hammer Drill.	1	1/4" and 1/2" Carbide-tipped Masonry Drill Bits - at least 6" long.		
1	Safety Goggles	1	Ear Plugs or Ear Muffs (hearing protection)		
1	Back-Support Belt	1	Portable Vacuum Cleaner		

#### UNPACK ATM

- 1. Carefully inspect the unit for any shipping damage and report any damage immediately to the shipping company. Refer to the warranty information in this manual for information about reporting shipping damage.
- 2. Remove the unit from the carton by cutting the straps and removing the top of the box.

#### \*\*IMPORTANT\*\*

The Model 9100 is designed for indoor installation only!

#### TOOL USE/SAFETY

Observe ALL safety precautions for operating hand and power tools! Wear eye and ear protection while operating the electric drill!

#### USE A BACK-SUPPORT BELT WHEN LIFTINGAND MOVING THEATM.



- **3.** Remove the loose packing material from inside of the box.
- 4. Remove the silver key from the white plastic bag attached to the wrapping.
- 5. Stand the unit up and walk it out of the shipping carton.
- **6.** Remove the wrapping from the ATM.
- 7. Use the silver-colored key to unlock both the control panel and the fascia door (which conceals the locking mechanism) on the front of the cabinet. Open the fascia door.
- 8. Lift the handle under the bill chute to open the front enclosure door. If the door is locked, see the sidebar on the next page for help in unlocking the combination lock.
- **9.** Remove the accessory kit from inside the bottom enclosure; open and inspect the contents. Check the contents against the enclosed packing list. Report any missing parts to Triton Systems immediately.

## SELECTING THE INSTALLATION LOCATION

Choosing the right location for your ATM is very important. Security concerns suggest a location be chosen that is away from any door or external access point. Ideally, the terminal should be mounted as close to a back wall as possible. For marketing reasons, however, it may be desirable to locate the terminal near the front, where your customers can easily locate it. Wherever you decide to locate the terminal, be sure to follow the recommended procedures for both mounting the terminal and for removing cash from it when the unit will be unattended.

#### LEVEL FLOORING REQUIREMENT

If the floor is not flat and level the cabinet bottom and/or walls may become distorted when the mounting bolts are tightened down! This could prevent the security vault door from closing!

#### POWER OUTLET ACCESSIBILITY

Whether you are installing a new outlet, or plan to use an existing outlet to supply power to the ATM, make sure the following requirements are met:

- **1.** The outlet is located near the cabinet.
- **2.** The outlet is easily accessible.
- 3. Access to the outlet will not be blocked once the cabinet is installed!



#### REMOVING THE DISPENSER TRAY

You may want to temporarily remove the dispenser tray, to make it easier to access the interior of the cabinet during the installation procedure. Follow these steps to remove and replace the dispenser mechanism mounting tray for the **TDM-100 dispensing mechanism**.

 Open the cabinet door. Remove the nut that secures the cabinet grounding strap to the mounting bolt that supports the left-front corner of the dispenser tray. Remove the nuts from the remaining mounting bolts.



Grounding strap secured to dispenser tray mounting bolt.



Location of dispenser tray mounting bolts.



UNLOCKING COMBINATION LOCKS

**Mechanical Lock.** There are two marks on the dial ring. The index mark at the top of the dial is used for opening the lock. A revolution is counted each time the selected number is aligned with the opening index.

Locks are shipped on a factory setting of **'50'**. To unlock, turn the dial to the left (counterclockwise) **FOUR** (4) turns, stopping on '50'. Then turn the dial to the right (clockwise) until the bolt is retracted.

Electronic Lock. The combination of the lock is preset to 1-2-3-4-5-6. To unlock, enter the preset combination and check for proper operation. After each keypress, the lock will 'beep'. After the final digit has been entered, the lock will beep twice, and the open period begins. When a valid combination has been entered, the operator will have approximately 3 seconds to open the lock. To open the lock, turn the outer ring of the dial clockwise. After the lock is opened, the door latch may be lifted and the vault opened.



- 2. Lift the tray up and away from the bolts and remove it from the cabinet. You will need to turn the tray slightly to clear the edges of the cabinet opening.
- 3. After installing the cabinet, replace the tray by inserting it into the cabinet and lowering it onto the four supporting bolts.
- 4. Replace the grounding strap on the left-front bolt. Secure the tray using the four nuts removed in Step 1.



Turn tray to clear door edges.



Dispenser tray removed from cabinet.



#### Follow these steps to remove and replace the dispenser mechanism mounting tray for the **Mech 10 (MiniMech) dispensing mechanism**.

- 1. Open the cabinet door. If the dispensing mechanism is installed on the mounting tray, remove it using the procedure in the sidebar. After removing the mechanism, remove the four nuts that secure the front and rear corners of the tray to the cabinet.
- 2. Lift the tray up and away from the rear supporting studs and remove it from the cabinet. Note the slotted cutouts in the rear of the tray. The tray must be angled and then lifted up and forward to clear the rear bolts.



Lift tray up and away from rear mounting bolts.

- 3. After installing the cabinet, replace the tray by inserting it into the cabinet and lowering the rear cutouts onto the two supporting studs.
- 4. Secure the tray to the cabinet using the four nuts removed in Step 1.

#### \*\*IMPORTANT\*\*

If the mechanism came pre-installed on the mounting tray, remove the mechanism before removing the tray, using the following steps:

- 1. Disconnect the data and power cables from the mechanism. Note that the cables feed through a **strain-relief grommet**.
- 2. Squeeze the release button on the side of the grommet and push down to free it from the cutout hole in the tray. Route the cables down through the cutout hole.
- 3. Remove the two screws that secure the left and right corners of the mechanism to the front of the mounting tray.
- 4. Loosen the 2 rear screws. Slide the mechanism forward to clear the screws on the rear of the tray. Lift the mechanism up and carefully set it aside. Remove the mounting tray, as directed.
- 5. After reinstalling the tray, route the data and power cables up through the cutout in the tray. Snap the strain-relief connector back into position.
- 6. Place the mechanism on the tray. Connect the data and power cables.
- Slide the mechanism onto the rear pins and secure using the two screws removed in Step 2.



#### MARK/DRILL MOUNTING HOLES

Mark the location of the cabinet mounting holes on the concrete floor. This can be accomplished as described below:

- Move the ATM to the location 1. where it will be installed. Open the cabinet door at least 90 degrees to improve access. Locate the four anchor-bolt holes (cutouts) in the bottom of the cabinet. Use a felt-tip pen or other marker to carefully mark the center of each of these four holes on the floor; these marks will serve as guides for the anchor bolt holes that will be drilled in the next step. Move the ATM aside, to provide clear access to the mounting hole marks.
- 2. Use a 1/4-inch diameter carbidetipped masonry bit to drill four pilot holes at the drilling points marked in the previous step. Drill the pilot holes approximately 1/2inch deep into the floor. These holes will help guide the half-inch masonry bit that will be used to drill the anchor-bolt holes in the next step.

- **3.** Use a 1/2-inch diameter carbidetipped masonry bit to drill four holes at least 2 3/4-inches deep into the floor. Be sure to take into account the thickness of any floor covering, such as tile or vinyl. *Make sure the holes are drilled at least 2 3/4-inches into the concrete floor.*
- 4. Use a portable vacuum cleaner to remove any dust or debris that may have fallen into the holes during the drilling process.



Figure 1. Drilling mounting holes.



#### BOLT ATM TO FLOOR

- 1. Ensure the leveling feet are flush with the bottom of the cabinet. If necessary, use a screwdriver to adjust the leveling bolts inside the cabinet (near the four corners) so that the leveling feet are flush with the bottom of the cabinet.
- 2. Move the ATM into position for mounting by aligning the base over the four holes drilled in the previous procedure.
- **3.** Place an anchor bolt through the cabinet base and into one of the mounting holes. Use a hammer to tap the bolt completely into the hole.

IMPORTANT: If the anchor bolt "falls" into the hole without needing to be tapped in, the hole is too large! The mounting-hole pattern will have to be moved and re-drilled using smaller holes, as necessary to achieve a snug fit.

- **4.** Place a flat washer on the anchor bolt, followed by a 3/8" nut.
- 5. Repeat Steps 2 and 3 for the remaining anchor bolts.



Figure 2. "Sleeve"-type anchor bolt.



Figure 3. Place anchor bolts in mounting holes.



Figure 4. Tap anchor bolts into mounting holes.



- Ensure the cabinet is as level as 6. possible given the floor conditions. Use a bubble level to verify this. If a bubble-level is not available, the cabinet can be "rocked" gently from front-toback and side-to-side to check the need for leveling. Use а screwdriver to adjust the leveling bolts inside the unit to level the cabinet. DO NOT extend the feet any further than necessary to level the cabinet.
- Use a torque wrench and 3/8" socket to tighten each nut to a torque setting of <u>60 foot-pounds</u> (required to establish the maximum pull-out strength of the anchors). If a torque wrench is not available, use a ratchet wrench and 3/8" socket to tighten the nuts <u>three full turns beyond hand tight</u>.
- 8. Once all anchors are tightened, close the door of the cabinet to ensure that the door does not bind. If the door does bind, loosen the anchor nuts slightly and retighten them in the following sequence:
  - a. Back left
  - b. Right front
  - c. Left front
  - d. Back right

- 9. Close the door and check for proper operation. The leveling feet may need to be adjusted to resquare the cabinet after the anchor nuts have been retightened. If the door continues to bind it may be necessary to relocate the cabinet to an area with a flat, level floor!
- **10.** Once the cabinet is square (level) and the door operates without binding, install a second nut on each bolt and tighten down firmly.
- **11.** If the dispenser tray was removed to facilitate cabinet installation, reinstall at this time.
- **12.** The physical installation of the ATM cabinet is complete.



Figure 5. Tighten bolts with torque wrench.



Figure 6. Second nut installed.



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# CABINET INSTALLATION CHEMICAL ANCHORS



#### \*\*IMPORTANT\*\*

The following procedure applies to the **<u>OPTIONAL</u>** Chemical Anchor Install Kit (06200-00060).

PARTS SUPPLIED				
4	Chemical Anchor capsules (02316-00002)	4	Threaded chisel-point rods, M12 x 1.75 (02302-00006)	
8	Hex nuts, M12 x 1.75 (02301-00015)	4	Washers (02309-00014)	
REQUIRED TOOLS/EQUIPMENT				
1	Adjustable Crescent Wrench, or Ratchet Wrench with 18 mm (3/4-inch) socket			
1	Center Punch (for marking drilling points)	1	Wire Brush (for cleaning mounting holes)	
1	Large Flat Screwdriver	1	Bubble Level	
1	Heavy-Duty (Professional- Grade) Electric Hammer Drill.	1	6 mm (1/4-inch) and 15 mm (9/16-inch) Carbide-tipped Masonry Drill Bits - at least 15 cm (6-inches) long	
1	Safety Goggles	1	Ear Plugs or Ear Muffs (hearing protection)	
1	Back-Support Belt	1	Portable Vacuum Cleaner or Blower (to remove dust and debris from mounting holes)	

## UNPACK ATM

- 1. Carefully inspect the unit for any shipping damage and report any damage immediately to the shipping company. Refer to the warranty information in this manual for information about reporting shipping damage.
- 2. Remove the unit from the carton by cutting the straps and removing the top of the box.

#### \*\*IMPORTANT\*\*

The Model 9100 is designed for indoor installation only!

#### TOOL USE/SAFETY

Observe ALL safety precautions for operating hand and power tools! Wear eye and ear protection while operating the electric drill!

USE A BACK-SUPPORT BELT WHEN LIFTINGAND MOVING THEATM.



- **3.** Remove the loose packing material from inside of the box.
- 4. Remove the silver key from the white plastic bag attached to the wrapping.
- 5. Stand the unit up and walk it out of the shipping carton.
- **6.** Remove the wrapping from the ATM.
- 7. Use the silver-colored key to unlock both the control panel and the fascia door (which conceals the locking mechanism) on the front of the cabinet. Open the fascia door.
- 8. Lift the handle under the bill chute to open the front enclosure door. If the door is locked, see the sidebar on the next page for help in unlocking the combination lock.
- **9.** Remove the accessory kit from inside the bottom enclosure; open and inspect the contents. Check the contents against the enclosed packing list. Report any missing parts to Triton Systems immediately.

#### SELECTING THE INSTALLATION LOCATION

Choosing the right location for your ATM is very important. Security concerns suggest a location be chosen that is away from any door or external access point. Ideally, the terminal should be mounted as close to a back wall as possible. For marketing reasons, however, it may be desirable to locate the terminal near the front, where your customers can easily locate it. Wherever you decide to locate the terminal, be sure to follow the recommended procedures for both mounting the terminal and for removing cash from it when the unit will be unattended.

#### LEVEL FLOORING REQUIREMENT

If the floor is not flat and level the cabinet bottom and/or walls may become distorted when the mounting bolts are tightened down! This could prevent the security vault door from closing!

#### POWER OUTLET ACCESSIBILITY

Whether you are installing a new outlet, or plan to use an existing outlet to supply power to the ATM, make sure the following requirements are met:

- 1. The outlet is located near the cabinet.
- **2.** The outlet is easily accessible.
- 3. Access to the outlet will not be blocked once the cabinet is installed!



#### MARK/DRILL MOUNTING HOLES

Mark the location of the cabinet mounting holes on the concrete floor. This can be accomplished as described below:

- 1. Move the ATM to the location where it will be installed. Open the cabinet door at least 90 degrees to improve access. Locate the four anchor-bolt holes (cutouts) in the bottom of the cabinet. Use a felt-tip pen or other marker to carefully mark the center of each of these four holes on the floor: these marks will serve as guides for the anchor bolt holes that will be drilled in the next step. Move the ATM aside, to provide clear access to the mounting hole marks.
- Use a 6 mm (1/4-inch) diameter carbide-tipped masonry bit to drill four pilot holes at the drilling points marked in the previous step. Drill the pilot holes approximately 12 mm (1/2-inch) deep into the floor. These holes will help guide the half-inch masonry bit that will be used to drill the anchor-bolt holes in the next step.
- 3. Use a 15 mm (9/16-inch) diameter carbide-tipped masonry bit to drill four holes at least 115 mm (4 1/2-inches) deep into the floor. Be sure to take into account the depth of any floor covering, such as tile or vinyl when gauging the depth of the anchor holes. *Make sure the holes are drilled at least 115 mm* (4 1/2-inches) into the <u>concrete floor</u>.



Figure 1. Drilling mounting holes.



Figure 2. Blow out dust/debris.



4. Use a blower or portable vacuum cleaner to remove any dust or debris that may have fallen into the holes during the drilling process. Brush the hole with the wire brush to loosen any additional debris, then blow or vacuum again. *Holes may be dry or damp, but must be free of standing water or frost!* 



Figure 3. Remove dust with wire brush.

#### INSTALL CHEMICAL ANCHORS

- 1. Move the ATM into position for mounting by aligning the base over the four holes drilled in the previous procedure.
- 2. Begin by inserting a Chem Stud capsule into one of the mounting holes. Either end of the capsule may be inserted first.
- **3.** Place a washer and a nut (in that order) onto a chisel point rod. Thread the nut onto the rod, leaving **3 to 4** threads exposed.
- 4. Thread the rod coupler onto the threaded rod until it is tight against the nut. The threaded rod used should be free of dirt, grease, oil or other foreign material.
- 5. Select the drive unit, insert it into a rotary hammer drill and engage the coupling to be used.



Figure 4. Insert Chem Stud capsule in mounting hole.



Figure 5. Prepare chisel point anchor rod. Add washer and nut.



- 6. Insert the chisel point of the rod into the hole to break the glass capsule. Spin it into the capsule at a speed of 250 to 500 RPM, until it is fully embedded. *IMPORTANT! Turn the rotary* hammer drill OFF *IMMEDIATELY when the rod is* fully embedded!
- 7. Pull the driver out of the coupling while holding the rod. Hold the hex nut with a wrench to unthread the coupler.
- **8.** Repeat steps 1-7 for each of the remaining mounting holes.
- **9.** Allow the adhesive to cure for the specified time (see chart and important not, which follow) prior to applying any load to the anchors. During the winter, the hole temperature may be different than the room temperature! The hole temperature should be measured to determine the curing time required. *DO NOT disturb or load the anchors until they are fully cured*!



Figure 6. Drive anchor rod into capsule using hammer drill.



Figure 7. Allow seated anchor to cure.

Base Material Temperature*	Setting Time
68º F / 20º C and over	20 minutes
50° F / 10° C to 68° F / 20° C	30 minutes
32º F / 0º C to 50º F / 10º C	1 hour
23º F / -5º C to 32º F / 0º C	5 hours
14º F / -10º C to 23º F / -5º C	10 hours



#### BOLT CASH DISPENSER TO FLOOR

- 1. Ensure the cabinet is as level as possible given the floor conditions. Use a bubble level to verify this. If a bubble-level is not available, the cabinet can be "rocked" gently from front-to-back and side-to-side to check the need for leveling. Use a screwdriver to adjust the leveling bolts inside the unit to level the cabinet. DO NOT extend the feet any further than necessary to level the cabinet.
- 2. Use an adjustable crescent wrench, or a ratchet wrench with 18 mm (3/4inch) socket to tighten the nuts down. *No minimum torque setting for the nuts is required.* Simply ensure the nuts are tightened down firmly enough to secure the Cash Dispenser cabinet to the anchors. Tightening the nuts just beyond hand tight should prove adequate.
- **3.** Once all anchors are tightened, close the door of the cabinet to ensure that the door does not bind. If the door does bind, loosen the anchor nuts slightly and retighten them in the following sequence:

a.	Back left	с.	Left front
b.	Right front	d.	Back right

- 4. Close the door and check for proper operation. The leveling feet may need to be adjusted to re-square the cabinet after the anchor nuts have been retightened. *If the door continues to bind it may be necessary to relocate the cabinet to an area with a flat, level floor!*
- 5. Once the cabinet is square (level) and the door operates without binding, install a second nut on each bolt and tighten down firmly.
- **6.** If the dispenser tray was removed to facilitate cabinet installation, replace it at this time.
- 7. The physical installation of the ATM cabinet is complete.





Figure 8. Tighten nuts with wrench.

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Figure 9. Add second (jam) nut and tighten..



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# POWER AND COMMUNICATION



## **Connecting AC Power and Telephone Line**

#### \*\*IMPORTANT\*\*

AC power for the terminal should come from a dedicated source with an isolated ground.

- 1. Ensure the power and phone cables are routed through the cable clips, as shown in Figure 1.
- 2. Route the AC power cord and the phone cord through either the rear or side access hole (as applicable) in the security cabinet, as shown in Figures 2a and 2b.

## \*\*IMPORTANT\*\*

The AC socket-outlet shall be installed near the equipment and shall be easily accessible.

## POWER SUPPLY CORD SPECIFICATIONS

For European applications, the power supply cord must conform to the following specifications:

- 1. Two-conductor with Physical Earth (PE) ground.
- 2. IEC 320 molded connector on one end and molded plug on the other end.
- 3. Certified for country of installation.
- 4. Rated minimum H05VV-F with minimum 0.75 mm2 (except where specific countries require 1.0 mm2) conductors.
- 5. Maximum length: 3 meters.



Figure 1. Ensure power and phone cords are routed through cable clips.



Figure 2a. Power and phone cords routed through rear access hole.



Figure 2b. Power and phone cords routed through side access hole.

## \*\*NOTE\*\*

The ATM is designed to work on an IT (Isolated Terra)-type power system having a phase-to-phase voltage not exceeding 240 volts.



# DISPENSING MECHANISM INSTALLATION



## Installing the TDM-100/150 Dispensing Mechanism

Four, 6-32 x 5/16 screws (02054-00098) are required to attach the dispensing mechanisms to the turn-table. The screws are provided in the accessory box.

1. Refer to Figure 1. Unlock and open the control panel. Verify that the power switch is in the OFF (0) position. Close the control panel.



Figure 1. Power switch on right side of power module.

2. Remove the packing material from the ends of the dispenser data and power cables that are hanging inside the cabinet.



Figure 2. Dispenser data and power cables.

- 3. Unpack and remove the dispensing mechanism from its shipping container. Remove the currency and reject cassette from the dispenser.
- 4. Open the security cabinet and check the position of the turntable. The turntable must be in the cassette service position to correctly install the dispensing mechanism. The turntable is in the service position when the 90° locking pin hole is to the left as shown in Figure 3. It is in the normal operating position when the hole is to the right as shown in Figure 4.



Figure 3. Turntable in cassette service position. Note that plate hole is to the left.



Figure 4. Turntable in operating position. Note that plate hole is to the right.



5. (For TDM-100) If the turntable is not in the service position, pull down on the turntable locking pin, on the underside of the tray, as shown in Figure 5, and rotate the turntable clockwise until it is in the service position, as shown in Figure 6. Release the locking pin to lock the turntable in the service position.



Figure 5. Location of turntable release pin on underside of dispenser tray.



Figure 6. Rotate turntable

6. (For TDM-150) If the turntable is not in the service position, slide the dispenser tray out to its fully extended position. Pull down on the turntable locking pin on the underside of the tray as shown in Figure 5 and rotate the turntable clockwise until it is in the service position as shown in Figure 6. Release the locking pin to lock the turntable in the service position. 7. Refer to Figure 7. Place the dispensing mechanism on the turntable in the cassette service position (with the opening for the currency and reject cassettes facing to the front as you look into the security cabinet).



Figure 7. Dispenser on swivel mount in cassette service position.

 Refer to Figures 8 and 9. Align the four holes in the base of the dispensing mechanism with the four holes in the turntable. Secure the dispensing mechanism to the turntable with the four, #6-32 x 5/ 16 screws supplied.



Figures 8 and 9. Location of dispenser/turntable mounting holes.





9. (For TDM-150) Route the serial communications cable and power cable through the tie-wrap loop located on the side of the dispenser shown in Figure 10. Continue to route cables through second tie wrap as shown in Figure 11. Plug the data cable into jack J11. Plug the DC power connector into jack J12 (Figure 11). Pull both tie wraps to secure cables to dispenser.



Figure 10. Cable tie wrap location for TDM-150 (side of dispenser).



Figure 11. Data / power connections.

- (For TDM-100) Rotate the dispenser 90° counterclockwise. Route the serial communications cable and power cable through the tie-wrap loop and plug the data cable into jack J11. Plug the DC power connector into jack J12 (Figure 11). Pull tie wrap to secure cables to dispenser.
- Secure the power and data cable with the cable clip located on the underside of the vault ceiling. (Figure 12)



Figure 12. Cables routed through cable clip.

12. Load the currency cassette using the instructions in Section 4, Currency Handling. Place the appropriate denomination label (supplied in the accessory box) on the cassette. Install the currency and reject cassettes and rotate the dispensing mechanism back to the operating position. (cassettes towards rear of cabinet) Slide the dispenser (TDM-150) back into the cabinet. Close and lock the security cabinet.

**NOTE:** You can access the cassettes from the operating position by rotating the turntable either  $90^{\circ}$  or  $180^{\circ}$  clockwise.



- 13. Open the control panel and apply AC power to the ATM by pushing the AC power switch to the ON (I) position.
- 14. Complete the ATM setup, if necessary, according to the instructions in the Configuration manual or applicable Service manual.
- 15. Access the Management Functions and perform a Test Dispense operation. Follow these steps to perform a Test Dispense:
- A. Access the Management Functions main menu screen.
- B. Select **Diagnostics**, then **Test Dispense**.
- C. The Test Dispense operation will start. At the conclusion of the operation, a status screen will report the results.
- D. The Test Dispense function causes the dispensing mechanism to dispense a single note into the Reject cassette. This test exercises the dispenser without sending notes to the exit.
- E. After completion of the Test Dispense operation, a status code, referred to as a <u>Return Code</u>, is displayed. A Return Code of '20 20'21' indicates a successful Test Dispense.



## Installing the Mech 10 (Minimech) Dispensing Mechanism

Four screws are required to attach the dispensing mechanism to the tray. If the mechanism was not preinstalled, the mounting hardware is provided in the accessory box.

## NOTE

If the dispenser tray was removed while securing the cabinet, make sure the tray and mechanism have been reinstalled. The procedures can be found in the section under the heading "Cabinet Installation Standard Anchors."

## If the mechanism was NOT preinstalled, begin with Step 1. If the mechanism WAS pre-installed, skip to Step 8 of this procedure.

1. Refer to Figure 1. Unlock and open the control panel. Verify that the power switch is in the OFF (0) position. Close the control panel.



Figure 1. Power switch on right side of power module.

2. Unpack and remove the mechanism from its shipping container.

- 3. Place the dispenser on the tray. Turn the dispenser so that the rear of the unit (where the power and data cables connectors are located) may be accessed.
- 4. Refer to Figure 2. Ensure the data cables are connected to the Electronic Journal, as shown. Ensure the connectors are tightened down firmly.



Figure 2. Ensure data cables are connected to Electronic Journal module.

- 5. Route the power and data cables up through the access hole in the dispenser tray. If not already installed, clip the strain-relief grommet on to the two cables. Squeeze the release button on the side of the grommet and push the grommet up and into the cutout hole in the tray. The grommet should snap into place.
- 6. Refer to Figure 3. Plug the power and data cables into the mating connectors on the back of the dispenser. Make sure the white strain clip on the power cable is pointing down. Make sure the thumbscrews on the data cable are securely tightened.





*Figure 3. Serial communication and DC power cables connected.* 

7. Refer to Figure 4. Slide the mechanism under the rear screws on the tray and align the front with the screw holes at the left and right corners of the mechanism chassis. Secure using two screws provided in the accessory box.



Figure 4. Secure mechanism chassis to tray using two screws.

- Load the currency cassette. Place the appropriate denomination label (supplied in the accessory box) on the cassette and install into the dispensing mechanism. Follow the instructions in Section 4, Currency Handling. Close and lock the security cabinet.
- 9. Open the control panel and apply AC power to the ATM by pushing the AC power switch to the ON (I) position.

- 10. Complete the ATM setup, if necessary, according to the instructions in the Configuration manual or applicable Service manual.
- 11. Access the Management Functions and perform a Test Dispense operation. Follow these steps to perform a Test Dispense:
- A. Access the **Management Functions** main menu screen.
- B. Select **Diagnostics**, then **Test Dispense**.
- C. The Test Dispense operation will start. At the conclusion of the operation, a status screen will report the results.
- D. The Test Dispense function causes the dispensing mechanism to dispense a single note into the Reject cassette. This test exercises the dispenser without sending notes to the exit.
- E After completion of the Test Dispense operation, a status code, referred to as a <u>Return Code</u>, is displayed. A Return Code of '20 20'21' indicates a successful Test Dispense.

## NOTE

If you get a status code, referred to as a Return Code, of '20 20 26', this is normal. (6 notes went into the reject area of the cassette) The dispenser is shipped in the "relearn" mode, and it may take a few test dispenses for the dispenser to learn note dimensions.



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# APPENDIX B Combination Locks

## Introduction

The security cabinet can be secured using either a mechanical or electronic combination lock. This Appendix covers how to change the combination of either lock. Procedures specific to the electronic lock, such as changing the battery, are also covered. The first section covers the Mechanical combination lock.

## **Operating the Mechanical Lock**

#### Unlocking the Lock

There are two marks on the dial ring (see drawing opposite page). The index at the top is used for opening the lock, The index 30 degrees to the left is used only when changing the combination.

The dial should always be turned slowly and evenly. A revolution is counted each time the selected number is aligned with the opening index. DO NOT TURN THE DIAL BACK TO COMPENSATE FOR OVER DIALING A NUMBER. If, when dialing the combination, any number is turned beyond the index, the entire sequence must be repeated.

Locks are shipped on a factory setting of '50'. Using the OPENING Index, to unlock, turn the dial to the left (counterclockwise) four (4) turns, stopping on '50'. Then, turn the dial to the right until the dial stops. The combination lock bolt will retract and the safe door may be opened.

Unlocking 3-number combinations (For Example, "50-25-50")

- 1. Turn the dial to the LEFT at least four (4) complete turns to clear the combination lock to accept the combination.
- 2. Using the OPENING Index, turn the dial to the LEFT, stopping when '50' is aligned with the opening index, the FOURTH time.
- 2. Turn the dial to the RIGHT, stopping when '25' is aligned with the opening index, the THIRD time.
- 3. Turn the dial to the LEFT, stopping when '50' is aligned with the opening index, the SECOND time.
- 4. Turn the dial slowly to the RIGHT until the bolt retracts.

## Locking the Lock

Turn the dial to the LEFT at least four full revolutions.





## **Changing the Combination**

## Follow these steps to change the combination:

To change the combination, you will need access to the existing combination and a change key. First, open the safe door by dialing the existing combination. With bolt retracted and before changing combination, verify that the dial stopped between 90 and 100 on the OPENING Index.

Select three new numbers. **DO NOT** use any number between **1 and 20** for the last number.

For maximum security, do not use numbers that end in 0 or 5, and do not use numbers in sequence: e.g., '27-48-86' is not as good as '27-86-48". Perform the following steps next:

- 1. Dial the existing combination again using the CHANGE Index, but STOP the dial on the last number of the combination.
- 2. With the last number set at the changing index, hold the dial securely and insert the change key in the keyhole in the back of the lock. Make sure the wing is entirely inside the lock and comes to a positive stop (see Figure 1) before turning the key.

If the change key will not go in, the wheels are not lined up to be changed and you must dial the combination again on the Change Index.





- 3. Turn change key to the RIGHT until it stops (approximately one-quarter turn). With the change key in this position, set the new combination as follows: Never select a number from 0 to 20 (the forbidden zone) as the last number of the combination.
- 4. Using the CHANGE index, turn the dial to the LEFT stopping when the first number of the new combination aligns with the CHANGE Index, the FOURTH time.
- 5. Turn dial to the RIGHT, stopping when the second number is aligned with the CHANGE Index, the THIRD time.
- 6. Turn the dial to the LEFT, stopping when the third number is aligned with the CHANGE Index, the SECOND time. Holding the dial in this position, turn the change key back to the LEFT and remove it. (See Figure 1.) The new combination you have chosen is now set in the lock,

#### \*Important\*

Before closing the vault door, try the new combination several times using the OPENING Index.



## **Operating the Electronic Lock**

## **Entering the Combination**

The electronic lock combination consists of six digits. Upon arrival, the combination of the lock should already be preset to **1-2-3-4-5-6**.

## Follow these steps to enter the combination and open the lock:

- 1. Enter the preset combination and check for proper operation. After each keypress, the lock will beep. After the final digit has been entered, the lock will beep twice, and the open period will begin.
- 2. When a valid combination has been entered, the operator will have approximately 3 seconds to open the lock.
- 3. To open the lock, turn the keypad clockwise.
- 4. After the lock is opened, the handle may be lifted up and the cabinet door opened.

## Lockout Feature

The lock includes a WRONG TRY PENALTY lockout feature that prevents entry from unauthorized personnel. This feature performs as follows:

- Entry of four consecutive invalid combinations will disable the lock for 5 minutes.
- During this lockout period, the panel LED will flash every 10 seconds. Dur ing this time no other combination entries will be allowed.
- At the end of the lockout period, if two more consecutive invalid combina tions are entered, the 5-minute lockout period will restart.



## Changing the Combination

## \*\*Warning\*\*

Never leave the factory default combination in the lock! Change the combination as soon as possible to help protect the security of the vault.

#### Follow these steps to change the combination:

- 1. Unlock and open the security cabinet.
- 2. Repeat the previous step three times to verify the lock is operating properly.
- 3. Enter six zeros.
- 4. Enter the current combination. (Initially set at 1-2-3-4-5-6)
- 5. Enter the new combination twice.
- 6. The combination is now changed. Enter the new combination to open the lock.

## \*Important\*

Before closing the vault door, try the new combination several times.

## **Bad Battery/Battery Replacement**

If the lock beeps repeatedly while open, or beeps twice and refuses to open, the 9-volt battery, located in the battery box on the inside of the door, is weak or dead and needs to be replaced.

## \*Important\*

If the lock will not operate (i.e. no signal from the panel when a button is pressed) while the door is closed and locked, the battery is dead and the lock must be energized from the two external terminals on the front, right side of the push-button panel.

To energize the lock, connect a 9-volt battery across the external terminals with the negative terminal of the battery facing up. Continue to hold the battery against the terminals as you enter the combination and open the lock.



## Follow these steps to replace a battery:

- 1. Open the ATM vault door. If the battery box is visible on the back panel of the door, continue with Step 2, below. If the battery box is not visible, the bolt-works panel must be removed. Remove the eight screws from the bolt-works panel on the back side of the door. The battery box will be visible.
- 2. Pull gently on the front cover of the battery box and slide the cover off.
- 3. Remove the old battery. Install a new battery and replace the front cover.
- 4. Verify the lock is working correctly.
- 5. If the bolt-works panel was removed in Step 1, reinstall the panel and secure it in place using the eight installation screws. Close and lock the ATM vault door.



BOLTWORKS COVER-PLATE



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