



# **X-SCALE / X2 CONFIGURATION MANUAL**

## **AUTOMATED TELLER MACHINES**

VERSION 5.0

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# X-SCALE / X2 CONFIGURATION MANUAL

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### DOCUMENT UPDATES

Sep 15 2009 2.3.2 and 2.4 Release notes added to XScale supplement

Oct 7 2009 Clarification on message graphics requirements to be 2 (two) color, (black and white)  
.btm on pages 108 and 128.

# MANAGEMENT FUNCTIONS

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**APPENDIX B - TERMINAL ERROR CODES ..... B-1**

### **SUPPLEMENTS (SOFTWARE RELEASE NOTES - COUNTRY(S) SPECIFIC)**

#### **SUPPLEMENT A - X-SCALE (RL/FT5000, RT2000)**

1.7.0	South Africa	Nov 22 2005
1.8.1	Internaional	May 16 2006
1.8.3	Canada	May 6 2006
1.8.3	Mexico	May 6 2006
1.8.3	UK	Mar 2 2007
1.8.3	US	Jan 10 2007
1.8.4	International	Mar 19 2007
1.8.4	Netherlands	Nov 9 2006
1.8.5	Common	May 29 2007
1.8.5	Mexico	May 29 2007
1.8.5	Mexico Screens	Sep 11 2007
1.8.6	Common	July 24 2007
1.8.6	Mexico	May 24 2007
1.8.6	UK-International	May 24 2007
1.9.0	South Africa	July 26 2007
2.1.1	UK	Oct 19 2007
2.2.1	US-Canada	Feb 18 2008
2.2.3	Mexico	Feb 13 2009
2.3.1 SP1	Australia	Oct 7 2009
2.3.2	Canada	Jun 16 2009
2.4.0	US-Mexico	Sep 2 2009

## **SUPPLEMENT B - X2 (RL2000, RL/FT5000X2, RT2000X2)**

2.0.0	Common	Aug 28 2007
2.0.0	UK-International EMV	Aug 30 2007
2.0.0	Netherlands	Aug 27 2007
2.0.0	South Africa	Nov 9 2007
2.0.0	US TCL	Feb 10 2009
2.0.1	South Africa	Nov 16 2009
2.0.1	UK-International EMV	Nov 16 2007
2.0.1	US-Canada-Mexico	Oct 23 2007
2.2.1	Common	Dec 5 2007
2.2.1	South Africa	Dec 20 2007
2.2.1	UK	Mar 19 2008

## **SUPPLEMENT C - KEY MANAGEMENT PROCEDURES (T5/T7 PCI-EPPs)**

# **BASIC OPERATION**

# X-SCALE / X2 CONFIGURATION MANUAL

## CONTROL PANEL LAYOUT

The user interface of the terminal consists of the LCD screen, receipt chute, card reader, speaker, 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.



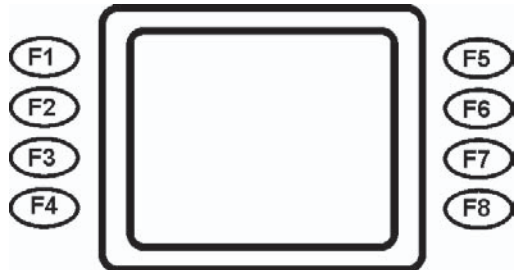
*Lobby unit (example)*



*Through-the-wall unit (example)*

## FUNCTION KEYS

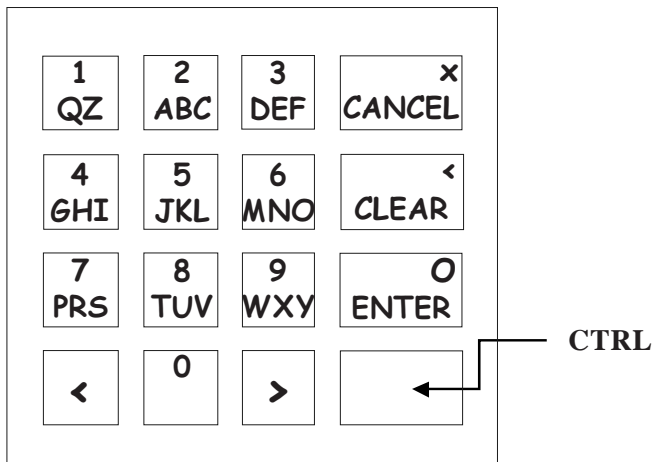
The eight (8) keys, arranged in two four-key groups, are called screen function keys. A screen function key is only active when a corresponding function or menu option is present next to that key. The Function keys are designated F1 through F8.



## BASIC OPERATION

### MAIN KEYPAD

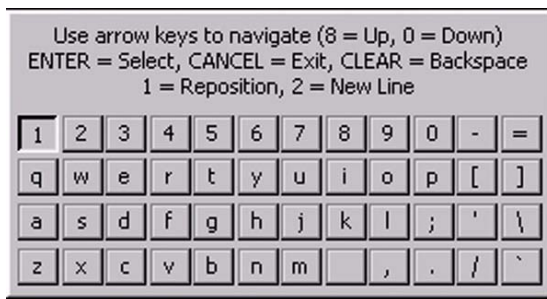
The entry of numeric characters via the main keypad is straightforward: simply press the desired key. However, in certain Management Function screens it may be necessary to enter alphabetic characters, a procedure that's available with the On-Screen keypad.



### ON-SCREEN KEYPAD OPERATION

To enter text characters into the dialog boxes that are displayed by the Management Functions, press the **F8** key to display the screen keyboard. Use the keys described below to navigate and enter required data.

- The Arrowkeys (< AND >), the <8> key -(Up), and the <0> key -(Down) navigate the keyboard.
- Press the <ENTER> key to select the highlighted key entry
- Press the <CTRL> key to switch between upper and lower case characters.
- Press the <CANCEL> key to Exit the keyboard.
- Press the <CLEAR> key for the Backspace operation.
- Press the <1> key to reposition the keyboard to another location on the display.
- Press the <2> key to position the cursor on a new line.



## MENU-BASED OPERATION

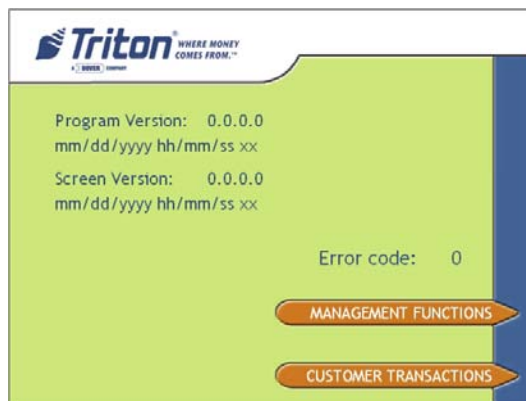
The terminal operates as a menu driven system. Messages and menu options presented on the LCD display screen guide the user's actions. The desired menu option is selected by pressing one of the keys located to the left and right of the display. For the purpose of security many screens timeout after a 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 CustomerWelcome 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 CustomerWelcome screen.

Shortly after the unit is turned on, the top menu will be displayed. An example top menu is shown below. 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).

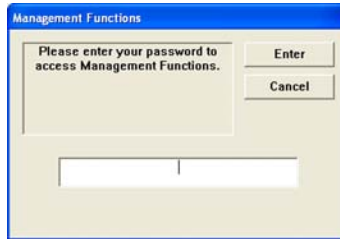


## BASIC OPERATION

### ACCESSING THE MANAGEMENT FUNCTIONS MENU

After initial setup, when the Customer Welcome screen is displayed, you can access the Management Functions menu by following the procedure described next.

- ➡ Press and hold down the blank<CTRL> key; while holding down the <CTRL> keypress the<1> key. Release both keys. After a moment the “Security Login” screen will be displayed.



You must enter an appropriate password in the dialog box that appears when the Management Functions option is selected. The password will consist of **2-digit ID code** and **password of 4-12 digits**; for example, 051234 could be a password entry consisting of an ID code of 05 and a password of 1234.

- ➡ Enter your password and press <ENTER>.

When a valid login is entered, the Main Menu screen will be displayed.

### CHANGING DEFAULT PASSWORDS

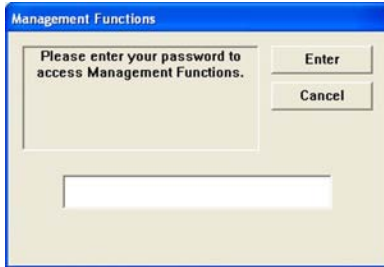
With the release of newer software, you will experience a new error code. Error Code **(246)** has been created for when the terminal's Master Password is in its default state. The terminal will detect this condition and go out of service. On the “Out of Service” screen, no error information will be displayed. The following is a screen capture of this state. This error code will not clear until the Master Password is changed from its default state.

Follow the steps on the next page for changing default password and clearing error



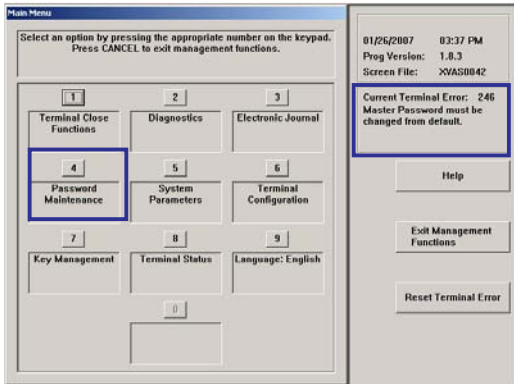
## CHANGING DEFAULT PASSWORDS

1. Enter Management Functions <CTRL> and <1>. Enter the default password '001234'.

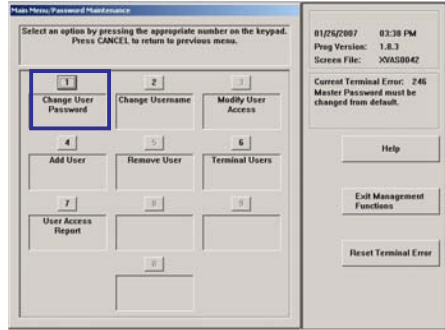


2. The Main Menu appears. Error code '246' appears at right and its description "Master password must be changed from default".

Select option <4>, PASSWORD MAINTENANCE.



3. Select option <1>, CHANGE USER PASSWORD.



4. Enter a new Master password.

**NOTE:** The terminal password consists of a 2-digit ID code and a Password of 4-12 digits. '00' is the Master ID code and cannot be changed. Only enter the password digits!



**Example:** If you enter '5566', then the Master password will be changed to '005566'. If you enter '005566', then the Master password will be changed to '00005566'.

**NOTE:** You will prompted to "Reconfirm" the new password.

5. Exit out of Management Functions. The terminal Master password has changed.

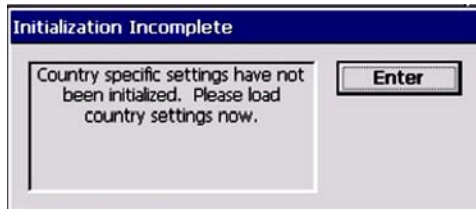


# BASIC OPERATION

## X2 LOAD FILES

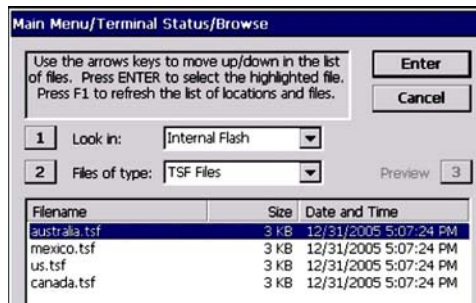
Country specific settings will be loaded via a parameter file for each country. This setting will drive specific spellings, screen flows, etc. that may be unique to a market or country.

After the initial installation of a full-load file, upon entering management functions the 'Initialization Incomplete' dialog will be displayed:

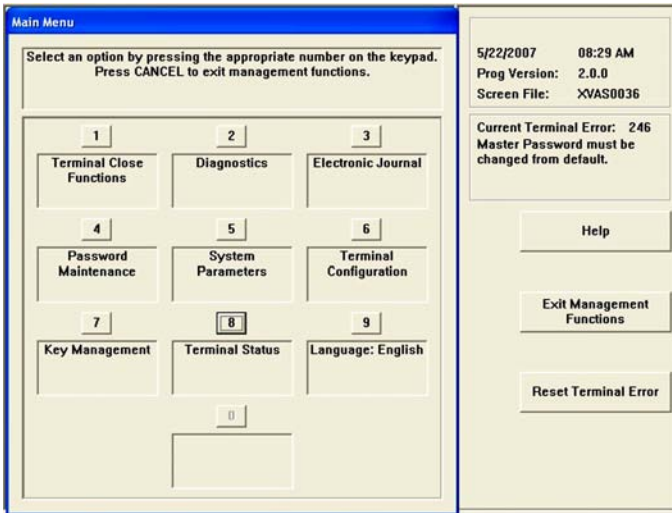


At this point the only option is to press <ENTER>. What happens next will depend upon whether one or more country-specific parameter files exist on the terminal:

1. If no country-specific parameter file exists, the terminal's built-in defaults will be loaded and you will be returned to the Management Functions Main Menu.
2. If a single country-specific parameter file exists, the country-specific default parameters will be loaded from this file and you will be returned to the Management Functions\terminal Status Main Menu.
3. If more than one parameter file exists, a browse dialog will appear, allowing you to select the applicable parameter file. Selecting a file and pressing "Enter" will load the country-specific default parameters from this file and return you to the Management Functions\Terminal Status Main Menu. Here is an example of the browse dialog:



**IMPORTANT:** If the browse dialog is displayed it is possible to abort loading of a country-specific parameter file by pressing 'Cancel.' In this case you will still need to return to the dialog later and select a parameter file to ensure all country-specific defaults have been initialized. To return to the browse dialog, select the Terminal Status option from the Management Functions Main menu and press the 'Restore Default Parameters' option. Until a parameter file has been loaded you will continue to be prompted by the 'Initialization Incomplete' dialog whenever entering Management Functions.



**\* Note \***

The availability of some Management Functions will depend on such factors as dispenser type, optional hardware installed, user password options, etc. In cases where a function is not applicable or available, the option will be “*grayed out*” or otherwise disabled.

## 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).

The **Main Menu** screen allows the service provider/terminal operator to access the following Management functions (determined by password access level):

1. **CLOSE FUNCTIONS.** Used to perform cassette close, day close, and schedules 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, archive, and delete.
4. **PASSWORD MAINTENANCE.** Used to add/delete users and modify terminal access privileges.
5. **SYSTEM PARAMETERS.** Used to shut down or restart the terminal, update terminal software, and set terminal date/time settings.
6. **TERMINAL CONFIGURATION.** Used to view/edit terminal operating parameters such as terminal ID, surcharging, status monitoring, cash dispenser setup, ads/graphics, communication setup, and Triton Connect configuration.
7. **KEY MANAGEMENT.** Used to enter encryption keys, which protect communications between the ATM and the transaction processing service provider.
8. **TERMINAL STATUS.** Used to view terminal status reports (error history/configuration summary), save and restore parameters, and reset terminal errors.
9. **LANGUAGE.** Press this option repeatedly to cycle through the available languages. The current language displayed is used for all management function screens.

## BASIC OPERATION

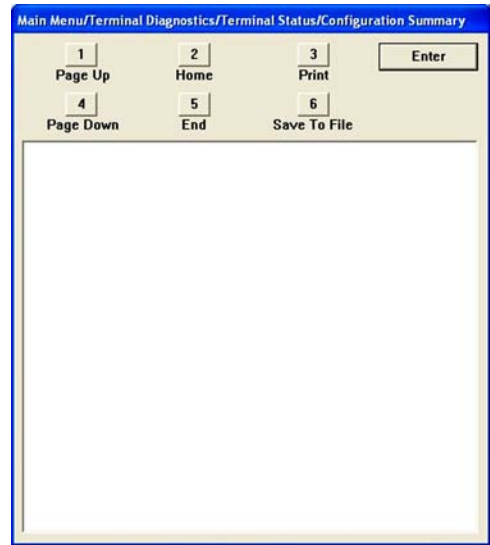
### MANAGEMENT REPORTS

Many Management Functions, such as Close, Journal, and Diagnostic functions, produce a report summarizing the results of the operation. Most reports are displayed in a Management Report dialog, which you can use to print the report to the receipt printer or save to an external memory device (USB jumpdrive).

**Note:** *If saving to an external memory device, the device must be installed (USB port) **BEFORE** saving to that device.*

The buttons on the Management Report dialog let you perform the following actions:

1. **PAGE UP.** Scrolls the report up a maximum of one full page.
2. **HOME.** Moves directly to the first page of the report.
3. **PRINT.** Sends the report to the terminal receipt printer for hardcopy output.
4. **PAGE DOWN.** Scrolls the report down a maximum one full page.
5. **END.** Moves directly to the last page of the report.
6. **SAVE TO FILE.** Saves the report as a text file to an external memory device.



### REQUIRED PARAMETERS

The following parameters *minimally* need to be configured to enable a “live” transaction:

- **TERMINAL ID NUMBER**
- **COMMUNICATION PROPERTIES**
- **PIN MASTER KEY**
- **PIN WORKING KEY**
- **CASSETTE PARAMETERS**

These parameters do not take in to account any additional processor requirements. Refer to the processor setup requirements for any additional parameter settings .

**Note:** Upon completion of the ATM installation and terminal configuration, recommend accessing the **DIAGNOSTICS** menu to check the status and test various hardware items (Dispenser , Printer, Card Reader, etc).

# X-SCALE / X2 CONFIGURATION MANUAL

## REAR OPERATOR PANELS

The Rear Operator Panels provide convenient user-access to limited Management functions from inside the facility. The FT5000 rear panel (currently) has a self-contained enclosure with a display, keypad, and printer. The RT2000 rear display has a touchpad screen (no printer).

**Note:** Future implementation for the FT5000 rear service panel will change to the touchpad screen used for the RT2000.

Basic functions available are **TERMINAL CLOSE**, **DIAGNOSTICS**, **ELECTRONIC JOURNAL**, **RESET TERMINAL ERROR**, **SHUT DOWN** and **RESET TERMINAL**.

*FT5000 Rear Service Panel*



### OPERATOR SERVICE PANEL (MAIN MENU)

#### TERMINAL CLOSE

- TRIAL CLOSE
- DAY CLOSE
- TRIAL CASSETTE CLOSE
- CASSETTE CLOSE

- SELECT CASSETTE(S) TO CLOSE
- CLOSE REPORT
- REMOVE/REPLENISH CASSETTE(S)
- REINSTALL CASSETTE(S)
- PLACE CASSETTE(S) IN-SERVICE
- ENTER CASSETTE QUANTITY
- TRIAL CASSETTE CLOSE REPORT

#### DIAGNOSTICS

- CURRENT TERMINAL ERROR
- DISPENSER
- CARD READER STATUS
- PRINTER
- MODEM/ETHERNET
- KEYPAD

- PURGE
- TEST DISPENSE

#### ELECTRONIC JOURNAL

- DISPLAY UNAUDITED RECORDS      CLEAR JOURNAL
- DISPLAY LAST                          X JOURNAL RECORDS J

#### RESET TERMINAL ERROR

- SHUT DOWN THE TERMINAL
- RESTART THE TERMINAL



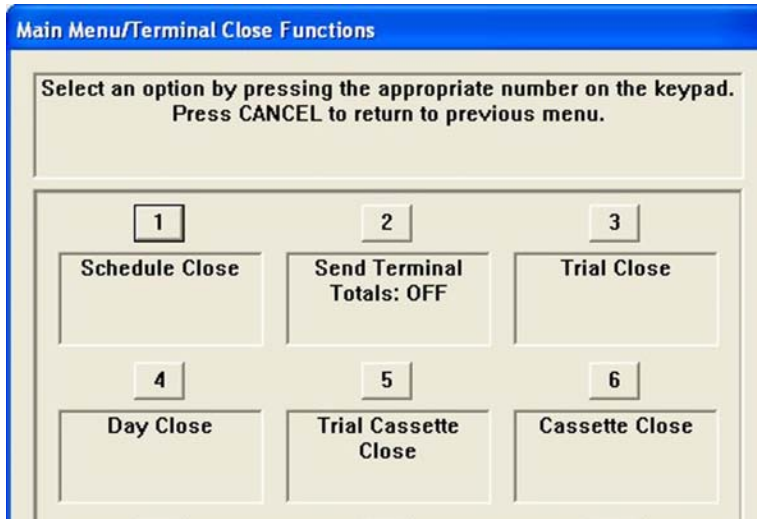
*RT2000 Operator Service Panel*

# TERMINAL CLOSE FUNCTIONS

**Main Menu**

Select an option by pressing the appropriate number on the keypad.  
Press CANCEL to exit management functions.

<b>1</b> Terminal Close Functions	<b>2</b> Diagnostics	<b>3</b> Electronic Journal
<b>4</b> Password Maintenance	<b>5</b> System Parameters	<b>6</b> Terminal Configuration
<b>7</b> Key Management	<b>8</b> Terminal Status	<b>9</b> Language: English
<b>0</b>		



## TERMINAL CLOSE FUNCTIONS

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TRIAL CLOSE / DAY CLOSE .....	16
TRIAL CASSETTE CLOSE .....	17
CASSETTE CLOSE .....	18-20

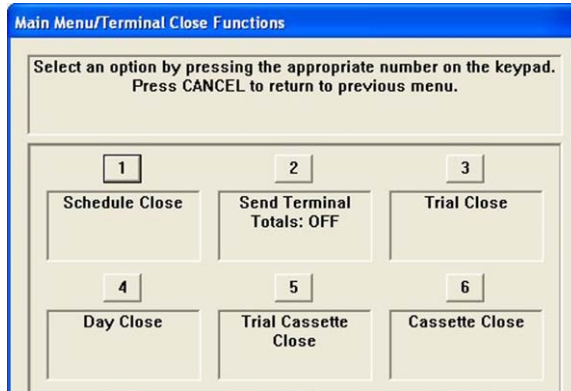
# TERMINAL CLOSE FUNCTIONS

---

## TERMINAL CLOSE FUNCTIONS

### ACCESS INSTRUCTIONS:

1. From the **MAIN MENU** screen, select the **TERMINAL CLOSE FUNCTIONS** option by pressing <1> on the keypad.



### DESCRIPTION:

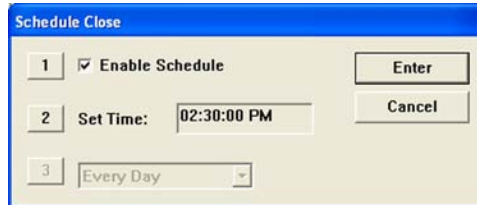
The **TERMINAL CLOSE** menu allows the terminal operator to perform the following functions:

1. **SCHEDULE CLOSE.** Used to enable/disable and set time for automatic day closes.
2. **SEND TERMINAL TOTALS.** Used to enable/disable automatic transmission of terminal close totals to your transaction processing service provider. Press this button to cycle the function between **ON** or **OFF**.
3. **TRIAL CLOSE.** Used to initiate a trial day close.
4. **DAY CLOSE.** Used to initiate a day close.
5. **TRIAL CASSETTE CLOSE.** Used to provide a receipt/record of the cassette(s) balance.
6. **CASSETTE CLOSE FUNCTIONS.** Used to access a menu of cassette close and cassette configuration functions.

## SCHEDULE CLOSE

### ACCESS INSTRUCTIONS:

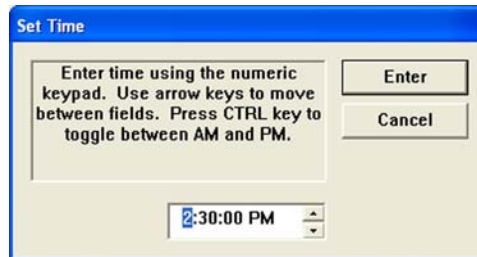
1. From the **TERMINAL CLOSE FUNCTIONS** screen, select the **SCHEDULE CLOSE** option by pressing <1> on the keypad.



### DESCRIPTION:

The **SCHEDULE CLOSE** function allows you to enable/disable scheduled closes and to specify when that will be performed.

- ➡ Press <1> on the keypad to either enable (check) or disable (uncheck). When enabled, menu option (2) will be accessible.
- ➡ Press <2> on the keypad.



Use the keypad to enter hours, minutes, and seconds. Use the <ARROW> keys on the keypad to move between the fields. Press the <CTRL> key to toggle between AM and PM at which the scheduled close is to be performed. The current time setting appears in a small text window

Press <ENTER> to accept the settings and return to the Terminal Close Functions main window.

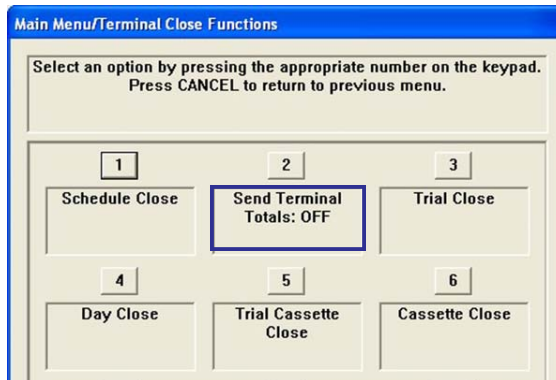


# TERMINAL CLOSE FUNCTIONS

## SEND TERMINAL TOTALS

### ACCESS INSTRUCTIONS:

1. From the **TERMINAL CLOSE FUNCTIONS** screen, press <2> on the keypad to toggle the state of the **SEND TERMINAL TOTALS** option between <ON> or <OFF>.



### DESCRIPTION:

This function allows turning ON or OFF the **SEND TERMINAL TOTALS** option. The current state of the feature is shown -**ON / OFF**.

When the option is ON, the terminal will send accumulated totals information to your transaction processing service provider during the Day Close operation. If the option is set to OFF, these totals will not be sent.

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 for additional information).

## TRIAL CLOSE / DAY CLOSE

### ACCESS INSTRUCTIONS:

1. From the **TERMINAL CLOSE FUNCTIONS** screen, select the **TRIAL CLOSE** option by pressing <3> on the keypad.
2. From the Terminal Close Functions screen, select the **DAY CLOSE** option by pressing <4> on the keypad..

### DESCRIPTION:

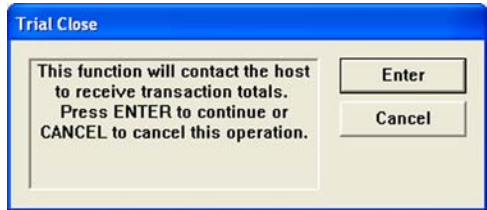
The **TRIAL CLOSE** function is used during the daily close procedure. It performs the same function as the Day Close, except that the totals are not cleared.

The report printed by the Trial Close is used to balance your cash dispenser before you actually balance with your processor. It contains accumulated transaction totals obtained from the processor and from the terminal itself. The report shows the total number of customer transactions (withdrawals, inquiries and transfers) recorded by the 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.

The **DAY CLOSE** function is used to complete daily balancing of the cash dispenser 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 transactions performed since the last Day Close was completed. The information includes a total of all transactions. This function also calls your processor's host system and downloads the totals it has accumulated for the current business day.

The Day Close is normally completed as the final step in the daily balancing process. You may wish to perform a Trial Close before the Day Close, to view the report *without clearing the accumulated transaction totals*.

The report is displayed in a management report dialog which can be printed to the receipt printer or saved to an external memory device.



**\*NOTE\***  
If the Day Close is not performed at the same time as the processors' day close, the host and terminal totals may not match.

# TERMINAL CLOSE FUNCTIONS

## TRIAL CASSETTE CLOSE

### ACCESS INSTRUCTIONS:

1. From the **TERMINAL CLOSE FUNCTIONS** screen, select the **TRIAL CASSETTE CLOSE** option by pressing **<5>** on the keypad.
2. Select which cassette(s) to include in the Trial Cassette Close report ( a checkmark denotes selected cassette). Press **<ENTER>**.

Main Menu/Terminal Close Functions/Trial Cassette Close

Select the cassettes to include in the trial cassette close report.

Press ENTER to continue or CANCEL to return to the previous menu.

1	<input checked="" type="checkbox"/> Cassette A	\$10.00	Cash
2	<input type="checkbox"/> Cassette B	\$0.00	Cash
3	<input type="checkbox"/> Cassette C	\$0.00	Cash
4	<input type="checkbox"/> Cassette D	\$0.00	Cash

### DESCRIPTION:

The **TRIAL CASSETTE CLOSE** function is used to complete the balancing of a specific currency cassette(s) of the terminal with out resetting the values to zero. This function displays a report summarizing all activity on the cash dispenser for the selected cassette since the last cassette close was completed. The report includes a total of all transactions.

The Trial Cassette Close is normally used to provide a quick look at the current status of the cassette(s). Completing a Trial Cassette Close **DOES NOT** clear the cassette totals from the terminal.

The Trial Cassette Close report is displayed in a management report dialog which can be printed to the receipt printer or saved to an external memory device.

## CASSETTE CLOSE

### ACCESS INSTRUCTIONS:

1. From the **TERMINAL CLOSE FUNCTIONS** screen, select the **CASSETTE CLOSE** option by pressing <6> on the keypad (or select **CASSETTE CLOSE** on the **REAR SERVICE PANEL**, if applicable).

### DESCRIPTION:

The **CASSETTE CLOSE** function is used to complete the balancing of a specific currency cassette(s) of the terminal. This function displays a report summarizing all activity on the cash dispenser for the selected cassette(s) since the last cassette close was completed. The report includes a total of all transactions.

The cassette close is normally completed as the final step in balancing a currency cassette before removing it to be replenished. Completing a cassette close **CLEARs** the cassette totals from the terminal.

The Cassette Close report is displayed in a management report dialog which can be printed to the receipt printer or saved to an external memory device.

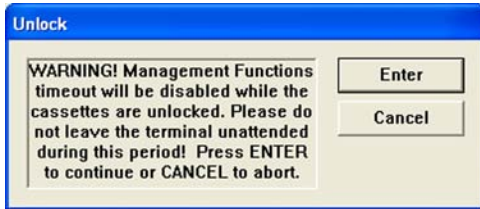
- 1 Select the cassette(s) to Close. A **checkmark** identifies which cassette(s) are selected. Press <ENTER>.
- 2 A **CLOSE** report is presented to be either printed or saved. Close operation also resets the number of bills loaded to zero (0). Press <ENTER> to continue.

Main Menu/Terminal Close Functions/Cassette Close				
Select the cassettes to close.				
WARNING: Cassette totals will be reset for the selected cassettes!				
Press ENTER to continue or CANCEL to return to the previous menu.				
1	<input checked="" type="checkbox"/>	Cassette A	\$10.00	Cash
2	<input type="checkbox"/>	Cassette B	\$0.00	Cash
3	<input type="checkbox"/>	Cassette C	\$0.00	Cash
4	<input type="checkbox"/>	Cassette D	\$0.00	Cash

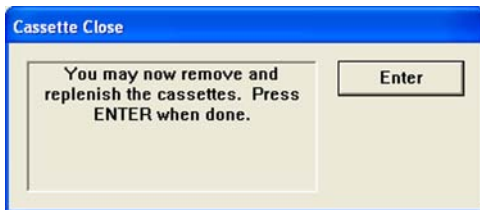
```
Management Report
Store Message
Terminal ID: 123456
2003-06-13 14:32:24
*** Cassette Close ***
Cassette A
Last Close Date/Time: 2003-06-13 14:32:22
          Qty  Amount
Start Quantity:  0  0.00 $
Dispensed:      0  0.00 $
Remaining:      0  0.00 $
Value of each doc: 10.00 $
Rejects: 0 [1 or more docs]
*** End Management Report ***
```

# TERMINAL CLOSE FUNCTIONS

- ③ *Note: For NMD-50/100 only, cassettes will automatically UNLOCK.*

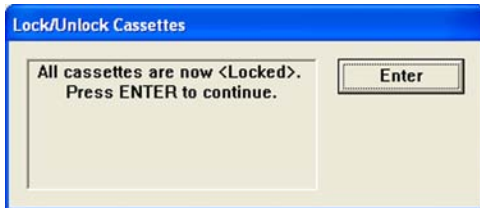


**REMOVE** and **REPLENISH** selected cassette(s). After reinserting cassette(s), press <ENTER>.

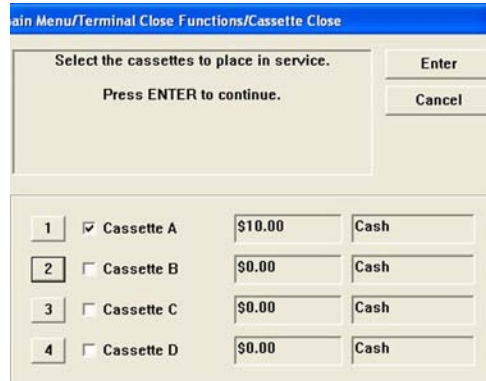


- ④ *Note: For NMD-50/100 only, cassettes will automatically LOCK. Press <ENTER>.*

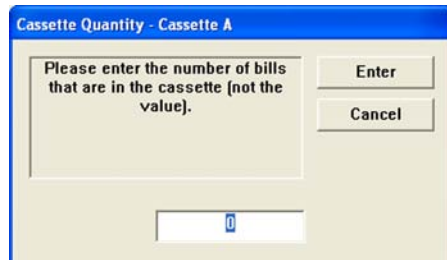
*For the NMD-50/100 dispensing mechanisms, the cassettes MUST be LOCKED and IN-SERVICE for normal operation.*



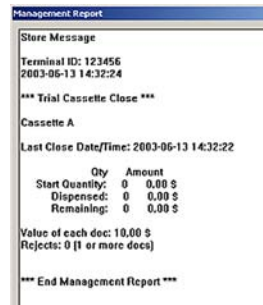
- ⑤ Place selected cassette(s) **IN SERVICE** (**MULTI-CASSETTE DISPENSERS ONLY**). Press <ENTER> to continue.



- ⑥ Enter **CASSETTE QUANTITY** (# of notes, **NOT** value) for selected cassette. Press <ENTER> to accept the entry. Repeat for remaining cassette(s).



- ⑦ A **TRIAL CASSETTE CLOSE** report appears to be printed or saved. Press <ENTER> after printing and retain copy for starting point reference.



## CASSETTE CLOSE (REAR SERVICE PANEL)

### OPERATOR SERVICE PANEL (MAIN MENU)

#### TERMINAL CLOSE

TRIAL CLOSE

DAY CLOSE

TRIAL CASSETTE CLOSE

CASSETTE CLOSE

SELECT CASSETTE(S) TO CLOSE  
CLOSE REPORT  
REMOVE/REPLENISH CASSETTE(S)  
REINSTALL CASSETTE(S)  
PLACE CASSETTE(S) IN-SERVICE  
ENTER CASSETTE QUANTITY  
TRIAL CASSETTE CLOSE REPORT

#### DIAGNOSTICS

CURRENT TERMINAL ERROR

DISPENSER

CARD READER STATUS

PRINTER

MODEM/ETHERNET

KEYPAD

PURGE  
TEST DISPENSE

#### ELECTRONIC JOURNAL

DISPLAY UNAUDITED RECORDS

DISPLAY LAST

CLEAR JOURNAL

X JOURNAL RECORDS J

#### RESET TERMINAL ERROR

#### SHUT DOWN THE TERMINAL

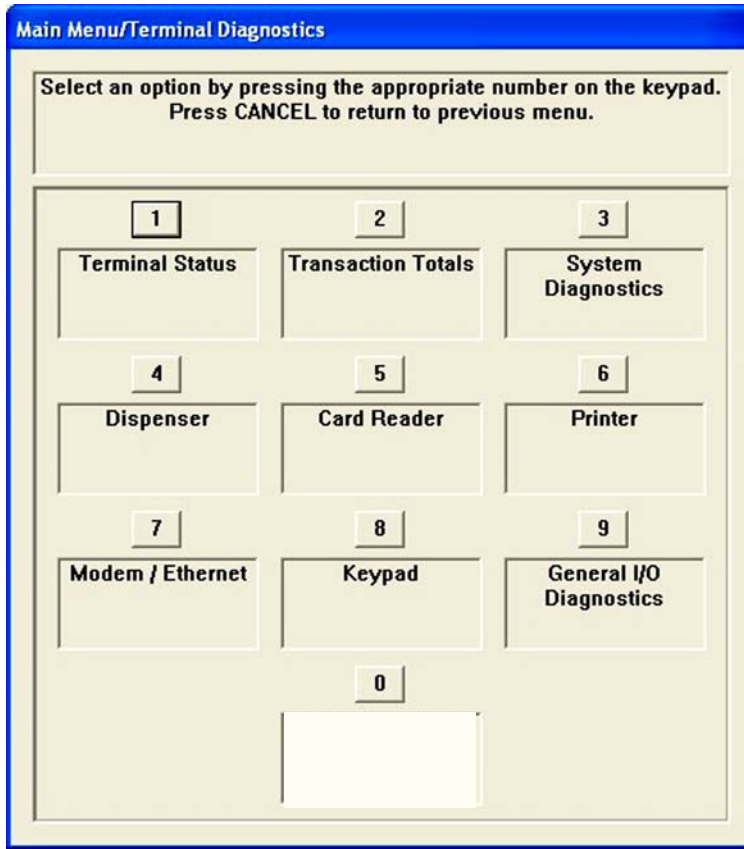
#### RESTART THE TERMINAL

# DIAGNOSTICS

**Main Menu**

Select an option by pressing the appropriate number on the keypad.  
Press CANCEL to exit management functions.

<b>1</b> Terminal Close Functions	<b>2</b> Diagnostics	<b>3</b> Electronic Journal
<b>4</b> Password Maintenance	<b>5</b> System Parameters	<b>6</b> Terminal Configuration
<b>7</b> Key Management	<b>8</b> Terminal Status	<b>9</b> Language: English
<b>0</b>		



## DIAGNOSTICS FUNCTIONS

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RESTORE DEFAULT PARAMETERS .....	29
SAVE / RESTORE PARAMETERS USING AN EXTERNAL STORAGE DEVICE .....	30
<b>TRANSACTION TOTALS / SYSTEM DIAGNOSTICS .....</b>	<b>31</b>



# DIAGNOSTICS

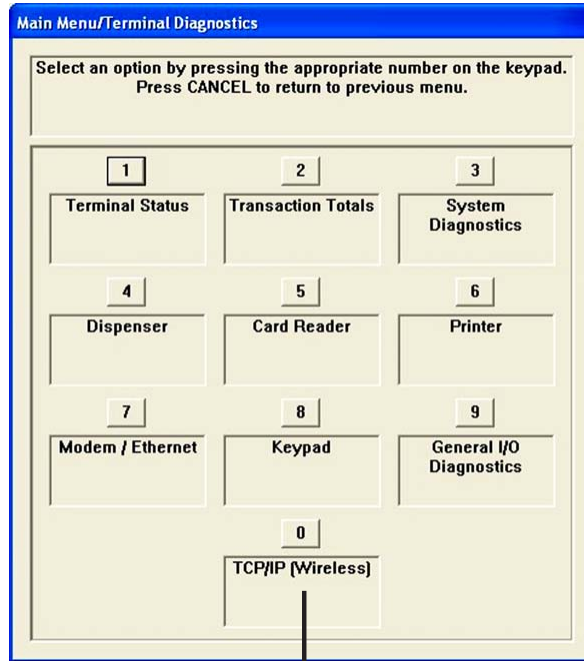
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<b>DISPENSER .....</b>	<b>32</b>
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<b>CARD READER .....</b>	<b>40</b>
CARD READER STATUS / TOTALS .....	40
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LED INDICATORS / AUDIO OUTPUT / HEADPHONE INTERRUPTS / CONFIGURE LED FLASH RATE .....	53
<b>TCP/IP WIRELESS .....</b>	<b>54</b>

## DIAGNOSTICS

### ACCESS INSTRUCTIONS:

1. From the **MAIN MENU** screen, select the **DIAGNOSTICS** option by pressing <2> on the keypad.



\* Wireless Option if used.

### DESCRIPTION:

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

1. **TERMINAL STATUS.** Displays current terminal status, configuration summary, and parameter save/restore functions.
2. **TRANSACTION TOTALS.** Displays terminal transaction totals since the last Day Close.
3. **SYSTEM DIAGNOSTICS.** Displays a dialog that allows the terminal operating system properties to be viewed.
4. **DISPENSER.** Allows user to check dispenser status, perform diagnostics, and configure cassette parameters.
5. **CARD READER.** Displays card reader status and test functions.

## DIAGNOSTICS

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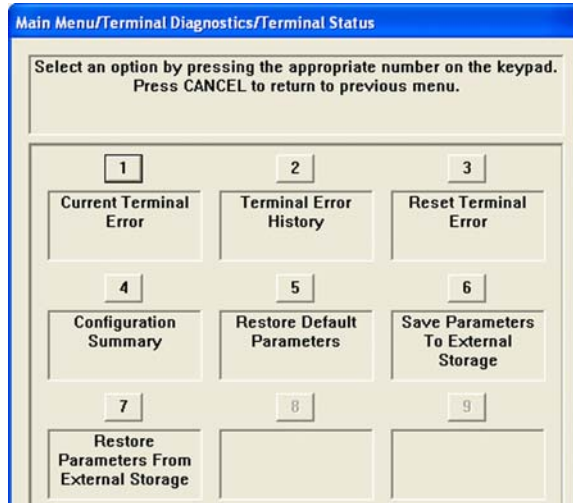
6. **PRINTER.** Displays printer status and test functions.
7. **MODEM / ETHERNET.** This function allows user to view Modem / Ethernet device status, test functions, and configure if required.
8. **KEYPAD.** Displays keypad status and tests terminal key functionality When EPP (keypad) displays tamper/serial errors, activates an option <4> to reset error.
9. **GENERAL I / O DIAGNOSTICS.** Provides access to perform diagnostics on LED indicators, audio output, and headphone interrupts.
- \*0. **TCP/IP WIRELESS.** This function appears when the terminal is using TCP/IP wireless communication as its protocol (**TERMINAL CONFIGURATION** > **COMMUNICATION** setup). The available options provide signal strength indication and connect/disconnect ability .

***NOTE:** This option was available for wireless RL5000 units equipped with the LandCell wireless modems which Triton no longer offers. For wireless-capable option, contact your account representative.*

## TERMINAL STATUS

### ACCESS INSTRUCTIONS:

1. From the **DIAGNOSTICS** screen, select the **TERMINAL STATUS** option by pressing <1> on the keypad.



### DESCRIPTION:

The **TERMINAL STATUS** option allows the terminal operator to perform the following functions:

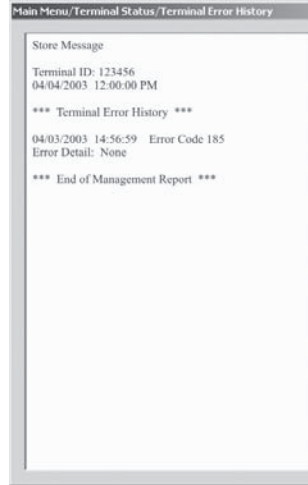
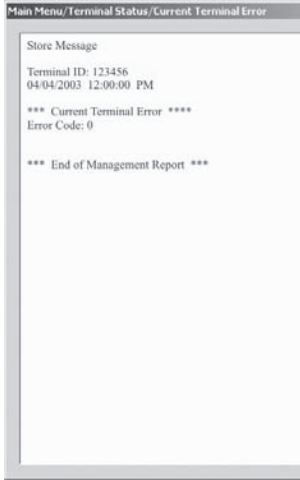
1. **CURRENT TERMINAL ERROR.** Displays current error status of the terminal.
2. **TERMINAL ERROR HISTORY.** Displays a log of all terminal error events.
3. **RESET TERMINAL ERROR.** Allows user to attempt to reset the current terminal error
4. **CONFIGURATION SUMMARY.** Displays a comprehensive report of all terminal configuration information.
5. **RESTORE DEFAULT PARAMETERS.** This function restores the factory default parameter settings.
6. **SAVE PARAMETERS TO EXTERNAL STORAGE.** Allows user to save all current terminal parameters to an external memory device (jumpdrive).
7. **RESTORE PARAMETERS FROM EXTERNAL STORAGE.** Allows user to restore terminal parameters that were previously saved to an external memory device (jumpdrive).

# DIAGNOSTICS

## CURRENT TERMINAL ERROR / ERROR HISTORY

### ACCESS INSTRUCTIONS:

1. From the **TERMINAL STATUS** screen, select the **CURRENT TERMINAL ERROR** option by pressing <1> on the keypad.
2. From the **TERMINAL STATUS** screen, select the **TERMINAL ERROR HISTORY** option by pressing <2> on the keypad.



### DESCRIPTION:

The **CURRENT TERMINAL ERROR** function displays a management report that shows the most current terminal status/error code. The error code is listed with a short description of the condition.

The report is displayed in a management report dialog, which can be printed to the receipt printer or saved to an external memory device.

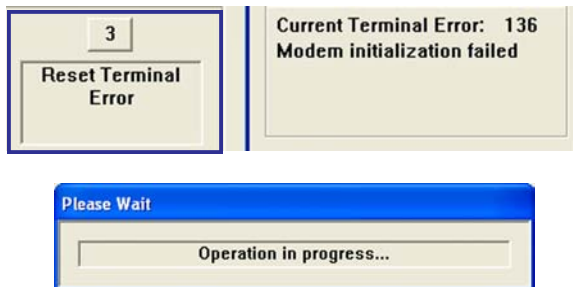
The **TERMINAL ERROR HISTORY** function displays a management report showing all status/error codes that have been recorded since the initial terminal setup. A short description of each code is provided. The history of terminal status/error codes will not be cleared when the ‘Reset Terminal Error’ function is used.

The report is displayed in a management report dialog, which can be printed to the receipt printer or saved to an external memory device.

## RESET TERMINAL ERROR

### ACCESS INSTRUCTIONS:

1. From the **TERMINAL STATUS** screen, select the **RESET TERMINAL ERROR** option by pressing <3> on the keypad.



### DESCRIPTION:

The **RESET TERMINAL ERROR** function attempts to reset the current terminal error. If successful, the current terminal error will show: Zero (0).

## CONFIGURATION SUMMARY

### ACCESS INSTRUCTIONS:

1. From the **TERMINAL STATUS** screen, select the **CONFIGURATION SUMMARY** option by pressing <4> on the keypad.

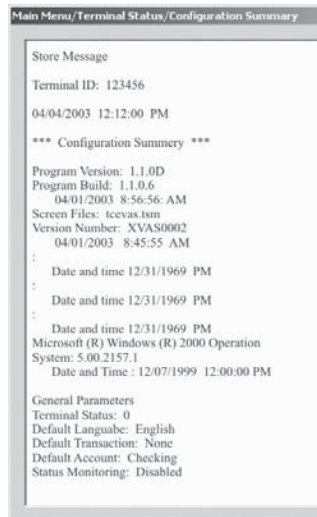
### DESCRIPTION:

The **CONFIGURATION SUMMARY** function displays a management report of the current terminal configuration and hardware status information. Information is provided for all terminal configuration areas, as well as dispenser printer, modem and keypad status.

The report is displayed in a management report dialog, which can be printed to the receipt printer or saved to an external memory device.

### \* NOTE \*

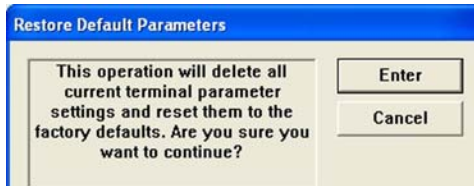
It is highly recommended that the report be generated and saved after the initial setup of the terminal, and whenever significant changes are made to the terminal's current configuration.



## RESTORE DEFAULT PARAMETERS

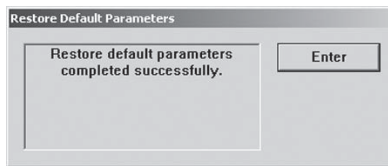
### ACCESS INSTRUCTIONS:

1. From the **TERMINAL STATUS** screen, select the **RESTORE DEFAULT PARAMETERS** option by pressing <5> on the keypad.



### DESCRIPTION:

The **RESTORE DEFAULT PARAMETERS** function restores the factory-default terminal parameter settings. All current parameters (including any that have been modified from their factory-default values) will be **DELETED** and the factory-default values will be restored. When prompted, select <ENTER> to continue.



A confirmation dialog is displayed. Select <ENTER> to return to Terminal Status options.

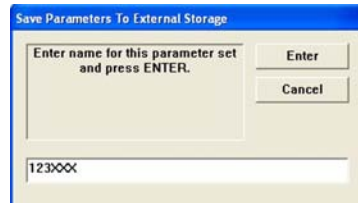
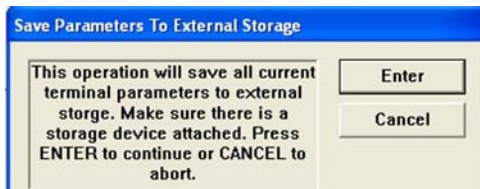
## SAVE / RESTORE PARAMETERS USING AN EXTERNAL STORAGE DEVICE

### ACCESS INSTRUCTIONS:

1. From the **TERMINAL STATUS** screen, select the **SAVE PARAMETERS TO EXTERNAL STORAGE** option by pressing <6> on the keypad.
2. From the **TERMINAL STATUS** screen, select the **RESTORE PARAMETERS FROM EXTERNAL STORAGE** option by pressing <7> on the keypad.

### DESCRIPTION:

The **SAVE PARAMETERS TO EXTERNAL STORAGE** function saves the current terminal parameters to an external storage device (jumpdrive) attached to a USB port.

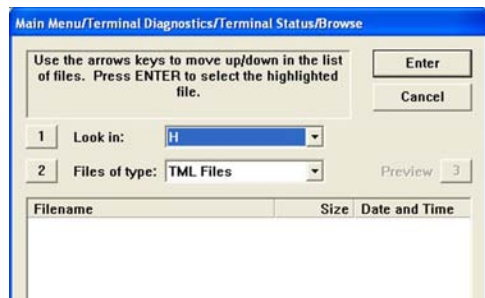


- ➡ Open the control panel. Install the jumpdrive to any unused USB port.
- ➡ Close the control panel. Select <6> on the keypad. The following prompts appear Press <Enter> to continue.
- ➡ At the confirmation dialog, open the control panel and remove the jumpdrive.

### DESCRIPTION:

The **RESTORE PARAMETERS FROM EXTERNAL STORAGE** function restores a previously saved set of parameters from an external storage device (jumpdrive).

- ➡ Open the control panel. Install the jumpdrive to any unused USB port.
- ➡ Close the control panel. Select <7> on the keypad. The following prompt appears.
- ➡ Locate the filename for the saved parameters. Press <Enter> to select the highlighted file.
- ➡ At the confirmation dialog, open the control panel and remove the jumpdrive.



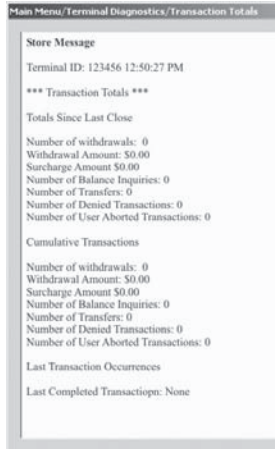


# DIAGNOSTICS

## TRANSACTION TOTALS / SYSTEM DIAGNOSTICS

### ACCESS INSTRUCTIONS:

1. From the **DIAGNOSTICS** screen, select the **TRANSACTION TOTALS** option by pressing <2> on the keypad.
2. From the **DIAGNOSTICS** screen, select the **SYSTEM DIAGNOSTICS** option by pressing <3> on the keypad.



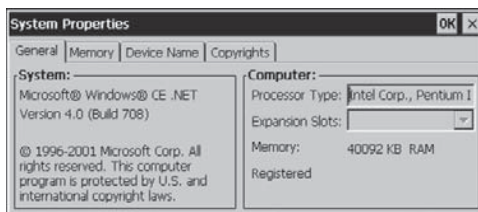
### DESCRIPTION:

The **TRANSACTION TOTALS** report displays totals in two (2) categories: Totals since last close and cumulative totals. The report also provides the date/time of the last completed transaction and denied transaction. The report can be printed to the receipt printer or saved to an external memory device.

The **SYSTEM DIAGNOSTICS** function will display a dialog that allows the system properties to be viewed and configured.

To navigate through the dialog, press the Clear key on the keypad to tab between areas. Use the left and right arrow keys to move between items in an area. To exit from the dialog, press the Cancel key.

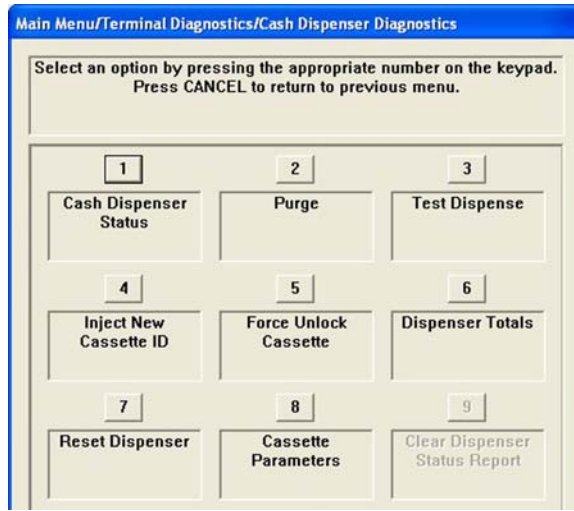
In most cases it should not be necessary to make change any of these system properties.



## DISPENSER

### ACCESS INSTRUCTIONS:

1. From the **DIAGNOSTICS** screen, select the **DISPENSER** option by pressing <4> on the keypad.



### DESCRIPTION:

The **DISPENSER** option allows the terminal operator to perform the following functions:

1. **CASH DISPENSER STATUS.** Displays a management report showing current dispenser hardware status.
2. **PURGE.** Performs a purge operation on the dispenser.
3. **TEST DISPENSE.** This function commands the dispenser to dispense a single note (min) from each installed and active cassette into either the **Reject** cassette, compartment, or vault (dispenser specific).  
**SHUTTER TEST (FT5000 ONLY).** This function runs a functional test of the units' dispenser shutter assembly.
4. **INJECT NEW CASSETTE ID (NMD ONLY).** This function allows changing the cassette(s) identification.
5. **FORCE UNLOCK CASSETTE (NMD ONLY).** This function enabled overriding the dispenser cassette locking mechanism.
6. **DISPENSER TOTALS.** Displays a management report showing total number of documents dispensed.
7. **RESET DISPENSER.** This function resets **ALL** dispenser and cassette parameters to default values.
8. **CASSETTE PARAMETERS.** Allows configuring cassette parameters (currency data, multiple amounts, etc).
9. **CLEAR DISPENSER STATUS REPORT (TDMs ONLY).** This function will reset the count in the "Since Reset" column on the Dispenser Data report.

# DIAGNOSTICS

## CASH DISPENSER STATUS

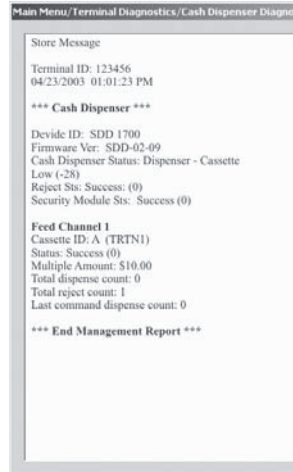
### ACCESS INSTRUCTIONS:

1. From the **DIAGNOSTICS** screen, select the **DISPENSER** option by pressing **<4>** on the keypad.
2. From the **DISPENSER** screen, select the **CASH DISPENSER STATUS** option by pressing **<1>** on the keypad.

### DESCRIPTION:

The **CASH DISPENSER STATUS** report identifies the type of dispensing mechanism installed and displays the results of the most recent cash dispenser status check.

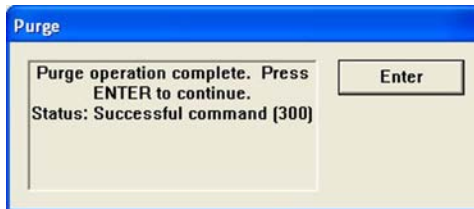
The report is displayed in a management report dialog that can be printed to the receipt printer or saved to an external memory device.



## PURGE

### ACCESS INSTRUCTIONS:

1. From the **DIAGNOSTICS** screen, select the **DISPENSER** option by pressing **<4>** on the keypad.
2. From the **DISPENSER** screen, select the **PURGE** option by pressing **<2>** on the keypad.



### DESCRIPTION:

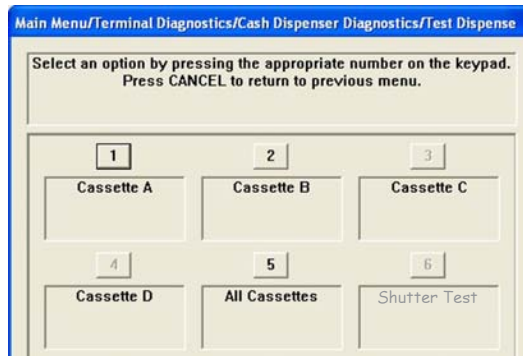
The **PURGE** command instructs the dispenser to remove all documents from the feed path. When the purge command is used to clear the feed path following a jam or failure of the dispensersome or all of the notes may pass out of the exit depending on their location in the feed path and the type of fault condition.

Once the purge command is completed, the user will be prompted to either repeat the purge operation or exit and go back to the Dispenser menu.

## TEST DISPENSE

### ACCESS INSTRUCTIONS:

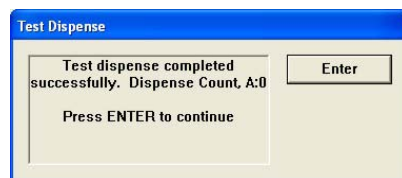
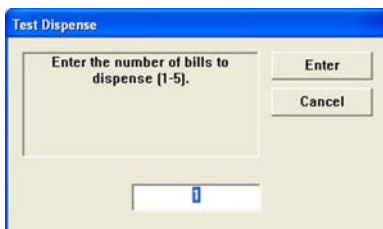
1. From the **DIAGNOSTICS** screen, select the **DISPENSER** option by pressing <4> on the keypad.
2. From the **DISPENSER** screen, select the **TEST DISPENSE** option by pressing <3> on the keypad.



### DESCRIPTION:

The **TEST DISPENSE** command allows the user to dispense note(s) from each installed and operational cassette into the reject cassette. This test exercises the dispenser mechanism without sending notes to the exit. The Test Dispense can only be exercised on the cassettes installed.

Once the cassette information is retrieved, the user will be prompted to enter the number of note(s) to be dispensed from cassette A through D, if applicable. The values for the number of notes are **1 to 5**. If the user enters a number greater than 5, it will automatically default to 5.



Press the number on the keypad for the cassette(s) and enter the desired value. Press <ENTER>. Repeat for the remaining cassettes that are available.

Next, press the <ENTER> key to perform the test. The dispenser will dispense the note(s) from the cassette(s) into the reject cassette, compartment, or reject vault, if applicable.

When the test is completed, the user will be prompted that test was completed successfully.

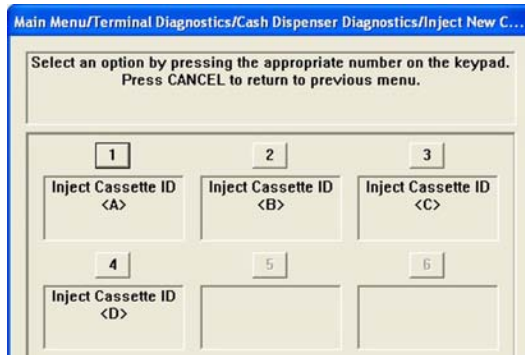
The **SHUTTER TEST** exercises the unit's shutter assembly (Open/Close). This function will be available for **FT5000 units**. **Caution: Take care not to insert any objects or fingers when assembly is opening/closing.**

# DIAGNOSTICS

## INJECT NEW CASSETTE ID (NMD ONLY)

### ACCESS INSTRUCTIONS:

1. From the **DIAGNOSTICS** screen, select the **CASH DISPENSER** option by pressing <1> on the keypad.
2. From the **CASH DISPENSER** screen, select the **INJECT NEW CASSETTE ID** option by pressing <4> on the keypad.

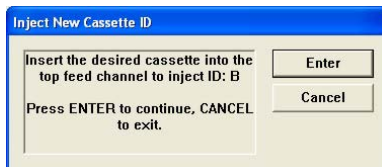


### DESCRIPTION:

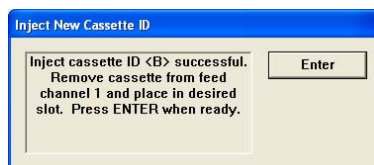
The NMD dispensing mechanisms use cassettes that possess onboard memory . This memory enables a cassette to store its own identification (ID) code.

The **INJECT NEW CASSETTE ID** function has no direct correlation to the physical position of the cassette within the unit. In most instances, the cassette identified as "A" will be placed in the top feed channel, "B" in the second, and continuing. This is not a requirement since the ID code allows the dispensing mechanism (and the dispensers central controller) to locate the cassette wherever it's been placed in the dispenser.

This function allows injecting a new ID into a cassette. Insert the cassette you want to ID into the top feed channel. Press the button corresponding to the identity you want the cassette to have: 'A', 'B', 'C', or 'D'.



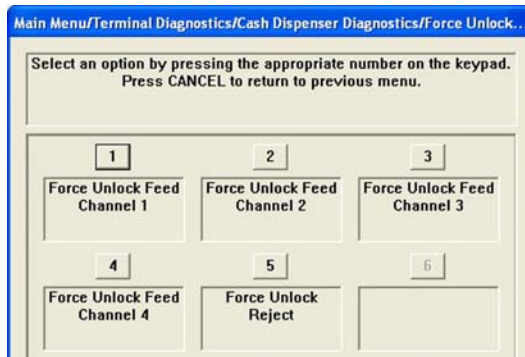
When the ID has successfully been injected, a message prompt will appear. If the operation fails, an error message will appear. After successfully completing the ID injection, you can place the cassette in its normal operating position.



## FORCE UNLOCK Cassette (NMD only)

### ACCESS INSTRUCTIONS:

1. From the **DIAGNOSTICS** screen, select the **CASH DISPENSER** option by pressing <1> on the keypad.
2. From the **CASH DISPENSER** screen, select the **FORCE UNLOCK CASSETTE** option by pressing <5> on the keypad.



### DESCRIPTION:

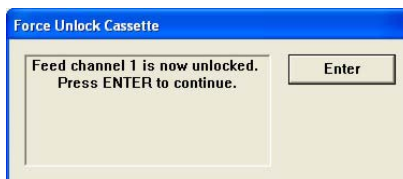
The **FORCE UNLOCK CASSETTE** function provides a means of overriding the NMDs unlocking mechanism associated with a specific cassette. It is only to be used immediately after failure of a normal cassette unlock operation.

Occasionally, a condition may occur that prevents a cassette from being removed from the dispensing mechanism. For example, a note that is lodged or jammed in a cassettes' 'gate' could cause such a condition. The gate is a mechanical shutter on the feed end of a cassette which lowers to allow notes to be dispensed and raises as a security precaution when the cassette is removed.

During a normal unlocking operation when the gate is closed, the cassette releases an associated mechanical latch allowing the cassette to be removed from the body of the dispenser. If the gate does not fully close, the cassette will not release the latch and remains locked in the mechanism.

If you find that a particular cassette can not be removed after performing a normal unlock operation, use this function *first* to attempt releasing the applicable cassette from the mechanism.

Once the cassette has been removed from the dispenser, carefully remove any notes that are sticking out of cassette. Insert the cassette into the dispenser and perform a normal 'Lock' operation followed by a normal 'Unlock' operation. You may now remove the cassette.



# DIAGNOSTICS

## DISPENSER TOTALS / RESET DISPENSER

### ACCESS INSTRUCTIONS:

1. From the **DIAGNOSTICS** screen, select the **CASH DISPENSER** option by pressing <1> on the keypad.
2. From the **CASH DISPENSER** screen, select the **DISPENSER TOTALS** option by pressing <6> on the keypad.
3. From the **CASH DISPENSER** screen, select the **RESET DISPENSER** option by pressing <7> on the keypad.

### DESCRIPTION:

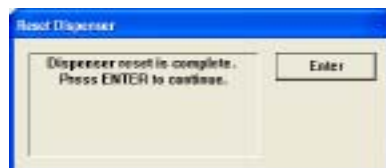
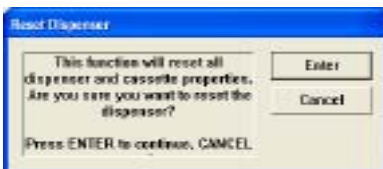
The **DISPENSER TOTALS** function displays dispenser activity totals in various categories. Cumulative dispense and reject counts for the dispenser as well as individual totals for each installed cassette are provided.

The report is displayed in a management report dialog, which can be printed to the receipt printer or saved to an external memory device.



The **RESET DISPENSER** function resets the operating parameters associated with the dispenser and its associated cassette(s). This operation will generally be performed when a new dispenser is added or there is a problem with the current dispenser

Select <ENTER> to reset the dispenser or <CANCEL> to exit without resetting the dispenser



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

If you select this option, you will lose ALL cassette parameters (amount, value, etc) that have been previously configured. This option *resets* the cassette parameters to the factory default settings.

## CASSETTE PARAMETERS

### ACCESS INSTRUCTIONS:

1. From the **DIAGNOSTICS** screen, select the **CASH DISPENSER** option by pressing <1> on the keypad.
2. From the **CASH DISPENSER** screen, select the **CASSETTE PARAMETERS** option by pressing <8> on the keypad.

Main Menu/Terminal Diagnostics/Cash Dispenser Diagnostics/Cassette Par...

1 Relearn Bill Thickness

2  All Cassettes Locked

3  Retract Cash

4 Retract Delay

Active Cassette:

5  Cassette Status:

Cassette Parameters

6  Cassette In Service

7 Multiple Amount

8 Document Type:  Cash  Non-Cash

9 Non-Cash Item Description:

10 Secondary Item Description:

F1 Note Configuration

### DESCRIPTION:

The **CASSETTE PARAMETERS** option allows the terminal operator to perform the following functions:

1. **RELEARN BILL THICKNESS.** Relearn the thickness of the documents loaded in the cassette.
2. **ALL CASSETTES LOCKED / UNLOCKED (NMD-ONLY).** Physically lock or unlock ALL cassettes in the dispensing mechanism chassis.
3. **RETRACT CASH (NMD-ONLY).** Enable/disable the automatic retraction of the bundle carriage unit, which transports the documents to the output slot of the dispenser .  
**ENABLE EXTENSION REJECTS (TDM-200/250).** When enabled, allows the extension to automatically purge any notes detected as remaining in the extension. The purge is done at power up or as part of a dispenser operation.
4. **RETRACT DELAY (NMD ONLY).** Determine the amount of time the dispenser will wait before retracting the bundle carriage unit.



## DIAGNOSTICS

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5. **ACTIVE CASSETTE.** Select the cassette that will receive the results of any changes to the various cassette and note configuration parameters that are accessed via the cassette parameters dialog.
6. **CASSETTE IN SERVICE (MULTI-CASSETTE DISPENSERS).** Places the currently selected cassette ‘In Service’ or ‘Out of Service’.
7. **MULTIPLE AMOUNT.** Set the denomination of the currency in a cassette.
8. **DOCUMENT TYPE.** Enter the type of document in the selected cassette: Cash or non-cash.  
*Note: Single cassette dispensers and ALL TDMs are always set for “Cash”.*
9. **NON-CASH ITEM DESCRIPTION (NMD ONLY).** Enter up to 28 characters describing the non-cash item in the active cassette.
0. **SECONDARY ITEM DESCRIPTION (NMD ONLY).** Enter up to 28 characters of general information about the non-cash item in the active cassette or other information as required.
- F1 **NOTE CONFIGURATION.** This function allows you to configure the note specific operating parameters for the active cassette.

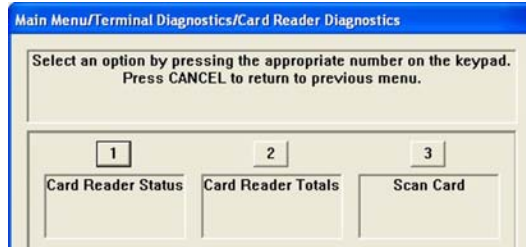
### \* NOTE \*

For further information on the individual Cassette Parameters, refer to **OPTION 6, TERMINAL CONFIGURATION > CASSETTE SETUP > CASSETTE PARAMETERS.**

## CARD READER

### ACCESS INSTRUCTIONS:

1. From the **DIAGNOSTICS** screen, select the **CARD READER** option by pressing <5> on the keypad.



### DESCRIPTION:

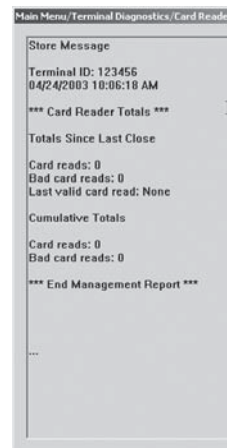
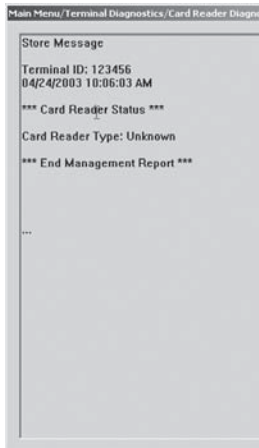
The **CARD READER** option allows the terminal operator to perform the following functions:

1. **CARD READER STATUS.** Displays a management report showing card reader hardware status.
2. **CARD READER TOTALS.** Displays a management report showing total number of various card reader operations (cards read, bad cards read, last valid card read).
3. **SCAN CARD.** Verifies that data can be read properly by the card reader

## CARD READER STATUS / TOTALS

### ACCESS INSTRUCTIONS:

1. From the **DIAGNOSTICS** screen, select the **CARD READER** option by pressing <5> on the keypad.
2. Select **CARD READER STATUS** by pressing <1> on the keypad.
3. Select **CARD READER TOTALS** by pressing <2> on the keypad.



# DIAGNOSTICS

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## SCAN CARD

### ACCESS INSTRUCTIONS:

1. From the **DIAGNOSTICS** screen, select the **CARD READER** option by pressing <5> on the keypad.
2. From the **CARD READER** option, select **SCAN CARD** by pressing <3> on the keypad.



### DESCRIPTION:

The **SCAN CARD** function reports the number of tracks the card reader is able to scan. It prompts you to insert and remove a card. Upon removing the card, a management report dialog is displayed. If the card can be read properly, the information from the tracks on the card will be displayed. This report can be printed to the receipt printer or saved to an external memory device.

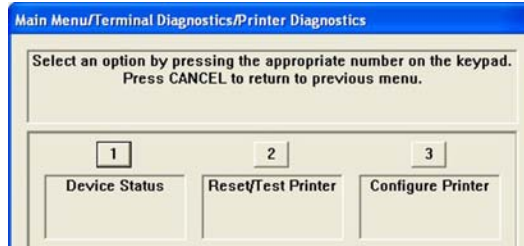
If the card is damaged or not a standard format, an error message will be displayed. If this happens, the card cannot be used for transactions on the terminal.

- Press <3> on the keypad. When prompted, insert and remove a card. The dialog box will either verify the tracks scanned or respond with an error message.

## PRINTER

### ACCESS INSTRUCTIONS:

1. From the **DIAGNOSTICS** screen, select the **PRINTER** option by pressing <6> on the keypad.



### DESCRIPTION:

The **PRINTER** option allows the terminal operator to perform the following functions:

1. **DEVICE STATUS.** Displays a management report that shows properties of the terminal printers such as printer name, assigned port, driver version, and printer resolution.
2. **REST / TEST PRINTER.** This function tests the terminal printer by printing sample text using various font styles and sizes.
3. **CONFIGURE PRINTER.** This function enables you to setup the operating parameters for the terminal printer.

## DEVICE STATUS

### ACCESS INSTRUCTIONS:

1. From the **DIAGNOSTICS** screen, select the **PRINTER** option by pressing <6> on the keypad.
2. Select **DEVICE STATUS** by pressing <1> on the keypad.

### DESCRIPTION:

**DEVICE STATUS** displays a report that shows properties of the terminal printer, such as printer name, status, errors, etc.

The report is displayed in a Management Report dialog, which can be printed to the receipt printer or saved to an external memory device.

```
Store Message
Terminal ID: 75200
4/7/2008 11:00:00 AM
*** Device Status ***
Device ID: Seiko L TP2342
Device Status: 0 (Device Ready)
Online: Yes
Out Of Paper: No
Low Paper: No
Print Job Pending: No
Cover Open: No
Presenter Open: No
Hardware Error: No
Thermal Head Error: No
Voltage Error: No
Head Up Error: No
Auto Cut Error: No
Close Head Required: No
Printer presenter paper not detected.: No
Presenter Exit Blocked: No
Presenter Roller Blocked: No
Presenter Roller & Exit Blocked: No
Presenter Installed: Yes
Presenter Stored: Yes
Paper Width: 80mm
```

# DIAGNOSTICS

## RESET/TEST PRINTER / CONFIGURE PRINTER

### ACCESS INSTRUCTIONS:

1. From the **DIAGNOSTICS** screen, select the **PRINTER** option by pressing <6> on the keypad.
2. From the **PRINTER** option, select **RESET / TEST PRINTER** by pressing <2> on the keypad.

### DESCRIPTION:

The **RESET/TEST PRINTER** function re-initializes and then performs an operational test of the printer. A pattern of characters is printed on the receipt.

The **CONFIGURE PRINTER** function allows re-configuring of the printer's default settings. A maintenance keyboard should be used to interact with this dialog screen. When this option is selected, a print setup prompt appears:

- **FONT SIZE** - This allows changing the printed font characters to either 16 or 24 font.
  - **LINE SPACING** - Sets the spacing between lines on the receipt or coupon.
  - **CHARACTER SPACING** - Sets the spacing between characters on the receipt or coupon.
  - **RECEIPT FORMAT (PRINTER/PRESENTER)** - Sets the receiptformat between "Text" or "Graphics".
  - **MINIMUM RECEIPT LENGTH (GRAVITY-FED RL2000)** - Sets the minimum length for a customer receipt. Default is **1150'** [apprx 5-5/8" (144mm)].
- If you don't have an external keyboard, press the<CLEAR> to scroll down/highlight the different options.

```
Print line of text #1
Print line of text #2
Print line of text #3
Print line of text #4
Print line of text #5
Print line of text #6
Print line of text #7
Print line of text #8
Print line of text #9
Print line of text #10
Print line of text #11
Print line of text #12
Print line of text #13
Print line of text #14
Print line of text #15
Print line of text #16
Print line of text #17
Print line of text #18
Print line of text #19
Print line of text #20
Print line of text #21
Print line of text #22
Print line of text #23
Print line of text #24
Print line of text #25
Print line of text #26
Print line of text #27
Print line of text #28
Print line of text #29
Print line of text #30
Print line of text #31
Print line of text #32
Print line of text #33
Print line of text #34
Print line of text #35
Print line of text #36
Print line of text #37
Print line of text #38
Print line of text #39
Print line of text #40
Print line of text #41
Print line of text #42
Print line of text #43
Print line of text #44
Print line of text #45
Print line of text #46
Print line of text #47
Print line of text #48
Print line of text #49
Print line of text #50
```

Configure Printer

Management Report Preferences

Font Size

Line Spacing (0-255 dots)

Character Spacing (0-127 dots)

Receipt Format

Printer w/presenter

Minimum Receipt Length

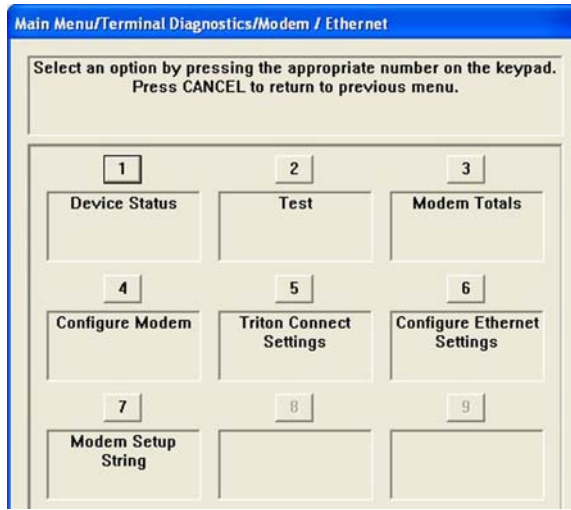
Printer w/o presenter

THE SCALE IS 8 DOTS = 1MM.  
APPROXIMATE 200 DOTS = 1" (25.4MM)

## MODEM / ETHERNET

### ACCESS INSTRUCTIONS:

1. From the **DIAGNOSTICS** screen, select the **MODEM/ETHERNET** option by pressing <7> on the keypad.



### DESCRIPTION:

The **MODEM / ETHERNET** option allows the terminal operator to perform the following functions:

1. **DEVICE STATUS.** Displays a management report that shows properties of the modems (dial-up and TCP/IP) parameters.
2. **TEST.** This function tests the modem by dialing a number that you enter in a dialog box. A status report displays the progress and results of the operation.
3. **MODEM TOTALS.** Displays a management report showing the number of modem call attempts, busy signals, and aborted calls.
4. **CONFIGURE MODEM.** Enables you to view and configure the modem's operating parameters.
5. **TRITON CONNECT SETTINGS.** This function provides access to Triton Connect settings and configuration parameters.
6. **CONFIGURE ETHERNET SETTINGS.** This function enables you to view and configure TCP/IP (Ethernet) settings.
7. **MODEM SETUP STRING.** This function allows entering a non-standard setup string, if needed.

# DIAGNOSTICS

## DEVICE STATUS / TEST

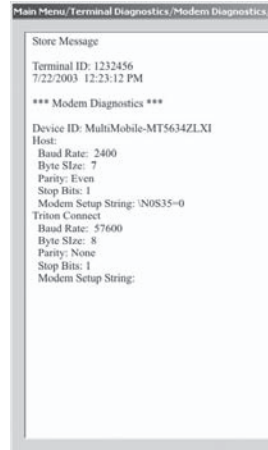
### ACCESS INSTRUCTIONS:

1. From the **DIAGNOSTICS** screen, select the **MODEM/ETHERNET** option by pressing <7> on the keypad.
2. From the **MODEM/ETHERNET** screen, select the **DEVICE STATUS** option by pressing <1> on the keypad.
3. From the **MODEM/ETHERNET** screen, select the **TEST** option by pressing <2> on the keypad.

### DESCRIPTION:

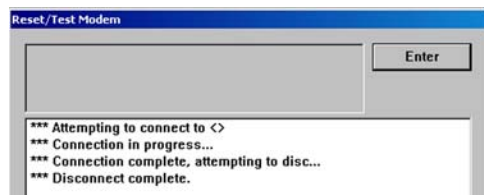
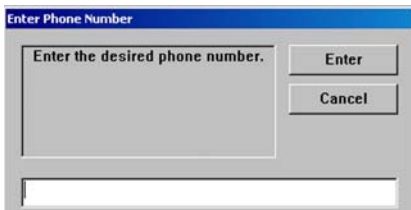
The **DEVICE STATUS** function displays a report that shows the current operational parameters of the modem (dial-up/TCP/IP).

This status is displayed in a management report dialog which can be printed to the receipt printer or saved to an external memory device.



The **TEST** function tests the terminal's modem. Enter a known good telephone number which the modem will dial to verify its ability to access the telephone line and perform a dialing operation.

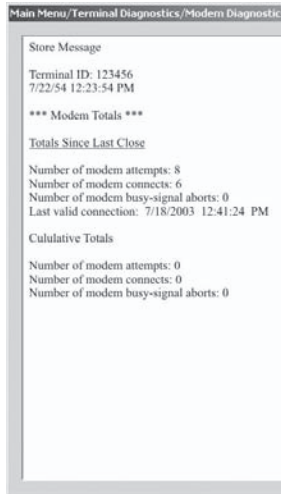
Use the text entry box to enter the phone number. Select <ENTER> to start the test or <CANCEL> to ignore the entry and exit the function. At the conclusion of the test, a message box will indicate success or failure of the test.



## MODEM TOTALS

### ACCESS INSTRUCTIONS:

1. From the **DIAGNOSTICS** screen, select the **MODEM/ETHERNET** option by pressing <7> on the keypad.
2. From the **MODEM/ETHERNET** screen, select the **MODEM TOTALS** option by pressing <3> on the keypad.



### DESCRIPTION:

The **MODEM TOTALS** function displays modem activity totals in two (2) categories: Totals since last close and cumulative totals. Total modem call attempts, successful connects, busy signal aborts, and date/time of the last successful connection are recorded.

This report can be printed to the receipt printer or saved to an external storage device.

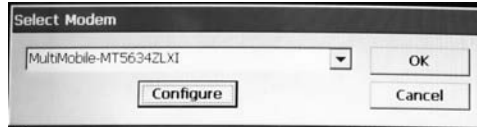


# DIAGNOSTICS

## CONFIGURE MODEM / TRITON CONNECT SETTINGS

### ACCESS INSTRUCTIONS:

1. From the **DIAGNOSTICS** screen, select the **MODEM/ETHERNET** option by pressing <7> on the keypad.
2. From the **MODEM/ETHERNET** screen, select the **CONFIGURE MODEM** option by pressing <4> on the keypad.
3. From the **MODEM/ETHERNET** screen, select the **TRITON CONNECT SETTINGS** option by pressing <5> on the keypad.



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

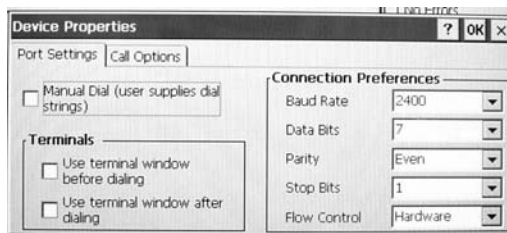
Do not attempt to alter any of the following parameters unless you are absolutely certain of the result. If incorrectly set, some of these parameters can cause communication failure.

### DESCRIPTION:

The **CONFIGURE MODEM** and **TRITON CONNECT SETTINGS** functions allow changing the modem parameters. Pressing the applicable key (<4> for **Configure Modem** or <5> for **Triton Connect Settings**) will display the Select Modem dialog. The name of the modem that will be configured is shown in the dialog.

➡ Press the <CLEAR> key on the keypad until the “CONFIGURE” button is highlighted. Press the <ENTER> key. The device properties screen is now displayed.

### PORT SETTINGS



➡ Press the <CLEAR> key until the parameter that will be configured is highlighted.

➡ If the parameter is enabled (checked), highlight the parameter and press the <CTRL> key to place or remove a check from the box. If the parameter is selected from a list of choices, use the <CLEAR> key to highlight the parameter and the Right(>) and Left(<) arrow keys to display the desired parameter

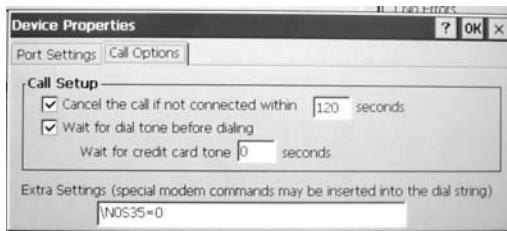
# X-SCALE / X2 CONFIGURATION MANUAL

This screen will allow you to view and configure the following modem properties from the Port Settings tab.

1. **BITS PER SECOND.** Baud rate setting for the terminal's modem.
2. **DATA BITS.** Number of data bits.
3. **PARITY.** Parity type: even or odd.
4. **STOP BITS.** Number of stop bits.
5. **FLOW CONTROL.** Choose the type of flow control to use if required. In most cases the default settings for the parameters in the configure dialog will satisfy your modem communication requirements; however, in some cases changes may be required to meet unique requirements. Usually these will be determined by your processor and configured by your service provider

Once the necessary parameters have been selected, press the <CLEAR> key until the “**PORT SETTINGS**” tab is highlighted. Press the Right (>) arrow key to display the parameters for the “**CALL OPTIONS**”. Use the <CLEAR> key to highlight the parameter that will be configured.

## CALL OPTIONS



If the parameter is enabled by placing a check in a box, highlight the parameter and press the <CTRL> key to place or remove a check from the box. If the parameter is a numeric value, press the <CLEAR> key until the entry area is highlighted. Enter the number directly from the key pad. If the entry is a letter of the alphabet, open the virtual key pad and use it for entering letters of the alphabet.

# DIAGNOSTICS

## CONFIGURE ETHERNET SETTINGS

### ACCESS INSTRUCTIONS:

1. From the **DIAGNOSTICS** screen, select the **MODEM/ETHERNET** option by pressing <7> on the keypad.
2. From the **MODEM/ETHERNET** screen, select the **CONFIGURE ETHERNET SETTINGS** option by pressing <6> on the keypad.

The screenshot shows a 'Configure Ethernet Settings' window with the following fields and options:

- 1 IP Address
- 2 Subnet Mask
- 3 Default Gateway
- 4 Primary DNS
- 5 Primary WINS
- 6  Enable DHCP
- Local Ports:
  - 7 Incoming: 1000
  - 8 Outgoing:

The **CONFIGURE ETHERNET SETTINGS** option allows the terminal operator to perform the following functions:

1. **IP ADDRESS.** This address identifies the terminal as the source of the data packets sent to and received from the host server.
  - ➔ Change the IP Address by pressing <1> on the keypad. Enter the new IP Address in the data entry dialog box. Press <ENTER>.
2. **SUBNET MASK.** Along with the IP address, each port requires a Subnet Mask address. This distinguishes other terminals on the same Local Area Network (LAN) from terminals in other locations.
  - ➔ Change the Subnet Mask by pressing <2> on the keypad. Enter the new address in the data entry dialog box. Press <ENTER>.

The 'Host IP Address' dialog box contains the following text and controls:

Enter IP Address in the form "aaa.bbb.ccc.ddd". Press the CTRL key to enter a decimal point.

Buttons: Enter, Cancel

The 'Subnet Mask' dialog box contains the following text and controls:

Enter IP Address in the form "aaa.bbb.ccc.ddd". Press the CTRL key to enter a decimal point.

Buttons: Enter, Cancel

# X-SCALE / X2 CONFIGURATION MANUAL

3. **DEFAULT GATEWAY.** For direct access to networks beyond the current one, each terminal must be told the IP address of the router (Gateway) that connects the local network with the wider world.

➡ Change the Gateway address by pressing <3> on the keypad. Enter the new address in the data entry dialog box. Press <ENTER>.

4. **PRIMARY DNS (Domain Name System).** This address is an internet service that translates domain names to IP addresses.

➡ Change the Primary DNS by pressing <4> on the keypad. Enter the new address in the data entry dialog box. Press <ENTER>.

5. **PRIMARY WINS (Windows Internet Naming Service).** This address manages the association of workstation names and locations with IP addresses. WINS automatically creates a computer name - IP address mapping entry in a table. WINS complements the NT server's DHCP which negotiates an IP address for any computer when it is first defined to the network.

➡ Change the Primary WINS address by pressing <5> on the keypad. Enter the new address in the data entry dialog box. Press <Enter>.

6. **ENABLE DHCP (Dynamic Host Configuration Protocol).** This is a protocol that provides a means to dynamically allocate IP addresses to computers on a LAN system.

➡ Toggle the <6> key on the keypad to enable (checked) or disable (unchecked).

7. **LOCAL PORTS.** These options allow entering Incoming and /or Outgoing local port addresses.

**INCOMING.** Change the Incoming Port address by pressing <7> on the keypad. Enter the new port address in the data entry dialog box. Press <ENTER>.

**OUTGOING.** Change the Outgoing Port address by pressing <8> on the keypad. Enter the new port address in the data entry dialog box. Press <ENTER>.

**Note: Incoming and Outgoing Ports CANNOT be the same!**

## MODEM SETUP STRING

### ACCESS INSTRUCTIONS:

1. From the **DIAGNOSTICS** screen, select the **MODEM/ETHERNET** option by pressing <7> on the keypad.
2. From the **MODEM/ETHERNET** screen, select the **MODEM SETUP STRING** option by pressing <7> on the keypad.

### DESCRIPTION:

The **MODEM SETUP STRING** is used in special circumstances. A Hayes-compatible setup string can be sent to the modem when it is initialized.

*Note: If needed, setting this value incorrectly will cause communication failure. Contact Triton Technical Support service before entering/changing this parameter.*

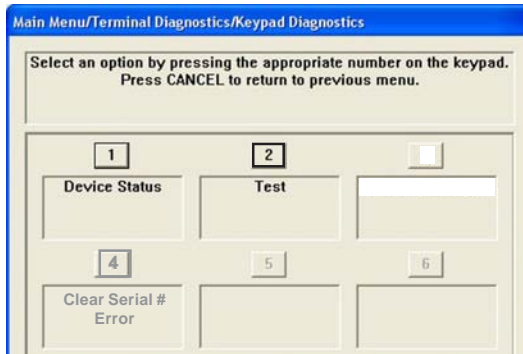


The screenshot shows a dialog box titled "Modem Setup String" with a blue header. The main area is light beige and contains a text input field. Above the input field is a smaller box with the text: "Enter any modem specific commands to be used for the selected modem." To the right of the input field are two buttons: "Enter" and "Cancel".

## KEYPAD

### ACCESS INSTRUCTIONS:

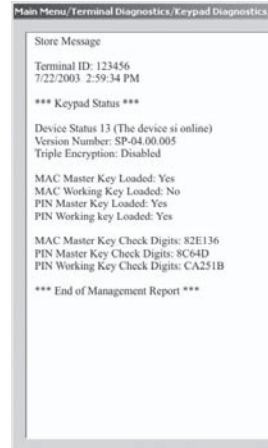
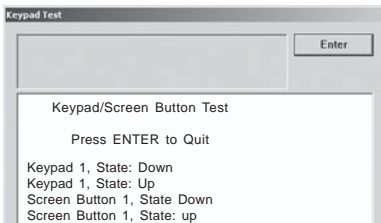
1. From the **DIAGNOSTICS** screen, select the **KEYPAD** option by pressing **<8>** on the keypad.
2. From the **KEYPAD** screen, select the **DEVICE STATUS** option by pressing **<1>** on the keypad.
3. From the **KEYPAD** screen, select the **TEST** option by pressing **<2>** on the keypad.



### DESCRIPTION:

The **DEVICE STATUS** displays a management report that shows information such as keypad status, serial number, version number, and loaded encrypted key check digits.

The **TEST** function enables you to verify operation of the numeric, function, and control buttons on the terminal. Simply press any button (except the **<Enter>** button) and the status window will indicate the state of the button: Up or Down. Press the **<ENTER>** button when completed.



The **CLEAR SERIAL # OR TAMPER ERROR** function may be accessed if you have encountered either a SPED Serial # error (617 - usually when keypad has been replaced) or if a Tamper condition has occurred. Press option **<4>** (if available) to attempt clearing either of these error conditions.

### \* NOTE \*

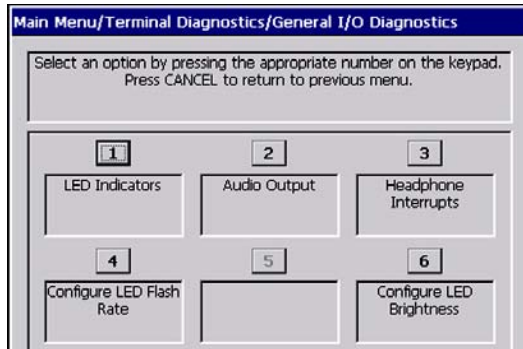
In the event the terminal displays **Error Codes** ranging from **592-617** (keypad specific), option **<4>** in the Keypad functions *may* be an available option. If it is, attempt to clear the error by selecting this option.

# DIAGNOSTICS

## GENERAL I / O DIAGNOSTICS

### ACCESS INSTRUCTIONS:

1. From the **DIAGNOSTICS** screen, select the **GENERAL I/O DIAGNOSTICS** option by pressing <9> on the keypad.

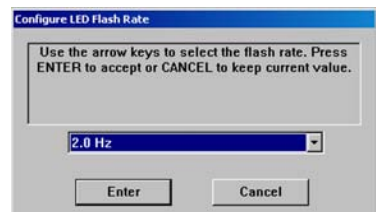


### DESCRIPTION:

The **GENERAL I/O DIAGNOSTICS** option allows the terminal operator to perform the following functions:

1. **LED INDICATORS.** When selected, this function will flash all LEDs for 5 seconds.
2. **AUDIO OUTPUT.** Selecting this option will play a sound file and some audio text through the terminals speaker system (or headphones if they are plugged in).
3. **HEADPHONE INTERRUPTS.** This option reports whether the headphones can be detected (inserted or removed).
4. **CONFIGURE LED FLASH RATE.** Selecting this option will allow the flash rate of the LEDs on the control panel to be altered to one of the following:

- 0 Hz (always On)
- 0.5 Hz
- 1.0 Hz
- 2.0 Hz



*Note: Default flash rate is 2.0 Hz.*

5. **CONFIGURE LED BRIGHTNESS (RL2000 ONLY).** Selecting this option allows changing the LED brightness on the control panel.

*Note: This option not available for RL/FT/RT units*



## TCP/IP WIRELESS

### ACCESS INSTRUCTIONS:

1. From the **DIAGNOSTICS** screen, select the **TCP/IP WIRELESS** option by pressing <0> on the keypad.

Wireless Properties

Wireless IP Addr:

Error Code:

1 Signal Strength

2 Username:

3 Password:

4 Connect

5 Disconnect

*NOTE: This option was available for wireless RL5000 units equipped with the LandCell wireless modems which Triton no longer offers. For wireless-capable option, contact your account representative.*

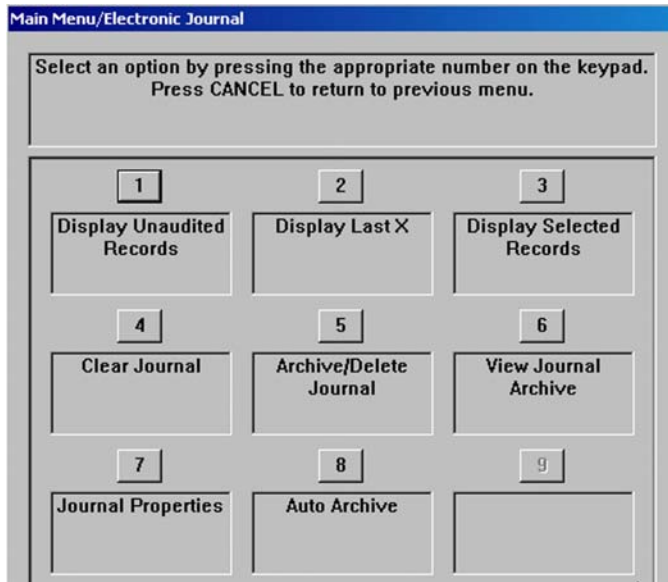


## ELECTRONIC JOURNAL

**Main Menu**

Select an option by pressing the appropriate number on the keypad.  
Press CANCEL to exit management functions.

1 Terminal Close Functions	2 Diagnostics	3 Electronic Journal
4 Password Maintenance	5 System Parameters	6 Terminal Configuration
7 Key Management	8 Terminal Status	9 Language: English
0 More Options		



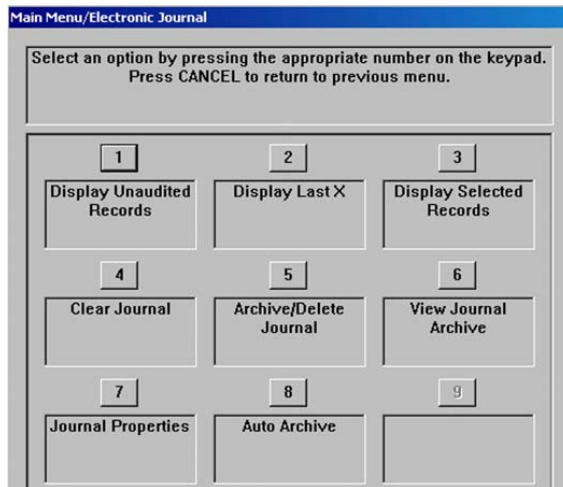
## ELECTRONIC JOURNAL FUNCTIONS

<b>ELECTRONIC JOURNAL MENU OPTIONS OVERVIEW .....</b>	<b>57</b>
<b>DISPLAY UNAUDITED RECORDS .....</b>	<b>58</b>
<b>DISPLAY LAST X.....</b>	<b>59</b>
<b>DISPLAY SELECTED RECORDS .....</b>	<b>60-61</b>
<b>CLEAR JOURNAL .....</b>	<b>62</b>
<b>ARCHIVE / DELETE JOURNAL .....</b>	<b>63</b>
<b>VIEW JOURNAL ARCHIVE .....</b>	<b>64</b>
<b>JOURNAL PROPERTIES .....</b>	<b>65</b>
<b>AUTO ARCHIVE .....</b>	<b>66-67</b>

## ELECTRONIC JOURNAL

### ACCESS INSTRUCTIONS:

1. From the **MAIN MENU** screen, select the **ELECTRONIC JOURNAL** option by pressing <3> on the keypad.



### DESCRIPTION:

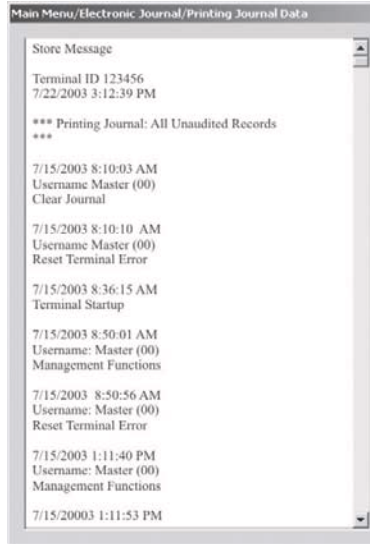
The **ELECTRONIC JOURNAL** option allows the terminal operator to perform the following functions:

1. **DISPLAY UNAUDITED RECORDS.** This function displays a summary of the journal entries collected since the last time the journal was printed.
2. **DISPLAY LAST X.** This function is used to display and print records either before or after they have been audited.
3. **DISPLAY SELECTED RECORDS.** Generates a management report of journal entries that match a user-defined set of filtering parameters.
4. **CLEAR JOURNAL.** This function “marks” all unprinted records as audited.
5. **ARCHIVE / DELETE JOURNAL.** This function stores all journal entries prior to a selected date into an archive file.
6. **VIEW JOURNAL ARCHIVE.** This function allows user to select and view an archived journal.
7. **JOURNAL PROPERTIES.** Displays a management report that provides specific information about the electronic journal (number of records, audited, unaudited).
8. **AUTO ARCHIVE.** Sets the parameters to auto archive journal records based on specific date/time, size limit, etc.

## DISPLAY UNAUDITED RECORDS

### ACCESS INSTRUCTIONS:

1. From the **ELECTRONIC JOURNAL** menu screen, select the **DISPLAY UNAUDITED RECORDS** option by pressing <1> on the keypad.

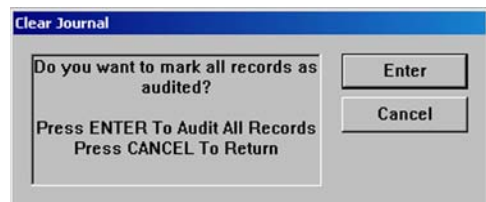


### DESCRIPTION:

The **DISPLAY UNAUDITED RECORDS** function is used to display a summary of all “unaudited” journal entries collected since the last time the journal was printed. This information should be maintained in case of an inquiry by a customer, and can also be useful in certain troubleshooting situations.

The report is displayed in a management report dialog that can be printed to the receipt printer or saved to an external memory device. If used, an external memory device must be installed in a USB port “before” this option is selected. The Display Unaudited Records saves journal files in a text (.txt) format. They can be viewed by a text editor.

If the <CANCEL> or <ENTER> key is pressed after report is displayed, printed, or saved the following prompt will appear:



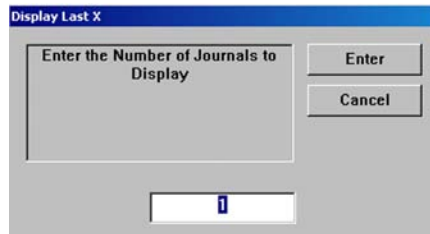
If the <ENTER> key is pressed as a response to the prompt, the requested action will be performed and all “unaudited” records will be marked as “audited”. The only way to display them again is by using the **DISPLAY SELECTED RECORDS** (\*Audited\* or \*All\*) or **DISPLAY LAST X** functions.

If the <CANCEL> key is pressed as a response to the prompt, the prompt will disappear and all “unaudited” records will remain “unaudited”.

## DISPLAY LAST X

### ACCESS INSTRUCTIONS:

1. From the **ELECTRONIC JOURNAL** menu screen, select the **DISPLAY LAST X** option by pressing <2> on the keypad.



### DESCRIPTION:

This **DISPLAY LAST X** function can be used to display, print, or save all electronic journal records before or after they have been marked as “audited”. “Unaudited” records that are printed out or saved using this command will not be marked as “audited”.

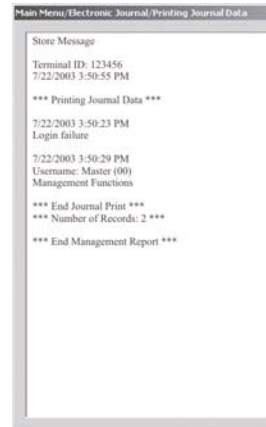
The operator will be prompted to enter the number of journal records to be displayed (starting with the most recent). As an example, if an operator needs to see a transaction that happened about 10 records earlier, entering ‘13’ as the prompt will cause the last 13 records to be displayed. The displayed list should include the record in question.

#### **\*Note\***

Entering a number greater than the maximum number of records that can be stored in the journal will cause all records to be printed.

The report is displayed in a management report dialog that can be printed to the receipt printer to an external memory device. The **DISPLAY LAST X** options saves Journal files in a text (.txt) format that can be viewed by a text editor.

There is not an option (prompt) to mark “unaudited” records that are displayed, printed, or saved as “audited” using this command.



## DISPLAY SELECTED RECORDS

### ACCESS INSTRUCTIONS:

1. From the **ELECTRONIC JOURNAL** menu screen, select the **DISPLAY SELECTED RECORDS** option by pressing <3> on the keypad.

The screenshot shows a terminal window titled "Main Menu/Electronic Journal/Journal Filter". It contains several interactive elements: a row of three radio buttons labeled "1", "2", and "3" corresponding to "All", "Audited", and "Unaudited" record categories; a "Record Type:" dropdown menu labeled "2" currently set to "All"; a "Filter By Date" section with two radio buttons labeled "3" for "All" and "Selected Dates", and two date dropdown menus labeled "4" (Start Date) and "5" (End Date), both set to "4/25/2007"; and a "Filter By Record Field Text" section with a "Field:" dropdown menu labeled "6" and a "Contains:" text input field labeled "7". "Enter" and "Cancel" buttons are located in the top right corner.

### DESCRIPTION:

The **DISPLAY SELECTED RECORDS** option allows the terminal operator to perform the following functions:

1. **ALL/AUDITED/UNAUDITED.** Select the category of records to consider: all records, all audited records, or all unaudited records.
2. **RECORD TYPE.** Select the type of journal record to view: All, transaction, text record, cassette close, day close, or parameter change.

### FILTER BY DATE

3. **ALL/SELECTED DATES.** Select the date range to use for the Management Report: all dates, or selected dates. If selected dates is selected, specify the start date and end date.
4. **START DATE.** Specify the starting date for the range of journal records to consider. When selected, a date-entry dialog appears. Type the date in the format MMDDYYYY. Use the arrow key to toggle between the Month, Day, and Year fields. Press the <ENTER> key to accept it.
5. **END DATE.** Specify the ending date for the range of journal records to consider. When selected, a date-entry dialog appears. Type the date in the format MMDDYYYY. Use the arrow key to toggle between the Month, Day, and Year fields. Press the <ENTER> key to accept it.

## FILTER BY RECORD FIELD TEXT

- 6. FIELD.** To see only those records that match a certain field criteria, select the applicable field here. The field types available to select will be determined by the current record type (see Record type above).
- 7. CONTAINS.** When this button is selected, a text-entry dialog appears. Enter a text string to search for. Only those records that contain the text string will be returned in the management report. This function is only applicable to the text record.



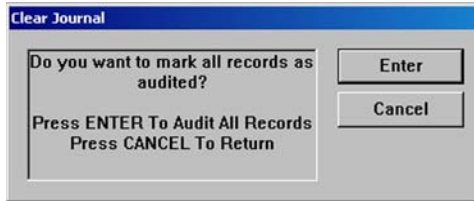
The report is displayed in a management report dialog that can be printed to the receipt printer or saved to an external memory device. The **DISPLAY SELECTED RECORDS** options save Journal files in a text (.txt) format. They can be viewed by a text editor.

There is not an option (prompt) to mark “unaudited” records that are displayed, printed, or saved as “audited” using this command.

## CLEAR JOURNAL

### ACCESS INSTRUCTIONS:

1. From the **ELECTRONIC JOURNAL** menu screen, select the **CLEAR JOURNAL** option by pressing <4> on the keypad.



### DESCRIPTION:

The **CLEAR JOURNAL** option allows the terminal operator to perform the following functions: This function is used to mark all “unaudited” records in the electronic journal as “audited”. This means that the records will not be displayed the next time the **DISPLAY UNAUDITED RECORDS** or **DISPLAY SELECTED RECORDS (\*Unaudited Only\*)** functions are used. Audited records are not erased. They can still be viewed by using the **DISPLAY SELECTED RECORDS (\*Audited\* or \*All\*)** or **DISPLAY LAST X** functions.

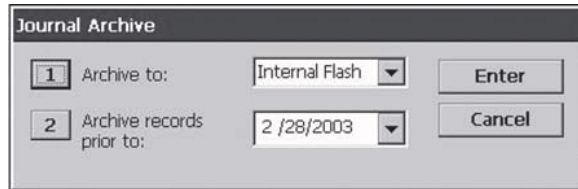
➡ When the <4> key is pressed, the prompt above will appear. Press the <ENTER> key to mark all of the “unaudited” records as “audited”. If the <CANCEL> key is pressed, the prompt will disappear and all “unaudited” records will remain “unaudited”.



## ARCHIVE / DELETE JOURNAL

### ACCESS INSTRUCTIONS:

1. From the **ELECTRONIC JOURNAL** menu screen, select the **ARCHIVE/DELETE JOURNAL** option by pressing <5> on the keypad.



### DESCRIPTION:

The **ARCHIVE JOURNAL / DELETE** function allows you to specify the destination and date range for archiving “audited” Electronic Journal records. The range is based on the date a record was stored. **All** journal records that are marked as “audited” and prior to the specified date will be archived. If an external storage device is not available, it is possible to archive the journal records to internal “flash” memory (see the **WARNING** below).

1. **ARCHIVE TO:** This option selects where the archived “audited” journal records will be saved. Press the <1> key to select the destination of the archived file. The available options are “None (**Delete**)”, “Internal Flash”, or USB Device.

If an external storage device is not available, it is possible to archive the journal records to internal “flash” memory (see the **Warning** below). The default value is “None (**Delete**)” where audited records prior to the specified date will be **DELETED** and no archive is created. **Once deleted, the selected “audited” records cannot be retrieved.** This option can be used after all applicable records have been archived to an external storage device and internal memory needs to be freed up on the mainboard.

2. **ARCHIVE RECORDS PRIOR TO:** By default, the current date appears in the data entry field. To specify a different date, enter it in the format MMDDYYYY (for example, April 24, 2001 would be entered as 04242001). All journal entries that have been recorded before the specified date will be saved to an archive file.

*Note: You can view archived journal records using the “VIEW JOURNAL ARCHIVE” command.*

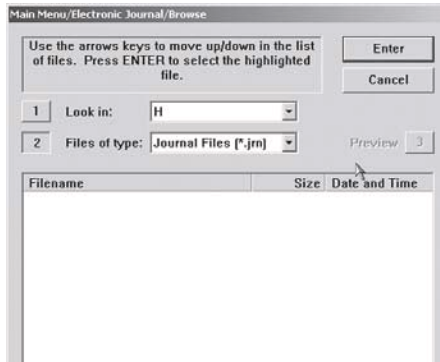
### \*\*\* WARNING \*\*\*

Avoid archiving to Internal Flash whenever possible. This will fill up available memory very quickly, which may result in error code 151 - Electronic Journal Full.

## VIEW JOURNAL ARCHIVE

### ACCESS INSTRUCTIONS:

1. From the **ELECTRONIC JOURNAL** menu screen, select the **VIEW JOURNAL ARCHIVE** option by pressing <6> on the keypad.



Use this browse function to locate and view a previously archived journal. The controls on this dialog are described below:

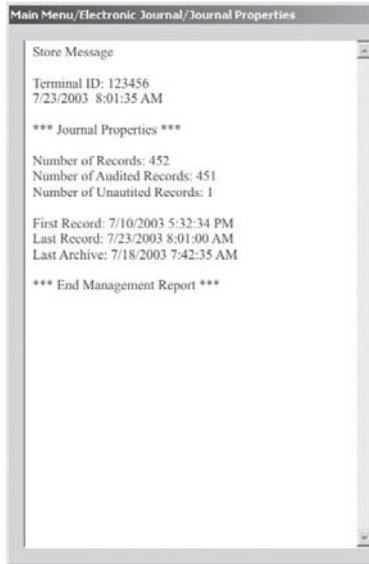
1. **LOOK IN:** This function is used to select the location where archived journal files may be found. This will typically be the terminal internal flash memory or an external memory device.
2. **FILES OF TYPE:** Use this function to select the appropriate file type. The .jrn (journal) file type is selected by default. Only “audited” .jrn file types can viewed in this manner (they can be transported by an external USB storage device (i.e. thumb drive) and viewed on any X-scale based terminal). The **DISPLAY UNAUDITED RECORDS**, **DISPLAY LAST X**, and **DISPLAY SELECTED RECORDS** options save Journal files in a text (.txt) format. They can be viewed by a text editor.

After selecting the appropriate “Look In” and “Files of Type” settings, a list of files in the specified location will be displayed, showing the **Filename**, **Size**, and **Date/Time** headings in a column format. Use the left and right arrow buttons on the keypad to move the highlight bar up and down the list. Once an archived journal file is highlighted, press <ENTER> to select a file. This will launch the **DISPLAY SELECTED RECORDS** option. Refer to that section for additional information. Select <CANCEL> to ignore the selection and exit the function.

## JOURNAL PROPERTIES

### ACCESS INSTRUCTIONS:

1. From the **ELECTRONIC JOURNAL** screen, select the **JOURNAL PROPERTIES** option by pressing <7> on the keypad.



The **JOURNAL PROPERTIES** function will display a management report that provides specific information about the electronic journal, such as the number of records in the journal, the number of record that have been audited, the number of unaudited records etc. This report can be printed or saved to an external memory device.

## AUTO ARCHIVE

### ACCESS INSTRUCTIONS:

1. From the **ELECTRONIC JOURNAL** menu screen, select the **AUTO ARCHIVE** option by pressing <8> on the keypad.

The screenshot shows a dialog box titled "Auto Archive" with a blue header bar. It contains four numbered items:

- 1. "Archive to:" with a dropdown menu showing "None (Delete)".
- 2. "Archive when journal size exceeds:" with a text box containing "2" and "MB".
- 3. "Archive all audited records older than:" with a text box containing "7" and "days".
- 4. "Archive unaudited records" with an unchecked checkbox.

On the right side of the dialog, there are two buttons: "Enter" and "Cancel".

The **AUTO ARCHIVE** function will set the parameters that will allow the electronic journal data to be archived/ deleted at a predefined schedule based on the time in days and the size of the journal file measured in mega bytes (MB).

1. **ARCHIVE TO:** This option selects where the archived “audited” journal records will be saved.
  - Press the <1> key repeatedly to select the destination of the archived file. The available options are “None (**Delete**)”, “Internal Flash”, or “USB Device”. If an external storage device is not available, it is possible to archive the journal records to internal “flash” memory. The default value is “None (**Delete**)” where audited records prior to the specified date will be “**DELETED**” and no archive is created. **Once deleted, the selected “audited” records cannot be retrieved.** This option can be used after all applicable records have been archived to an external storage device and internal memory needs to be freed up on the mainboard.
2. **ARCHIVE WHEN JOURNAL SIZE EXCEEDS:** When the journal exceeds the specified size (in mega bytes), all “audited” records “older” than the specified number of days (refer to item 3) will automatically be archived. Valid values for entry are 1-10. The default value is 2.
  - Press <2> on the keypad. A data entry dialog box appears. Enter the value for the journal size. Press <ENTER> when completed.
3. **ARCHIVE ALL AUDITED RECORDS OLDER THAN N DAYS:** This number specifies which journal records will be automatically archived. All “audited” journal records older than the specified number of days previous to the current date will be archived or deleted when then journal exceeds the specified size (refer to item 2). Valid values for entry are 1-9999. This number should be set to a low value. The default value is 7.

Normally the ATM would go out of service if the journal reached the maximum defined size and there are no audited records older than the specified date. The ATM should no longer go out of service for this condition (EC 151 - Electronic journal full).

When the electronic journal reaches the maximum defined size, the terminal should archive or delete all records older than the specified date, regardless if they are audited or not.

Note that this means the journal can grow larger than the maximum defined size if there are no records older than the configured date. This condition will still not force the terminal out of service with a 151 error. However, it is possible for the terminal to eventually go out of service with a low flash error if the journal grows too large.

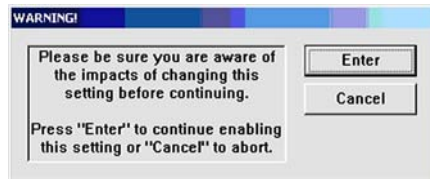
➤ Press <3> on the keypad. A data entry dialog box appears. Enter the number of days when records will be archived. Press <ENTER> when completed.

4. **ARCHIVE UNAUDITED RECORDS (NEW OPTION).** When this option is enabled (checked), it allows archiving/deletion of “*unaudited*” records.

*Note: This option only available to the “Master” User.*

➤ Press <4> on the keypad. The following prompt appears:

➤ Selecting <ENTER> will continue to the next prompt. Selecting <CANCEL> will leave it disabled.



➤ Selecting <ENTER> will “enable” (checked) the “Archive Unaudited Records” option. Selecting <CANCEL> will leave it disabled (unchecked).

When this setting has changed the journal should log this in a parameter change record. Here is an example of this record:

Username: Master

Parameter Change: Archive unaudited records Old: Disabled New: Enabled

The current setting for this option should be displayed in the configuration summary if the setting is enabled:

Auto Archive

Archive to: None (Delete)

Archive when journal size exceeds: 2 MB

Archive all audited records older than: 7 days

**Archive unaudited records: Yes**

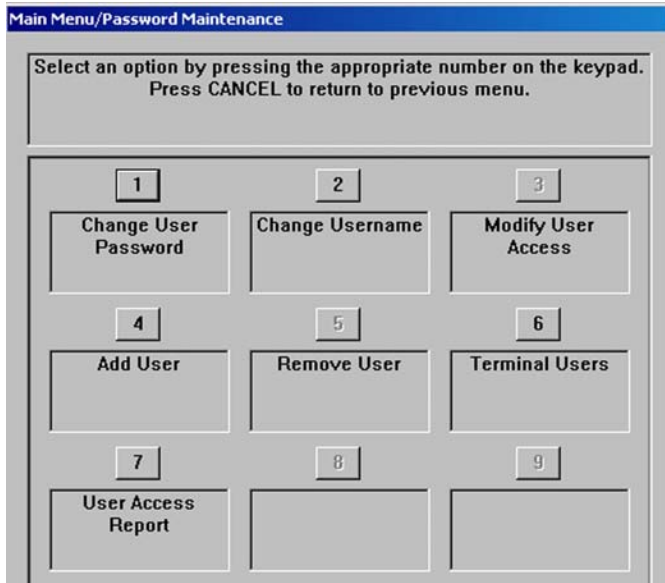
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# PASSWORD MAINTENANCE

**Main Menu**

Select an option by pressing the appropriate number on the keypad.  
Press CANCEL to exit management functions.

<b>1</b> Terminal Close Functions	<b>2</b> Diagnostics	<b>3</b> Electronic Journal
<b>4</b> Password Maintenance	<b>5</b> System Parameters	<b>6</b> Terminal Configuration
<b>7</b> Key Management	<b>8</b> Terminal Status	<b>9</b> Language: English
<b>0</b>		



## PASSWORD MAINTENANCE

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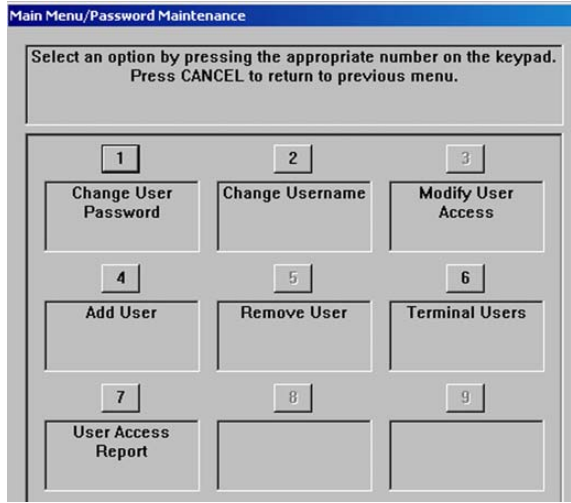


# PASSWORD MAINTENANCE

## PASSWORD MAINTENANCE

### ACCESS INSTRUCTIONS:

1. From the **MAIN MENU** screen, select the **PASSWORD MAINTENANCE** option by pressing <4> on the keypad.



### DESCRIPTION:

The **PASSWORD MAINTENANCE** option allows the terminal operator to perform the following functions:

**NOTE:** Functions with asterisks (\*) can only be performed by the Master User.

1. **CHANGE USER PASSWORD.** Use this function to change the currently logged in user's password.
2. **CHANGE USER NAME.** Used to change the name assigned to a user.
3. \* **MODIFY USER ACCESS.** Used to change the level of access assigned to a designated user.
4. \* **ADD USER.** Adds a 2-digit ID and user name to the system.
5. \* **REMOVE USER.** Removes a user from the system. Once removed, all password access for the selected user is cancelled.
6. **TERMINAL USERS.** List users by 2-digit user ID and user name.
7. **USER ACCESS REPORT.** Displays the user access report for selected/all user(s).
8. \* **CHANGE USERS PASSWORD.** Used to change other user's passwords.

## CHANGE USER PASSWORD / USER NAME

### ACCESS INSTRUCTIONS:

1. From the **PASSWORD MAINTENANCE** screen, select the **CHANGE USER PASSWORD** option by pressing <1> on the keypad.
2. From the **PASSWORD MAINTENANCE** screen, select the **CHANGE USER NAME** option by pressing <2> on the keypad.



### DESCRIPTION:

The **CHANGE USER PASSWORD** function allows the currently logged in user to change their password. To change the password:

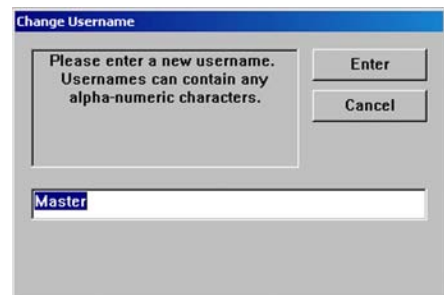
- Select <1> on the keypad. When prompted, enter the new password consisting of between **4-12 numeric digits**. Press <ENTER>.
- You will be prompted to re-enter (confirm) the new password. Press <ENTER>.

**NOTE:** The terminal password consists of a 2-digit ID code and a Password of 4-12 digits. '00' is the Master ID code and cannot be changed. Only enter the password digits!

**Example:** If you enter '5566', then the Master password will be changed to '005566'. If you enter '005566', then the Master password will be changed to '00005566'.

The **CHANGE USER NAME** function allows the currently logged in user to change their user name. To change the user name:

- When prompted, enter a new user name. The new name may consist of up to a maximum of **40 alphanumeric characters**.
- Press <ENTER> when completed.



# PASSWORD MAINTENANCE

## MODIFY USER ACCESS

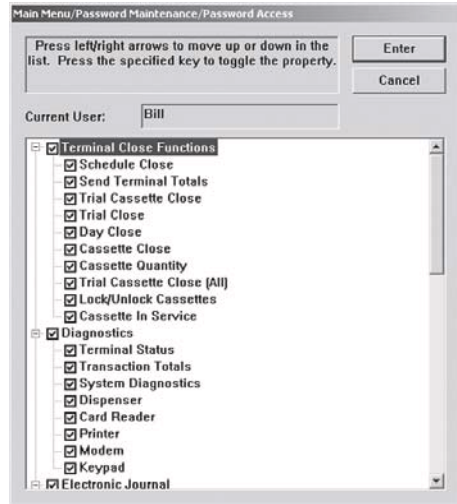
### ACCESS INSTRUCTIONS:

1. From the **PASSWORD MAINTENANCE** screen, select the **MODIFY USER ACCESS** option by pressing <3> on the keypad.



**\* Note \***

This function is only available to personnel with Master password access to Management Functions.



### DESCRIPTION:

The **MODIFY USER ACCESS** function allows the Master user to select which option(s) in Management functions will be accessible by the user. To modify user access privileges:

- ➔ Enter the 2-digit ID for the specified user. Press <ENTER>.

A dialog box appears showing a list of Management Functions that can be accessed to the user. The functions are organized according to Main menu headings. **“Checked”** items will be accessible and **“unchecked”** items will not.

Follow these steps to select/deselect an entire functional group or specific function within a group:

- ➔ Use the left and right arrow keys (< >) to move the highlight bar up and down the list. You can highlight a functional group name (Terminal Close Functions, Diagnostics, Electronic Journal, Terminal Configuration, System Parameters, and Key Management) or a specific function within a group.

- To de-select ALL the functions within a group, highlight the group name and press the <CTRL> key to remove the checkmark next to the group name. ALL functions within the group will be deselected (checkmarks removed) indicating that access to these functions will be denied. To select ALL functions within a group, highlight the group name and press the <CTRL> key to add a checkmark next to the group name. ALL functions within the group will be selected (checkmarks added) indicating that access to these functions will be allowed.
- To deselect a specific function within a group, highlight the function and press the <CTRL> key to remove the checkmark from the function. To select a function, highlight the function and press the <CTRL> key to add a check mark.
- Press <ENTER> to accept your choices. The user will be able to access only those functions that were selected (checkmarks added), all others will be denied.

# PASSWORD MAINTENANCE

## ADD USER / REMOVE USER

### ACCESS INSTRUCTIONS:

1. From the **PASSWORD MAINTENANCE** screen, select the **ADD USER** option by pressing <4> on the keypad.
2. From the **PASSWORD MAINTENANCE** screen, select the **REMOVE USER** option by pressing <5> on the keypad.

### DESCRIPTION:

The **ADD USER** function allows adding a new user to the system. To add a new user:

➡ Enter the new user 2-digit ID code. Press <Enter>.

**Note:** By default, the first available ID code will be displayed. To accept the code, simply press the Enter key. If you want to use a different ID code, enter a value between 01 and 99 that is not currently assigned to an existing user and press Enter.

➡ When prompted, enter a user name for this individual (maximum of **40 alphanumeric characters**). Press <Enter>.

➡ When prompted, enter the new password consisting of between **4-12 numeric digits**. Press <Enter>. You will be prompted to re-enter the password for confirmation.

The **REMOVE USER** function allows removing an existing user from the system. To remove an existing user:

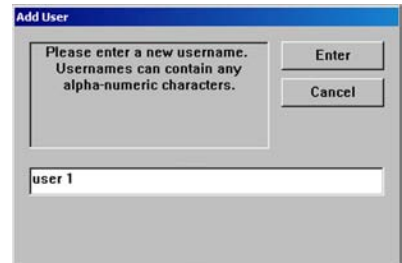
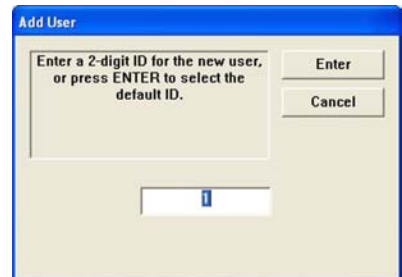
➡ Enter the user 2-digit ID code. Press <ENTER>. You will be prompted to confirm the removal operation.



➡ Press <ENTER> to confirm or <CANCEL> to exit.

### \* Note \*

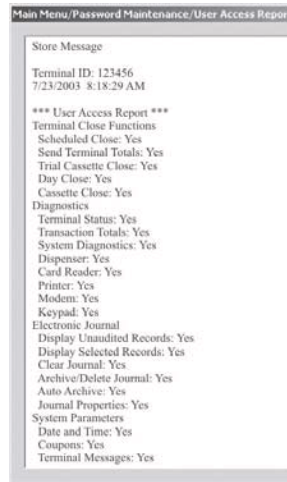
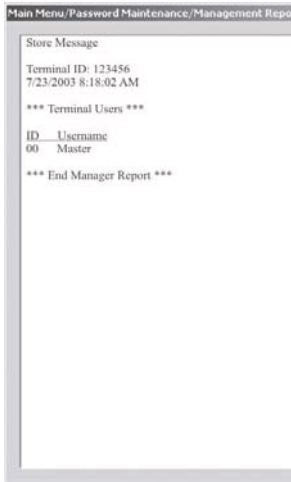
These function are only available to personnel with Master password access to Management Functions.



## TERMINAL USERS / USER ACCESS REPORT

### ACCESS INSTRUCTIONS:

1. From the **PASSWORD MAINTENANCE** screen, select the **TERMINAL USERS** option by pressing <6> on the keypad.
2. From the **PASSWORD MAINTENANCE** screen, select the **USER ACCESS REPORT** option by pressing <7> on the keypad.

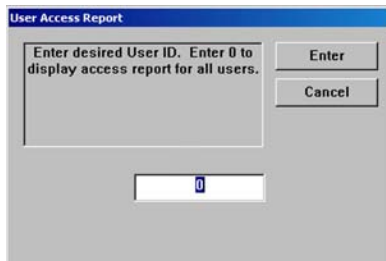


### DESCRIPTION:

The **TERMINAL USERS** function lists the ID code and corresponding user name for all users in the system. This status is displayed in a management report dialog which can be printed to the receipt printer or saved to an external memory device.

The **USER ACCESS REPORT** lists the management functions the selected user(s) can access.

- Enter the selected user 2-digit ID code. Press <Enter>. The user(s) access report is displayed.



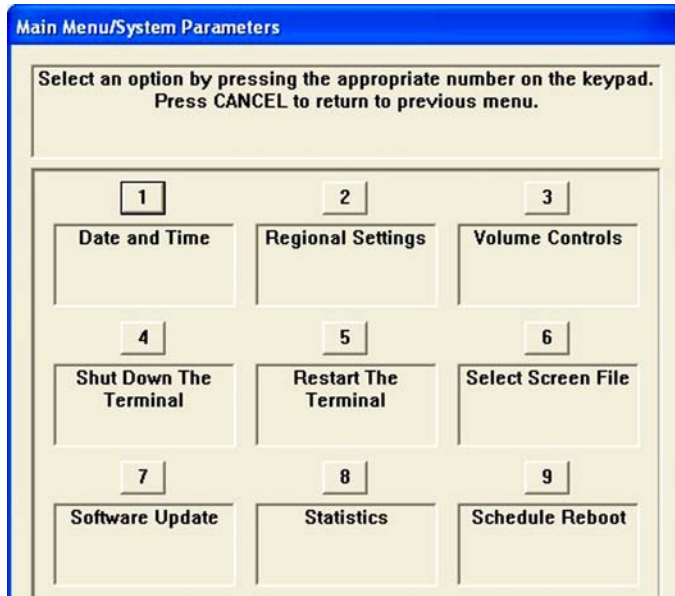
This status is displayed in a management report dialog which can be printed to the receipt printer or saved to an external memory device.

# SYSTEM PARAMETERS

**Main Menu**

Select an option by pressing the appropriate number on the keypad.  
Press CANCEL to exit management functions.

<b>1</b> Terminal Close Functions	<b>2</b> Diagnostics	<b>3</b> Electronic Journal
<b>4</b> Password Maintenance	<b>5</b> System Parameters	<b>6</b> Terminal Configuration
<b>7</b> Key Management	<b>8</b> Terminal Status	<b>9</b> Language: English
<b>0</b>		



## SYSTEM PARAMETERS FUNCTIONS

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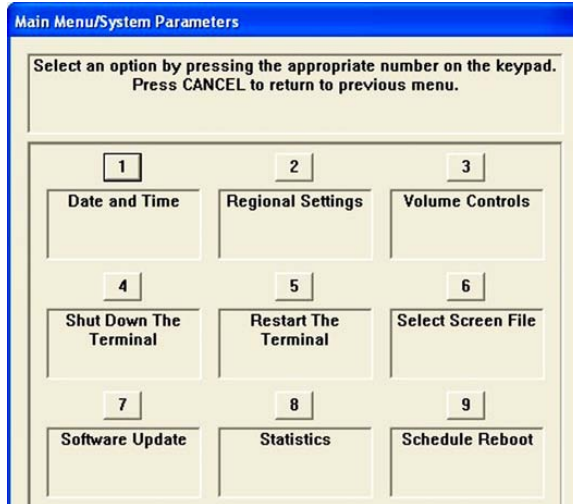


# SYSTEM PARAMETERS

## SYSTEM PARAMETERS

### ACCESS INSTRUCTIONS:

1. From the **MAIN MENU** screen, select the **SYSTEM PARAMETERS** option by pressing <5> on the keypad.



### DESCRIPTION:

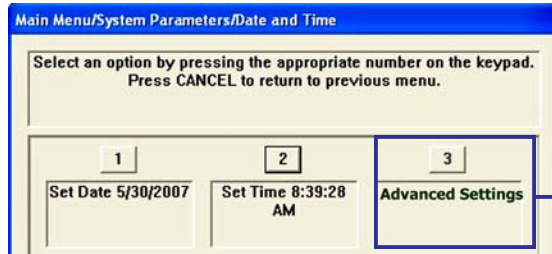
The following options will be available from the **SYSTEM PARAMETERS** screen:

1. **DATE AND TIME.** This function allows you to set the terminal date and time properties.
2. **REGIONAL SETTINGS.** Use this function to change the terminal's physical location (country/region), numbering scheme, currency (monetary value), time, and date settings.
3. **VOLUME.** This function allows you to raise or lower the speaker volume.
4. **SHUT DOWN THE TERMINAL.** This function will power down the operating system.  
*Note: This function does not remove power to the terminal. You must manually turn the power supply off when prompted that shutdown has completed.*
5. **RESTART THE TERMINAL.** This function will reset (reboot) the terminal.
6. **SELECT SCREEN FILE.** Use this function to select the Triton Screen Manager File that will determine the appearance and functionality of the customer screens.
7. **SOFTWARE UPDATE.** This function searches for a terminal software installation file on an external storage device. If found and selected, the terminal will restart and the installation of the software will be performed automatically.
8. **STATISTICS.** Generates a management report showing the number of terminal start-ups, normal shut-downs, abnormal shutdowns, and terminal uptime.
9. **SCHEDULE REBOOT.** This function enables you to establish a time at which a terminal reboot will be performed automatically.

## DATE AND TIME

### ACCESS INSTRUCTIONS:

1. From the **SYSTEM PARAMETERS** screen, select the **DATE AND TIME** option by pressing <1> on the keypad.

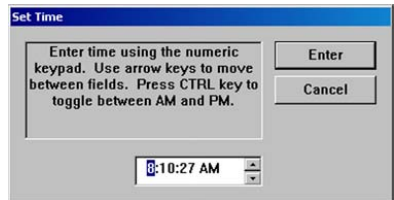
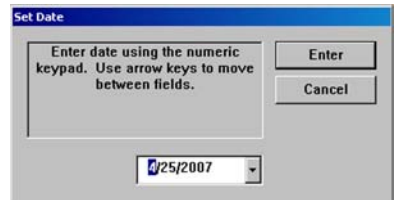


See description

### DESCRIPTION:

The **SET DATE** and **SET TIME** functions allow you to set the terminal Date and Time properties using the following options:

- Press <1> on the keypad. Using the numeric keypad, enter the date in the data entry dialog box. Move between fields with the <ARROW> keys. Press <ENTER> when completed.
- Press <2> on the keypad. Using the numeric keypad, enter the terminal's time in the data entry dialog box. Move between fields with the <ARROW> keys. Press the <CTRL> key to toggle between AM and PM. Press <ENTER> when completed



\* The **ADVANCED SETTINGS** function provides an alternative time/date change dialog but is primarily used to change the terminal's time zone and daylight savings properties.

*Note: This option has been removed on software running X2 equipped units..*

Use the following keys on the keyboard to navigate the date/time properties dialog:

<CLEAR> - This key lets you jump from section to section within a dialog. It functions like the TAB key on a PC keyboard. Once a section is "active" (highlighted via a change in color or a dotted border), you can select an option in that area.

ARROW <> KEYS - Press these keys to cycle through the available options in an area.

<CTRL> - Press this key to change a checkbox option from the checked (enabled) and unchecked (disabled) conditions.

# SYSTEM PARAMETERS

## SET THE DATE

1. **SET THE MONTH.** When the date/time properties dialog is displayed, the month is highlighted. If for some reason it is not, press the <CLEAR> key as needed to highlight it.  
Once it is highlighted, you can use the <ARROW> keys on the keyboard to choose the month.
2. **SET THE YEAR.** Highlight the current year value.
3. **SET THE DAY.** Move the highlight mark into the calendar area (not the dotted border around the currently highlighted day) and then use the arrow keys to select a day.

## SET THE TIME

1. **SET THE HOUR.** Move the highlighted mark into the time-set area. The hour is highlighted first. Enter the hour using the numeric (0-9) keys on the keypad.
2. **SET THE MINUTE.** Move the highlighted mark again to select the minute setting. Enter the minute using the numeric (0-9) keys on the keypad.
3. **SET THE SECONDS.** Move the highlight mark again to select the seconds setting. Enter the seconds using the numeric (0-9) keys on the keypad.
4. **SET THE AM/PM INDICATOR.** Move the highlight mark again to select AM or PM. Press the arrow keys to choose the appropriate setting.

## SET THE TIME ZONE AND DAYLIGHT SAVINGS SETTING

To change the time zone setting, press the <CLEAR> key as needed to highlight the title of the date & time dialog tab. Press the Right(>) arrow key to move the highlight to the title of the time zone tab.

Follow these steps to change the time zone and daylight savings settings:

1. **SET THE TIME ZONE.** Press the <CLEAR> key on the keypad to highlight the list of time zones. Use the <ARROW> keys to select a time zone.  
Move the highlight mark to the “DAYLIGHT SAVINGS” option. Press the <CTRL> key to enable (checked) or disable (unchecked) the option. *Note: This option unavailable for X2 equipped units.*

## ACCEPTING THE DATE/TIME SETTINGS

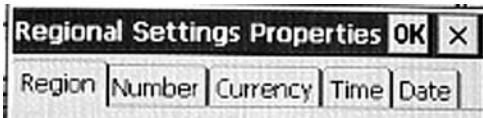
Once the date/time settings have been configured, move the highlight mark to the OK command button. Press the <ENTER> key on the keypad to accept or <CANCEL> to exit without making any changes.



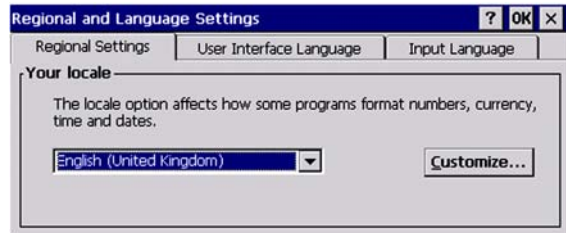
## REGIONAL SETTINGS

### ACCESS INSTRUCTIONS:

1. From the **SYSTEM PARAMETERS** screen, select the **REGIONAL SETTINGS** option by pressing <2> on the keypad.
2. From the **REGIONAL SETTINGS PROPERTIES** screen, use the <CLEAR> key to select the option tabs at the top (a dashed line will appear around one of the tabs). Use the <ARROW> keys to move to an option tab (a dashed line will appear around the selected tab).



These options available with older X-Scale software.



These options available with newer software.

### DESCRIPTION:

The **REGIONAL SETTINGS PROPERTIES** allow you to configure the following:

- ➔ **REGION:** Use this function to change the terminal's physical Locale properties (Country/Region).
- ➔ **NUMBERS:** Use this function to change the terminal's displayed Number formats.
- ➔ **CURRENCY:** Use this function to change the terminal's displayed Monetary Values.
- ➔ **TIME:** Use this function to change the terminal's displayed Time.
- ➔ **DATE:** Use this function to change the terminal's displayed Date.

The **REGIONAL AND LANGUAGE SETTINGS** allow you to configure the following:

- ➔ **REGIONAL SETTINGS:** Use this function to set the locale option (country). Select “CUSTOMIZE” to configure :
- NUMBERS:** Use this function to change the terminal's displayed Number formats.
- CURRENCY:** Use this function to change the terminal's displayed Monetary Values.
- TIME:** Use this function to change the terminal's displayed Time.
- DATE:** Use this function to change the terminal's displayed Date.
- ➔ **USER INTERFACE LANGUAGE:**
- ➔ **INPUT LANGUAGE:**

## SYSTEM PARAMETERS

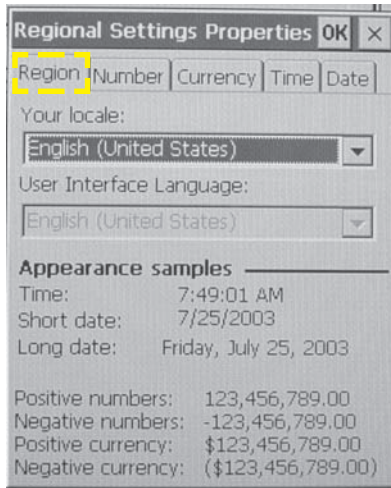
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### NAVIGATING THE REGIONAL SETTINGS PROPERTIES DIALOG:

You will use the following keys on the keyboard to navigate this REGIONAL SETTINGS PROPERTIES dialog:

- **<CANCEL>** - Aborts the current operation and acts like the ESC key on the PC keyboard.
- **<CLEAR>** - Moves to the next field in a dialog box and acts like the TAB key on the PC keyboard.
- **<ENTER>** - Accepts the currently entry or selection and acts like the Enter or Return key on the PC keyboard.
- **<CTRL>** - This is the unlabeled (blank) key in the lower-right corner of the keypad, which is used to select alphabetic characters during text entry. This key acts like the SPACE bar on the PC keyboard to check or uncheck a checkbox control.
- **<ARROW> KEYS** - Press these keys to cycle through the available options in an area.
- **<F4>** - Press this function key to display a drop down list of options for the selected field.
- **<F8>** - Press this function key to display an on-screen keypad for entering alphanumeric data into the selected field.

## SET REGION



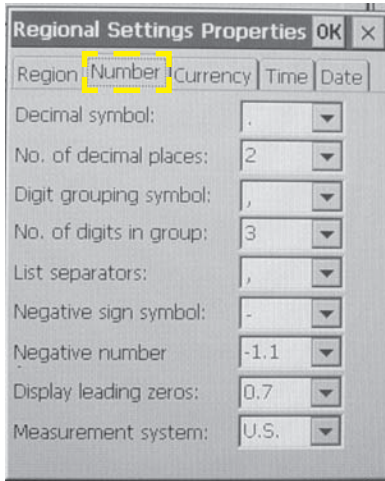
The **REGION** tab lets you adjust the terminal's physical location (country/region)

To change a **REGION** setting:

1. From the **REGIONAL SETTINGS PROPERTIES** screen, press the **<CLEAR>** key to activate the option tabs at the top of the screen (a dashed line will outline one of the tab headings). Use the **<ARROW>** keys to select the **REGION** tab.
  2. With the Region tab selected, press the **<CLEAR>** key to activate the "YOUR LOCALE:" option. A country/region will be highlighted
  3. Use the **<ARROW>** keys to scroll through the available country/regional options.
  4. Press the **<ENTER>** key when the correct location is highlighted.
- ➡ **APPEARANCE SAMPLES.** These examples display standard Time, Date (long/short), Numbers (positive/negative) and Currency (positive/negative) with the current format options. They will update every time a new format is selected for each option field.

# SYSTEM PARAMETERS

## SET NUMBERS



The **NUMBER** tab lets you adjust the terminal displayed number formats. The default settings are standard for the country/region selected on the **REGION** screen.

To change a **NUMBER** setting:

1. From the **REGIONAL SETTINGS PROPERTIES** screen, press the **<CLEAR>** key to activate the option tabs at the top of the screen (a dashed line will outline one of the tab headings). Use the **<ARROW>** keys to select the **NUMBER** tab.
2. Press the **<CLEAR>** key to move down through the available options. When an option is selected, press the **<ARROW>** key repeatedly to scroll the available selections.
3. Press the **<ENTER>** key when all changes have been completed.

### \*NOTE\*

In some cases, none of the standard settings may satisfy the requirements. A value can be manually entered in the field by pressing the **<F8>** function key which will display an on-screen keyboard. Use the 8 (up), 0 (down), and the **<ARROW>** keys to navigate around the keyboard. Press the **<ENTER>** key to make a selection and save the value in the field.

- ➡ **DECIMAL SYMBOL.** Determines the symbol used to designate a decimal point. The default symbol is a period (i.e. 100.00).
- ➡ **NO. OF DECIMAL PLACES.** Determines the number of digits used to display decimal number (i.e. 100, 100.00 or 100.000).

- **DIGIT GROUPING SYMBOL.** Determines the symbol used to separate groups of digits in large numbers. The default symbol is a comma (i.e. 1000 or 1,000,000).
- **NO. DIGITS IN GROUP.** Determines if and how large numbers are grouped (i.e. 123456789 (no grouping), or 12,3456,789 (grouping)).
- **LIST SEPARATORS.** Determines which symbol is used to separate items in a list, as in 100, 1245, 76. The default is a comma (,), but common alternatives are a colon (:) or semicolon (;).
- **NEGATIVE SIGN SYMBOL.** The default negative symbol is the minus sign (-); you can change the format in which a negative number is displayed in the negative number format field.
- **NEGATIVE NUMBER.** A negative symbol can be placed in front of the number (i.e. -123456, with or without a space), behind it (i.e. 123456), or the number will be bracketed by parentheses (i.e. (123456)).
- **DISPLAY LEADING ZEROES.** Determines whether the number is displayed with a leading zero such as .7 (with), or .7 (without).
- **MEASUREMENT SYSTEM.** With U.S. settings, you can choose either metric (meters, centimeters, liters, and so on) or U.S. measurement (feet, inches, gallons, ounces, pounds, etc.). The British setting will default to the metric system.



# SYSTEM PARAMETERS

## SET CURRENCY

Regional Settings Properties OK X

Region Number **Currency** Time Date

Currency symbol: \$

Currency symbol position: 1.1

Negative number: (1.1)

Decimal symbol: .

No. of decimal places: 2

Digit grouping symbol: ,

No. of digits in group: 3

1.1 = Universal currency symbol

The **CURRENCY** tab lets you adjust the terminal displayed Monetary Values. The default settings are standard for the country/region selected on the **REGION** screen.

To change a **CURRENCY** setting:

1. From the **REGIONAL SETTINGS PROPERTIES** screen, press the <CLEAR> key to activate the option tabs at the top of the screen (a dashed line will outline one of the tab headings). Use the <ARROW> keys to select the **CURRENCY** tab.
2. Press the <CLEAR> key to move down through the available options. When an option is selected, press the <ARROW> key repeatedly to scroll the available selections.
3. Press the <ENTER> key when all changes have been completed.

### \*NOTE\*

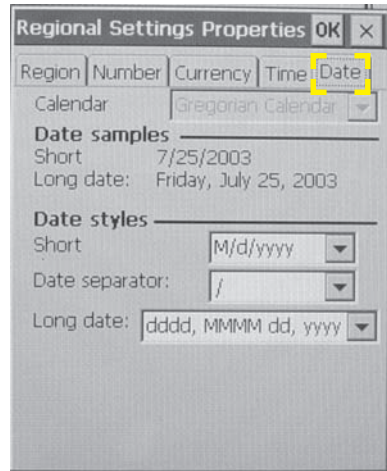
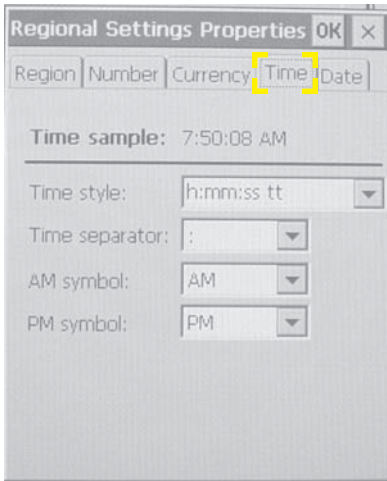
In some cases, none of the standard settings may satisfy the requirements. A value can be manually entered in the field by pressing the <F8> function key which will display an on-screen keyboard. Use the 8 (up), 0 (down), and the <ARROW> keys to navigate around the keyboard. Press the <ENTER> key to make a selection and save the value in the field.

- **CURRENCY SYMBOL.** Select the currency symbol for the current country/region. The default is the dollar sign (\$) for the United States.
- **CURRENCY SYMBOL POSITION.** Determines whether the currency symbol will appear before or after the number representing the monetary value (i.e.\$100.00 or 100.00\$).
- **NEGATIVE NUMBER.** A negative symbol can be placed in front of the number (i.e.\$12.3, behind it (i.e. \$12.34), or the number will be bracketed by parentheses (i.e.(\$12.34)).

- **DECIMAL SYMBOL.** Determines the symbol used to designate a decimal point. The default symbol is a period (i.e. \$100.00).
- **NO. OF DECIMAL PLACES.** Determines the number of digits used to display decimal numbers (i.e. 100, 100.**00** or 100.**000**).
- **DIGIT GROUPING SYMBOL.** Determines the symbol used to separate groups of digits in large numbers. The default symbol is a comma (i.e. \$1**000** or \$1,000,000).
- **NO. DIGITS IN GROUP.** Determines if and how large numbers are grouped (i.e. \$123456789 (no grouping), or 12,3456,789 (grouping)).

# SYSTEM PARAMETERS

## SET TIME AND DATE



The **TIME** and **DATE** tabs let you adjust the terminals displayed Time and Date. The default settings are standard for the country/region selected on the **REGION** screen.

To change the **TIME** or **DATE** settings:

1. From the **REGIONAL SETTINGS PROPERTIES** screen, press the <CLEAR> key to activate the option tabs at the top. Use the <ARROW> keys to select (highlight) the **TIME** (or **DATE**) tab.
2. Press the <CLEAR> key to move down through the available options. When an option is selected, press the <ARROW> key repeatedly to scroll the available selections.
3. Press the <ENTER> key when all changes have been completed.

### \*NOTE\*

In some cases, none of the standard settings may satisfy the requirements. A value can be manually entered in the field by pressing the <F8> function key which will display an on-screen keyboard. Use the 8 (up), 0 (down), and the <ARROW> keys to navigate around the keyboard. Press the <ENTER> key to make a selection and save the value in the field.

The default **TIME** setting is represented by hours, minutes, and seconds along with AM or PM as applicable.

- **HOURS.** It can be set as one (1) or two (2) digits (ie. 4 or 04), using either the 12 or 24-hour clock. (i.e. 4:00 in the afternoon can be displayed as 4:00:00 PM (with or without a preceding 0) or 16:00:00).
- **TIME SEPARATOR.** The colon (: ) is the default time separator (i.e. 400 PM)
- **AM and PM symbols.** Defaulted to AM and PM

# X-SCALE / X2 CONFIGURATION MANUAL

---

The default **DATE** setting makes use of the Gregorian calendar. The United States and most English-speaking countries make use of this calendar. The actual format is defined when the country/region is selected on the Region tab.

Both the long and short methods of displaying the date can be defined separately by the other options on this window. Samples are provided in their respective sections, which will update each time a change is made.

- **SHORT:** By default, the U.S. region short date is displayed as M/d/yy which means the month is first, followed by the day, and then by the last two digits of the year (i.e. 8/10/98). Multiple options can be selected as previously described.
- **DATE SEPARATOR:** The only pre-defined option is the forward slash (/). It can be manually changed using the <F8> function key to bring up the on-screen keyboard as previously described.
- **LONG DATE:** There are four (4) formats available that represent the day of the week, as well as the month, day, and year (i.e. dddd, MMM, dd, yyyy or Monday August 10, 1998). Multiple options can be selected as previously described.

---

## VOLUME CONTROLS

### ACCESS INSTRUCTIONS:

1. From the **SYSTEM PARAMETERS** screen, select the **VOLUME CONTROLS** option by pressing <3> on the keypad.



### DESCRIPTION:

The Volume Control option will adjust the speaker volume.

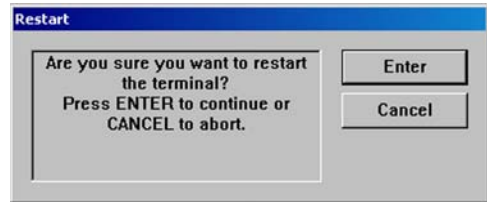
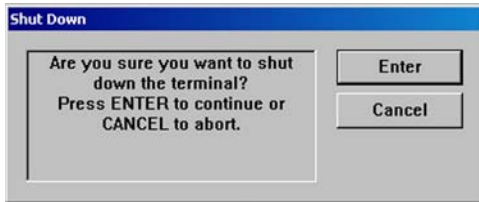
- Press the <1> key to raise the volume, and the <2> key to lower the volume. The indicator bar will provide a visual indication of the current volume level. Press <ENTER> to save the setting.

# SYSTEM PARAMETERS

## SHUTDOWN / RESTART TERMINAL

### ACCESS INSTRUCTIONS:

1. From the **SYSTEM PARAMETERS** screen, select the **SHUTDOWN TERMINAL** option by pressing **<4>** on the keypad.
3. From the **SYSTEM PARAMETERS** screen, select the **RESTART TERMINAL** option by pressing **<5>** on the keypad.



### DESCRIPTION:

The **SHUTDOWN TERMINAL** function will power down the terminal operating system.

➡ Press **<4>** on the keypad. When prompted, press **<ENTER>** on the keypad to initiate the shutdown operation. Once the computer is powered down, you will have to manually turn the power supply **ON/OFF** switch to the **OFF** position. To restore power, turn the power supply **ON/OFF** to the **ON** position.

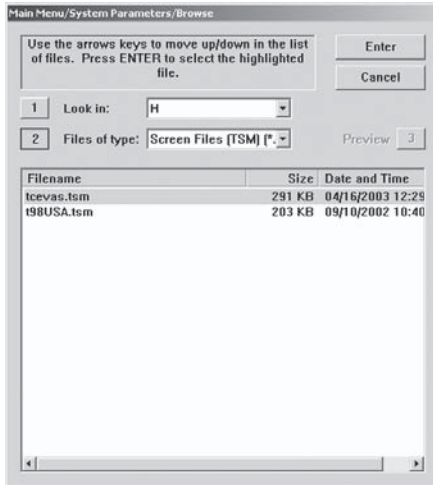
The **RESTART TERMINAL** function will just reboot the terminal. It will take several minutes for the terminal to power down and then power back up.

➡ Press **<5>** on the keypad. When prompted, press **<ENTER>** on the keypad to initiate the restart operation.

## SELECT SCREEN FILE

### ACCESS INSTRUCTIONS:

1. From the **SYSTEM PARAMETERS** screen, select the **SELECT SCREEN FILE** option by pressing <6> on the keypad.



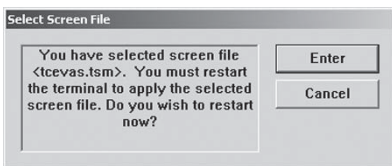
### DESCRIPTION:

The **SELECT SCREEN FILE** function uses a browse dialog to locate and select the Triton screen manager file that will determine the appearance and functionality of the customer screens. The **“BROWSE”** controls are described below:

**LOOK IN.** Press this button to cycle through the available locations for screen files: (i.e. Internal Flash or an external memory device).

**FILES OF TYPE.** Selects the file type to browse for. The default file type is Triton Screen Manager (.TSM)

The file list shows the available screen manager files in the selected location. The filename, size, and date/time attributes are shown for each file. Use the **<ARROW>** keys on the keypad to highlight a file. Press the **<ENTER>** key to select the highlighted screen file. You will be prompted that you selected screen file **<\*>**. Press **<ENTER>**. The terminal will restart automatically

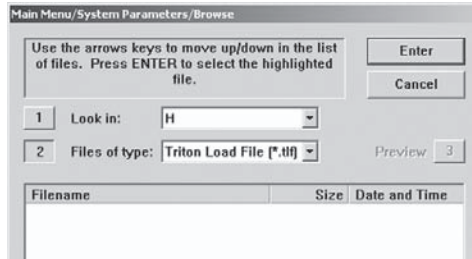


# SYSTEM PARAMETERS

## SOFTWARE UPDATE

### ACCESS INSTRUCTIONS:

1. From the **SYSTEM PARAMETERS** screen, select the **SOFTWARE UPDATE** option by pressing <7> on the keypad.



### DESCRIPTION:

The **PERFORM SOFTWARE UPDATES** function will load/update the software components with the software file stored on an external memory device. The update version must be greater than the current version running on the terminal. If not, it will “fallback” to the current version.

*Note: X2 equipped units use load file format Triton#.TFV extensions. X-Scale equipped units use load file format Triton#.TLF extension. The terminal will not accept a load file it is not equipped for.*

This step procedure describes how to perform a software update for the RL/FT5000/RL/R2000. You will need a Flash drive device (USB storage device) with the terminal software loaded in it.

- ➔ Connect the USB external memory device to the Docking Board assembly (X-Scale) or the X2 Main Board assembly (X2). Make sure to allow time for the memory device to be read by the terminal.

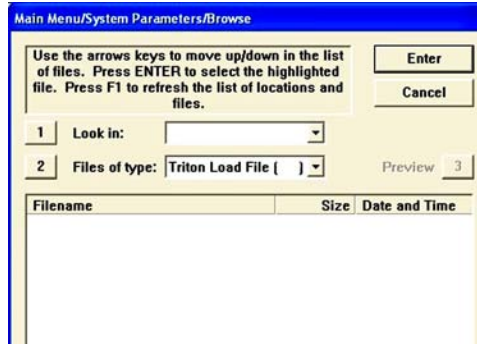


X-Scale

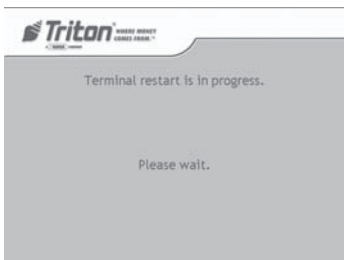


X2

- Enter Management Functions > Main Menu > System Parameters > Software Update. The following screen appears.



- In the “LOOK IN” option should be the “USB” location. If it’s not present, <CANCEL> out of the Software Update screen and then re-enter the same screen. When the “LOOK IN” option has “USB” present, the “FILENAME” screen should have the terminal software, size, and date/time attributes for each file loaded in the Flash drive. See **NOTE** right.
- Use the left and right<ARROW> keys on the keypad to highlight the selected file. Press <ENTER> when selected.
- A screen will appear verifying the selected file and prompt to restart the terminal. Press <ENTER> to continue.



- The terminal will restart at this time and the installation of the software will be performed automatically. After the terminal completes it’s reboot sequence, remove the Flash drive device. **NOTE: An additional restart is recommended after the file is loaded.**

**\* NOTE \***  
**(FULL LOAD VS UPDATE FILES)**

When loading a **Full Load** software file, you will lose previously configured parameters and will have to reconfigure. It is **HIGHLY** recommended saving parameters **MAIN MENU > TERMINAL STATUS > SAVE PARAMETERS TO EXTERNAL STORAGE (USB DEVICE)** before loading the Full Load file. This allows you to quickly reconfigure terminal with the saved parameters.

If loading an **Update** file, you will lose some parameters and have to reconfigure (Ex: Cassette parameters). Ensure you use the correct update file for your specific country.

**Legend:** Full load files are identified with a ‘D’ designation (XD). Updates files with a ‘U’ (XU).



# SYSTEM PARAMETERS

## STATISTICS

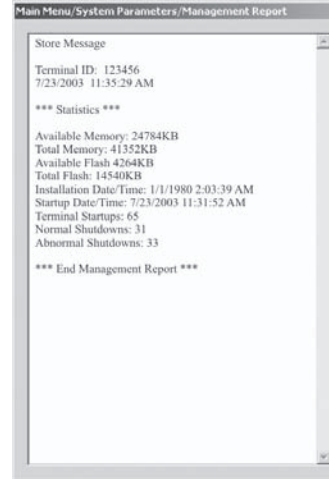
### ACCESS INSTRUCTIONS:

1. From the **SYSTEM PARAMETERS** screen, select the **STATISTICS** option by pressing <8> on the keypad.

### DESCRIPTION:

Displays a statistical management report for the following:

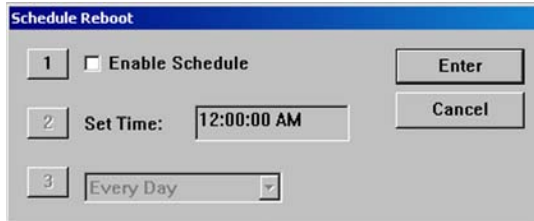
- **AVAILABLE SYSTEM MEMORY** - Memory (in bytes) currently available for the system. The terminal will go out of service if this value drops below 3MB.
- **AVAILABLE APPLICATION MEMORY** - Memory (in bytes) currently available for the ATM application. The terminal will go out of service if this value drops below 3MB.
- **TOTAL MEMORY** - Total memory (in bytes) available for the system. This value is static and will not change.
- **AVAILABLE FLASH** - Flash space (in bytes) currently available. The terminal will go out of service if this value drops below 2MB. Flash is used for storing journal, Ad graphics, screen files, and any other system files.
- **TOTAL FLASH** - Total flash space (in bytes) available. This value is static and will not change.
- **INSTALLATION DATE/TIME** - The date and time recorded when the terminal was initially activated.
- **STARTUP DATE/TIME** - The last date and time the terminal was restarted.
- **TERMINAL STARTUPS** - The number of terminal startups recorded.
- **NORMAL SHUTDOWNS** - The number of normal shutdown procedures (**SYSTEM PARAMETERS > SHUTDOWN TERMINAL**) recorded.
- **ABNORMAL SHUTDOWNS** - The number of abnormal shutdown (turning power supply off bypassing “normal” shutdown procedure) recorded.



## SCHEDULE REBOOT

### ACCESS INSTRUCTIONS:

1. From the **SYSTEM PARAMETERS** screen, select the **SCHEDULE REBOOT** option by pressing <9> on the keypad.



### DESCRIPTION:

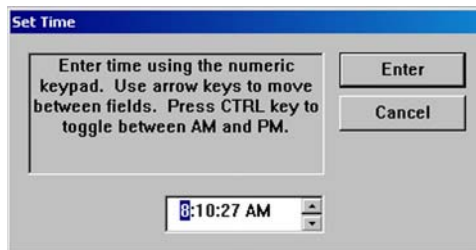
The **SCHEDULE REBOOT** function allows you to enable (checked) or disable (unchecked) the Schedule Reboot function and to specify a time of day a reboot of the terminal will be performed. If this function is enabled, a reboot will automatically be initiated at the specified time of day.

### ENABLE/DISABLE SCHEDULE

- Press the <1> key switch between enabled (checked) and disabled (unchecked). If *enabled*, options <2> “**SET TIME**” and <3> “**DAY SELECT**” will be activated to set the time.

### SET TIME / DAY SELECT FEATURES

- Use the <ARROW> keys to move between the fields to select values for the hour, minutes and seconds. Enter the specified time with the keyboard. Use the <CTRL> key to toggle between **AM** and **PM**.



- Press the <3> key to select a specific day of the week (Sunday, Monday, Tuesday, etc.) or for Every Day, to determine the day(s) of the week for the scheduled reboot.

Press <ENTER> on the keyboard to accept the schedule reboot settings and return to the System Parameters main menu window.

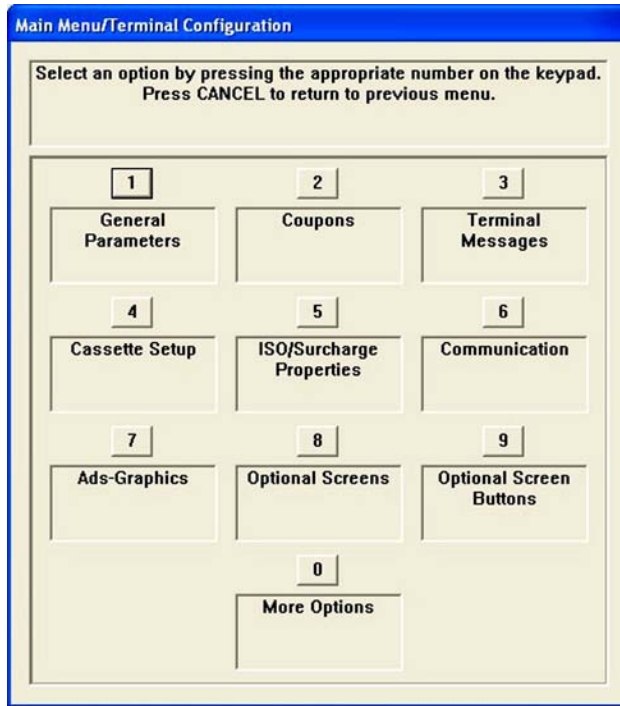
# TERMINAL CONFIGURATION

**Main Menu**

Select an option by pressing the appropriate number on the keypad.  
Press CANCEL to exit management functions.

<b>1</b> Terminal Close Functions	<b>2</b> Diagnostics	<b>3</b> Electronic Journal
<b>4</b> Password Maintenance	<b>5</b> System Parameters	<b>6</b> Terminal Configuration
<b>7</b> Key Management	<b>8</b> Terminal Status	<b>9</b> Language: English
<b>0</b>		

## TERMINAL CONFIGURATION



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# TERMINAL CONFIGURATION

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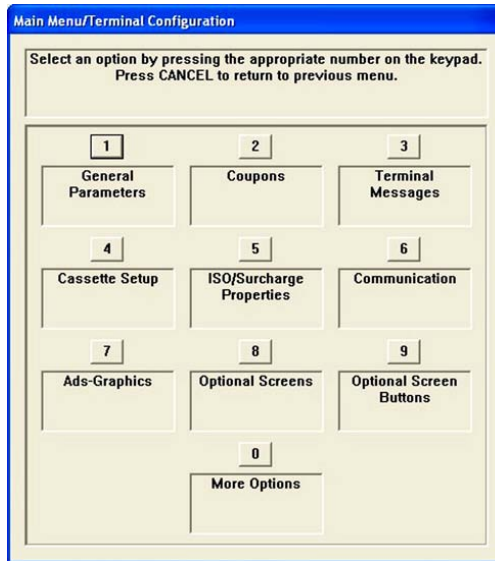
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## TERMINAL CONFIGURATION

### ACCESS INSTRUCTIONS:

1. From the **MAIN MENU** screen, select the **TERMINAL CONFIGURATION** option by pressing <6> on the keypad.



### DESCRIPTION:

The **TERMINAL CONFIGURATION** option allows the terminal operator to perform the following functions:

1. **GENERAL PARAMETERS.** This function enables you to view and/or configure general parameters such as terminal number, language, account types, printer service options, status monitoring, and heartbeat message.
2. **COUPONS.** This function allows configuring printed and dispensed coupon parameters.
3. **TERMINAL MESSAGES.** This function allows entering text for terminal messages such as welcome and store messages as well as terminal and surcharge owners.
4. **CASSETTE SETUP.** This function allows you to view and/or configure fast cash amounts, maximum withdrawals, and cassette parameters.
5. **ISO / SURCHARGE PROPERTIES.** This function sets the surcharge type and amount. ISO numbers are also managed here (added/deleted/edited).
6. **COMMUNICATION.** This function allows you to view and/or configure the communication protocol settings.
7. **ADS / GRAPHICS.** This function allows management of Ad graphics (add/delete/edit) and display properties.
8. **OPTIONAL SCREENS.** This function allows customization of customer screen presentations.
9. **OPTIONAL SCREEN BUTTONS.** This function allows customization of customer screen options.
0. **TRITON CONNECT.** This function allows viewing/configuring Triton Connect parameters.



# TERMINAL CONFIGURATION

## GENERAL PARAMETERS

### ACCESS INSTRUCTIONS:

1. From the **TERMINAL CONFIGURATION** screen, select the **GENERAL PARAMETERS** option by pressing <1> on the keypad.

Main Menu/Terminal Configuration/General Parameters

1 Terminal ID:  Enter

2 ZIP Code:  Cancel

3 Reset Sequence No.

Default Values

4 Language: English

5 Transaction: None

6 Account Type: Checking

Printer Settings

7  Out of Service on Low Paper

8  Out of Service on Printer Error

ATM Monitoring

9  Status Monitoring

0  Heartbeat Message

F1 Heartbeat Delay Period: 30

### DESCRIPTION:

The **GENERAL PARAMETERS** option allows the terminal operator to perform the following functions:

1. **TERMINAL ID.** This option identifies the terminal for the processor. It is a unique string of between six (6) and sixteen (16) characters (usually provided by the host network). The terminal ID **MUST** be entered.  
➡ Press <1> on the keypad to enter/edit the ID number.

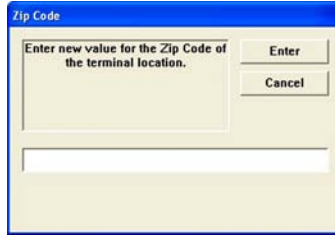
Terminal ID

Enter the desired value for the Terminal ID.

Enter

Cancel

- ZIP CODE.** Enter the zip code of the physical location of the terminal.
  - Press <2> on the keypad to enter/edit the zip code number.



- RESET SEQUENCE NUMBER.** This option resets the sequence number that is printed on the journal printout and receipt to '00000000'.
  - Press <3> on the keypad reset the sequence number.
- DEFAULT LANGUAGE.** This function selects the default language for all customer screen transactions and management function screens.

*Note: This function is only active if the option to allow customer selection of a language has been disabled through the optional screens and optional buttons functions.*

- Press <4> on the keypad repeatedly to cycle through the available languages.
- DEFAULT TRANSACTION TYPE.** This function changes the default transaction types that are presented to the customer. The available options are “WITHDRAWALS”, “TRANSFERS”, and “BALANCE INQUIRIES”. The default is “NONE” (all available options are presented to customer).

*Note: If a specific transaction type is selected, it will only be presented to customer if the selected type has been disabled through the optional screens and buttons functions.*

- Press <5> on the keypad repeatedly to cycle through the available transaction types.
- DEFAULT ACCOUNT TYPE.** This function operates the same as “Transaction Types”. The available options are “CHECKING”, “SAVINGS”, and “CREDIT CARD”. The default is “CHECKING”.
    - Press <6> on the keypad repeatedly to cycle through the available account types.
  - OUT OF SERVICE ON LOW PAPER.** This option determines if the terminal will go “Out of Service” when a low receipt paper condition occurs or stays “In-Service”.
    - Press <7> to toggle between checked (terminal “Out of Service”) or unchecked (terminal remains In-Service).

## TERMINAL CONFIGURATION

---

8. **OUT OF SERVICE ON PRINTER ERROR.** This option determines if the terminal will go “Out of Service” when a printer error occurs or remains “In-Service”. If this option is *unchecked*, the terminal remains in-service and the customer will be prompted that a receipt will NOT be printed. At that point they can accept or discontinue the transaction process.
- ➡ Press <8> to toggle between checked (terminal “Out of Service”) or unchecked (terminal remains In-Service).
9. **STATUS MONITORING (HOST SPECIFIC REQUIREMENT).** This option, when enabled (checked), sends operational status information to the host processor. During certain transactions, a 1) Transaction request message, 2) configuration table download request (Working key download), 3) host totals download request, and 4) reversal request message are sent.
- ➡ Press <9> to toggle between checked (enabled) or unchecked (disabled).
0. **HEARTBEAT MESSAGE (HOST SPECIFIC REQUIREMENT).** This option, when enabled (checked), instructs the terminal to initiate a Working key download to the host processor. This allows the processor to determine if a particular terminal is still in operation.
- Note: When this option is enabled, the Heartbeat Delay Interval (next option) will be active to set the time period interval.*
- ➡ Press <0> to toggle between checked (enabled) or unchecked (disabled).
- F1. **HEARTBEAT DELAY PERIOD.** This parameter sets the time interval of the Heartbeat message that will be sent. It is specified in “minutes”.
- ➡ When the Heartbeat Message is “enabled”, press <F1> (upper left Function key next to display). Enter a value (in minutes) between 1-999. Press <ENTER> to accept.
- Example: ‘30’ will initiate a working key download every thirty (30) minutes. Be advised, this will put the terminal “Temporarily Out of Service” for a short duration until the key has successfully been downloaded.

## COUPONS

### ACCESS INSTRUCTIONS:

1. From the **TERMINAL CONFIGURATION** screen, select the **COUPONS** option by pressing <2> on the keypad.

### DESCRIPTION:

The **COUPON** option allows the terminal operator to perform the following functions:

1. **COUPON.** Coupons are used to notify customers of awards, prizes, other promotional sales. Coupons are presented to the customer in two (2) ways: **PRINTED** or **DISPENSED**.

➡ Press <1> on the keypad to cycle through the available coupon types.

*Note: When “Printed” is selected, options two <2> through zero <0> are activated to configure. When “Dispensed” is selected, options two <2> through <6> and <F1> and <F2> are activated.*

2. **PROMPT.** This option displays a text entry dialog prompt. This dialog is a brief message that appears on the customer screen to inform the customer that a coupon will be printed.

➡ Press <2> on the keypad. Enter a brief statement such as “Congratulations! You have won a prize coupon!”. Press <Enter> when completed.

## TERMINAL CONFIGURATION

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3. **MIN. LEVEL (MINIMUM WITHDRAWAL AMOUNT).** This option sets the minimum withdrawal amount that will trigger printing or dispensing a coupon. If the customer withdraws an amount equal to or greater than this amount AND less than or equal to the maximum amount level, a coupon will be printed or dispensed (as applicable).
  - ➡ Press <3> on the keypad. Enter the minimum withdrawal amount in the dialog prompt. Press <ENTER> when completed.
4. **MAX. LEVEL (MAXIMUM WITHDRAWAL AMOUNT).** This option sets the maximum withdrawal amount that will trigger printing or dispensing a coupon. If the customer withdraws an amount equal to or greater than the minimum amount AND less than or equal to this amount level, a coupon will be printed or dispensed (as applicable).
  - ➡ Press <4> on the keypad. Enter the maximum withdrawal amount in the dialog prompt. Press <ENTER> when completed.
5. **RANDOM.** This option sets the frequency at which random prize coupons will be awarded (printed or dispensed, as applicable). The random coupon is won by a random number of transactions. For example, if the winning percentage (%) is set for 10, then 1 out of every 10 transactions will be awarded. The percentages can be set from 1% to 100%.
  - ➡ Press <5> on the keypad. Enter the random percentage in the dialog prompt. Press <ENTER> when completed.
6. **AWARD BASED ON ISO PROPERTIES.** When this option is enabled (checked), the selected coupons are issued based on criteria configured in the “ISO/SURCHARGE PROPERTIES” option under Terminal Configurations.
  - ➡ Press <6> to toggle between enabled (checked) or disabled (unchecked).
7. **MESSAGE (PRINTED).** The coupon message is a statement that appears on the coupon. The message describes the purpose of the coupon (discount, prize claim, etc).
  - ➡ Press <7> on the keypad. Enter a descriptive narrative in the dialog box. Press <ENTER> when completed.
8. **LAYOUT (PRINTED).** The layout parameter establishes the location of graphics on printed coupons. The orientation can be set for either “Landscape” or “Portrait”. The available options are “TOP”, “BOTTOM”, or “TOP AND BOTTOM”.

**TOP GRAPHIC.** The selected graphic is printed at the top of the designated receipt (450 x 225 pixels - .Bmp).

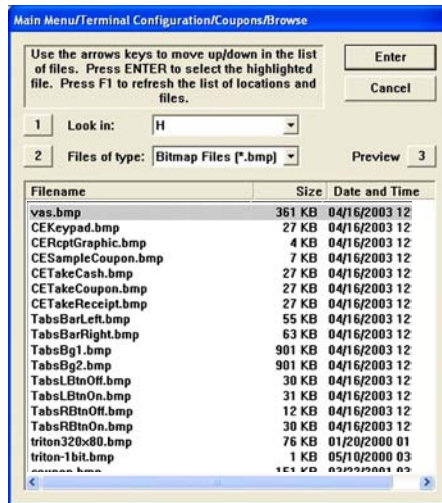
**BOTTOM GRAPHIC.** The selected graphic is printed at the bottom of the designated receipt (450 x 225 pixels - .Bmp).

**TOP & BOTTOM GRAPHIC:** The selected graphic is printed at the top and bottom of the designated receipt (320 x 160 pixels - .Bmp).

- ➡ Press <8> to toggle through the available options. Press <ENTER> when completed.

# X-SCALE / X2 CONFIGURATION MANUAL

9. **GRAPHIC (PRINTED).** The coupon “**BROWSE**” dialog enables you to locate and select the graphic that will appear on printed coupons. The browse controls are described below:
  1. **LOOK IN.** Press <1> to cycle through the locations where coupon graphics are located: internal flash or external memory device.
  2. **FILES OF TYPE.** Press <2> to select the graphic file type for the printed coupon.  
*Note: Coupon graphics must be 2 (TWO) COLOR (Black and White)Bitmaps (.bmp).*
  3. **PREVIEW.** Press <3> to preview the selected coupon graphic.
- ➡ Press <9> to bring up the “Browse” dialog screen. Use the Left (<) or Right (>) arrow keys to scroll/highlight a file. Press <ENTER> to accept the highlighted coupon graphic.



0. **PRINT (PRINTED).** This option will print a sample coupon to verify the appearance of the message, layout, and graphic (if used) of the printed coupon.
  - ➡ Press <0> to print a sample coupon.
- F1. **CASSETTE (DISPENSED).** This option selects the cassette(s) that will dispense coupons.
  - ➡ Press <F1> to cycle through the available cassettes. Press <ENTER> when completed.
- F2. **COUNT (DISPENSED).** This option enables you to set the number of coupons that will be dispensed for qualified transactions.
  - ➡ Press <F2> to display a data entry dialog screen. Enter the number of coupons to dispense. Press <ENTER> when completed.

# TERMINAL CONFIGURATION

## TERMINAL MESSAGES

### ACCESS INSTRUCTIONS:

1. From the **TERMINAL CONFIGURATION** screen, select the **TERMINAL MESSAGES** option by pressing <3> on the keypad.

Main Menu/Terminal Configuration/Terminal Messages

Welcome Message

1 Welcome Message

Enter

Cancel

Store Message

2 Store Message

Marketing Message

3 Marketing Message

Exit Message

4 Exit Message

Terminal Owner

5 Terminal Owner

Surcharge Owner

6 Surcharge Owner

News Ticker Message

7 News Ticker Message

### DESCRIPTION:

The **TERMINAL MESSAGES** option allows the terminal operator to perform the following functions:

**Note:** All the options will display a data entry dialog screen.

1. **WELCOME MESSAGE.** This message will be displayed at the top of the customer Welcome screen.  
➡ Press <1> on the keypad. Type the text message. Press <Enter> when completed.

Welcome Message

Enter the desired Welcome Message.

Enter

Cancel

Welcome Message

*Data entry dialog screen*

2. **STORE MESSAGE.** This message will be displayed on the customer receipt.
  - ➡ Press <2> on the keypad. Type the message that will appear on the customer's receipt. Press <Enter> when completed.
3. **MARKETING MESSAGE.** This message will appear on any printed products that include the store message (customer receipts, day closes, coupons, etc).
  - ➡ Press <3> on the keypad. Type the Marketing message. Press <ENTER> when completed.
4. **EXIT MESSAGE.** This message will appear on the Customer screen at the conclusion of a transaction.
  - ➡ Press <4> on the keypad. Type the exit message. Press <Enter> when completed.
5. **TERMINAL OWNER.** This name is displayed to the customer in the Surcharge warning message.
  - ➡ Press <5> on the keypad. Type the terminal owner's name. Press <ENTER> when completed.



The screenshot shows a software window titled "Terminal Owner". Inside the window, there is a text input field with the prompt "Enter the desired Terminal Owner name." To the right of the input field are two buttons: "Enter" and "Cancel". Below the input field, the text "Terminal Owner" is displayed in a blue box, indicating the current input or a default value.

6. **SURCHARGE OWNER.** This name appears to the customer in the Surcharge warning message.
  - ➡ Press <6> on the keypad. Type the surcharge owner's name. Press <Enter> when completed.
7. **NEWS TICKER MESSAGE.** This message will scroll across the customer Welcome screen. Enter up to 1024 characters. *Note: This feature is not available.*



# TERMINAL CONFIGURATION

## CASSETTE SETUP

### ACCESS INSTRUCTIONS:

1. From the **TERMINAL CONFIGURATION** screen, select the **CASSETTE SETUP** option by pressing <4> on the keypad.

Main Menu/Terminal Configuration/Cassette Setup

**Withdrawal Amounts**

1 Maximum Cash: \$500

2 Maximum Non-Cash: \$0

3 Mix Method

**Fast Cash Amount**

4 Fast Cash 1: \$10

5 Fast Cash 2: \$20

6 Fast Cash 3: \$30

7 Fast Cash 4: \$40

8 Fast Cash 5: \$50

9 Cassette Parameters

Enter

Cancel

### DESCRIPTION:

The **CASSETTE SETUP** option allows the terminal operator to perform the following functions:

**Note:** All options **EXCEPT** “Cassette Parameters” will display a data entry dialog screen.

1. **MAXIMUM AMOUNT.** This option sets the maximum withdrawal limit before any transactions can be completed. This amount is the maximum allowed for a customer withdrawal.

The amount entered must be an even multiple of the smallest denomination loaded in the cassette(s). The value is in dollar amounts only; no cents are allowed.

The maximum amount must be **NO MORE** than fifty (50) times the multiple amount (ex: \$20 notes x 50 = \$1000 max). This amount does not override any maximum set by the host network. The transaction will be sent to the host if the amount entered or selected is less than or equal to the maximum. The host must still approve the amount.

- ➡ Press <1> on the keypad. Enter the maximum withdrawal amount. Press <Enter> when completed.

Maximum Cash

Enter the desired amount for the maximum cash withdrawal.

\$500

Enter

Cancel

2. **MAXIMUM NON-CASH.** This option sets the maximum non-cash purchase limit before any purchases of non-cash items can be completed. This amount is the maximum allowed for non-cash items.

The amount entered must be an even multiple of the value of a single unit of non-cash purchases in the cassette. The value is in dollar amounts only; no cents are allowed.

➡ Press <2> on the keypad. Enter the maximum amount value. Press <Enter> when completed.

3. **MIX METHOD (DEFAULT - MINIMIZE).** This option allows selecting the pick method for dispensers that employ multiple cassettes with the same denomination. The available selections are: **MINIMIZE** and **MINIMIZE EW** (EvenWear).

➡ The current method (identified as “**MINIMIZE**” in the available selections) minimizes the number of bills dispensed, and when more than one cassette has the same bill denomination, one cassette is depleted before the other cassette is used. For example:

A three (3) cassette cash dispenser has 1 cassette with \$10 bills in cassette A and \$20 bills in cassettes B and C. A request for \$150 dollars would be filled with 1 bill from cassette A and 7 bills from cassette B unless B was out of money, in which case the bills would come from cassette C.

➡ When “**MINIMIZE EW**” is selected, the terminal shall “*rotate*” which cassette with the same denomination is used, by transaction, because picking multiple notes from one cassette is quicker than picking the same number of notes from multiple cassettes. After every restart, the terminal will start its rotation from the same cassette. Examples:

1 - Terminal 1 has two cassettes (A and B) with the same denomination. The first transaction after a terminal restart will always use cassette A. The second will use cassette B and subsequent transaction will continue to alternate between the two cassettes which cassette is used.

2 - Terminal 2 has four cassettes (A, B, C, and D) with the same denomination. The first transaction after a terminal restart will always use cassette A; the second, cassette B, the third cassette C, the fourth cassette D, and the fifth would restart the pattern at cassette A.

➡ Press <3> to toggle between Minimize or Minimize EW.

- 4-8. **FAST CASH.** During a withdrawal transaction, fast cash options may be presented to enable the customer to select amounts from a convenient list of options. The amounts do not have to be in set order, though typically, they increase in value from top to bottom.

Enter values that are multiples of the notes loaded in the cassette(s).

➡ Press <4> through <8> (individually) on the keypad. Enter the amounts and press <ENTER> for each entry.

9. **CASSETTE PARAMETERS.** This option enables you to view/configure cassette(s) parameters such as currency data, multiple amounts, etc. The following pages explain this option.

# TERMINAL CONFIGURATION

## CASSETTE PARAMETERS

Main Menu/Terminal Configuration/Cassette Setup/Cassette Parameters

1 Relearn Bill Thickness

2  All Cassettes Locked

3  Enable Extension Rejects 4 Retract Delay 45

Active Cassette:  
5 Cassette A Cassette Status: Success

Cassette Parameters

6  Cassette In Service

7 Multiple Amount \$10.00

8 Document Type:  Cash  Non-Cash

9 Non-Cash Item Description:

0 Secondary Item Description:

F1 Note Configuration

### DESCRIPTION:

The CASSETTE PARAMETERS option allows the terminal operator to perform the following functions:

1. **RELEARN BILL THICKNESS.** For some dispensing mechanisms, the first time the dispenser is set up or a new note cassette is installed, the mechanism will enter a learning mode during which it will “learn” the thickness of the currency or other media. This process may dispense and reject as many as 7-15 notes into the reject cassette/tray/compartments.

During normal operation, if you start experiencing an abnormal amount of rejected notes, you may have to manually initiate this option. This will force the dispenser to enter a “relearn” mode.

- ➔ Press <1> on the keypad to initiate the relearn mode. Follow the prompts to complete.

Relearn Bill Thickness

\*\*\* CAUTION \*\*\*  
This function will cause the current bill thickness for all cassettes to be lost. Please ensure that you are familiar with this setting before continuing.

Relearn Bill Thickness

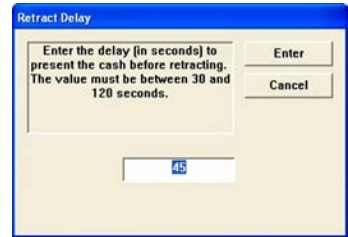
Relearn Bill Size Operation Complete: Successful command (300)

2. **ALL CASSETTES LOCKED /UNLOCKED (NMDs ONLY).** The NMDs are designed to physically *lock* the cassettes for normal operation. If you need to remove a cassette for servicing, troubleshooting, etc, the cassettes for the NMDs must first be Unlocked (unchecked). This option Locks (checked) or Unlocks (unchecked) the cassettes.

*Note: For normal Cassette Close procedures, the cassettes will automatically Unlock and Lock.*

- Press <2> to toggle between Locked (checked) or Unlocked (unchecked).

3. **RETRACT CASH (NMDs ONLY).** This option enables/disables automatic retraction of the note carriage which transports notes to the bill chute. When this option is enabled (checked), the **RETRACT DELAY** option <4> is activated allowing you to specify the length of the delay the dispenser will wait before retracting the note transporter.



- \*3\*. **ENABLE EXTENSION REJECTS (RT2000).** On an RT2000 terminal, The TDM dispensers contain a bill extension unit. This option will enable (checked) or disable (unchecked) the option of rejecting bills in the extension.

#### ***ENABLE EXTENSION REJECTS ON:***

The terminal will stay in service and attempt to purge the extension before the next dispense for both full and partial dispenses caused by a trailing edge timeout that caused the machine to stop prior to delivering all of the requested notes.

#### ***ENABLE EXTENSION REJECTS OFF:***

Terminal will go out of service with Error Code 97 (Extension exit trailing edge timeout) for both full and partial dispenses caused by a trailing edge timeout that caused the machine to stop prior to delivering all of the requested notes.

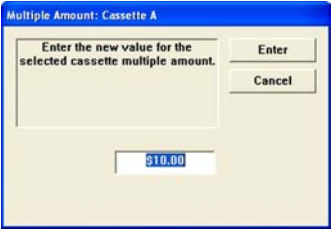
- Press <3> to toggle between enabled (checked) or disabled (unchecked).
  - (for **RETRACT CASH**) If enabled, press <4> and enter the delay time. It can be set from 30 to 120 seconds. Press <ENTER> when completed.
5. **ACTIVE CASSETTE.** This option selects the cassette for setup/changing note configuration parameters or other media.
    - Press <5> repeatedly to cycle through the available cassette(s).
  6. **CASSETTE IN SERVICE.** Some dispensers (multi-cassette) allow individual cassettes to be placed “Out of Service” (unchecked). This means the selected cassette(s) will not be used by the dispenser for withdrawal requests. This capability can be used, for example, to remove a low or empty cassette from service, while still allowing the dispenser to continue operation using the remaining cassette(s).

*Note: The NMD-50/100 cassettes MUST be Locked and IN-Service (checked) for normal operation.*

# TERMINAL CONFIGURATION

➡ Press <6> to toggle between “In Service” (checked) or “Out of Service” (unchecked).

7. **MULTIPLE AMOUNT.** This option *must* be set for the denomination (value) of the currency in the selected cassette (option <5>. Typical values are 5, 10, 20, 50, or 100 notes.



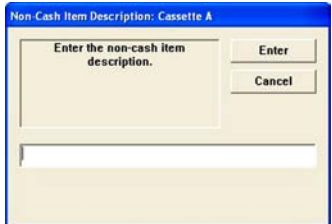
➡ Press <7> on the keypad. Enter the denomination value in the data entry dialog screen. Press <ENTER> when completed.

8. **DOCUMENT TYPE.** This option lets you set the type of document loaded in the selected cassette. The type can be **CASH** or **NON-CASH**. Cash is any type of currency. Non-Cash are items like stamps, coupons, phone cards, etc.

*Note: Only NMD dispensers (multi-cassette) can be setup for Non-cash documents. TDM-200/250, though multi-cassette, only dispense “Cash”. Single cassette dispensers always dispense “Cash”.*

➡ Press <8> to toggle between Cash or Non-Cash. When **NON-CASH** is selected, the following two (2) options “Non-Cash Item Description” and “Secondary Item Description” are activated.

9. **NON-CASH ITEM DESCRIPTION.** This option is used for a brief description of the non-cash item in the selected cassette.



➡ Press <9> on the keypad. Enter a brief description of the non-cash item. Press <ENTER> when completed.

0. **SECONDARY ITEM DESCRIPTION.** This option provides a location for other information of the non-cash item. It is used in conjunction with the “Description” above.

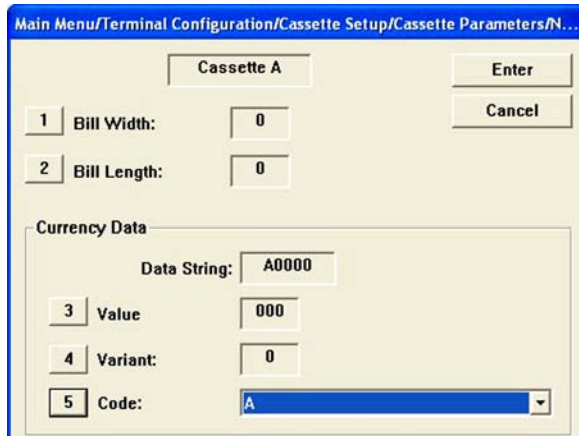
➡ Press <0> on the keypad. Enter a brief description of the non-cash item. Press <ENTER> when completed.

F1. **NOTE CONFIGURATION (NMDs ONLY).** This option enables configuring the note-specific parameters of the currency in the selected cassette. The available parameters are:

1. **BILL WIDTH**
2. **BILL LENGTH**
3. **VALUE**
4. **VARIANT**
5. **CODE**

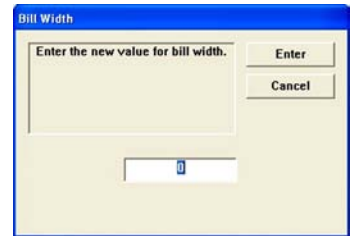
➡ Press <F1> on the function keys. The following pages describe these parameters.

## NOTE CONFIGURATION



*Note: The selected cassette is indicated in a text box at top of screen.*

1. **BILL WIDTH.** This option enables you to enter the “width” of the item in the selected cassette. The information is stored in the cassette.
  - ➔ Press <1> on the keypad. Enter the width of the notes loaded in the cassettes (in millimeters) in the data entry dialog screen. Press <ENTER>.



**Data entry dialog screen**

2. **BILL LENGTH.** This option enables you to enter the “length ” of the item in the selected cassette. The information is stored in the cassette.
  - ➔ Press <2> on the keypad. Enter the length of the notes loaded in the cassettes (in millimeters) in the data entry dialog screen. Press <ENTER>.

*Note: The Data String text box shows the complete currency data configuration value consisting of the value, variant, and code settings.*

3. **VALUE.** The table at right provides a sample of value codes applicable to various common currency denominations.
  - ➔ Press <3> on the keypad. Enter the “Value” parameter in the data entry dialog screen. Press <ENTER>.

Denomination	Base Value	Multiplier	Value
5	05	0	050
10	10	0	100
20	20	0	200
50	50	0	500
100	10	1	101

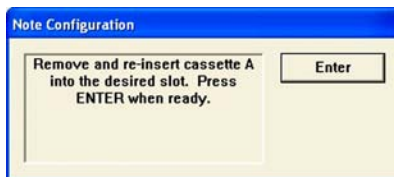
## TERMINAL CONFIGURATION

4. **VARIANT.** This is the single-character that represents the “version” of the note. The variant code should initially be set to one (1). If a new version becomes available, contact Triton’s Technical Support for an updated code.
- ➡ Press <4> on the keypad. Enter the variant parameter in the data entry dialog screen. Press <ENTER>.
5. **CODE.** This code is a three (3)-character description for the currency type (ex: ‘USD’ represents US Dollars). The table below list some of the most common currency codes.

Currency Codes					
Currency Code	Country	Currency Type	Currency Code	Country	Currency Type
ARS	Argentina	Argentina Peso	EUR	European Union	Euro
AUD	Australia	Australia Dollar	FRF	France	Euro
BOB	Bolivia	Boliviano	GBP	United Kingdom	Pound Sterling
BOV	Bolivia	MVDOL	GRD	Greece	Drachma
BRL	Brazil	Brazilian Real	GTO	Guatemala	Quetzal
CAD	Canada	Canadian Dollar	HKD	Hong Kong	Hong Kong Dollar
CLF	Chile	Unidades De Formento	HNL	Honduras	Lempira
CLP	Chile	Chilean Peso	HUF	Hungary	Forint
CNY	China	Chinese Yuan	IDR	Indonesia	Rupiah
COP	Columbia	Columbian Peso	IEP	Ireland	Irish Pound
CRC	Costa Rica	Costa Rican Colon	INR	India	Rupiahs
CYP	Cyprus	Cyprus Pound	MXN	Mexico	Mexican NuevoPeso
CZK	Czech Republic	Czech Koruna	NIO	Nicaragua	Cordo ba Oro
DEM	Germany	Euro	NZD	New Zealand	New Zealand Dollar
DOP	Dominican Republic	Dominican	RMB	China	Chinese Renminbi Yuan
ECS	Ecuador	Sucre	SVC	El Salvador	El Salvador Colon
ECV	Ecuador	Unidad De Valor Coust	USD	United States	US Dollar
EGP	Egypt	Egyptian Pound	ZAR	South Africa	Rand

- ➡ Press <5> repeatedly to cycle through the available list of currency codes. The code that appears in the text box will be applied to the selected cassette.

Lastly, after all parameters have been configured, press <Enter> on the keypad. A prompt appears to remove and re-insert the selected cassette. This action completes the process of changing the value of the data stored in the cassette.



## ISO / SURCHARGE PROPERTIES

### ACCESS INSTRUCTIONS:

1. From the **TERMINAL CONFIGURATION** screen, select the **ISO / SURCHARGE PROPERTIES** option by pressing <5> on the keypad.

Main Menu/Terminal Configuration/ISO/Surcharge Properties

1  Enable Surcharge Enter

2 Amount: \$.00 Cancel

3 Percent: 0 %

4 Use Whichever Is: Greater

ISO Properties

5  Allow only ISOs listed below as "Accept"

6 Add New 7 Delete 8 Edit

ISO Number	Action	Value
------------	--------	-------

### DESCRIPTION:

The **ISO/SURCHARGE PROPERTIES** option allows the terminal operator to perform the following functions:

#### SURCHARGE AMOUNT CONFIGURATION

1. **ENABLE / DISABLE SURCHARGE.** Some networks allow a surcharge (or terminal fee) to be imposed on transactions. If surcharges are in use on your network, you are required to notify the customer of any additional fee before the transaction is processed. Enabling (checked) surcharge will initiate a surcharge notification message to be displayed prior to final processing of the transaction. The customer then has the option of cancelling the transaction or continuing.

**Note:** *If your processor requires a surcharge, you MUST enable (checked) this option.*

- ➡ Press <1> to toggle between enable (check) or disable (unchecked).
2. **AMOUNT.** This option is the fixed-value surcharge amount that will be displayed to the customer in the surcharge notification message. The surcharge amount that you enter will be displayed to the customer and must match the actual surcharge rate established by your processor or other applicable regulatory agencies!

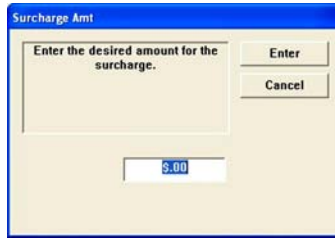
Manually changing the surcharge amount to a higher (or lower) amount does not change the surcharge collected by the processor. It only changes the surcharge amount displayed to the customer and not the actual fee collected.



## TERMINAL CONFIGURATION

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- Press <2> on the keypad. Enter the surcharge amount in the data entry dialog screen. Press <ENTER>.



The image shows a software dialog box titled "Surcharge Amt". Inside the dialog, there is a text prompt: "Enter the desired amount for the surcharge." To the right of the prompt are two buttons: "Enter" and "Cancel". At the bottom of the dialog, there is a text input field containing the value "3.00".

- 3. **PERCENT.** This option enables you to enter a surcharge percent (as well as choose the **LESSER/GREATER** option (<4>) that is applicable to the surcharge. Remember, this option must conform to the processor's requirements or other applicable regulatory agency.
- Press <3> on the keypad. Enter the surcharge percent in the data entry dialog screen. Press <ENTER>.
- 4. **USE WHICHEVER IS LESSER / GREATER.** This option (in conjunction with the "Surcharge Amount" and "Percent" option) enables you to select the smaller of the two (lesser) or larger (greater) surcharge amounts to apply to the transaction.
- Press <4> to toggle between the **LESSER** or **GREATER** options. Select the setting that conforms to your surcharge requirements. Press <ENTER> to accept the surcharge Configurations.

### NOTE

If a fixed surcharge amount is to be used (surcharge percent NOT used) you must ensure the surcharge comparison option is set to **GREATER** and the surcharge percent is set to zero (0). This will ensure that only the fixed surcharge amount value will be displayed to the customer. Failure to do so can cause an incorrect surcharge value to be reported to the customer.

## ISO PROPERTIES

5. **ALLOW ONLY ISOs LISTED BELOW AS “ACCEPT”.** When this option is enabled (checked), it ensures that only cards with ISO numbers in the ISO list are accepted.

➡ Press <5> to toggle between enabled (checked) or disabled (unchecked).

6. **ADD NEW.** To add an ISO to the ISO list, you must enter the new ISO number and “Action” for that number. The “Action” option will be applied to transactions that use the displayed ISO numbers. Some available options are:

**BLOCK SURCHARGE.** This allows free surcharge transactions for customers with the displayed ISO numbers.

**DECLINE CARD.** This declines transactions for customers with the displayed ISO number.

**USE DEFINED SURCHARGE.** This allows the applicable surcharge to be charged for customers with the displayed ISO numbers.

➡ Press <6> on the keypad. The following screen appears at right:



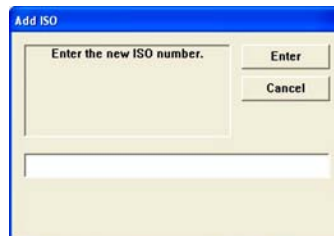
1	ISO Number:	123456	Enter
2	Action:	Block Surcharge	Cancel
3	Value:	None	

➡ Press <1> (**ISO Number**) on the keypad. Enter the ISO number. Press <ENTER>.

➡ Press <2> (**Action**) to toggle through the available “Action” choices. Stop on the action you want to apply to the currently added ISO number. Press <ENTER> when completed.

**VALUE.** Some ISO numbers may require an associated value parameter. Your processor will determine whether a value parameter must be associated with an ISO number.

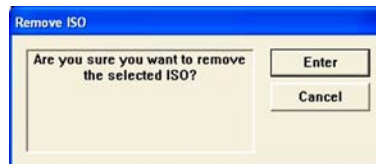
➡ Press <3> (**VALUE**) on the keypad. Enter the value parameter in the data entry dialog box for the currently added ISO number.



Enter the new ISO number.	Enter
	Cancel

7. **DELETE.** This option allows deleting a selected ISO from the ISO list.

➡ Highlight the selected ISO to delete. Press <7> on the keypad. The prompt at right appears. Press <ENTER> to delete.



Are you sure you want to remove the selected ISO?	Enter
	Cancel

8. **EDIT.** This option allows you to edit the selected ISO number.

➡ Highlight the selected ISO to delete. Press <8> on the keypad. The “ISO PROPERTIES” screen appears. Edit “ISO Number”, “Action”, or “Value”, if applicable. Press <ENTER> when complete.

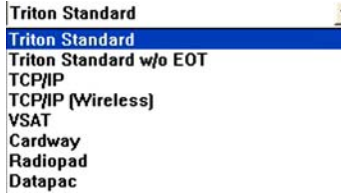
# TERMINAL CONFIGURATION

## COMMUNICATION

### ACCESS INSTRUCTIONS:

1. From the **TERMINAL CONFIGURATION** screen, select the **COMMUNICATION** option by pressing <6> on the keypad.

*Note: Select option <8>, “Communication Protocol”, for your communication medium (dial-up, TCP/IP, etc) **FIRST**. The Communication main screen will adjust for the selected protocol.*



Main Menu/Terminal Configuration/Communication

1 Primary Phone Number [ ] Enter

2 Backup Phone Number [ ] Cancel

3  Predial

4  Enable Communication Header 5 [ ]

6  Use 12-Digit Sequence Number

7 Amount Type

8 Communication Protocol Triton Standard

9 Communication Message Format Triton Standard

0 NUA Number [ ]

Reversal Communications

F1  Enable Persistent Reversals

F2 Reversal Attempts [0]

F3  Enable Reversals For Protocol Errors

Main Menu/Terminal Configuration/Communication

1 Host IP Address [ ] Enter

2 Host IP Port [ ] Cancel

3  Permanent TCP/IP Connection

4  Enable Communication Header 5 [ ]

6  Use 12-Digit Sequence Number

7 Amount Type

8 Communication Protocol TCP/IP

9 Communication Message Format Triton Standard

0 Host Response Timeout 120

Reversal Communications

F1  Enable Persistent Reversals

F2 Reversal Attempts [0]

F3  Enable Reversals For Protocol Errors

### DESCRIPTION:

The **COMMUNICATION** option allows the terminal operator to perform the following functions (next pages):

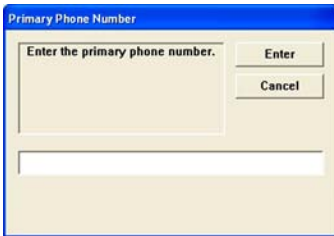
# X-SCALE / X2 CONFIGURATION MANUAL

1. **PRIMARY PHONE # / HOST IP ADDRESS - REQUIRED ENTRY.** The **PRIMARY PHONE NUMBER** is a telephone number (usually) or some other number that is used to contact the host processor for transaction requests. If this number is busy or no answer, the backup number (if required) will be used.

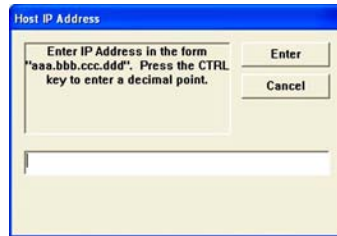
The **HOST IP ADDRESS** is the IP Address of the server that will be processing the transactions. The address consists of a sequence of four groups of numbers. Each group can be *up to* three (3) digits long, and each group is separated by a period (dot character), as in this example: **123.3.12.99**

*Note: Both the phone # and address are provided by your host processor/networks.*

- ➡ Press <1> on the keypad. Enter the phone number or IP address (whatever is applicable) in the data entry dialog prompt. Press <ENTER> when completed.



The screenshot shows a dialog box titled "Primary Phone Number". It contains a text input field with the prompt "Enter the primary phone number." To the right of the input field are two buttons: "Enter" and "Cancel". Below the input field is a horizontal line, likely a separator or a scroll bar.



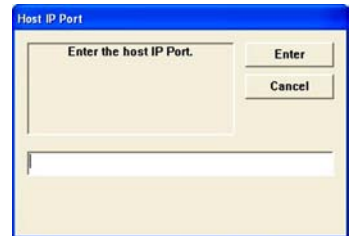
The screenshot shows a dialog box titled "Host IP Address". It contains a text input field with the prompt "Enter IP Address in the form 'aaa.bbb.ccc.ddd'. Press the CTRL key to enter a decimal point." To the right of the input field are two buttons: "Enter" and "Cancel". Below the input field is a horizontal line, likely a separator or a scroll bar.

2. **BACKUP PHONE # / HOST IP PORT (REQUIRED ENTRY).** The **BACKUP PHONE NUMBER** (if required) may be used to provide an alternate means of contacting the host processor if the primary fails contact.

The **HOST IP PORT** is the port number where the Host IP Address will be listening to process the terminal transactions. The port number is provided by your host Network Administrator. The port number consists of five (5) digits or less.

*Note: Both the phone # and port address are provided by your host processor/networks.*

- ➡ Press <2> on the keypad. Enter the backup phone number or IP port address (whatever is applicable) in the data entry dialog prompt. Press <ENTER> when completed.



The screenshot shows a dialog box titled "Host IP Port". It contains a text input field with the prompt "Enter the host IP Port." To the right of the input field are two buttons: "Enter" and "Cancel". Below the input field is a horizontal line, likely a separator or a scroll bar.

3. **PREDIAL / PERMANENT TCP/IP CONNECTION.** When enabled, the **PREDIAL** option allows the terminal to dial out to the processor and establish a connection as soon as the customer swipes their card. This provides quicker processing of customer transactions.

When enabled, the **PERMANENT TCP/IP CONNECTION** option instructs the terminal to stay connected with the host after each transaction.

- ➡ Press <3> to toggle between enabled (checked) or disabled (unchecked).

## TERMINAL CONFIGURATION

4. **ENABLE COMMUNICATION HEADER.** This optional feature is only applicable to certain processors. When required, this option ***must*** be enabled (checked). **Option <5>** will then be activated. You ***must*** enter the correct header data in the data entry dialog box. The header data consists of alphanumeric characters.

***CAUTION: Enabling the Communication Header when contacting a processor that does not require this feature WILL prevent any type of transaction from completing. If the Communication Header is required, disabling this feature or having incorrect data in the data field WILL also prevent transactions from processing.***

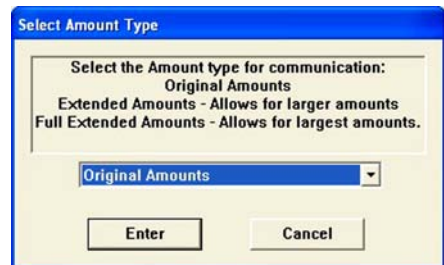
***Rule of thumb: If the Communication Header IS required, enable (check) and enter the header data.***

***If the Communication header is NOT required, disable (uncheck).***

- ➡ Press <4> to toggle between enabled (checked) or disabled (unchecked).
  - ➡ ***If enabled***, press <5> and enter the Communication Header data in the data entry dialog box. Press <ENTER> when completed.
6. **USE 12-DIGIT SEQUENCE NUMBER.** By default, the length of terminal sequence numbers are restricted to four (4) bytes of data. However, some processors require extended length terminal sequence numbers which require additional bytes to be correctly represented.
- ➡ Press <6> to toggle between enabled (checked) or disabled (unchecked). Press <Enter> when completed.
7. **AMOUNT TYPE.** This option enables displaying and processing currency values with a large number of digits. Previously, currency values have been limited to eight (8) digits (including the decimal point). The Amount types consist of the following: **STANDARD**, **EXTENDED AMOUNTS**, and **FULL EXTENDED AMOUNTS**.

The following table represents the number of digits (including decimal portion) that can be used for each specific value of the specified amount type:

VALUE	STANDARD	EXTENDED	FULL EXTENDED
Withdrawal Amount	8	8	12
Account Balance	8	12	12
Transfer Amount	8	12	12
Cassette Item Amount	5	5	8
Surcharge Amount	8	8	8
Settlement Amount	12	12	15



- ➡ Press <7> on the keypad. Use the arrow keys (< >) to select between the available amount types (**STANDARD**, **EXTENDED AMOUNTS**, **FULL EXTENDED AMOUNTS**). Press <Enter> when completed.

- 8. COMMUNICATION PROTOCOL.** This option selects the communication protocol and your processors requirement that the terminal will be using (dial-up, TCP/IP, wireless, etc).
- ➡ Press <8> repeatedly to cycle though the available selections. Stop on the communication protocol that meets your requirements.
- 9. COMMUNICATION MESSAGE FORMAT.** This option specifies the content and structure (format) of messages that pass between the terminal and the host processor during transactions. This setting will depend on your host processor/networks communication requirements.
- ➡ Press <9> repeatedly to cycle through the available options. Stop on the communication message format that meets your requirements.
- 0. NUA NUMBER (NETWORK USER ADDRESS) / HOST RESPONSE TIMEOUT.** The NUA number is equivalent to a telephone number for PakNet/SwiftNet radio networks.
- For TCP/IP communications, the **HOST RESPONSE TIMEOUT** indicates how long to wait for a response from the host before timing out and canceling the transaction.
- ➡ If this number/time is required, press <0> on the keypad. Enter the NUA number or the Host response time (in seconds) in the data entry dialog box. Press <ENTER> when completed
- F1. ENABLE PERSISTENT REVERSALS.** When the terminal sends a customer transaction request to the processor, the transaction is performed and a confirmation is sent back to the terminal. If the confirmation is not received, for whatever reason, the integrity of the transaction is in question. The terminal will not confirm the transaction or dispense currency, but will instead attempt to restore the customer's account to "pre-transaction" condition, essentially reversing the transaction.
- By default, the terminal attempts one (1) reversal attempt. If there is a degraded communication path or dispenser malfunction, more than one attempt may be necessary. By **enabling** this feature (checked), you can set the number of reversal attempts. Option <F2> "**REVERSAL ATTEMPTS**" will be activated to enter this number.
- ➡ Press <F1> to toggle between enabled (checked) or disabled (unchecked).
- ➡ Press <F2> and enter the number of reversal attempts in the data entry dialog box. Press <ENTER> when completed.

*Note: A zero (0) represents "infinite". If this is entered, the terminal will continue the reversal attempt indefinitely!*

## TERMINAL CONFIGURATION

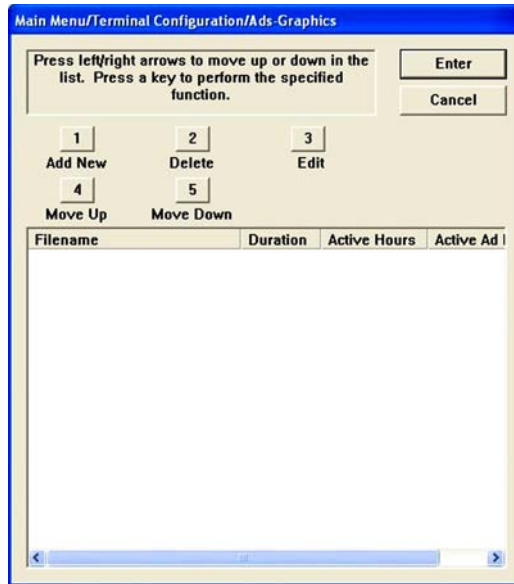
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- F3. ENABLE REVERSALS FOR PROTOCOL ERRORS.** Conditions may warrant reversals for other instances of communication failure. In particular, the need to ensure accurate communication of protocol commands and status messages that are not necessarily related to customer transactions may also necessitate use of reversals. This option (when enabled) can be used to reverse the consequences of compromised communication.
- ➡ Press <F3> to toggle between enabled (checked) or disabled (unchecked). Press <Enter> when completed.

## ADS GRAPHICS

### ACCESS INSTRUCTIONS:

1. From the **TERMINAL CONFIGURATION** screen, select the **ADS GRAPHICS** option by pressing <7> on the keypad.



### DESCRIPTION:

The **ADS GRAPHICS** option allows the terminal operator to perform the following functions:

1. **ADD NEW.** This option allows adding a graphic to the current rotation. Lets you configure Duration, Active Hours and Active Ad Fields for the graphic.
2. **DELETE.** This option removes an Ad Graphic entry from the display list.
3. **EDIT.** This option is used to change the Duration, Active Hours and Active Ad Fields for a selected Ad graphic.
4. **MOVE UP.** Used to move an entry up in the Ad Graphic list.
5. **MOVE DOWN.** Used to move an entry down in the Ad Graphics list.

*Note: Graphic files can be added AND deleted from the RL/FT/RT terminals. Using Triton Connect though, files can ONLY be added. No files of any kind can be deleted from these terminals through Triton Connect.*

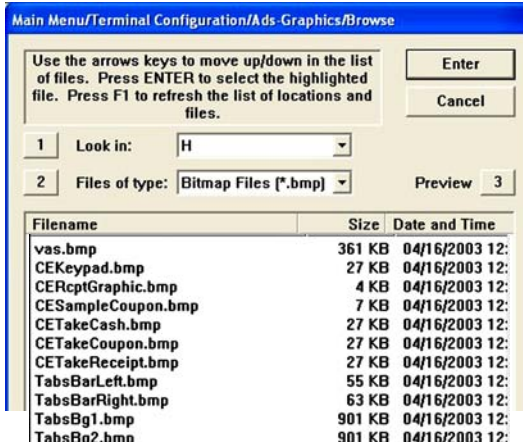


# TERMINAL CONFIGURATION

## ADD NEW

### ACCESS INSTRUCTIONS:

1. From the **ADS GRAPHICS** screen, select the **ADD NEW** option by pressing <1> on the keypad.



1. **ADD NEW.** The “Browse” screen enables you to locate and select the image to add to the Ads rotation.
  1. **LOOK IN.** Press <1> repeatedly to cycle through the available locations (thumbdrive, flash card, etc) for images.
  2. **FILES OF TYPE.** Press <2> repeatedly to cycle through the available graphic and image file types. If any files of the selected type are present in the current “Look In” location, they will be displayed in the Browse list. Choose from a number of graphic and image file types, such as Bitmap, JPG, and GIF.



3. **PREVIEW.** Press <3> to see a preview of the selected image, graphic or video file. Press the <ENTER> key to exit from the preview window and return to the browse dialog.

# X-SCALE / X2 CONFIGURATION MANUAL

Graphics are displayed in designated fields in the display. Optimize display graphics by creating them in sizes that fit their intended use. Graphic dimensions are in *pixels*. .BMP must be 2 (two color, B&W)

## X-SCALE UNITS (RL/FT5000/RT2000)

FULL SCREEN - 636 X 476

WELCOME Ad - 310 X 385

LOGO - 310 X 85

COUPON GRAPHIC (TOP OR BOTTOM ONLY) - 450 X 225 (.BMP only)

TRANSACTION Ad - 636 X 260

COUPON GRAPHIC (TOP AND BOTTOM) - 320 X 160 (.BMP ONLY)

BANNER - 205 X 56

RECEIPT GRAPHIC - 480 X 120 (.BMP only)

## X2 UNITS (RL2000, X2-MIGRATED RL/FT5000/RT2000 (W/10.4" DISPLAY)

5.7" DISPLAY (RL2000)

8.0" (RL2000) /10.4" DISPLAYS

FULL SCREEN - 636 X 476

HEADER - 636 X 90

WELCOME Ad - 322 X 475

WELCOME Ad - 310 X 385

TRANSACTION Ad - 636 X 475

FULL SCREEN Ad - 636 X 476

RECEIPT GRAPHIC - 480 X 120 (.BMP only)

TRANSACTION Ad - 636 X 260

RECEIPT GRAPHIC - 480 X 120 (.BMP only)

\* COUPON GRAPHIC (TOP OR BOTTOM - ONLY) - 450 X 225 (.BMP ONLY)

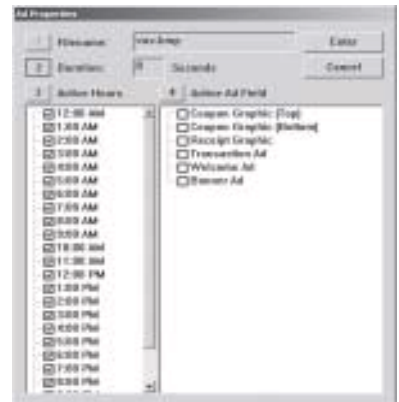
\* COUPON GRAPHIC (TOP AND BOTTOM) - 320 X 160 (.BMP ONLY)

\* Applies for any X2 display size.

The File List shows the files in the selected location that are of the selected type. The "Filename", "Size" and "Date/Time" attributes are shown for each file. Use the Left or Right <ARROW> keys on the keypad to scroll Down/Up. Press the <CTRL> key to highlight a file.

Press <ENTER> on the keypad. If an Ad graphic was selected, the ADS PROPERTIES dialog will appear. The Ad Properties dialog allows you to view and/or configure the following:

**1. FILENAME.** This is the name of the Bitmap graphic file that will be displayed at the times and in the locations specified by the duration, active hours, and active Ad fields properties. This file was selected in the Add New/Browse dialog. If you want to select a different file, press <1> on the keypad to bring up the Browse dialog again and choose a different file.



## TERMINAL CONFIGURATION

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**2. DURATION.** This is the length of time (in seconds) the indicated Ad graphic will be displayed on the terminal screen. To set the time, press <2> on the keypad to bring up a data entry dialog box. Enter the duration in seconds.

**\* Note \***

The value must be between '0' and '99999' seconds. If the Ad file is a motion graphic or video and '0' is selected, the Ad will be displayed for the actual playing time of the file.

**3. ACTIVE HOURS.** By default, the graphic will be displayed every hour of the day. If you want to restrict the display of the graphic to particular hours of the day, leave a checkmark next to the hour in which you want to display the graphic. Remove the checkmark from those hours in which you don't want the graphic to be displayed.

To configure the active hours for the correct Ad graphic, press <3> on the keypad to move the highlight bar to the first selection in the active hours window, then use the <Arrow> keys to move up and down in the list. Press the <CTRL> key on the keypad to toggle a highlighted selection between checked and unchecked.

**4. ACTIVE AD FIELD.** Select the location(s) where the Ad graphic will be displayed and/or printed.  
(The optimum size in **pixels** for each graphic is shown in parenthesis to the right of the graphic name)

To configure the Active Ad Field for the current ad graphic, press <4> on the keypad to move a highlight bar to the first selection in the Active Ad Field window, then use the arrow keys on the keypad to move up and down in the list. Press the <CTRL> key on the keypad to toggle a highlighted selection between checked and unchecked.

Press the <Enter> key on the keypad to accept the current Ad Properties settings.

**\*\* IMPORTANT \*\***

If you are adding graphics and get a "Memory " error (Ex: 563, "Low Memory"), there may be too many or excessively large graphic files stored in the internal flash memory. It may be necessary to delete some unused graphic files. To delete files from the internal flash memory:

1. Scroll down/up using the Left or Right <Arrow> keys.
2. Highlight the file to be deleted using the <CTRL> key.  
(Blank key)
2. Press the <CLEAR> key on the keypad.

## DELETE / EDIT

### ACCESS INSTRUCTIONS:

1. From the **ADS GRAPHICS** screen, select the **DELETE** option by pressing <2> on the keypad.
3. From the **ADS GRAPHICS** screen, select the **EDIT** option by pressing <3> on the keypad.

### DESCRIPTION:

The **DELETE** function removes an Ad graphic entry from the *display list NOT the hard drive*. To delete a graphic:

➡ Use the <ARROW> keys on the keypad to highlight the graphic you want to remove. Press <2> on the keypad. A confirmation dialog appears. Press <ENTER> to delete the highlighted entry.

The **EDIT** function allows you to change the Ad Properties (Duration, Active Hours, or Active Ad Field) of the selected Ad graphic.

➡ With the Ads/Graphics main dialog displayed, use the <ARROW> keys to highlight an ad entry in the list. Press <3> on the keypad to bring up the Ad Properties dialog which you will use to edit the ad.

The Ad Properties dialog allows you to view and/or configure the following Ad graphic display properties:

1. **FILENAME.** This option is disabled. The name of the graphic file that was selected in the Ads/Graphics dialog is displayed.
2. **DURATION.** This is the length of time (in seconds) the indicated Ad graphic will be displayed on the terminal screen. To set the time, press <2> on the keypad to bring up a data entry dialog. Enter the duration in seconds.
3. **ACTIVE HOURS.** By default, the graphic will be displayed every hour of the day. If you want to restrict the display of the graphic to particular hours of the day, leave a checkmark next to the hour in which you want to display the graphic. Remove the checkmark from those hours in which you don't want the graphic to be displayed.

To configure the Active Hours for the current ad graphic, press <3> on the keypad to move a highlight bar to the first selection in the Active Hours window, then use the <ARROW> keys on the keypad to move up and down in the list. Press the <CTRL> key on the keypad to toggle a highlighted selection between checked and unchecked.

4. **ACTIVE AD FIELD.** Select the location(s) where the ad graphic will be displayed and/or printed:

- Advertisement
- Coupon Graphic
- Logo
- Receipt Graphic

To configure the Active Ad Field for the current ad graphic, press <4> on the keypad to move a highlight bar to the first selection in the Active Ad Field window, then use the <ARROW> keys on the keypad to move up and down in the list. Press the <CTRL> key on the keypad to toggle a highlighted selection between checked and not checked. Press <ENTER> on the keypad to accept the current Ad Properties settings.

# TERMINAL CONFIGURATION

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## MOVE UP / DOWN

### ACCESS INSTRUCTIONS:

1. From the **ADS GRAPHICS** screen, select the **MOVE UP** option by pressing <4> on the keypad.
3. From the **ADS GRAPHICS** screen, select the **MOVE DOWN** option by pressing <5> on the keypad.

### DESCRIPTION:

The order in which multiple ad graphics are displayed on the LCD screen is determined by their arrangement in the Ads/Graphics display list. For example, assume the following items are listed, in the order shown:

**store01**  
**promo06**  
**movieclip10**

This means that store01 will be shown first, promo06 will be shown second and movieclip10 will be shown third. Then the sequence will repeat.

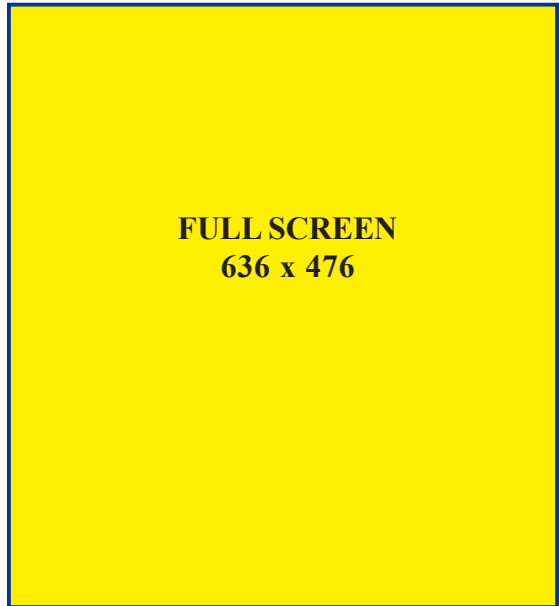
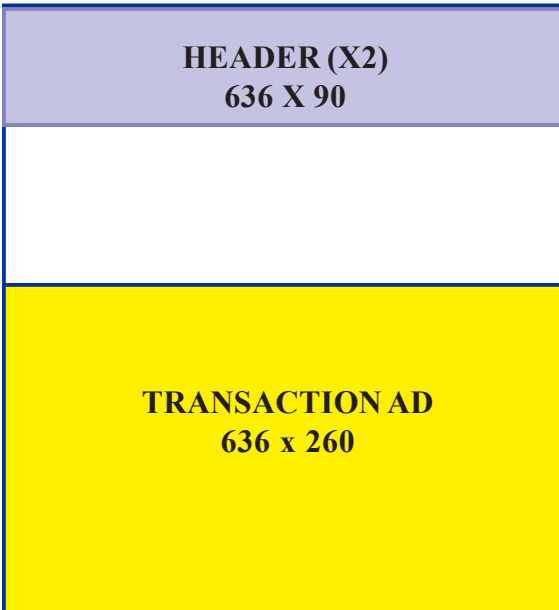
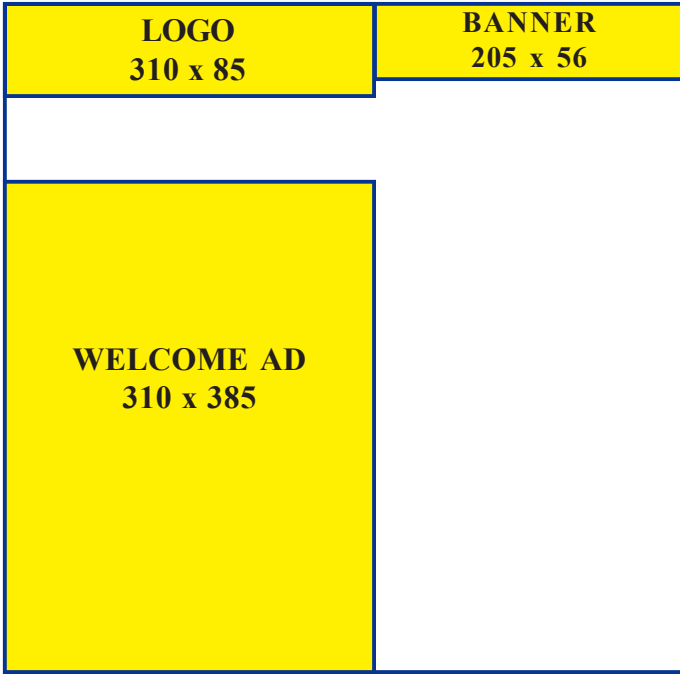
If you want movieclip10 to be shown before promo06, move it upward in the list, so that it appears before promo06. To accomplish this, first highlight movieclip10 using the <ARROW> keys on the keypad. Next, press <4> (**MOVE UP**) on the keypad once to move the entry up one position in the order. The movieclip10 entry will replace promo06 in the second position and promo06 will be pushed down to the third position. The new order will be:

**store01**  
**movieclip10**  
**promo06**

If you want store01 to be shown *after* promo06, move it downward in the list, so that it appears after promo06. To accomplish this, first highlight store01 using the <ARROW> keys on the keypad. Next, press <5> (**MOVE DOWN**) on the keypad *once* to move the entry down one position in the order. The store01 entry will replace promo06 in the second position and promo06 will be moved up to the first position. The new order will be:

**promo06**  
**store01**  
**movieclip10**

## GRAPHIC EXAMPLES

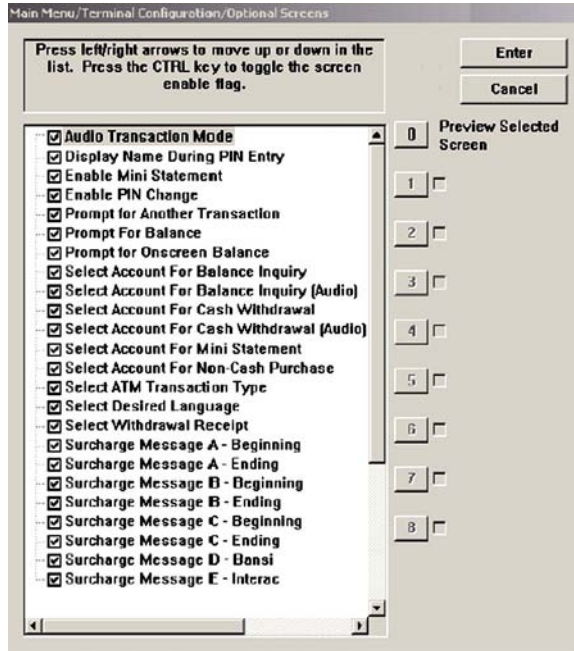


# TERMINAL CONFIGURATION

## OPTIONAL SCREENS

### ACCESS INSTRUCTIONS:

1. From the **TERMINAL CONFIGURATION** screen, select the **OPTIONAL SCREENS** option by pressing <8> on the keypad.



### DESCRIPTION:

The **OPTIONAL SCREENS** function helps you customize the terminal by presenting only selected screens to your customers. Use this option to enable (checked) or disable (unchecked) the optional screens and to preview the selected screen.

The number and types of screens listed can vary depending on the country screen configuration file currently in use; however, the available screens will generally fall into the following categories:

**ACCOUNT / TRANSACTION**

**SURCHARGE MESSAGE**

**LANGUAGE SELECTION**

**RECEIPT OPTION**

➤ **ACCOUNT / TRANSACTION.** Screens in this category are used to offer additional keypad-based audio-transaction accounts and transaction type selections to the customer, such as Balance Inquiries, Transfers, and Cash Withdrawals.

➤ **LANGUAGE SELECTION.** Screens in this category offer the customer the opportunity to select a favored language in which to perform the transaction, such as Spanish or French. Both displayed and audio-based language selections are supported.

➤ **SURCHARGE MESSAGE.** Processor requirements may dictate that a particular type of wording be used in the surcharge notification message presented to the customer. Screens in this category can offer a choice of surcharge message types from which you can choose the most appropriate for your locale. The location of the surcharge message in the transaction flow (Beginning or Ending) can also be selected.

➤ **RECEIPT OPTION.** Screens in this category offer the customer the opportunity to choose whether to receive a printed receipt of their transaction or not.

## ENABLING / DISABLING OPTIONAL SCREENS

➤ Use the <ARROW> keys to scroll up/down through the available screen options. Press the <CTRL> key to enable (checked) or disable (unchecked) the selected highlighted screen. Press <ENTER> to accept.

## PREVIEWING OPTIONAL SCREENS

➤ To preview a screen, use the <ARROW> keys to select a screen entry from the list. Press <0> on the keypad to bring up the preview dialog box. The selected screen will be shown as it appears to the customer. Press the <ENTER> key to return to the optional screen main menu.

*Note: You may preview any optional screen whether enabled or disabled.*



*Preview example*

## ADDITIONAL OPTIONS

Options one (1) through eight (8), if available, may be used to offer additional customer choices for the currently selected screen. The functions of these keys will depend on the purpose and design of the optional screen.

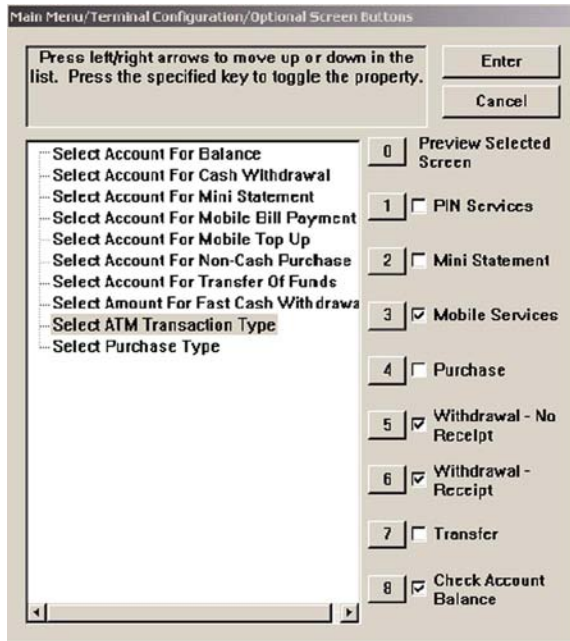


# TERMINAL CONFIGURATION

## OPTIONAL SCREEN BUTTONS

### ACCESS INSTRUCTIONS:

1. From the **TERMINAL CONFIGURATION** screen, select the **OPTIONAL SCREEN BUTTONS** option by pressing <9> on the keypad.



### DESCRIPTION:

The **OPTIONAL SCREEN BUTTONS** function helps you customize the terminal by presenting only selected buttons for various customer screen. Use this option to enable (checked) or disable (unchecked) these buttons to the customer and to preview a selected screen button configuration.

*Note: The numbers one (1) through eight (8) correspond to the **Function** key options (1-4 left side of screen, 5-8 right side of screen).*

The number and types of screens and associated option buttons can vary depending on the screen configuration file currently in use; however the available screen button choices will generally fall into the following categories:

#### ACCOUNT / TRANSACTION TYPE

#### FAST CASH AMOUNTS

#### PURCHASE SELECTIONS

- **ACCOUNT / TRANSACTION.** Screens in this category are used to offer additional keypad-based audio-transaction accounts and transaction type selections to the customer, such as Balance Inquiries, Mini Statements, Transfers, and Cash Withdrawals. For each screen type, the available option buttons will be displayed/heard to the customer.

- **FAST CASH AMOUNTS.** Screen buttons in this category offer the customer the convenience of choosing from a number of predefined withdrawal amounts rather than enter the value.
- **PURCHASE SELECTIONS.** For applications in which non-cash items may be purchased from the terminal, screen buttons can be selected to provide the appropriate quantity/process to the customer.

### ENABLING / DISABLING OPTIONAL SCREEN BUTTONS

- Use the <ARROW> keys to scroll up/down through the available screen options. The button choices applicable to the screen will appear towards the right. Press the number on the keypad that corresponds to the button choice you wish to enable (checked) or disable (unchecked). Press <ENTER> when completed.

### PREVIEWING OPTIONAL SCREEN BUTTON CONFIGURATION

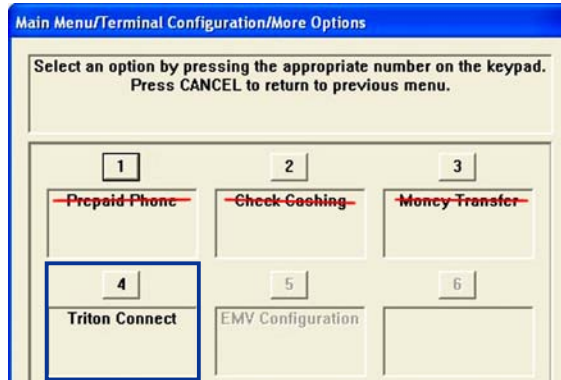
- To preview a screen button configuration, use the <ARROW> keys to select a screen entry from the list. Press <0> on the keypad to bring up the preview dialog box. The selected screen will be shown as it appears to the customer with the selection buttons. Press the <ENTER> key to return to the optional screen button main menu.

# TERMINAL CONFIGURATION

## TRITON CONNECT

### ACCESS INSTRUCTIONS:

1. From the **TERMINAL CONFIGURATION** screen, select the **MORE OPTIONS** option by pressing <0> on the keypad.
2. From the **MORE OPTIONS** screen, select **TRITON CONNECT** option by pressing <4> on the keypad.



*Note: Select option <F4> for your communication medium (dial-up, TCP/IP, etc) **FIRST**. The Triton Connect main screen will adjust for the selected protocol.*



Phone Numbers		Enter
1 Primary Phone Number	<input type="text"/>	Cancel
2 Backup Phone Number	<input type="text"/>	
3 Alarm Monitor Primary:	<input type="text"/>	
4 Alarm Monitor Backup:	<input type="text"/>	
5 Max Retries	<input type="text" value="4"/>	
6 Redial Delay	<input type="text" value="20"/>	
7 <input type="checkbox"/> Enable Triton Connect		
8 <input type="checkbox"/> Enable Call Back		
9 <input type="checkbox"/> Enable Scheduled Journal Calls	<input type="text" value="0"/> <input type="text" value="0"/>	
F1 Call At Number of Journal Records:	<input type="text" value="0"/>	
F2 Call At Low Cash Threshold:	<input type="text" value="0"/>	
F3 Enter New Access Code	<input type="text"/>	F4 Dial-up

IP Settings		Enter
1 Host IP Address	<input type="text"/>	Cancel
2 Host IP Port	<input type="text"/>	
3 Alarm IP Address	<input type="text"/>	
4 Alarm IP Port	<input type="text"/>	
5 Max Retries	<input type="text" value="4"/>	
6 Redial Delay	<input type="text" value="20"/>	
7 <input type="checkbox"/> Enable Triton Connect		
8 <input type="checkbox"/> Enable Call Back		
9 <input type="checkbox"/> Enable Scheduled Journal Calls	<input type="text" value="0"/> <input type="text" value="0"/>	
F1 Call At Number of Journal Records:	<input type="text" value="0"/>	
F2 Call At Low Cash Threshold:	<input type="text" value="0"/>	
F3 Enter New Access Code	<input type="text"/>	F4 TCP/IP

## DESCRIPTION:

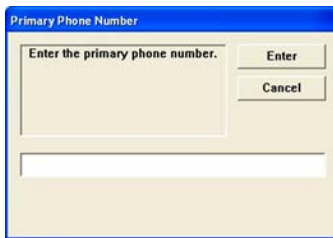
The **TRITON CONNECT** option allows the terminal operator to perform the following functions:

1. **PRIMARY PHONE # / HOST IP ADDRESS - REQUIRED ENTRY.** The **PRIMARY PHONE NUMBER** is a telephone number (usually) or some other number that is used to contact a Triton Connect host. If this number is busy or no answer, the backup number (if required) will be used.

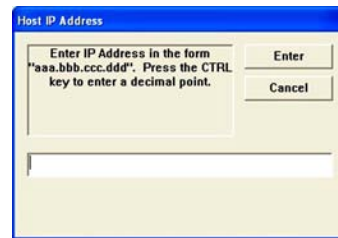
The **HOST IP ADDRESS** is the IP Address of the server that will be used to contact the Triton Connect host. The address consists of a sequence of four groups of numbers. Each group can be *up to* three (3) digits long, and each group is separated by a period (dot character), as in this example: **123.3.12.99**

*Note: The IP address is provided by your host processor/network.*

- Press <1> on the keypad. Enter the phone number or IP address (whatever is applicable) in the data entry dialog prompt. Press <ENTER> when completed.



The screenshot shows a dialog box titled "Primary Phone Number". It contains a text input field with the prompt "Enter the primary phone number." To the right of the input field are two buttons: "Enter" and "Cancel".



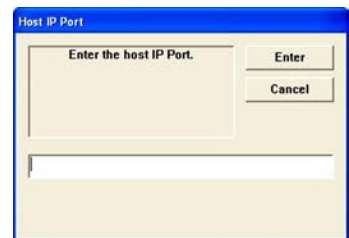
The screenshot shows a dialog box titled "Host IP Address". It contains a text input field with the prompt "Enter IP Address in the form 'aaa.bbb.ccc.ddd'. Press the CTRL key to enter a decimal point." To the right of the input field are two buttons: "Enter" and "Cancel".

2. **BACKUP PHONE # / HOST IP PORT (REQUIRED ENTRY).** The **BACKUP PHONE NUMBER** (if required) may be used to provide an alternate means of contacting the host processor if the primary fails contact.

The **HOST IP PORT** is the port number where the Host IP Address will be listening to process the terminal transactions. The port number is provided by your host Network Administrator. The port number consists of five (5) digits or less.

*Note: The Port address is provided by your host processor/network.*

- Press <2> on the keypad. Enter the backup phone number or IP Port address (whatever is applicable) in the data entry dialog prompt. Press <ENTER> when completed.



The screenshot shows a dialog box titled "Host IP Port". It contains a text input field with the prompt "Enter the host IP Port." To the right of the input field are two buttons: "Enter" and "Cancel".

3. **ALARM MONITOR (PRIMARY) / ALARM IP ADDRESS.** You may wish to use an alarm reporting monitoring option. This would notify third-party organizations that an error condition at the terminal, for example, has occurred.

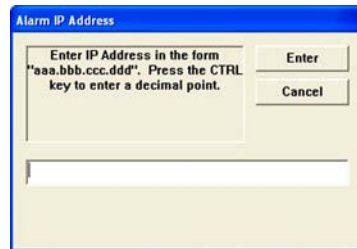
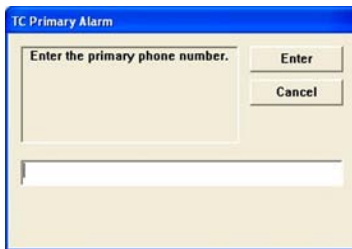
## TERMINAL CONFIGURATION

The **PRIMARY ALARM MONITOR** is a telephone number (usually) or some other number that is used to contact a Triton Connect host. If this number is busy or no answer, the backup number (if required) will be used.

The **ALARM IP ADDRESS** is the IP Address of the server that will be used to contact the Triton Connect host. The address consists of a sequence of four groups of numbers. Each group can be up to three (3) digits long, and each group is separated by a period (dot character), as in this example: **123.3.12.99**

*Note: The Alarm IP address is provided by your host processor/network. You may want to use different phone numbers/IP address for alarm monitoring purposes.*

- Press <3> on the keypad. Enter the primary alarm phone number or alarm IP address whatever is applicable) in the data entry dialog box. Press <ENTER> when completed.



- 4. **ALARM MONITOR (BACKUP) / ALARM IP PORT.** The **BACKUP ALARM #** (if required) may be used to provide an alternate means of contacting the host processor if the primary fails contact.

The **ALARM IP PORT** is the port number where the Host IP Address will be listening to process the terminal transactions. The port number is provided by your host Network Administrator. The port number consists of five (5) digits or less.

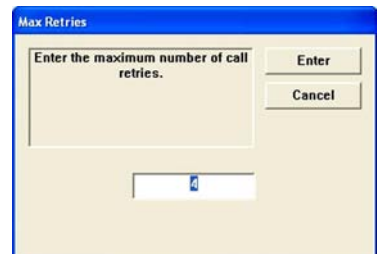
*Note: The Port address is provided by your host processor/network.*

- Press <4> on the keypad. Enter the backup phone number or IP Port address (whatever is applicable) in the data entry dialog prompt. Press <ENTER> when completed.

- 5. **MAX RETRIES.** Calls from the terminal to Triton Connect are made in “blocks”. Each block consists of multiple attempts to reach the Triton Connect host computer using primary/backup phone numbers or IP addresses.

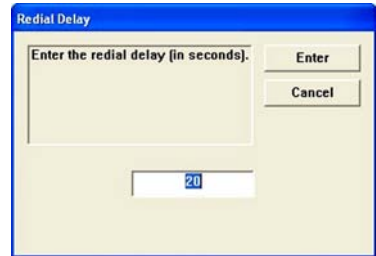
If there is no answer after two (2) calls are made (primary/backup each), the terminal will pause (established by the “**REDIAL DELAY**” option) and begin the call attempt cycle again. The cycle of call blocks is set by this option (‘0’ to ‘10’).

- Press <5> on the keypad. Enter the number of retries in the data entry dialog prompt (max 10). Press <ENTER> when completed.



- 6. REDIAL DELAY.** Use this function to establish the waiting period (in seconds) the terminal will wait between attempt to call back to the Triton Connect host computer. The number of attempts was determined by the “MAX RETRIES” option.

- ➔ Press <6> on the keypad. Enter the waiting period time (**between ‘0’ and ‘1000’ seconds**) in the data entry dialog prompt. Press <ENTER> when completed.



- 7. ENABLE TRITON CONNECT.** Triton Connect is PC (Personal Computer) based software that enables you (or a third-party monitoring service) to remotely monitor your terminals. If you are using Triton Connect software to monitor your terminals, this option ***MUST*** be enabled (checked) for the Triton Connect host to access the terminal.

- ➔ Press <7> to toggle between enabled (checked) or disabled (unchecked).

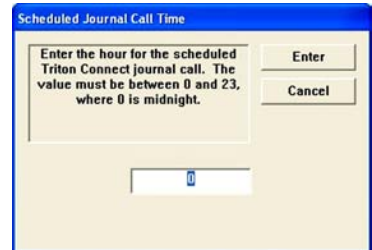
- 8. ENABLE CALL BACK.** Normally, after the Triton Connect host contacts the terminal, it (TC host) will hang up and wait for the terminal to call back and transmit the configuration, status, or journal data that was requested in the initiating call. This is done for security reasons. The Enable Call Back option allows you to enable (checked) or disable (unchecked) this feature.

- ➔ Press <8> to toggle between enabled (checked) or disabled (unchecked).

- 9. ENABLE SCHEDULED JOURNAL CALLS.** When this feature is enabled (checked), the terminal will automatically send all journal data to a remote Triton Connect computer at a time established using this function. When ***enabled***, option <0> is activated to enter the time (hour) when the terminal will send journal data.

- ➔ Press <9> to toggle between enabled (checked) or disabled (unchecked).

- ➔ When enabled, press <0> and enter the hour (**between ‘0’ and ‘23’, where ‘0’ represents midnight**) in the data entry dialog box. Press <ENTER> when completed.



## TERMINAL CONFIGURATION

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**F1. CALL AT NUMBER OF JOURNAL RECORDS.** This function sets the number of journal records that will automatically trigger a notification message to a remote Triton Connect computer.

- Press <F1> on the function keys. A data entry dialog box appears. Enter the number of journal records to issue a Triton Connect call using a value between ‘1’ and ‘99999’. Press <ENTER> when completed.

*Note: Enter zero <0> to disable this function.*

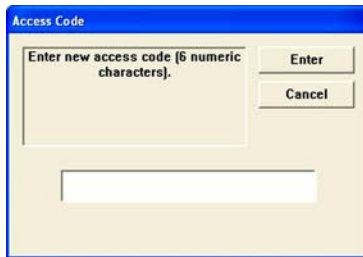
**F2. CALL AT LOW CASH THRESHOLD.** This function allows you to enter the number of notes in a cassette that will automatically trigger a low cash notification message to a remote Triton Connect computer.

- Press <F2> on the function keys. A data entry dialog box appears. Enter the low cash threshold in total number of bills left that will trigger a low cash level. Use a value between ‘1’ and ‘99999’. Press <ENTER> when completed.

*Note: Enter zero <0> to disable this function.*

**F3. ENTER NEW ACCESS CODE.** Enter a six (6)-digit code that a Triton connect host computer must use when calling the terminal to perform software downloads/updates. If the code used does not match this code entered, the terminal will not allow the software download to be performed.

- Press <F3> on the function keys. A data entry dialog box appears. Enter the 6-digit access code. Press <ENTER> when completed.

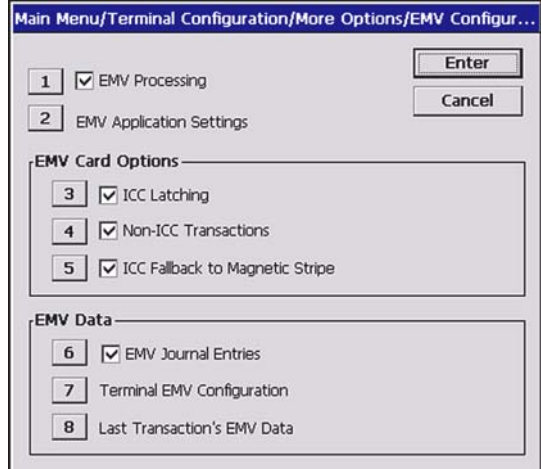
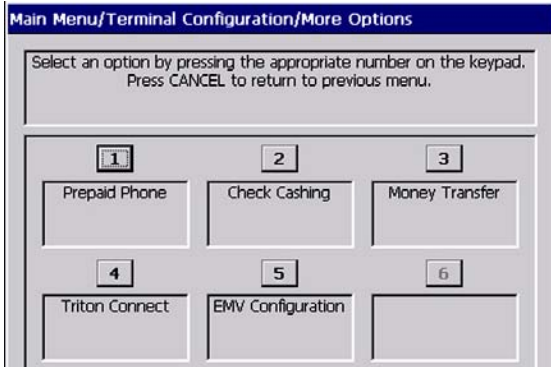


The image shows a screenshot of a software dialog box titled "Access Code". The dialog box has a blue title bar and a light beige background. Inside the dialog, there is a text label that reads "Enter new access code [6 numeric characters]". To the right of this label are two buttons: "Enter" and "Cancel". Below the text label is a large, empty rectangular text input field.

## EMV CONFIGURATION

### ACCESS INSTRUCTIONS:

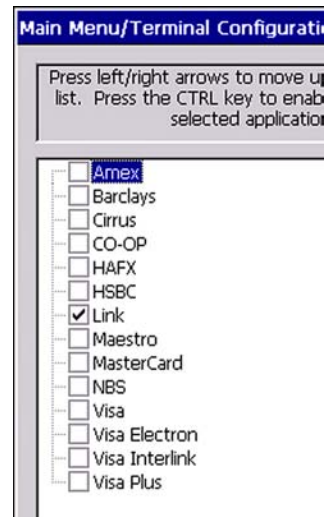
1. From the **TERMINAL CONFIGURATION** screen, select the **MORE OPTIONS** option by pressing <0> on the keypad.
2. From the **MORE OPTIONS** screen, select **EMV CONFIGURATION** option by pressing <5> on the keypad.  
*Note: This option active only if an EMV card reader is installed and software supports it.*



### DESCRIPTION:

The **EMV CONFIGURATION** option allows the terminal operator to perform the following functions:

1. **EMV PROCESSING.** When this feature is enabled (checked), the EMV card reader is activated.
  - ➡ Press <1> to toggle between enabled (checked) or disabled (unchecked). When **enabled**, option <2> will be activated.
2. **EMV APPLICATION SETTINGS.** Selecting this option lists all the of the EMV AIDs that are loaded on the terminal. A checkmark indicates if that AID is enabled.
  - Note: These next 4 options are in effect only if option (1) is enabled (checked).*
  - ➡ Press <2> to bring up the AIDs list. Press the <ARROW> keys to move through the options. Press the <CTRL> key to enable (check) or disable (uncheck) the selected application. Press <ENTER> when completed.





# TERMINAL CONFIGURATION

## EMV CARD OPTIONS:

3. **ICC LATCHING.** When enabled (checked), the EMV card reader will latch the EMV card during a transaction.
  - ➡ Press <3> to toggle between enabled (checked) or disabled (unchecked).
4. **NON-ICC TRANSACTIONS.** When enabled (checked), the terminal will process magnetic stripe-only transactions.
  - ➡ Press <4> to toggle between enabled (checked) or disabled (unchecked).
5. **ICC FALLBACK TO MAGNETIC STRIPES.** When enabled (checked), the terminal will process the transaction using the magnetic stripe if the IC fails on the card.
  - ➡ Press <5> to toggle between enabled (checked) or disabled (unchecked).

## EMV DATA:

6. **EMV JOURNAL ENTRIES.** When enabled (checked), the terminal will record the extra data that is received and transmitted during an EMV transaction to the journal for dispute resolution.
  - ➡ Press <6> to toggle between enabled (checked) or disabled (unchecked).
7. **TERMINAL EMV CONFIGURATION.** This option displays a management report of all the EMV kernel settings.
  - ➡ Press <7> to display the EMV configuration report.
8. **LAST TRANSACTION'S EMV DATA.** This option displays a management report of all the EMV items that were in the last EMV transaction. This data will only appear if the terminal has not been rebooted since the last EMV transaction.
  - ➡ Press <8> to display the last EMV transaction data.

```
Store Message
Terminal ID:
7/18/2007 3:06:46 PM

Kernel Version: 2.3.0.0
Application: 1.0

Last Transaction's EMV Data

No Data

*** End Management Report ***
```

```
Store Message
Terminal ID:
7/18/2007 3:06:39 PM

Kernel Version: 2.3.0.0
Application: 1.0

Terminal EMV Configuration

IFD Serial Number: "23457990"
UnknownTransactionActions:
0xFFFFFFFF (4294967295)
TAC Denial: 20 00 98 00 40
TerminalID: "RL0000"
TAC Default: FF FF FF FF FF
TAC Online: FF FF FF FF FF
ThresholdValue: 0x000003E8 (1000)
MaxTargetPercentage: 0x00000023 (35)
TargetPercentage: 0x00000020 (32)
POS Entry Mode: 05
Terminal Country Code: 08 26
. . . . .
```

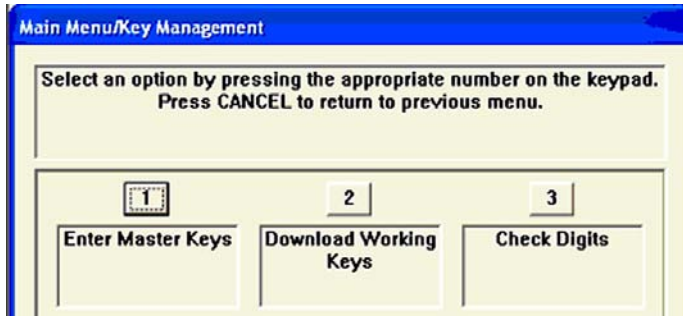
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# KEY MANAGEMENT

**Main Menu**

Select an option by pressing the appropriate number on the keypad.  
Press CANCEL to exit management functions.

<b>1</b> Terminal Close Functions	<b>2</b> Diagnostics	<b>3</b> Electronic Journal
<b>4</b> Password Maintenance	<b>5</b> System Parameters	<b>6</b> Terminal Configuration
<b>7</b> Key Management	<b>8</b> Terminal Status	<b>9</b> Language: English
<b>0</b>		



## KEY MANAGEMENT

<b>KEY MANAGEMENT MENU OPTIONS OVERVIEW .....</b>	<b>147</b>
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CHANGE PASSWORDS .....	149
ENTER MAC MASTER KEY .....	150-151
ENTER PIN MASTER KEY .....	152-153
<b>DOWNLOAD WORKING KEYS .....</b>	<b>154</b>
<b>CHECK DIGITS .....</b>	<b>155</b>

### **\*\* PLEASE READ \*\***

**The procedures in this section reference SPED VEPP SP-06 (or higher) and older software that supported. If your unit has a T5 or T7 PCI-certified EPP installed, refer to SUPPLEMENT C in this Configuration manual for entering/changing passwords and keys. There are some important differences that must be adhered to (especially the T5 EPP!)**

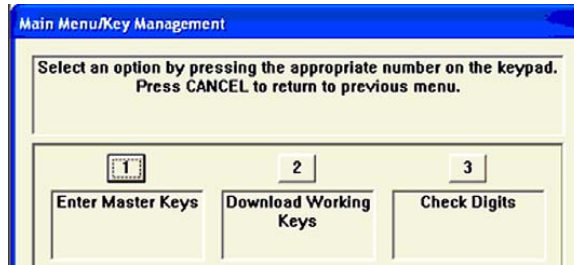
# KEY MANAGEMENT

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## KEY MANAGEMENT

### ACCESS INSTRUCTIONS:

1. From the **MAIN MENU** screen, select the **KEY MANAGEMENT** option by pressing <7> on the keypad.



### DESCRIPTION:

The **KEY MANAGEMENT** option allows the terminal operator to perform the following functions:

1. **ENTER MASTER KEYS.** This function is used to enter the MAC and PIN Master Keys. Requires 2 password access (User 1 and User 2) to enter keys. You may also change the passwords in this function.
2. **DOWNLOAD WORKING KEYS.** Used to download the MAC and PIN Working Keys from the processor's host computer.
3. **CHECK DIGITS.** Displays a management report that shows the check digits string for the currently loaded Master and Working keys.

## ENTER MASTER KEYS

### ACCESS INSTRUCTIONS:

1. From the **KEY MANAGEMENT** screen, select the **ENTER MASTER KEYS** option by pressing <1> on the keypad.

### DESCRIPTION:

Selecting “**ENTER MASTER KEYS**” on terminals using the **SP-06 VEPP** (or higher) will bring up prompts to enter two (2) User passwords (User 1 and User 2). The User Passwords are not the same passwords used to enter Management Functions. The default password for both Users is “**000000**” (six zeros).

The screenshot shows a window titled "User 1 Password". Inside the window, there is a text box containing the instruction "Please enter the password for the specified user." To the right of the text box are two buttons: "Enter" and "Cancel". Below the text box is a large, empty rectangular input field for the password.

The screenshot shows a window titled "User 2 Password". Inside the window, there is a text box containing the instruction "Please enter the password for the specified user." To the right of the text box are two buttons: "Enter" and "Cancel". Below the text box is a large, empty rectangular input field for the password.

When the first password (User 1) has been entered successfully, a prompt will appear to enter the second password (User 2). Both User Passwords must be changed from the default (**000000**) before a Master Key can be entered. If both passwords are entered correctly, the terminal will display the **KEY MANAGEMENT** option screen.

If the passwords have not been changed from the default values, option 1 (**ENTER MAC MASTER KEY**) and option 2 (**ENTER PIN MASTER KEY**) will not be available (they will be grayed out). Both User Passwords must be changed from the default before the Master Keys can be entered.

The screenshot shows a window titled "Main Menu/Key Management/Key Management". The main text reads: "Select an option by pressing the appropriate number on the keypad. Press CANCEL to return to previous menu." Below this text is a grid of six numbered options:

1	2	3
Enter MAC Master Key	Enter PIN Master Key	Change User 1 Password
4	5	6
Change User 2 Password		

# KEY MANAGEMENT

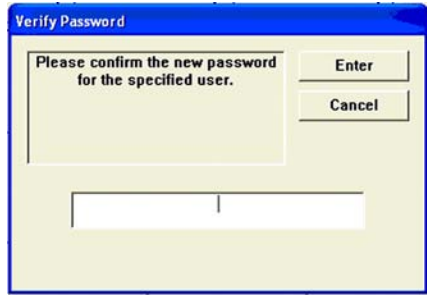
## CHANGE PASSWORDS

If highlighted, Option<3> or Option<4> will bring up a prompt to change the User Password. Type a new password and press <ENTER>.

A prompt will appear to enter the new User Password a second time. Re-enter the new password and press <ENTER>.

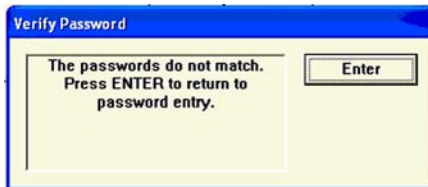


A screenshot of a dialog box titled "User 1 Password". The text inside reads "Please enter the password for the specified user." Below the text is a single-line text input field. To the right of the input field are two buttons: "Enter" and "Cancel".



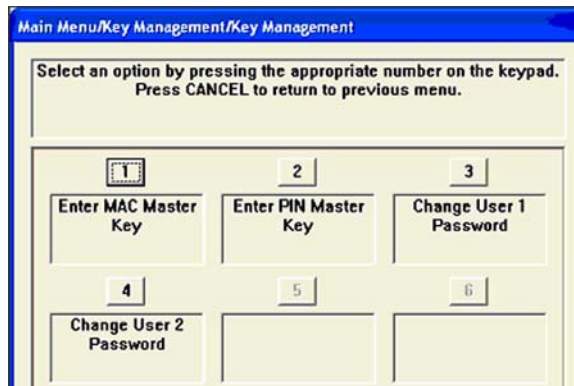
A screenshot of a dialog box titled "Verify Password". The text inside reads "Please confirm the new password for the specified user." Below the text is a single-line text input field. To the right of the input field are two buttons: "Enter" and "Cancel".

If the second entry does not match the first entry, the user will be prompted to return and re-enter the password or cancel out of the request and return to the Key Management screen. Press <ENTER>.



A screenshot of a dialog box titled "Verify Password". The text inside reads "The passwords do not match. Press ENTER to return to password entry." To the right of the text is a single button labeled "Enter".

If the second entry matches the first entry for both User 1 and User 2, the display will return to the **KEY MANAGEMENT** screen.

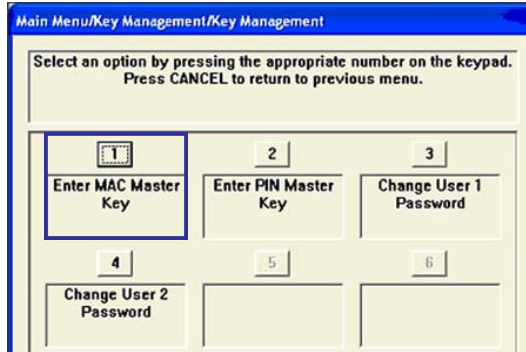


A screenshot of the "Main Menu/Key Management/Key Management" screen. The text at the top reads "Select an option by pressing the appropriate number on the keypad. Press CANCEL to return to previous menu." Below this text is a grid of six buttons, each with a number in a small box above it. The buttons are: 1. "Enter MAC Master Key", 2. "Enter PIN Master Key", 3. "Change User 1 Password", 4. "Change User 2 Password", 5. (empty), and 6. (empty).

## ENTER MAC MASTER KEY

### ACCESS INSTRUCTIONS:

1. From the **KEY MANAGEMENT** screen, select the **ENTER MASTER KEYS** option by pressing <1> on the keypad.
2. From the **ENTER MASTER KEYS** screen, select **ENTER MAC MASTER KEYS** option by pressing <1> on the keypad.



### DESCRIPTION:

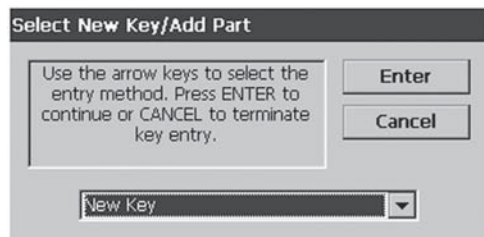
MAC is an acronym for *Message Authentication Code*. The MAC Master Key provides key protection during manual entry or downloading of the PINWorking Key. **Note: A MAC Master Key will only be used when it is required by the processor, and has been enabled as a communication configuration option.**

If required, obtain the MAC Master Key from the processor. It must be entered before the MACWorking Key can be downloaded.

The MAC Master Key normally consists of a two part, 64-character Triple DES key (32 characters in both key parts). The MAC Master Key can be made up from the hexadecimal character set (the numbers 0- 9 and the letters A, B, C, D, E, F).

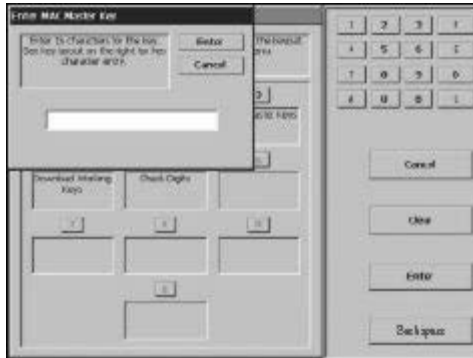
Follow these steps to enter the MAC Master Key:

- The first screen to appear asks you to indicate whether this is a “New Key” or “Add Part” to an existing key that was already entered. Use the <CLEAR> button on the keypad to select (highlight) the key type field. Use the <ARROW> button on the keypad to alternate between the 2 options. Select the “**NEW KEY**” option when entering the a new key or the first part of a new key. After entering the first part (32 characters), you will automatically be prompted to enter the second part.

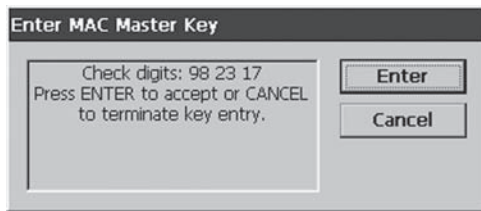




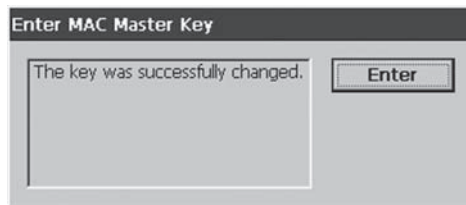
# KEY MANAGEMENT



- After selecting the “NEWKEY” option, use the keypad on the control panel to enter the MAC Master Key into the dialog box. Follow the keypad and function key orientation (layout) as illustrated by the graphic panel on the right side of the screen. As each character of the key is entered on the keypad, an asterisk is displayed in the dialog box. After all 32 characters of the first key part have been entered from the keypad, press the <Enter> key. A dialog box will appear and display the check digits for the key.



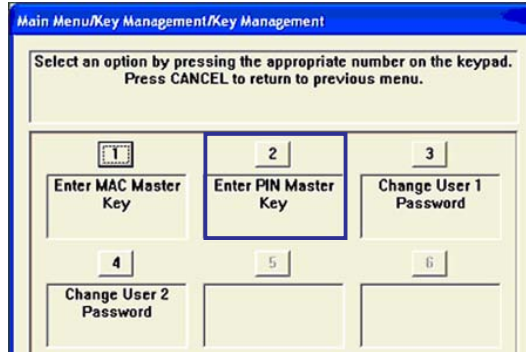
- Verify the check digits match the check digits provided by the processor. If they match, press <ENTER> on the control panel keypad to accept the key. Press <ENTER> again to return to the Key Management screen. If the returned check digits do not match, press <CANCEL> on the keypad. The existing key will not change. Press <ENTER> to return to the Key Management screen. Select the “ENTER MAC MASTER KEY” option by pressing <1> on the keypad and repeat the steps for entering a key part.



## ENTER PIN MASTER KEY

### ACCESS INSTRUCTIONS:

1. From the **KEY MANAGEMENT** screen, select the **ENTER MASTER KEYS** option by pressing <1> on the keypad.
2. From the **ENTER MASTER KEYS** screen, select **ENTER PIN MASTER KEYS** option by pressing <2> on the keypad.



### Description:

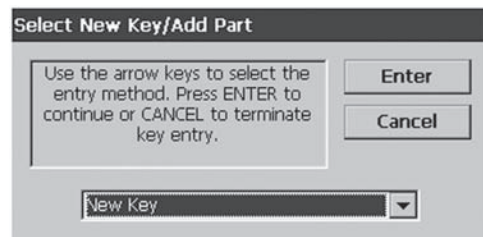
PIN is an acronym for *Personnel Identification Number*. The PIN Master Key provides key protection during manual entry or downloading of the PIN working key

Obtain the PIN Master Key from the processor . It must be entered before the PIN Working Key can be downloaded.

The PIN Master Key normally consists of a two part, 64-character Triple DES key (32 characters in both key parts) . The PIN Master Key can be made up from the hexadecimal character set (the numbers 0- 9 and the letters A, B, C, D, E, F).

Follow these steps to enter the PIN Master Key:

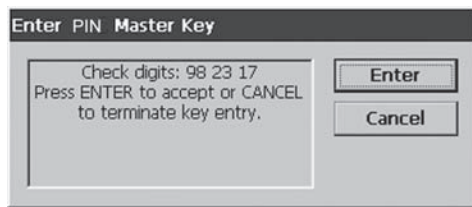
- The first screen to appear asks you to indicate whether this is a “**NEW KEY**” or “**ADD PART**” to an existing key that was already entered. Use the <CLEAR> button on the keypad to select (highlight) the key type field. Use an <ARROW> button on the keypad to alternate between the 2 options. Select the “**NEW KEY**” option when entering a new key or the first part of a new key After entering the first part (32 characters), you will automatically be prompted to enter the second part.



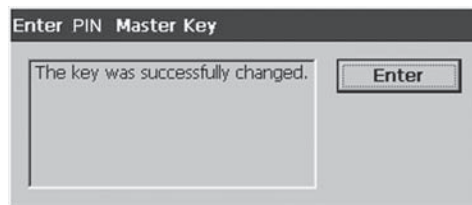
# KEY MANAGEMENT



- After selecting the “**NEWKEY**” option, use the keypad on the control panel to enter the PIN Master Key into the dialog box. Follow the keypad and function key orientation (layout) as illustrated by the graphic panel on the right side of the screen. As each character of the key is entered on the keypad, an asterisk is displayed in the dialog box. After all 32 characters of the first key part have been entered from the keypad, press the **<Enter>** key. A dialog box will appear and display the check digits for the key.



- Verify the check digits match the check digits provided by the processor. If they match, press **<ENTER>** on the control panel keypad to accept the key. Press **<ENTER>** again to return to the Key Management screen. If the returned check digits do not match, press **<CANCEL>** on the keypad. The existing key will not change. Press **<ENTER>** to return to the Key Management screen. Select the “**ENTER PIN MASTER KEY**” option by pressing **<1>** on the keypad and repeat the steps for entering a key part.



## DOWNLOAD WORKING KEYS

### ACCESS INSTRUCTIONS:

1. From the **KEY MANAGEMENT** screen, select the **DOWNLOAD WORKING KEY** option by pressing <2> on the keypad.

### DESCRIPTION:

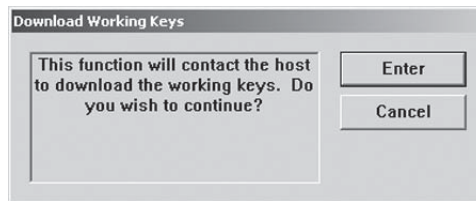
The MAC and PIN Working Keys must be loaded before the terminal can operate in a “live” mode.

When this function is selected, a call is placed to the processor and a request is made for the keys to be downloaded. Upon receiving a valid request, the host (processor) will download the keys and several other parameters (such as the surcharge amount, if applicable). Once downloaded, these parameters will remain in the terminal, even if it is turned off.

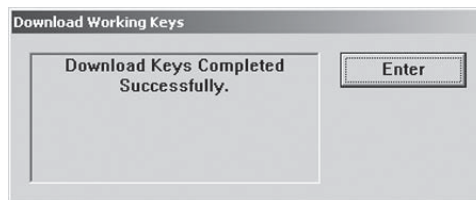
#### \* NOTE \*

The Terminal ID and the Primary Number (modem) / Host IP Address, Host Port Number and the terminal's Ethernet Settings (TCP/IP) must be entered (as applicable) before attempting to download the Working Keys.

The following dialog box will appear when the Download Working Keys option is selected::



- ➡ Press <ENTER> on the keypad to start the download or <CANCEL> to abort the request. If the Working keys downloaded successfully, the following dialog box will appear:



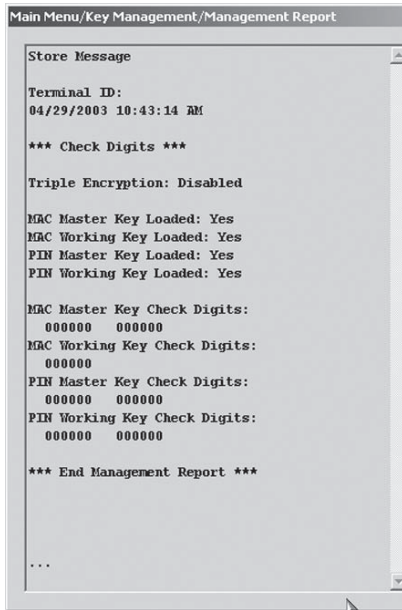
- ➡ Press <ENTER> on the keypad to return to the Key Management screen.

# KEY MANAGEMENT

## CHECK DIGITS

### ACCESS INSTRUCTIONS:

1. From the **KEY MANAGEMENT** screen, select the **CHECK DIGITS** option by pressing <3> on the keypad.



```
Main Menu/Key Management/Management Report
Store Message
Terminal ID:
04/29/2003 10:43:14 AM

*** Check Digits ***

Triple Encryption: Disabled

MAC Master Key Loaded: Yes
MAC Working Key Loaded: Yes
PIN Master Key Loaded: Yes
PIN Working Key Loaded: Yes

MAC Master Key Check Digits:
000000 000000
MAC Working Key Check Digits:
000000
PIN Master Key Check Digits:
000000 000000
PIN Working Key Check Digits:
000000 000000

*** End Management Report ***

...
```

### DESCRIPTION:

This option displays a management report that shows the check digits string associated with the currently loaded master and working keys (MAC and/or PIN as applicable)..

The check digits sequence is used to confirm that the key was entered correctly. The processor can provide a set of check digits for reference purposes. If the check digits displayed in the report are different from the reference set, the MAC and/or PIN Master Keys may be invalid or corrupted. Contact the processor for assistance if necessary.

- ➡ Press <ENTER> on the keypad key to return to the Key Management screen.

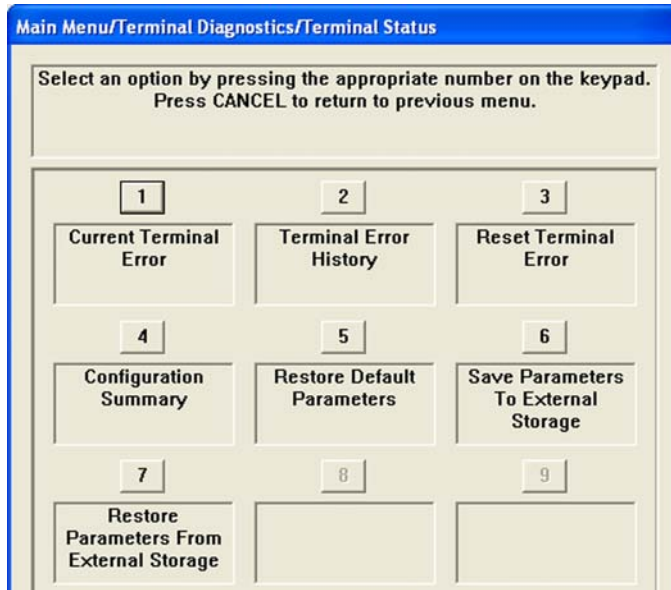
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# TERMINAL STATUS

**Main Menu**

Select an option by pressing the appropriate number on the keypad.  
Press CANCEL to exit management functions.

<b>1</b> Terminal Close Functions	<b>2</b> Diagnostics	<b>3</b> Electronic Journal
<b>4</b> Password Maintenance	<b>5</b> System Parameters	<b>6</b> Terminal Configuration
<b>7</b> Key Management	<b>8</b> Terminal Status	<b>9</b> Language: English
<b>0</b>		



## TERMINAL STATUS FUNCTIONS

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RESET TERMINAL ERROR / CONFIGURATION SUMMARY .....	161
RESTORE DEFAULT PARAMETERS .....	162
SAVE / RESTORE PARAMETERS TO/FROM EXTERNAL STORAGE .....	163

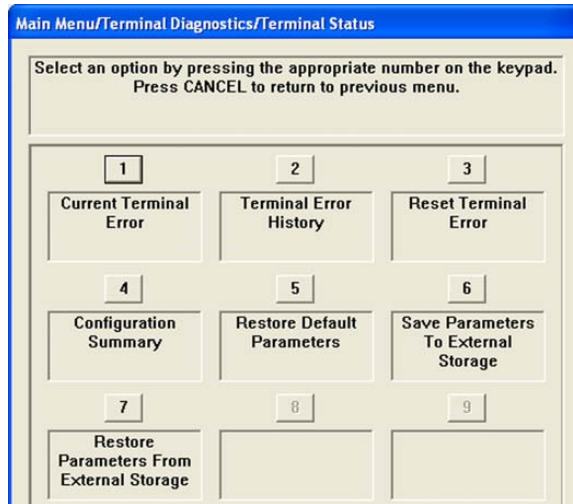


# TERMINAL STATUS

## TERMINAL STATUS

### ACCESS INSTRUCTIONS:

1. From the **DIAGNOSTICS** screen, select the **TERMINAL STATUS** option by pressing <1> on the keypad.



### DESCRIPTION:

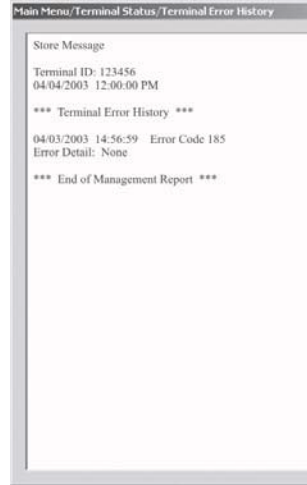
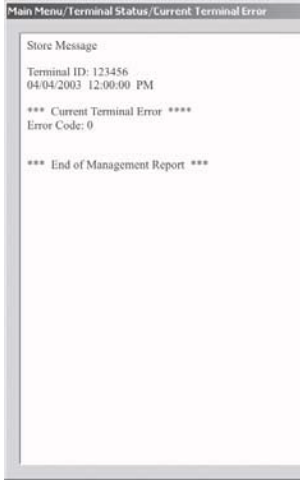
The **TERMINAL STATUS** option allows the terminal operator to perform the following functions:

1. **CURRENT TERMINAL ERROR.** Displays current error status of the terminal.
2. **TERMINAL ERROR HISTORY.** Displays a log of all terminal error events.
3. **RESET TERMINAL ERROR.** Allows user to attempt to reset the current terminal error.
4. **CONFIGURATION SUMMARY.** Displays a comprehensive report of all terminal configuration information.
5. **RESTORE DEFAULT PARAMETERS.** This function restores the factory default parameter settings.
6. **SAVE PARAMETERS TO EXTERNAL STORAGE.** Allows user to save all current terminal parameters to an external memory device (jumpdrive).
7. **RESTORE PARAMETERS FROM EXTERNAL STORAGE.** Allows user to restore terminal parameters that were previously saved to an external memory device (jumpdrive).

## CURRENT TERMINAL ERROR / ERROR HISTORY

### ACCESS INSTRUCTIONS:

1. From the **TERMINAL STATUS** screen, select the **CURRENT TERMINAL ERROR** option by pressing <1> on the keypad.
2. From the **TERMINAL STATUS** screen, select the **TERMINAL ERROR HISTORY** option by pressing <2> on the keypad.



### DESCRIPTION:

The **CURRENT TERMINAL ERROR** function displays a management report that shows the most current terminal status/error code. The error code is listed with a short description of the condition.

The report is displayed in a management report dialog, which can be printed to the receipt printer or saved to an external memory device.

The **TERMINAL ERROR HISTORY** function displays a management report showing all status/error codes that have been recorded since the initial terminal setup. A short description of each code is provided. The history of terminal status/error codes will not be cleared when the "Reset Terminal Error" function is used.

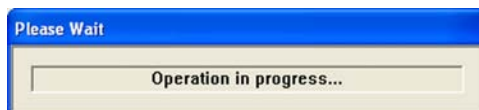
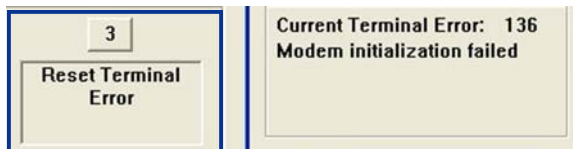
The report is displayed in a management report dialog, which can be printed to the receipt printer or saved to an external memory device.

# TERMINAL STATUS

## RESET TERMINAL ERROR

### ACCESS INSTRUCTIONS:

1. From the **TERMINAL STATUS** screen, select the **RESET TERMINAL ERROR** option by pressing <3> on the keypad.



### DESCRIPTION:

The **RESET TERMINAL ERROR** function attempts to reset the current terminal error. If successful, the current terminal error will show: Zero (0)

## CONFIGURATION SUMMARY

### ACCESS INSTRUCTIONS:

1. From the **TERMINAL STATUS** screen, select the **CONFIGURATION SUMMARY** option by pressing <4> on the keypad.

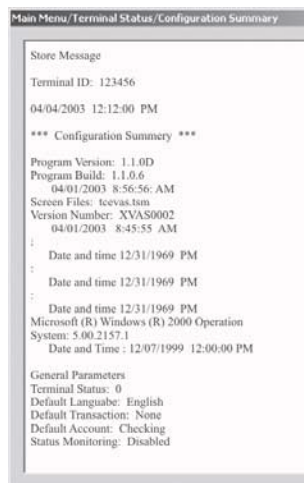
### DESCRIPTION:

The **CONFIGURATION SUMMARY** function displays a management report of the current terminal configuration and hardware status information. Information is provided for all terminal configuration areas, as well as dispenser, printer, modem and keypad status.

The report is displayed in a management report dialog, which can be printed to the receipt printer or saved to an external memory device.

### \* NOTE \*

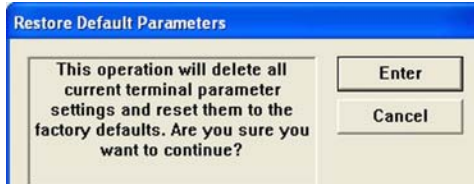
It is highly recommended that the report be generated and saved after the initial setup of the terminal, and whenever significant changes are made to the terminal's current configuration.



## RESTORE DEFAULT PARAMETERS

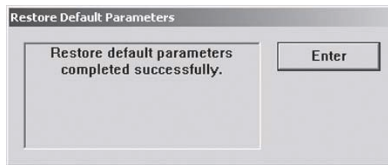
### ACCESS INSTRUCTIONS:

1. From the **TERMINAL STATUS** screen, select the **RESTORE DEFAULT PARAMETERS** option by pressing <5> on the keypad.



### DESCRIPTION:

The **RESTORE DEFAULT PARAMETERS** function restores the factory-default terminal parameter settings. All current parameters (including any that have been modified from their factory-default values) will be **DELETED** and the factory-default values will be restored. When prompted, select <ENTER> to continue.



A confirmation dialog is displayed. Select <ENTER> to return to Terminal Status options.

# TERMINAL STATUS

## SAVE / RESTORE PARAMETERS USING AN EXTERNAL STORAGE DEVICE

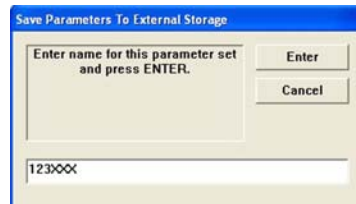
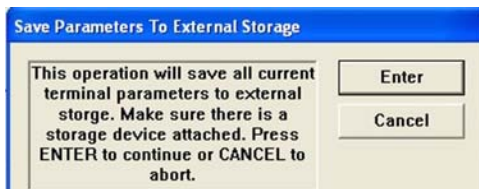
### ACCESS INSTRUCTIONS:

1. From the **TERMINAL STATUS** screen, select the **SAVE PARAMETERS TO EXTERNAL STORAGE** option by pressing <6> on the keypad.
2. From the **TERMINAL STATUS** screen, select the **RESTORE PARAMETERS FROM EXTERNAL STORAGE** option by pressing <7> on the keypad.

### DESCRIPTION:

The **SAVE PARAMETERS TO EXTERNAL STORAGE** function saves the current terminal parameters to an external storage device (jumpdrive) attached to a USB port.

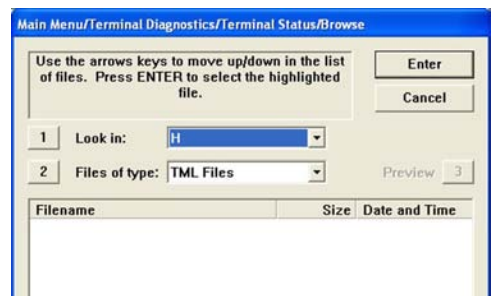
- ➡ Install the jumpdrive to any unused USB port.
- ➡ Select <6> on the keypad. The following prompts appear. Press <ENTER> to continue.
- ➡ Enter a name for this saved parameter file. Press <ENTER>.
- ➡ At the confirmation dialog, remove the jumpdrive.



### DESCRIPTION:

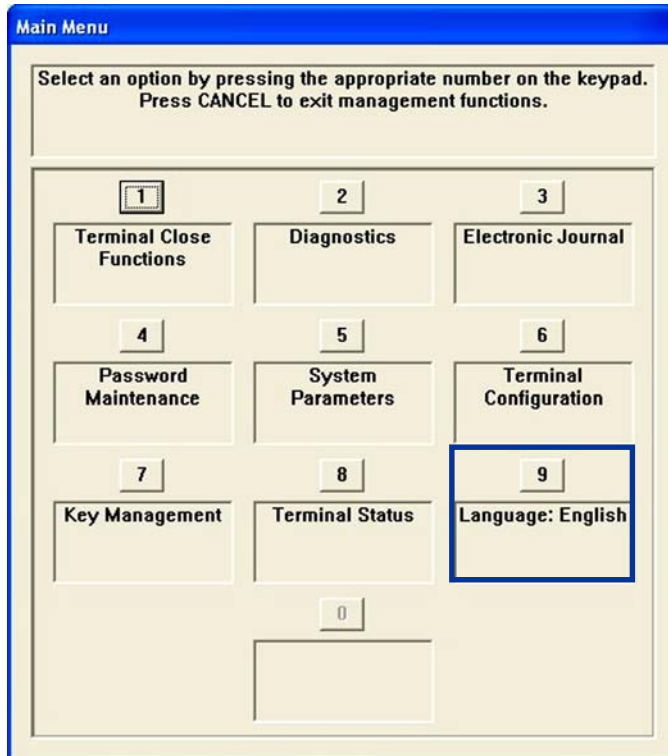
The **RESTORE PARAMETERS FROM EXTERNAL STORAGE** function restores a previously saved set of parameters from an external storage device (jumpdrive).

- ➡ Install the jumpdrive to any unused USB port.
- ➡ Select <7> on the keypad. The following screen appears.
- ➡ **LOOK IN.** Press <1> to cycle through the destinations of the saved parameter file. Select “**USB DEVICE**”.
- ➡ **FILES OF TYPE.** Press <2> to select the saved parameter file type and name. Use the <ARROW> keys to move up/down in the list of files. Press <ENTER> to select the highlighted file.
- ➡ The saved parameters will be loaded on the terminal. At the confirmation dialog, remove the jumpdrive.



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# LANGUAGE



## DESCRIPTION:

The **LANGUAGE** option allows the terminal operator to set the language the unit will use when displaying customer screens. It also sets the Management function language for all parameter options.

➡ Press <9> to cycle through the available language options (English, French, Spanish, etc).

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**APPENDIX A**  
**SOFTWARE LICENSE AGREEMENT**

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## APPENDIX A - SOFTWARE LICENSE AGREEMENT

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**APPENDIX B**  
**TERMINAL ERROR CODES**

# X-SCALE / X2 CONFIGURATION MANUAL

Error Code	Description
0	No errors
32	Good operation
33	Feed Failure
33	Note jammed between DDM and Exit sensor
34	Mis-tracked note at feed
35	Mis tracked note at double detect.
36	Mistracked note at exit.
37	Too long at exit.
38	Blocked exit
39	Too many notes
42	Transport error.
44	Bad Roller Profile
45	Diverter error
46	Exit quantified
47	Note missing at double detect
48	Reject rate exceeded.
49	Jam at exit
50	Interference recovery
51	Accountancy error
52	RAM error
53	EPROM error
54	Operation time-out
55	RAM corruption
56	Link error
76	Communications error with EJ
95	Multiple cassettes of the same type installed
96	Extension Cable Error
97	Extension exit trailing edge timeout
98	Extension exit timeout
99	Extension Skew detected
100	Good operation
100	Trailing edge time-out at extension entrance
101	2-second timeout waiting for pick. (Feed failure).
102	Timeout at Exit Sensor
104	Unable to clear width sensor.
105	Insufficient notes to learn from
106	FIFO error
107	Time out waiting for FIFO
108	Unexpected note at double detect, width sensor did not detect note
109	Time-out at Exit sensor
110	Trailing edge time-out at exit.
111	Diverter timeout
112	Timeout waiting for leading edge at reject
113	Timeout waiting for trailing edge at reject
114	Exit blocked during purge
115	Diverter timeout on purge

## APPENDIX B - TERMINMAL ERROR CODES

Error Code	Description
116	Motor Fault
117	Timeout waiting for note to divert
118	Exit sensor blocked on start of dispense or learn
119	Diverter in dispense position on start of dispense or learn
121	Note cassette not present
122	Unexpected note at exit
123	Hardware Error
124	Diverter moved to exit position during reject purge
125	Initial status check failed
126	Diverter moved to reject position during dispense
127	Jam in TDM extension
128	Error in reply from the dispenser mechanism
129	No response from the dispenser mechanism
130	Command not acknowledged by the dispenser mechanism
131	CTS (Clear To Send) line from the dispenser is not active.
132	Status reports bad double detect in last dispense
133	+5 VDC not present on carrier detect
134	Exit blocked as reported by status check
135	Feed sensor blocked as reported by status check
136	Modem initialization failed
137	Print failure to journal
138	Printer failed while printing to the receipt printer
139	Printer controller not responding to commands
140	Time-out waiting for printer to be ready
141	Paper jam reported by the controller during status check.
142	Dispenser returns bad command error.
144	No reply from the electronic journal.
145	Error in reply from the electronic journal
146	No reply from command to electronic journal
147	Error in reply from electronic journal.
148	Write to electronic journal failed
149	Read from electronic journal failed
150	Status command to journal failed
151	Electronic journal full
152	Electronic journal corrupt
153	Electronic journal mode
154	Unknown electronic journal status
155	Electronic journal modify record failure
156	Cassette out of service.
157	Erase command to electronic journal failed
158	Format command to electronic journal failed
159	Electronic journal test feature failed
160	Electronic journal set featured failed

# X-SCALE / X2 CONFIGURATION MANUAL

Error Code	Description
161	Electronic journal clear feature failed
162	Electronic Journal get serial number failed
163	Terminal did not answer. This is a Triton Connect error.
164	Terminal did not return call. Triton Connect error.
165	Electronic journal not present
166	Bad dispense
167	Reported low cash to Triton Connect
168	Software download to terminal failed.
182	Currency cassette low. Valid for SDD and GND mechanisms only.
183	Receipt printer paper is low
185	Telephone number not configured
186	Bill Size not configured
187	Maximum withdrawal not configured
188	PIN working key not configured
189	Terminal ID not configured
190	PIN Master key not configured
191	Feed Failure
192	Communication error
194	An Attempt to Dispense is made the Cassettes are not Locked
195	Receipt printer out of paper
196	Card reader error
203	SPED keypad is not replying to main board
205	SPED keypad reported tamper condition
206	SPED keypad could not perform a successful command within SPED_MAX_ATTEMPTS tries
207	SPED not detected
210	Dispenser type unknown
231	Card Reader Error (Smart Card)
233	Smart Card Reader not installed
234	SPED Version number is not 3DES compatible
235	MAP Stack overflow
236	Failed to make connection to TCP/IP host
237	TCP/IP device failed
238	Power failure during dispense
239	SPED serial number change
240	SPED Self Test Error
241	SPED Warning: Self Test error, low battery
242	Stuck key
243	Unable to display user defined surcharge screen
244	Min. partial dispense enabled with no doc count
245	Min. partial dispense enabled with no usable bills
246	Master password must be changed from default
300	Successful Command
301	Low level in cassette



## APPENDIX B - TERMINMAL ERROR CODES

Error Code	Description
302	Empty cassette
303	Lifts are down
304	Rejected notes
305	Diverter failure
306	Failure to feed.
307	Transmission Error
308	Illegal command or command sequence
309	Jam in Note Qualifier
310	Cassette not properly installed.
311	Config record size invalid
312	No notes retracted
313	Cassette hopper map invalid
314	Dispenser offline - cannot resolve dispense count
315	Reject vault not properly installed
316	Delivery failure.
317	Reject failure
318	Too many notes requested
319	Jam in note transport
320	Reject cassette almost full
321	Cassette data corrupted
322	Main motor failure
323	Dispenser offline - Dispense count check error
324	Reserved for warning status
325	Note qualifier faulty
326	Note feed sensor failure
327	Shutter failure
329	Notes in delivery throat
330	Communication timeout
332	Cassettes may have been changed
333	Reject vault full
339	Error in throat
343	Sensor error or sensor covered
348	Dispenser internal error.
349	Cassette lock faulty
350	Jam in note stacker
351	Module needs service
353	No message to resend
356	Error in note transport
357	Dispenser data size error
358	Dispenser device read error
359	Dispenser device record error
360	Dispenser invalid return ID
361	Dispenser sequence error
362	Dispenser device write error
363	Dispenser device not found
364	Dispenser device offline
365	Dispenser BCC error

# X-SCALE / X2 CONFIGURATION MANUAL

Error Code	Description
366	Dispenser cassettes disabled
367	Dispenser communication error.
368	Dispenser cannot dispense the request
369	Dispenser device reset
370	Dispenser - EOT error
371	Dispenser com error header-trailer
372	Dispenser item value error
373	Dispenser machine not opened
374	Dispenser rejected check
375	Dispenser invalid request
376	Dispenser multiple device error
377	Dispenser device error
378	Dispenser cassette low
379	Dispenser unknown error code
380	Dispenser setup incomplete
381	Dispenser cassette invalid
382	Dispenser cassettes disabled (ALL)
383	Dispense cassettes low (ALL)
384	Dispenser cassettes empty (ALL)
385	Dispenser offline, no reject vault and no hoppers
386	Dispenser offline - no hoppers
387	Dispenser offline - error-validating configuration
388	Dispenser offline - NMD require Reject Vault and at least one cassette
389	Dispenser offline. Detected offline error check op state
390	Dispenser offline - storing configuration
391	Dispenser sensor failure 2
392	Error in last dispense
393	Error in double detect 2
394	Purge failed upon power-up
395	Multiple cassette of the same type
396	Dispenser offline – found no reject bin
500	SPED Read Error
501	SPED invalid return record
502	SPED read type error
503	SPED invalid command
504	SPED invalid return ID
505	SPED device busy
506	SPED invalid request
507	SPED sequence error
508	SPED LRC error
509	SPED no data
510	SPED invalid message ID
511	SPED Data overflow
512	SPED device idle
513	SPED device offline

## APPENDIX B - TERMINMAL ERROR CODES

Error Code	Description
514	SPED device bit stuck
515	SPED device attention stuck
516	SPED device no attention
517	SPED device timeout
518	SPED command sequence error
519	SPED invalid command data
520	SPED device reset
521	SPED clear key
522	EJ error
523	EJ data size error
524	EJ bad command
525	EJ invalid ID
526	EJ device busy
527	EJ invalid request
528	EJ sequence error
529	EJ device offline
530	EJ EXT error
531	EJ SOH error
532	EJ STX error
533	EJ BCC error
534	EJ device reset
535	Card Reader - Data size error
536	Card Reader - Device read error
537	Card Reader - Invalid Record
538	Card Reader - Reader type error
539	Card Reader - Invalid track
540	Card Reader - Invalid message
541	Card Reader - Com error
542	Card Reader - Device busy
543	Card Reader - Sequence error
544	Card Reader - Invalid request
545	Card Reader - LRC error
546	Card Reader - No data
547	Card Reader - Start sentinel not found
548	Card Reader - End sentinel not found
549	Card Reader - Parity error
550	Card Reader - Card not removed
551	Card Reader - Card removed to slow
552	Card Reader - Device received invalid request
553	Card Reader - device offline
554	Card Reader - device reset
555	Card Reader - System timeout
556	System timeout
557	System device reset
558	System sync error
559	System error
560	Unknown device error

# X-SCALE / X2 CONFIGURATION MANUAL

Error Code	Description
561	Software error
562	SPED error
563	Low Memory
564	Unable to access external memory device
565	Cabinet door open
566	Vault door open
567	Security module not found
568	Security module com failed
569	Security module attached dev com failed
570	Security module dev port setup
571	Invalid default transaction
572	SPED key from pad cmd aborted by user
573	SPED keys from pad cmd verify failed
574	SNA comms error
575	Timeout waiting to send command to dispenser
576	Timeout waiting to receive response from dispenser
577	Card reader disabled
578	Card reader present timeout
579	SPED - Enable keypad command failed
580	SPED - Disable keypad command failed
581	SPED - Enable key from pad module failed
582	SPED - Disable key from pad module
583	SPED - Enable PIN entry mode failed
584	SPED - Disable PIN entry mode failed
585	SPED - Enable JETCO PIN entry mode failed
586	SPED - Enable JETCO PIN entry mode failed
587	NMD 50 required Cassette in TOP hopper
588	ERR PRESENTER OFFLINE
589	ERR PRESENTER MOTOR STALLED
590	ERR PRESENTER EXIT JAM
591	ERR PRESENTER PAPER NOT DETECTED
592	ERR SPED DEVICE REPORTED FAILED
593	ERR SPED IN USE
594	ERR SPED DEVICE REPORTED COMM ERROR
595	ERR SPED RETURN INVALID AMOUNT OF DATA
596	ERR SPED INVALID SPED TYPE
597	ERR SPED INVALID SPED COMMS PROTOCOL
598	ERR_SPED_INVALID_DEVICE_CLASS
599	ERR SPED REPORTED UNRECOGNIZED COMMAND
600	ERR SPED REPORTED BLOCK DOES NOT EXIST
601	ERR SPED REPORTED INVALID ENCRYPT MODE
602	ERR SPED REPORTED UNSUPPORTED CLEAR OPTION
603	ERR SPED REPORTED TAMPER PRESENT
604	ERR SPED REPORTED INVALID KEY INDEX
605	ERR SPED REPORTED PARENT KEY NOT LOADED
606	ERR SPED REPORTED WRONG DATA LENGTH

## APPENDIX B - TERMINMAL ERROR CODES

---

Error Code	Description
607	ERR SPED REPORTED PIN RETRY TOO SOON
608	ERR SPED SELFTEST CRC FAILED
609	ERR SPED SELFTEST CRYPTOGRAPHIC ERROR
610	ERR SPED SELFTEST BATTERY LOW STATUS
611	ERR SPED SELFTEST SERIAL NUMBER ERROR
612	ERR SPED TAMPER STATUS COLD
613	ERR SPED TAMPER STATUS FRONT
614	ERR_SPED_TAMPER_STATUS_BACK
615	ERR SPED TAMPER STATUS GRID
616	ERR SPED TAMPER STATUS VOLTAGE
617	ERR SPED SERIAL NUMBER CHANGE
618	SPED serial number change
619	NMD 100 shutter failed after reset
620	NMD 100 shutter OK after reset

## Modem Communication Status Codes

Status Code	Description
1	Time-out
3	BCD NO-ANSWER
4	ERROR IN MODEM DATA
5	Connect 1200 Baud then lost carrier or connection. Host hung up.
6	BGD NO DIAL TONE
7	BGD – Busy
10	BGD – Logon
11	No connect
13	BGD DONE GOOD
14	BGD DONE BAD
15	Timeout waiting for End of Transmission EOT
16	Communication problem
17	NO EOT
18	OVERFLOW
48	NO ANSWER
65	Processor not communicating with the modem correctly
100	Time-Out - Request has been sent, time-out waiting for response
101	No-Connect
103	No-Answer
105	No EOT
107	User Cancelled Transaction
108	No response
109	No ENQ
110	Invalid response
112	Invalid LRC
113	Response format error

# Supplement A

## X-Scale Software Release Notes

Affected products  
RL5000, FT5000, RT2000  
(X-Scale)

---

# Software Release Notes

## XScale 1.7.0 South Africa

---

### Affected products

RL5000  
FT5000  
RT2000

November 22, 2005

Version 1.0

**Triton Systems of Delaware, Inc.**  
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## **Introduction**

This document describes changes made to the RL5000, FT5000, and RT2000 application code for the 1.7.0 software release. This only lists changes from version 1.5.4.

## **Platforms Affected**

The following hardware platforms are affected by this release:

- RL5000
- FT5000
- RT2000

## **Hardware Requirements**

New hardware supported:

- None

## **Software Releases**

The following load files are included in this software release:

- XD00XSAF1.7.0.tlf – South Africa 10.4” Display
- XD00QSAF1.7.0.tlf – South Africa 5.7” Display
- XD00VSAF1.7.0.tlf – South Africa 6.5” Display
- XU00XSAF1.7.0.tlf – South Africa 10.4” Display (Update)

## **External Dependencies**

- Windows CE Image 4.31 or later is required for specific changes listed below.
- Windows CE Image 4.46 is required for RT2000 and FT5000 support.

## **Description of Changes**

### ***Added detection for error where printer paper does not reach presenter***

The terminal will now detect an error condition when a customer receipt is printed but does not reach the presenter due to a jam or printer not being in the correct position. This will cause an error code of 591 to be reported.

### ***Automatic Configuration Download on Day Close MAC failure***

If a Day Close (host totals request) is initiated from management functions, and a MAC failure occurs, the terminal will automatically perform a Configuration Download request to resynchronize the keys.

### ***Validate date/time when setting from host response***

When a host sends down a new date or time in a message response, there were occasional cases of the terminal date getting corrupted. This has been fixed.

### ***Corrected possible system hang when booting with presenter unplugged***

A situation where the system could hang on boot up when the printer presenter is unplugged has been fixed.

### ***Corrected TDM dispenser click counts***

Some of the click counts for the TDM dispenser were reported incorrectly on the dispenser status report. This has been fixed.

### ***Terminal will go out of service correctly for low memory condition***

There were instances where the terminal may not have reported a 563 (low memory) error correctly when the system memory was below required level. This has been fixed.

### ***Fix for system memory loss***

After a long period of terminal activity, there was a noticeable loss in system memory for TCP/IP transactions. This has been fixed.

### ***Recovery of corrupt file hang***

There were instances where the system could hang on boot up if a corrupt system file existed on the terminal. This has been changed to recover from this condition.

### ***Day Close from Rear Service Panel***

There were instances where a Trial Close or Day Close executed from the Rear Service Panel would not work if TCP/IP with "Permanent Connection" was enabled. This has been fixed.

### ***Correct reporting of printer presenter motor stalled error***

The terminal was not correctly reporting error code 589, printer presenter motor stalled. This has been fixed.

### ***Printed reports were sometimes missing data***

In previous releases, a printed report from management functions would occasionally miss data. This issue has been addressed in this release. Note that this fix also requires Windows CE Image version 4.31 or later.

### ***Added 'Please Wait' dialog when toggling between cassettes***

When using TDM-2xx dispenser, a momentary 'Please Wait' dialog was added when updating cassette information to avoid possible user confusion resulting in incorrect configuration of cassettes.

### ***Shortened transaction receipts***

Receipts and coupons for transactions have been shortened slightly to remove unneeded white space.

## Changes to the Communication Specification

None.

## New Terminal Error Codes

Error Code	Description
591	Printer presenter paper not detected

## Known Issues

None.

## Revision History

Date	Version	Description of Change
11/22/2005	1.0	Initial

---

# XScale 1.8.1 International Release Notes

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## Affected products

RL5000  
FT5000  
RT2000

May 16, 2006

Version 1.1

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## Introduction

This document describes the features that have been added to the 1.8.1 International release beyond what is different than the UK 1.7.0 release (since the release is based on the UK release). This release is meant to satisfy requirements for many different countries.

## **Platforms Affected**

The following hardware platforms are affected by this release:

- RL5000
- FT5000
- RT2000

## **Hardware Requirements**

The following hardware is supported by this release:

- 10.4" Display
- NMD50, NMD100, SDD, or TDM Dispensers
- Magtek EMV Dip Card Reader
- Seiko LTP2342 Printer
- SP-05 Visa EPP
- MultiTech USB Dialup Modem
- TCP/IP

## **Software Requirements**

The following load files are included in this software release:

- XD04XINT1.8.1.tlf – International 10.4" Display
- Credit Call EMV Card Reader Driver

## **External Dependencies**

This software release is dependent on the following external software:

- Triton Connect 4.3 or later

## Description of Changes

The following are changes from the 1.7.0 UK release.

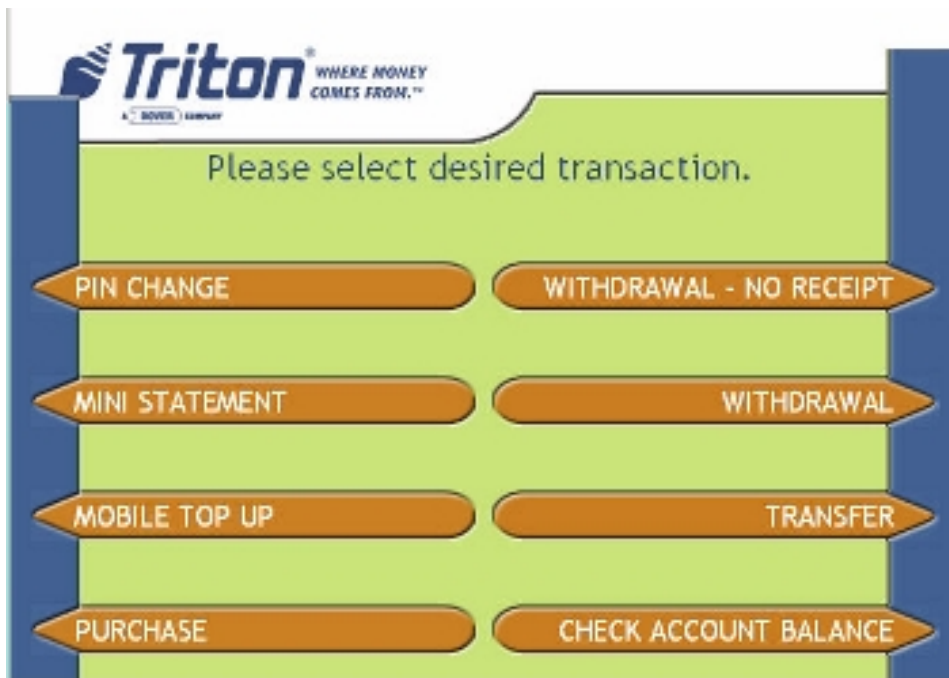
### **Mini Statement Support**

This release contains the initial support for the Mini Statement transaction type as specified in Triton Standard Communication Protocol Specification version 5.25.

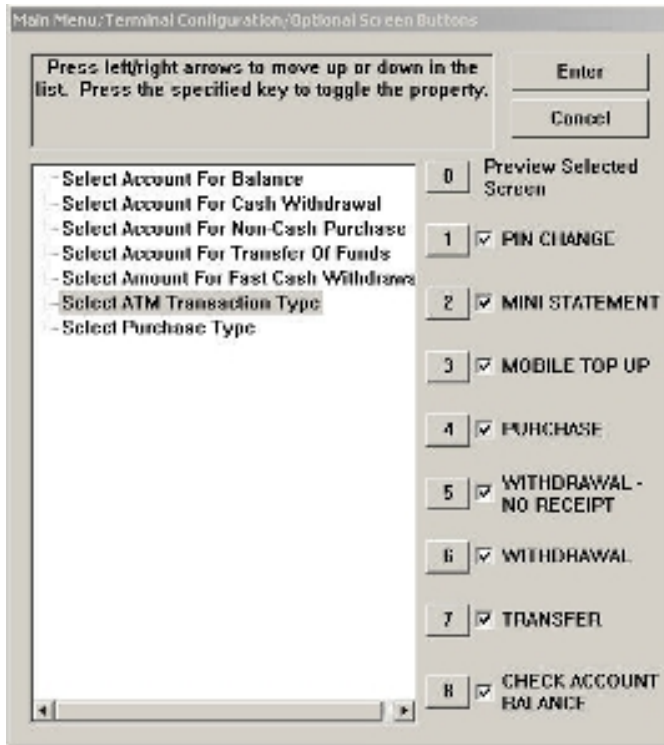
### **PIN Change Support**

This release contains the initial support for the PIN Change transaction type as specified in Triton Standard Communication Protocol Specification version 5.25. Note that the customer will be required to enter the existing PIN plus enter and verify the new PIN. This process will result in a forced delay between PIN entries due to Visa EPP requirements of the SP-05 SPED.

The transaction selection screen has been modified to support both Mini Statement and PIN Change transactions:



The Mini Statement and PIN Change transactions can be enabled/disabled as desired from Management Functions:



## ***EMV Level 2 Not Available***

EMV Level 2 support is not available in this release. EMV functionality will be implemented in a future release when exact EMV requirements for specific countries are available.

## ***No LIS5 Surcharging***

LIS5 surcharge screens are not part of the screen flow for this release.

## ***Language Selection***

This release will allow for 4 languages to be programmed in the screen file. All four languages will be delivered as English but can be changed through an external utility, Triton Screen Manager.

## ***Graphic Receipts Required***

In order to handle international fonts, this release will default to graphic receipts rather than text receipts.

## Configurable Outgoing TCP/IP Port

This release has the ability to set the outgoing IP port for host communications to a fixed port value. This is done by modifying the “Outgoing” local port in Management => Diagnostics => Modem/Ethernet => Configure Ethernet Settings:

The screenshot shows a dialog box titled "Configure Ethernet Settings". It has a blue header bar. Below the header, there are several rows of input fields, each with a small numbered box to its left:

- 1 IP Address: [text box] [OK button]
- 2 Subnet Mask: [text box] [Cancel button]
- 3 Default Gateway: [text box]
- 4 Primary DNS: [text box]
- 5 Primary WINS: [text box]
- 6  Enable DHCP

Below these fields is a section titled "Local Ports" enclosed in a rounded rectangle. It contains two rows:

- 7 Incoming: [text box]
- 8 Outgoing: [text box]

*Note: The “Incoming” and “Outgoing” ports must be different! The incoming port is used for incoming Triton Connect connections.*

## Journal Decline Codes

The decline codes printed on the journal at the terminal were previously incomplete. This has been addressed to contain the correct decline codes.

## Full Extended Amounts

A new feature has been added to this release to enable displaying and processing currency values with a large number of digits. Previously, currency values have been limited to 8 digits (including the decimal portion). To enable this feature, select the “Amount Type” button on the Communication Configuration dialog:

The screenshot shows the 'Communication Configuration' dialog box. The title bar reads 'Main Menu/Terminal Configuration/Communication'. The dialog contains the following elements:

- 1** Host IP Address: 127.0.0.1 (with an **Enter** button)
- 2** Host IP Port: 9967 (with a **Cancel** button)
- 3**  Permanent TCP/IP Connection
- 4**  Enable Communication Header (with a **5** button)
- 6**  Use 12-Digit Sequence Number
- 7** Amount Type
- 8** Communication Protocol: TCP/IP
- 9** Communication Message Format: Triton Standard
- 0** Host Response Timeout: 120
- Reversal Communications** section:
  - F1**  Enable Persistent Reversals
  - F2** Reversal Attempts: 0
  - F3**  Enable Reversals For Protocol Errors

The “Amount Type” consists of the following options:

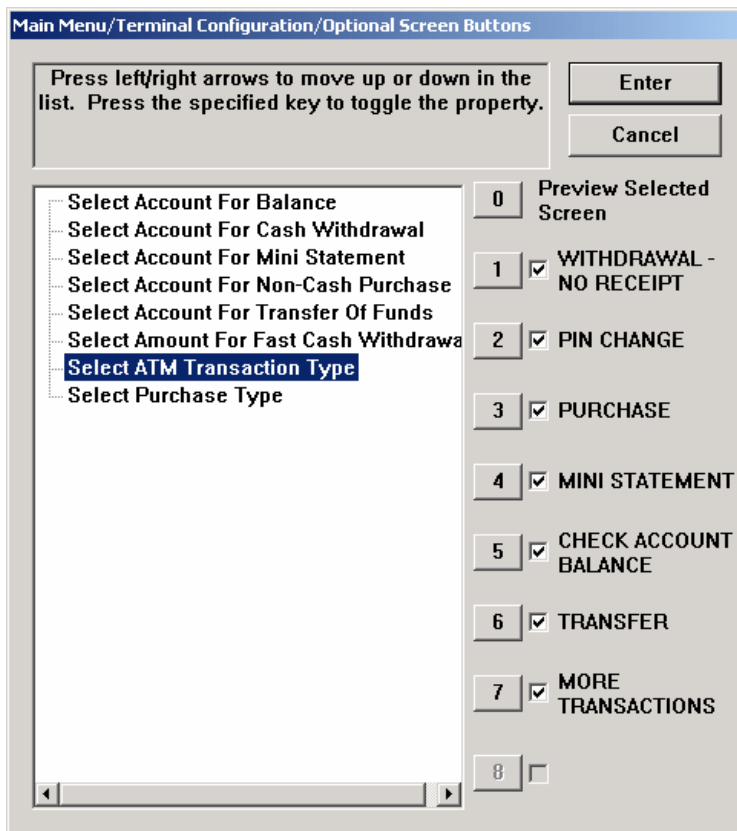
- o Standard (No change from current software)
- o Extended Amounts (No change from current software)
- o Full Extended Amounts (New to this release)

The following table represents the number of digits (including decimal portion) that can be used for each specific value for each of the specified amount types:

<b>Value</b>	<b>Standard</b>	<b>Extended</b>	<b>Full Extended</b>
Withdrawal Amount	8	8	12
Account Balance	8	12	12
Transfer Amount	8	12	12
Cassette Item Amount	5	5	8
Surcharge Amount	8	8	8
Settlement Amount	12	12	15

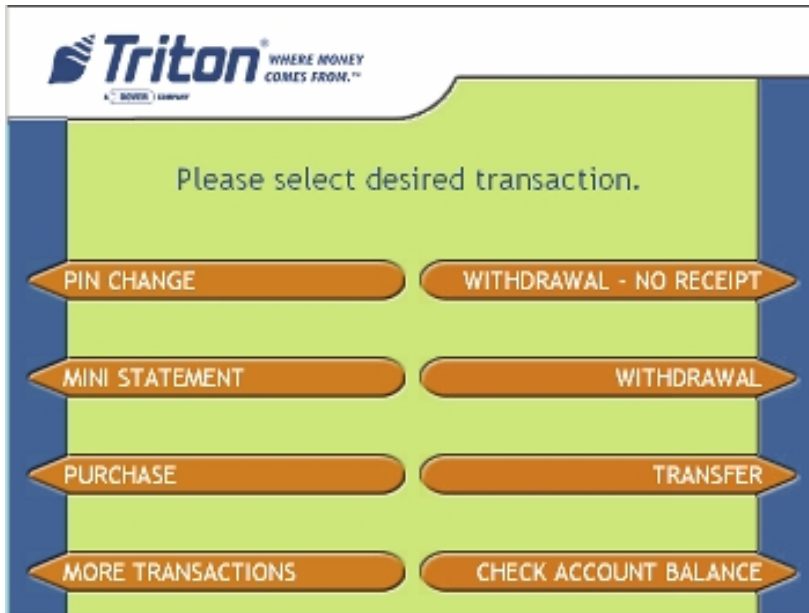
### **Mobile Phone Top Up / Mobile Phone Bill Payment**

This release adds both MPTU (Mobile Phone Top Up) and MPBP (Mobile Phone Bill Payment) transactions. These transactions are enabled/disabled as a group through Optional Screens in Management Functions:



The default value for the More Transactions option is that it will be enabled.

Enabling this option will display an option on the select transaction screen for the user to select an MPTU or MPBP transaction through a "More Transactions" option:

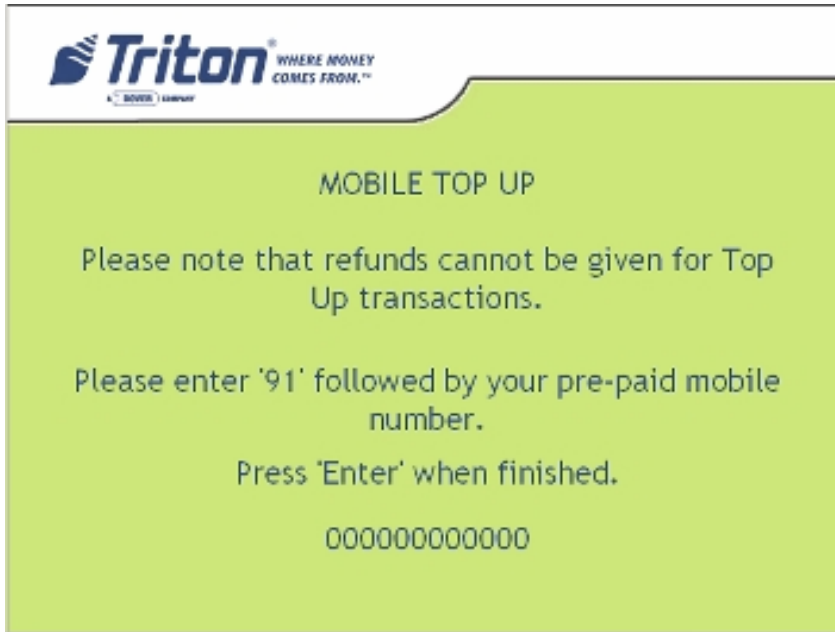


Selecting the “More Transactions” button will display the following screen:

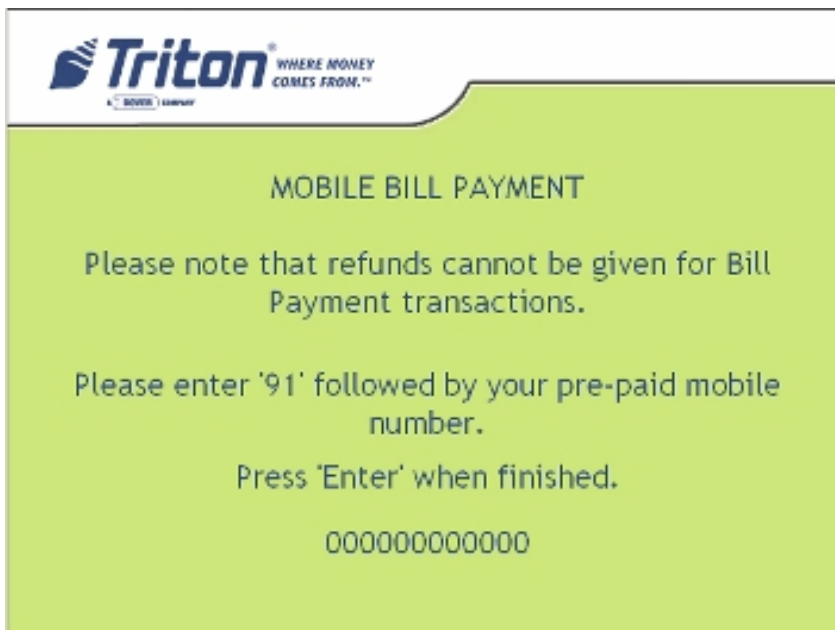


After selecting the Mobile Top Up transaction, the user must enter the desired amount and account type. Then the user will be prompted to enter a mobile phone number per the following screen:





If the “Mobile Bill Payment” option was selected, the following screen will be displayed:



Both MPTU and MPBP transactions will use the Triton Standard transaction code of 99, and an extended transaction code of one of the following:

- 04: MPTU
- 05: MPBP

Please refer to *Triton Terminal Communication Protocol and Message Format Specification* for more information.

## Changes to the Communication Specification

The following changes have been made to Triton Standard Communications in order to support the new functionality of this release:

Misc FID 'uj':

Host Receipt – 2 ASCII numbers followed by a variable amount of ASCII data to be displayed exactly as formatted by the host. T<sub>1</sub> T<sub>2</sub> (T<sub>3</sub>)

2 Numeric (T<sub>1</sub> T<sub>2</sub>) – 2 ASCII numbers representing the character set selection. Currently '00' will always be sent indicating the default character set should be used.

Variable Length ASCII (T<sub>3</sub>) – Formatted ASCII text that will be printed exactly as it is sent from the host.

Misc FID 'uk':

Printer Capabilities- 10 ASCII numbers representing the current configuration of the terminal printer. T<sub>1</sub> T<sub>2</sub> T<sub>3</sub> T<sub>4</sub> T<sub>5</sub> T<sub>6</sub> T<sub>7</sub> T<sub>8</sub> T<sub>9</sub> T<sub>10</sub>

1 Numeric (T<sub>1</sub>) – Represents the current printer mode '1' – Graphic '2' – Text.

3 Numeric (T<sub>2</sub> T<sub>3</sub> T<sub>4</sub>) – This field is reserved for future use, but it will initially contain '000'.

2 Numeric (T<sub>5</sub> T<sub>6</sub>) – The maximum number of characters per line.

2 Numeric (T<sub>7</sub> T<sub>8</sub>) – The maximum number of lines per statement.

2 Numeric (T<sub>9</sub> T<sub>10</sub>) – The default character set that is used by the system. '00' will be sent indicating the system default. Future enhancements may specify other character sets.

Misc FID 'ux':

The following new FID will be utilized (as described in the *Triton Terminal Communications Protocol and message Format Specification*) to extend the settlement amount present in the Host Totals Download Request Message:

When present in the Miscellaneous field of the Host Totals Download Request message, the value accompanying this FID overrides the value in the Settlement field of the message. As a result, the value in the 12-digit Settlement field is rendered inconsequential; it should be filled with spaces.

The basic format for using this hyper-extended settlement FID is as follows:

```
ux000000123456789
```

The FID 'ux' is followed by 15 ASCII digits and it is zero filled to the left. The fifteen digits, '000000123456789', represent 123,456,789 units of a particular currency. The units always

represent the smallest unit of the currency involved.

Misc FID 'ul':

The following new FID will be utilized (as described in the *Triton Terminal Communications Protocol and message Format Specification*) to hyperextend the actual dispensed amount present in the Reversal Request Message:

When present in a miscellaneous field of the Reversal Request Message, the value accompanying this FID overrides the value in the Amount 3 field of the message. As a result, the value in the 8-digit Amount 3 field is rendered inconsequential; it should be filled with spaces.

The basic format for using this hyper-extended amount FID is as follows:

ul000123456789

The FID 'ul' is followed by 12 ASCII digits and it is zero filled to the left. The sixteen digits, '000123456789', represent 123,456,789 units of a particular currency. The units always represent the smallest unit of the currency involved.

## Error Code Summary

None.

## Default Parameters

The following are the default parameters for this release that are different than UK 1.7.0:

- Graphic receipts defaults to enabled.
- Outgoing IP port defaults to dynamic.
- Account selection screen defaults to enabled.
- All transaction types default to enabled.
- EMV defaults off and cannot be enabled.
- MPTU and MPTB enabled.

## Revision History

Date	Version	Description of Change
12/15/2005	1.0	Initial
5/16/2006	1.1	Add MPTU/MPBP Information

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# Software Release Notes

## Canada

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Affected products  
RL5000, RT2000, and FT5000

March 6, 2007

Version 1.1

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## **Introduction**

This maintenance release is targeted for the Canadian Market. This document describes the changes from version 1.7.0.

## **Platforms Affected**

This release is for the following XScale families:

- RL5000
- RT2000
- FT5000

## **Hardware Requirements**

- 10.4" Display, 5.7" Display, or 6.5" Display

## **Software Requirements**

The following load files are included with this release:

- xd00xcan1.8.3.tlf – Full load for 10.4" display
- xd00qcan1.8.3.tlf – Full load for 5.7" Mono display
- xd00vcan1.8.3.tlf – Full load for 6.5" display
- xu00xcan1.8.3.tlf – Update load for 10.4" display
- xu00qcan1.8.3.tlf – Update load for 5.7" Mono display
- xu00vcan1.8.3.tlf – Update load for 6.5" display

## **External Dependencies**

The following feature requires Triton Connect Version 4.3.8 or greater:

- User Configuration

## Description of Changes

### **Changing Default Passwords**

A new ERROR code (246) has been created for when the terminal's Master Password is in its default state. The terminal will detect this condition and go out of service. On the out of service screen no error information will be displayed. The following is a screen capture of this state.



This error code will not clear until the Master Password is changed from its default state.

**\*\* Note - Installing this version of software remotely using Triton Connect will cause the terminal to go out of service if you have not changed the default password. This password can only be changed remotely with Triton Connect version 4.3.8 or later.**

### **TDM-1XX Mechanisms Configurations are reporting as TDM-2XX**

This release corrects the problem of newer TDM firmware that responds to both command protocols of the TDM product line. These command protocols affects the way that cassettes are managed and error codes that are reported. This release will test for a single cassette TDM before testing for a TDM multi-cassette mechanism. **With this and future versions software, when installing an update file over any prior software release on a terminal with a TDM100 or TDM150 dispenser, the cassette multiple amount may need to be reconfigured before the terminal will go into service \*\*.**



**\*\* Note - that in this situation, if an update file is loaded from Triton Connect, the machine can only be put into service by configuring the cassette multiple amount in Management Functions at the terminal. Subsequent update loads will not require this step.**

### **Recording NAKs from the Dispenser**

When the dispenser sends a NAK(0x15) during a dispense the terminal will record this in the journal as an 130 not an 371.

### **Lost EOT errors**

The dispenser protocol ends with an EOT (0x04) being sent to the terminal from the dispenser. The terminal will no longer report an error when this character is not received.

### **TDM Click Count History Report**

This release corrects the reporting of the click count history report by correctly indexing all of the click counts from the dispenser, which is available in the diagnostic menu of the terminal. Also, this release corrected the retrieval of the Sequence numbers of the click count history report.

### **Removed the Learn from the Reset Dispenser**

This release removes the relearn command from the Reset Dispenser option in the diagnostic menu.

### **Uses Generic Reference for all TDM Dispensers**

All terminals that are equipped with TDM's will now either see "TDM Single Cassette" or "TDM Multi-Cassette" as the dispenser type. If the dispenser only has one feed channel the terminal will report it as a "TDM Single Cassette". If the dispenser has more than one feed channel the terminal will report the dispenser as a "TDM Multi-Cassette".

### **Journal Record Dispense Status Records the Full Value**

This release correctly stores the Dispense Status in the journal record. This release no longer subtracts 300 from the journal status before writing the value to the journal. The full value is stored. Older versions of Triton Connect will display the dispense status of 255 for these records that have been created using this new method. A new version of Triton Connect (version 4.3.8 or greater) will be released to correct this issue. Also, the correct dispense status is stored in a text record following the transaction record where the issue occurred.

### **Reporting and clearing a 231 (Stuck Card Warning)**

This release has changed the method in which a terminal will call Triton Connect to report a 231 error (card left in reader). The 231 will be sent to Triton Connect if the rear sensor on the card reader is blocked for an extended period of time (roughly 3 minutes). Once the card is removed this warning condition will be cleared. This error applies to dip card readers only.

*Note: If the rear sensor of the card reader is covered by something other than a card, the terminal will still allow customer transactions. Once a transaction is complete the ATM may*

call Triton Connect to clear the error. The terminal will then resume checking the sensor, and if the obstruction has not been cleared, will call Triton Connect again to report the error. If this situation occurs, this may indicate that card reader needs to be serviced.

There is also a patch file that can be sent to the terminal to disable the 231 stuck card reporting to Triton Connect.

### **Corrected 188/190 Error Reporting**

This version of software will correctly report a 188 (Communications Key Not Configured)/ 190 (Master Key Not Configured) error.

### **Permanent TCP Connection**

The socket for permanent connection would block from receiving data if the host did not respond to a request within the specified Timeout setting. Now the terminal will detect this condition and rebuild the socket when this occurs.

### **Space-filled phone numbers**

This release will no longer validate a space filled number for dialing. If this is encountered the number will not be attempted.

### **Reloading Paper**

This release does not require the terminal owner to go into diagnostics and reset the printer when reloading paper. If the terminal is configured to be in service with printer errors and an out of paper event occurs, the terminal will reset the printer automatically when paper is reloaded.

### **MAC Calculations**

This release will reattempt MAC calculations up to 3 times if communications fail between the SPED and the terminal.

### **Error codes 382 (All Cassettes Disabled) With TDM**

This release corrects an issue with an uninitialized variable that upon system start up disabled cassettes.

### **Extended Amounts**

The extended amounts option has been moved to *Management => Terminal Configuration => Communication* dialog as the "Amount Type" option. This configuration consists of the following options:

- o Standard (No change from current software)
- o Extended Amounts (No change from current software)
- o Full Extended Amounts (Not currently supported in the Canada release)

Main Menu/Terminal Configuration/Communication

1 Host IP Address 127.0.0.1 Enter

2 Host IP Port 9967 Cancel

3  Permanent TCP/IP Connection

4  Enable Communication Header 5

6  Use 12-Digit Sequence Number

7 Amount Type

8 Communication Protocol TCP/IP

9 Communication Message Format Triton Standard

0 Host Response Timeout 120

Reversal Communications

F1  Enable Persistent Reversals

F2 Reversal Attempts 0

F3  Enable Reversals For Protocol Errors

## New Features Added

### ***Added Capability to Configure Users Passwords and Names from Triton Connect***

The terminal will now allow for remote changes to User Passwords and Names through Triton Connect. This change requires Triton Connect Version 4.3.8 or greater.

### ***PAN Suppression in journal records***

The middle PAN digits are no longer stored in the Journal. These digits are changed to '=' (0x3D) before being written to the journal files.

### ***Intermediate Screen when Exiting Management***

When exiting management functions the terminal will now go to the Customer/Management selection screen. This will allow for re-entry into management functions before processing any calls to Triton Connect or the host.

## Added "Improper Shutdown" Journal Entry

A new journal record is added to the journal when the terminal detects an Improper Shutdown.

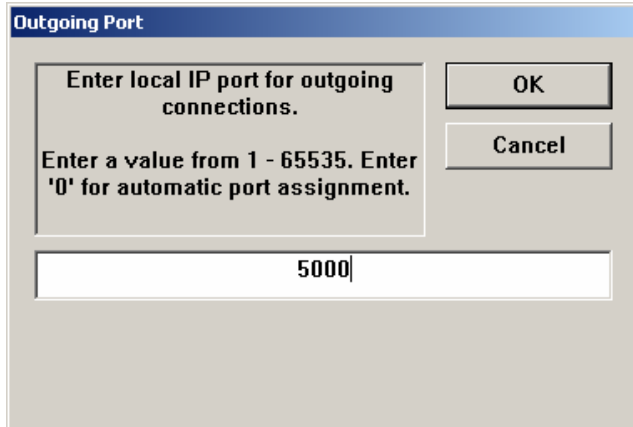
## Configurable Local IP Port

This release gives access to the IP port value for outgoing traffic to a host. The following is a screen shot of the configuration of this new feature.

The screenshot shows a window titled "Configure Ethernet Settings". It contains the following elements:

- 1 IP Address: [text box]
- 2 Subnet Mask: [text box]
- 3 Default Gateway: [text box]
- 4 Primary DNS: [text box]
- 5 Primary WINS: [text box]
- 6  Enable DHCP
- Local Ports section:
  - 7 Incoming: [text box]
  - 8 Outgoing: [text box]
- OK button
- Cancel button

The following is the dialog box that is used to configure the Outgoing Port address.



A setting of 0 allows the terminal to operate in a mode that is compatible with the 1.7.0 or prior releases. Any other values will force the out going port address to equal this setting.

### ***Power Failure During Dispense***

Changes have been made to how the terminal logs a power failure that occurs during a dispense operation. Previous releases would log the transaction record with a dispensed amount of zero and no reversal. This has been changed to the following if a power failure occurs at this time:

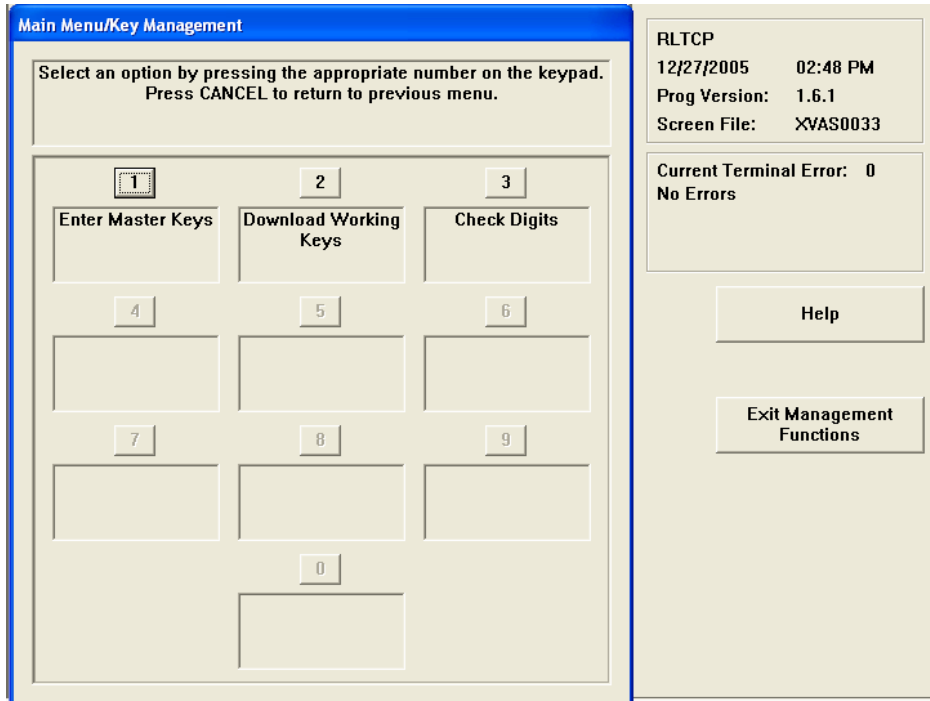
- If an NMD50 dispenser is being used, go out of service with a 238 error. This error can only be cleared by entering management functions and issuing a purge (Diagnostics->Dispenser->Purge). This error cannot be cleared from Triton Connect. *Note: in certain cases depending on if and where a bill was stuck in the feed path when power was lost, an error could be returned from the initial purge operation (i.e., Note qualifier error). In this case a second purge may be necessary to clear that error.*
- The dispense status code on the journal record will be 238 (power failure during dispense).
- The transaction journal record will log the full requested amount in “Amount Dispensed” field of the journal.
- A journal entry will be logged following the transaction record that an unknown dispense occurred. No reversal will be done.

Note that depending on if a bill was stuck in the feed path and where the bill is located when the power was lost, the initial purge issued in Management Functions could return an error from the dispenser.

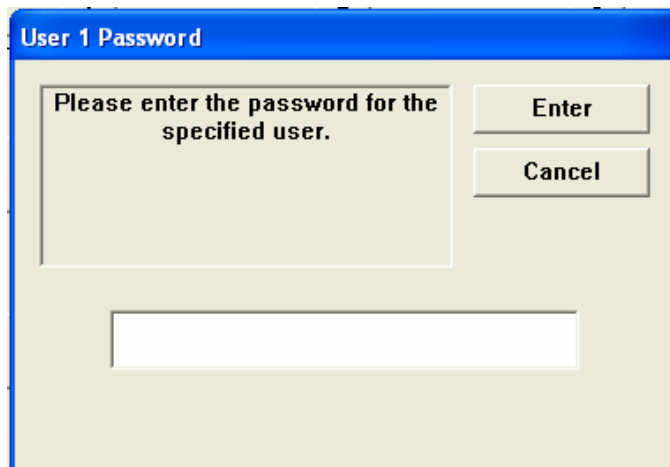
## Add support for SP-06 EPP

The SP-06 EPP is a Visa certified EPP and requires 2 users to enter passwords to enter a sensitive state in which master keys can be configured. The changes from a user interface perspective are outlined below.

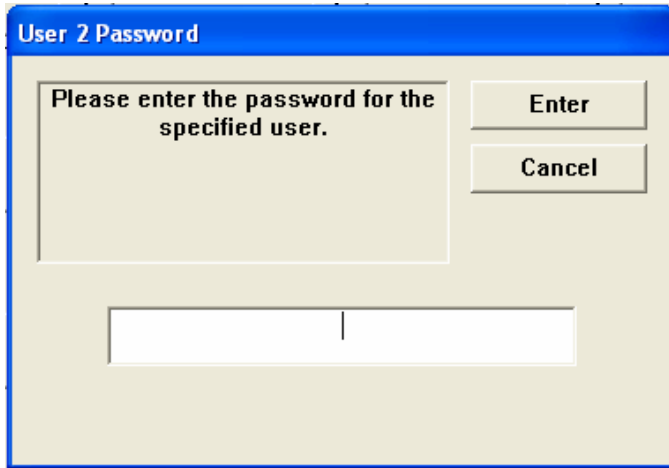
First, the “Key Management” screen has changed slightly to add a sub-dialog for entering master keys. This change will be visible for either the older SP-05 EPP or the new SP-06 EPP.



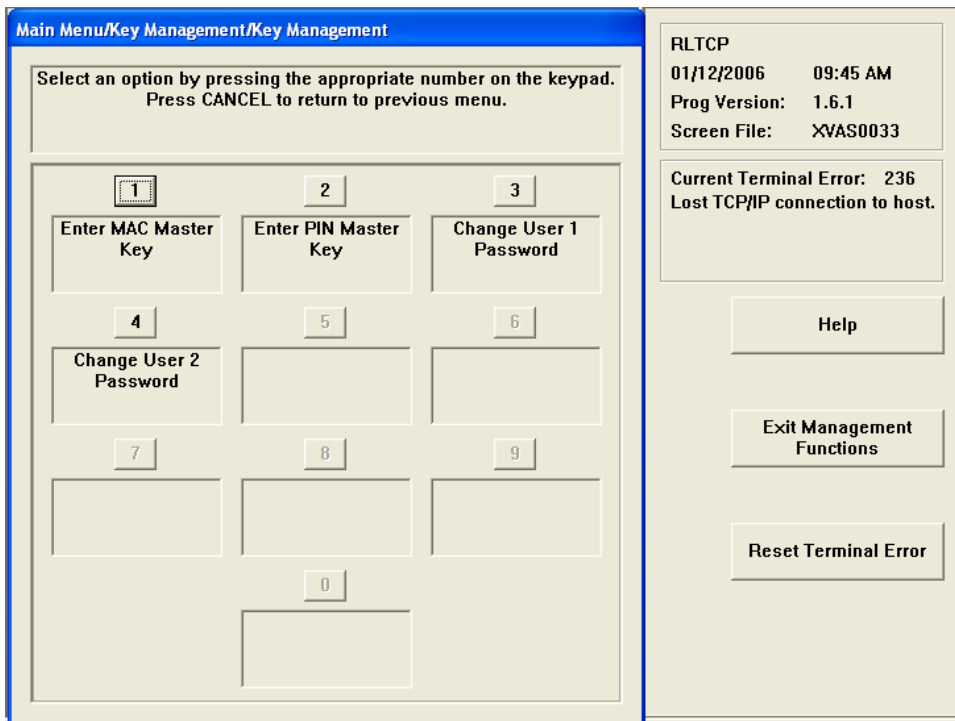
Upon selecting “Enter Master Keys” (option 1) and SP-06 EPP is being used, the users will be required to enter the 2 passwords. Note that these are not the same as the passwords used to enter management functions. The default password for both users is “000000” (six zeros).



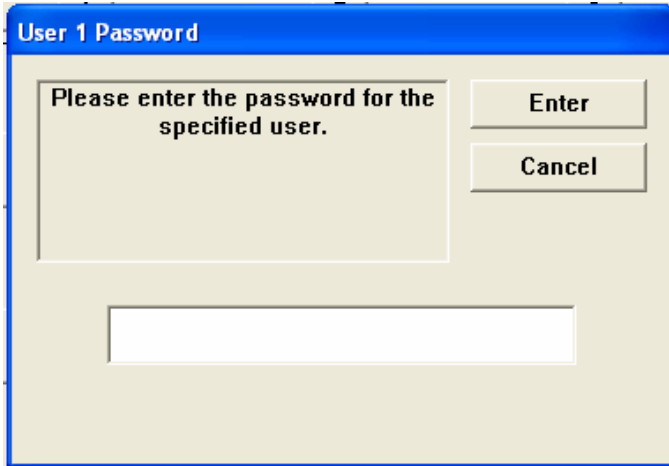
Upon successful entry of the first password, the second user password must be entered:



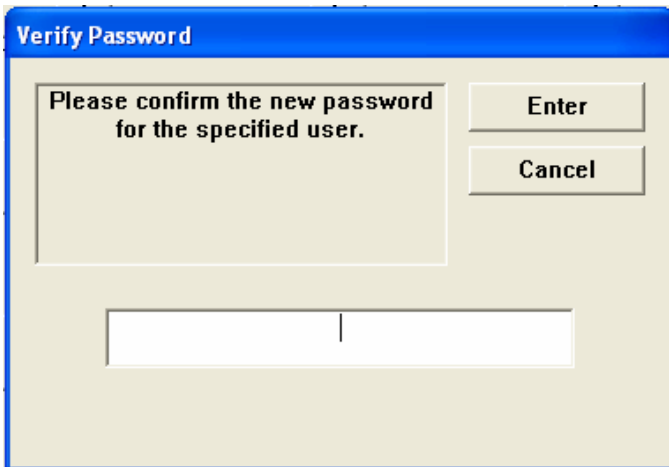
Upon successful entry of both passwords, the user will be presented with a screen to enter keys and change passwords. Note that if the passwords have not been changed from the default values, options 1 and 2 will not be available. Both passwords must be changed from the default before master key entry will be allowed.



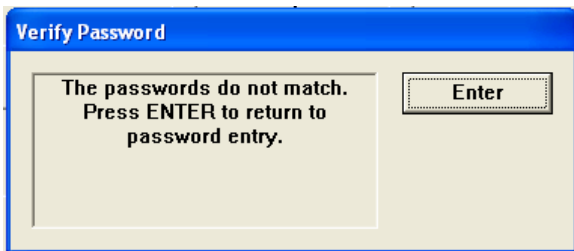
Pressing option 3 or 4 to change a password will display a dialog similar to the following:



The default password for both users is "000000" and must be changed to something other than that before enabling master key entry. The user must also verify the new password anytime it is being changed:



If the passwords entered do not match, the following dialog will be presented and the user must re-enter the initial password.



Upon successful entry of both passwords, the user will be able to enter master keys in the same manner as older EPPs.



***SP-06: Don't allow PIN entry if key held down***

One of the changes to SP-06 Visa EPP is to not allow PIN entry mode if a key is being held down on the keypad. If the customer dips a card and then proceeds to the PIN entry screen while a key on the keypad is being depressed, a "Please Wait" screen will be displayed. Once all keys have been released, flow will continue to the PIN entry screen. If a key is held down for 10 seconds then the transaction will cancel and return to the Welcome screen.

## Changes to the Communication Specification

The following changes have been made to Triton Standard Communications (Version TSCD5.26) in order to support the new functionality of this release:

Misc FID 'ux' (for *Full Extended Amounts*):

The following new FID will be utilized (as described in the *Triton Terminal Communications Protocol and message Format Specification*) to extend the settlement amount present in the Host Totals Download Request Message:

When present in the Miscellaneous field of the Host Totals Download Request message, the value accompanying this FID overrides the value in the Settlement field of the message. As a result, the value in the 12-digit Settlement field is rendered inconsequential; it should be filled with spaces.

The basic format for using this hyper-extended settlement FID is as follows:

```
ux000000123456789
```

The FID 'ux' is followed by 15 ASCII digits and it is zero filled to the left. The fifteen digits, '000000123456789', represent 123,456,789 units of a particular currency. The units always represent the smallest unit of the currency involved.

Misc FID 'ul' (for *Full Extended Amounts*):

The following new FID will be utilized (as described in the *Triton Terminal Communications Protocol and message Format Specification*) to hyperextend the actual dispensed amount present in the Reversal Request Message:

When present in a miscellaneous field of the Reversal Request Message, the value accompanying this FID overrides the value in the Amount 3 field of the message. As a result, the value in the 8-digit Amount 3 field is rendered inconsequential; it should be filled with spaces.

The basic format for using this hyper-extended amount FID is as follows:

```
ul000123456789
```

The FID 'ul' is followed by 12 ASCII digits and it is zero filled to the left. The sixteen digits, '000123456789', represent 123,456,789 units of a particular currency. The units always represent the smallest unit of the currency involved.

## Known Issues

The following are known issues in this software release:

- When printing a close report from the rear service panel, the amount values will wrap to the next line. Note that there is no loss of data.

## Revision History

Date	Version	Description of Change
February 5, 2007	1.0	Initial Release
March 6, 2007	1.1	Added known issues section. Corrected typographical errors.

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# Software Release Notes

## 1.8.3 Mexico

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Affected products  
RL5000, RT2000, and FT5000

March 6, 2007

Version 1.1

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## Introduction

This document describes the changes to the RL5000, FT5000, and RT2000 1.8.3 software version for Mexico. Only changes from 1.7.1 Mexico are listed.

## Platforms Affected

This release is for the following XScale families:

- RL5000
- RT2000
- FT5000

## Hardware Requirements

- 10.4" Display

## Software Requirements

The following load files are included with this release:

- xd00xmex1.8.3.tlf – Full load for 10.4" display
- xu00xmex1.8.3.tlf – Update load for 10.4" display (*Note: Must be loaded on 1.7.1 Mexico*).

## External Dependencies

The following feature requires Triton Connect Version 4.3.8 or greater:

- User Configuration

## Description of Changes

### **Changing Default Passwords**

A new ERROR code (246) has been created for when the terminal's Master Password is in its default state. The terminal will detect this condition and go out of service. On the out of service screen no error information will be displayed. The following is a screen capture of this state.



This error code will not clear until the Master Password is changed from its default state.

**\*\* Note - Installing this version of software remotely using Triton Connect will cause the terminal to go out of service if you have not changed the default password. This password can only be changed remotely with Triton Connect version 4.3.8 or later.**

### **TDM-1XX Mechanisms Configurations are reporting as TDM-2XX**

This release corrects the problem of newer TDM firmware that responds to both command protocols of the TDM product line. These command protocols affects the way that cassettes are managed and error codes that are reported. This release will test for a single cassette TDM before testing for a TDM multi-cassette mechanism. **With this and future versions software, when installing an update file over any prior software release on a terminal with a TDM100 or TDM150 dispenser, the cassette multiple amount may need to be reconfigured before the terminal will go into service \*\*.**

**\*\* Note - that in this situation, if an update file is loaded from Triton Connect, the machine can only be put into service by configuring the cassette multiple amount in Management Functions at the terminal. Subsequent update loads will not require this step.**

### **Recording NAKs from the Dispenser**

When the dispenser sends a NAK(0x15) during a dispense the terminal will record this in the journal as an 130 not an 371.

### **Lost EOT errors**

The dispenser protocol ends with an EOT (0x04) being sent to the terminal from the dispenser. The terminal will no longer report an error when this character is not received.

### **TDM Click Count History Report**

This release corrects the reporting of the click count history report by correctly indexing all of the click counts from the dispenser, which is available in the diagnostic menu of the terminal. Also, this release corrected the retrieval of the Sequence numbers of the click count history report.

### **Removed the Learn from the Reset Dispenser**

This release removes the relearn command from the Reset Dispenser option in the diagnostic menu.

### **Uses Generic Reference for all TDM Dispensers**

All terminals that are equipped with TDM's will now either see "TDM Single Cassette" or "TDM Multi-Cassette" as the dispenser type. If the dispenser only has one feed channel the terminal will report it as a "TDM Single Cassette". If the dispenser has more than one feed channel the terminal will report the dispenser as a "TDM Multi-Cassette".

### **Journal Record Dispense Status Records the Full Value**

This release correctly stores the Dispense Status in the journal record. This release no longer subtracts 300 from the journal status before writing the value to the journal. The full value is stored. Older versions of Triton Connect will display the dispense status of 255 for these records that have been created using this new method. A new version of Triton Connect (version 4.3.8 or greater) will be released to correct this issue. Also, the correct dispense status is stored in a text record following the transaction record where the issue occurred.

### **Reporting and clearing a 231 (Stuck Card Warning)**

This release has changed the method in which a terminal will call Triton Connect to report a 231 error (card left in reader). The 231 will be sent to Triton Connect if the rear sensor on the card reader is blocked for an extended period of time (roughly 3 minutes). Once the card is removed this warning condition will be cleared. This error applies to dip card readers only.

*Note: If the rear sensor of the card reader is covered by something other than a card, the terminal will still allow customer transactions. Once a transaction is complete the ATM may*



*call Triton Connect to clear the error. The terminal will then resume checking the sensor, and if the obstruction has not been cleared, will call Triton Connect again to report the error. If this situation occurs, this may indicate that card reader needs to be serviced.*

*There is also a patch file that can be sent to the terminal to disable the 231 stuck card reporting to Triton Connect.*

### **Corrected 188/190 Error Reporting**

This version of software will correctly report a 188 (Communications Key Not Configured)/ 190 (Master Key Not Configured) error.

### **Permanent TCP Connection**

The socket for permanent connection would block from receiving data if the host did not respond to a request within the specified Timeout setting. Now the terminal will detect this condition and rebuild the socket when this occurs.

### **Space-filled phone numbers**

This release will no longer validate a space filled number for dialing. If this is encountered the number will not be attempted.

### **Reloading Paper**

This release does not require the terminal owner to go into diagnostics and reset the printer when reloading paper. If the terminal is configured to be in service with printer errors and an out of paper event occurs, the terminal will reset the printer automatically when paper is reloaded.

### **MAC Calculations**

This release will reattempt MAC calculations up to 3 times if communications fail between the SPED and the terminal.

### **Error codes 382 (All Cassettes Disabled) With TDM**

This release corrects an issue with an uninitialized variable that upon system start up disabled cassettes.

### **Modified Spanish Text**

The following Spanish text was modified from 1.7.1 release:

#### **1.7.1**

Retiro de Fondos  
Solicitud de Saldo  
Cuenta Corriente  
Cuenta de Ahorros  
Credito

#### **1.8.3**

Retiro de Efectivo  
Consulta de Saldo  
Cheques  
Ahorros  
Tarjeta de Credito

## Extended Amounts

The extended amounts option has been moved to *Management => Terminal Configuration => Communication* dialog as the "Amount Type" option. This configuration consists of the following options:

- o Standard (No change from current software)
- o Extended Amounts (No change from current software)
- o Full Extended Amounts (Not currently supported in the Mexico release)

The screenshot shows a configuration window titled "Main Menu/ Terminal Configuration/ Communication". It contains several fields and checkboxes:

- 1 Host IP Address: 127.0.0.1 (with an Enter button)
- 2 Host IP Port: 9967 (with a Cancel button)
- 3  Permanent TCP/IP Connection
- 4  Enable Communication Header (with a field labeled 5)
- 6  Use 12-Digit Sequence Number
- 7 **Amount Type** (circled)
- 8 Communication Protocol: TCP/IP (dropdown menu)
- 9 Communication Message Format: Triton Standard (dropdown menu)
- 0 Host Response Timeout: 120
- Reversal Communications section:
  - F1  Enable Persistent Reversals
  - F2 Reversal Attempts: 0
  - F3  Enable Reversals For Protocol Errors

## New Features Added

### **Added Capability to Configure Users Passwords and Names from Triton Connect**

The terminal will now allow for remote changes to User Passwords and Names through Triton Connect. This change requires Triton Connect Version 4.3.8 or greater.

## ***PAN Suppression in journal records***

The middle PAN digits are no longer stored in the Journal. These digits are changed to '=' (0x3D) before being written to the journal files.

## ***Intermediate Screen when Exiting Management***

When exiting management functions the terminal will now go to the Customer/Management selection screen. This will allow for re-entry into management functions before processing any calls to Triton Connect or the host.

## ***Added "Improper Shutdown" Journal Entry***

A new journal record is added to the journal when the terminal detects an Improper Shutdown.

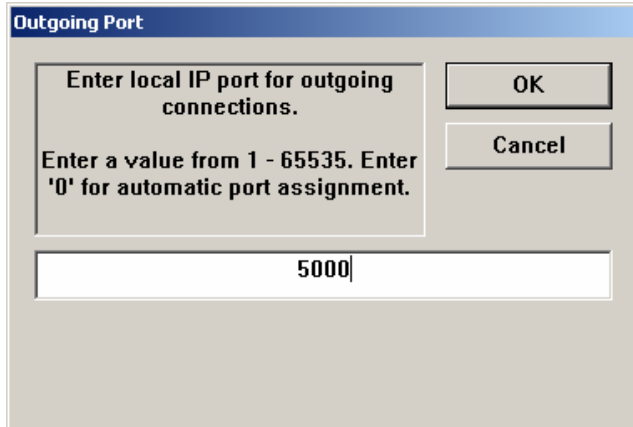
## ***Configurable Local IP Port***

This release gives access to the IP port value for outgoing traffic to a host. The following is a screen shot of the configuration of this new feature.

The screenshot shows a dialog box titled "Configure Ethernet Settings". It contains the following elements:

- Field 1: IP Address: [text box]
- Field 2: Subnet Mask: [text box]
- Field 3: Default Gateway: [text box]
- Field 4: Primary DNS: [text box]
- Field 5: Primary WINS: [text box]
- Field 6:  Enable DHCP
- Local Ports section:
  - Field 7: Incoming: [text box]
  - Field 8: Outgoing: [text box]
- Buttons: OK, Cancel

The following is the dialog box that is used to configure the Outgoing Port address.



A setting of 0 allows the terminal to operate in a mode that is compatible with the 1.7.0 or prior releases. Any other values will force the out going port address to equal this setting.

### ***Power Failure During Dispense***

Changes have been made to how the terminal logs a power failure that occurs during a dispense operation. Previous releases would log the transaction record with a dispensed amount of zero and no reversal. This has been changed to the following if a power failure occurs at this time:

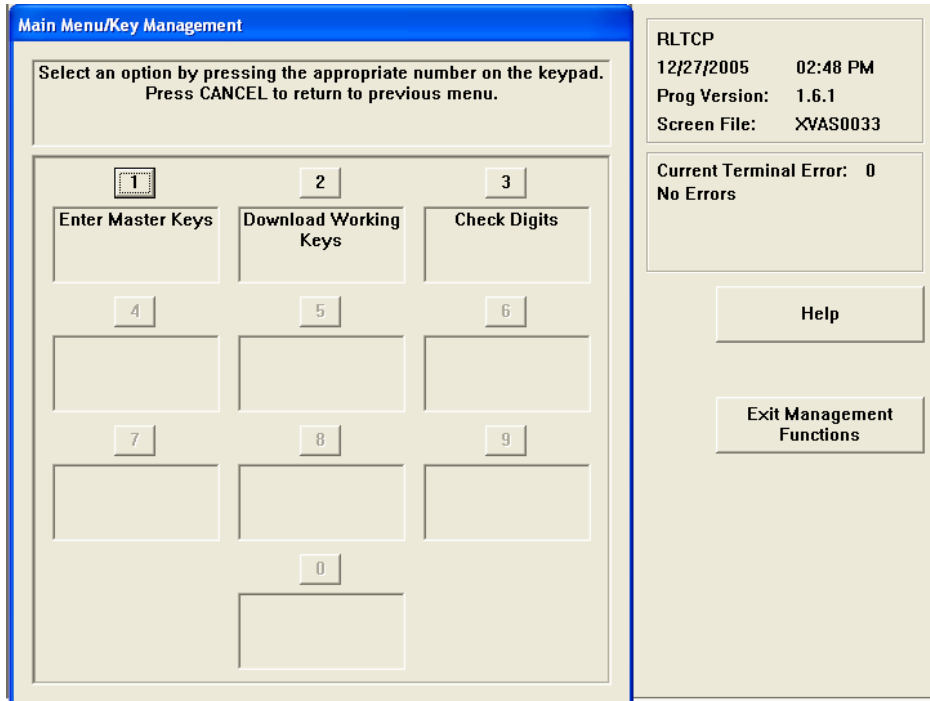
- If an NMD50 dispenser is being used, go out of service with a 238 error. This error can only be cleared by entering management functions and issuing a purge (Diagnostics->Dispenser->Purge). This error cannot be cleared from Triton Connect. *Note: in certain cases depending on if and where a bill was stuck in the feed path when power was lost, an error could be returned from the initial purge operation (i.e., Note qualifier error). In this case a second purge may be necessary to clear that error.*
- The dispense status code on the journal record will be 238 (power failure during dispense).
- The transaction journal record will log the full requested amount in “Amount Dispensed” field of the journal.
- A journal entry will be logged following the transaction record that an unknown dispense occurred. No reversal will be done.

Note that depending on if a bill was stuck in the feed path and where the bill is located when the power was lost, the initial purge issued in Management Functions could return an error from the dispenser.

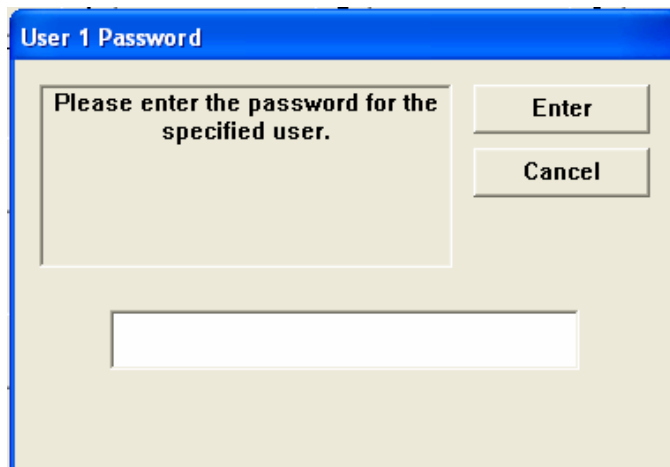
## Add support for SP-06 EPP

The SP-06 EPP is a Visa certified EPP and requires 2 users to enter passwords to enter a sensitive state in which master keys can be configured. The changes from a user interface perspective are outlined below.

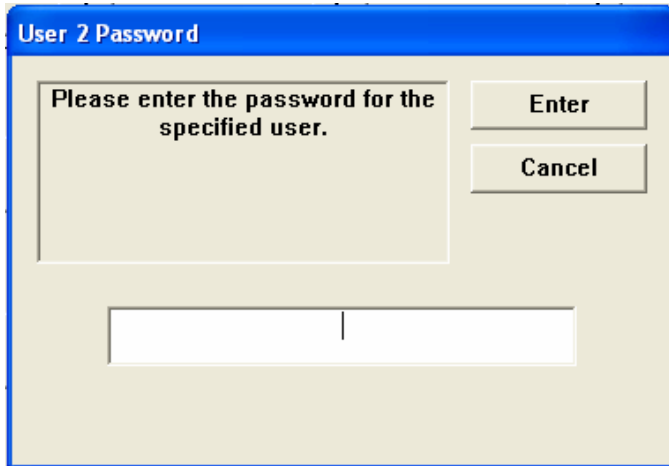
First, the “Key Management” screen has changed slightly to add a sub-dialog for entering master keys. This change will be visible for either the older SP-05 EPP or the new SP-06 EPP.



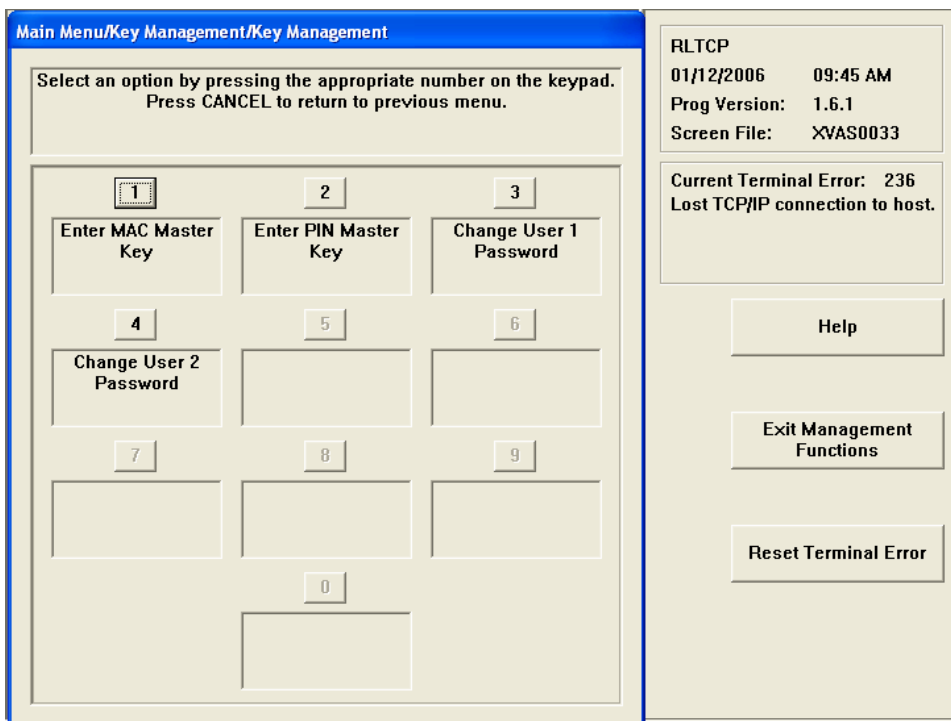
Upon selecting “Enter Master Keys” (option 1) and SP-06 EPP is being used, the users will be required to enter the 2 passwords. Note that these are not the same as the passwords used to enter management functions. The default password for both users is “000000” (six zeros).



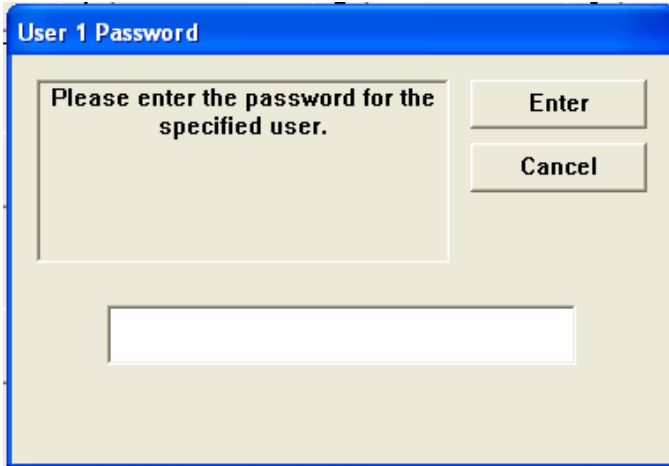
Upon successful entry of the first password, the second user password must be entered:



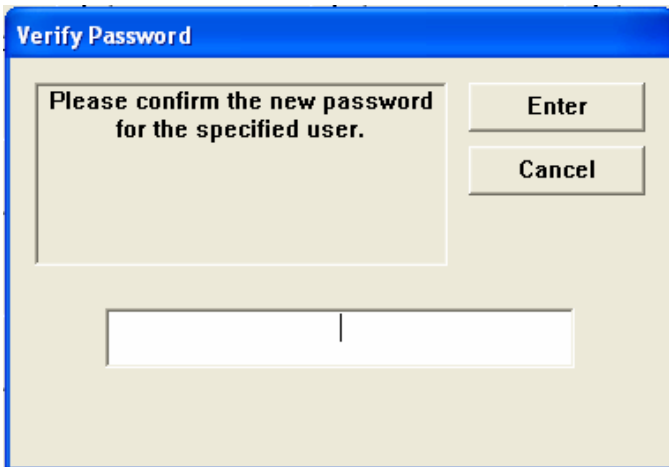
Upon successful entry of both passwords, the user will be presented with a screen to enter keys and change passwords. Note that if the passwords have not been changed from the default values, options 1 and 2 will not be available. Both passwords must be changed from the default before master key entry will be allowed.



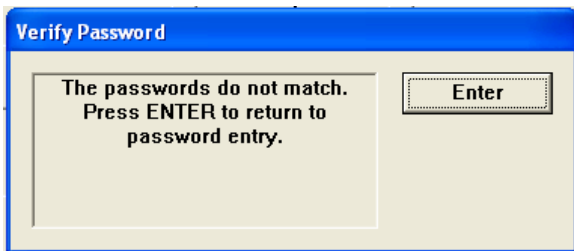
Pressing option 3 or 4 to change a password will display a dialog similar to the following:



The default password for both users is "000000" and must be changed to something other than that before enabling master key entry. The user must also verify the new password anytime it is being changed:



If the passwords entered do not match, the following dialog will be presented and the user must re-enter the initial password.



Upon successful entry of both passwords, the user will be able to enter master keys in the same manner as older EPPs.

***SP-06: Don't allow PIN entry if key held down***

One of the changes to SP-06 Visa EPP is to not allow PIN entry mode if a key is being held down on the keypad. If the customer dips a card and then proceeds to the PIN entry screen while a key on the keypad is being depressed, a "Please Wait" screen will be displayed. Once all keys have been released, flow will continue to the PIN entry screen. If a key is held down for 10 seconds then the transaction will cancel and return to the Welcome screen.



## Changes to the Communication Specification

The following changes have been made to Triton Standard Communications (Version TSCD5.26) in order to support the new functionality of this release:

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The following new FID will be utilized (as described in the *Triton Terminal Communications Protocol and message Format Specification*) to extend the settlement amount present in the Host Totals Download Request Message:

When present in the Miscellaneous field of the Host Totals Download Request message, the value accompanying this FID overrides the value in the Settlement field of the message. As a result, the value in the 12-digit Settlement field is rendered inconsequential; it should be filled with spaces.

The basic format for using this hyper-extended settlement FID is as follows:

```
ux000000123456789
```

The FID 'ux' is followed by 15 ASCII digits and it is zero filled to the left. The fifteen digits, '000000123456789', represent 123,456,789 units of a particular currency. The units always represent the smallest unit of the currency involved.

Misc FID 'ul' (for *Full Extended Amounts*):

The following new FID will be utilized (as described in the *Triton Terminal Communications Protocol and message Format Specification*) to hyperextend the actual dispensed amount present in the Reversal Request Message:

When present in a miscellaneous field of the Reversal Request Message, the value accompanying this FID overrides the value in the Amount 3 field of the message. As a result, the value in the 8-digit Amount 3 field is rendered inconsequential; it should be filled with spaces.

The basic format for using this hyper-extended amount FID is as follows:

```
ul000123456789
```

The FID 'ul' is followed by 12 ASCII digits and it is zero filled to the left. The sixteen digits, '000123456789', represent 123,456,789 units of a particular currency. The units always represent the smallest unit of the currency involved.

## Known Issues

The following are known issues in this software release:

- When printing a close report from the rear service panel, the amount values will wrap to the next line. Note that there is no loss of data.

## Revision History

Date	Version	Description of Change
February 9, 2007	1.0	Initial Release
March 6, 2007	1.1	Added known issues section. Corrected typographical errors

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# Software Release Notes

## 1.8.3 UK

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Affected products  
RL5000, RT2000, and FT5000

March 2, 2007

Version 1.1

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## **Introduction**

This maintenance release is targeted for the United Kingdom Market. This release supports EMV and VEPP. This document describes the changes from version 1.7.0.

## **Platforms Affected**

This release is for the following XScale families:

- RL5000
- RT2000
- FT5000

## **Hardware Requirements**

- 10.4" Display
- MagTek Intellistripe 65 card reader or Sankyo ICT-3K5 motorized card reader
- SP-05 EPP or SP-06 EPP

## **Software Requirements**

The following load files are included with this release:

- xd04xemv1.8.3.tlf – Live UK with EMV for 10.4" display
- xu04xuke1.8.3.tlf – Update file for 10.4" display

## **External Dependencies**

The following features require acquirer support in conjunction with this release to work properly.

- Visa AIDs
- PIN Services Transaction Type
- Full Extended Amounts (Limited support in this release)
- Mini Statement Transaction Type

The following feature require Triton Connect Version 4.3.8 or greater:

- User Configuration

## Description of Changes

### Changing Default Passwords

A new ERROR code (246) has been created for when the terminal's Master Password is in its default state. The terminal will detect this condition and go out of service. On the out of service screen no error information will be displayed. The following is a screen capture of this state.



This error code will not clear until the Master Password is changed from its default state.

**\*\* Note - Installing this version of software remotely using Triton Connect will cause the terminal to go out of service if you have not changed the default password. This password can only be changed remotely with Triton Connect version 4.3.8 or later.**

### TDM-1XX Mechanisms Configurations are reporting as TDM-2XX

This release corrects the problem of newer TDM firmware that responds to both command protocols of the TDM product line. These command protocols affects the way that cassettes are managed and error codes that are reported. This release will test for a single cassette TDM before testing for a TDM multi-cassette mechanism. **With this and future versions software, when installing an update file over any prior software release on a terminal with a TDM100 or TDM150 dispenser, the cassette multiple amount may need to be reconfigured before the terminal will go into service \*\*.**

**\*\* Note - that in this situation, if an update file is loaded from Triton Connect, the machine can only be put into service by configuring the cassette multiple amount in Management Functions at the terminal. Subsequent update loads will not require this step.**

### ***Recording NAKs from the Dispenser***

When the dispenser sends a NAK(0x15) during a dispense the terminal will record this in the journal as an 130 not an 371.

### ***Lost EOT errors***

The dispenser protocol ends with an EOT (0x04) being sent to the terminal from the dispenser. The terminal will no longer report an error when this character is not received.

### ***TDM Click Count History Report***

This release corrects the reporting of the click count history report by correctly indexing all of the click counts from the dispenser, which is available in the diagnostic menu of the terminal. Also, this release corrected the retrieval of the Sequence numbers of the click count history report.

### ***Removed the Learn from the Reset Dispenser***

This release removes the relearn command from the Reset Dispenser option in the diagnostic menu.

### ***Uses Generic Reference for all TDM Dispensers***

All terminals that are equipped with TDM's will now either see "TDM Single Cassette" or "TDM Multi-Cassette" as the dispenser type. If the dispenser only has one feed channel the terminal will report it as a "TDM Single Cassette". If the dispenser has more than one feed channel the terminal will report the dispenser as a "TDM Multi-Cassette".

### ***Journal Record Dispense Status Records the Full Value***

This release correctly stores the Dispense Status in the journal record. This release no longer subtracts 300 from the journal status before writing the value to the journal. The full value is stored. Older versions of Triton Connect will display the dispense status of 255 for these records that have been created using this new method. A new version of Triton Connect (version 4.3.8 or greater) will be released to correct this issue. Also, the correct dispense status is stored in a text record following the transaction record where the issue occurred.

### ***Reporting and clearing a 231 (Stuck Card Warning)***

This release has changed the method in which a terminal will call Triton Connect to report a 231 error (card left in reader). The 231 will be sent to Triton Connect if the rear sensor on the card reader is blocked for an extended period of time (roughly 3 minutes). Once the card is removed this warning condition will be cleared. This error applies to dip card readers only.



*Note: If the rear sensor of the card reader is covered by something other than a card, the terminal will still allow customer transactions. Once a transaction is complete the ATM may call Triton Connect to clear the error. The terminal will then resume checking the sensor, and if the obstruction has not been cleared, will call Triton Connect again to report the error. If this situation occurs, this may indicate that card reader needs to be serviced.*

*There is also a patch file that can be sent to the terminal to disable the 231 stuck card reporting to Triton Connect.*

### **561 software error followed a 196 card reader error**

561 Software errors was masking the true error that was an 196 (Card Reader error). This release checks for the 196 error before setting the 561 error.

### **Corrected 188/190 Error Reporting**

This version of software will correctly report a 188 (Communications Key Not Configured)/ 190 (Master Key Not Configured) error.

### **New Card Reader DLL (Corrects EMV Processing Error)**

This release corrects erroneous processing errors when using the Magtek card reader.

### **Permanent TCP Connection**

The socket for permanent connection would block from receiving data if the host did not respond to a request within the specified Timeout setting. Now the terminal will detect this condition and rebuild the socket when this occurs.

### **Space-filled phone numbers**

This release will no longer validate a space filled number for dialing. If this is encountered the number will not be attempted.

### **Reloading Paper**

This release does not require the terminal owner to go into diagnostics and reset the printer when reloading paper. If the terminal is configured to be in service with printer errors and an out of paper event occurs, the terminal will reset the printer automatically when paper is reloaded.

### **Changes to the Mapping of Response Codes to Error Messages**

This release clarifies the messages that are displayed to the customer when a decline response code is received from the host.

### **Invalid Magnetic Stripe Card**

When a magnetic stripe card with improperly formatted track 2 data caused previous software to hang and reboot. This has been corrected in this version.

## Extended Amounts

The extended amounts option has been moved to *Management => Terminal Configuration => Communication* dialog as the "Amount Type" option. This configuration consists of the following options:

- o Standard (No change from current software)
- o Extended Amounts (No change from current software)
- o Full Extended Amounts (Not currently supported in the UK release)

The screenshot shows a configuration dialog box titled "Main Menu/Terminal Configuration/Communication". It contains several fields and checkboxes:

- 1 Host IP Address: 127.0.0.1 (with an "Enter" button)
- 2 Host IP Port: 9967 (with a "Cancel" button)
- 3  Permanent TCP/IP Connection
- 4  Enable Communication Header (with a field labeled 5)
- 6  Use 12-Digit Sequence Number
- 7 **Amount Type** (circled)
- 8 Communication Protocol: TCP/IP (dropdown menu)
- 9 Communication Message Format: Triton Standard (dropdown menu)
- 0 Host Response Timeout: 120
- Reversal Communications section:
  - F1  Enable Persistent Reversals
  - F2 Reversal Attempts: 0
  - F3  Enable Reversals For Protocol Errors

## **New Features Added**

### ***Added Capability to Configure Users Passwords and Names from Triton Connect***

The terminal will now allow for remote changes to User Passwords and Names through Triton Connect. This change requires Triton Connect Version 4.3.8 or greater.

### ***Removed Sequence Numbers from Customer Receipts***

All customer receipts will no longer print sequence numbers.

### ***PAN Suppression in journal records***

The middle PAN digits are no longer stored in the Journal. These digits are changed to ‘=’ (0x3D) before being written to the journal files.

### ***Card Left in Reader Reversal***

When the motorized card reader is used and the customer has already accepted the LIS5 surcharge but does not remove the card, the terminal reverses the transaction with a reversal reason of 5 (Customer Cancellation: Customer decided not to continue after reviewing the transaction fee.). Link has requested this be changed to a more appropriate reversal reason. 11 is the new reason code value and it indicates that the Customer Cancelled the transaction; Customer did not remove their card.

### ***Journal Will Indicate if User Canceled Surcharge***

When a customer cancels a LIS5 surcharge, the journal indicates an approved transaction with no dispensed amount and a successful reversal. A new line on the end of a transaction record will indicate the reversal reason; example is Customer Cancelled the surcharge.

### ***Added Characters to On-Screen Keypad***

The £ and € characters are added to the On-Screen Keypad so users can enter these character in the configurable messages.

### ***Save EMV Parameters to External Storage***

Now when saving parameters and restoring parameters will include the EMV settings. Added new tsf file format to support this new feature.

### ***Intermediate Screen when Exiting Management***

When exiting management functions the terminal will now go to the Customer/Management selection screen. This will allow for re-entry into management functions before processing any calls to Triton Connect or the host.

## Added "Improper Shutdown" Journal Entry

A new journal record is added to the journal when the terminal detects an Improper Shutdown.

## Visa AIDs

Three new VISA AIDs were added to the terminal. They are as follows:

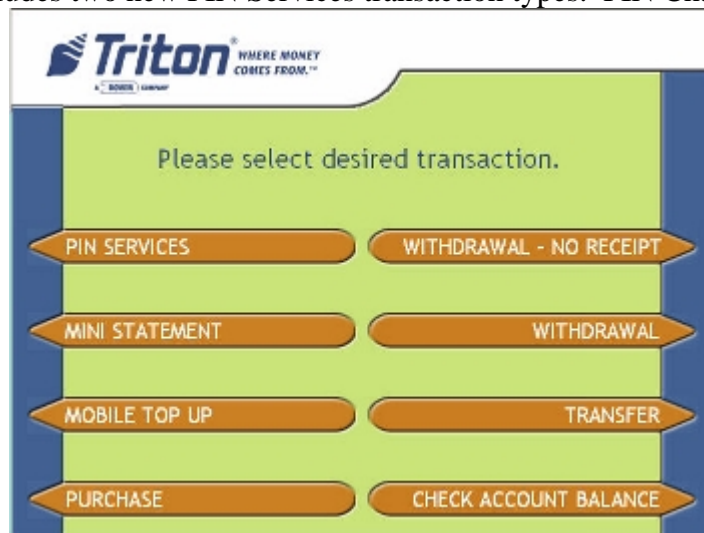
Visa Electron (AID: 0xA0000000032010)

Visa Interlink (AID: 0xA0000000033010)

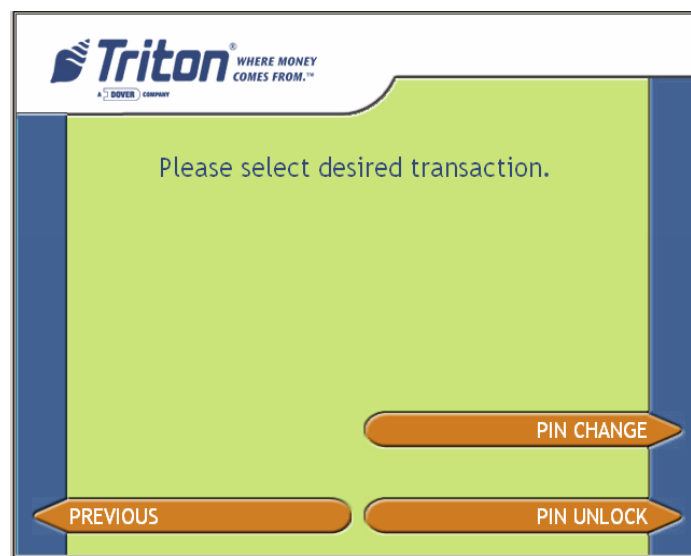
Visa Plus (AID: 0xA0000000038010)

## PIN Services Transaction Type

This release includes two new PIN Services transaction types. PIN Change and PIN Unblock.

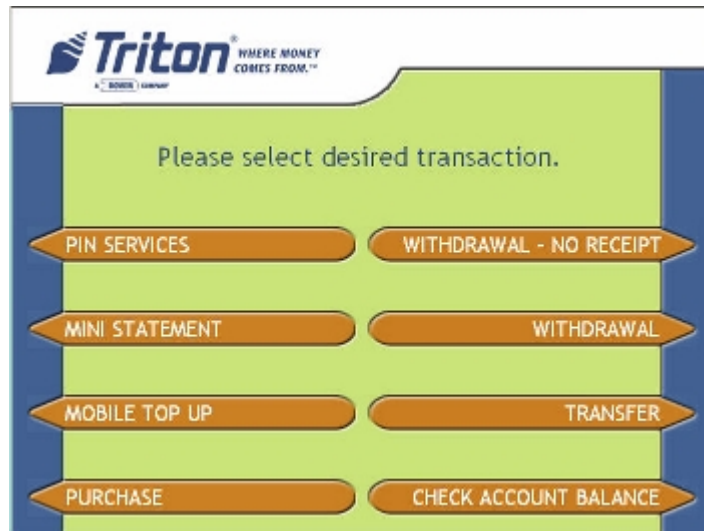


The following screen shot is of the PIN Services sub menu.



## Mini Statement Transaction Type

This release includes a new Mini Statement Transaction Type. This transaction type allows the customer to receive a personalized receipt indicating their selected account information. The following screen shot shows the changes to the transaction selection screen to add the Mini Statement transaction type.



The following receipt is an example of what can type of information that can result from a mini statement transaction.

```
Personal Checking
0001234567

Deposit Account Recap

Beginning Balance          -475.21
2 Deposits                 235.00
2 Withdrawals              15.75
Ending Balance             -255.96

Account Checks by Serial

Serial      Date      Amount
1566       Oct 9      15.00
1567       Oct 10     0.75

Deposits and Other Credits

Date      Amount      Description
Oct 1     100.00     Deposit
Oct 31    135.00     Deposit
```

## Configurable Local IP Port

This release gives access to the IP port value for outgoing traffic to a host. The following is a screen shot of the configuration of this new feature.

The screenshot shows a dialog box titled "Configure Ethernet Settings". It has a blue header bar. Below the header, there are six numbered items:

- 1 IP Address: [text box] [OK button]
- 2 Subnet Mask: [text box] [Cancel button]
- 3 Default Gateway: [text box]
- 4 Primary DNS: [text box]
- 5 Primary WINS: [text box]
- 6  Enable DHCP

Below these items is a section titled "Local Ports" with a rounded border. It contains two items:

- 7 Incoming: [text box]
- 8 Outgoing: [text box]

At the bottom right of the dialog are "OK" and "Cancel" buttons.

\*Management Functions for Configuring the Ethernet Settings

The following is the dialog box that is used to configure the Outgoing Port address.

The screenshot shows a dialog box titled "Outgoing Port". It has a blue header bar. The main area contains the following text:

Enter local IP port for outgoing connections.

Enter a value from 1 - 65535. Enter '0' for automatic port assignment.

Below the text is a text box containing the value "5000".

At the bottom right of the dialog are "OK" and "Cancel" buttons.

A setting of 0 allows the terminal to operate in a mode that is compatible with the 1.7.0.11 or prior releases. Any other values will force the out going port address to equal this setting.

## **Power Failure During Dispense**

Changes have been made to how the terminal logs a power failure that occurs during a dispense operation. Previous releases would log the transaction record with a dispensed amount of zero and no reversal. This has been changed to the following if a power failure occurs at this time:

- If an NMD50 dispenser is being used, go out of service with a 238 error. This error can only be cleared by entering management functions and issuing a purge (Diagnostics->Dispenser->Purge). This error cannot be cleared from Triton Connect. *Note: in certain cases depending on if and where a bill was stuck in the feed path when power was lost, an error could be returned from the initial purge operation (i.e., Note qualifier error). In this case a second purge may be necessary to clear that error.*
- The dispense status code on the journal record will be 238 (power failure during dispense).
- The transaction journal record will log the full requested amount in “Amount Dispensed” field of the journal.
- A journal entry will be logged following the transaction record that an unknown dispense occurred. No reversal will be done.

Note that depending on if a bill was stuck in the feed path and where the bill is located when the power was lost, the initial purge issued in Management Functions could return an error from the dispenser.

## **Add support for SP-06 EPP**

The SP-06 EPP is a Visa certified EPP and requires 2 users to enter passwords to enter a sensitive state in which master keys can be configured. The changes from a user interface perspective are outlined below.

First, the “Key Management” screen has changed slightly to add a sub-dialog for entering master keys. This change will be visible for either the older SP-05 EPP or the new SP-06 EPP.

Main Menu/Key Management

Select an option by pressing the appropriate number on the keypad.  
Press CANCEL to return to previous menu.

1

Enter Master Keys

2

Download Working Keys

3

Check Digits

4

5

6

7

8

9

0

Help

Exit Management Functions

RLTCP  
12/27/2005 02:48 PM  
Prog Version: 1.6.1  
Screen File: XVAS0033

Current Terminal Error: 0  
No Errors

*Upon selecting “Enter Master Keys” (option 1) and SP-06 EPP is being used, the users will be required to enter the 2 passwords. Note that these are not the same as the passwords used to enter management functions. The default password for both users is “000000” (six zeros).*

User 1 Password

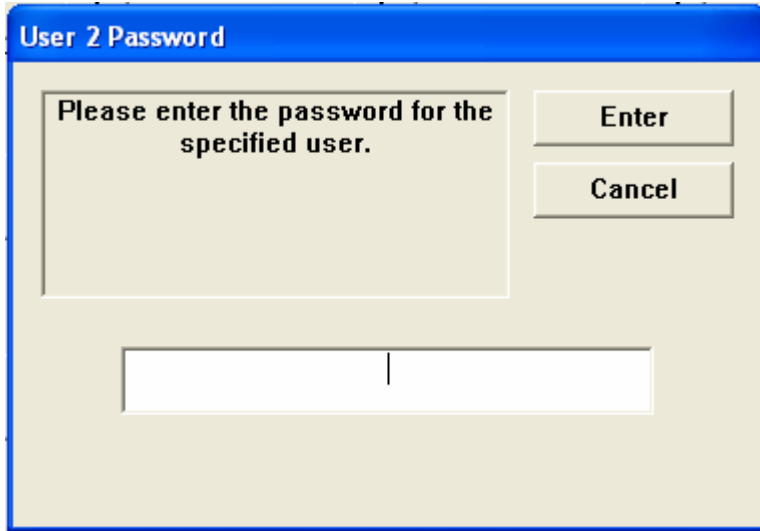
Please enter the password for the specified user.

Enter

Cancel

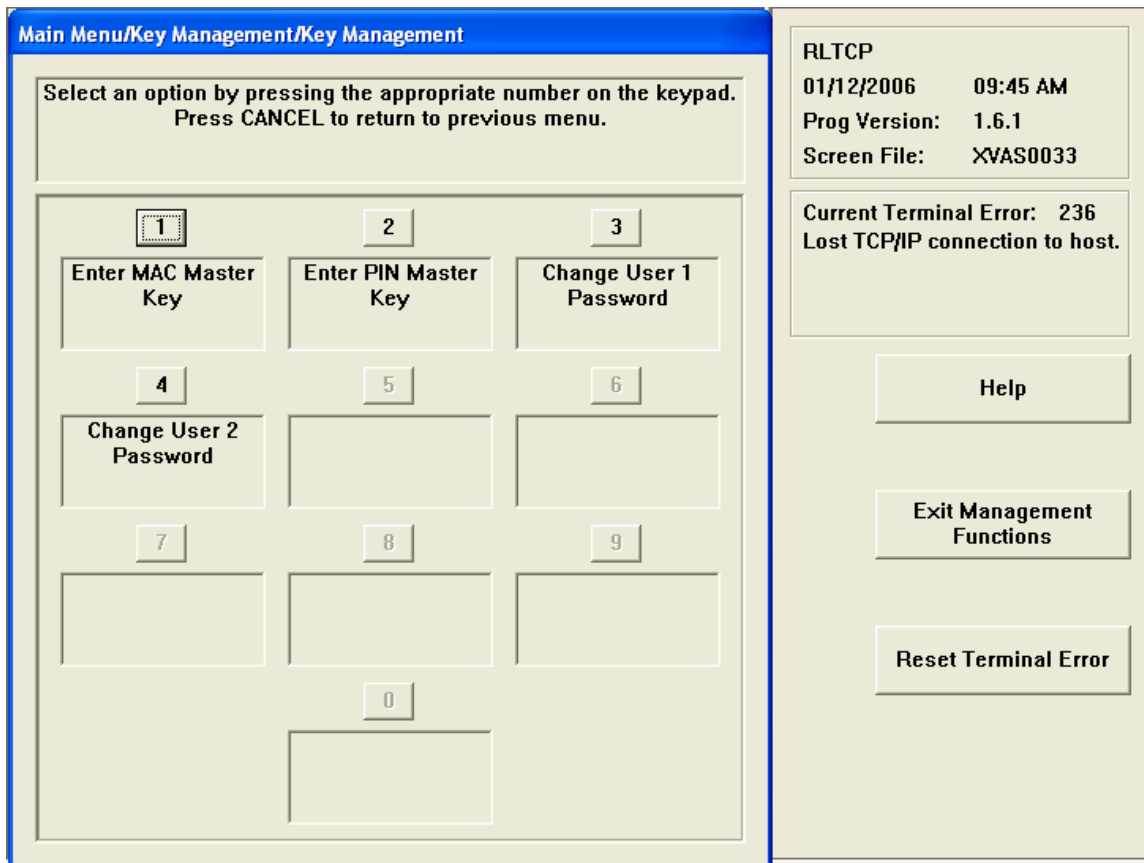


*Upon successful entry of the first password, the second user password must be entered:*



The image shows a dialog box titled "User 2 Password" with a blue header. Inside the dialog, there is a text area containing the instruction "Please enter the password for the specified user." To the right of this text area are two buttons: "Enter" and "Cancel". Below the text area is a single-line text input field.

*Upon successful entry of both passwords, the user will be presented with a screen to enter keys and change passwords. Note that if the passwords have not been changed from the default values, options 1 and 2 will not be available. Both passwords must be changed from the default before master key entry will be allowed.*



The image shows a main menu screen titled "Main Menu/Key Management/Key Management" with a blue header. The screen contains a grid of options for key management, each with a number in a small box above it. The options are:

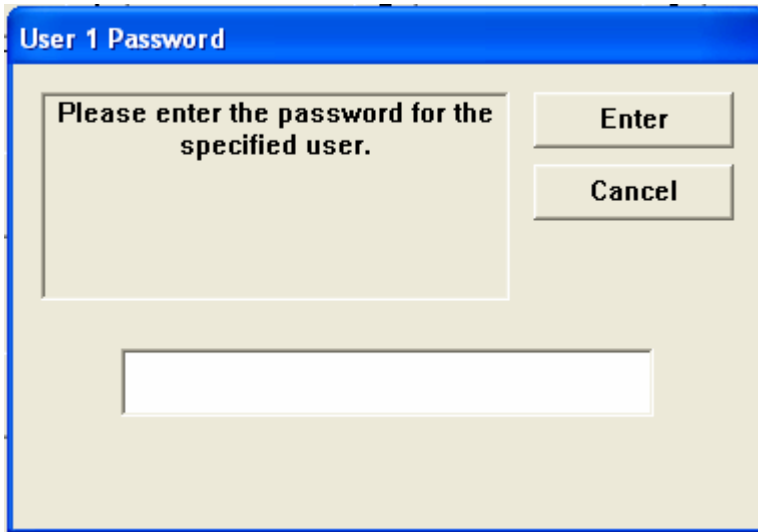
- 1: Enter MAC Master Key
- 2: Enter PIN Master Key
- 3: Change User 1 Password
- 4: Change User 2 Password
- 5: (Empty)
- 6: (Empty)
- 7: (Empty)
- 8: (Empty)
- 9: (Empty)
- 0: (Empty)

At the top of the grid, there is a text box that says: "Select an option by pressing the appropriate number on the keypad. Press CANCEL to return to previous menu." To the right of the main menu is a sidebar containing system information and error messages:

- RLTCP
- 01/12/2006 09:45 AM
- Prog Version: 1.6.1
- Screen File: XVAS0033
- Current Terminal Error: 236
- Lost TCP/IP connection to host.

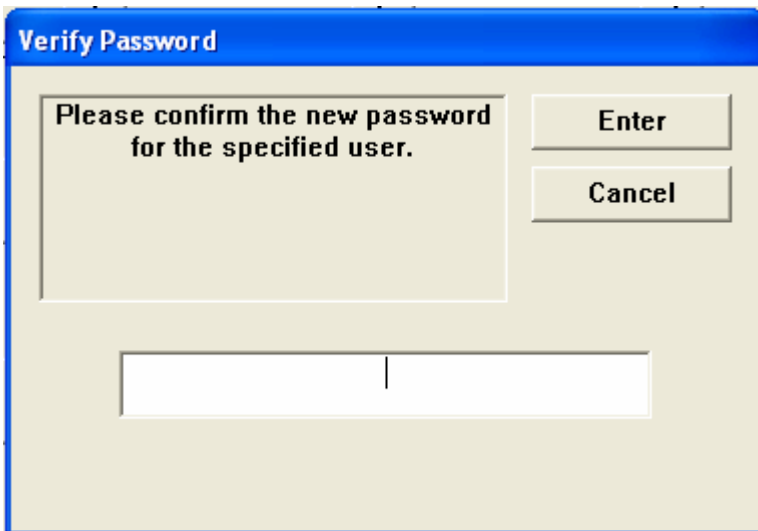
Below the error messages are three buttons: "Help", "Exit Management Functions", and "Reset Terminal Error".

*Pressing option 3 or 4 to change a password will display a dialog similar to the following:*



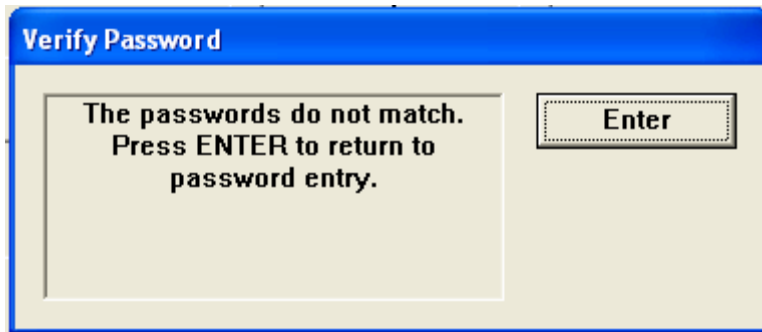
The dialog box has a blue title bar with the text "User 1 Password". The main area is light beige. On the left, a text box contains the instruction "Please enter the password for the specified user." To the right of this text box are two buttons: "Enter" and "Cancel". Below the text box is a large, empty rectangular input field.

The default password for both users is "000000" and must be changed to something other than that before enabling master key entry. The user must also verify the new password anytime it is being changed:



The dialog box has a blue title bar with the text "Verify Password". The main area is light beige. On the left, a text box contains the instruction "Please confirm the new password for the specified user." To the right of this text box are two buttons: "Enter" and "Cancel". Below the text box is a large, empty rectangular input field.

If the passwords entered do not match, the following dialog will be presented and the user must re-enter the initial password.



Upon successful entry of both passwords, the user will be able to enter master keys in the same manner as older EPPs.

***SP-06: Don't allow PIN entry if key held down***

One of the changes to SP-06 Visa EPP is to not allow PIN entry mode if a key is being held down on the keypad. If the customer dips a card and then proceeds to the PIN entry screen while a key on the keypad is being depressed, a "Please Wait" screen will be displayed. Once all keys have been released, flow will continue to the PIN entry screen. If a key is held down for 10 seconds then the transaction will cancel and return to the Welcome screen.

## Changes to the Communication Specification

The following changes have been made to Triton Standard Communications (Version TSCD5.26) in order to support the new functionality of this release:

Misc FID 'uj':

Host Receipt – 2 ASCII numbers followed by a variable amount of ASCII data to be displayed exactly as formatted by the host. T<sub>1</sub> T<sub>2</sub> (T<sub>3</sub>)

2 Numeric (T<sub>1</sub> T<sub>2</sub>) – 2 ASCII numbers representing the character set selection. Currently '00' will always be sent indicating the default character set should be used.

Variable Length ASCII (T<sub>3</sub>) – Formatted ASCII text that will be printed exactly as it is sent from the host.

Misc FID 'uk':

Printer Capabilities- 10 ASCII numbers representing the current configuration of the terminal printer. T<sub>1</sub> T<sub>2</sub> T<sub>3</sub> T<sub>4</sub> T<sub>5</sub> T<sub>6</sub> T<sub>7</sub> T<sub>8</sub> T<sub>9</sub> T<sub>10</sub>

1 Numeric (T<sub>1</sub>) – Represents the current printer mode '1' – Graphic '2' – Text.

3 Numeric (T<sub>2</sub> T<sub>3</sub> T<sub>4</sub>) – This field is reserved for future use, but it will initially contain '000'.

2 Numeric (T<sub>5</sub> T<sub>6</sub>) – The maximum number of characters per line.

2 Numeric (T<sub>7</sub> T<sub>8</sub>) – The maximum number of lines per statement.

2 Numeric (T<sub>9</sub> T<sub>10</sub>) – The default character set that is used by the system. '00' will be sent indicating the system default. Future enhancements may specify other character sets.

**Note: The 'uk' FID will always be sent from the terminal in a configuration download request.**

Misc FID 'ux':

The following new FID will be utilized (as described in the *Triton Terminal Communications Protocol and message Format Specification*) to extend the settlement amount present in the Host Totals Download Request Message:

When present in the Miscellaneous field of the Host Totals Download Request message, the value accompanying this FID overrides the value in the Settlement field of the message. As a result, the value in the 12-digit Settlement field is rendered inconsequential; it should be filled with spaces.

The basic format for using this hyper-extended settlement FID is as follows:

ux000000123456789

The FID 'ux' is followed by 15 ASCII digits and it is zero filled to the left. The fifteen digits, '000000123456789', represent 123,456,789 units of a particular currency. The units always represent the smallest unit of the currency involved.

Misc FID 'ul':

The following new FID will be utilized (as described in the *Triton Terminal Communications Protocol and message Format Specification*) to hyperextend the actual dispensed amount present in the Reversal Request Message:

When present in a miscellaneous field of the Reversal Request Message, the value accompanying this FID overrides the value in the Amount 3 field of the message. As a result, the value in the 8-digit Amount 3 field is rendered inconsequential; it should be filled with spaces.

The basic format for using this hyper-extended amount FID is as follows:

```
ul000123456789
```

The FID 'ul' is followed by 12 ASCII digits and it is zero filled to the left. The sixteen digits, '000123456789', represent 123,456,789 units of a particular currency. The units always represent the smallest unit of the currency involved.

## Default Parameters

### **VISA AIDs**

All VISA AIDs will be defaulted to disabled. These AIDs must be enabled through Management functions or Triton Connect.

### **PIN Services and Mini Statement**

PIN Services and Mini Statement transactions will be disabled by default when loading either the full or update load files in this release.

## Known Issues

The following are known issues in this software release:

- When printing a close report from the rear service panel, the amount values will wrap to the next line. Note that there is no loss of data.

## Revision History

Date	Version	Description of Change
January 8, 2007	1.0	Initial Release
March 1, 2007	1.1	Added known issues section Updated "Extended Amounts" section Added notes to "231 Warning" section

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# Software Release Notes

## US

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Affected products  
RL5000, RT2000, and FT5000

January 10, 2007

Version 1.0

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## **Introduction**

This maintenance release is targeted for the United States Market. This document describes the changes from version 1.7.0.

## **Platforms Affected**

This release is for the following XScale families:

- RL5000
- RT2000
- FT5000

## **Hardware Requirements**

- 10.4" Display, 5.7" Display, or 6.5" Display

## **Software Requirements**

The following load files are included with this release:

- xd00xvas1.8.3.tlf – Live US for 10.4" display
- xd00qvas1.8.3.tlf – Live US for 5.7" Mono display
- xd00vvas1.8.3.tlf – Live US for 6.5" display
- xu00xvas1.8.3.tlf – Update file for 10.4" display
- xu00qvas1.8.3.tlf – Update file for 5.7" Mono display
- xu00vvas1.8.3.tlf – Update file for 6.5" display

## **External Dependencies**

The following feature require Triton Connect Version 4.3.8 or greater:

- User Configuration

## Description of Changes

### ***TDM-1XX Mechanisms Configurations are reporting as TDM-2XX***

This release corrects the problem of newer TDM firmware that responds to both command protocols of the TDM product line. These command protocols affects the way that cassettes are managed and error codes that are reported. This release will test for a single cassette TDM before testing for a TDM multi-cassette mechanism. **With this and future versions software, when installing an update file over any prior software release on a terminal with a TDM100 or TDM150 dispenser, the cassette multiple amount may need to be reconfigured before the terminal will go into service \*\*.**

**\*\* Note - that in this situation, if an update file is loaded from Triton Connect, the machine can only be put into service by configuring the cassette multiple amount in Management Functions at the terminal. Subsequent update loads will not require this step.**

### ***Recording NAKs from the Dispenser***

When the dispenser sends a NAK(0x15) during a dispense the terminal will record this in the journal as an 130 not an 371.

### ***Lost EOT errors***

The dispenser protocol ends with an EOT (0x04) being sent to the terminal from the dispenser. The terminal will no longer report an error when this character is not received.

### ***TDM Click Count History Report***

This release corrects the reporting of the click count history report by correctly indexing all of the click counts from the dispenser, which is available in the diagnostic menu of the terminal. Also, this release corrected the retrieval of the Sequence numbers of the click count history report.

### ***Removed the Learn from the Reset Dispenser***

This release removes the relearn command from the Reset Dispenser option in the diagnostic menu.

### ***Uses Generic Reference for all TDM Dispensers***

All terminals that are equipped with TDM's will now either see "TDM Single Cassette" or "TDM Multi-Cassette" as the dispenser type. If the dispenser only has one feed channel the terminal will report it as a "TDM Single Cassette". If the dispenser has more than one feed channel the terminal will report the dispenser as a "TDM Multi-Cassette".

### ***Journal Record Dispense Status Records the Full Value***

This release correctly stores the Dispense Status in the journal record. This release no longer subtracts 300 from the journal status before writing the value to the journal. The full value is

stored. Older versions of Triton Connect will display the dispense status of 255 for these records that have been created using this new method. A new version of Triton Connect (version 4.3.8 or greater) will be released to correct this issue. Also, the correct dispense status is stored in a text record following the transaction record where the issue occurred.

### ***Enhanced reporting and clearing a 231 (Stuck Card Warning)***

231 is a warning code that is issued from the terminal that indicates that a customer has left their card in the terminal. This release will sample the card reader for a timeout period before setting this warning condition. Once the card is removed this warning condition will be cleared.

### ***Corrected 188/190 Error Reporting***

This version of software will correctly report a 188 (Communications Key Not Configured)/ 190 (Master Key Not Configured) error.

### ***Permanent TCP Connection***

The socket for permanent connection would block from receiving data if the host did not respond to a request within the specified Timeout setting. Now the terminal will detect this condition and rebuild the socket when this occurs.

### ***Space-filled phone numbers***

This release will no longer validate a space filled number for dialing. If this is encountered the number will not be attempted.

### ***Reloading Paper***

This release does not require the terminal owner to go into diagnostics and reset the printer when reloading paper. If the terminal is configured to be in service with printer errors and an out of paper event occurs, the terminal will reset the printer automatically when paper is reloaded.

### ***MAC Calculations***

This release will reattempt MAC calculations up to 3 times if communications fail between the SPED and the terminal.

### ***Error codes 382 (All Cassettes Disabled) With TDM***

This release corrects an issue with an uninitialized variable that upon system start up disabled cassettes.

## **New Features Added**

### ***Added Capability to Configure Users Passwords and Names from Triton Connect***

The terminal will now allow for remote changes to User Passwords and Names through Triton Connect. This change requires Triton Connect Version 4.3.8 or greater.

### ***PAN Suppression in journal records***

The middle PAN digits are no longer stored in the Journal. These digits are changed to '=' (0x3D) before being written to the journal files.

### ***Intermediate Screen when Exiting Management***

When exiting management functions the terminal will now go to the Customer/Management selection screen. This will allow for re-entry into management functions before processing any calls to Triton Connect or the host.

### ***Added "Improper Shutdown" Journal Entry***

A new journal record is added to the journal when the terminal detects an Improper Shutdown.

### ***Full Extended Amounts\*\****

\* NOTE – The customer withdrawals are limited to 8 digits in this release.

A new feature has been added to this release to enable displaying and processing currency values with a large number of digits. Previously, currency values have been limited to 8 digits (including the decimal portion). To enable this feature, select the "Amount Type" button on the Communication Configuration dialog:

**Main Menu/Terminal Configuration/Communication**

1 Host IP Address 127.0.0.1 Enter

2 Host IP Port 9967 Cancel

3  Permanent TCP/IP Connection

4  Enable Communication Header 5

6  Use 12-Digit Sequence Number

7 Amount Type

8 Communication Protocol TCP/IP

9 Communication Message Format Triton Standard

0 Host Response Timeout 120

**Reversal Communications**

F1  Enable Persistent Reversals

F2 Reversal Attempts 0

F3  Enable Reversals For Protocol Errors

The “Amount Type” consists of the following options:

- o Standard (No change from current software)
- o Extended Amounts (No change from current software)
- o Full Extended Amounts (New to this release)

The following table represents the number of digits (including decimal portion) that can be used for each specific value for each of the specified amount types:

<b>Value</b>	<b>Standard</b>	<b>Extended</b>	<b>Full Extended</b>
Withdrawal Amount	8	8	12
Account Balance	8	12	12
Transfer Amount	8	12	12
Cassette Item Amount	5	5	8
Surcharge Amount	8	8	8
Settlement Amount	12	12	15

### **Changing Default Passwords**

A new ERROR code (246) has been created for when the terminal's Master Password is in its default state. The terminal will detect this condition and go out of service. On the out of service screen no error information will be displayed. The following is a screen capture of this state.



This error code will not clear until the Master Password is changed from its default state.

### **Configurable Local IP Port**

This release gives access to the IP port value for outgoing traffic to a host. The following is a screen shot of the configuration of this new feature.

**Configure Ethernet Settings**

1 IP Address:

2 Subnet Mask:

3 Default Gateway:

4 Primary DNS:

5 Primary WINS:

6  Enable DHCP

**Local Ports**

7 Incoming:

8 Outgoing:

\*Management Functions for Configuring the Ethernet Settings

The following is the dialog box that is used to configure the Outgoing Port address.

**Outgoing Port**

Enter local IP port for outgoing connections.

Enter a value from 1 - 65535. Enter '0' for automatic port assignment.

A setting of 0 allows the terminal to operate in a mode that is compatible with the 1.7.0.11 or prior releases. Any other values will force the out going port address to equal this setting.

### ***Power Failure During Dispense***

Changes have been made to how the terminal logs a power failure that occurs during a dispense operation. Previous releases would log the transaction record with a dispensed amount of zero and no reversal. This has been changed to the following if a power failure occurs at this time:

- If an NMD50 dispenser is being used, go out of service with a 238 error. This error can only be cleared by entering management functions and issuing a purge (Diagnostics->Dispenser->Purge). This error cannot be cleared from Triton Connect. *Note: in certain cases depending on if and where a bill was stuck in the feed path when power was lost, an error could be returned from the initial purge operation (i.e., Note qualifier error). In this case a second purge may be necessary to clear that error.*
- The dispense status code on the journal record will be 238 (power failure during dispense).
- The transaction journal record will log the full requested amount in “Amount Dispensed” field of the journal.
- A journal entry will be logged following the transaction record that an unknown dispense occurred. No reversal will be done.

Note that depending on if a bill was stuck in the feed path and where the bill is located when the power was lost, the initial purge issued in Management Functions could return an error from the dispenser.

### ***Add support for SP-06 EPP***

The SP-06 EPP is a Visa certified EPP and requires 2 users to enter passwords to enter a sensitive state in which master keys can be configured. The changes from a user interface perspective are outlined below.

First, the “Key Management” screen has changed slightly to add a sub-dialog for entering master keys. This change will be visible for either the older SP-05 EPP or the new SP-06 EPP.



Main Menu/Key Management

Select an option by pressing the appropriate number on the keypad.  
Press CANCEL to return to previous menu.

1

Enter Master Keys

2

Download Working Keys

3

Check Digits

4

5

6

7

8

9

0

Help

Exit Management Functions

RLTCP  
12/27/2005 02:48 PM  
Prog Version: 1.6.1  
Screen File: XVAS0033

Current Terminal Error: 0  
No Errors

*Upon selecting “Enter Master Keys” (option 1) and SP-06 EPP is being used, the users will be required to enter the 2 passwords. Note that these are not the same as the passwords used to enter management functions. The default password for both users is “000000” (six zeros).*

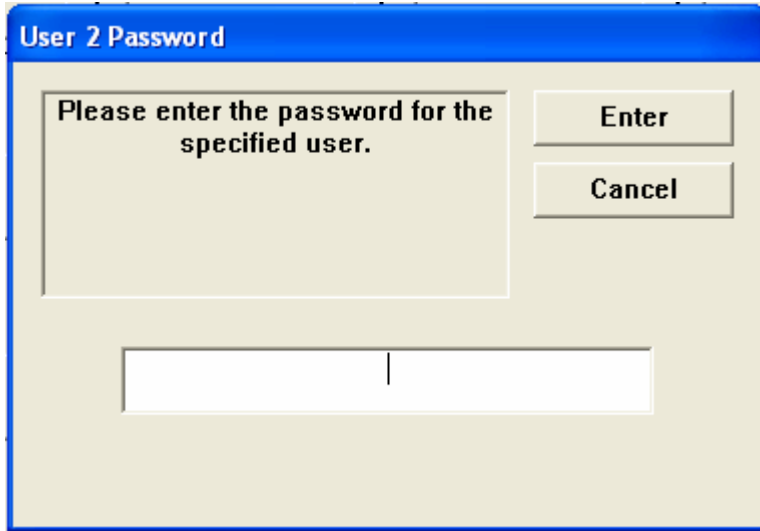
User 1 Password

Please enter the password for the specified user.

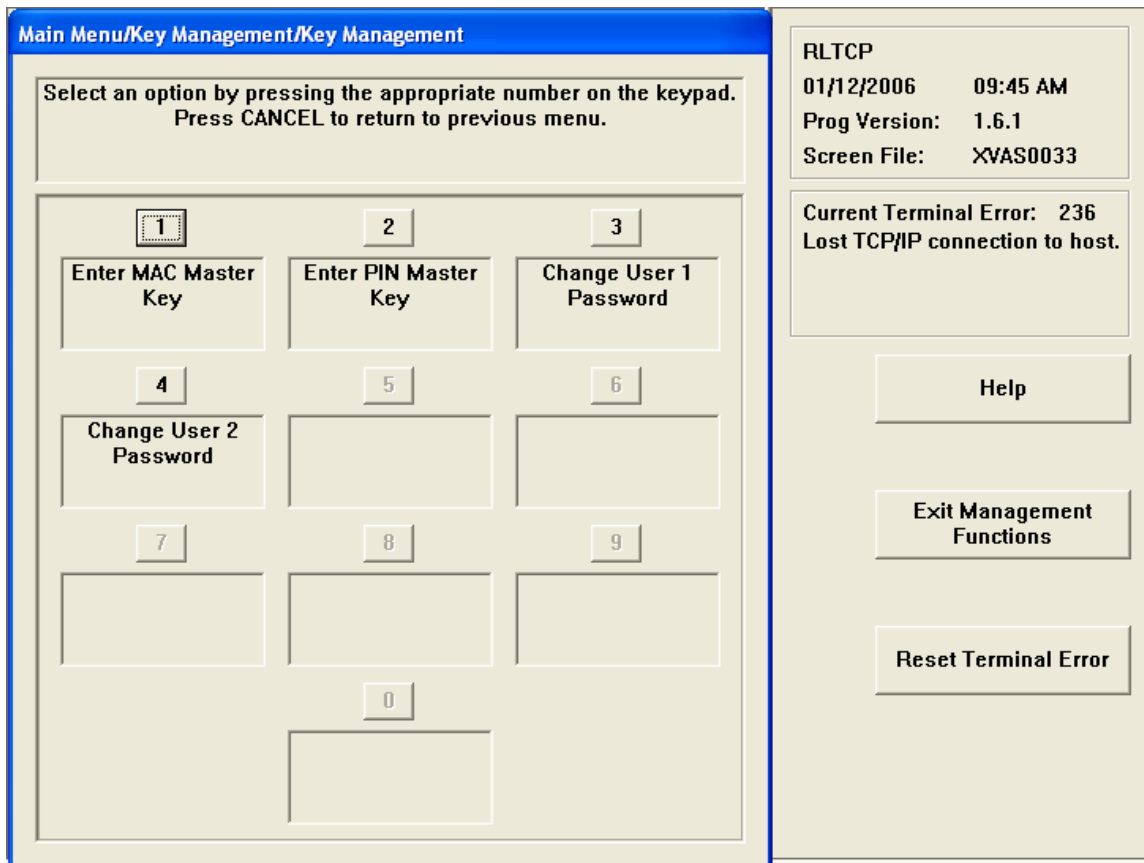
Enter

Cancel

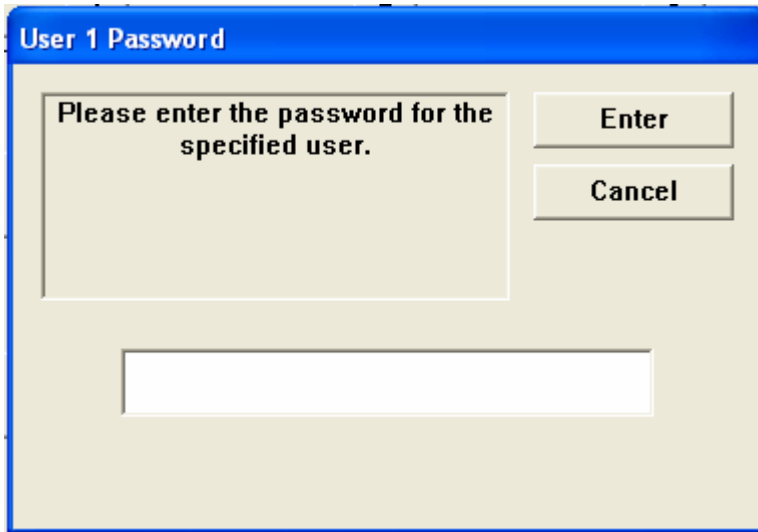
*Upon successful entry of the first password, the second user password must be entered:*



*Upon successful entry of both passwords, the user will be presented with a screen to enter keys and change passwords. Note that if the passwords have not been changed from the default values, options 1 and 2 will not be available. Both passwords must be changed from the default before master key entry will be allowed.*

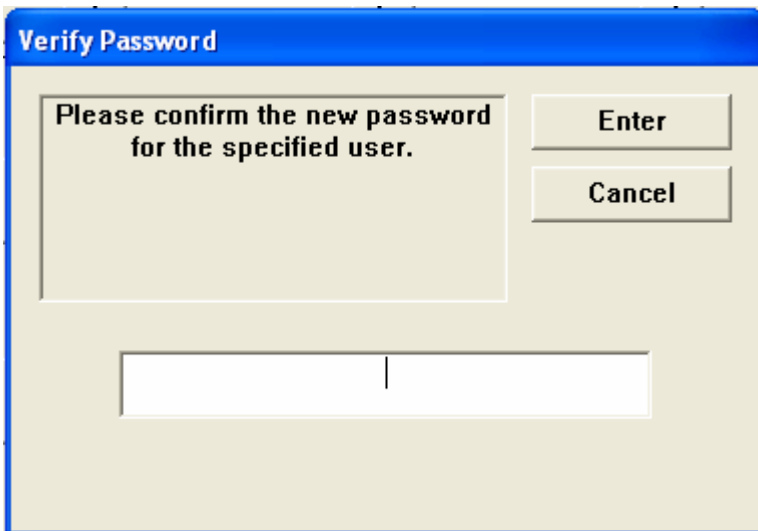


*Pressing option 3 or 4 to change a password will display a dialog similar to the following:*



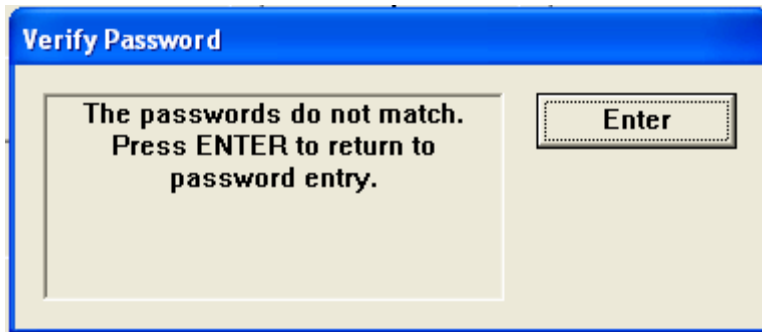
The dialog box has a blue title bar with the text "User 1 Password". The main area is light beige. On the left, a text box contains the instruction "Please enter the password for the specified user." To the right of this text box are two buttons: "Enter" and "Cancel". Below the text box is a large, empty rectangular input field.

The default password for both users is "000000" and must be changed to something other than that before enabling master key entry. The user must also verify the new password anytime it is being changed:



The dialog box has a blue title bar with the text "Verify Password". The main area is light beige. On the left, a text box contains the instruction "Please confirm the new password for the specified user." To the right of this text box are two buttons: "Enter" and "Cancel". Below the text box is a large, empty rectangular input field.

If the passwords entered do not match, the following dialog will be presented and the user must re-enter the initial password.



Upon successful entry of both passwords, the user will be able to enter master keys in the same manner as older EPPs.

### ***SP-06: Don't allow PIN entry if key held down***

One of the changes to SP-06 Visa EPP is to not allow PIN entry mode if a key is being held down on the keypad. If the customer dips a card and then proceeds to the PIN entry screen while a key on the keypad is being depressed, a "Please Wait" screen will be displayed. Once all keys have been released, flow will continue to the PIN entry screen. If a key is held down for 10 seconds then the transaction will cancel and return to the Welcome screen.

## Changes to the Communication Specification

The following changes have been made to Triton Standard Communications (Version TSCD5.26) in order to support the new functionality of this release:

Misc FID 'ux':

The following new FID will be utilized (as described in the *Triton Terminal Communications Protocol and message Format Specification*) to extend the settlement amount present in the Host Totals Download Request Message:

When present in the Miscellaneous field of the Host Totals Download Request message, the value accompanying this FID overrides the value in the Settlement field of the message. As a result, the value in the 12-digit Settlement field is rendered inconsequential; it should be filled with spaces.

The basic format for using this hyper-extended settlement FID is as follows:

```
ux000000123456789
```

The FID 'ux' is followed by 15 ASCII digits and it is zero filled to the left. The fifteen digits, '000000123456789', represent 123,456,789 units of a particular currency. The units always represent the smallest unit of the currency involved.

Misc FID 'ul':

The following new FID will be utilized (as described in the *Triton Terminal Communications Protocol and message Format Specification*) to hyperextend the actual dispensed amount present in the Reversal Request Message:

When present in a miscellaneous field of the Reversal Request Message, the value accompanying this FID overrides the value in the Amount 3 field of the message. As a result, the value in the 8-digit Amount 3 field is rendered inconsequential; it should be filled with spaces.

The basic format for using this hyper-extended amount FID is as follows:

```
ul000123456789
```

The FID 'ul' is followed by 12 ASCII digits and it is zero filled to the left. The sixteen digits, '000123456789', represent 123,456,789 units of a particular currency. The units always represent the smallest unit of the currency involved.

## Revision History

Date	Version	Description of Change
12/11/2006	1.0	Initial Release

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# Software Release Notes

## 1.8.4 International

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Affected products  
RL5000, RT2000, and FT5000

March 19, 2007

Version 1.1

**Triton Systems of Delaware, Inc.**  
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## **Introduction**

This document describes the changes to the RL5000, FT5000, and RT2000 1.8.4 software version for International use. Only changes from 1.8.1 International are listed.

## **Platforms Affected**

This release is for the following XScale families:

- RL5000
- RT2000
- FT5000

## **Hardware Requirements**

- 10.4" Display
- SP-05 or SP-06 EPP

## **Software Requirements**

The following load files are included with this release:

- xd04xint1.8.4.tlf – Full load for 10.4" display
- xu04xint1.8.4.tlf – Update load for 10.4" display

## **External Dependencies**

The following feature require Triton Connect Version 4.3.8 or greater:

- User Configuration

## Description of Changes

### **Changing Default Passwords**

A new ERROR code (246) has been created for when the terminal's Master Password is in its default state. The terminal will detect this condition and go out of service. On the out of service screen no error information will be displayed. The following is a screen capture of this state.



This error code will not clear until the Master Password is changed from its default state.

***\*\* Note - Installing this version of software remotely using Triton Connect will cause the terminal to go out of service if you have not changed the default password. This password can only be changed remotely with Triton Connect version 4.3.8 or later.***

## ***PIN Change and Mini Statement Selected by BIN***

The PIN Change and Mini Statement transaction types can now be selected by specific BINs in the ISO BIN table. The BINs to allow or not allow these transactions are configured in Management Functions in the ISO/Surcharge Properties configuration dialog (*Management => Terminal Configuration => ISO/Surcharge Properties*).

The ISO properties dialog now includes an ISO action named '**Screen Action**'. When this action is selected, a drop down list will be displayed in the '**Value**' area. For the International screen file, this list will include the following options:

- Allow PIN Change
- Allow Mini Statement
- Block PIN Change
- Block Mini Statement

These values can be used along with the corresponding *Optional Screens* settings to control the display of the PIN Change and Mini Statement transactions. The general approach is to set a default behavior for a transaction type (by enabling or disabling in the *Optional Screens* dialog), then configure a set of BINs that will allow the opposite behavior.

For example, to restrict the availability of the PIN Change transaction type to a set of BINs, first use the *Optional Screens* dialog to turn the PIN Change transaction type OFF. Next, use the *ISO Properties* dialog to add a list of BINs with the "Allow PIN Change" value. With this configuration the terminal will restrict the display of the PIN Change transaction type to the BIN list.

Alternatively, if you wish to block PIN Change for a set of BINs, use the *Optional Screens* dialog to turn the PIN Change transaction type ON, then use the *ISO Properties* dialog to add a list of BINs with the "Block PIN Change" value. With this configuration the terminal will NOT display the PIN Change transaction type for the BIN list.

A similar approach can be applied to the Mini Statement transaction type.

*Note: Previously, the existing ISO property called **Block Transaction Type** was used to control the availability of the PIN Change transaction type. However, because the new method (as described above)) provides additional flexibility, the **Block Transaction Type** action will no longer be used and will not be supported in the International screen file.*

## ***TDM-1XX Mechanisms Configurations are reporting as TDM-2XX***

This release corrects the problem of newer TDM firmware that responds to both command protocols of the TDM product line. These command protocols affects the way that cassettes are managed and error codes that are reported. This release will test for a single cassette TDM before testing for a TDM multi-cassette mechanism. **With this and future versions software, when installing an update file over any prior software release on a terminal with a**

**TDM100 or TDM150 dispenser, the cassette multiple amount may need to be reconfigured before the terminal will go into service \*\*.**

**\*\* Note - that in this situation, if an update file is loaded from Triton Connect, the machine can only be put into service by configuring the cassette multiple amount in Management Functions at the terminal. Subsequent update loads will not require this step.**

### ***Recording NAKs from the Dispenser***

When the dispenser sends a NAK(0x15) during a dispense the terminal will record this in the journal as an 130 not an 371.

### ***Lost EOT errors***

The dispenser protocol ends with an EOT (0x04) being sent to the terminal from the dispenser. The terminal will no longer report an error when this character is not received.

### ***TDM Click Count History Report***

This release corrects the reporting of the click count history report by correctly indexing all of the click counts from the dispenser, which is available in the diagnostic menu of the terminal. Also, this release corrected the retrieval of the Sequence numbers of the click count history report.

### ***Removed the Learn from the Reset Dispenser***

This release removes the relearn command from the Reset Dispenser option in the diagnostic menu.

### ***Uses Generic Reference for all TDM Dispensers***

All terminals that are equipped with TDM's will now either see "TDM Single Cassette" or "TDM Multi-Cassette" as the dispenser type. If the dispenser only has one feed channel the terminal will report it as a "TDM Single Cassette". If the dispenser has more than one feed channel the terminal will report the dispenser as a "TDM Multi-Cassette".

### ***Journal Record Dispense Status Records the Full Value***

This release correctly stores the Dispense Status in the journal record. This release no longer subtracts 300 from the journal status before writing the value to the journal. The full value is stored. Older versions of Triton Connect will display the dispense status of 255 for these records that have been created using this new method. A new version of Triton Connect (version 4.3.8 or greater) will be released to correct this issue. Also, the correct dispense status is stored in a text record following the transaction record where the issue occurred.

### ***Reporting and clearing a 231 (Stuck Card Warning)***

This release has changed the method in which a terminal will call Triton Connect to report a 231 error (card left in reader). The 231 will be sent to Triton Connect if the rear sensor on the card reader is blocked for an extended period of time (roughly 3 minutes). Once the card is removed this warning condition will be cleared. This error applies to dip card readers only.

*Note: If the rear sensor of the card reader is covered by something other than a card, the terminal will still allow customer transactions. Once a transaction is complete the ATM may call Triton Connect to clear the error. The terminal will then resume checking the sensor, and if the obstruction has not been cleared, will call Triton Connect again to report the error. If this situation occurs, this may indicate that card reader needs to be serviced.*

*There is also a patch file that can be sent to the terminal to disable the 231 stuck card reporting to Triton Connect.*

### **Corrected 188/190 Error Reporting**

This version of software will correctly report a 188 (Communications Key Not Configured)/ 190 (Master Key Not Configured) error.

### **Permanent TCP Connection**

The socket for permanent connection would block from receiving data if the host did not respond to a request within the specified Timeout setting. Now the terminal will detect this condition and rebuild the socket when this occurs.

### **Space-filled phone numbers**

This release will no longer validate a space filled number for dialing. If this is encountered the number will not be attempted.

### **Reloading Paper**

This release does not require the terminal owner to go into diagnostics and reset the printer when reloading paper. If the terminal is configured to be in service with printer errors and an out of paper event occurs, the terminal will reset the printer automatically when paper is reloaded.

### **MAC Calculations**

This release will reattempt MAC calculations up to 3 times if communications fail between the SPED and the terminal.

### **Error codes 382 (All Cassettes Disabled) With TDM**

This release corrects an issue with an uninitialized variable that upon system start up disabled cassettes.

## **New Features Added**

### **Added Capability to Configure Users Passwords and Names from Triton Connect**

The terminal will now allow for remote changes to User Passwords and Names through Triton Connect. This change requires Triton Connect Version 4.3.8 or greater.

## **PAN Suppression in journal records**

The middle PAN digits are no longer stored in the Journal. These digits are changed to ‘=’ (0x3D) before being written to the journal files.

## **Intermediate Screen when Exiting Management**

When exiting management functions the terminal will now go to the Customer/Management selection screen. This will allow for re-entry into management functions before processing any calls to Triton Connect or the host.

## **Added "Improper Shutdown" Journal Entry**

A new journal record is added to the journal when the terminal detects an Improper Shutdown.

## **Power Failure During Dispense**

Changes have been made to how the terminal logs a power failure that occurs during a dispense operation. Previous releases would log the transaction record with a dispensed amount of zero and no reversal. This has been changed to the following if a power failure occurs at this time:

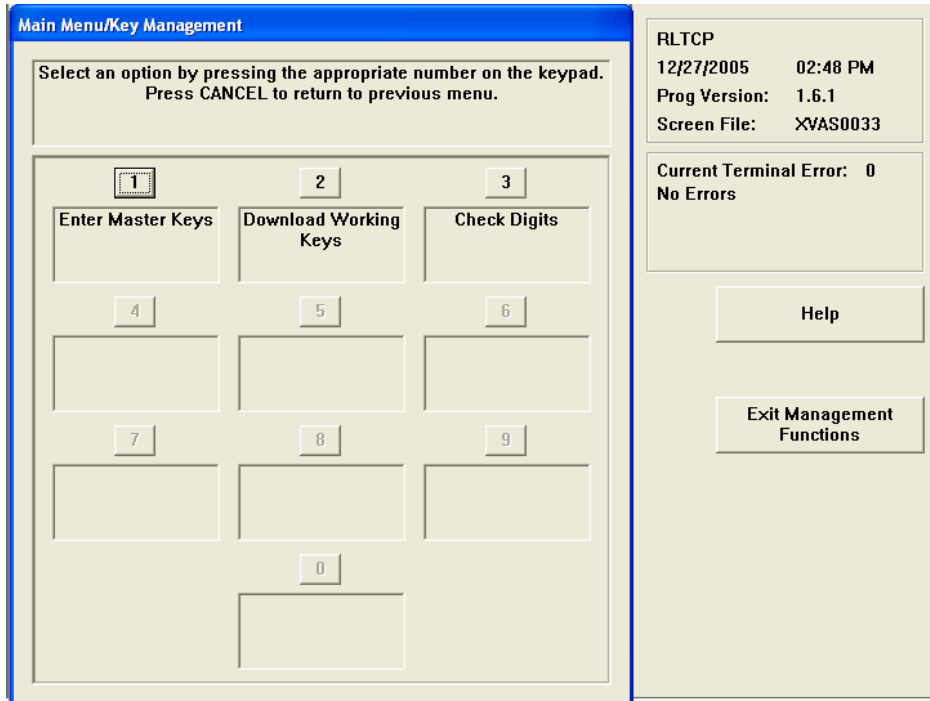
- If an NMD50 dispenser is being used, go out of service with a 238 error. This error can only be cleared by entering management functions and issuing a purge (Diagnostics->Dispenser->Purge). This error cannot be cleared from Triton Connect. *Note: in certain cases depending on if and where a bill was stuck in the feed path when power was lost, an error could be returned from the initial purge operation (i.e., Note qualifier error). In this case a second purge may be necessary to clear that error.*
- The dispense status code on the journal record will be 238 (power failure during dispense).
- The transaction journal record will log the full requested amount in “Amount Dispensed” field of the journal.
- A journal entry will be logged following the transaction record that an unknown dispense occurred. No reversal will be done.

Note that depending on if a bill was stuck in the feed path and where the bill is located when the power was lost, the initial purge issued in Management Functions could return an error from the dispenser.

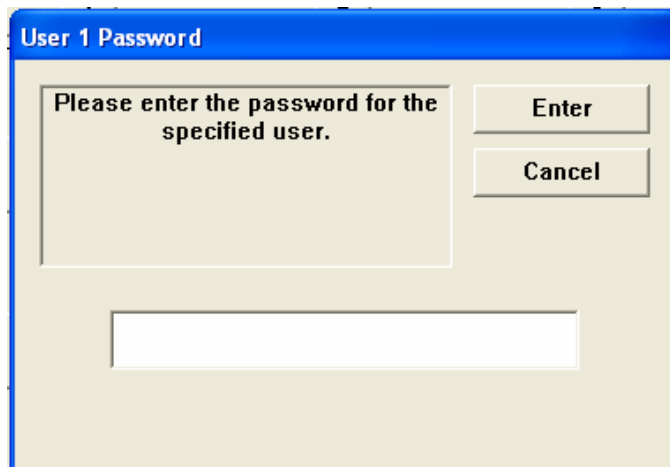
## Add support for SP-06 EPP

The SP-06 EPP is a Visa certified EPP and requires 2 users to enter passwords to enter a sensitive state in which master keys can be configured. The changes from a user interface perspective are outlined below.

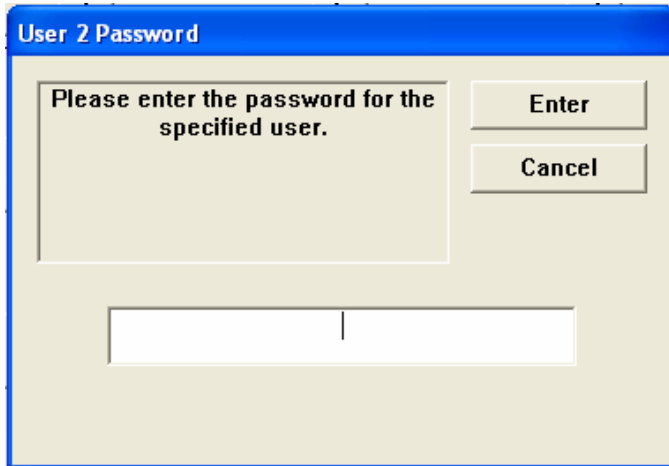
First, the “Key Management” screen has changed slightly to add a sub-dialog for entering master keys. This change will be visible for either the older SP-05 EPP or the new SP-06 EPP.



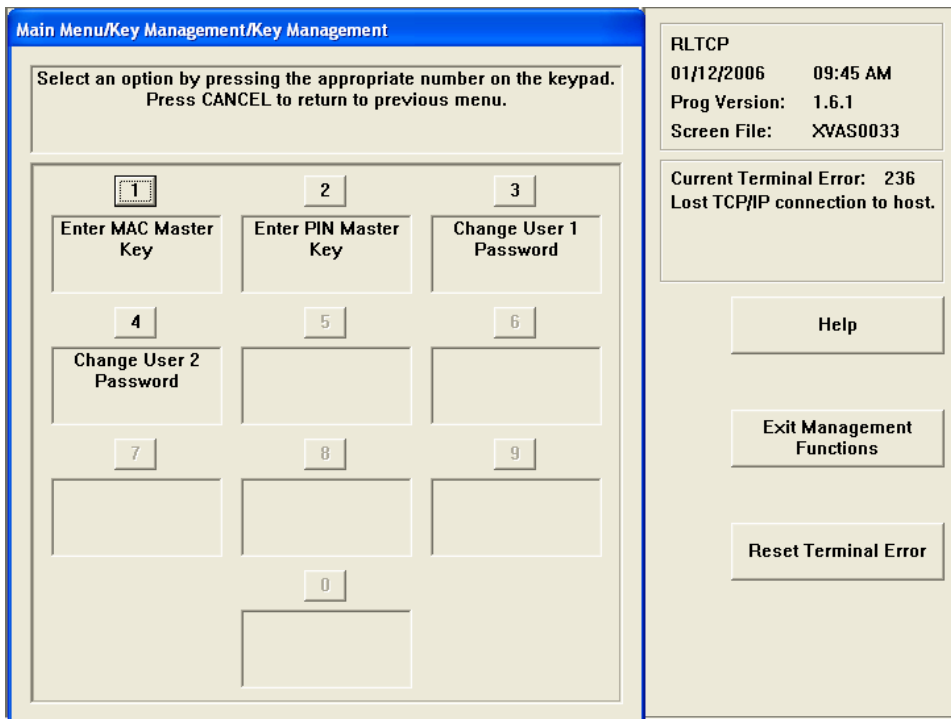
Upon selecting “Enter Master Keys” (option 1) and SP-06 EPP is being used, the users will be required to enter the 2 passwords. Note that these are not the same as the passwords used to enter management functions. The default password for both users is “000000” (six zeros).



Upon successful entry of the first password, the second user password must be entered:

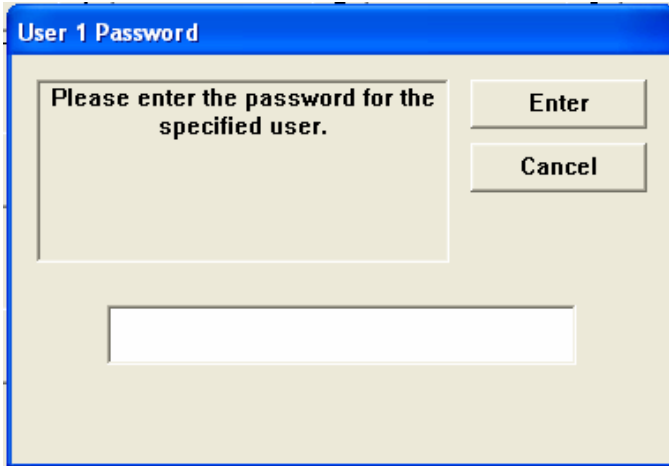


Upon successful entry of both passwords, the user will be presented with a screen to enter keys and change passwords. Note that if the passwords have not been changed from the default values, options 1 and 2 will not be available. Both passwords must be changed from the default before master key entry will be allowed.

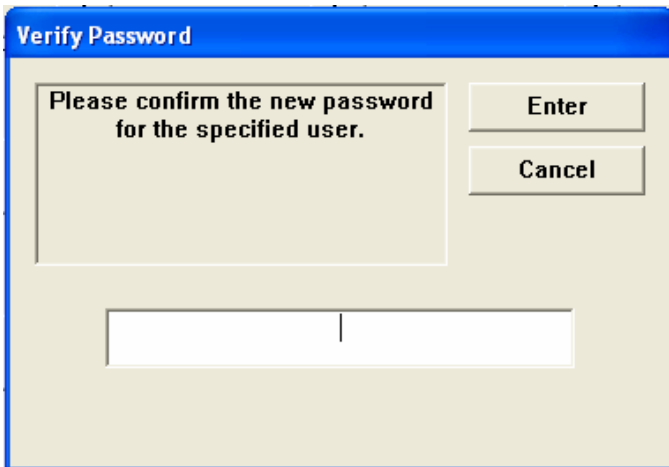




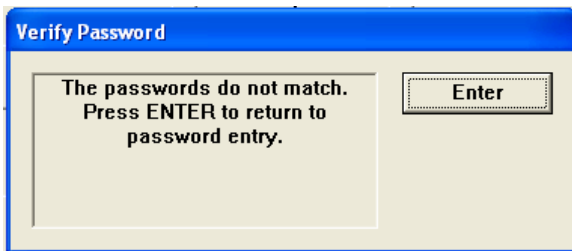
Pressing option 3 or 4 to change a password will display a dialog similar to the following:



The default password for both users is "000000" and must be changed to something other than that before enabling master key entry. The user must also verify the new password anytime it is being changed:



If the passwords entered do not match, the following dialog will be presented and the user must re-enter the initial password.



Upon successful entry of both passwords, the user will be able to enter master keys in the same manner as older EPPs.

***SP-06: Don't allow PIN entry if key held down***

One of the changes to SP-06 Visa EPP is to not allow PIN entry mode if a key is being held down on the keypad. If the customer dips a card and then proceeds to the PIN entry screen while a key on the keypad is being depressed, a "Please Wait" screen will be displayed. Once all keys have been released, flow will continue to the PIN entry screen. If a key is held down for 10 seconds then the transaction will cancel and return to the Welcome screen.

## Changes to the Communication Specification

None

## Known Issues

The following are known issues in this software release:

- When printing a close report from the rear service panel, the amount values will wrap to the next line. Note that there is no loss of data.

## Revision History

Date	Version	Description of Change
February 9, 2007	1.0	Initial Release
March 19, 2007	1.1	Minor modifications

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# Software Release Notes

## XScale 1.8.4 Netherlands

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### Affected products

RL5000  
FT5000  
RT2000 (10.4" Display)

November 9, 2006

Version 1.0

**Triton Systems of Delaware, Inc.**  
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**Long Beach, MS 39560**  
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## **Introduction**

This document describes changes made to the RL5000, FT5000, and RT2000 application code for the 1.8.4 software release for the 10.4" display. This only lists changes from version 1.7.2.

## **Platforms Affected**

The following hardware platforms are affected by this release:

- RL5000
- FT5000
- RT2000 (10.4" Display)

## **Hardware Requirements**

New hardware supported:

- None

## **Software Releases**

The following load files are included in this software release:

- XD00XFBN1.8.4.tlf – 10.4" Display with Fortis Bank Screen File

## **External Dependencies**

- Windows CE Image 4.52 or later is required for USB dialup modem support.
- Triton Connect 4.x (TBD) will be required to support the specific ISO configuration mentioned below.


## Description of Changes

### *New Screen File*

Release 1.8.4 contains a new screen file layout requested by Fortis National Bank. Here are some sample screen shots for this new layout:




22-08-2006 11:52

**FORTIS** 

**Enter your Personal Identification Number:**

22-08-2006 11:46

**FORTIS** 

**Please select fast cash amount.**

€10	€50
€20	Other Amount
€30	
€40	<b>CANCEL</b>



## Specific Processing for Dutch Cards

This software release has the capability to detect if the card scanned for a transaction is or is not a Dutch card and execute specific screen flow for the card.

The Dutch PANs are configured in Management Functions in the ISO/Surcharge Properties configuration dialog (*Management => Terminal Configuration => ISO/Surcharge Properties*). Here are the default values configured for the Dutch PANs (these can be reconfigured if desired):

ISO Number	Action	Value
597000	Screen Action	Allow Balance Transaction
673	Screen Action	Allow Balance Transaction
597000	Screen Action	Track 3 PAN - Dutch
673	Screen Action	Track 3 PAN - Dutch
673	Screen Action	Track 2 PAN - Dutch
588814	Screen Action	Track 2 PAN - Dutch

The ISO action “Screen Action” indicates that this is a screen file specific action for Netherlands. Here is a description of the screen flow for each item listed above in the “Value” column:

- *Track 2 PAN – Dutch*: This indicates that the specified ISO number is a Dutch PAN.
- *Track 3 PAN – Dutch*: This indicates that the specified ISO number is a Dutch PAN. Note that both the track 2 and track 3 PAN of the specified card must match in order for the card to be considered a “Dutch” card.

- *Allow Balance Transaction:* This indicates that the specified ISO number is to allow the “Balance Inquiry” transaction on the select transaction screen.

## Surcharging for Dutch Cards

The terminal administrator has the capability to enable surcharging for specific cards using the *Use Defined Surcharge* action in *ISO/Surcharge Properties* dialogs. Here is an example of the configuration to apply a surcharge to specific Dutch PANs:

**Main Menu/Terminal Configuration/ISO/Surcharge Properties**

1  **Enable Surcharge** Enter

2 **Amount:**  Cancel

3 **Percent:**  %

4 **Use Whichever Is:**

**ISO Properties**

5  **Allow only ISOs listed below as "Accept"**

6 **Add New**      7 **Delete**      8 **Edit**

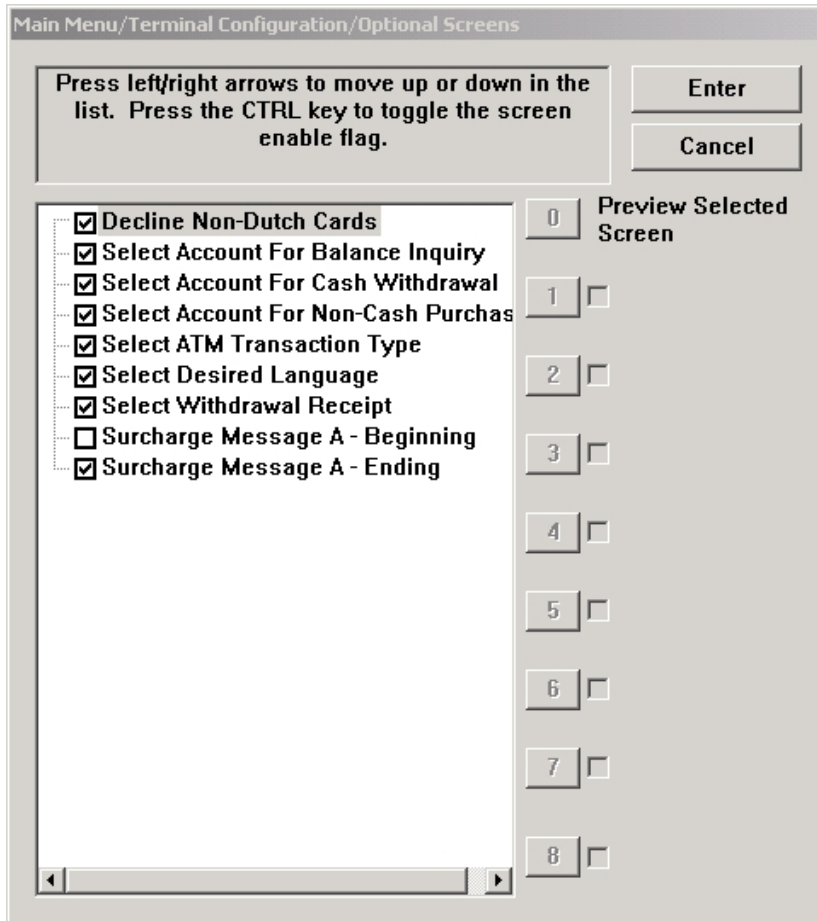
ISO Number	Action	Value
673	Use Defined Surcharge	1.50
597000	Use Defined Surcharge	1.50
597000	Screen Action	Allow Balance Transaction
673	Screen Action	Allow Balance Transaction
597000	Screen Action	Track 3 PAN - Dutch
673	Screen Action	Track 3 PAN - Dutch
673	Screen Action	Track 2 PAN - Dutch
588814	Screen Action	Track 2 PAN - Dutch

For this configuration, only customers using cards with the specified ISO numbers will be presented with a surcharge screen and the specified surcharge value sent to the host. The exact surcharge screen displayed to the customer (beginning/ending) is configured in *Management => Terminal Configuration => Optional Screens*.

*Note: Enabling surcharging for all cards (by configuring a value in the “Amount” field) will send that surcharge amount to the host in the transaction request for any card.*

## Decline Non-Dutch Cards Option

The terminal administrator has the option to configure the terminal to not accept any non-Dutch cards (as configured in the *ISO/Surcharge Properties* dialog described above). This option is available in *Management => Terminal Configuration => Optional Screens*:



## ***Display Select Language for Non-Dutch Cards Only***

The select language screen should only be displayed to customers using non-Dutch cards (as configured in *ISO/Surcharge Properties*). Note that the select language screen can be disabled for all customers as well using the *Optional Screens* configuration mentioned above.

## ***Enhanced Card in Reader Behavior***

231 is a warning code that is issued from the terminal that indicates that a customer has left their card in the terminal. This release will sample the card reader for a timeout period before setting this warning condition. Once the card is removed this warning condition will be cleared.

## ***Fixed TDM Dispenser Error Reporting***

Some TDM dispenser errors that may occur during a dispense operation were not being saved in the transaction journal record correctly. This has been corrected.

## ***Fixed TDM Diagnostic Issues***

Certain diagnostic information for the TDM dispensers was not being reported correctly in *Management => Diagnostics => Dispenser => Dispenser Status*. This has been corrected.

## ***Correctly Report Key Not Loaded Errors***

This release fixes an issue where erroneous 188 or 190 errors (master or working keys not loaded) could be reported.

## ***Do Not Execute a Learn on Reset Dispenser***

This release removes the relearn command from the *Management => Diagnostics => Dispenser => Reset Dispenser* option in the diagnostic menu. This relearn would cause additional bills to be placed in the reject bin.

*Note: The Reset Dispenser option is now only available by the Master User. This function will reset and erase all dispenser configuration.*

## ***PAN Suppression in Journal Records***

The middle PAN digits are no longer stored in the Journal. These digits are changed to '=' (0x3D) before written to the journal files.

## ***Do Not Call TC if Phone Number is Space Filled***

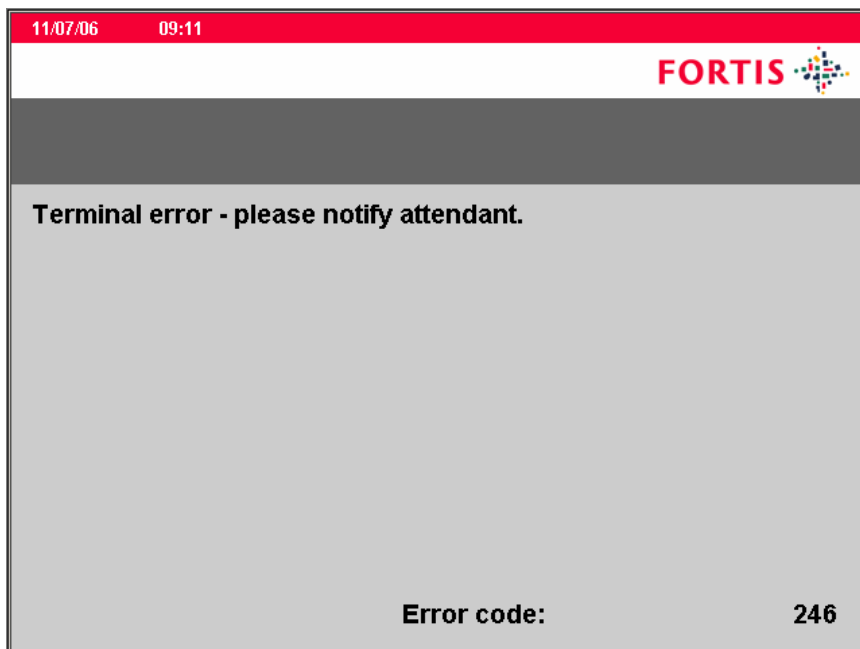
Previous software releases would attempt to dial out to a host or Triton Connect phone number, even if that phone number was filled with just spaces (not a valid phone number). This would result in failed calls. This release fixes this behavior by skipping any phone number that contains just spaces.

## ***Auto Printer Reset after Loading Paper***

This release does not require the terminal owner to go into diagnostics and reset the printer when reloading paper. If the terminal is configured to be in service with printer errors and an out of paper event occurs, the terminal will reset the printer automatically when paper is reloaded.

## ***Changing Default Passwords***

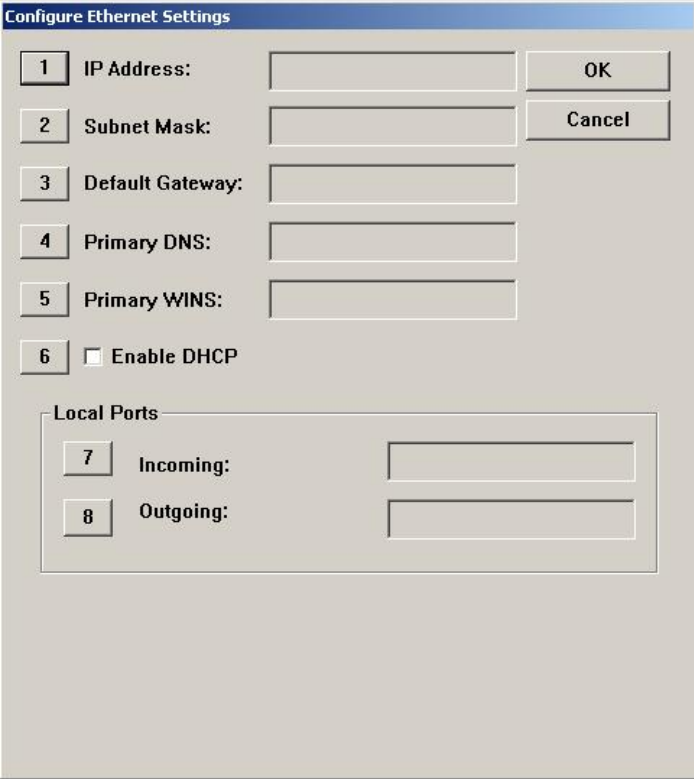
A new ERROR code (246) has been created to indicate the terminal's Master Password is in its default state. The terminal will detect this condition and go out of service. On the out of service screen no error information will be displayed. The following is a screen capture of this state:



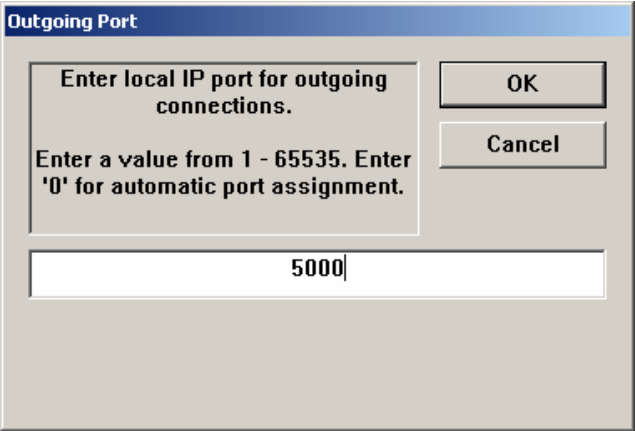
This error code will not clear until the Master Password is changed from its default state.

# Configurable Local IP Port

This release gives access to the IP port value for outgoing traffic to a host. The following is a screen shot of the configuration of this new feature (accessible from *Management => Diagnostics => Modem/Ethernet => Configure Ethernet Settings*).



The following is the dialog box that is used to configure the Outgoing Port address.



A setting of 0 allows the terminal to operate in a mode that is compatible with the 1.7.2 or prior releases. Any other values will force the out going port address to equal this setting.

## Changes to the Communication Specification

None.

## New Terminal Error Codes

Error Code	Description
246	Default master password not changed

## Known Issues

None.

## Revision History

Date	Version	Description of Change
11/7/2006	1.0	Initial



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# Software Release Notes

## 1.8.5 Common Update

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Affected products  
RL5000, RT2000, and FT5000

May 29, 2007

Version 1.1

**Triton Systems of Delaware, Inc.**  
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## Introduction

This maintenance release is targeted for the US, Canada, Australia, and Netherlands markets of the XS series products (RL5000, FT5000, or RT2000). This document describes the changes from version 1.8.3/1.8.4.

Note that this software release is only delivered as an update load file and requires 1.8.3 or 1.8.4 to be installed previously.

## Platforms Affected

This release is for the following XScale families:

- RL5000
- RT2000
- FT5000

### ***Hardware Requirements***

- No specific hardware requirements for this release.

### ***Software Requirements***

The following load file is included with this release:

- xu00xcmn1.8.5.tlf – Update load file for 10.4” or 6.5” display.
- xu00qcmn1.8.5.tlf – Update load file for 5.7” display.

**Important: this build requires 1.8.3 or 1.8.4 to be loaded prior to installing.**

### ***External Dependencies***

There are no new changes to this release that have any external dependencies.

## Description of Changes

### ***Viewing large number of journal records at terminal***

Previous releases of software for XScale terminals had an issue where attempting to display a large number of journal records at the terminal may cause the terminal to encounter an out of memory condition and force a restart to recover. This release corrects this problem and allows displaying of any number of journal records in Management Functions.

### ***TDM extension changes***

On an RT2000 terminal, the TDM dispenser also contains a bill extension unit. There is an option in Management Functions in *Cassette Setup* called *Enable Extension Rejects* that will turn on/off the option of rejecting bills in the extension. The behavior of this option has changed slightly for certain conditions. Below is a description of the behavior in this software release if an extension reject occurs during a dispense:

#### ***Enable Extension Rejects On:***

The terminal will stay in service and attempt to purge the extension before the next dispense for both full and partial dispenses caused by a trailing edge timeout that caused the machine to stop prior to delivering all of the requested notes.

#### ***Enable Extension Rejects Off:***

Terminal will go out of service with Error Code 97 (Extension exit trailing edge timeout) for both full and partial dispenses caused by a trailing edge timeout that caused the machine to stop prior to delivering all of the requested notes.

### ***Auto error recovery***

This release contains a change to attempt to automatically recover from specific device communication errors that may take the terminal out of service. The terminal errors that will cause this recovery are the following:

- 364: Dispenser offline\*
- 569: Dispenser security module communication failure
- 595: SPED communication failure

If this error condition is encountered, the terminal will call Triton Connect to report the error, and will subsequently attempt to recover by resetting the terminal. If the error is cleared during this process, the terminal will call Triton Connect to report this.

The error codes that will attempt recovery can be viewed at the terminal in *Management Functions* => *Terminal Status* => *Configuration Summary* and also in *Management Functions* => *Terminal Status* => *Terminal Error History*:

```
Auto Error Recovery
Max Reset Attempts: 2
Current Reset Attempts for EC364: 0*
Current Reset Attempts for EC595: 0
Current Reset Attempts for EC569: 0
```

The “Max Reset Attempts” indicates the number of times the terminal will attempt to reset the error. The number after the error condition represents the current number of retries for that specific error code. Once the error is cleared the value will be set back to 0. If the error condition still exists after 2 attempts, the terminal will go out of service and can then only be cleared manually.

\* *This error only applies to the xu00xcmn1.8.5.tlf load file.*

### ***Allow scheduled journal call when out of service***

If a terminal is in an out of service condition at the time a scheduled journal call to Triton Connect is set occur, the call will be issued. In previous software releases, the journal call would not be made unless the terminal is in service.

### ***Don't callback Triton Connect unless connection first established***

In previous software releases for XScale terminals, if a terminal is configured for dialup for Triton Connect and an incoming call occurs but does not fully negotiate with the terminal, the terminal would call back to Triton Connect to complete the call. This could cause call collisions with Triton Connect.

This behavior has changed so the terminal will not call Triton Connect unless the modem negotiation completes, and instead the terminal will disconnect and wait for the call again.

### ***Invalid CRC on Day Close would still print host totals***

When the terminal initiates a Day Close or Trial Day Close and the message response CRC fails, the terminal would still display the totals sent by the host, which may not be valid. This software release corrects this and will not display the totals. A message “Host Totals Not Received” will be displayed for this condition.

### ***Display MAC address in Management Functions***

The terminal will now display the MAC address in *Management Functions => Terminal Status*  
*=> Configuration Summary*.

### ***Journal archive changes***

The journal archive process (either through Auto Archive or Manual Archive) will now delete all journal records prior to the last audited record within the specified date range.

### ***Corrupt file recovery***

This release contains some changes to attempt to recover from a corrupt file on flash that might have previously caused the system to hang during boot.

### ***Rear service panel Day Close changes***

This release fixes an issue where text would wrap on the Day Close report print out of an RT2000 or FT5000 terminal.

### ***Restore Parameters from External Storage warning box***

This release fixes an issue where the warning message on the *Restore Parameters From External Storage* was cut off.

## Changes to the Communication Specification

None.

## Default Parameters

Since this release only contains an update load file, no parameters are changed by this installation.

## Known Issues

### ***Rear Service Panel blank screen***

In some instances on a FT or RT terminal with a rear service panel, a blank screen on the rear service panel or the touch screen being unresponsive has occurred after version 1.8.5 software has been loaded. To resolve the issue, the technician should perform a restart or reset the terminal from the front panel in management functions.

## Revision History

Date	Version	Description of Change
May 29, 2007	1.1	Added known issue about the Rear Service Panel
April 10, 2007	1.0	Initial Release

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# Software Release Notes

## 1.8.5 Mexico Update

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Affected products  
RL5000, RT2000, and FT5000

May 29, 2007

Version 1.1

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## Introduction

This maintenance release is targeted for the Mexico market of the XS series products (RL5000, FT5000, or RT2000). This document describes the changes from version 1.8.3.

Note that this software release is only delivered as an update load file and requires 1.8.3 to be installed previously.

## Platforms Affected

This release is for the following XScale families:

- RL5000
- RT2000
- FT5000

### ***Hardware Requirements***

- 10.4" Display.

### ***Software Requirements***

The following load file is included with this release:

- xu00xmex1.8.5.tlf – Update load file for 10.4" display.

**Important: this build requires 1.8.3 to be loaded prior to installing.**

### ***External Dependencies***

There are no new changes to this release that have any external dependencies.

## Description of Changes

### ***Viewing large number of journal records at terminal***

Previous releases of software for XScale terminals had an issue where attempting to display a large number of journal records at the terminal may cause the terminal to encounter an out of memory condition and force a restart to recover. This release corrects this problem and allows displaying of any number of journal records in Management Functions.

### ***TDM extension changes***

On an RT2000 terminal, the TDM dispenser also contains a bill extension unit. There is an option in Management Functions in *Cassette Setup* called *Enable Extension Rejects* that will turn on/off the option of rejecting bills in the extension. The behavior of this option has changed slightly for certain conditions. Below is a description of the behavior in this software release if an extension reject occurs during a dispense:

#### ***Enable Extension Rejects On:***

The terminal will stay in service and attempt to purge the extension before the next dispense for both full and partial dispenses caused by a trailing edge timeout that caused the machine to stop prior to delivering all of the requested notes.

#### ***Enable Extension Rejects Off:***

Terminal will go out of service with Error Code 97 (Extension exit trailing edge timeout) for both full and partial dispenses caused by a trailing edge timeout that caused the machine to stop prior to delivering all of the requested notes.

### ***Auto error recovery***

This release contains a change to attempt to automatically recover from specific device communication errors that may take the terminal out of service. The terminal errors that will cause this recovery are the following:

- 569: Dispenser security module communication failure
- 595: SPED communication failure

If this error condition is encountered, the terminal will call Triton Connect to report the error, and will subsequently attempt to recover by resetting the terminal. If the error is cleared during this process, the terminal will call Triton Connect to report this.

The error codes that will attempt recovery can be viewed at the terminal in *Management Functions => Terminal Status => Configuration Summary* and also in *Management Functions => Terminal Status => Terminal Error History*:

```
Auto Error Recovery
Max Reset Attempts: 2
Current Reset Attempts for EC595: 0
Current Reset Attempts for EC569: 0
```

The “Max Reset Attempts” indicates the number of times the terminal will attempt to reset the error. The number after the error condition represents the current number of retries for that specific error code. Once the error is cleared the value will be set back to 0. If the error condition still exists after 2 attempts, the terminal will go out of service and can then only be cleared manually.

### ***Allow scheduled journal call when out of service***

If a terminal is in an out of service condition at the time a scheduled journal call to Triton Connect is set occur, the call will be issued. In previous software releases, the journal call would not be made unless the terminal is in service.

### ***Don't callback Triton Connect unless connection first established***

In previous software releases for XScale terminals, if a terminal is configured for dialup for Triton Connect and an incoming call occurs but does not fully negotiate with the terminal, the terminal would call back to Triton Connect to complete the call. This could cause call collisions with Triton Connect.

This behavior has changed so the terminal will not call Triton Connect unless the modem negotiation completes, and instead the terminal will disconnect and wait for the call again.

### ***Invalid CRC on Day Close would still print host totals***

When the terminal initiates a Day Close or Trial Day Close and the message response CRC fails, the terminal would still display the totals sent by the host, which may not be valid. This software release corrects this and will not display the totals. A message “Host Totals Not Received” will be displayed for this condition.

### ***Display MAC address in Management Functions***

The terminal will now display the MAC address in *Management Functions => Terminal Status => Configuration Summary*.

### ***Journal archive changes***

The journal archive process (either through Auto Archive or Manual Archive) will now delete all journal records prior to the last audited record within the specified date range.

### ***Corrupt file recovery***

This release contains some changes to attempt to recover from a corrupt file on flash that might have previously caused the system to hang during boot.

### ***Rear service panel Day Close changes***

This release fixes an issue where text would wrap on the Day Close report print out of an RT2000 or FT5000 terminal.

### ***Restore Parameters from External Storage warning box***

This release fixes an issue where the warning message on the *Restore Parameters From External Storage* was cut off.

## Feature Requests

### *Configuration of Banshi card numbers*

This release contains the capability to configure specific card numbers in the ISO bin table for Banshi specific screen flow.

The ISO Properties dialog will include an ISO action named '**Screen Action**'. When this action is selected, a drop down list will be displayed in the '**Value**' area. For the Mexico screen file, this list will include the following option:

- Banshi Customer BIN

The screenshot shows a dialog box titled "ISO Properties". It has three rows of input fields. The first row has a box with the number "1", the label "ISO Number:", a text field containing "1234", and an "Enter" button. The second row has a box with the number "2", the label "Action:", a dropdown menu showing "Screen Action", and a "Cancel" button. The third row has a box with the number "3", the label "Value:", and a dropdown menu showing "Banshi Customer BIN".

By assigning one or more BINs a Screen Action of **Banshi Customer BIN**, the terminal will accept and process cards with those BINs as Banshi transactions. Cards with BINs not defined in the list will be treated as non-Banshi transactions.

To configure a Banshi customer BIN, follow these steps:

1. Access the *Main Menu/Terminal Configuration/Surcharge Properties* dialog in Management Functions.
2. Select the **Add New** option to bring up the the *ISO Properties* dialog.
3. Enter a **Banshi BIN** in the *ISO Number* field, select **Screen Action** in the *Action* list and ensure **Banshi Customer BIN** is selected in the *Value* list.
4. Accept the above settings. The entry will be added to the ISO Properties list.

## **Block Surcharge of Bansi card numbers**

The designation of a Bansi Customer BIN as described above will enable the terminal to distinguish between Bansi and non-Bansi customers, so that the appropriate fee notice screen can be displayed.

However, if surcharge mode is enabled and a (non-zero) surcharge amount has been entered, the terminal will send the surcharge value to the host even for Bansi cash transactions, unless the surcharge fee is blocked.

***Important: To complete the surcharge configuration for Bansi BINs, an additional ISO property called 'Block Surcharge' must be added for each Bansi customer***

Here is an example of the ISO Properties dialog, configured to block surcharging for the example BIN:

The screenshot shows a dialog box titled "ISO Properties". It contains three rows of input fields. The first row has a box with the number "1", the label "ISO Number:", a text box containing "1234", and an "Enter" button. The second row has a box with the number "2", the label "Action:", a dropdown menu showing "Block Surcharge", and a "Cancel" button. The third row has a box with the number "3", the label "Value:", and an empty text box.

To configure a corresponding 'Block Surcharge' action for a Bansi customer BIN, follow these steps:

1. Access the *Main Menu/Terminal Configuration/Surcharge Properties* dialog in Management Functions.
2. Select the **Add New** option to bring up the the *ISO Properties* dialog.
3. Enter an existing **Bansi customer BIN** in the *ISO Number* field and select **Block Surcharge** in the *Action* list.
4. Accept the above settings. The entry will be added to the ISO Properties list (see the example of the Surcharge Properties dialog later in this section).

By creating a 'Block Surcharge' action for each Bansi Customer BIN, the terminal will NOT send a surcharge value to the host and the Bansi customer will not be surcharged.

Here is an example of the Surcharge Properties dialog with surcharge enabled, a surcharge value designated and the ISO Properties correctly configured for a Bansi Customer BIN of '1234.':

Main Menu/Terminal Configuration/ISO/Surcharge Properties

1  Enable Surcharge Enter

2 Amount:  Cancel

3 Percent:  %

4 Use Whichever Is:

ISO Properties

5  Allow only ISOs listed below as "Accept"

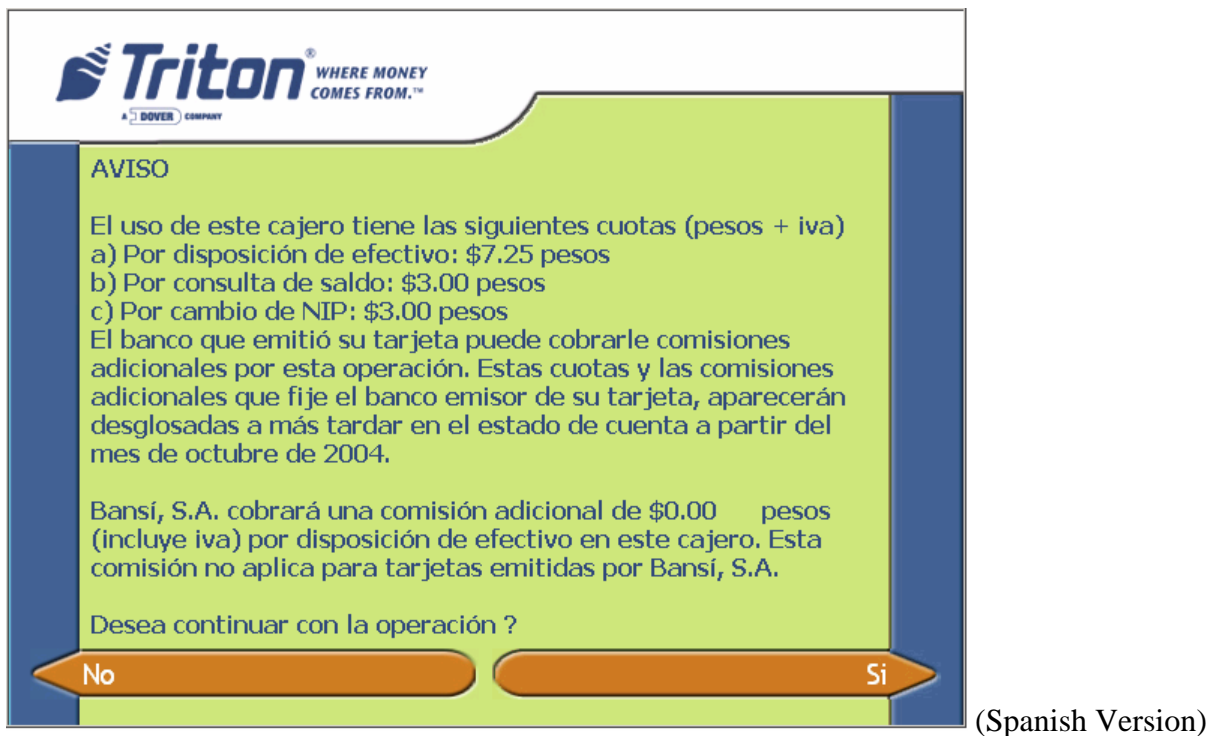
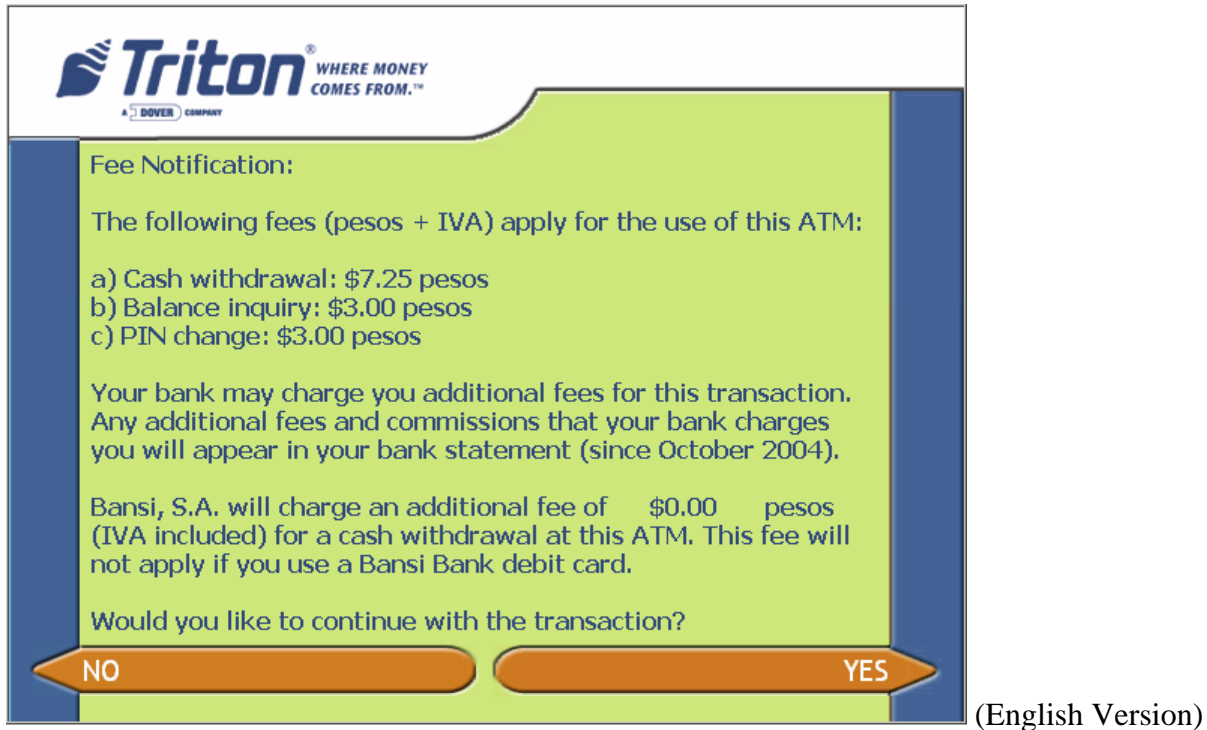
6 Add New      7 Delete      8 Edit

ISO Number	Action	Value
1234	Screen Action	Bansi Customer BIN
1234	Block Surcharge	

### ***Allow zero surcharge for non-Bansi card numbers***

The previous software release for Mexico (1.8.3) would display the Bansfi fee notice screen if a surcharge was not applied, even if the card was a non-Bansi card. This software release adds the capability to not apply a surcharge for all cards. If the terminal is configured in this manner and a non-Bansi card is used (meaning the card number is not in the ISO table as described above), then the following screen will be displayed to the customer:

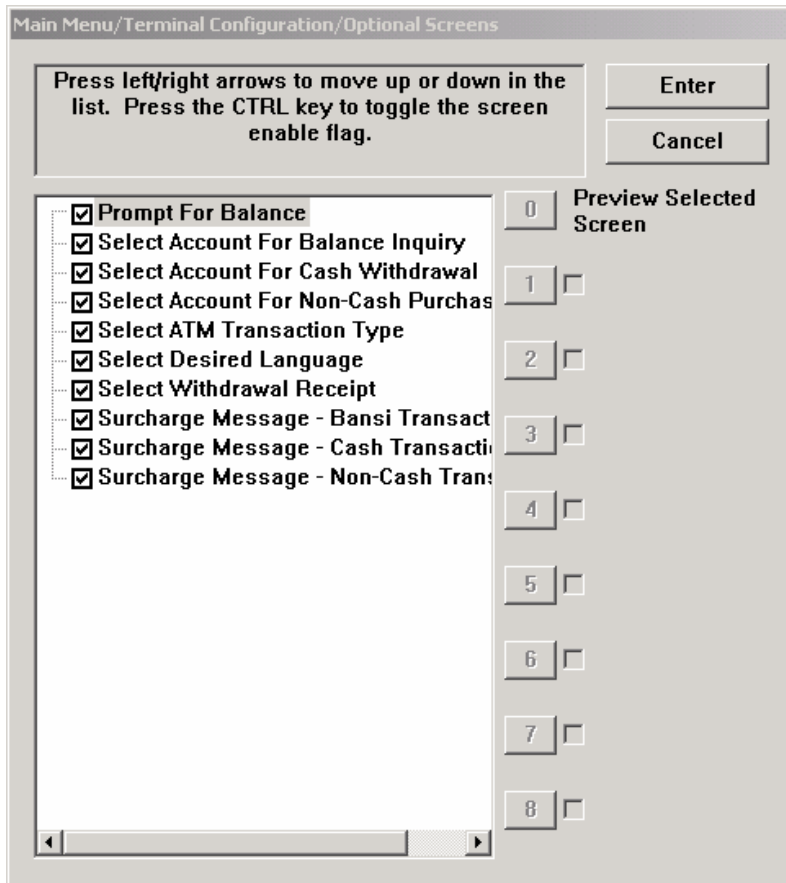




### **Prompt for balance**

This software release for Mexico adds a 'Prompt for Balance' option to the **Optional Screens** dialog in Management Functions. When the 'Prompt for Balance' option is enabled, the

customer will be presented with the ‘Would You Like To Check Your Account Balance?’ screen. Here is an example of the modified **Optional Screens** dialog:

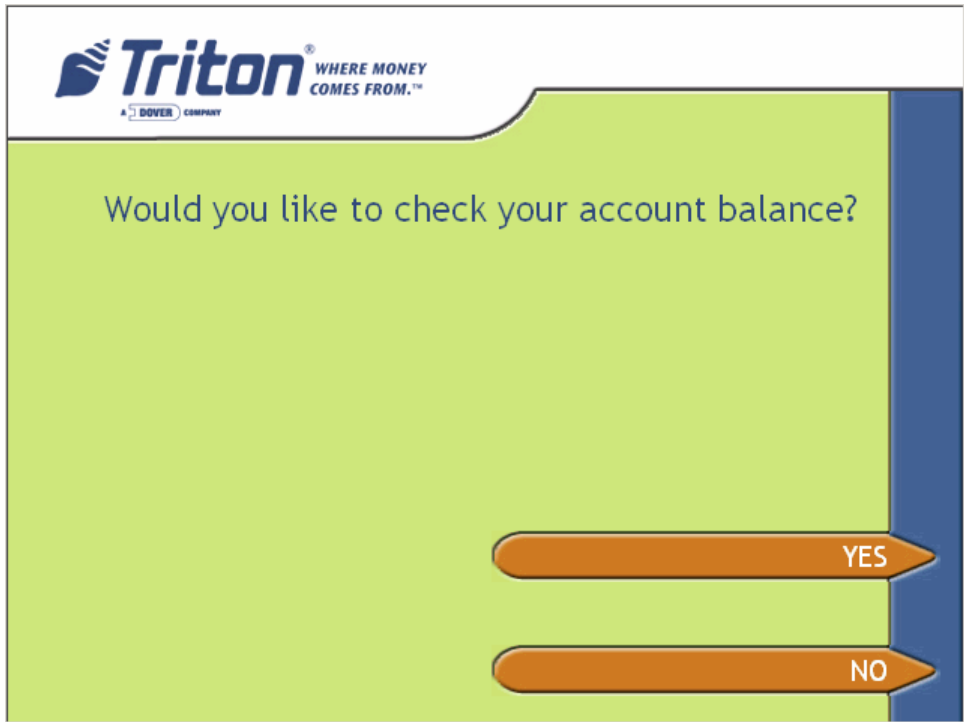


***NOTE: By default, the ‘Prompt for Balance’ option will be ENABLED.***

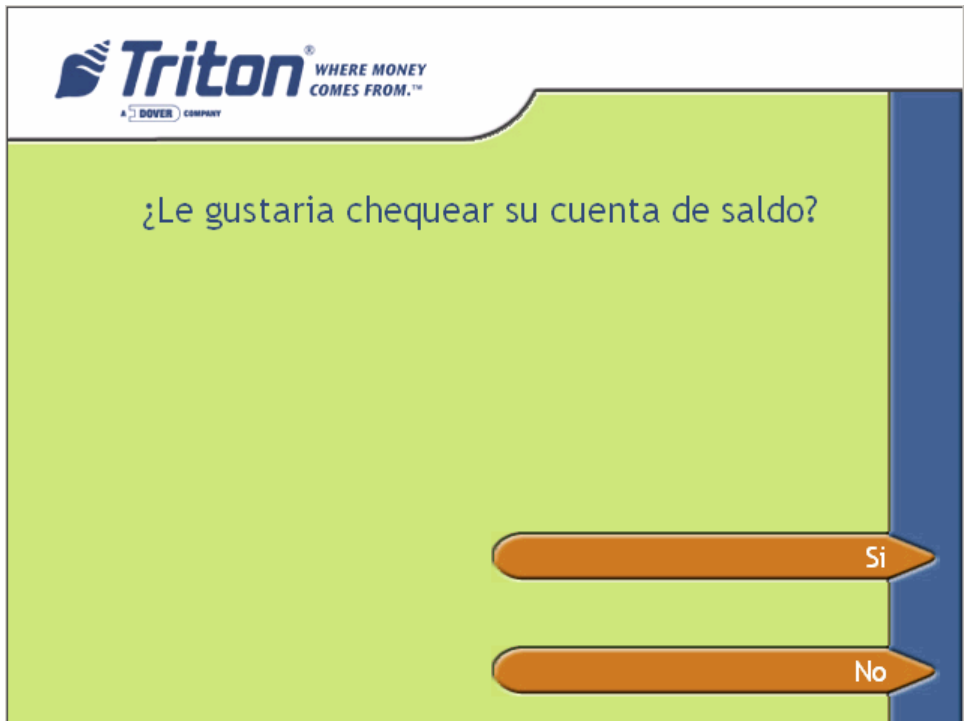
A screen prompting the customer to perform a balance inquiry will be displayed if the following conditions have been met:

- Receipt printer in service.
- Non-Bansi customer detected.
- ‘Prompt for Balance’ option enabled in Management Functions.

The balance inquiry prompt will appear immediately after PIN entry.

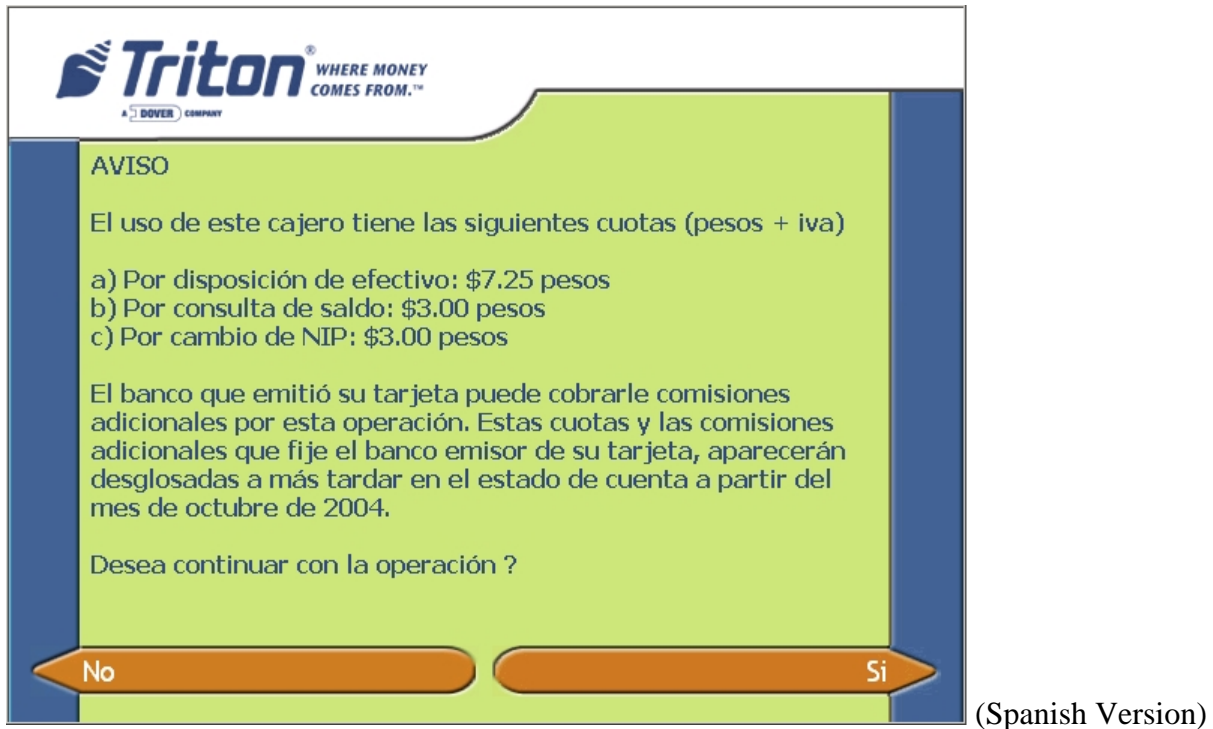
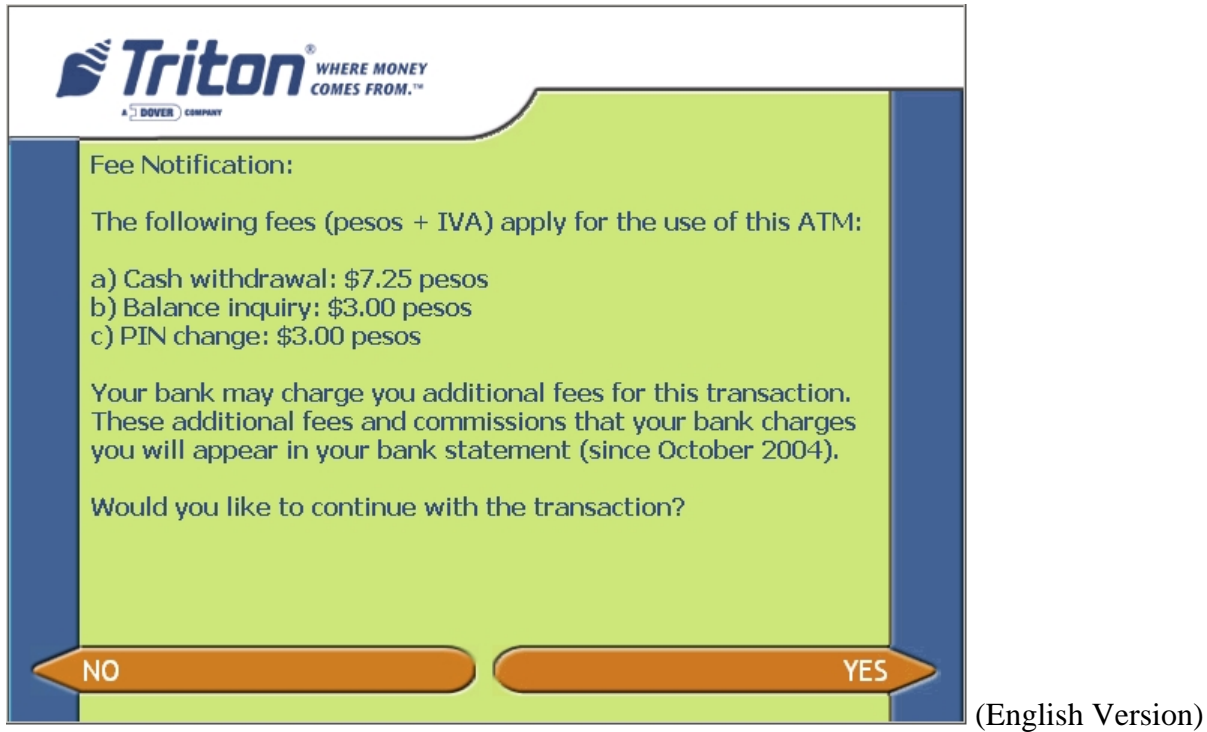


(English Version)



(Spanish Version)

If the customer chooses to perform a prompted balance inquiry, the transaction will be treated the same as a standard balance inquiry: that is, as a non-cash transaction for fee notice purposes. Since only non-Bansi customers will be presented with the balance inquiry prompt, the fee notice for non-cash transactions will be displayed:



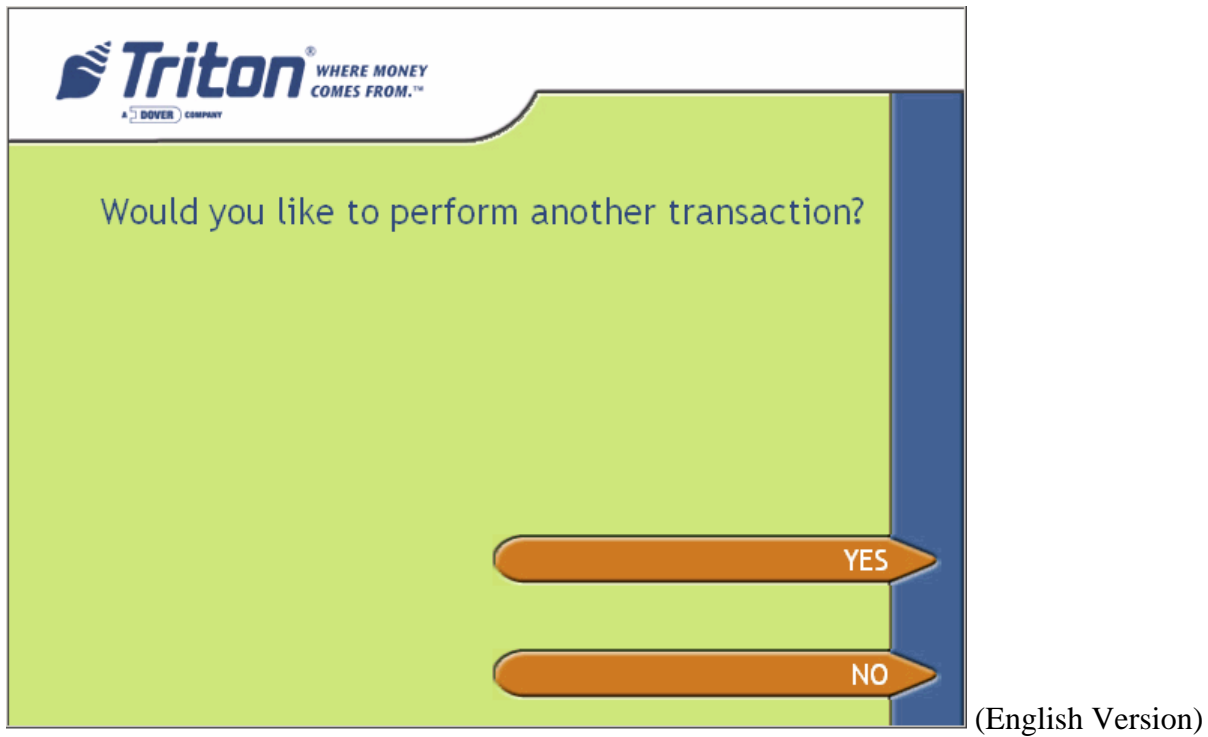
If the customer chooses 'YES,' the transaction will proceed as a standard balance inquiry. If the customer chooses 'NO,' the transaction is cancelled.

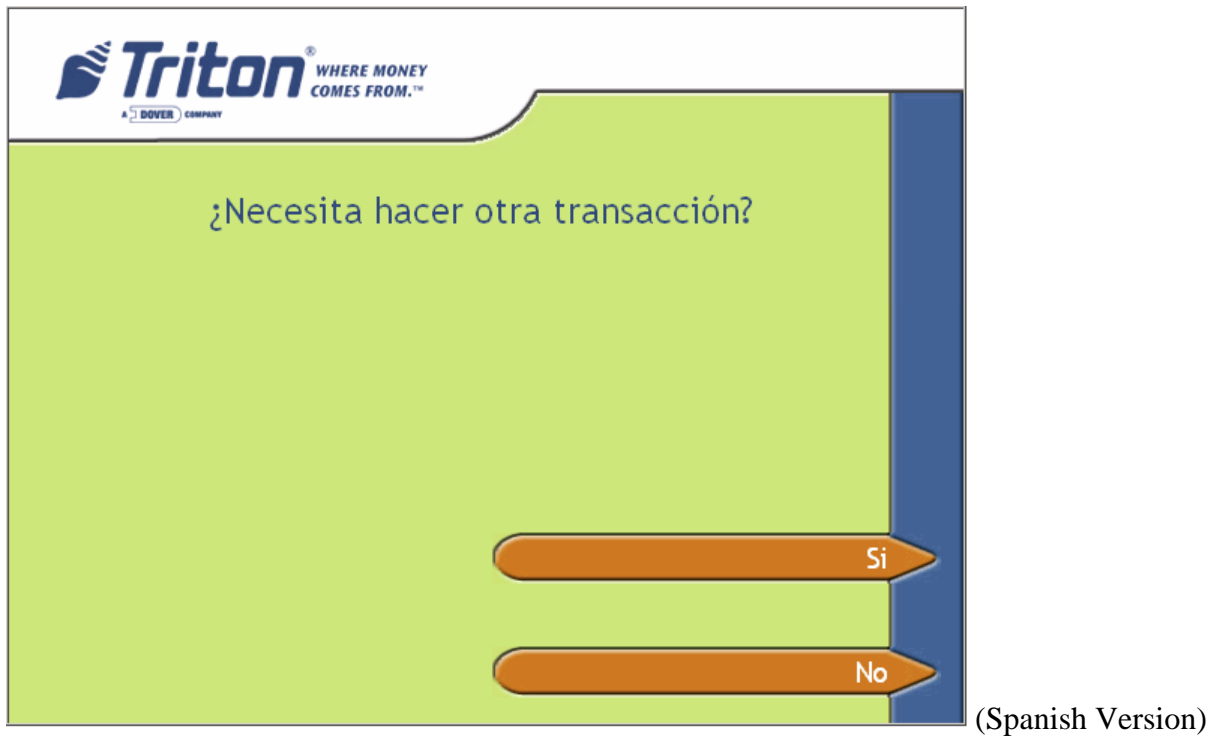
At the completion of the balance inquiry, a screen will be displayed prompting the customer to continue and perform another transaction. Continuing should take the user to the PIN entry screen and then to the standard 'Select Transaction' screen.

The continuation prompt will be displayed to the customer if the following conditions are met:

1. **Prompt for Balance** option is enabled in **Optional Screens** dialog in Management Functions.
2. We are processing a **non-Bansi customer** transaction.
3. The customer chose to perform a prompted **Balance Inquiry**.
4. The **Balance Inquiry** transaction was successful.

At the conclusion of the transaction the following prompt will be displayed:





What happens next depends upon the customer's response:

1. **Customer chooses YES.** We will go directly to the PIN entry screen. The customer's ATM card will not need to be re-scanned. After successful PIN entry, we will present the Transaction Selection screen.
2. **Customer chooses NO.** We will display the Exit Message then return to the Welcome screen.
3. **Customer does nothing.** After 15 seconds the "Need More Time?" prompt appears. If the Customer selects YES within 15 seconds, we re-display the continuation prompt and repeat the previous steps. If the customer selects NO, or does not select an option within 15 seconds, we display the Exit Message then return to the Welcome screen.

## Changes to the Communication Specification

None.

## Default Parameters

'Prompt for Balance' option will default to enabled.

## Known Issues

### ***Rear Service Panel blank screen***

In some instances on a FT or RT terminal with a rear service panel, a blank screen on the rear service panel or the touch screen being unresponsive has occurred after version 1.8.5 software has been loaded. To resolve the issue, the technician should perform a restart or reset the terminal from the front panel in management functions.

## Revision History

Date	Version	Description of Change
May 29, 2007	1.1	Added known issue about the rear service panel
April 10, 2007	1.0	Initial Release

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# Mexico Screen File XMEX0009 Software Release Notes

---

## Affected products

RL5000  
FT5000  
RT2000 (10.4" Display)

September 11, 2007

Version 1.0

**Triton Systems of Delaware, Inc.**  
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## Introduction

This document describes the changes made to Mexico screen file for 10.4" displays. These changes were made per a request to add PIN Change transaction type to the latest Mexico software release. Only screen file differences from 1.8.5 Mexico (screen file version XMEX0006) software release are described in this document.

## **Platforms Affected**

The following hardware platforms are affected by this release:

- RL5000
- FT5000
- RT2000

## **Hardware Requirements**

Hardware dependencies:

- 10.4" VGA Color Display
- SP-06.00 EPP (required for PIN Change)

## **Software Requirements**

The new screen file is dependent on the following software releases:

- XScale MexicoVersion 1.8.5 or 1.8.6

## **External Dependencies**

None

## Installation Instructions

The screen file can be loaded either at the terminal or remotely via Triton Connect. Below are instructions for loading both methods. Note that 1.8.5 or 1.8.6 Mexico must be loaded prior to installing this screen file.

### *Loading at the terminal:*

- o Copy *tcmex.tsm* to USB or compact flash drive.
- o Insert flash drive into proper slot at terminal.
- o From Management Functions, go to *System Parameters=>Select Screen File*, browse to appropriate drive and select *tcmex.tsm*.
- o System will restart and install the screen file.

### *Loading from Triton Connect:*

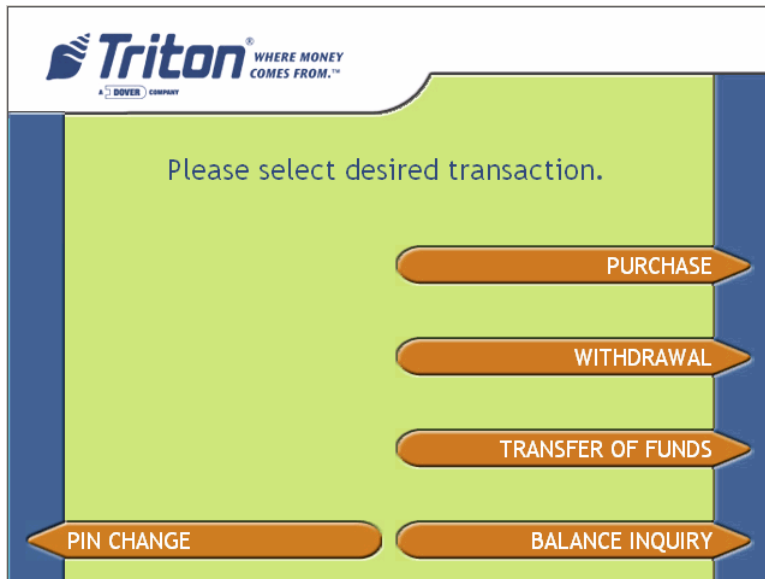
- o From Terminal Manager, go to *Set Parameters=>Control=>Extended Parameters=>Add Screen File*, and select *tcmex.tsm* from hard disk.
- o Triton Connect will send screen file to terminal and load.

## Description of Changes

### ***PIN Change***

The PIN Change transaction has been added to the list of available transaction types for the Mexico screen file.

English version:



Spanish version:



The PIN Change option will be displayed if the PIN Change button is enabled via the Optional Screen Buttons dialog in Management Functions. *Note that PIN Change cannot be configured per card BIN. The ISO action to allow or decline is not supported on this screen file.*

After selection of the PIN Change option the customer will be presented with the applicable Bansi Surcharge screen (PIN Change is treated as a non-cash transaction type for surcharging purposes).

English non-Bansi version:

**Triton** WHERE MONEY COMES FROM.  
A DOVER COMPANY

Fee Notification:

The following fees (pesos + IVA) apply for the use of this ATM:

- a) Cash withdrawal: \$7.25 pesos
- b) Balance inquiry: \$3.00 pesos
- c) PIN change: \$3.00 pesos

Your bank may charge you additional fees for this transaction. These additional fees and commissions that your bank charges you will appear in your bank statement (since October 2004).

Would you like to continue with the transaction?

NO YES

Spanish non-Bansi version:

**Triton** WHERE MONEY COMES FROM.  
A DOVER COMPANY

AVISO

El uso de este cajero tiene las siguientes cuotas (pesos + iva)

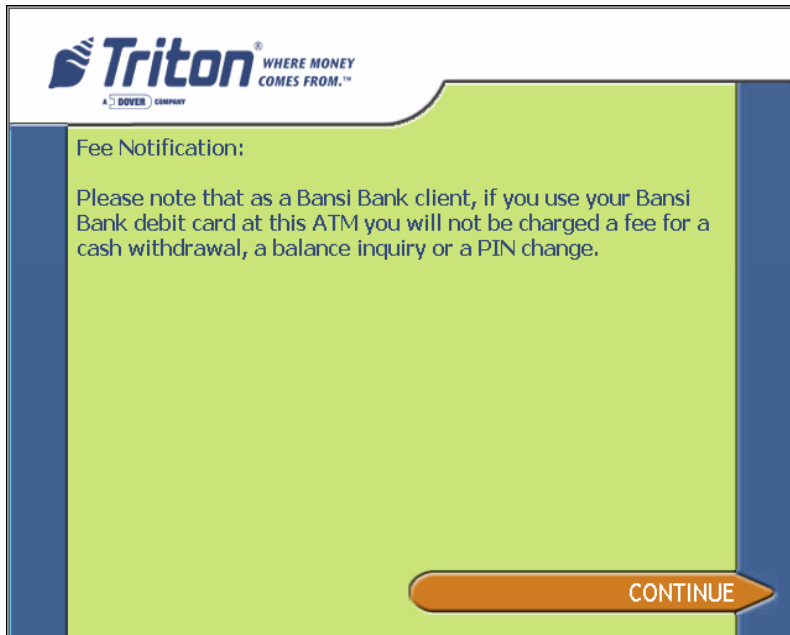
- a) Por disposición de efectivo: \$7.25 pesos
- b) Por consulta de saldo: \$3.00 pesos
- c) Por cambio de NIP: \$3.00 pesos

El banco que emitió su tarjeta puede cobrarle comisiones adicionales por esta operación. Estas cuotas y las comisiones adicionales que fije el banco emisor de su tarjeta, aparecerán desglosadas a más tardar en el estado de cuenta a partir del mes de octubre de 2004.

Desea continuar con la operación ?

No Si

English Bansi version:




Spanish Bansi version:



PIN Entry (New PIN). Entry and validation of the new PIN will be handled in the same way as a normal PIN entry. After accepting and successfully validating the new PIN, the next screen will prompt the customer to re-enter the new PIN, for confirmation purposes.

The following receipt will be printed upon successful completion of a PIN Change transactions (English and Spanish versions):



Store Message

Marketing Message

# de Terminal


07/27/2007 08:52:41 AM

**\*\*\* Cambio de NIP \*\*\***

<i>Número de Tarjeta</i>	<i># de Autor</i>	<i># Sec</i>
*****0000	0	0000

Su NIP ha sido cambiado exitosamente.

Receipt Message



Store Message

Marketing Message

Terminal#

07/27/2007 08:52:41 AM

**\*\*\* PIN Change \*\*\***

<i>Card Number</i>	<i>Auth #</i>	<i>Seq #</i>
*****0000	0	0000

Your PIN has been successfully changed.

Receipt Message

## **Spanish Translation Changes**

The following Spanish translation changes were made to this version of the screen file:

- On the *Prompt for Balance* screen, change the text "¿ Le gustaría chequear su cuenta de saldo ? " to "¿ Desea consultar su saldo ?"
- On the *Prompt for Another Transaction Screen*, change the text "¿ Necesita hacer otra transacción ?" to "¿ Desea hacer otra transacción ?"
- On the *Bansi Surcharge screen*, remove the statement: "Would you like to continue with the transaction?" in both English and Spanish versions of the screen.



## Changes to the Communication Specification

None

## Known Issues

None

## Revision History

Date	Version	Description of Change
September 11, 2007	1.0	Initial

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# Software Release Notes

## 1.8.6 Common Update

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Affected products  
RL5000, RT2000, and FT5000

July 24, 2007

Version 1.1

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## Introduction

This maintenance release is targeted for the US, Canada, Australia, and Netherlands markets of the XS series products (RL5000, FT5000, or RT2000). This document describes the changes from version 1.8.3/1.8.4.

Note that this software release is only delivered as an update load file and requires 1.8.3, 1.8.4, or 1.8.5 to be installed previously.

## Platforms Affected

This release is for the following XScale families:

- RL5000
- RT2000
- FT5000

### ***Hardware Requirements***

- No specific hardware requirements for this release.

### ***Software Requirements***

The following load file is included with this release:

- xu00xcmn1.8.6.tlf – Update load file for 10.4” or 6.5” display.
- xu00qcmn1.8.6.tlf – Update load file for 5.7” display.

**Important: this build requires 1.8.3, 1.8.4 or 1.8.5 to be loaded prior to installing.**

### ***External Dependencies***

There are no new changes to this release that have any external dependencies.

## Description of Changes

### ***Viewing large number of journal records at terminal***

Previous releases of software for XScale terminals had an issue where attempting to display a large number of journal records at the terminal may cause the terminal to encounter an out of memory condition and force a restart to recover. This release corrects this problem and allows displaying of any number of journal records in Management Functions.

### ***TDM extension changes***

On an RT2000 terminal, the TDM dispenser also contains a bill extension unit. There is an option in Management Functions in *Cassette Setup* called *Enable Extension Rejects* that will turn on/off the option of rejecting bills in the extension. The behavior of this option has changed slightly for certain conditions. Below is a description of the behavior in this software release if an extension reject occurs during a dispense:

#### ***Enable Extension Rejects On:***

The terminal will stay in service and attempt to purge the extension before the next dispense for both full and partial dispenses caused by a trailing edge timeout that caused the machine to stop prior to delivering all of the requested notes.

#### ***Enable Extension Rejects Off:***

Terminal will go out of service with Error Code 97 (Extension exit trailing edge timeout) for both full and partial dispenses caused by a trailing edge timeout that caused the machine to stop prior to delivering all of the requested notes.

### ***Auto error recovery***

This release contains a change to attempt to automatically recover from specific device communication errors that may take the terminal out of service. The terminal errors that will cause this recovery are the following:

- 364: Dispenser offline\*
- 569: Dispenser security module communication failure
- 595: SPED communication failure

If this error condition is encountered, the terminal will call Triton Connect to report the error, and will subsequently attempt to recover by resetting the terminal. If the error is cleared during this process, the terminal will call Triton Connect to report this.

The error codes that will attempt recovery can be viewed at the terminal in *Management Functions* => *Terminal Status* => *Configuration Summary* and also in *Management Functions* => *Terminal Status* => *Terminal Error History*:

```
Auto Error Recovery
Max Reset Attempts: 2
Current Reset Attempts for EC364: 0*
Current Reset Attempts for EC595: 0
Current Reset Attempts for EC569: 0
```

The “Max Reset Attempts” indicates the number of times the terminal will attempt to reset the error. The number after the error condition represents the current number of retries for that specific error code. Once the error is cleared the value will be set back to 0. If the error condition still exists after 2 attempts, the terminal will go out of service and can then only be cleared manually.

\* *This error only applies to the xu00xcmn1.8.5.tlf load file.*

### ***Allow scheduled journal call when out of service***

If a terminal is in an out of service condition at the time a scheduled journal call to Triton Connect is set occur, the call will be issued. In previous software releases, the journal call would not be made unless the terminal is in service.

### ***Don't callback Triton Connect unless connection first established***

In previous software releases for XScale terminals, if a terminal is configured for dialup for Triton Connect and an incoming call occurs but does not fully negotiate with the terminal, the terminal would call back to Triton Connect to complete the call. This could cause call collisions with Triton Connect.

This behavior has changed so the terminal will not call Triton Connect unless the modem negotiation completes, and instead the terminal will disconnect and wait for the call again.

### ***Invalid CRC on Day Close would still print host totals***

When the terminal initiates a Day Close or Trial Day Close and the message response CRC fails, the terminal would still display the totals sent by the host, which may not be valid. This software release corrects this and will not display the totals. A message “Host Totals Not Received” will be displayed for this condition.

### ***Display MAC address in Management Functions***

The terminal will now display the MAC address in *Management Functions => Terminal Status*  
*=> Configuration Summary*.

### ***Journal archive changes***

The journal archive process (either through Auto Archive or Manual Archive) will now delete all journal records prior to the last audited record within the specified date range.

### ***Corrupt file recovery***

This release contains some changes to attempt to recover from a corrupt file on flash that might have previously caused the system to hang during boot.

### ***Rear service panel Day Close changes***

This release fixes an issue where text would wrap on the Day Close report print out of an RT2000 or FT5000 terminal.

### ***Restore Parameters from External Storage warning box***

This release fixes an issue where the warning message on the *Restore Parameters From External Storage* was cut off.

### ***Rear service panel communication changes***

This release fixes an issue where the rear service panel would not respond to the terminal.

## Changes to the Communication Specification

None.

## Default Parameters

Since this release only contains an update load file, no parameters are changed by this installation.

## Known Issues

None.

## Revision History

Date	Version	Description of Change
July 24, 2007	1.1	Added 1.8.5 to the software requirements
May 24, 2007	1.0	Initial Release



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# Software Release Notes

## 1.8.6 Mexico Common

### Update

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Affected products  
RL5000, RT2000, and FT5000

May 24, 2007

Version 1.0

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## Introduction

This maintenance release is targeted for the Mexico market of the XS series products (RL5000, FT5000, or RT2000). This document describes the changes from version 1.8.5.

Note that this software release is only delivered as an update load file and requires 1.8.5 to be installed previously.

## Platforms Affected

This release is for the following XScale families:

- RL5000
- RT2000
- FT5000

### ***Hardware Requirements***

- No specific hardware requirements for this release.

### ***Software Requirements***

The following load file is included with this release:

- xu00xcmn1.8.6.tlf – Update load file for 10.4” or 6.5” display.
- xu00qcmn1.8.6.tlf – Update load file for 5.7” display.

**Important: this build requires 1.8.5 to be loaded prior to installing.**

### ***External Dependencies***

There are no new changes to this release that have any external dependencies.

## Description of Changes

### ***Rear service panel communication changes***

This release fixes an issue where the rear service panel would not respond to the mainboard.

## Changes to the Communication Specification

None.

## Default Parameters

Since this release only contains an update load file, no parameters are changed by this installation.

## Known Issues

None.

## Revision History

Date	Version	Description of Change
May 24, 2007	1.0	Initial Release

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# Software Release Notes

## 1.8.6 UK – International Update

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Affected products  
RL5000, RT2000, and FT5000

May 24, 2007

Version 1.0

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## Introduction

This maintenance release is targeted for the United Kingdom and other International markets that use the EMV code base of the XS series products (RL5000, FT5000, or RT2000). This document describes the changes from version 1.8.3.

Note that this software release is only delivered as an update load file and requires 1.8.3 or 1.8.4 to be installed previously.

## Platforms Affected

This release is for the following XScale families:

- RL5000
- RT2000
- FT5000

### ***Hardware Requirements***

- 10.4" Display
- MagTek Intellistripe 65 card reader or Sankyo ICT-3K5 motorized card reader
- SP-05 EPP or SP-06 EPP

### ***Software Requirements***

The following load file is included with this release:

- xu04xcmn1.8.6.tlf – Update load file for 10.4" display. **Important: this build requires 1.8.3 (xd04xemv1.8.3.tlf) or 1.8.4 (xd04xint1.8.4.tlf) to be loaded prior to installing.**

### ***External Dependencies***

There are no new changes to this release that have any external dependencies.



## Description of Changes

### ***Viewing large number of journal records at terminal***

Previous releases of software for XScale terminals had an issue where attempting to display a large number of journal records at the terminal may cause the terminal to encounter an out of memory condition and force a restart to recover. This release corrects this problem and allows displaying of any number of journal records in Management Functions.

### ***TDM extension changes***

On an RT2000 terminal, the TDM dispenser also contains a bill extension unit. There is an option in Management Functions in *Cassette Setup* called *Enable Extension Rejects* that will turn on/off the option of rejecting bills in the extension. The behavior of this option has changed slightly for certain conditions. Below is a description of the behavior in this software release if an extension reject occurs during a dispense:

#### ***Enable Extension Rejects On:***

The terminal will stay in service and attempt to purge the extension before the next dispense for both full and partial dispenses caused by a trailing edge timeout that caused the machine to stop prior to delivering all of the requested notes.

#### ***Enable Extension Rejects Off:***

Terminal will go out of service with Error Code 97 (Extension exit trailing edge timeout) for both full and partial dispenses caused by a trailing edge timeout that caused the machine to stop prior to delivering all of the requested notes.

### ***Auto error recovery***

This release contains a change to attempt to automatically recover from specific device communication errors that may take the terminal out of service. The terminal errors that will cause this recovery are the following:

- 364: Dispenser offline
- 569: Dispenser security module communication failure
- 595: SPED communication failure

If this error condition is encountered, the terminal will call Triton Connect to report the error, and will subsequently attempt to recover by resetting the terminal. If the error is cleared during this process, the terminal will call Triton Connect to report this.

The error codes that will attempt recovery can be viewed at the terminal in *Management Functions* => *Terminal Status* => *Configuration Summary* and also in *Management Functions* => *Terminal Status* => *Terminal Error History*:

```
Auto Error Recovery
Max Reset Attempts: 2
Current Reset Attempts for EC364: 0
Current Reset Attempts for EC595: 0
Current Reset Attempts for EC569: 0
```

The “Max Reset Attempts” indicates the number of times the terminal will attempt to reset the error. The number after the error condition represents the current number of retries for that specific error code. Once the error is cleared the value will be set back to 0. If the error condition still exists after 2 attempts, the terminal will go out of service and can then only be cleared manually.

### ***Allow scheduled journal call when out of service***

If a terminal is in an out of service condition at the time a scheduled journal call to Triton Connect is set occur, the call will be issued. In previous software releases, the journal call would not be made unless the terminal is in service.

### ***Don't callback Triton Connect unless connection first established***

In previous software releases for XScale terminals, if a terminal is configured for dialup for Triton Connect and an incoming call occurs but does not fully negotiate with the terminal, the terminal would call back to Triton Connect to complete the call. This could cause call collisions with Triton Connect.

This behavior has changed so the terminal will not call Triton Connect unless the modem negotiation completes, and instead the terminal will disconnect and wait for the call again.

### ***Invalid CRC on Day Close would still print host totals***

When the terminal initiates a Day Close or Trial Day Close and the message response CRC fails, the terminal would still display the totals sent by the host, which may not be valid. This software release corrects this and will not display the totals. A message “Host Totals Not Received” will be displayed for this condition.

### ***Display MAC address in Management Functions***

The terminal will now display the MAC address in *Management Functions => Terminal Status => Configuration Summary*.

### ***Journal archive changes***

The journal archive process (either through Auto Archive or Manual Archive) will now delete all journal records prior to the last audited record within the specified date range.

### ***Corrupt file recovery***

This release contains some changes to attempt to recover from a corrupt file on flash that might have previously caused the system to hang during boot.

### ***Rear service panel Day Close changes***

This release fixes an issue where text would wrap on the Day Close report print out of an RT2000 or FT5000 terminal.

### ***Restore Parameters from External Storage warning box***

This release fixes an issue where the warning message on the *Restore Parameters From External Storage* was cut off.

### ***Rear service panel communication changes***

This release fixes an issue where the rear service panel would not respond to the terminal.

### ***PakNet Support***

This release adds support for the PakNet radio communications. After this release is loaded, the terminal will require RadiopadParityUK.tlf to be loaded to enable the PakNet support.

## Changes to the Communication Specification

None.

## Default Parameters

Since this release only contains an update load file, no parameters are changed by this installation.

## Known Issues

None.

## Revision History

Date	Version	Description of Change
May 24, 2007	1.0	Draft Release

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# Software Release Notes

## 1.9.0 South Africa

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Affected products  
RL5000, RT2000, and FT5000

July 26, 2007

Version 1.1

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## Introduction

This document describes changes to South Africa XScale software from version 1.7.0.

## Platforms Affected

This release is for the following XScale families:

- RL5000
- RT2000
- FT5000

## Hardware Requirements

- 10.4" Display
- MagTek Intellistripe 65 card reader or Sankyo ICT-3K5 motorized card reader
- SP-06 EPP

## Software Requirements

The following load files are included with this release:

- xd04xsae1.9.0.tlf – South Africa with EMV for 10.4" display (Full load file)

*Note: No update load file is delivered with this release. Updating to EMV software will require reconfiguring the ATM.*

## External Dependencies

The following features require acquirer support in conjunction with this release to work properly.

- EMV support for Triton Standard
- Use extended transaction codes for all transaction types

The following feature requires Triton Connect Version 4.3.8 or greater:

- User Configuration



## Description of Changes

### **Changing Default Passwords**

A new ERROR code (246) has been created for when the terminal's Master Password is in its default state. The terminal will detect this condition and go out of service. On the out of service screen no error information will be displayed. The following is a screen capture of this state.



This error code will not clear until the Master Password is changed from its default state.

**\*\* Note - Installing this version of software remotely using Triton Connect will cause the terminal to go out of service if you have not changed the default password. This password can only be changed remotely with Triton Connect version 4.3.8 or later.**

### **TDM-1XX Mechanisms Configurations are reporting as TDM-2XX**

This release corrects the problem of newer TDM firmware that responds to both command protocols of the TDM product line. These command protocols affects the way that cassettes are managed and error codes that are reported. This release will test for a single cassette TDM before testing for a TDM multi-cassette mechanism. **With this and future versions software, when installing an update file over any prior software release on a terminal with a TDM100 or TDM150 dispenser, the cassette multiple amount may need to be reconfigured before the terminal will go into service \*\*.**

**\*\* Note - that in this situation, if an update file is loaded from Triton Connect, the machine can only be put into service by configuring the cassette multiple amount in Management Functions at the terminal. Subsequent update loads will not require this step.**

### ***Recording NAKs from the Dispenser***

When the dispenser sends a NAK(0x15) during a dispense the terminal will record this in the journal as an 130 not an 371.

### ***Lost EOT errors***

The dispenser protocol ends with an EOT (0x04) being sent to the terminal from the dispenser. The terminal will no longer report an error when this character is not received.

### ***TDM Click Count History Report***

This release corrects the reporting of the click count history report by correctly indexing all of the click counts from the dispenser, which is available in the diagnostic menu of the terminal. Also, this release corrected the retrieval of the Sequence numbers of the click count history report.

### ***Removed the Learn from the Reset Dispenser***

This release removes the relearn command from the Reset Dispenser option in the diagnostic menu.

### ***Uses Generic Reference for all TDM Dispensers***

All terminals that are equipped with TDM's will now either see "TDM Single Cassette" or "TDM Multi-Cassette" as the dispenser type. If the dispenser only has one feed channel the terminal will report it as a "TDM Single Cassette". If the dispenser has more than one feed channel the terminal will report the dispenser as a "TDM Multi-Cassette".

### ***Journal Record Dispense Status Records the Full Value***

This release correctly stores the Dispense Status in the journal record. This release no longer subtracts 300 from the journal status before writing the value to the journal. The full value is stored. Older versions of Triton Connect will display the dispense status of 255 for these records that have been created using this new method. A new version of Triton Connect (version 4.3.8 or greater) will be released to correct this issue. Also, the correct dispense status is stored in a text record following the transaction record where the issue occurred.

### ***Reporting and clearing a 231 (Stuck Card Warning)***

This release has changed the method in which a terminal will call Triton Connect to report a 231 error (card left in reader). The 231 will be sent to Triton Connect if the rear sensor on the card reader is blocked for an extended period of time (roughly 3 minutes). Once the card is removed this warning condition will be cleared. This error applies to dip card readers only.

### **561 software error followed a 196 card reader error**

561 Software errors was masking the true error that was an 196 (Card Reader error). This release checks for the 196 error before setting the 561 error.

### **Corrected 188/190 Error Reporting**

This version of software will correctly report a 188 (Communications Key Not Configured)/ 190 (Master Key Not Configured) error.

### **Permanent TCP Connection**

The socket for permanent connection would block from receiving data if the host did not respond to a request within the specified Timeout setting. Now the terminal will detect this condition and rebuild the socket when this occurs.

### **Space-filled phone numbers**

This release will no longer validate a space filled number for dialing. If this is encountered the number will not be attempted.

### **Reloading Paper**

This release does not require the terminal owner to go into diagnostics and reset the printer when reloading paper. If the terminal is configured to be in service with printer errors and an out of paper event occurs, the terminal will reset the printer automatically when paper is reloaded.

### **Extended Amounts**

The extended amounts option has been moved to *Management => Terminal Configuration => Communication* dialog as the "Amount Type" option. This configuration consists of the following options:

- o Standard (No change from current software)
- o Extended Amounts (No change from current software)
- o Full Extended Amounts (Not currently supported in the South Africa screen file)

Main Menu/Terminal Configuration/Communication

1 Host IP Address 127.0.0.1 Enter

2 Host IP Port 9967 Cancel

3  Permanent TCP/IP Connection

4  Enable Communication Header 5

6  Use 12-Digit Sequence Number

7 Amount Type

8 Communication Protocol TCP/IP

9 Communication Message Format Triton Standard

0 Host Response Timeout 120

Reversal Communications

F1  Enable Persistent Reversals

F2 Reversal Attempts 0

F3  Enable Reversals For Protocol Errors

### ***Viewing large number of journal records at terminal***

Previous releases of software for XScale terminals had an issue where attempting to display a large number of journal records at the terminal may cause the terminal to encounter an out of memory condition and force a restart to recover. This release corrects this problem and allows displaying of any number of journal records in Management Functions.

### ***TDM extension changes***

On an RT2000 terminal, the TDM dispenser also contains a bill extension unit. There is an option in Management Functions in *Cassette Setup* called *Enable Extension Rejects* that will turn on/off the option of rejecting bills in the extension. The behavior of this option has changed slightly for certain conditions. Below is a description of the behavior in this software release if an extension reject occurs during a dispense:

#### ***Enable Extension Rejects On:***

The terminal will stay in service and attempt to purge the extension before the next dispense for both full and partial dispenses caused by a trailing edge timeout that caused the machine to stop prior to delivering all of the requested notes.

### ***Enable Extension Rejects Off:***

Terminal will go out of service with Error Code 97 (Extension exit trailing edge timeout) for both full and partial dispenses caused by a trailing edge timeout that caused the machine to stop prior to delivering all of the requested notes.

### ***Auto error recovery***

This release contains a change to attempt to automatically recover from specific device communication errors that may take the terminal out of service. The terminal errors that will cause this recovery are the following:

- 569: Dispenser security module communication failure
- 595: SPED communication failure

If this error condition is encountered, the terminal will call Triton Connect to report the error, and will subsequently attempt to recover by resetting the terminal. If the error is cleared during this process, the terminal will call Triton Connect to report this.

The error codes that will attempt recovery can be viewed at the terminal in *Management Functions => Terminal Status => Configuration Summary* and also in *Management Functions => Terminal Status => Terminal Error History*:

Auto Error Recovery

Max Reset Attempts: 2

Current Reset Attempts for EC595: 0

Current Reset Attempts for EC569: 0

The “Max Reset Attempts” indicates the number of times the terminal will attempt to reset the error. The number after the error condition represents the current number of retries for that specific error code. Once the error is cleared the value will be set back to 0. If the error condition still exists after 2 attempts, the terminal will go out of service and can then only be cleared manually.

### ***Allow scheduled journal call when out of service***

If a terminal is in an out of service condition at the time a scheduled journal call to Triton Connect is set occur, the call will be issued. In previous software releases, the journal call would not be made unless the terminal is in service.

### ***Don't callback Triton Connect unless connection first established***

In previous software releases for XScale terminals, if a terminal is configured for dialup for Triton Connect and an incoming call occurs but does not fully negotiate with the terminal, the terminal would call back to Triton Connect to complete the call. This could cause call collisions with Triton Connect.

This behavior has changed so the terminal will not call Triton Connect unless the modem negotiation completes, and instead the terminal will disconnect and wait for the call again.

### ***Invalid CRC on Day Close would still print host totals***

When the terminal initiates a Day Close or Trial Day Close and the message response CRC fails, the terminal would still display the totals sent by the host, which may not be valid. This software release corrects this and will not display the totals. A message "Host Totals Not Received" will be displayed for this condition.

### ***Display MAC address in Management Functions***

The terminal will now display the MAC address in *Management Functions => Terminal Status => Configuration Summary*.

### ***Journal archive changes***

The journal archive process (either through Auto Archive or Manual Archive) will now delete all journal records prior to the last audited record within the specified date range.

### ***Corrupt file recovery***

This release contains some changes to attempt to recover from a corrupt file on flash that might have previously caused the system to hang during boot.

### ***Rear service panel Day Close changes***

This release fixes an issue where text would wrap on the Day Close report print out of an RT2000 or FT5000 terminal.

### ***Restore Parameters from External Storage warning box***

This release fixes an issue where the warning message on the *Restore Parameters From External Storage* was cut off.

### ***Rear service panel communication changes***

This release fixes an issue where the rear service panel would not respond to the terminal.

## **New Features Added**

### ***Added Capability to Configure Users Passwords and Names from Triton Connect***

The terminal will now allow for remote changes to User Passwords and Names through Triton Connect. This change requires Triton Connect Version 4.3.8 or greater.

### ***PAN Suppression in journal records***

The middle PAN digits are no longer stored in the Journal. These digits are changed to '=' (0x3D) before being written to the journal files.

### ***Save EMV Parameters to External Storage***

When saving and restoring parameters, EMV settings will now be included. Added new tsf file format to support this new feature.

### ***Intermediate Screen when Exiting Management***

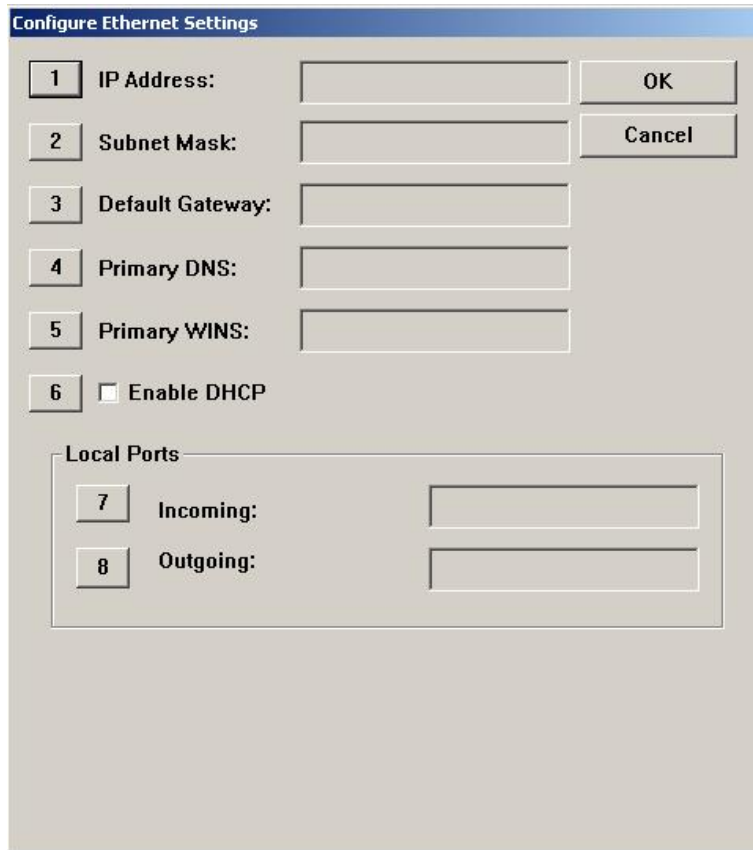
When exiting management functions the terminal will now go to the Customer/Management selection screen. This will allow for re-entry into management functions before processing any calls to Triton Connect or the host.

### ***Added "Improper Shutdown" Journal Entry***

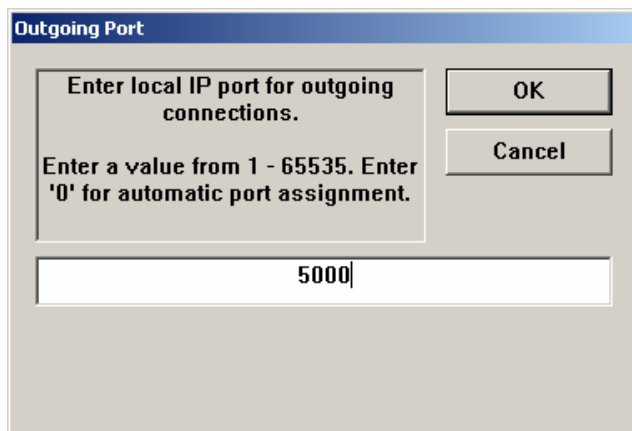
A new journal record is added to the journal when the terminal detects an Improper Shutdown.

### ***Configurable Local IP Port***

This release gives access to the IP port value for outgoing traffic to a host. The following is a screen shot of the configuration of this new feature.



The following is the dialog box that is used to configure the Outgoing Port address:



A setting of 0 allows the terminal to operate in a mode that is compatible with the 1.7.0 or prior releases. Any other values will force the outgoing port address to equal this setting.

### ***Power Failure During Dispense***

Changes have been made to how the terminal logs a power failure that occurs during a dispense operation. Previous releases would log the transaction record with a dispensed amount of zero and no reversal. This has been changed to the following if a power failure occurs at this time:



- If an NMD50 dispenser is being used, go out of service with a 238 error. This error can only be cleared by entering management functions and issuing a purge (Diagnostics->Dispenser->Purge). This error cannot be cleared from Triton Connect. *Note: in certain cases depending on if and where a bill was stuck in the feed path when power was lost, an error could be returned from the initial purge operation (i.e., Note qualifier error). In this case a second purge may be necessary to clear that error.*
- The dispense status code on the journal record will be 238 (power failure during dispense).
- The transaction journal record will log the full requested amount in “Amount Dispensed” field of the journal.
- A journal entry will be logged following the transaction record that an unknown dispense occurred. No reversal will be done.

Note that depending on if a bill was stuck in the feed path and where the bill is located when the power was lost, the initial purge issued in Management Functions could return an error from the dispenser.

### ***Add support for SP-06 EPP***

The SP-06 EPP is a Visa certified EPP and requires 2 users to enter passwords to enter a sensitive state in which master keys can be configured. The changes from a user interface perspective are outlined below.

First, the “Key Management” screen has changed slightly to add a sub-dialog for entering master keys. This change will be visible for either the older SP-05 EPP or the new SP-06 EPP.

Main Menu/Key Management

Select an option by pressing the appropriate number on the keypad.  
Press CANCEL to return to previous menu.

1

Enter Master Keys

2

Download Working Keys

3

Check Digits

4

5

6

7

8

9

0

Help

Exit Management Functions

RLTCP  
 12/27/2005    02:48 PM  
 Prog Version: 1.6.1  
 Screen File: XVAS0033

Current Terminal Error: 0  
 No Errors

*Upon selecting “Enter Master Keys” (option 1) and SP-06 EPP is being used, the users will be required to enter the 2 passwords. Note that these are not the same as the passwords used to enter management functions. The default password for both users is “000000” (six zeros).*

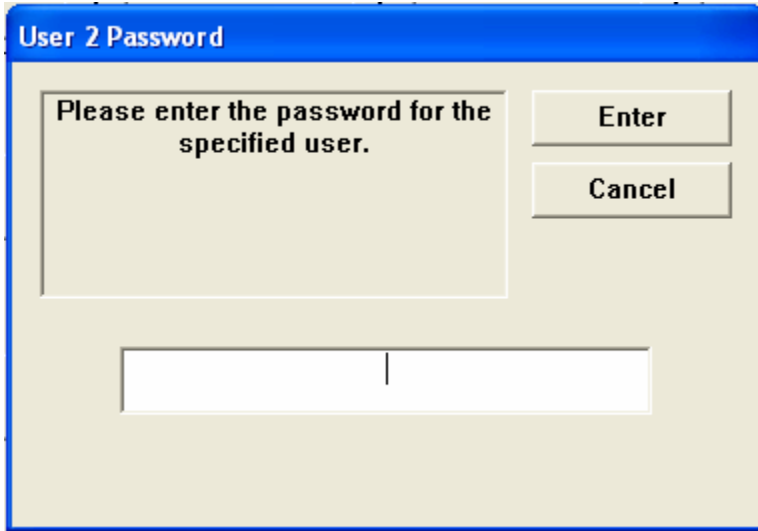
User 1 Password

Please enter the password for the specified user.

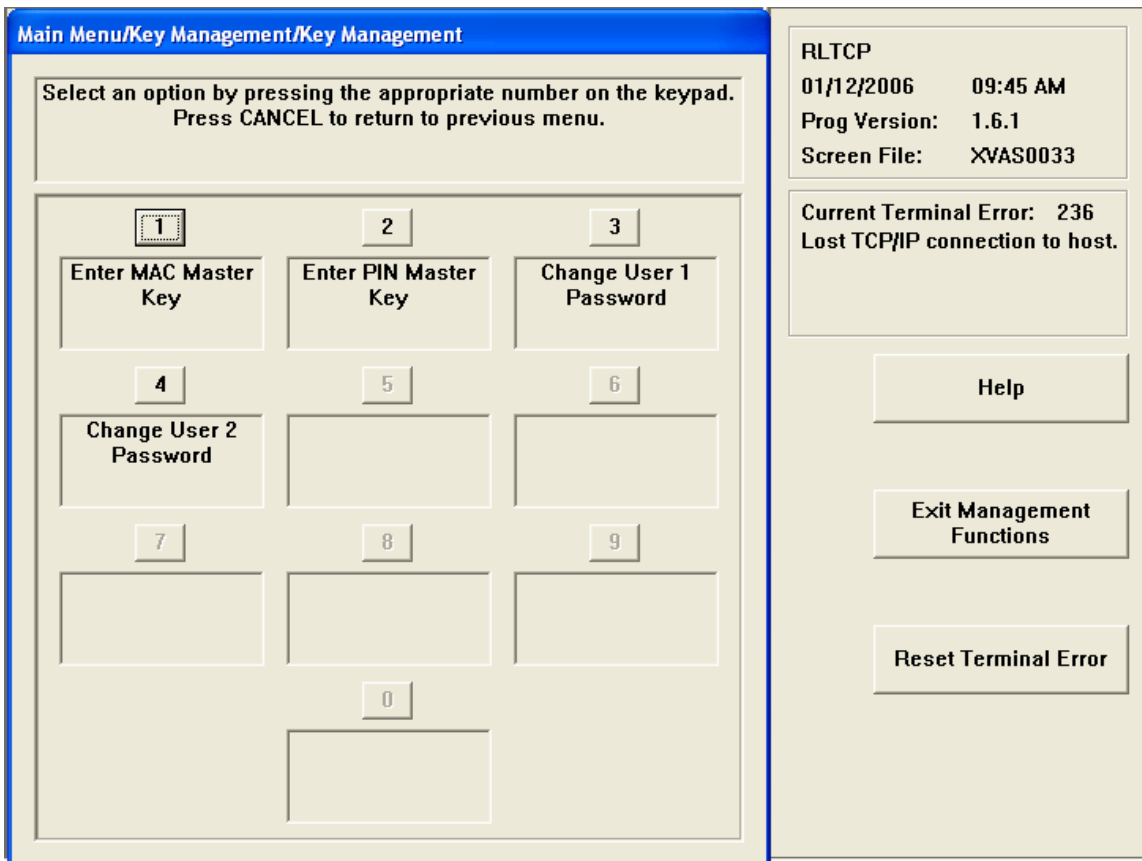
Enter

Cancel

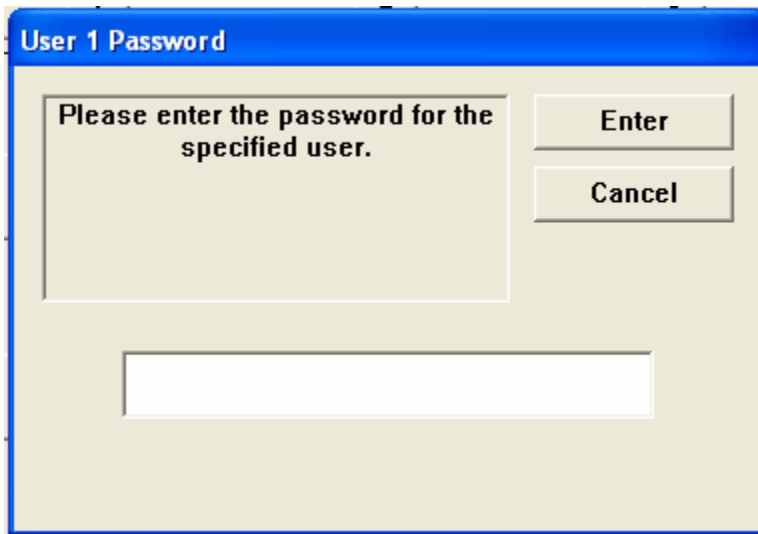
*Upon successful entry of the first password, the second user password must be entered:*



*Upon successful entry of both passwords, the user will be presented with a screen to enter keys and change passwords. Note that if the passwords have not been changed from the default values, options 1 and 2 will not be available. Both passwords must be changed from the default before master key entry will be allowed.*

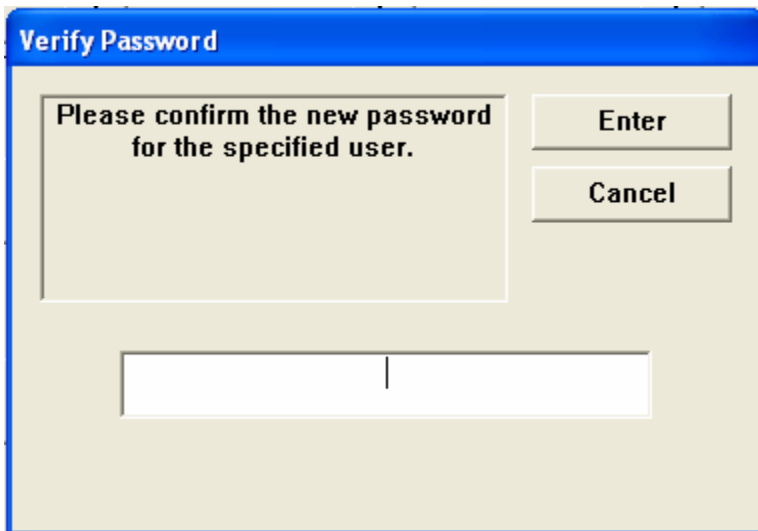


*Pressing option 3 or 4 to change a password will display a dialog similar to the following:*



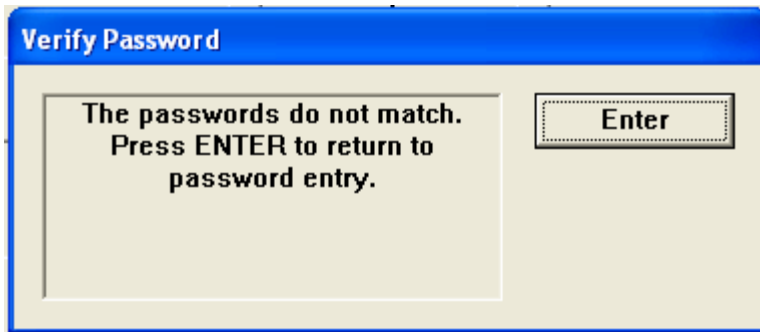
The dialog box has a blue title bar with the text "User 1 Password". The main area is light beige. On the left, a text box contains the instruction "Please enter the password for the specified user." To the right of this text box are two buttons: "Enter" and "Cancel". Below the text box is a large, empty white rectangular input field.

The default password for both users is "000000" and must be changed to something other than that before enabling master key entry. The user must also verify the new password anytime it is being changed:



The dialog box has a blue title bar with the text "Verify Password". The main area is light beige. On the left, a text box contains the instruction "Please confirm the new password for the specified user." To the right of this text box are two buttons: "Enter" and "Cancel". Below the text box is a large, empty white rectangular input field.

If the passwords entered do not match, the following dialog will be presented and the user must re-enter the initial password.



Upon successful entry of both passwords, the user will be able to enter master keys in the same manner as older EPPs.

### ***SP-06: Don't allow PIN entry if key held down***

One of the changes to SP-06 Visa EPP is to not allow PIN entry mode if a key is being held down on the keypad. If the customer dips a card and then proceeds to the PIN entry screen while a key on the keypad is being depressed, a "Please Wait" screen will be displayed. Once all keys have been released, flow will continue to the PIN entry screen. If a key is held down for 10 seconds then the transaction will cancel and return to the Welcome screen.

## **South Africa EMV**

This section describes all changes made to support EMV in South Africa

### ***Welcome Screen Changes***

The following figures show sample screen captures for each of the Insert Card screens.

## EMV



← Animation here will cycle between inward motion of card and text that reads "Do Not Remove Card Until Instructed". No outward

## EMV Bilingual



← Animation here will cycle between inward motion of card and text that reads "Do Not Remove Card Until Instructed". No outward

## Non-EMV



← Animation here will cycle between inward and outward motion of the card, indicating to the user that he or she must *swipe* the card

## Non-EMV Bilingual

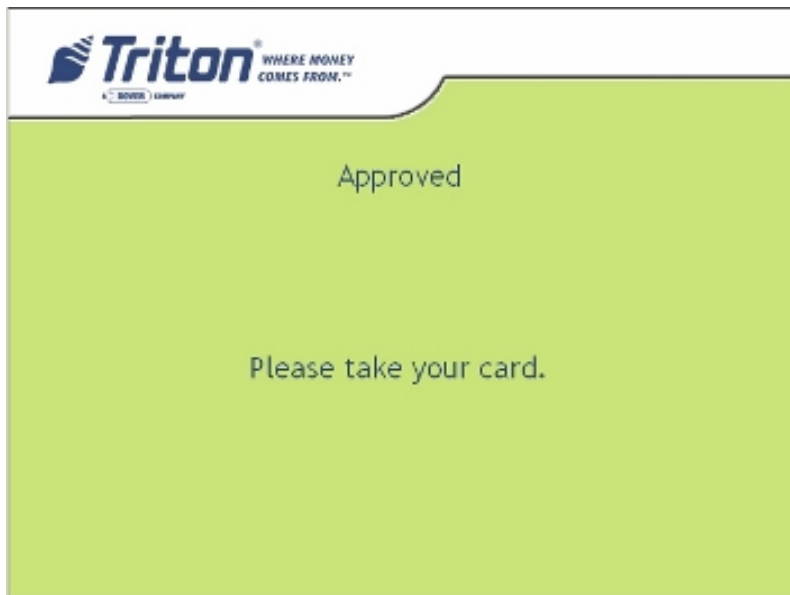


← Animation here will cycle between inward and outward motion of the card, indicating to the user that he or she must *swipe* the card

## ***Remove Card Before Dispensing Cash***

For ICC transactions, the user should be prompted to remove his or her card just after the terminal approves or declines the transaction (but before cash is dispensed), or when an error occurred while processing the transaction.

The remove card screen for both dip and motorized card readers should be combined with this approve or decline screen to meet the requirements in *PRD EMV Transaction Times.doc* where possible.



## ***Language Selection***

If the terminal is configured to give the user a language choice, appropriate EMV rules must be followed if a chip card is used. This includes automatically selecting the customer's preferred language as specified in the chip. For magnetic stripe cards, the user will always be prompted.

If Language Selection is on and the user inserted a magnetic stripe card or an EMV card with which the terminal could not automatically select a language, the user will be presented with the Language Selection Screen and prompted for a choice. This screen will be dual language only.

## ***Account Selection***

The account selection presented to the customer will depend on whether a domestic ICC card is being used or not. If a domestic South Africa ICC card is being used, the account selection will be handled through the application selection screen.

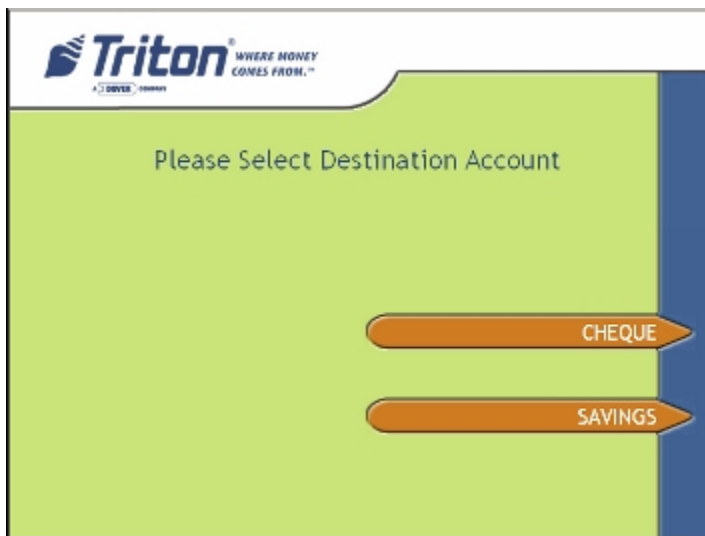
The terminal will determine if a card is domestic by examining the the country code and currency code on the card. The card will be considered domestic if either the country code is South Africa or the currency code is South African.

For domestic ICC cards, the following account selection screen will be used:





For non-ICC and international ICC cards, the standard account selection screen will be used:



## ***EMV Applications***

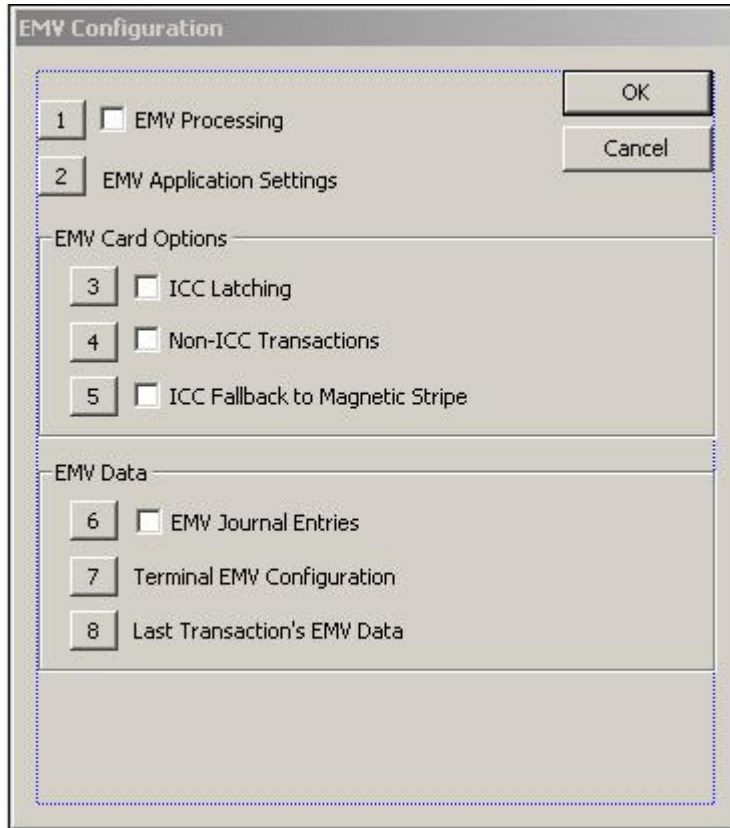
The following AIDs will be supported by this release:

The following applications will need to be supported:

- Visa Smart Debit/Credit (VSDC)
- Visa Electron
- MasterCard
- Maestro

## EMV Configuration

The following dialog is used for EMV configuration (*Management=>Terminal Configuration=>More=>EMV Configuration*):



### EMV Processing

This option will enable or disable processing using the EMV Standard. With this option disabled the terminal will perform transactions with the data that was received from the Magnetic Stripe and all other EMV options will be ignored by the terminal. By default this option is enabled.

### EMV Application Settings

***This option will open another dialog that will allow the user to configure the applications that the terminal supports. This dialog is located in***

EMV Application Settings.

## **ICC Latching**

This option will activate the mechanical latching mechanism on the MagTek Dip style card reader to provide some feed back to the customer to leave the card in the reader until the terminal prompts the user to remove their card. By default this option is enabled.

## **Non-ICC Transactions**

With this option enabled, the terminal will accept Cards that do not have an IC on them. Allowing the terminal to process transactions using Magnetic Stripe only cards along with EMV ICCs. By default this option is enabled.

## **ICC Fallback to Magnetic Stripe**

This option will allow ICC's that fail to communicate using the EMV standard to continue the transaction using the data on the Magnetic Stripe of the ICC. By default this option is enabled.

**\*\* Note – this may shift the liability for this transaction.**

## **EMV Journal Entries**

This option will include the Extra EMV Data generated for a transaction with the regular transaction record in the electronic journal. By default this option is enabled.

**\*\* Note – This option increases the average Journal Entry by 120 bytes, which may cause the electronic journal size to increase rapidly.**

## **Terminal EMV Configuration**

This option will display the current EMV Configuration of the Terminal.

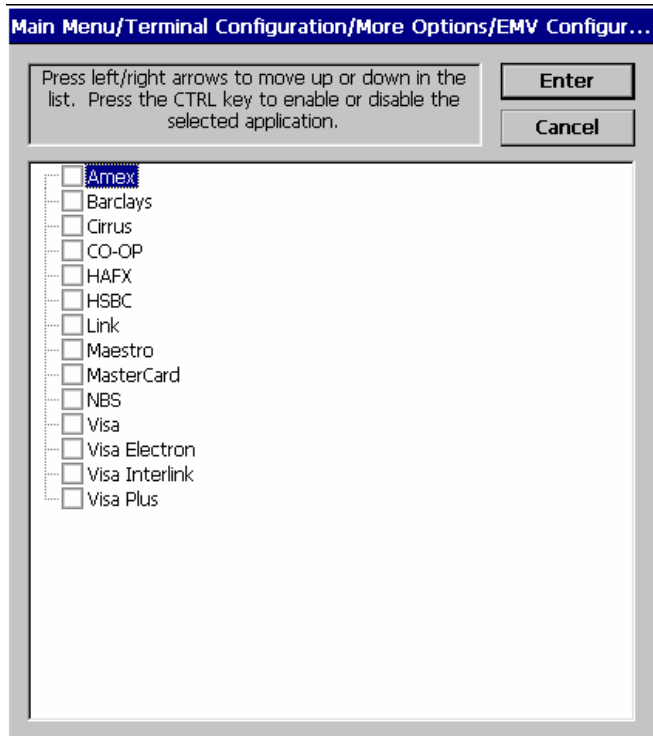
## **Last Transaction's EMV Data**

This option will display all of the EMV data that was collected by the terminal on the previous EMV transaction.

**\*\*Note - This data does not persist through a power loss.**

## ***EMV Application Settings***

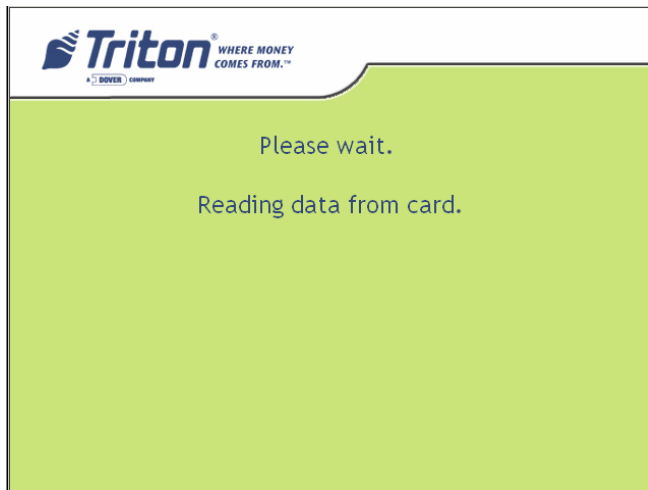
The following dialog will be displayed when “EMV Application Settings” option is selected from the “EMV Configuration” dialog. Applications can be enabled/disabled by navigation up/down using the left/right arrow keys on the keypad and selecting the “Ctrl” key to toggle the setting.



This dialog allows the enabling/disabling of supported applications on the terminal. These applications correspond to applications that are on the ICC to derive the Candidate list for the terminal per the EMV specification.

### **Card Processing Screen**

This screen will indicate to the customer that the terminal is communicating with the ICC:



### **Application Selection**

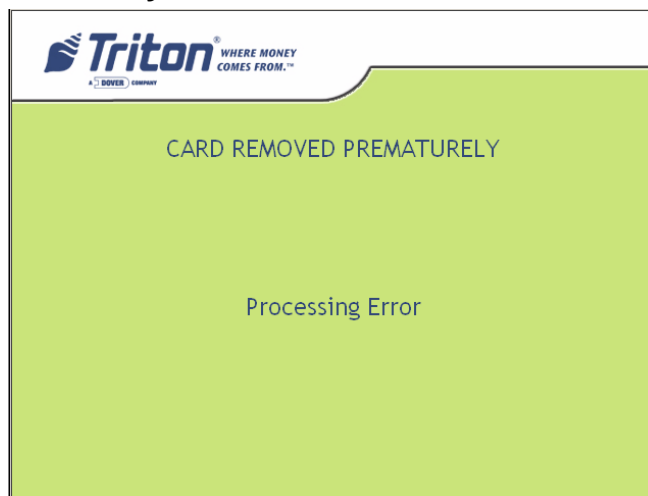
This screen will be displayed to the customer if the ICC or terminal requires that the candidate list be presented to the Customer:



### **EMV Error Screens**

EMV processing requires that the customer receive some feedback to the status of processing with the ICC.

### **Card Removed Prematurely**



#### **Condition:**

This screen will be displayed if the customer removed the ICC before the terminal prompted for the ICC removal.

#### **Corrective Action:**

The customer will need to wait for the insert card prompt, re-insert the ICC, perform transaction, and wait for the terminal to prompt them to remove their ICC.

## Card Error



### **Condition:**

This screen indicates that processing with the ICC encountered an error.

### **Corrective Action:**

Enable ICC Fallback to Magnetic Stripe and allow the terminal to process the transaction using magnetic stripe data, clean the ICC contacts and the reader's IC Contacts, replace the ICC, or Replace Card Reader.

## Not Accepted



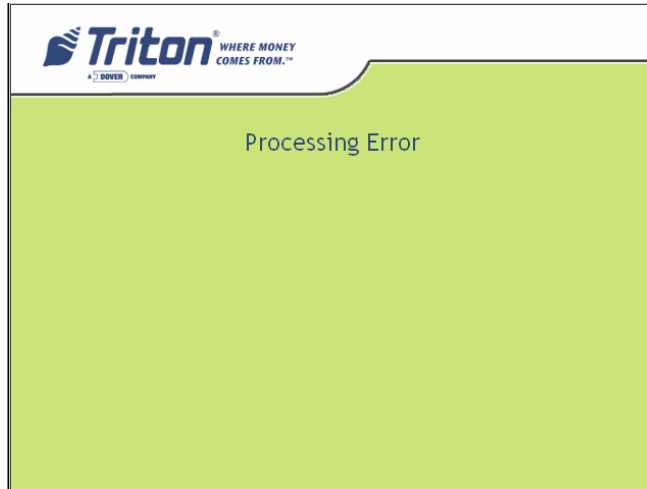
### **Condition:**

This screen indicates that the application on the ICC will not be accepted at the terminal. One reason is that the application is blocked on the ICC or the Terminal doesn't support any of the applications on the ICC.

**Corrective Action:**

If the application is blocked the Customer must get the application unblocked by the issuer. If the application is not supported on the terminal the application should be added to the application list on the terminal.

**Processing Error**



**Condition:**

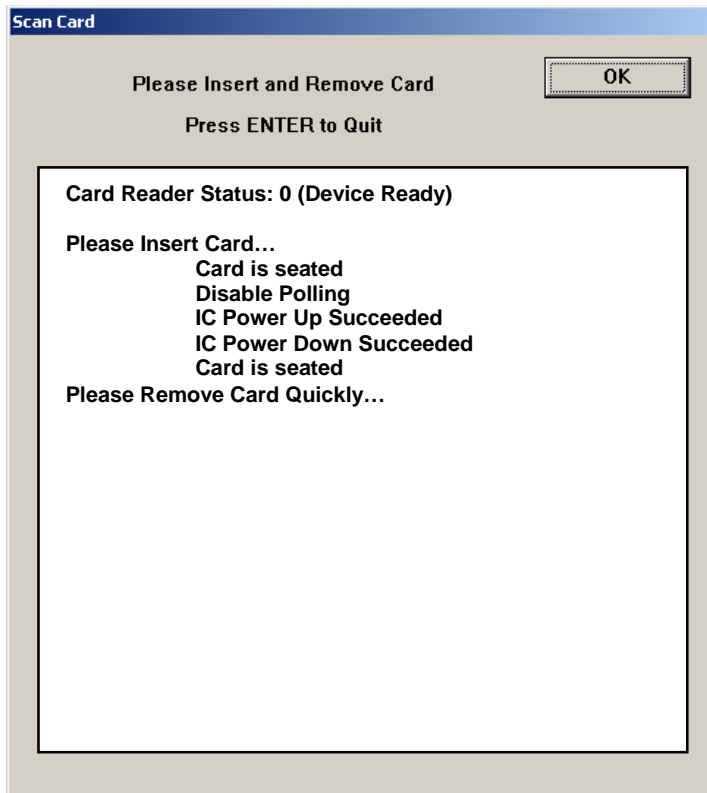
An Error occurred with processing the EMV Transaction.

**Corrective Action:**

Retry the transaction. If Error persists print the Last Transaction's EMV Data and analyze EMV Tag information for further Analysis.

**Scan Card**

Scan card (*Management=>Diagnostics=>Card Reader=>Scan Card*) will attempt to receive an Answer To Reset from the ICC. Once this process is completed the following screen will allow the user to print the results from the scan card process.



## Scan Card Results

### Store Message

Terminal ID: RL5000  
9/1/2004 6:44:31 PM

Track 1:  
<12345632525525^YOUR NAME^11236524  
1>

Track 2:  
<12345632525525=112365241>

Track 3:  
<>

ATR:(optional)  
<122334488877578>(If Track 2 indicates IC  
present and no ATR, "Error" is displayed)

\*\*\* End Management Report \*\*\*

This is a sample receipt with the results from performing scan card with an ICC.



## Changes to the Communication Specification

The following changes have been made to Triton Standard Communications (Version TSCD5.26) in order to support the new functionality of this release:

Misc FID '1': All transaction types for this release will use a transaction code of '99' and the extended transaction code (misc FID '1': lowercase 'L') will be used for the actual transaction.

Misc FID 'ux':

The following new FID will be utilized (as described in the *Triton Terminal Communications Protocol and message Format Specification*) to extend the settlement amount present in the Host Totals Download Request Message:

When present in the Miscellaneous field of the Host Totals Download Request message, the value accompanying this FID overrides the value in the Settlement field of the message. As a result, the value in the 12-digit Settlement field is rendered inconsequential; it should be filled with spaces.

The basic format for using this hyper-extended settlement FID is as follows:

```
ux000000123456789
```

The FID 'ux' is followed by 15 ASCII digits and it is zero filled to the left. The fifteen digits, '000000123456789', represent 123,456,789 units of a particular currency. The units always represent the smallest unit of the currency involved.

Misc FID 'ul':

The following new FID will be utilized (as described in the *Triton Terminal Communications Protocol and message Format Specification*) to hyperextend the actual dispensed amount present in the Reversal Request Message:

When present in a miscellaneous field of the Reversal Request Message, the value accompanying this FID overrides the value in the Amount 3 field of the message. As a result, the value in the 8-digit Amount 3 field is rendered inconsequential; it should be filled with spaces.

The basic format for using this hyper-extended amount FID is as follows:

```
ul000123456789
```

The FID 'ul' is followed by 12 ASCII digits and it is zero filled to the left. The sixteen digits, '000123456789', represent 123,456,789 units of a particular currency. The units always

represent the smallest unit of the currency involved.

## Default Parameters

## Known Issues

## Revision History

Date	Version	Description of Change
July 25, 2007	1.0	Initial Release
July 26, 2007	1.1	Added updated screen shot under the 'EMV Application Settings' heading.

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# Software Release Notes

## 2.1.2 UK Multi-Currency

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### Affected products

### RL5000

October 19, 2007

Version 1.1

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## **Introduction**

This software release is for the UK Multi-Currency Dispensing project. These release notes describe differences from the 1.8.6 UK software release for RL5000.

## **Platforms Affected**

This release is for the following XScale families:

- RL5000

## **Hardware Requirements**

The following hardware is supported by this release:

- 10.4" Display
- MagTek Intellistripe 65 Card Reader
- NMD 50 Dispenser
- SPED Firmware Version SP-06
- Modem and TCP/IP Communications

## **Software Requirements**

The following load files are included with this release:

- xd05xukx2.1.2.tlf – Full Load File UK Multi-Currency with EMV for 10.4" display

## **External Dependencies**

The following are external dependencies for this release:

- Triton Connect 4.4.0 is required to receive multi currency information from the ATM.
- Host processor support of Triton Standard Communications Protocol version 5.30 or later.

## Software Changes for Multi-Currency Support

### ***Support Currency Exchange and Balance Enquiry Only***

The terminal will offer a currency exchange transaction type for each foreign currency type supported. This software version will only support currency exchange and balance enquiry transactions. The following transactions will not be available:

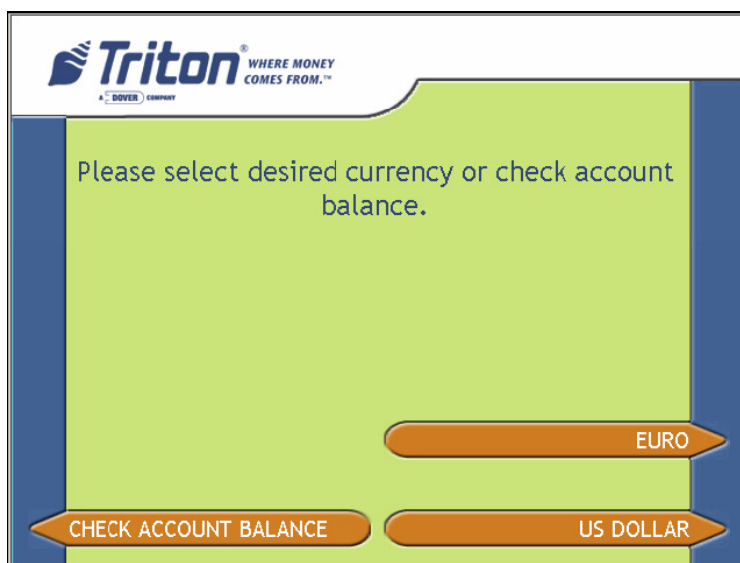
- Cash withdrawal
- Transfer of funds
- Mobile Phone Topup
- PIN Services
- Mini Statement
- Free Balance Enquiry

***Note: For this release, only Euro and US Dollars will be available for currency exchange transactions.***

The transaction selection screen presented to the user will display the balance enquiry option plus up to 2 currency dispense options. The text displayed for each button on the right will be based on the currency type selection in management functions, and the order of the buttons will be the currency type for cassettes A-D (from top to bottom).

The location of this screen in the screen flow will be the same as the current select transaction screen for both EMV and magstripe transactions.

Here is a sample screen shot:



The customer will only be presented with currency exchange transactions for currency types that have been configured and have a non-zero exchange rate assigned. A currency type must be set in service and have a non-zero multiple amount in order to be presented to the customer.

For example, if Euro (cassette A) and US Dollars (cassette B) are configured but only an exchange rate for Euro has been sent from the host, only the option for Euro will be displayed.

The terminal administrator can configure multiple cassettes to be the same currency (with either the same or different denominations). A currency exchange transaction for that currency type should perform standard large to small bill mix similar to an ATM withdrawal. Other bill mix methods will not be used.

### **No Account Selection Screen**

The customer will not be prompted to select an account for a currency exchange or balance enquiry transaction. This option will not be available to the terminal administrator in Management Functions. Note that the account type sent to the host in the transaction request will be the account type configured in Management Functions in *Terminal Configuration => General Parameters => Account Type* selection:

**Main Menu/Terminal Configuration/General Parameters**

1 Terminal ID: 123456 **Enter**

2 ZIP Code: **Cancel**

3 Reset Sequence No.

**Default Values**

4 Language: English

5 Transaction: Currency Exchange

6 Account Type: Checking

**Printer Settings**

7  Out of Service on Low Paper

8  Out of Service on Printer Error

**ATM Monitoring**

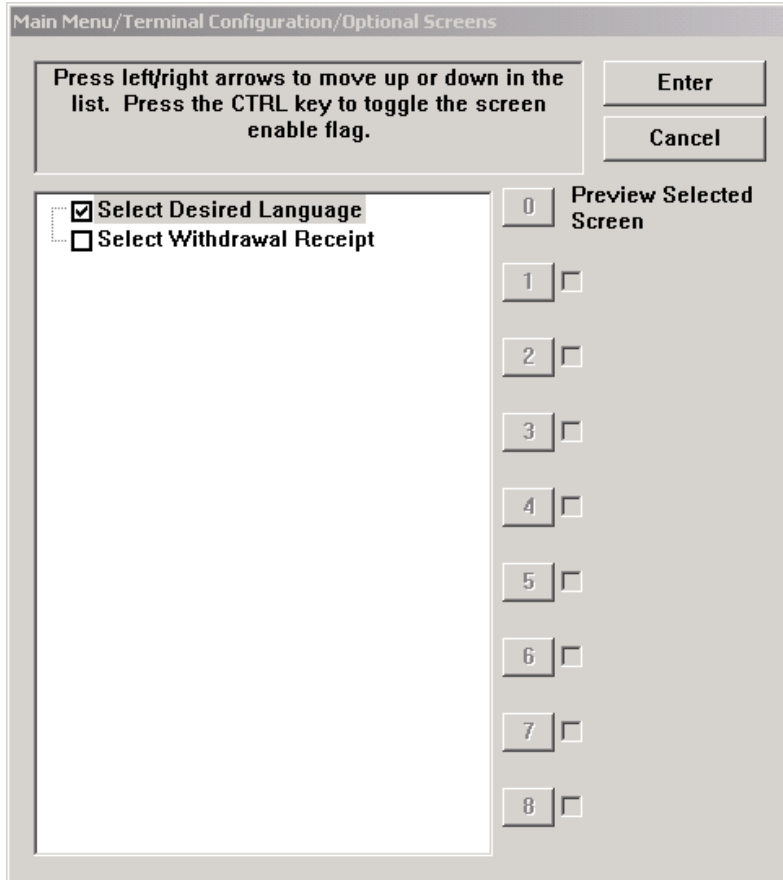
9  Status Monitoring

0  Heartbeat Message

F1 Heartbeat Delay Period: 30

## **Cannot Disable Transaction Selection Screen**

The select transaction screen will not be available as an optional screen and will always be displayed to the customer. The following screen shot shows the only available optional screens for this release:



## **New Terminal Error Codes**

The following error codes have been added for this release:

- 400 Exchange rate not configured: No exchange rates have been configured for valid cassettes
- 401 Cassette currency configuration error: No cassettes are found for the known list of currency

## **Cassette Type Set in Note Configuration**

As is true with previous software releases, the cassette currency type for the NMD50 dispenser must be configured in the cassette itself. If the cassette is not pre-programmed for proper currency type, this can be configured *Management => Terminal Configuration => Cassette Setup => Cassette Parameters => Note Configuration*.



## Cassette Parameters Changes

The Cassette Parameters configuration dialog has been changed to only allow the following configuration:

Main Menu/Terminal Configuration/Cassette Setup/Cassette Parameters

1 Relearn Bill Thickness

2  All Cassettes Locked

3  Retract Cash

4 Retract Delay

Active Cassette:

5  Cassette Status:

Cassette Parameters

6  Cassette In Service

7 Multiple Amount

8 Document Type:  Cash  Non-Cash

9 Non-Cash Item Description:

10 Secondary Item Description:

F1 Note Configuration

The “Type” option (cash or non-cash) will be disabled for this release. Only currency exchange transactions will be permitted.

The “Multiple Amount” will be formatted according to the currency code configured in “Note Configuration”.

## Cassette Setup Changes

The Cassette Setup configuration dialog has been changed to only allow the following configuration:

**Main Menu/ Terminal Configuration/ Cassette Setup**

Withdrawal Amounts

1 Maximum Cash: \$500

2 Maximum Non-Cash: \$0

3 Mix Method: Minimize

Fast Cash Amount

4 Fast Cash 1: \$10

5 Fast Cash 2: \$20

6 Fast Cash 3: \$30

7 Fast Cash 4: \$40

8 Fast Cash 5: \$50

9 **Cassette Parameters**      0 **Currency Configuration**

Enter

Cancel

Button “0” has been added for currency configuration. Pressing this button will bring up the Currency Configuration Dialog.

All the dialog items not used for currency exchange will be disabled.

### ***Currency Type Configuration***

If the user selects “0” on the “Cassette Setup” menu, the following dialog will be displayed:

Figure 1

Selecting option 1 will cycle through all available currency codes. The code is displayed in ISO 4217 codes (alphabetic and numeric). The only codes available for this release are:

- USD (840)
- EUR (978)

All information in the “Currency Data” section as well as the “Currency Description” is read-only and is displayed for viewing purposes. The currency description string is the text that will be displayed on the transaction selection screen. This string will be the currency string specified in ISO 4217. This string will only be displayed in English.

There are five configurable fast cash amounts for the currency.

The fast cash amounts on the standard withdrawal amounts dialog will not be used for currency exchange transactions and will be disabled.

Selecting “Enter” on this dialog will apply the selected configuration for each currency code. Pressing “Cancel” will cancel any changes made on this dialog.

### **Commission/Issuer Fees**

This software release supports the capability for the host to send a commission fee to be presented to the customer for all currency exchange transactions.

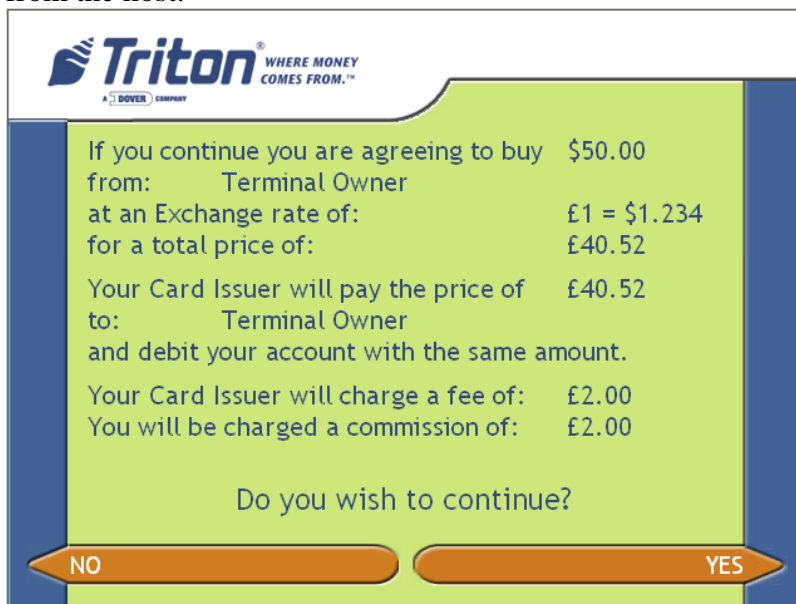
The following screen will be displayed after the customer has selected the currency type and amount:



Selecting “No” on this screen will cancel the transaction and the customer must re-insert his card to begin a new transaction. A commission of zero will not be displayed to the customer.

If no commission is configured for the ATM, the commission value will not be displayed.

The following screen will be displayed after a successful transaction response has been received from the host.




The customer can answer YES to accept the transaction and receive the requested currency, or answer NO to reverse the transaction. If the customer does not answer YES before a 30-second timeout expires, the transaction will be reversed.

Note that the Issuer Fee statement will only be displayed and printed on the receipt if the Issuer Fee amount is greater than zero. Also, the commission statement will not be displayed if the commission value is zero.

Below is a sample receipt:

```


Store Message

Marketing Message

Terminal#
09/07/07    12:50:21
    *** Currency Exchange ***

Card Number    Auth #
*****0000    0
AID: 00000000000000000000000000000000
Label: WWWWWW
PAN Seq#: 0
    Requested:          $50.00
    Dispensed:          $50.00
    Converted Amount:   £40.52
    Commission:         £2.00
    Issuer Fee:         £2.00
    Exchange Rate: £1 = $1.234000000
    Total Withdrawal:   £44.52
    Ledger Balance:    £9999.99
    Available Balance: £9999.99

Receipt Message

```

## **No Customer Surcharge Screens**

No customer surcharge or LIS5 screens will be available with this software release. Note that a surcharge amount can be configured or sent by the host, but a surcharge screen will *not* be displayed to the customer. Only commission or positive issuer fees as described above will be displayed. The total withdrawal amount will reflect all applied fees.

## **Balance Enquiry Amounts**

Balance enquiry transactions will print amounts in the local currency only.

## **Configuration Summary Changes**

The configuration summary report in Management Functions will list all currency types supported as well as fast cash amounts, maximum withdrawal amounts, and exchanges rates for each.

Also, the commission amount and currency description for each cassette will be listed.

## **Day Close Totals**

The existing day close and trial day close reports will be used. The totals normally displayed for “Withdrawal” transactions will be the totals for the “Currency Exchange” transactions. Totals will also be broken out by currency type.

## **Journal Data**

All currency exchange transaction journal data will include the amount requested and amount dispensed in both local and foreign currency as well as currency type dispensed and exchange rate applied. Commission will be stored in local currency.

Here is a sample journal record for a currency exchange transaction.

```
Currency Exchange
  Sequence #:           1234
Response Code:   Approved(000)
  Account:       55555====1234
  Auth #:       12345678
  Commission:           £2.00
  Issuer Fee:           £2.00
Requested Amt:           $50.00
Dispensed Amt:           $50.00
Currency Type:           826
Exchange Rate:           1.234
```

Amount Debited:	£44.52
Dispense Sts:	0
Dispensed:	5 0 0 0
Rejected:	0 0 0 0
Reversal Sts:	None

### **Rounding Method**

Standard rounding (round up if 5 or greater, round down if lower than 5) should be used when converting amounts. For example, \$1.255 would yield \$1.26, and \$1.254 would yield \$1.25.

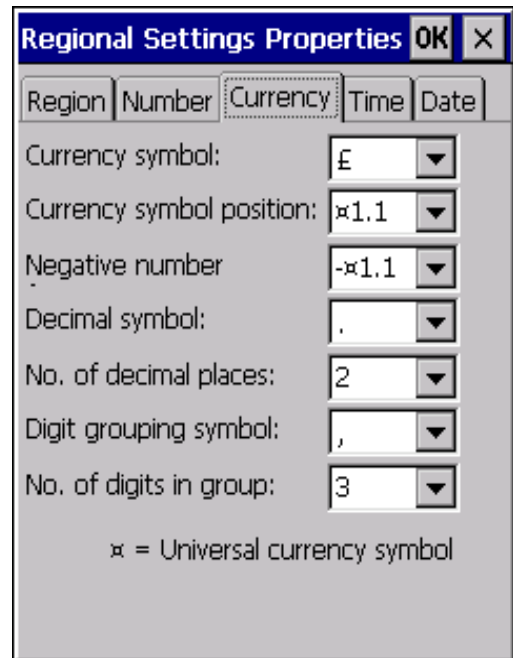
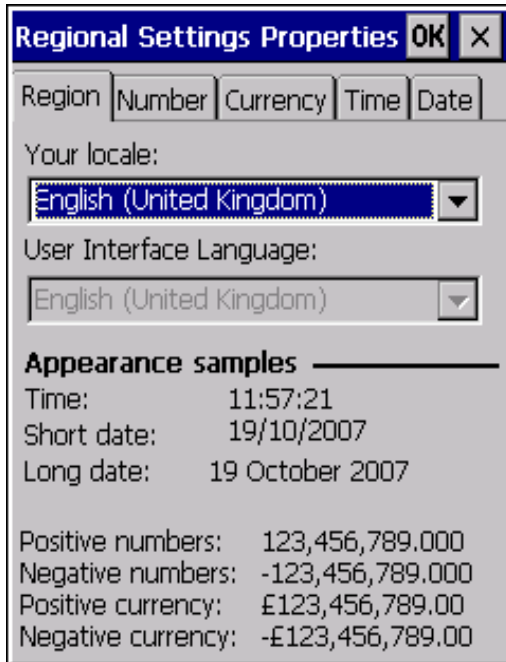
Any amounts that are converted from foreign requested amount to local amount will use this rounding method. This includes:

- Requested amount in local currency sent to the host in a transaction request
- Requested amount in local currency presented to the customer on the screen and on the receipt.

### **Regional Settings**

The regional settings locale (Management Functions=>System=>Regional Settings) must be set to “English (United Kingdom)” to designate pounds as the local currency type.

*Note: only currency setting of 2 decimal places (in Regional Settings=>Currency=>No. of decimal places) is supported by this release.*



### ***Printer Default Settings***

Both the “Out of Service on Low Paper” and “Out of Service on Printer Error” settings in Management Functions will be enabled by default for this release. The “Select Withdrawal Receipt” option in Optional Screens will be disabled by default.



## Changes to the Communication Specification

Triton Standard supplemental document *Triton Terminal Currency Exchange Specification* (Version TSCE 1.1) has been added in order to support the new functionality of this release. Please refer to that document for details on the message request/response format for currency exchange transactions.

## Known Issues

### **Note Configuration Error**

When configuring the currency type for a specific cassette in *Management=>Terminal Configuration=>Cassette Setup=>Cassette Parameters=>Note Configuration*, the terminal may display the following erroneous message upon completing this process:

"Change Cassette 3 currency data failed. Value = <USD0111>, error code = -5058."

When this occurs, exit back to the *Cassette Parameters* dialog and then back to *Note Configuration* and verify the currency type was changed.

## Revision History

Date	Version	Description of Change
September 28, 2007	1.0	Initial Release
October 19, 2007	1.1	Added note that only 2 decimal place currencies are supported

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# XScale 2.2.1 Software Release Notes US / Canada

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Affected products  
RL5000, FT5000, RT2000

February 18, 2008

Version 1.0

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## Introduction

This document describes new functionality for the 2.2.1 software release for RL5000, FT5000, and RT2000.

## Platforms Affected

This release is for the following families:

- RL5000, FT5000, RT2000

## Hardware Requirements

The following is a list of hardware supported by this software:

- Display: 10.4"
- Card Reader: Magtek 215 Dip Reader, MagTek Intellistribe 65 Dip Reader, or Sankyo ICT3K5 Motorized Reader
- EPP: Triton SP-05 or SP-06.00; T5 PCI EPP
- Dispenser: TDM50, TMD1xx, TDM2xx, SDD, MiniMech, NMD50, NMD100
- Printer:
  - Seiko 80mm Printer with Presenter
- Modem: MultiTech USB or PCMCIA Modem

## Software Requirements

The following load files are included with this release:

- xd00xvas2.2.1.tlf – Full load Live US Software for 10.4" display
- xu00xvas2.2.1.tlf – Update load Live US Software for 10.4" display

xd00xcan2.2.1.tlf - Full load Live Canada software for 10.4" display

xu00xcan2.2.1.tlf - Update load file for Canada software 10.4" display

## **Description of Changes**

### ***PCI EPP Support***

This version of software will support the T5 EPP.

### ***Fully support TDM Dispenser Status Report***

The TDM Status report has over 200 click counters and this version of software will print all available click counters.

### ***Invalid PIN Message***

This version of software changes a screen that would display an Invalid PIN message when a communication error occurred with the EPP during PIN entry. This message has been changed to say "An error occurred while processing your PIN".

### ***The terminal will go out service with spaces as the Host phone number***

This version of software will take the terminal out of service if the Host Phone number is not correctly configured.

### ***Rear Service Panel Cassette Closes are performed correctly with only cassette B installed (RT2000 and FT5000 only)***

This version of software correctly performs cassette closes if only a cassette B is installed in the terminal.

### ***Shutter Diagnostics (FT5000 only)***

Under the dispenser diagnostic, a new selection to test the shutter for the FT5000's terminals with a shutter is available. This function will open and close the shutter for diagnostic.

### ***Reason for why a cassette was taken out of service is recorded***

This software will record the reason why a cassette is taken out of service when the cassette is taken out of service by the terminal.

## Revision History

Date	Version	Description of Change
2/18/2008	1.0	Initial Revision

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# XS 2.2.3 Software Release Notes Mexico Dollar Dispense

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Affected products  
RL5000, RT2000

February 13, 2009

Version 1.0

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## Introduction

This document describes new functionality for the 2.2.3 software release for Mexico Dollar Dispense.

## **Platforms Affected**

This release is for the following families:

- RL5000, RT2000 with XScale and X2 Controller

### ***Hardware Support***

The following is a list of hardware supported by this software:

- Display: 10.4" and 8" Color VGA Display
- Card Reader: MagTek 215 Dip Reader
- EPP: Triton SP-05 and SP-06 and Sagem EPP
- Dispenser: TDM100/150, TDM200/250, SDD, NMD50
- Printer: Seiko USB Printer without Presenter (60mm), 80mm with presenter
- Modem: Triton USB, Multi-tech USB

### ***Software Requirements***

The following load files are included with this release:

- xd05xmcx2.2.3.tlf – Full load file for 10.4" XScale
- xd15xmcx2.2.3.tfv – Full Load for 8" and 10.4" X2

### ***External Dependencies***

The following feature requires Triton Connect Version 4.4 or greater (X2 requirement):

- Software updates from Triton Connect

## Description of Changes

### Available Transaction Types

The dollar-dispensing version of the Mexico screen file offers all of the standard transaction types (Withdrawal, Balance Inquiry, Transfer, PIN Change and Purchase) available in previous versions of Mexico software, with the exception that the 'Withdrawal' option will actually perform a 'Currency Exchange' transaction.

**IMPORTANT:** This version of software does not support user-selection of a DEFAULT TRANSACTION TYPE. The default transaction type is restricted by the software to the 'Currency Exchange' transaction type.

### Default Transaction Type

The terminal software will offer only a single DEFAULT Transaction Type of 'Currency Exchange,' which will be displayed in the General Parameters dialog in Management Functions. The software WILL NOT support selection of any other Transaction Type (Balance Inquiry, Transfer, PIN Change or Purchase) as the default transaction type. Because of this restriction the capability of bypassing the Transaction Selection screen (via the Optional Screens dialog) has been removed.

Figure 1a - General Parameters dialog – English version

The screenshot shows a dialog box titled "Main Menu/Terminal Configuration/General Parameters". It contains the following fields and options:

- Terminal ID:** RL5000 (with an "Enter" button)
- ZIP Code:** (empty field with a "Cancel" button)
- Reset Sequence No.:** (empty field)
- Default Values:**
  - Language:** English (dropdown menu)
  - Transaction:** Currency Exchange (dropdown menu)
  - Account Type:** Checking (dropdown menu)
- Printer Settings:**
  - Out of Service on Low Paper
  - Out of Service on Printer Error
- ATM Monitoring:**
  - Status Monitoring
  - Heartbeat Message
  - Heartbeat Delay Period:** 30 (text input field)

Figure 1b - General Parameters dialog – Spanish version

Menu Principal/Configuracion del Terminal/Parametro General

1 Numero del

2 ZIP Code:

3 Reinicializar el numero de sequencia No.

Valores de configuraciones inicial de fabrica

4 Lenguas:  ▼

5 Transacciones:  ▼

6 Tipos de cuentas:  ▼

Configuraciones de la Imprenta

7  Fuera de Servicio el level de papel bajo

8  Out of Service on Printer Error

Cajero monitoreado

9  Estado del monitoreo

0  Mensaje periodico

F1 Periodo de Tiempo Periodico:

### ***Optional Screens Dialog***

Previous versions of Mexico software allowed the user to control the display of the Transaction Selection Screen using the Optional Screens dialog in Management Functions. The purpose of this feature was to allow the screen to be disabled, in which case the selected default transaction type would be performed automatically. However, since the Mexico Dollar Dispensing version of software does not support default transaction selection, Transaction Selection will no longer be optional and has been removed from the Optional Screens dialog, as shown here:

Figure 2a - Optional Screens dialog – previous version

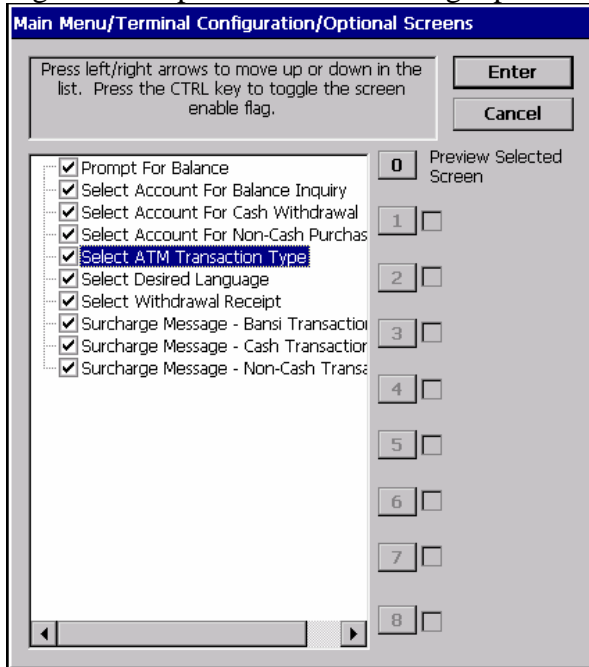
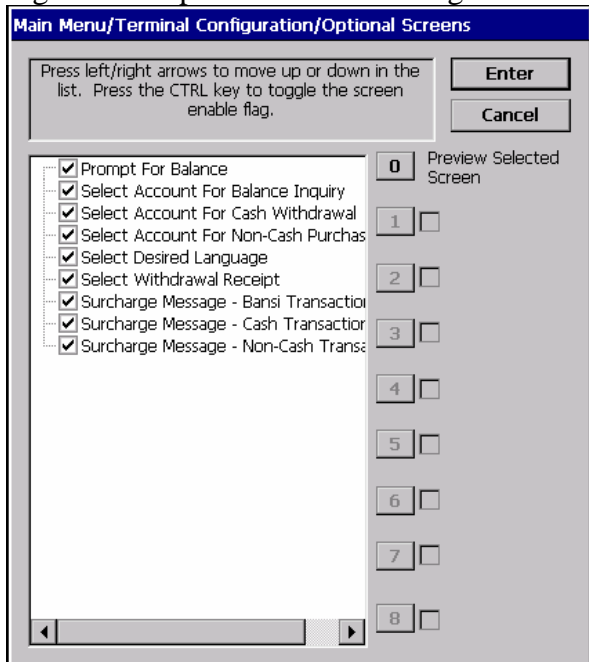


Figure 2b - Optional Screens dialog – new version



### ***Optional Screen Buttons Dialog***

The display of the available options on the Transaction Selection Screen can be controlled using the Optional Screen Buttons dialog in Management Functions. Selecting the ‘Select ATM

Transaction Type' option enables you to enable (checked) or disable (unchecked) the display of individual options on the screen.

**IMPORTANT:** At least ONE option must be enabled on the screen. The terminal will not allow you to disable all buttons on a screen!

Figure 3a - Optional Screen Buttons dialog – English version

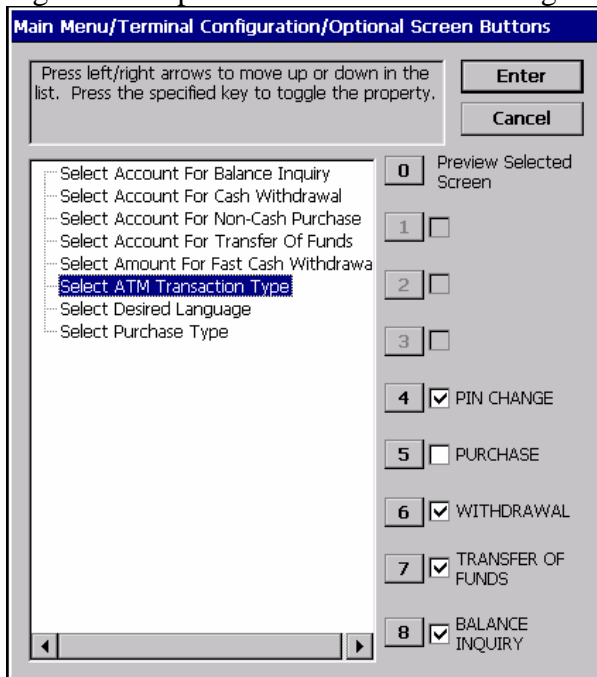
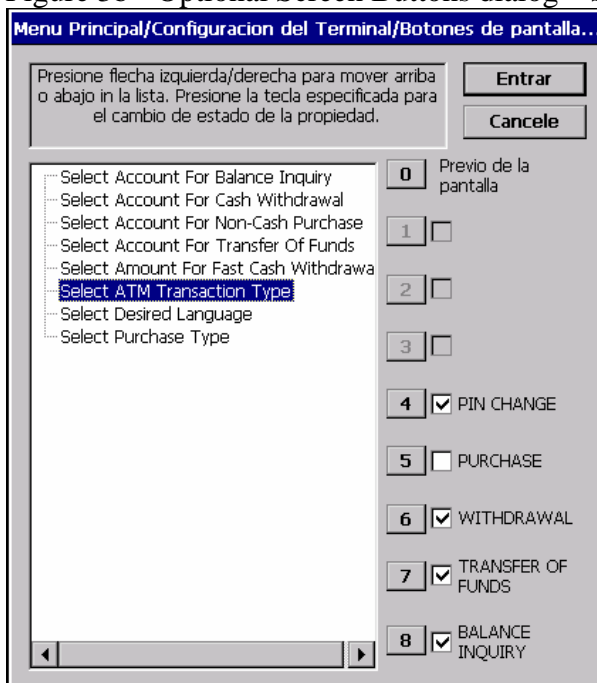


Figure 3b - Optional Screen Buttons dialog – Spanish version





## Transaction Selection Screen

The Transaction Selection Screen provides an opportunity for the customer to select the transaction type of their choice. When displaying all available options, the screen appears as in this example:

Figure 4a - Transaction Selection Screen – English version



Figure 4b - Transaction Selection Screen – Spanish version



## New Welcome Screen

The welcome screen has been modified to use hardcoded text in the welcome message instead of a configurable message. The text is also now bilingual. The following is an example:

Figure 5 - Welcome Screen – Bilingual version



Although the configurable Welcome Message is no longer displayed onscreen, the message is still used, for Exchange Rate configuration, as described in the next section.

### ***Exchange Rate Configuration***

The exchange rate must be configured using Triton Connect. Triton Connect will send a specially formatted “Welcome Message” to the terminal to change the exchange rate on the terminal.

**IMPORTANT:** If Triton Connect sends a “Welcome Message” that does not conform to the special formatting the terminal will go out of services with EC400 “Exchange Rate not configured”

#### **Expected format:**

“Exchange Rate:MX\$NN.NNNNNNNN=US\$1”

- N must be a decimal digit (0-9)
- There must be exactly 10 N.
- The decimal sign must be included.
- The decimal sign (.) can be at any position.
- The only space in the format is after the word “Exchange”

Leading zeros will be removed but not trailing zeros when displayed to the customer. For example:

- “Exchange Rate:MX\$10.12480000=US\$1” will be displayed to the customers as “MX\$10.12480000 = US\$1”

- “Exchange Rate:MX\$000010.1248=US\$1” will be displayed to the customers as “MX\$10.1248 = US\$1”

**IMPORTANT:** Sending a welcome message parameter to the terminal through Triton Connect that does not exactly match this formatting will put the terminal out of service with an EC400.

## **Surcharge Screens**

The Exchange Rate will be included on the surcharge screens as applicable, using the following statement (English and Spanish versions given below):

- English: The Exchange Rate is \$XX.XX pesos for 1 dollar
- Spanish: El tipo de cambio es \$XX.XX pesos por 1 dólar

Figure 6a - Fee Notice – Bansi – Currency Exchange Transaction – English version

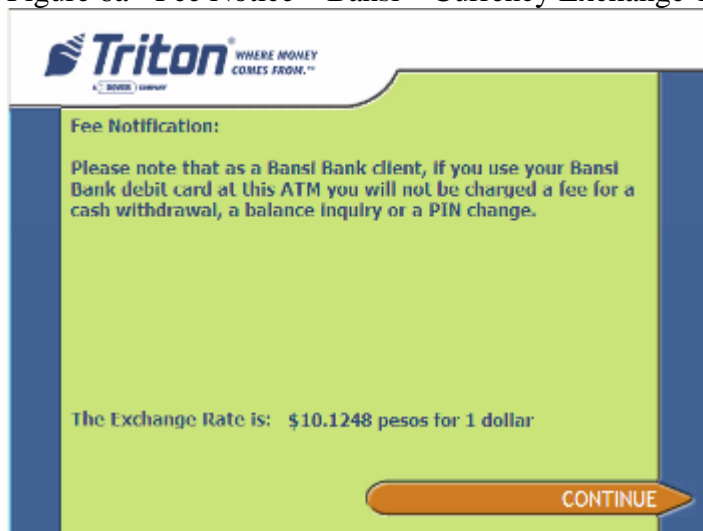


Figure 6b - Fee Notice – Bansi – Currency Exchange Transaction – Spanish version



Figure 7a - Fee Notice – Bansi – Non-Currency Exchange Transaction – English version

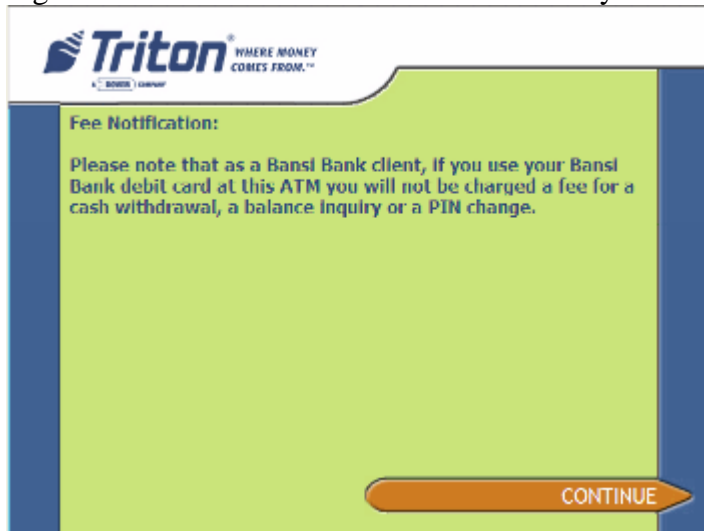


Figure 7b - Fee Notice – Bansi – Non-Currency Exchange Transaction – Spanish version



Figure 8a - Fee Notice – Non-Bansi – Currency Exchange Transaction – English version

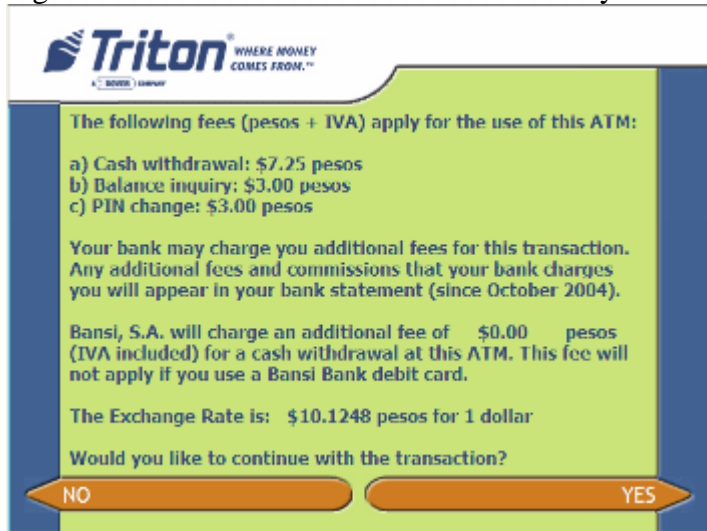


Figure 8b - Fee Notice – Non-Bansi – Currency Exchange Transaction – Spanish version

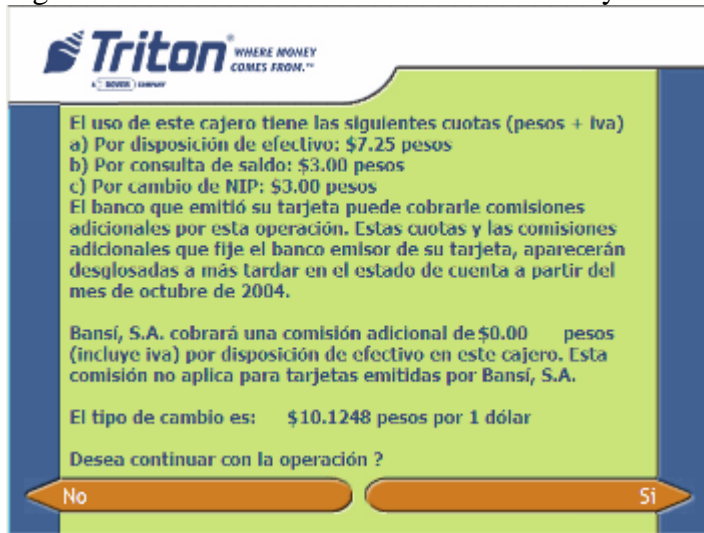


Figure 9a - Fee Notice – Non-Bansi – Non-Cash Transaction – English version

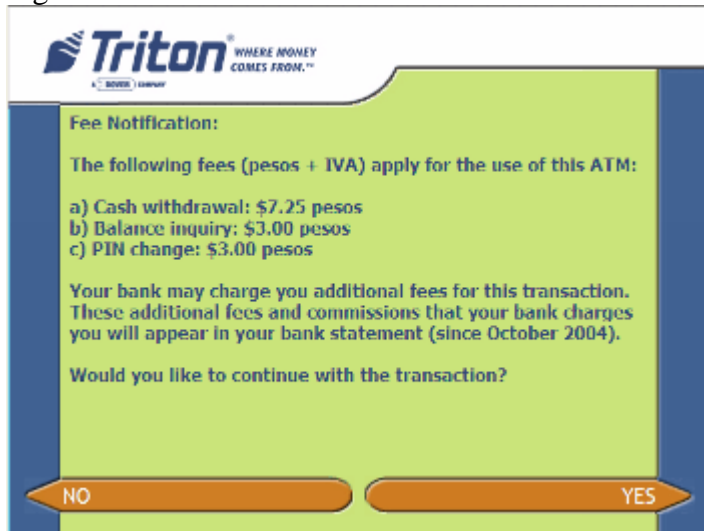


Figure 9b - Fee Notice – Non-Bansi – Non-Cash Transaction – Spanish version

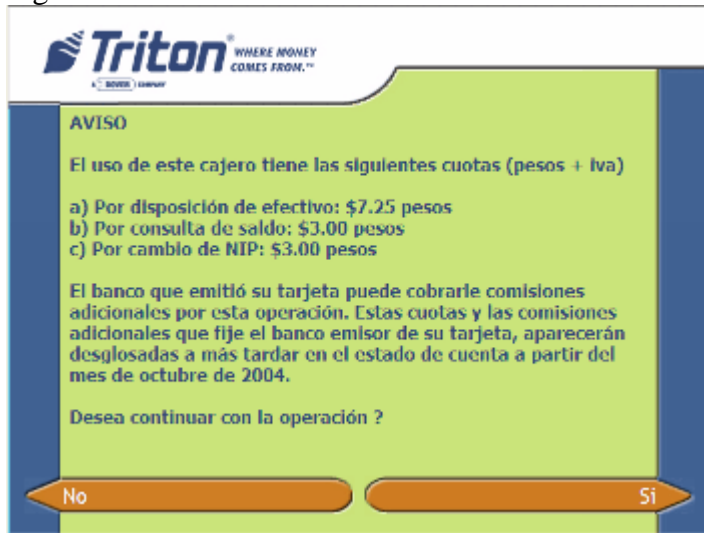


Figure 10a - Fee Notice – Non-Bansi – Purchase Transaction – English version

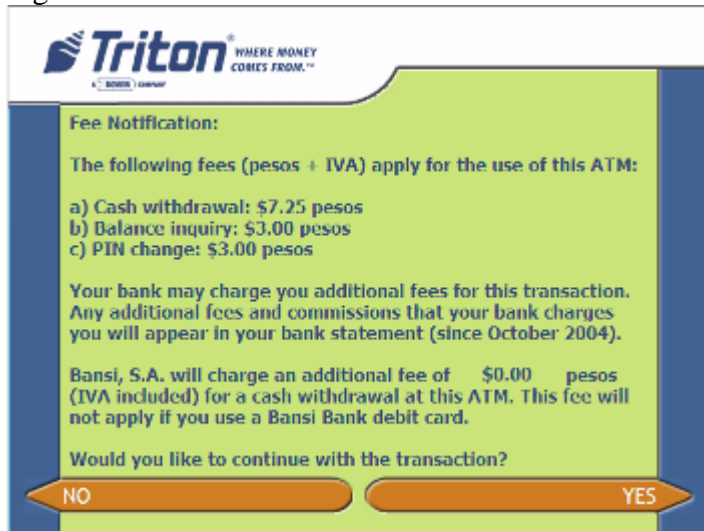
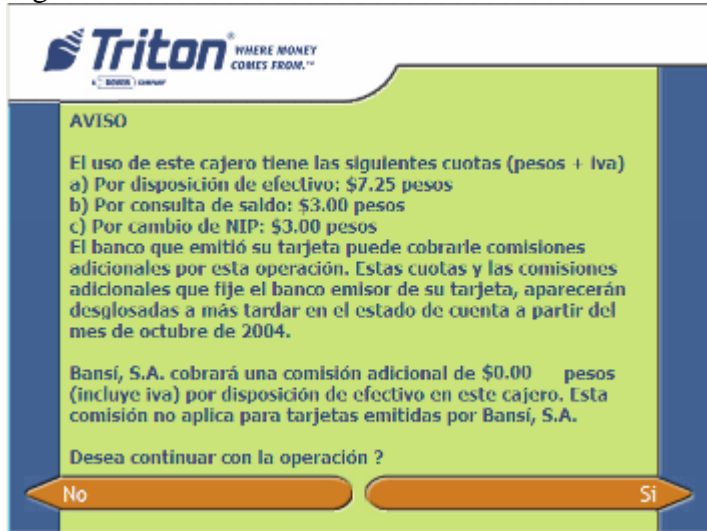


Figure 10b - Fee Notice – Non-Bansi – Purchase Transaction – Spanish version



### ***Withdrawal Amounts in US Dollars***

The fast cash and other amount screens will indicate that the withdrawal amount will be in US dollars.

Here is an example of the fast cash selection screen, in both English and Spanish, using the US\$ Currency Symbol:

Figure 11a - Fast Cash Screen – US\$ Currency Symbol – English version





Figure 11b - Fast Cash Screen – US\$ Currency Symbol – Spanish version



Here is an example of the ‘Other Amount’ entry screen, in both English and Spanish, using the US\$ Currency Symbol:

Figure 12a - ‘Other Amount’ Screen – US\$ Currency Symbol – English version



Figure 12b - 'Other Amount' Screen – US\$ Currency Symbol – Spanish version




### ***Receipt Changes***

The following information must be printed on the receipt (in addition to any values currently printed):

- Requested amount in US dollars
- Dispensed amount in US dollars
- Exchange rate
- Dispensed amount in Pesos
- Surcharge in Pesos (IVA Included)
- Total Amount (including surcharge) in Pesos
- Account balance in Pesos
- Available balance in Pesos

Figure 13a - Withdrawal Receipt – English version



Store Message

Marketing Message

Terminal#

03/06/2008 11:42:57 AM


**Transaction Type String**

Transaction Information String

<i>Card Number</i>	<i>Auth #</i>	<i>Seq #</i>
*****0000	0	0000
<i>Amount Requested US:</i>		US\$20.00
<i>Dispensed Amount US:</i>		US\$20.00
<i>Exchange Rate pesos:</i>		MX\$10.1248
<i>Dispensed Amount pesos:</i>		MX\$202.50
<i>Surcharge pesos</i>		
<i>(IVA included):</i>		MX\$0.00
<i>Total Pesos:</i>		MX\$202.50
<i>Ledger Balance:</i>		MX\$9999.99
<i>Available Balance:</i>		MX\$9999.99

Receipt Message

Figure 13b - Withdrawal Receipt – Spanish version



Store Message

Marketing Message

# de Terminal

03/06/2008 11:42:57 AM

**Transaction Type String**

Transaction Information String

<i>Número de Tarjeta</i>	<i># de Autor</i>	<i># Sec</i>
*****0000	0	0000
<i>Monto Solicitud dolares:</i>		US\$20.00
<i>Monto Entregado dolares:</i>		US\$20.00
<i>Tipo de Cambio pesos:</i>		MX\$10.1248
<i>Monto Entregado pesos:</i>		MX\$202.50
<i>Surcharge pesos</i>		
<i>(IVA incluido):</i>		MX\$0.00
<i>Total Pesos:</i>		MX\$202.50
<i>Saldo de Cuenta:</i>		MX\$9999.99
<i>Saldo Disponible:</i>		MX\$9999.99

Receipt Message

### **Single Currency Type**

The ATM will dispense only a single currency type (e.g. US Dollars).

### **Host Amounts**

All amounts sent to/from the host in the transaction will be in Pesos, including the withdrawal amount (calculated using exchange rate). The terminal will treat the transaction as a cash withdrawal request.

## Day Close

Day close and trial day close amounts will be displayed in management functions, in the journal, and sent to/from the host in Pesos. See the example Day Close report, shown below:

Figure 14a - Day close report – English Version

```
Store Message
Terminal ID: RL5000
21/02/2008 09:18:58 a.m.
*** Day Close ***
Last Close Date/Time:None

      Host      Terminal
withdrawals:    0          0
Inquiries:     222         0
Transfers:      36          0
Settlement:
  Host:                MX$0.00
  Terminal:            MX$0.00
```

Figure 14b - Day close report – Spanish Version

```
Store Message
Numero del terminal: RL5000
21/02/2008 09:22:48 a.m.
*** Cierre del dia ***
Ultimo cierre del dia/Tiempo:
Ninguno

      Procesador      Terminal
Numeros de retiro:    0          0
Numeros inquiridos:  222         0
Num transferidos:    36          0
Ajuste:
  Procesador:                MX$0.00
  Terminal:                  MX$0.00
```

## Cassette/Currency Configuration

All cassette information in management functions should be presented to the user in US dollars. This information includes:

- Cassette Multiple Amount
- Fast Cash Amounts
- Maximum Withdrawal Amount
- Cassette Close Reports
- Cassette Diagnostic Information

### 1. The Cassette Multiple Amount will use US\$ as the currency symbol

Figure 15a - Cassette configuration screen – English Version

Main Menu/Terminal Configuration/Cassette Setup/Cassette P...

1 Relearn Bill Thickness Enter

2  All Cassettes Locked

3  Retract Cash      4 Retract Delay 45

Active Cassette:  
5 Cassette A      Cassette Status: Success

**Cassette Parameters**

6  Cassette In Service

7 Multiple Amount US\$10.00

8 Document Type:  Cash     Non-Cash

9 Non-Cash Item Description:

0 Secondary Item Description:

F1 Note Configuration

Figure 15b - Cassette configuration screen – Spanish Version

Menu Principal/Configuracion del Terminal/Configuracion del ca...

1 Reaprender el grosor del billete Entrar

2  Tods los casete estan bloqueado

3  Retractor el efectivo      4 Tiempo de tardanza para retractar: 45

Casete activado:  
5 Cassette A      Cassette Status: Exitosamente

**Parametro del casete**

6  Casete en servicio

7 Cantidades Multiples US\$10.00

8 Tipo de documentos:  Efectivo     No-efectivo

9 Descripcion del articulo sin valor monetario:

0 Descripcion del segundo articulo sin valor monetario:

F1 Configuracion de notas

2. The Fast Cash amounts and max withdrawal amount will change on the “Currency Configuration” Screen. To reach “Currency Configuration” screen, press 0 on the “Cassette Setup” screen.

Figure 16 - Cassette setup screen

The screenshot shows the 'Main Menu/Terminal Configuration/Cassette Setup' window. It is divided into two main sections: 'Withdrawal Amounts' and 'Fast Cash Amount'.  
 Under 'Withdrawal Amounts', there are three fields: '1 Maximum Cash:' with value 'MX\$0', '2 Maximum Non-Cash:' with value 'MX\$0', and '3 Mix Method' with a dropdown arrow. To the right are 'Enter' and 'Cancel' buttons.  
 Under 'Fast Cash Amount', there are five fields: '4 Fast Cash 1:', '5 Fast Cash 2:', '6 Fast Cash 3:', '7 Fast Cash 4:', and '8 Fast Cash 5:', all with values 'MX\$0'.  
 At the bottom, there are two buttons: '9 Cassette Parameters' and '0 Currency Configuration'.

3. The “Currency Configuration” screen will display the fast cash amounts and max withdrawal amount with the currency symbol “US\$”.

Figure 17a - Currency Configuration – English Version

The screenshot shows the 'Currency Configuration' window. It contains the following fields and sections:  
 - '1 Currency Code' dropdown menu set to 'USD(840)' with an 'Enter' button.  
 - 'Currency Description' text field set to 'US Dollar' with a 'Cancel' button.  
 - 'Currency Data' section with fields for: 'Currency symbol' (US\$), 'Digit grouping symbol' (/), 'No. of digits in group' (3), 'Decimal Symbol' (.), 'No. of digits after decimal' (2), 'Position of currency symbol' (0), and 'Exchange Rate' (10.92560000).  
 - 'Fast Cash Amounts' section with seven fields: '2 US\$10.00', '3 US\$20.00', '4 US\$30.00', '5 US\$40.00', '6 US\$50.00', and '7 Maximum Withdrawal Amount' (US\$500.00).

Figure 17b - Currency Configuration – Spanish Version

**Currency Configuration**

1 Currency Code: USD(840)

Currency Description: US Dollar

**Datos de circulaciones**

Currency symbol: US\$

Digit grouping symbol: ,

No. of digits in group: 3

Decimal Symbol: .

No. of digits after decimal: 2

Position of currency symbol: 0

Exchange Rate: 10.92560000

**Fast Cash Amounts**

2 US\$10.00      5 US\$40.00

3 US\$20.00      6 US\$50.00

4 US\$30.00

7 Maximum Withdrawal Amount: US\$500.00

**4. The “Cassette Close” reports will use the US\$ currency symbol.**

Figure 18a - Cassette Close report – English Version

```

Store Message
Terminal ID: RL5000
21/02/2008 09:28:56 a.m.
*** Cassette close ***
Cassette A
Last Close Date/Time:
21/02/2008 09:27:38 a.m.
    Start Quantity:
        Qty: 1000
        Amount: US$10,000.00
    Dispensed:
        Qty: 500
        Amount: US$5,000.00
    Remaining:
        Qty: 500
        Amount: US$5,000.00
Value of each doc: US$10.00
Rejects: 0 (1 or more docs)
Cassette B
Last Close Date/Time:
21/02/2008 09:27:40 a.m.
    Start Quantity:
        Qty: 1000
        Amount: US$10,000.00
    Dispensed:
        Qty: 0
        Amount: US$.00
    Remaining:
        Qty: 1000
        Amount: US$10,000.00
Value of each doc: US$10.00
Rejects: 0 (1 or more docs)
*** End Management Report ***
    
```



Figure 18b - Cassette Close report – Spanish Version

```
Store Message
Numero del terminal: RL5000
21/02/2008 09:29:53 a.m.
*** Cierre de casete ***

Cassette A
Ultimo cierre del dia/Tiempo:
21/02/2008 09:27:38 a.m.
    Comienzo cantidad:
    Cantidad:          1000
    Monto:             US$10,000.00
    Dispensado:
    Cantidad:          500
    Monto:             US$5,000.00
    Restante:
    Cantidad:          500
    Monto:             US$5,000.00

Valor de cada doc: US$10.00
Rechazos: 0 (1 o mas doc)
Cassette B
Ultimo cierre del dia/Tiempo:
21/02/2008 09:27:40 a.m.
    Comienzo cantidad:
    Cantidad:          1000
    Monto:             US$10,000.00
    Dispensado:
    Cantidad:          0
    Monto:             US$.00
    Restante:
    Cantidad:          1000
    Monto:             US$10,000.00

Valor de cada doc: US$10.00
Rechazos: 0 (1 o mas doc)
*** Final del reporte Administrativo ***
```

5. The “Cassette Diagnostic” report will display amounts using the US\$ currency symbol.

Figure 19a - Cassette Diagnostic – English Version

```
Store Message
Terminal ID: RL5000
21/02/2008 10:29:50 a.m.

*** Cash Dispenser Status ***

Device ID: NMD 50
Firmware Ver: NMD 50:2019-02.05
Cash Dispenser Status: Success (0)
Reject Sts: Reject Almost Full (44)
Security Module Sts: Success (0)
CMC Firmware: CMC 2019-02.05
Note Transport Sensor: Not Obstructed (0)
Throat Sensor: Not Obstructed (0)
Reject Vault Present: Yes (1)
Note Transport Sensor Calibration value: 1
Throat Sensor calibration value: 1
Transport Clock: Not obstructed (0)
Transport Clock cal value: 090

Feed Channel 1
Note Feeder Firmware: NF1 2006-04.01
Cassette ID: A (1)
Cassette Firmware: NC1 2007-02.08
Status: Success (30)
Multiple Amount: US$10.00
Document Type: Cash
Cassette In Service: Yes
Currency Data: USD0111
Start Quantity: 1000
Bill width: 66
Bill Length: 156
Total dispense count: 0
Total reject count: 0
Last command reject count: 0
Last command dispense count: 0
Exit Sensor: Not Obstructed (0)
Empty Sensor: Obstructed (1)
Pressure Sensor: Obstructed (1)
NC Shutter 1: Obstructed (1)
NC Shutter 2: Obstructed (1)
NC Shutter 3: Not Obstructed (0)
Cassette Present: Yes (1)
Cassette Low: No (1)
Cassette Lid: Lid Closed (0)
NC Shutter Solenoid: Inactive (0)
NC Lid Solenoid: Not Present (-)
Exit Sensor Cal value: 3
```

Figure 19b - Cassette Diagnostic – Spanish Version

```
Store Message
Numero del terminal: RL5000
21/02/2008 10:31:15 a.m.

*** Condicion del Dispensador de notas ***

Numero de identificacion del componente: NMD 50
Version Firmware: NMD 50:2019-02.05
Condicion del Dispensador de notas: Exitosamente (0)
Rechazo Sts: Rechazo casi Lleno (44)
Modulo de Seguridad Sts: Exitosamente (0)
CMC Firmware: CMC 2019-02.05
Sensor de Transportador de Notas: No-Obstruido (0)
Sensor de la garganta: No-Obstruido (0)
Boveda de rechazo actual: Si (1)
Calibracion de el valor del sensor de transportador de nota: 1
Calibracion del valor del sensor de Garganta: 1
Reloj del transportador: No-Obstruido (0)
Calibracion del valor del reloj de transportador: 090

Canal de alimentacion 1
Note Feeder Firmware: NF1 2006-04.01
Casete ID: A (1)
Cassette Firmware: NC1 2007-02.08
Estatus: Exitosamente (30)
Cantidades Multiples: US$10.00
Tipo de documentos: Efectivo
Casete en servicio: Si
Datos de circulaciones: USD0111
Comienzo cantidad: 1000
Anchura del billete: 66
Longitud del billete: 156
Conteo total de dispensado: 0
Conteo total de rechazos: 0
El ultimo comando del conteo rechazado: 0
El ultimo comando del conteo dispensado: 0
Sensor de salida: No-Obstruido (0)
Sensor vacio: Obstruido (1)
Sensor de presion: Obstruido (1)
Postigo NC 1: Obstruido (1)
Postigo NC 2: Obstruido (1)
Postigo NC 3: No-Obstruido (0)
Casete presente: Si (1)
Cassette Low: No (1)
Tapa del casete: Tapa Cerrada (0)
Solenoides del Postigo NC: Inactivo (0)
Tapa del solenoide NC: No Presente (-)
calibracion de el valor del sensor de salida: 3
```

6. The “Configuration Summary” will display cassette and fast cash amounts using the US\$ currency symbol.

Figure 20a - Configuration Summary – English Version

```
Terminal ID: RL5000
21/02/2008 10:33:33 a.m.

*** Configuration Summary ***
.
.
Commission
Amount: MX$1.50

Currency Exchange
Currency Code: USD (840)
Currency Description: US Dollar
Fast Cash 1: US$10.00
Fast Cash 2: US$20.00
Fast Cash 3: US$30.00
Fast Cash 4: US$40.00
Fast Cash 5: US$50.00
Maximum withdrawal Amount: US$500.00
Exchange Rate: 10.92560000
.
.
Cassette A
Multiple Amount: US$10.00
Document Type: Cash
Cassette In Service: Yes
Currency Code: USD (840)
Currency Description: US Dollar
Cassette B
Multiple Amount: US$10.00
Document Type: Cash
Cassette In Service: Yes
Currency Code: USD (840)
Currency Description: US Dollar
.
.
*** End Management Report ***
```

Figure 20b - Configuration Summary – Spanish Version

```
Store Message
Numero del terminal: RL5000
21/02/2008 10:34:00 a.m.

*** Configuracion del resume ***
.
.
Commission
Monto: MX$1.50

Currency Exchange
Currency Code: USD (840)
Currency Description: US Dollar
Efectivo rapido 1: US$10.00
Efectivo rapido 2: US$20.00
Efectivo rapido 3: US$30.00
Efectivo rapido 4: US$40.00
Efectivo rapido 5: US$50.00
Maximum withdrawal Amount: US$500.00
Exchange Rate: 10.92560000
.
.
Cassette A
Cantidades Multiples: US$10.00
Tipo de documentos: Efectivo
Casete en servicio: Si
Currency Code: USD (840)
Currency Description: US Dollar
Cassette B
Cantidades Multiples: US$10.00
Tipo de documentos: Efectivo
Casete en servicio: Si
Currency Code: USD (840)
Currency Description: US Dollar
.
.
*** Final del reporte Administrativo ***
```

## Currency Symbol

All amounts displayed in management functions and customer transactions (including the receipt) will use the 'US\$' currency symbol for US dollars and the 'MX\$' currency symbol for Pesos.

**IMPORTANT:** The load file will configure the currency symbol settings for both Pesos and US dollars, but you will need to perform a terminal restart after the load file installation completes before the settings will take effect.

## Journal Data

Journal data should include requested and dispensed amounts in US dollars and pesos as well as the exchange rate used.

Figure 21a - Journal Record – English Version

```
21/02/2008 01:39:24 p.m.
Currency Exchange From Checking
Sequence #: 297
Response Code: Approved(000)
Account: 588814=====0000
Auth #: 02240004
Commission: MX$2.50
Issuer Fee: MX$0.00
Requested Amt: $20.00
Dispensed Amt: $20.00
Currency Type: USD (840)
Exchange Rate: 0000010.246
Amount Debited: MX$207.42
calculation: MX$=US$*rate+fees
Dispense Sts: 0
Dispensed: 1 0 0 0
Rejected: 0 0 0 0
Reversal Sts: None
```

Figure 21b - Journal Record – Spanish Version

```
21/02/2008 01:39:24 p.m.
Currency Exchange From Checking
Numero de sequencia: 297
Codigo de repuesta: Approved(000)
Cuentas: 588814=====0000
Numero autorizado: 02240004
Commission: MX$2.50
Issuer Fee: MX$0.00
Solicitud: $20.00
Dispensado de Amt: $20.00
Currency Type: USD (840)
Exchange Rate: 0000010.246
Amount Debited: MX$207.42
Cálculo: MX$=US$*rate+fees
Dispensado: 0
Dispensado: 1 0 0 0
Rechazado: 0 0 0 0
Estado de reversion: None
```

## Changes to Triton Standard

No Triton Standard protocol changes are needed for this release.

## Revision History

Date	Version	Description of Change
February 13, 2009	1.0	Initial Revision

---

# XScale 2.3.1 SP1 Software Release Notes Australia

---

Affected products  
RL5000, FT5000

October 7, 2009

Version 1.0

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## Introduction

This document describes changes for the 2.3.1 SP1 software release for RL5000, and FT5000 with the XScale controller for Australia market. The differences described are from version 2.3.1.

## Platforms Affected

This release is for the following families:

- RL5000, FT5000 with XScale Controller

## Hardware Support

The following is a list of hardware supported by this software:

- Display: 10.4" Color VGA
- Card Reader: MagTek 215 Dip Reader
- EPP: Triton SP-05, SP-06, SP-07 and Sagem EPP
- Dispenser: TDM50, TMD1xx, TDM2xx, SDD, MiniMech, NMD50, NMD100
- Printer: Seiko 80mm Printer with Presenter
- Modem: MultiTech USB Modem, MultiTech PCMCIA Modem

## Software Requirements

The following load files are included with this release:

- xu00xaus2.3.1sp1.tlf – Update load file for 10.4" XScale (**Must be installed on top of xd00xaus2.3.1.tlf**).

## External Dependencies

None

## Changes

### ***Support for Magtek 215 Rev M Card Reader***

This software release includes a change to support the Magtek 215 Rev M or later card reader.

## Revision History

Date	Version	Description of Change
October 7, 2009	1.0	Initial

---

# XS 2.3.2 Software Release Notes Canada

---

Affected products  
RL1600, RL2000, RL5000, FT5000,  
RT2000

June 16, 2009

Version 1.1

**Triton Systems of Delaware, Inc.**  
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## Introduction

This document describes new functionality for the 2.3.2 software release for RL1600, RL2000, RL5000, FT5000, and RT2000 with both the XScale and X2 controllers for Canada. The differences described are from version 2.2.1.

## Platforms Affected

This release is for the following families:

- RL1600, RL2000, RL5000, FT5000, RT2000 with XScale and X2 Controller

## Hardware Support

The following is a list of hardware supported by this software:

- Display: 10.4", 8", 5.7" Color VGA
- Card Reader: MagTek Intellistripe 65 Dip Reader or Sankyo ICT3K5 Motorized Reader
- EPP: Triton SP-05, SP-06, SP-07 and Sagem EPP
- Dispenser: TDM50, TMD1xx, TDM2xx, SDD, MiniMech, NMD50, NMD100
- Printer: Seiko 80mm/60mm USB Printer with or without Presenter
- Modem: Triton USB Modem (X2 only), MultiTech USB Modem, MultiTech PCMCIA Modem (XScale only), Triton Onboard Modem (RL1600 only)

## Software Requirements

The following load files are included with this release:

- xd04xcae2.3.2.tlf – Full load file for 10.4" XScale RL5000, FT5000, RT2000
- xd14xcae2.3.2.tfv – Full Load for 8" and 10.4" X2 RL2000, RL5000, FT5000, RT2000
- xd14dcae2.3.2.tfv – Full Load for 5.7" X2 RL1600, RL2000
- xu04xcae2.3.2.tlf – Update load file 10.4" XScale RL5000, FT5000, RT2000
- xu14xcae2.3.2.tfv – Update Load for 8" and 10.4" X2 RL2000, RL5000, FT5000, RT2000
- xu14dcae2.3.2.tfv – Update Load for 5.7" X2 RL1600, RL2000

## External Dependencies

The following feature requires Triton Connect Version 4.4 or greater (X2 requirement):

- Software updates from Triton Connect

## Description of Changes

### **EMV 4.2 Kernel**

This software release includes EMV 4.2 certified kernel. This includes ATM testing with ADVT version 5.0, ETEC version 5.0, and Interac version 4.2.

Note that in order to enable EMV on the ATM, a valid EMV license must be purchased from Triton. To verify the license, the user must enter a code provided by Triton technical support.

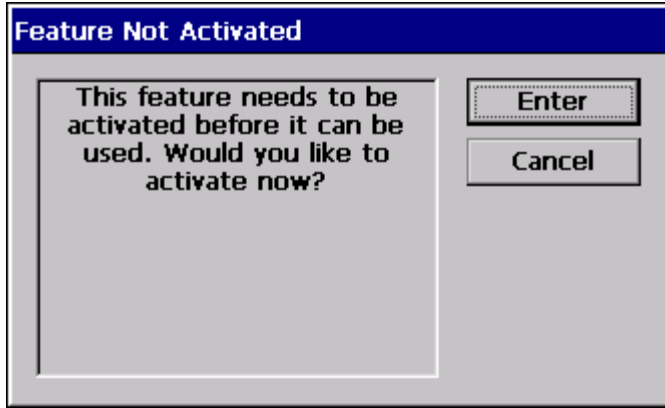
To enable EMV, you must navigate to the EMV area in management functions:  
Terminal Configuration (6) > More Options (0) > EMV Configuration (5)

The screenshot shows a terminal window titled "Main Menu/Terminal Configuration/More Options/EMV Configur...". The screen contains several numbered options and checkboxes:

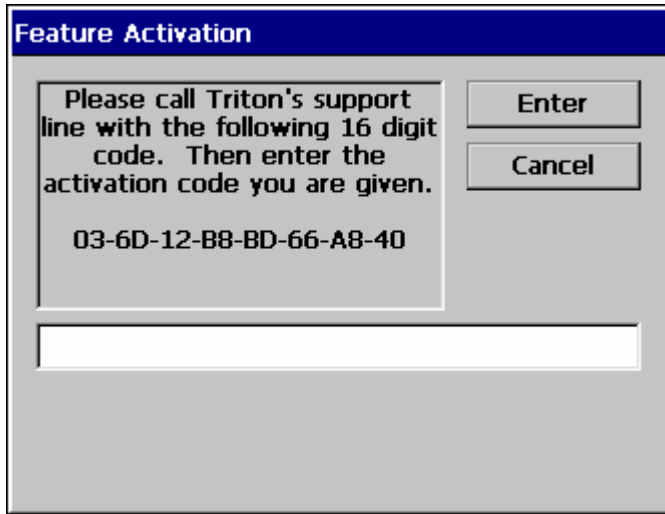
- 1  EMV Processing
- 2 EMV Application Settings
- 3  ICC Latching
- 4  Non-ICC Transactions
- 5  ICC Fallback to Magnetic Stripe
- 6  EMV Journal Entries
- 7 Terminal EMV Configuration
- 8 Last Transaction's EMV Data

Buttons for "Enter" and "Cancel" are located in the top right corner.

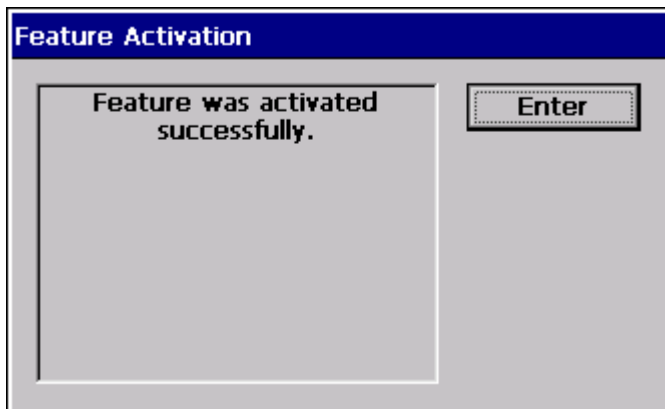
EMV Processing will be disabled by default. Press "1" on the pin pad to start the activation process. You will be presented with the following screen.



Press "Enter" to get your challenge code. Carefully read this code to tech support. Tech support will give you an activation code in response.



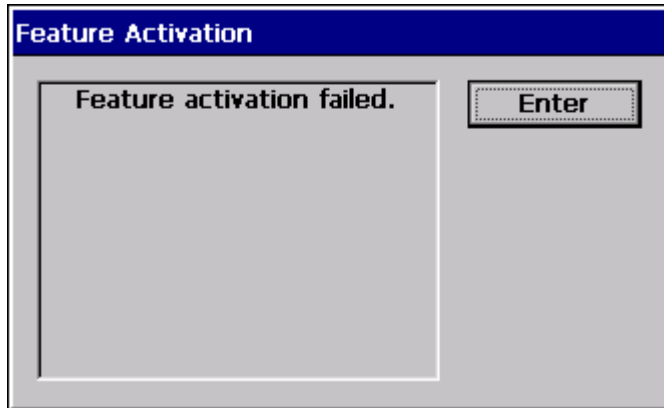
After you enter your activation code and press "Enter", the following dialog will be shown if the activation was successful.



EMV Processing will be enabled when you press "Enter".



If activation fails for any reason, you will see the following dialog and EMV processing will remain disabled.



If the activation failed, you may repeat the process by trying to activate EMV Processing again.

### ***Interac Software Authentication Requirement***

In order to meet Interac guidelines for software authentication, this software release contains improved methods to prohibit unauthenticated software from running on the ATM (in addition to currently existing methods that prohibit loading unauthorized software). Note that this means that older software releases (pre 2.3.2) will no longer run after 2.3.2 is installed. If an earlier software load file is installed at the ATM, the Triton Boot Diagnostics utility must be used to re-install the 2.3.2 load file.

**Note for XScale ATMs:** Pre 2.3.2 software will run, but the ATM may experience low flash space issues as the internal flash will not be cleaned up during this process. It is recommended to *not* downgrade the software once 2.3.2 is installed.

### ***Reset Dispenser Option***

This software release changes the *Management > Diagnostics > Dispenser > Reset Dispenser* option to now be labeled *Reset Dispenser to Defaults*. This is done in order to prevent confusion between this option and a dispenser purge operation. Note that a warning box still appears to indicate that all cassette parameters will be erased when this option is selected, and this function is still only available to the *Master* user.

### ***French Language Changes***

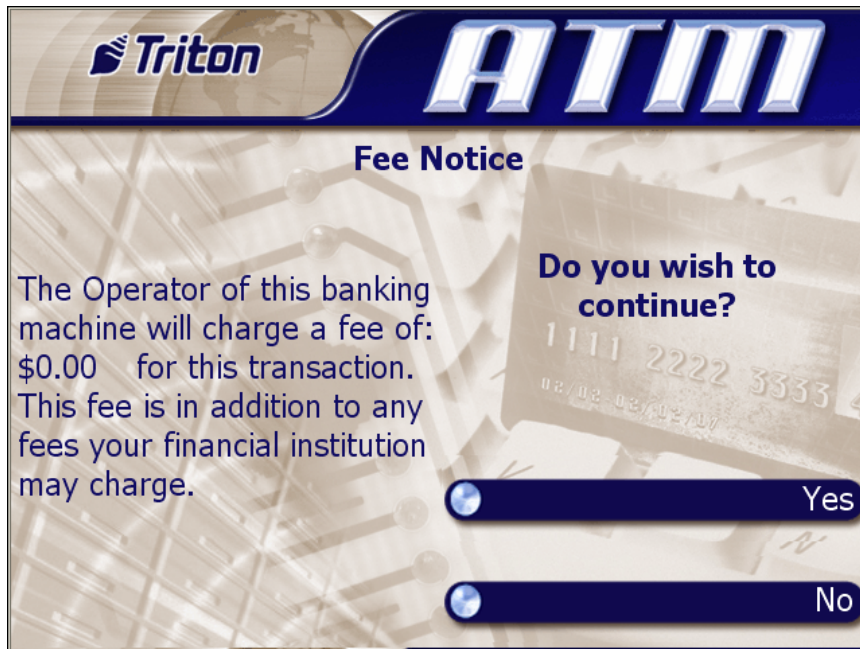
This software release includes some French language changes that were needed for compliance with Canadian regulations.

## **Volume Level Changes**

Previous software releases required a system shutdown or restart in order to apply volume level changes made in Management Functions. An improper shutdown after changing the volume level would revert to the previous level. This software release will now persist the new setting upon exiting Management Functions.

## **Surcharge Screen Changes**

Per Interac regulations, the Canada surcharge screen has been modified to reflect the following wording:





### **Receipt Changes**

This software release changes the time format on the transaction receipt to reflect the format configured in *Management Functions > System Parameters > Regional Settings > Time* rather than always using 12 hour (AM/PM) format.

Additionally, upon a successful transaction, an “Approved” message will be printed at the top of the transaction receipt.

### **Remote Key Support**

This software release includes the capability to download master keys remotely. Note that an RKT (Remote Key Transfer) capable EPP must be purchased through Triton and the host processor must support the additions to Triton Standard for Remote Key.

RKT will be disabled by default. Note that in order to enable RKT on the ATM, a valid RKT license must be purchased from Triton. To verify the license, the user must enter a code provided by Triton technical support.

To enable RKT, Browse to *Management > Key Management*:

## Main Menu/Key Management

Select an option by pressing the appropriate number on the keypad.  
Press CANCEL to return to previous menu.

1

Enter Master Keys

2

Download Working  
Keys

3

Check Digits

4

Change Passwords

5

Enable Remote Key  
Transport

6

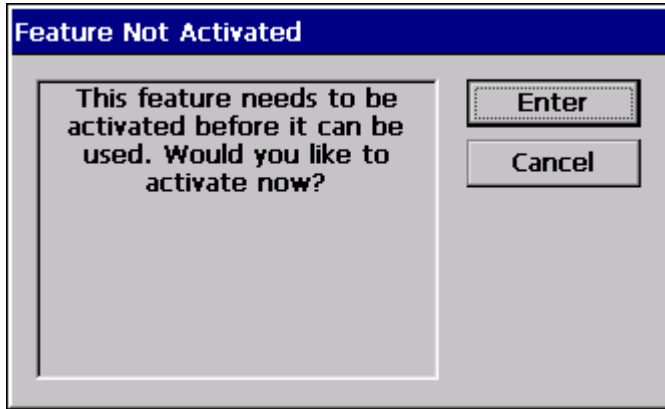
7

8

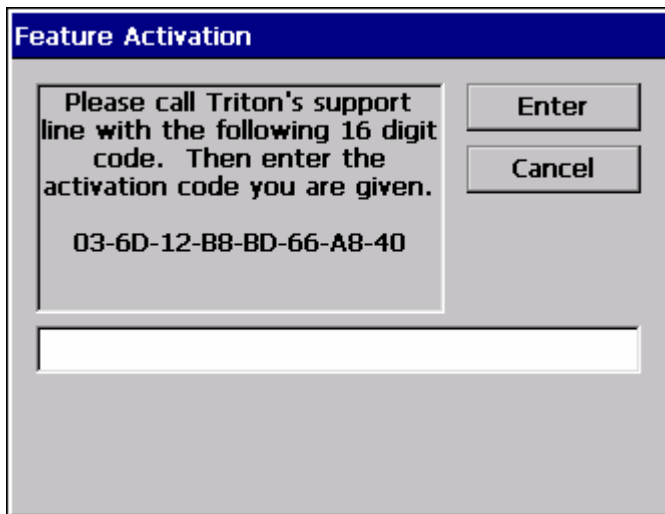
9

0

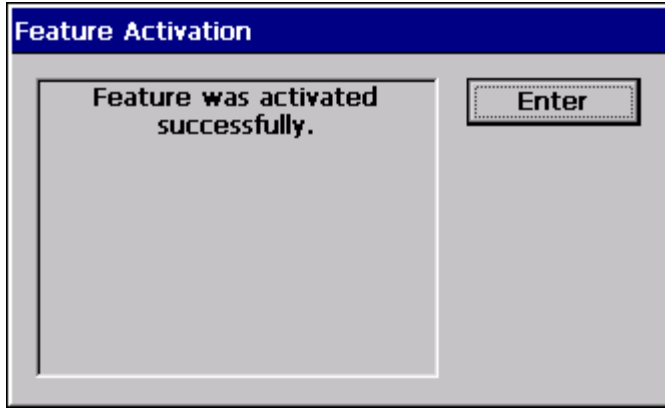
Press “5” on the pin pad to start the activation process. You will be presented with the following screen.



Press “Enter” to get your challenge code. Carefully read this code to tech support. Tech support will give you an activation code in response.

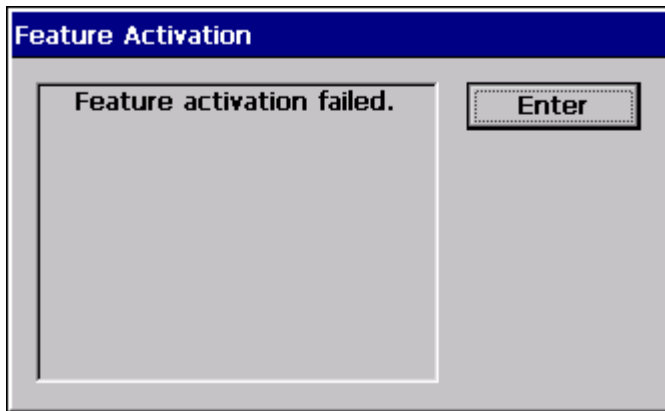


After you enter your activation code and press “Enter”, the following dialog will be shown if the activation was successful.



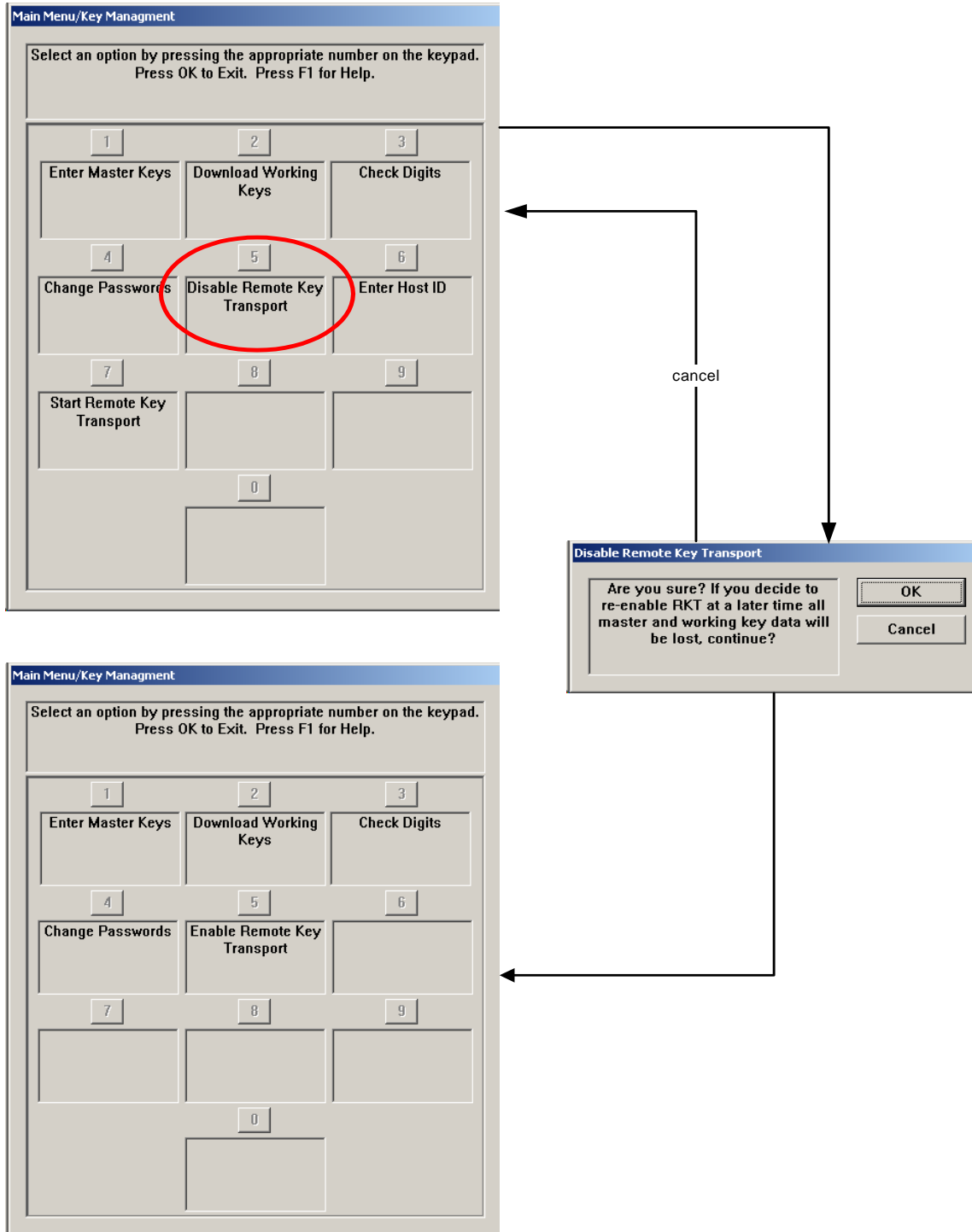
RKT will be enabled when you press “Enter”.

If activation fails for any reason, you will see the following dialog and RKT will remain disabled.

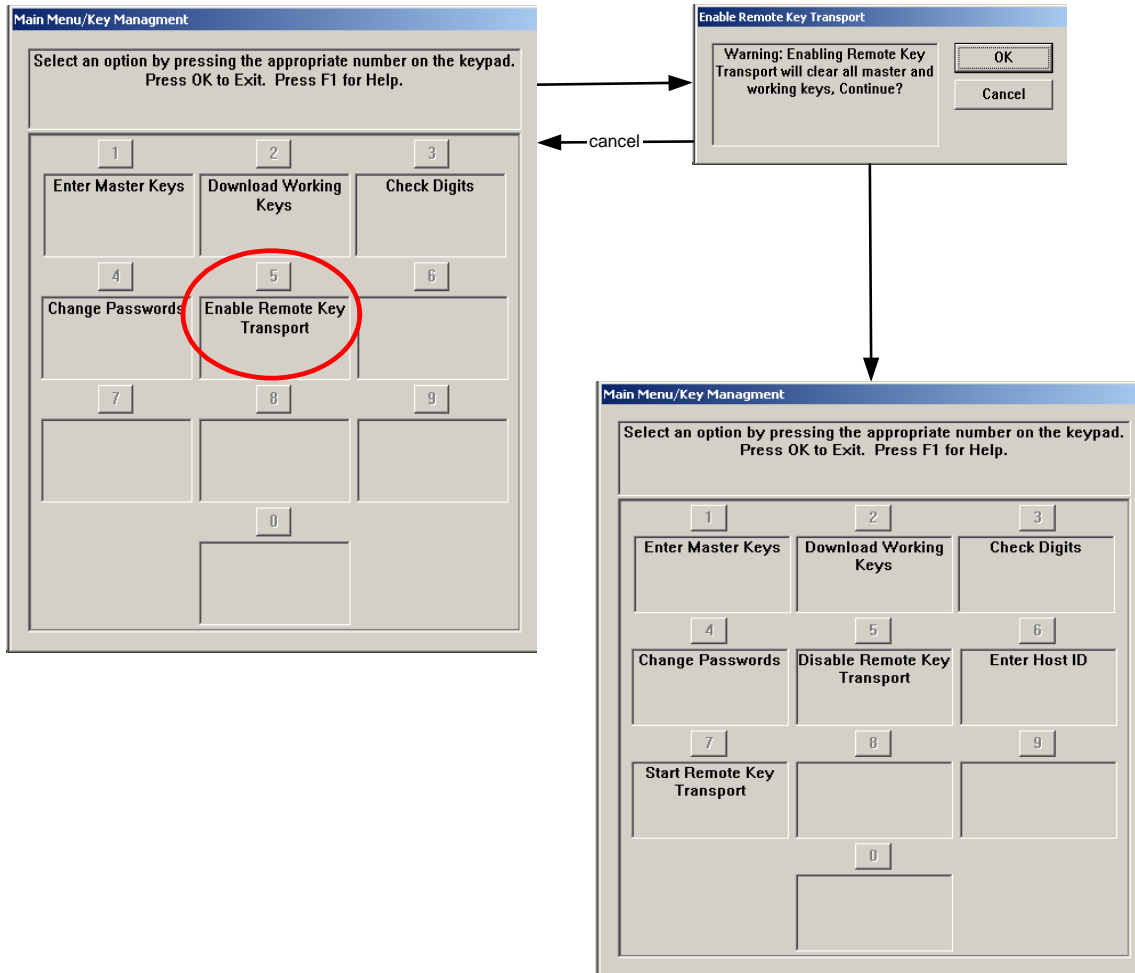


If the activation failed, you may repeat the process by trying to activate RKT again.

Selecting option “5” to disable RKT after it has been enabled will take the user through the following flow:

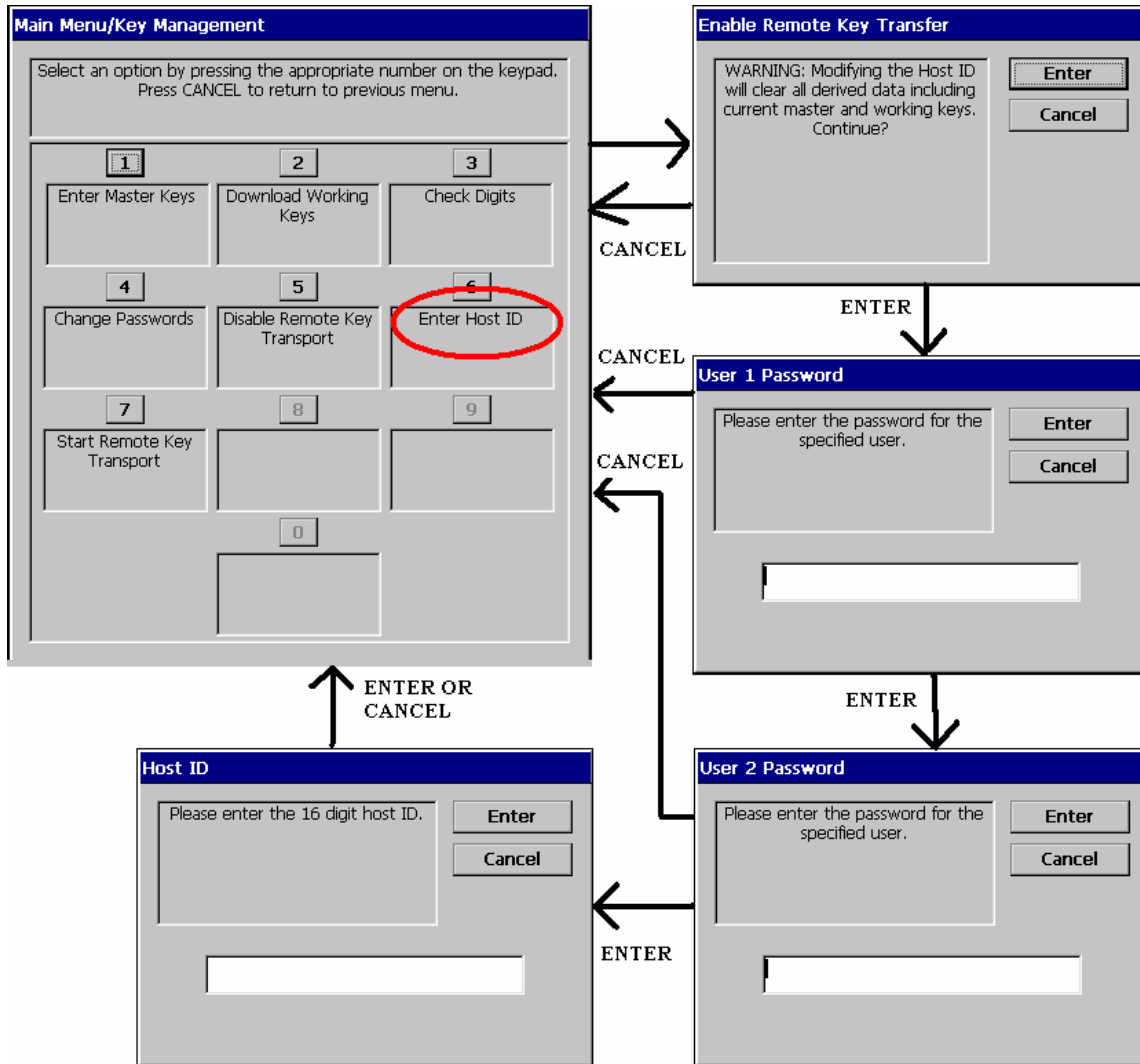


Once RKT has been enabled at the terminal the first time, the challenge/response step is omitted from the enable procedure, should the customer need to disable/re-enable RKT. A diagram illustrating the procedure minus this step follows:

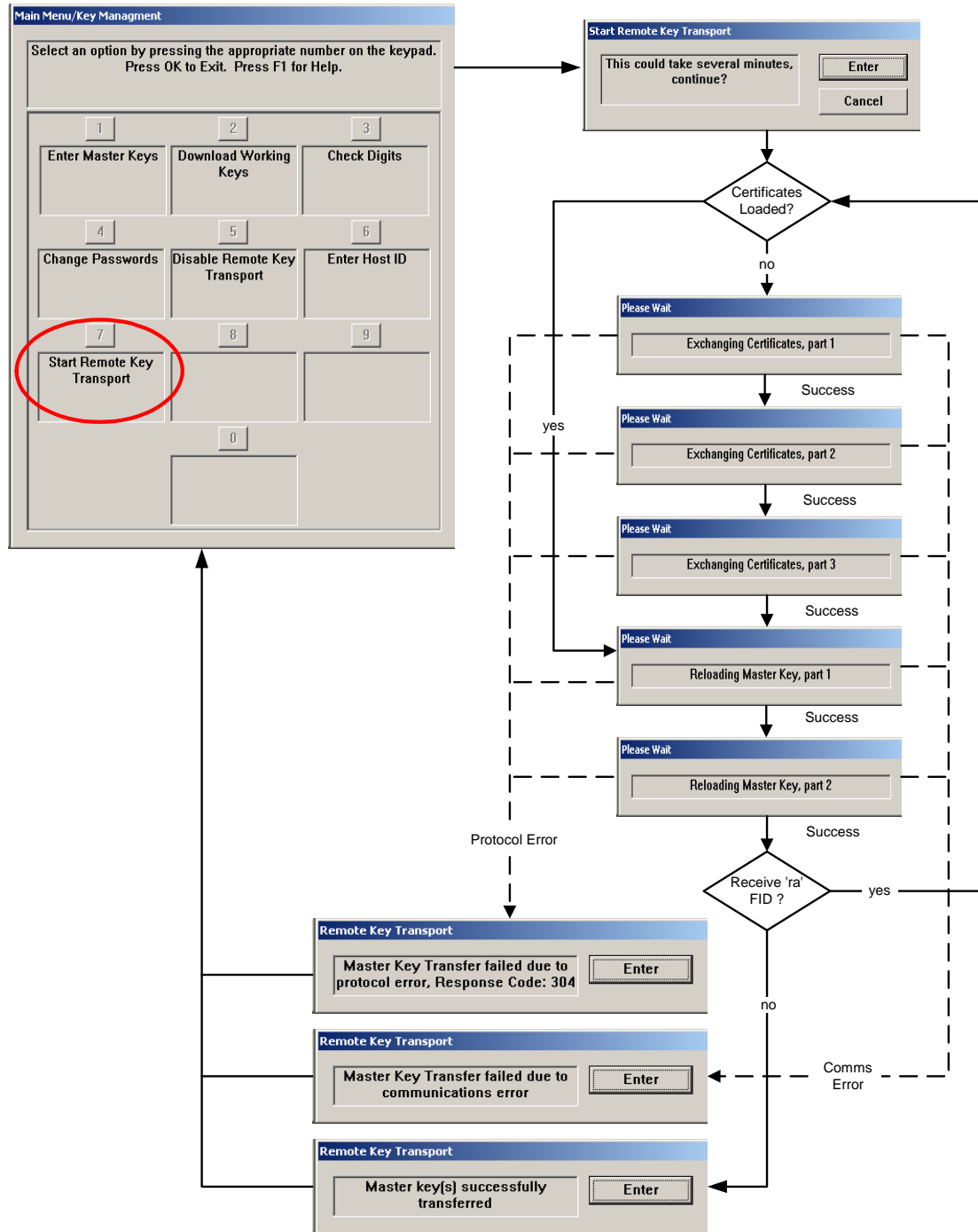




In order for RKT to operate properly a host ID must be entered at the terminal. This ID needs to be obtained through the host processor. Entering this ID requires the EPP passwords to be entered:



Upon successful loading of the host ID, a key exchange can be initiated from the ATM by selecting option “7” from the Key Management menu:



*Note: The key exchange process may also be initiated by the host processor through a transaction response.*

The RKT and certificate information can be viewed in the *Management > Diagnostics > Keypad > Device Status* report or the *Management > Terminal Status > Configuration Summary* report. Below are sample screen shots of this information:

```

Main Menu/Key Management/Management Report

1 Page Up      2 Home      3 Print      Enter
4 Page Down    5 End       6 Save To File

Store Message

Terminal ID: X2-KHH-SAGEM
1/16/2008 9:26:00 AM

*** Certificate Data Report ***

Triple Encryption: Disabled

MAC Master Key Loaded: No
MAC Working Key Loaded: No
PIN Master Key Loaded: Yes
PIN Working Key Loaded: Yes

PIN Master Key Check Digits: E18DE2
PIN Working Key Check Digits: 9B3D2B

Host ID: 0000000012341234
ROOT_CA Loaded: yes
Serial Number:
LCCE 4462 9519 7A9D 6352 F9F2 23A9 B698

```

```

Main Menu/Key Management/Management Report

1 Page Up      2 Home      3 Print      Enter
4 Page Down    5 End       6 Save To File

LCCE 4462 9519 7A9D 6352 F9F2 23A9 B698
Expiration Date: 07/09/2019
Thumbprint:
5C95 5BF2 A30B FD73 59DE
772A 2A4E 3598 C6CE 0DOC
Subject Name:
AddTrust External CA Root

CERT_CA Loaded: yes
Serial Number:
0400 0356
Expiration Date: 02/23/2007
Thumbprint:
7927 0245 6CFA B8FF 18A1
E44B B03F 3AD3 E207 2725
Subject Name:
Microsoft Internet Authority

CERT_HOST Loaded: yes
Serial Number:
0B1F E52C 9233 C4B0 78F1 B871 167C 6487

```

```

Main Menu/Key Management/Management Report

1 Page Up      2 Home      3 Print      Enter
4 Page Down    5 End       6 Save To File

0400 0356
Expiration Date: 02/23/2007
Thumbprint:
7927 0245 6CFA B8FF 18A1
E44B B03F 3AD3 E207 2725
Subject Name:
Microsoft Internet Authority

CERT_HOST Loaded: yes
Serial Number:
0B1F E52C 9233 C4B0 78F1 B871 167C 6487
Expiration Date: 07/09/2019
Thumbprint:
FB0F B75F 5A77 F703 743B
C3C7 9468 DC26 106B 67D0
Subject Name:
Secure Business Services CA

CERT_EPPE Loaded: yes
Serial Number:
6104 8278 0002 0000 0010

```

```

Main Menu/Key Management/Management Report

1 Page Up      2 Home      3 Print      Enter
4 Page Down    5 End       6 Save To File

6104 8278 0002 0000 0010
Expiration Date: 02/23/2007
Thumbprint:
C9C0 9C43 3891 EDD3 E9FA
5272 5508 83B5 CDF2 8E7B
Subject Name:
Microsoft Secure Server Authority

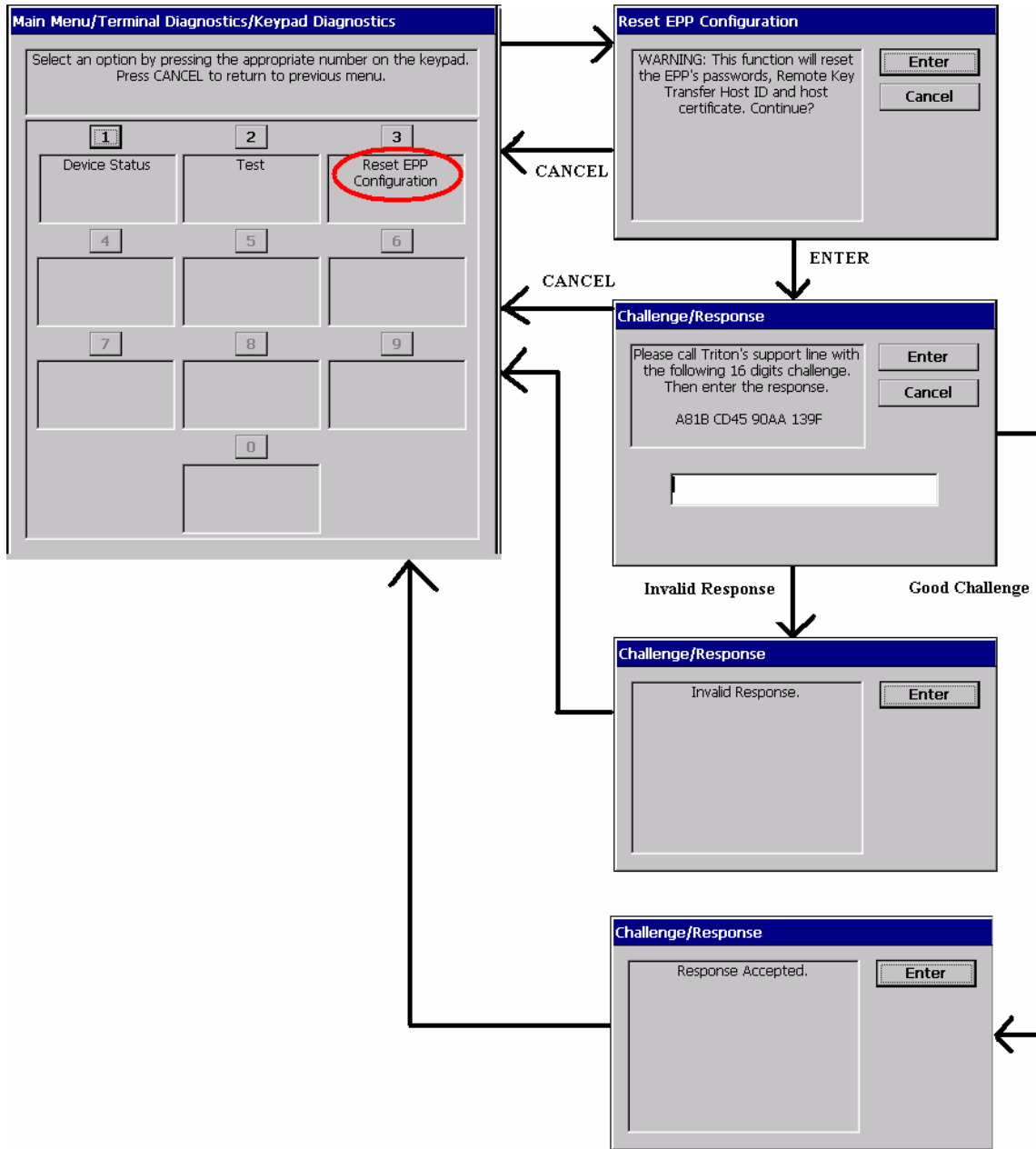
CERT_EPPV Loaded: yes
Serial Number:
0637 6C00 AA00 648A 11CF B8D4 AA5C 35F4
Expiration Date: 12/31/2039
Thumbprint:
FEE4 49EE 0E39 65A5 246F
000E 87FD E2A0 65FD 89D4
Subject Name:
Root Agency

*** End Management Report ***

```

There is also a method to reset the EPP's registers for passwords, host ID and host certificate. This function requires a challenge and response.

*Note: executing this command will reset all EPP information and the RKT process must be re-initiated.*



## XScale Screen File Changes

This software release for XScale controller boards now uses the same customer screen graphics and functionality as the newer X2 controllers.

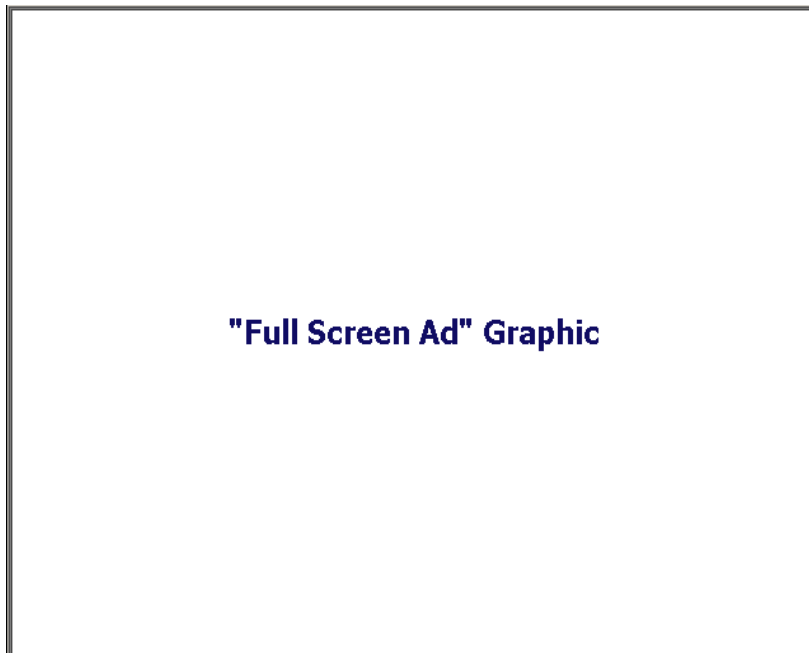
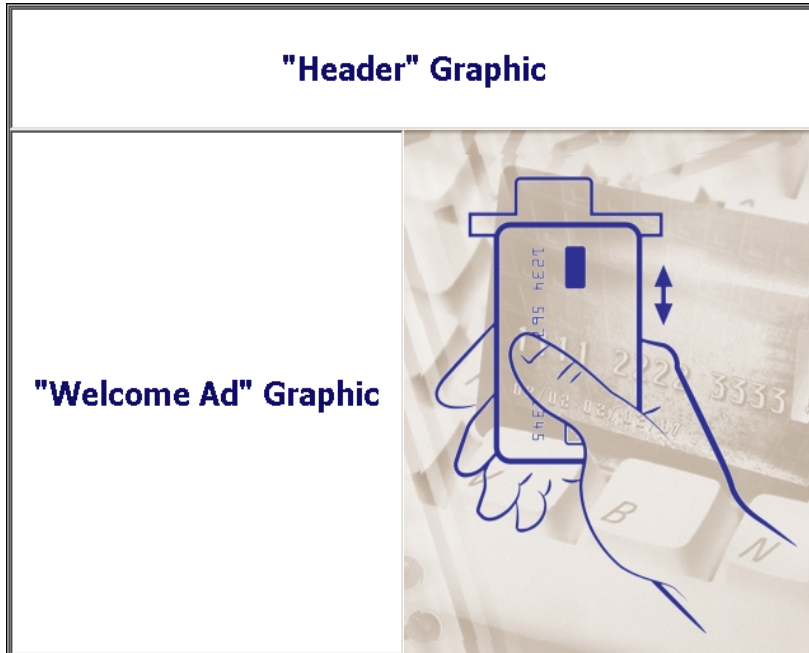
Below are some sample screen shots of the customer screens:



This change also affects the ad graphics that are displayed on the welcome screen. Rather than supporting “Logo” and “Banner” graphics at the top of the display, the X2 screen file uses a single “Header” graphic as defined below.

The following are the fields defined for advertisement graphics on the welcome or “Insert Card” screen (with pixel sizes in width x height):

- Header: 636 x 90
- Welcome Ad: 310 x 385
- Full Screen Ad: 636 x 476



## Changes to Triton Standard

The following Triton Standard (document version 5.40) changes have been made that affect this software release:

1. Remote Key extensions: Refer to new supplemental document *TSRK Remote Key Extensions*.

## Revision History

Date	Version	Description of Change
June 10, 2009	1.0	Initial version
June 12, 2009	1.1	Added section for Interac Software Authentication Requirements

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# XS 2.4.0 US/Mexico Software Release Notes

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Affected products  
RL1600, RL2000, RL5000, FT5000,  
RT2000

September 2, 2009

Version 1.1

**Triton Systems of Delaware, Inc.**  
522 East Railroad  
Long Beach, MS 39560  
PHONE: (228) 868-1317  
FAX: (228) 868-0437



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## Introduction

This document describes new functionality for the 2.4.0 software release for RL1600, RL2000, RL5000, FT5000, and RT2000 with both the XScale and X2 controllers for United States and Mexico markets. The differences described are from version 2.2.1.

Note that the 5.7" display on RL2000 and RL1600 is not supported in Mexico.

## Platforms Affected

This release is for the following families:

- RL1600, RL2000, RL5000, FT5000, RT2000 with XScale and X2 Controller

## Hardware Support

The following is a list of hardware supported by this software:

- Display: 10.4", 8", 5.7" Color VGA
- Card Reader: MagTek 215 Dip Reader, MagTek Intellistripe 65 Dip Reader, Sankyo ICT3K5 Motorized Reader
- EPP: Triton SP-05, SP-06, SP-07 and Sagem EPP
- Dispenser: TDM50, TMD1xx, TDM2xx, SDD, MiniMech, NMD50, NMD100
- Printer: Seiko 80mm/60mm USB Printer with or without Presenter
- Modem: Triton USB Modem (X2 only), MultiTech USB Modem, MultiTech PCMCIA Modem (XScale only), Triton Onboard Modem (RL1600 only)

## Software Requirements

The following load files are included with this release:

- xd00xcsf2.4.0.tlf – Full load file for 10.4" XScale RL5000, FT5000, RT2000
- xd30xcsf2.4.0.tfv – Full Load for 8" and 10.4" X2 RL2000, RL5000, FT5000, RT2000
- xd30dcsf2.4.0.tfv – Full Load for 5.7" X2 RL1600, RL2000
- xu00xcsf2.4.0.tlf – Update load file 10.4" XScale RL5000, FT5000, RT2000
- xu30xcsf2.4.0.tfv – Update Load for 8" and 10.4" X2 RL2000, RL5000, FT5000, RT2000
- xu30dcsf2.4.0.tfv – Update Load for 5.7" X2 RL1600, RL2000

## External Dependencies

The following feature requires Triton Connect Version 5.0 or greater:

- SSL connection over TCP/IP
- Send EPP and Card Reader device info to Triton Connect

## Description of Changes

### **Remote Key Support**

This software release includes the capability to download master keys remotely. Note that an RKT (Remote Key Transfer) capable EPP must be purchased through Triton and the host processor must support the additions to Triton Standard for Remote Key.

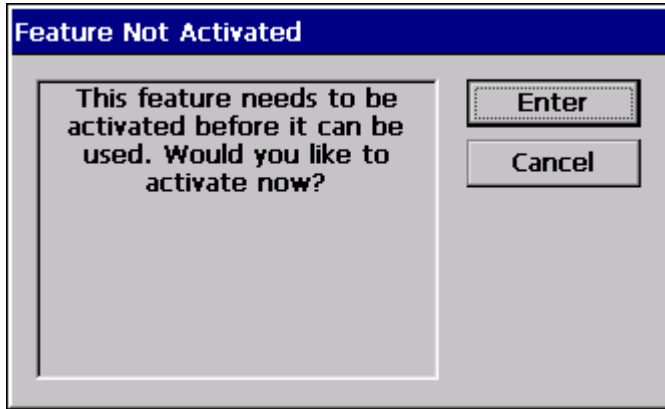
RKT will be disabled by default. Note that in order to enable RKT on the ATM, a valid RKT license must be purchased from Triton. To verify the license, the user must enter a code provided by Triton technical support.

To enable RKT, Browse to *Management > Key Management*:

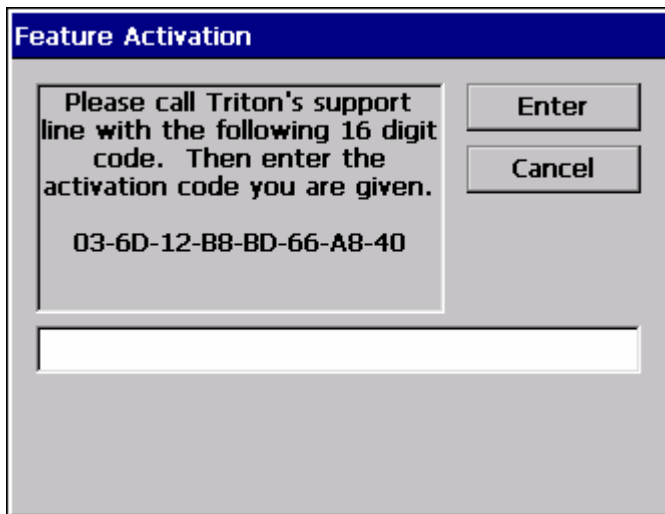
The screenshot displays a menu titled "Main Menu/Key Management" with a blue header. Below the header, a grey box contains the instruction: "Select an option by pressing the appropriate number on the keypad. Press CANCEL to return to previous menu." The menu consists of several numbered options arranged in a grid:

1	2	3
Enter Master Keys	Download Working Keys	Check Digits
4	5	6
Change Passwords	Enable Remote Key Transport	
7	8	9
	0	

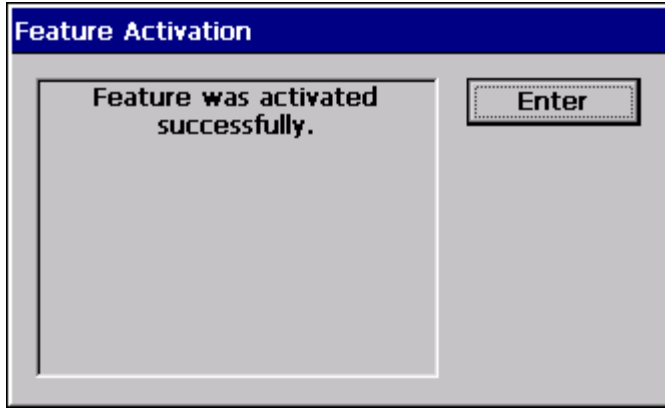
Press “5” on the pin pad to start the activation process. You will be presented with the following screen.



Press “Enter” to get your challenge code. Carefully read this code to tech support. Tech support will give you an activation code in response.

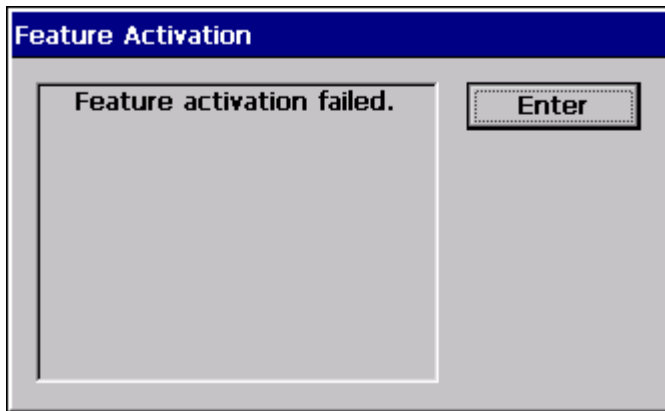


After you enter your activation code and press “Enter”, the following dialog will be shown if the activation was successful.



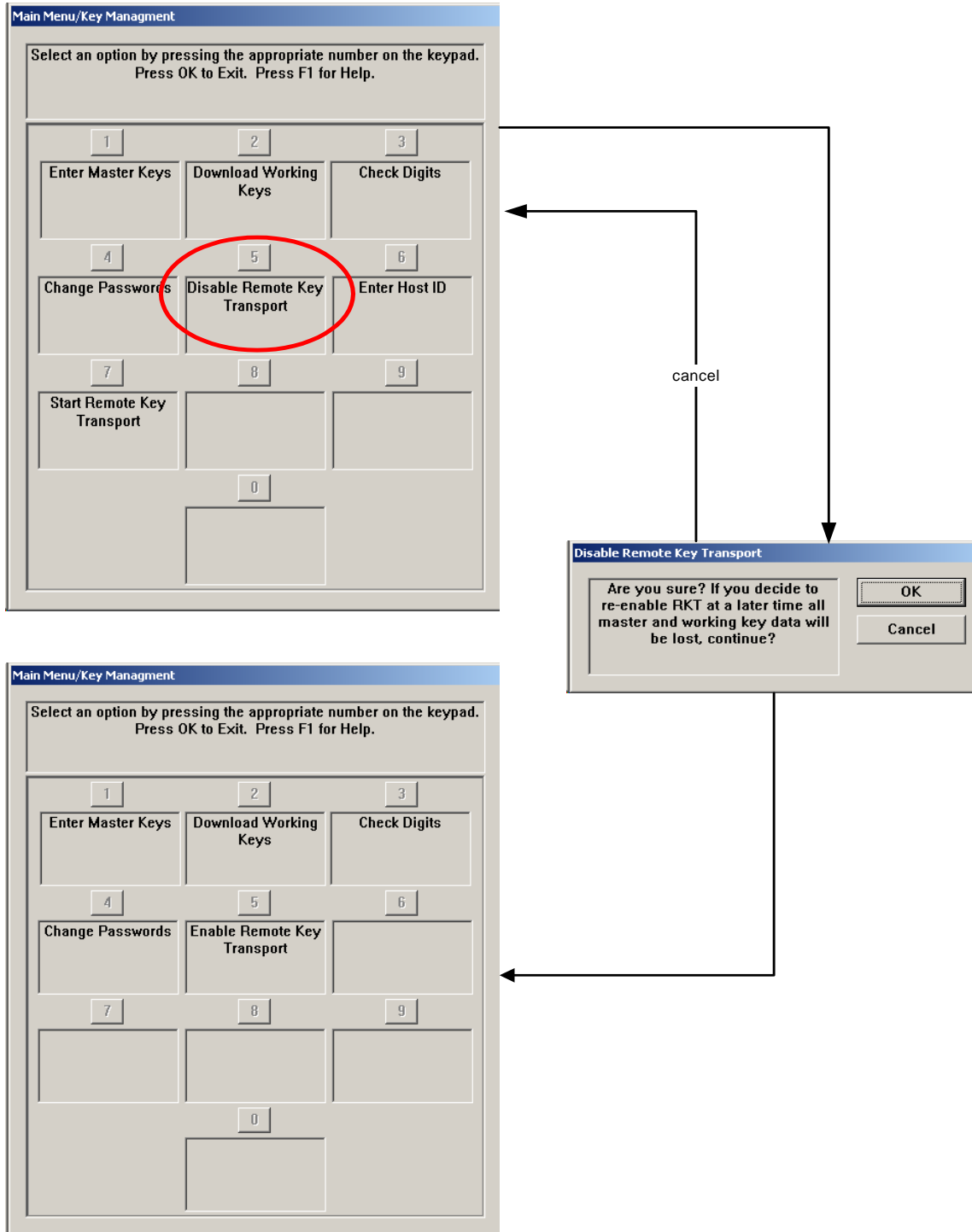
RKT will be enabled when you press “Enter”.

If activation fails for any reason, you will see the following dialog and RKT will remain disabled.

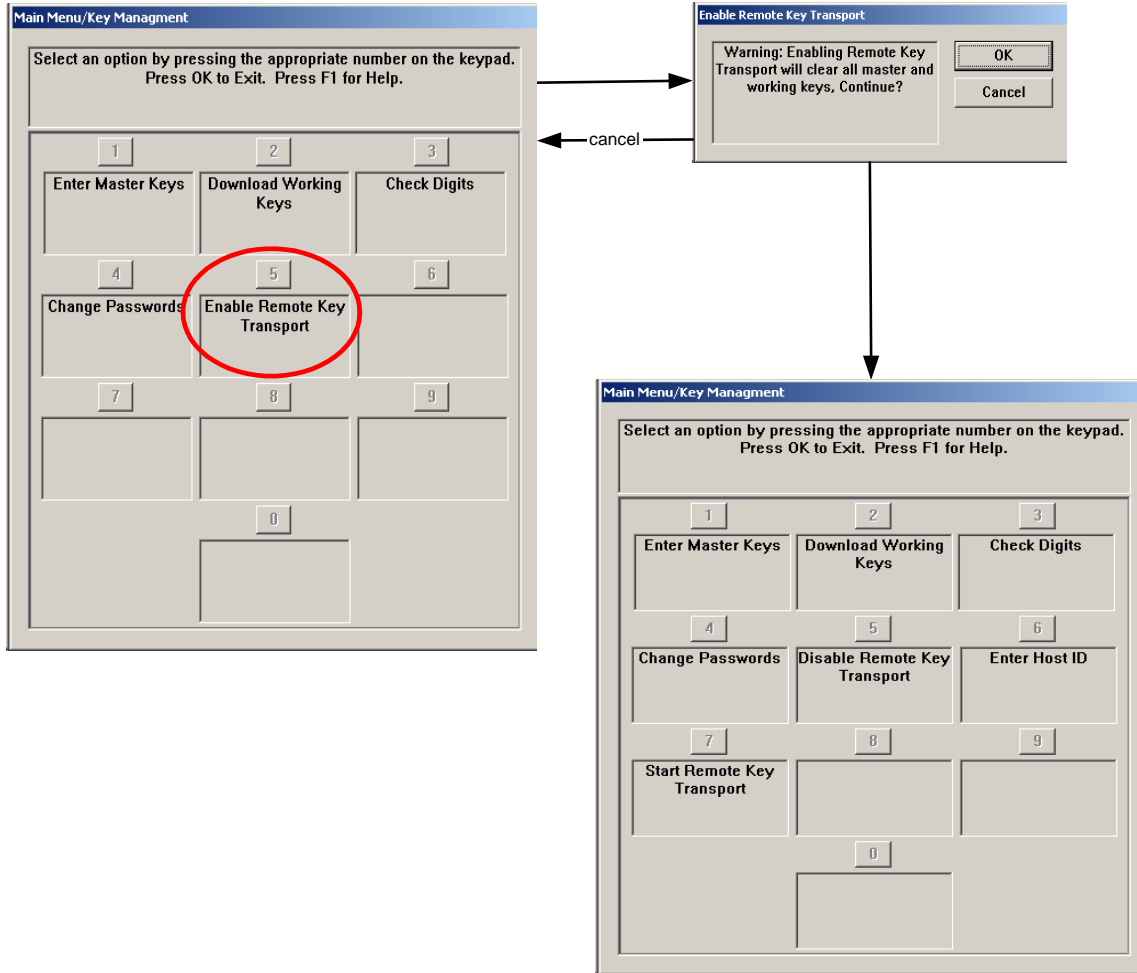


If the activation failed, you may repeat the process by trying to activate RKT again.

Selecting option “5” to disable RKT after it has been enabled will take the user through the following flow:

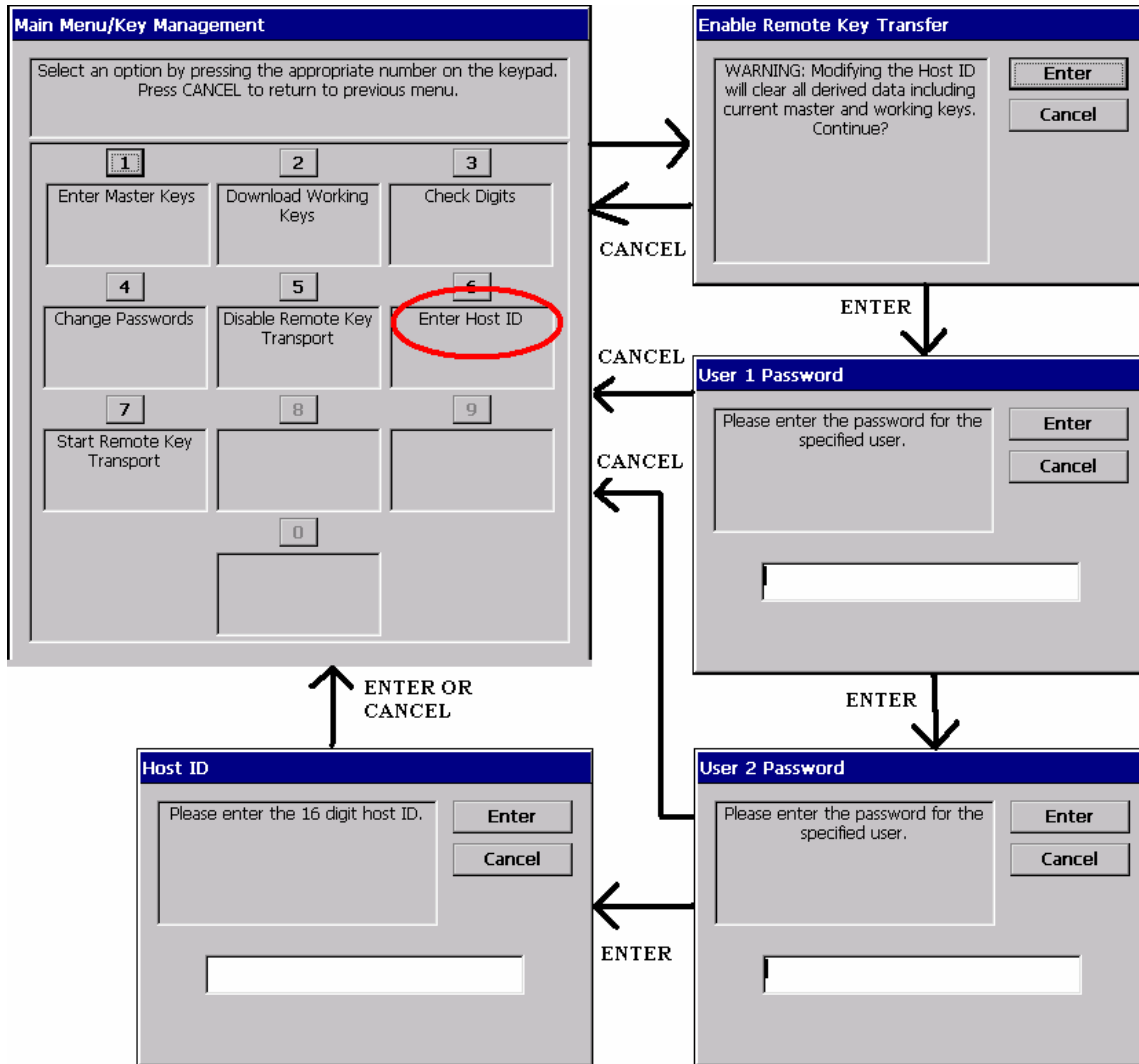


Once RKT has been enabled at the terminal the first time, the challenge/response step is omitted from the enable procedure, should the customer need to disable/re-enable RKT. A diagram illustrating the procedure minus this step follows:

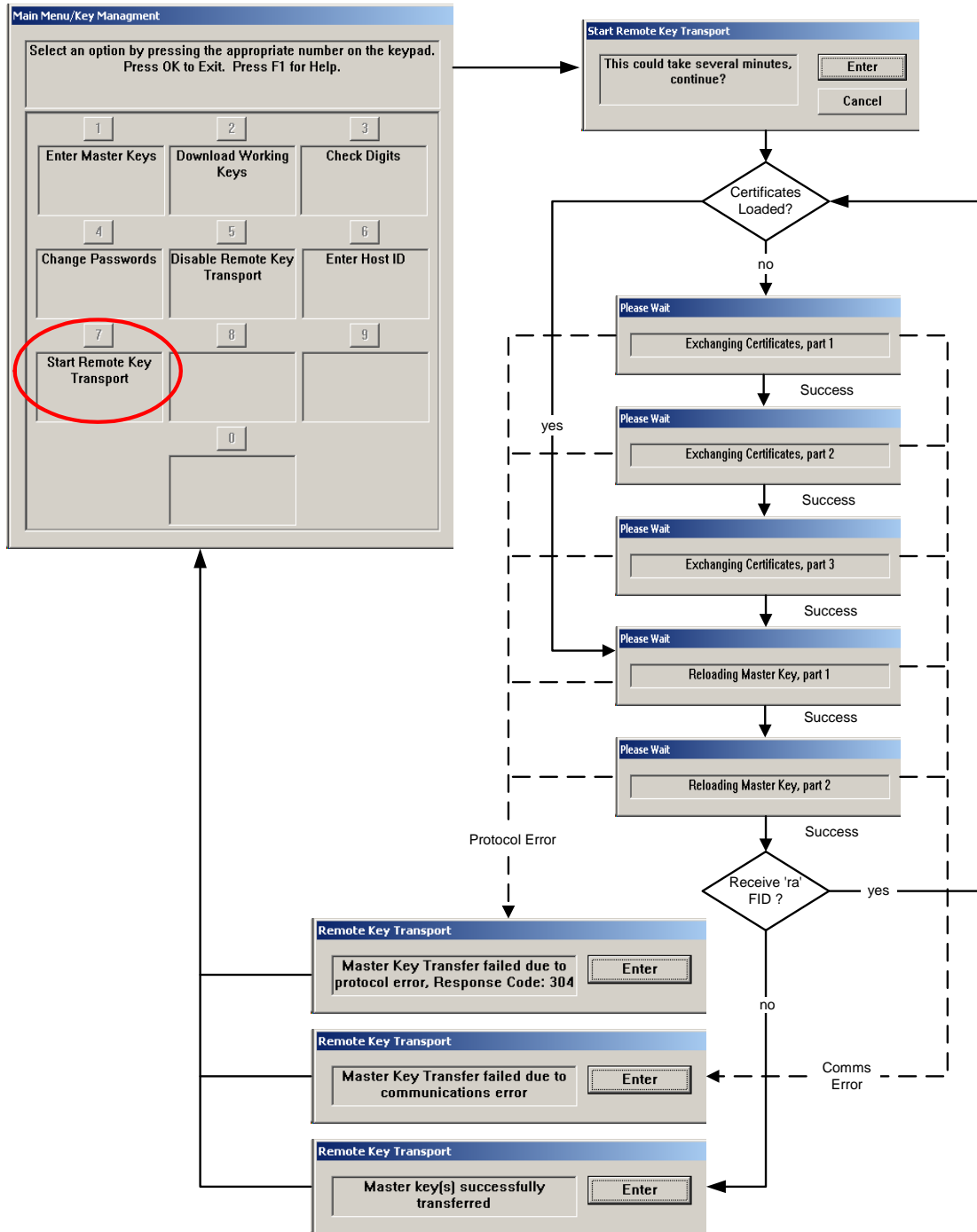




In order for RKT to operate properly a host ID must be entered at the terminal. This ID needs to be obtained through the host processor. Entering this ID requires the EPP passwords to be entered:

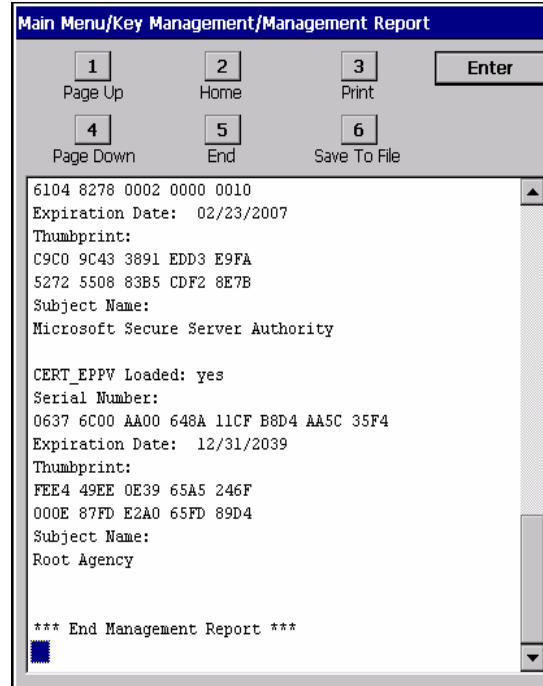
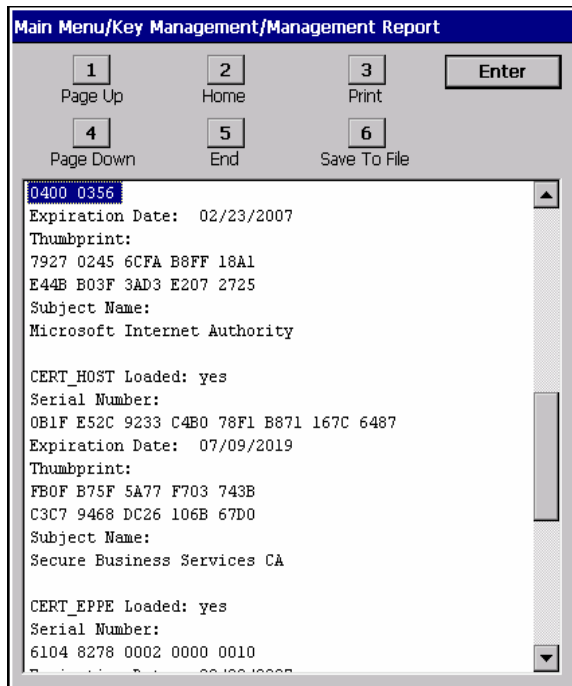
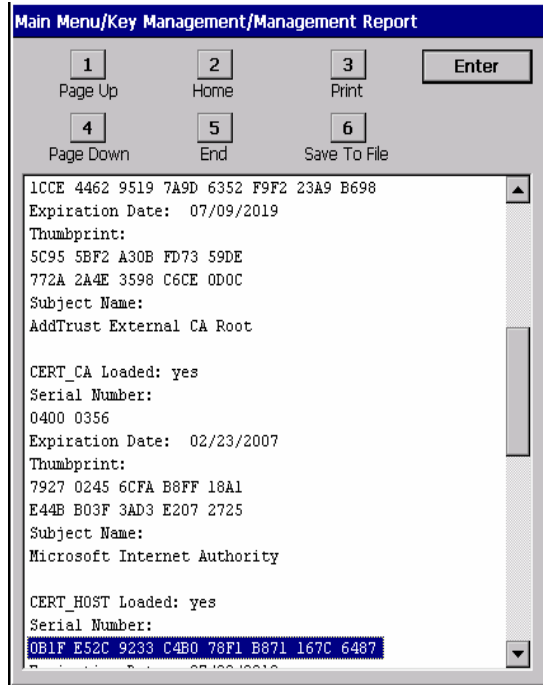
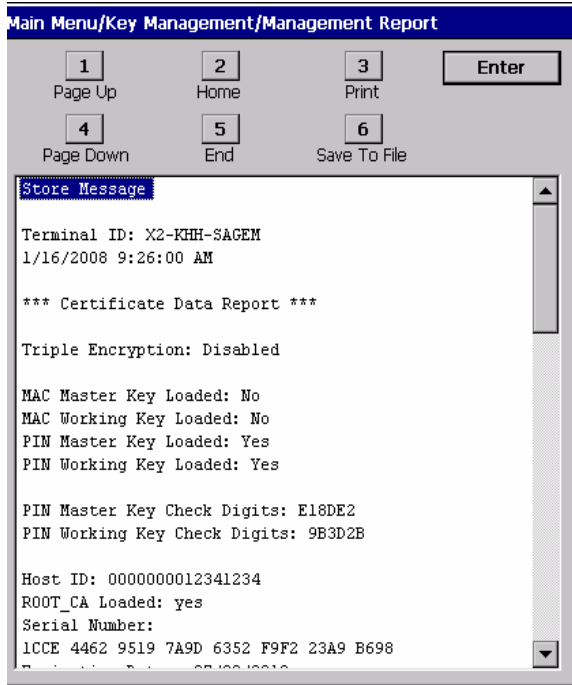


Upon successful loading of the host ID, a key exchange can be initiated from the ATM by selecting option “7” from the Key Management menu:



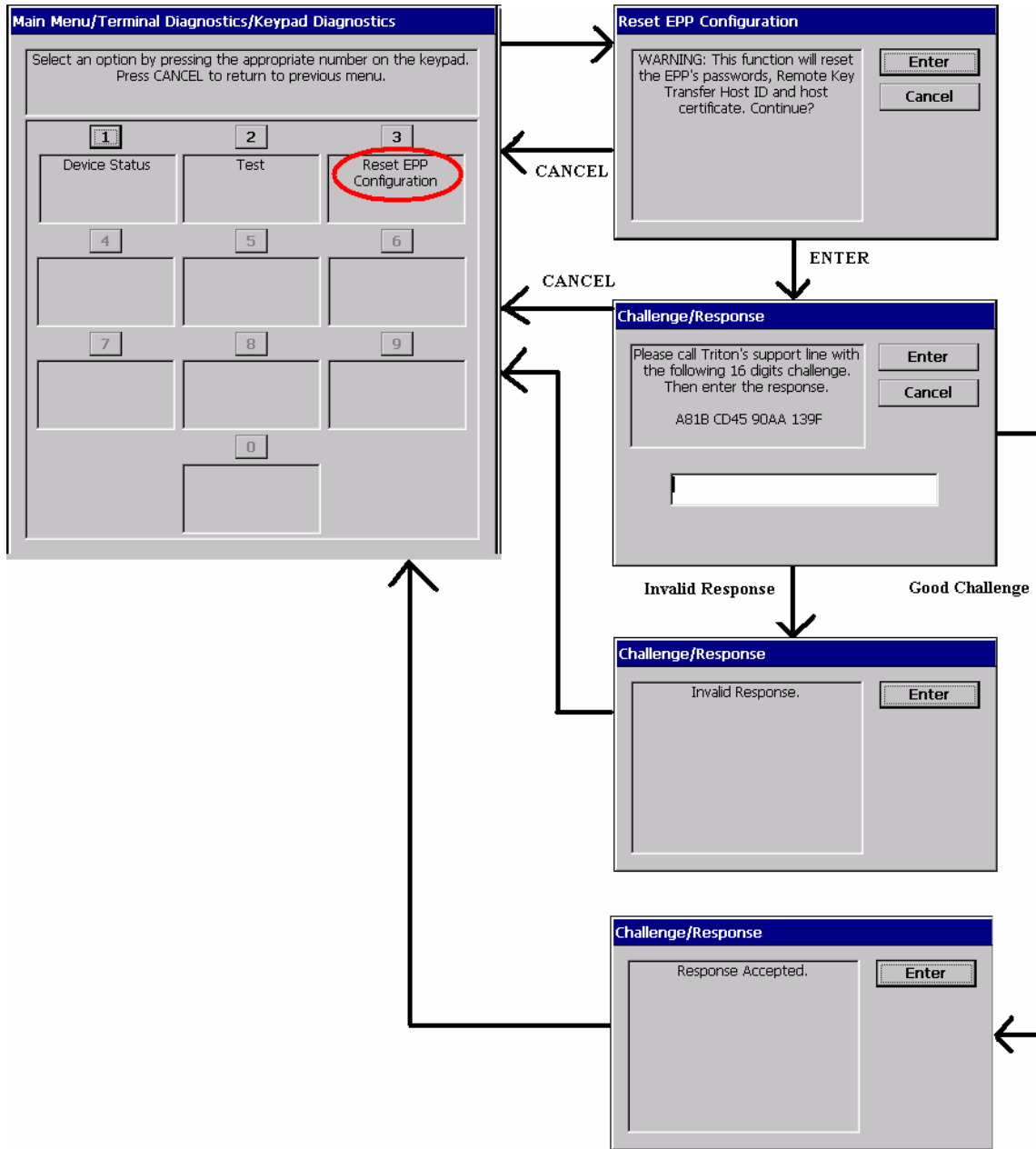
*Note: The key exchange process may also be initiated by the host processor through a transaction response.*

The RKT and certificate information can be viewed in the *Management > Diagnostics > Keypad > Device Status* report or the *Management > Terminal Status > Configuration Summary* report. Below are sample screen shots of this information:



There is also a method to reset the EPP's registers for passwords, host ID and host certificate. This function requires a challenge and response.

*Note: executing this command will reset all EPP information and the RKT process must be re-initiated.*



## SSL Support

This software release includes the capability to establish a secure connection with the ATM host and Triton Connect using SSL (Secure Socket Layer) capabilities of Windows.

SSL can be enabled from *Management > Terminal Configuration > Communications*:

The screenshot shows a configuration window titled "Main Menu/Terminal Configuration/Communication". It contains several numbered options (1-10) and function keys (F1-F4). Option 1, "Host Address", is circled in red and contains the text "Orbiter". Option 2, "Host IP Port", contains "9971". Option 6, "Use 12-Digit Sequence Number", is circled in red and contains "F4". Option 6 also includes a checkbox for "Enable SSL", which is checked. Option 8, "Communication Protocol", is set to "TCP/IP". Option 9, "Communication Message", is set to "Triton Standard TCP/IP". Option 10, "Host Response Timeout", is set to "120". The "Reversal Communications" section has a checkbox for "Enable Reversals For Protocol Errors" which is checked. On the right side of the window, there is a box for "RLTCP" with the date "1/22/2009", time "03:35 PM", "Prog" "2.4.0", and "Screen File" "DCSF0005". Below this is a button labeled "Exit Management Functions". At the bottom right, there is a box for "Current Terminal Error:" showing "0" and "No Errors".

Once enabled, option 1 (Host Address) will need to contain the host name. That same name will need to be defined in the user's certificate as the common name, or CN. When the certificate is passed to the terminal during the handshake process, the ATM will be able to compare the host name as defined here, with the host defined in the certificate. If these two pieces of information do not match the connection will be denied.

Some notes on the SSL support provided by this software release:

- The ATM supports SSL version 3.1, also known as TLS 1.0.
- The ATM will verify all certificates in a chain.
- The ATM will validate the following certificate fields: 1) Not before, 2) Not after, 3) Subject (Note: the subject of the certificate contains a common name (CN). This name will be parsed and compared to the host name configured through management functions).

## Triton Connect

If SSL is enabled at the ATM, then the ATM will always call back to Triton Connect on a secure connection. Triton Connect can also be configured as dial-up if desired.

Note that Triton Connect version 5.0 is required to support SSL connection from the ATM.

### ***Reset Dispenser Option***

This software release changes the *Management > Diagnostics > Dispenser > Reset Dispenser* option to now be labeled *Reset Dispenser to Defaults*. This is done in order to prevent confusion between this option and a dispenser purge operation. Note that a warning box still appears to indicate that all cassette parameters will be erased when this option is selected, and this function is still only available to the *Master* user.

### ***Volume Level Changes***

Previous software releases required a system shutdown or restart in order to apply volume level changes made in Management Functions. An improper shutdown after changing the volume level would revert to the previous level. This software release will now persist the new setting upon exiting Management Functions.

### ***ATM Cassette Parameters/Totals Reset***

In previous software releases, the ATM could lose cassette parameters and totals if the ATM is booted without the dispenser cable attached. If this occurs then the ATM will maintain all cassette information once the same dispenser is attached properly.

### ***User Aborted Transaction for Bad Card Read***

In previous software releases, a bad card read can cause the ATM to log the transaction in the electronic journal as a “User Aborted Transaction”. This type of read failure will no longer be logged to the journal.

### ***Configuration Summary Changes***

The local IP settings and port settings, the list of all software components and versions, and list of all ad graphics have been added to the ATM’s configuration summary report in Management Functions.

### ***Modem Error when ATM Configured for TCP/IP***

In previous software releases, if the ATM is configured for TCP/IP and there is no modem installed, the ATM will go out of service with a 136 (modem initialization failure) error until a host call is executed. This has been fixed to not go out of service at all on this condition.

### ***Rear Service Panel Changes***

For through the wall ATMs (FT5000 and RT2000), the rear service panel functionality has been updated to include the following:

- 1) Ability to manage cassettes.
- 2) Ability to save and restore parameters to/from external storage.

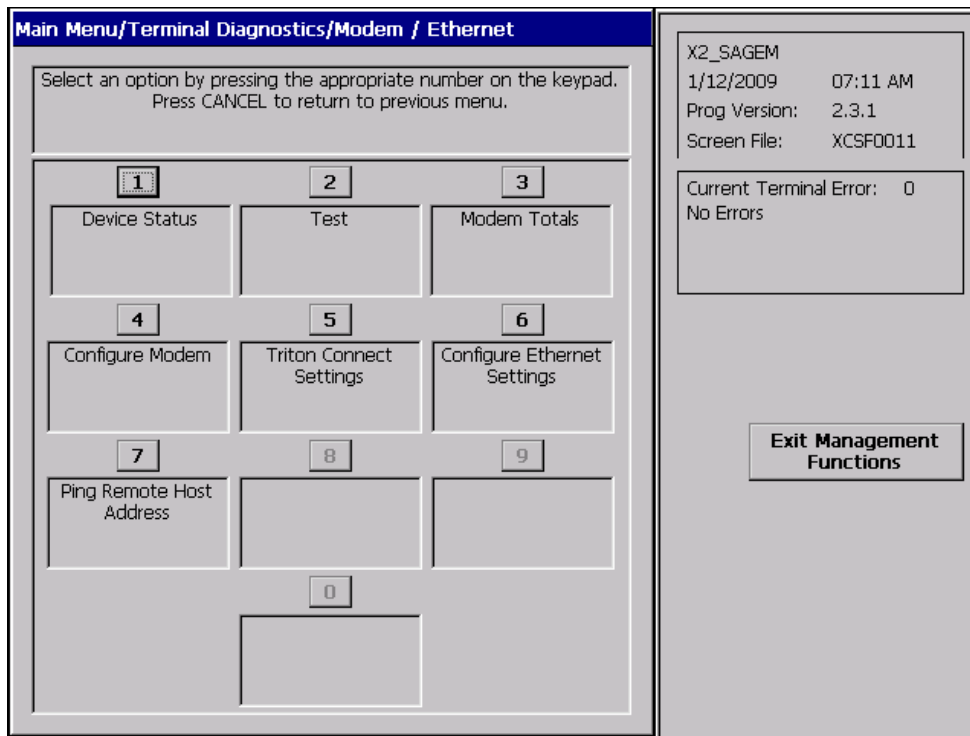
- 3) Ability to restore factory defaults.
- 4) Ability to select/change the screen file.
- 5) Ability to load software updates.

**Add Visa II ENQ/EOT to TCP/IP Protocol**

When *Triton Standard* message format is selected with TCP/IP protocol, the ATM will now require an ENQ at the start of the transaction, an EOT from the host after the message response is received as well as send an EOT to confirm the transaction was complete. Previously under TCP/IP the ATM would proceed with a dispense once the message response was confirmed. This could cause problems in an environment that uses an intermediate Visa II switch.

**Ping Function**

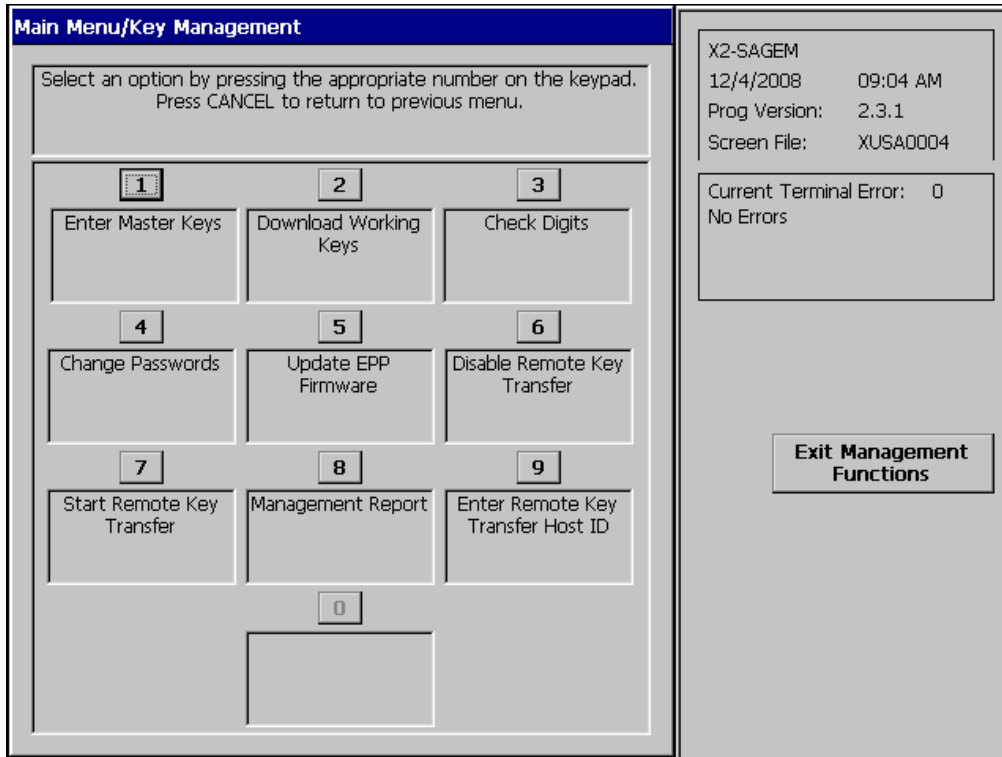
This software release includes a Ping function to help diagnose TCP/IP connection issues. This function is now available in *Management > Terminal Diagnostics > Modem/Ethernet*:



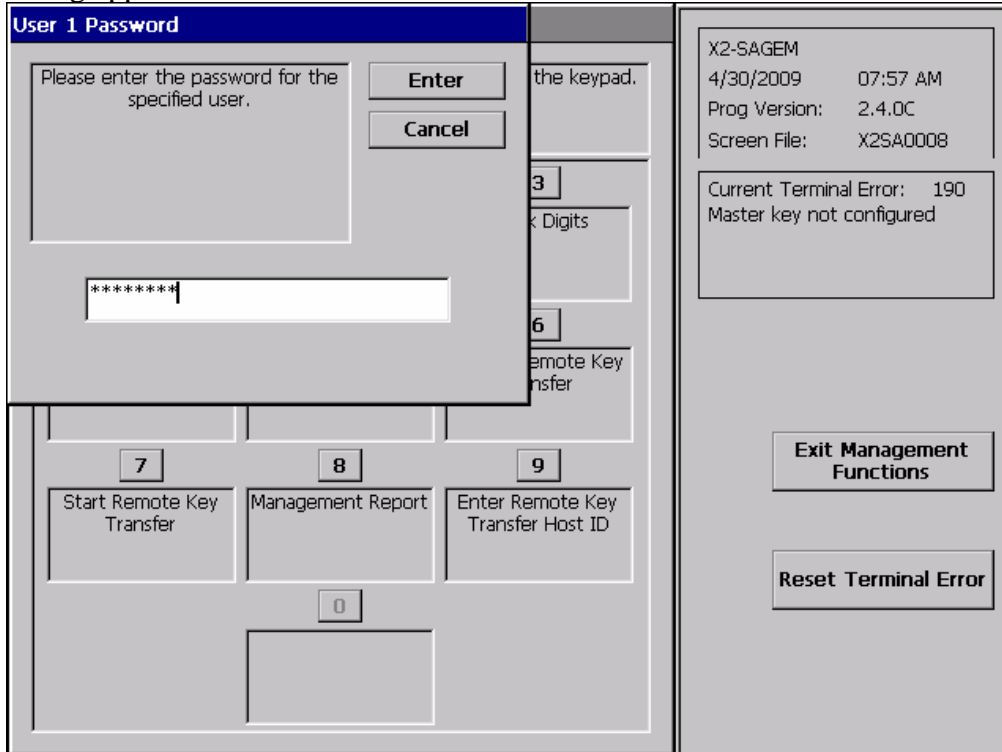
Selecting this option requires entering a valid IP address and the ATM will respond with a success/failure message.

**Update EPP Firmware**

This software release includes an option to allow updating EPP firmware for the Sagem (RKT) EPPs. This function is needed if a non-RKT Sagem EPP is purchased and the owner wishes to upgrade to RKT. This function is now available in *Management > Key Management*:

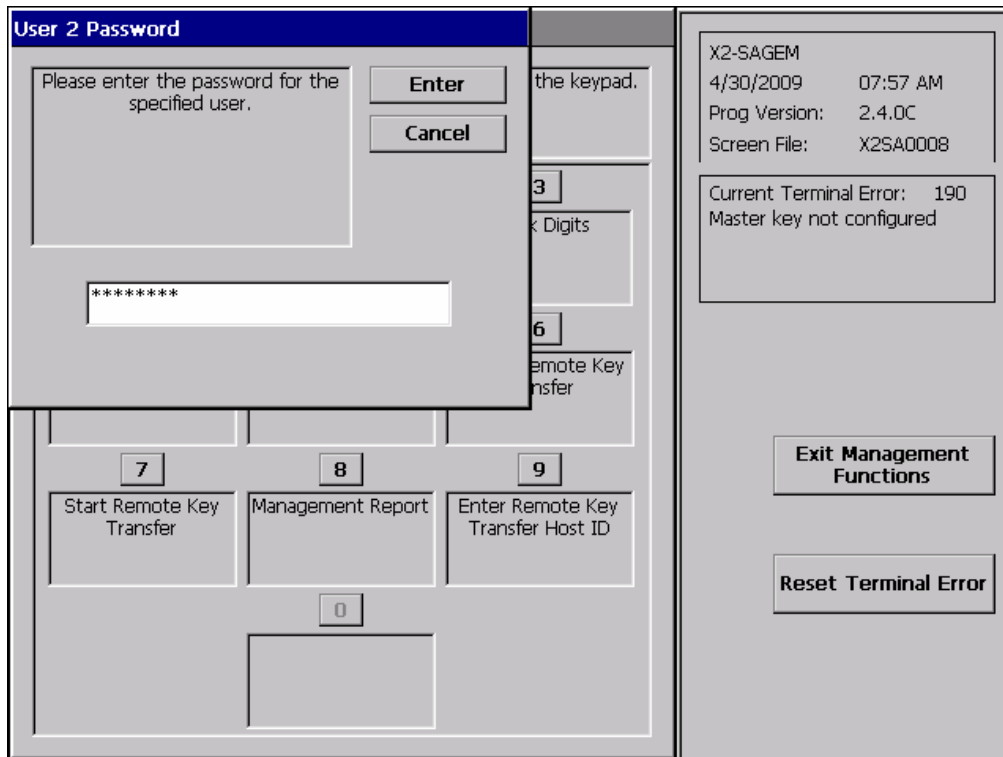


The firmware upgrade process is password protected. Upon selecting button 5 the following dialog appears:

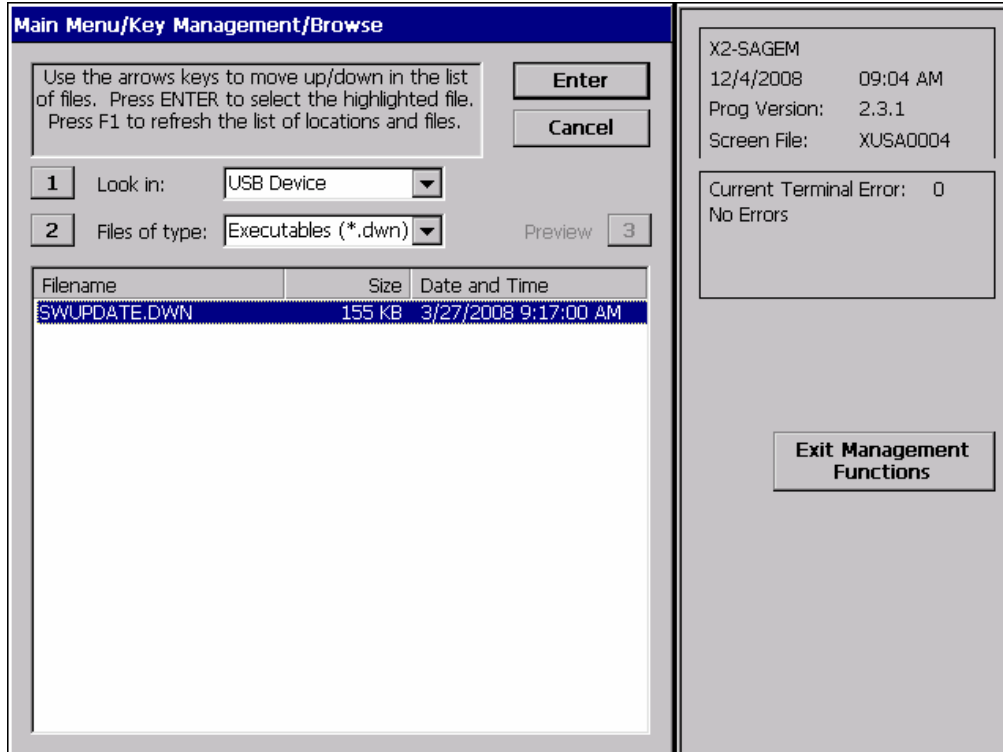


Followed by:

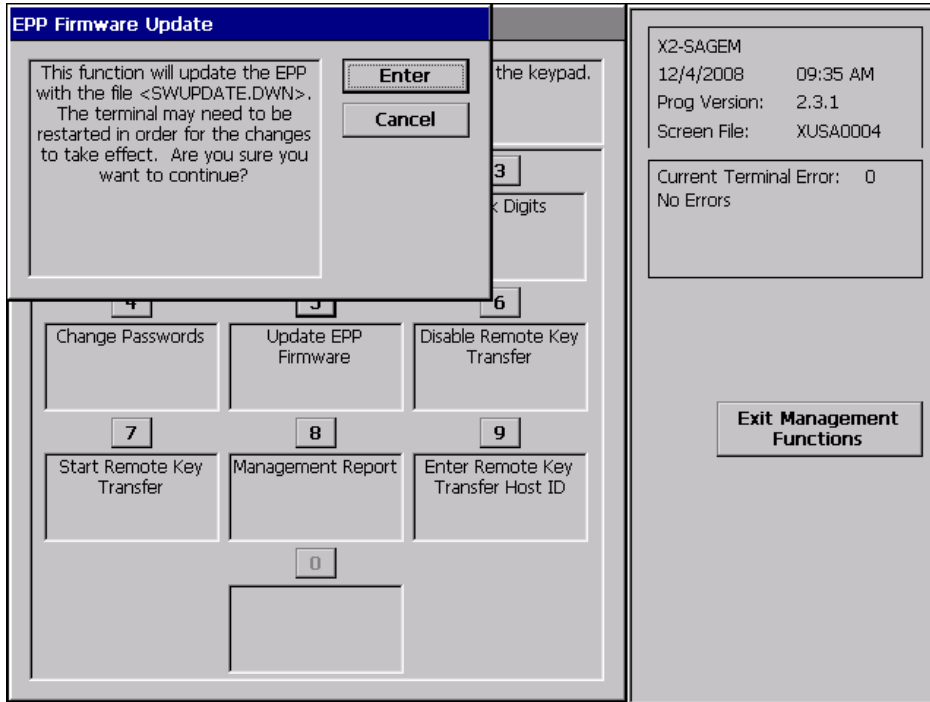




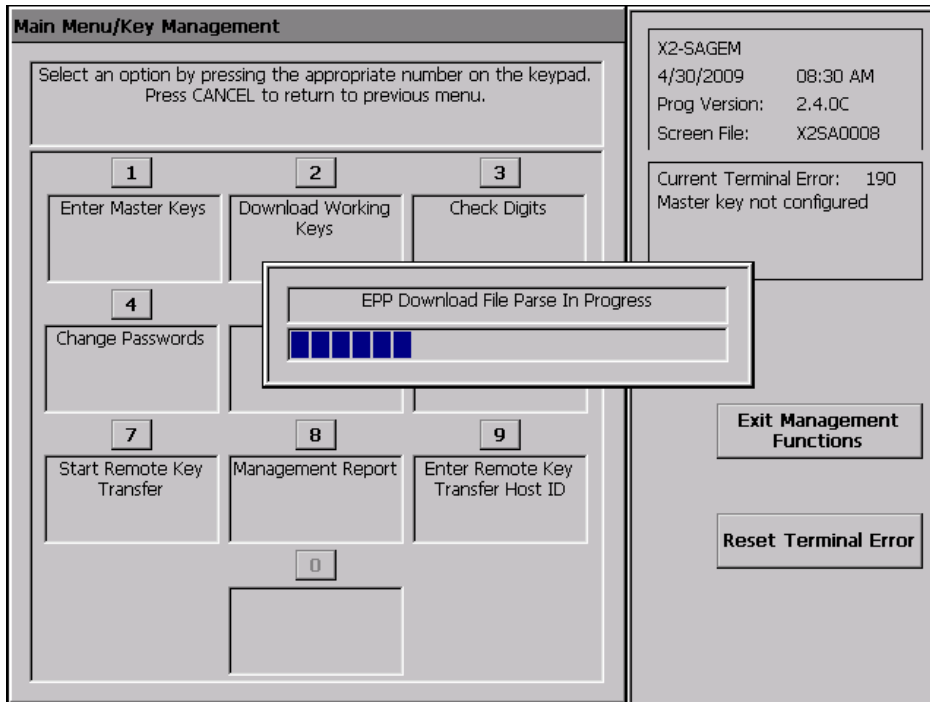
Once both passwords have been entered, the user is prompted to select the download source file:



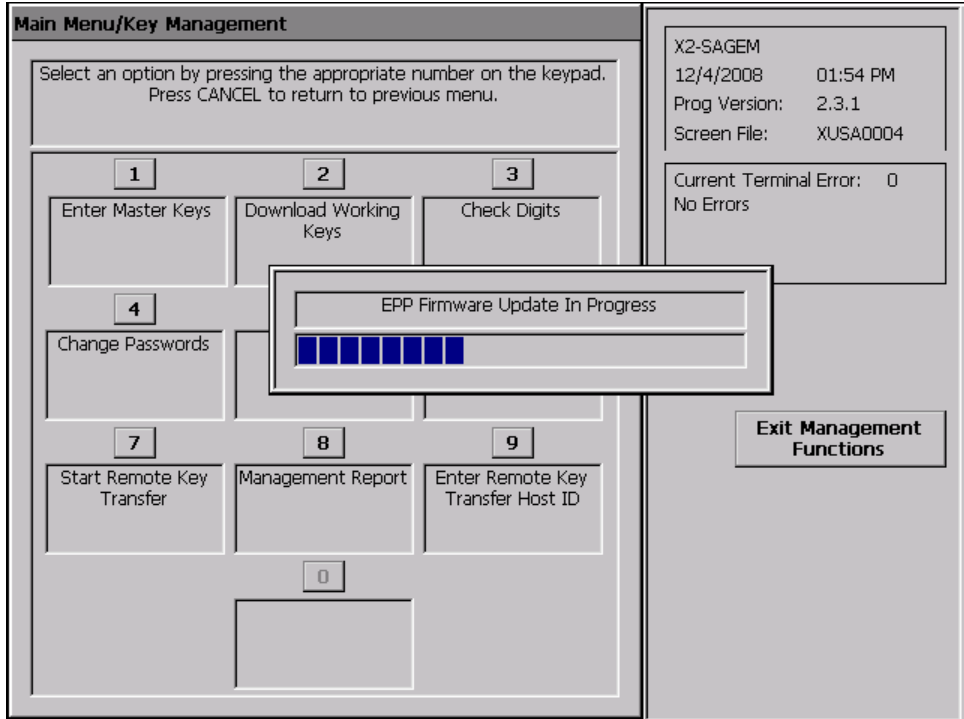
The browse dialog will specify filenames from an external medium with the extension “.dwn”.  
 Selecting the file for update will result in the display of the following confirmation dialog:



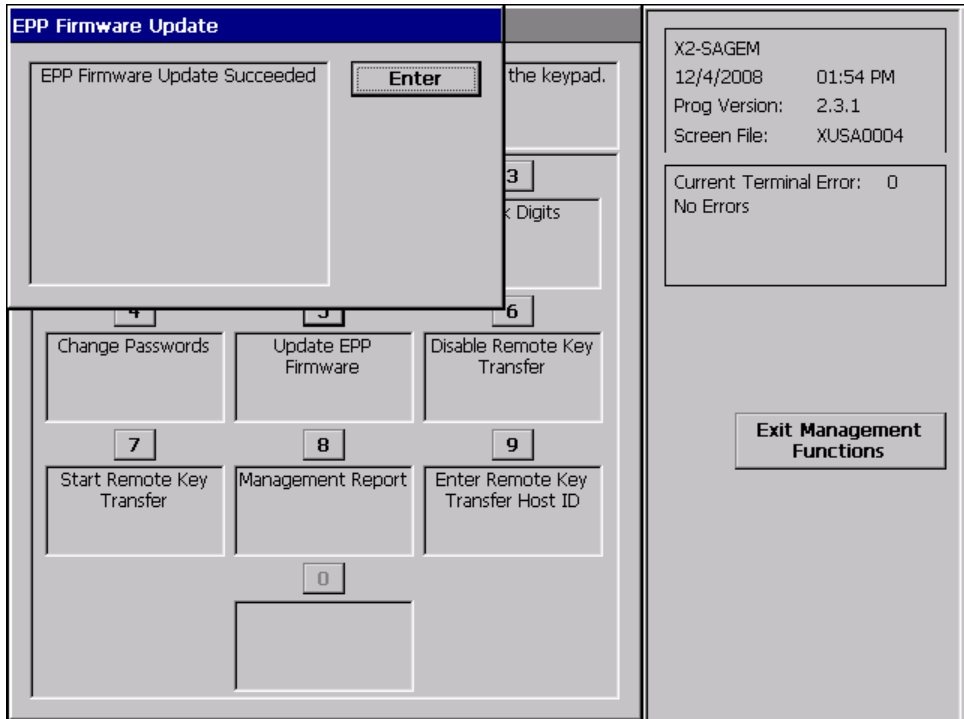
Upon pressing Enter, the firmware update file parsing process will be initiated with the following progress dialog:



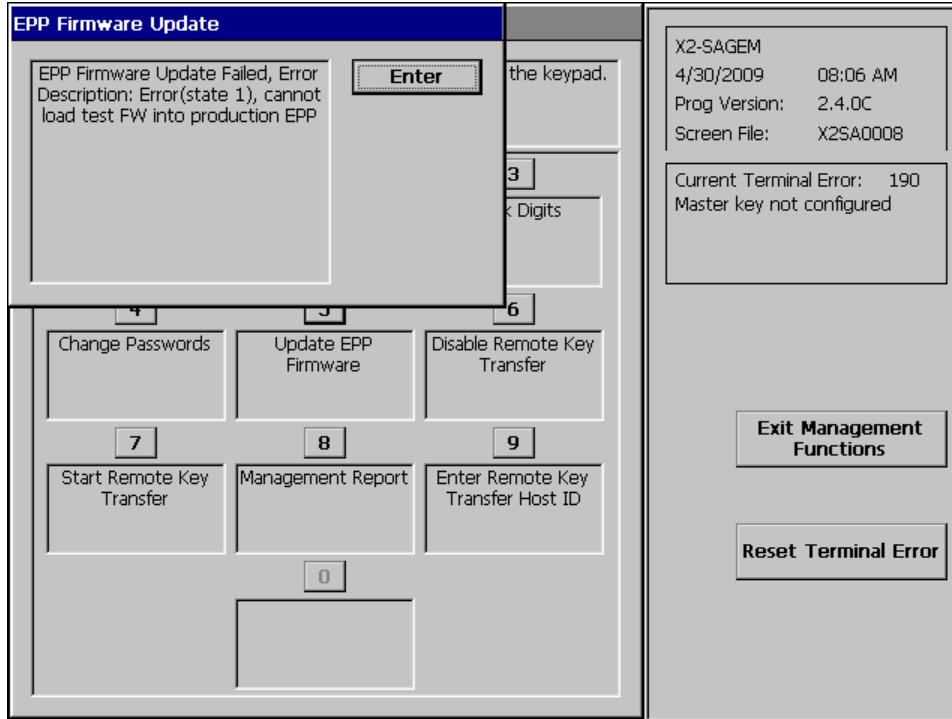
Once the file is parsed (assuming no errors), the upload process is initiated:



At a successful conclusion, this dialog is displayed:



At a failure conclusion, this dialog is displayed:



In this example, the selected download file is a test firmware load, and cannot be sent to the EPP. The complete list of error messages are listed below:

1. Error (state S), invalid command construct, processing stopped at line L
2. Error (state S), invalid parameter construct, processing stopped at line L
3. Error (state S), internal command fault, processing stopped at line L
4. Error (state S), internal memory fault, processing stopped at line L
5. Error (state S), cannot load production FW into test EPP
6. Error (state S), cannot load test FW into production EPP
7. Error (state S), FW load file incorrect for Triton EPP
8. Error (state S), EPP is not upgrade capable, call technical support
9. Error (state S), invalid serial number data extracted from the EPP
10. Error (state S), invalid serial number data extracted from the download file
11. Error (state S), download file FW version is older than the EPP version
12. Error (state S), failed to open download file

Please consult Triton technical support if you encounter one of these errors during the firmware upgrade process.

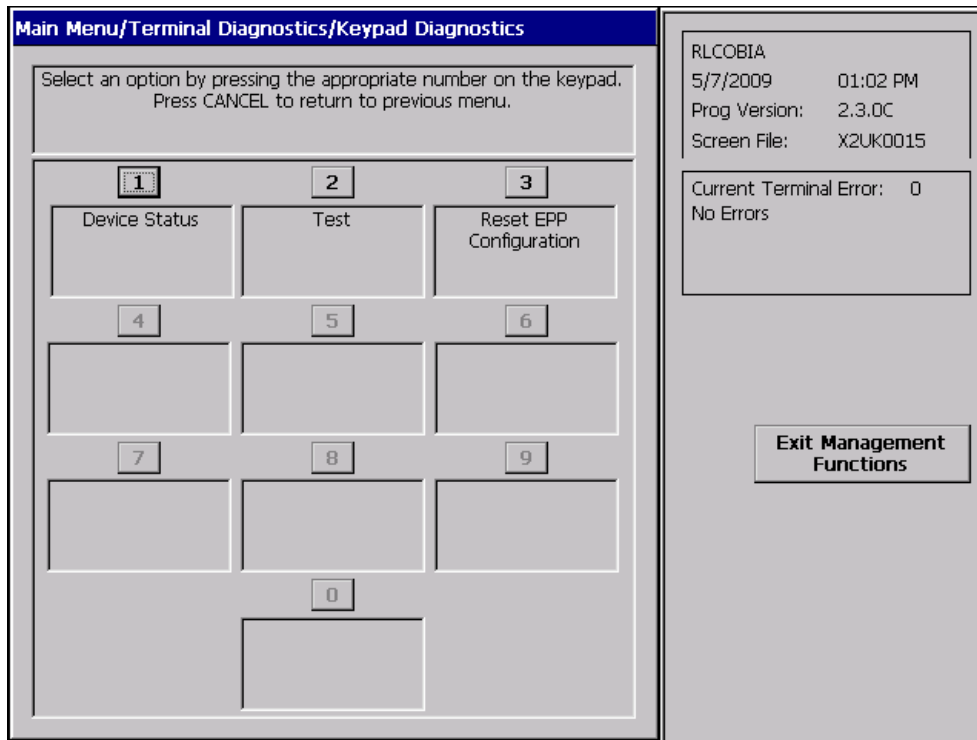
### ***Auto Reconnect for Permanent TCP/IP Connection***

This software release includes a change for the terminal to monitor the permanent connection to the host and attempt to silently reconnect if the connection has been dropped. If the ATM cannot reconnect to the host, the terminal will go out of service with a 236 error and call Triton Connect

(if enabled). Previously the ATM would not monitor the connection until a transaction or other host communication is initiated.

### **Reset EPP Function**

This software release now contains a function to reset the EPP configuration and erase all secure information in the EPP, including passwords and keys. This function is available in *Management > Terminal Diagnostics > Keypad Diagnostics > Reset EPP Configuration:\*



Selecting this function will require the operator to call Triton Technical Support to provide a response to a challenge string displayed on the screen (similar to lost password recovery).

Once this function is successfully executed, the user must re-enter EPP passwords and master keys. Also, if a Sagem EPP is being used and RKT is enabled, the RKT feature must be re-enabled and new host ID entered.

## XScale Screen File Changes

This software release for XScale controller boards now uses the same customer screen graphics and functionality as the newer X2 controllers.

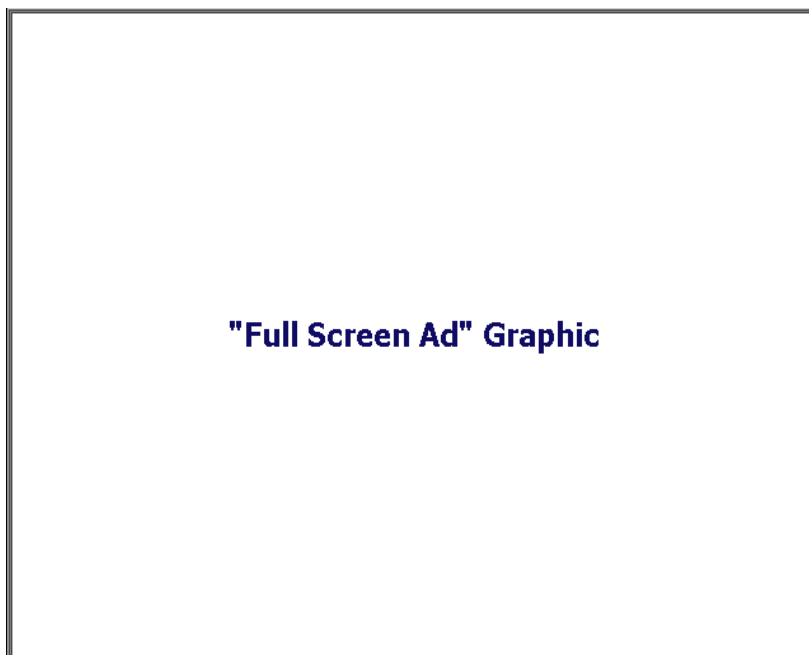
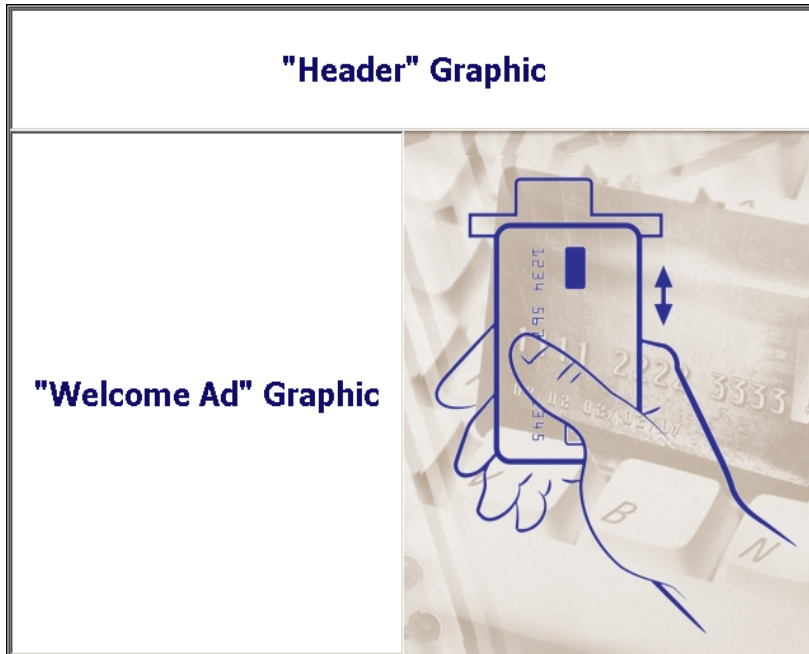
Below are some sample screen shots of the customer screens:



This change also affects the ad graphics that are displayed on the welcome screen. Rather than supporting “Logo” and “Banner” graphics at the top of the display, the X2 screen file uses a single “Header” graphic as defined below.

The following are the fields defined for advertisement graphics on the welcome or “Insert Card” screen (with pixel sizes in width x height):

- Header: 636 x 90
- Welcome Ad: 310 x 385
- Full Screen Ad: 636 x 476



## **Clear Ethernet Settings for DHCP**

When DHCP is enabled in *Management > Diagnostics > Modem/Ethernet > Ethernet Settings*, the current Ethernet settings will be cleared.

## **Send EPP and Card Reader Device Info to Triton Connect**

This software release will now send EPP and card reader device status and firmware information to Triton Connect. Note that this feature requires Triton Connect version 5.0 or later.

## **Changes to Triton Standard**

The following Triton Standard (document version 5.40) changes have been made that affect this software release:

1. Remote Key extensions: Refer to new supplemental document *TSRK Remote Key Extensions*.

## **Revision History**

Date	Version	Description of Change
August 7, 2009	1.0	Initial version
September 2, 2009	1.1	General revisions



# Supplement B

## X2 Software Release Notes

Affected products:

RL2000

RL5000X2

FT5000X2

RT2000X2

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# Software Release Notes

## RL2000 2.0.0 US, Canada, Australia, Mexico

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### Affected products

## RL2000

August 28, 2007

Version 1.1

**Triton Systems of Delaware, Inc.**  
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## Introduction

This document describes new functionality for the 2.0.0 Common software release for RL2000 for US, Canada, Australia, and Mexico. The differences described are from 1.8.6 RL5000. Only software changes are documented, please refer to the RL2000 Users Manual for hardware information of the RL2000 ATM.

## Platforms Affected

This release is for the following families:

- RL2000

## Hardware Requirements

The following is a list of hardware supported by this software:

- Display: 8" Color VGA or 5.7" Color VGA
- Card Reader: Magtek 215 Dip Reader, MagTek Intellistripe 65 Dip Reader, or Sankyo ICT3K5 Motorized Reader
- SPED: SP-06 EPP
- Dispenser: TDM50, TMD1xx, TDM2xx, SDD, MiniMech, NMD50
- Printer: Seiko 60mm or 80mm USB Printer without Presenter
- Modem: Triton USB Modem
- 128MB RAM and 128MB Flash

## Software Requirements

The following load file is included with this release:

- xd10xcsf2.0.0.tfv – Live Common Software for 8" display (US, Canada, Australia, Mexico)
- xd10dcsf2.0.0.tfv – Live Common Software for 5.7" display (US, Canada, Australia)

## External Dependencies

The following feature requires Triton Connect Version 4.4 or greater:

- Software updates from Triton Connect.

## Description of Changes

### New Screen File Look

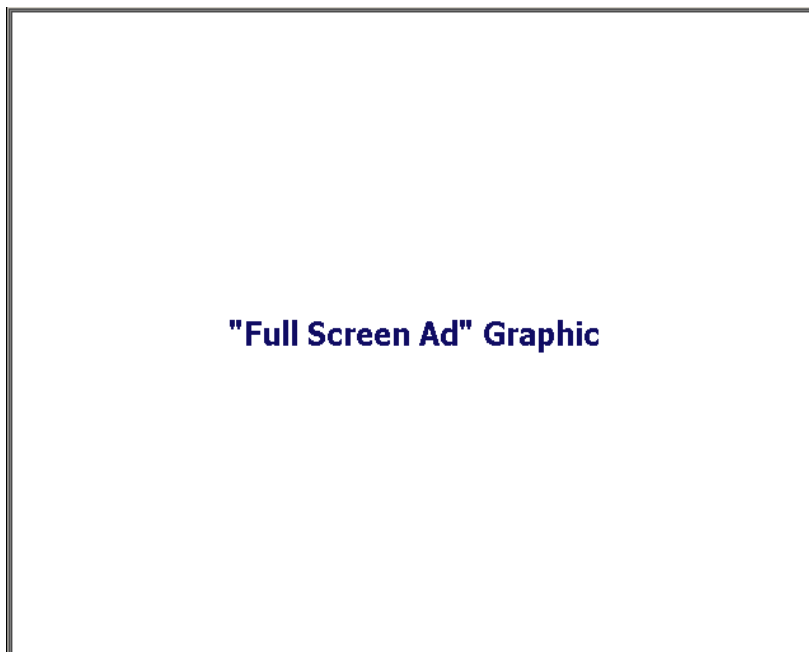
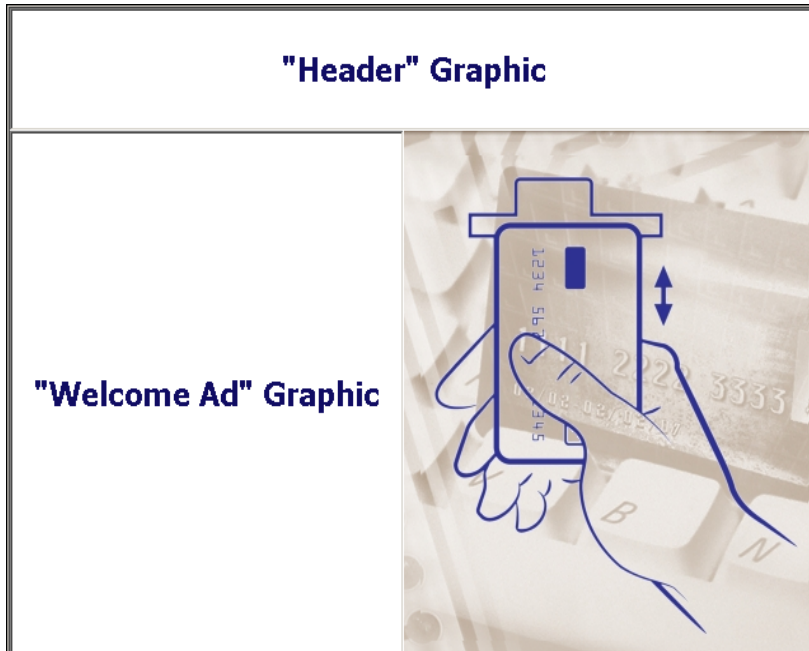
This software release contains a new screen design for customer transactions. Below are some sample screen shots of the customer screens:



## **Ad Graphics (8" Display)**

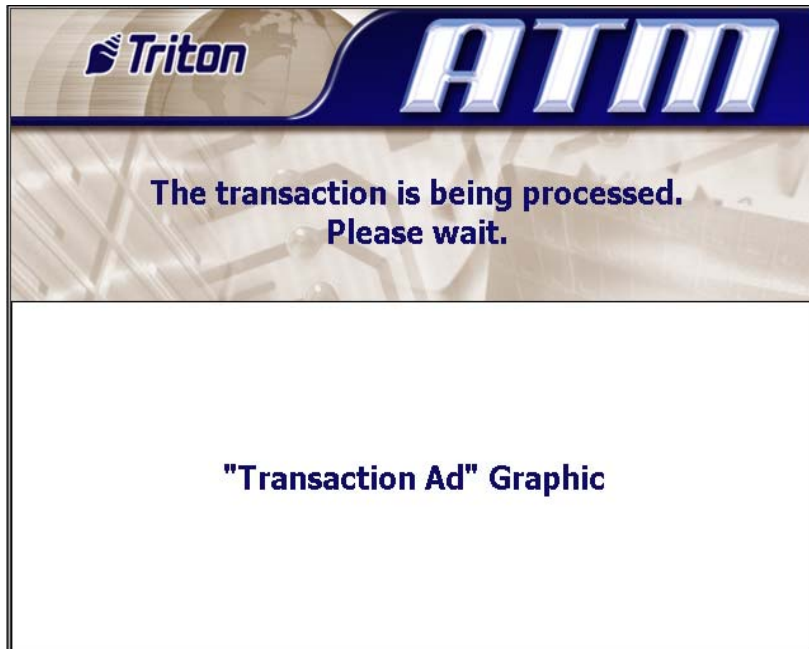
The screen file for the 8" display software release contains the following fields for advertisement graphics on the welcome or "Insert Card" screen (with pixel sizes in width x height):

- Header: 636 x 90
- Welcome Ad: 310 x 385
- Full Screen Ad: 636 x 476



The following advertisement graphic is available on the “Transaction Processing” screen:

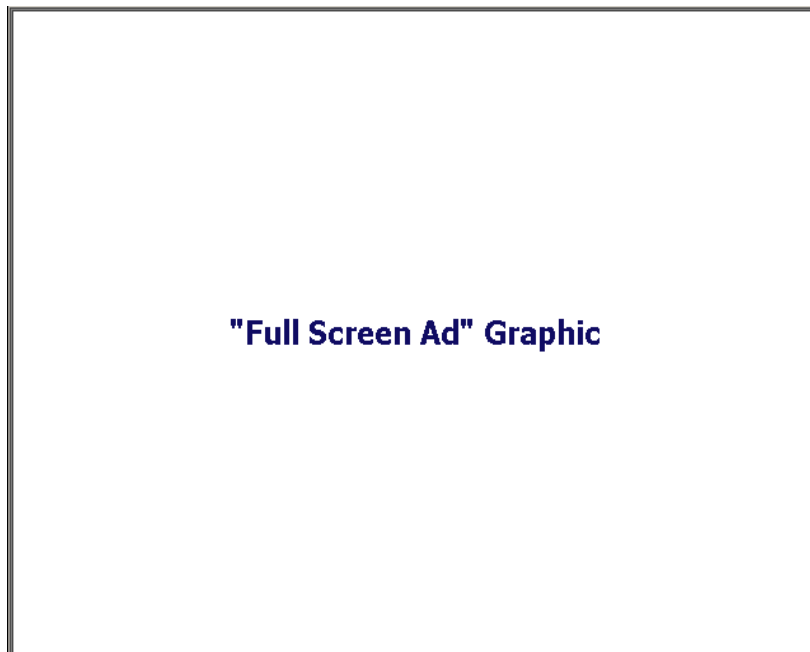
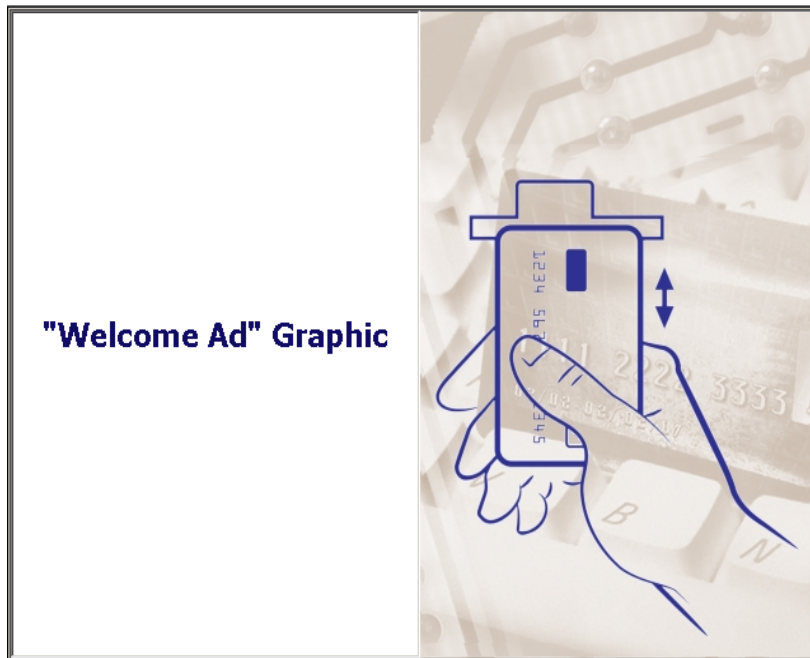
- Transaction Ad: 636 x 260



## **Ad Graphics (5.7" Display)**

The screen file for the 5.7" display software release contains the following fields for advertisement graphics on the welcome or "Insert Card" screen (with pixel sizes in width x height):

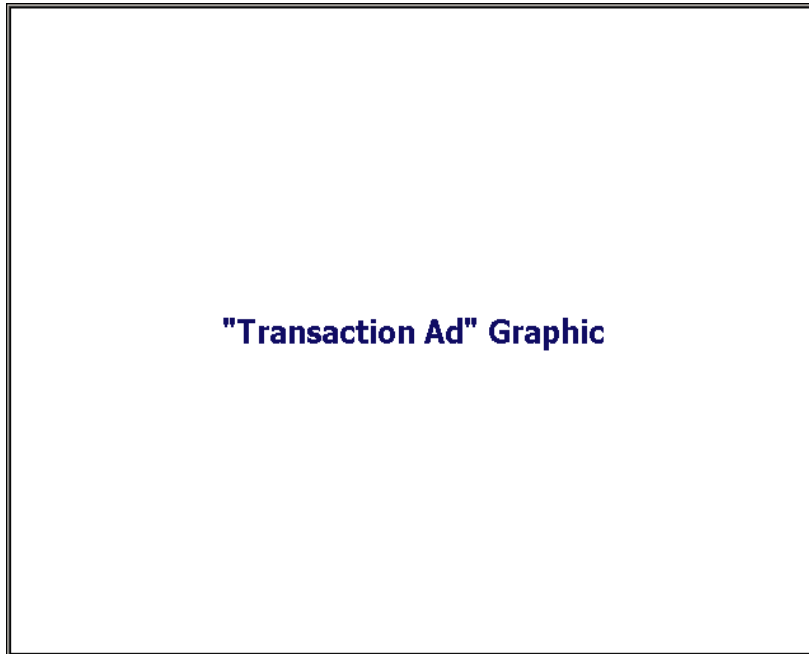
- Welcome Ad: 322 x 476
- Full Screen Ad: 636 x 476





The following advertisement graphic is available on the “Transaction Processing” screen:

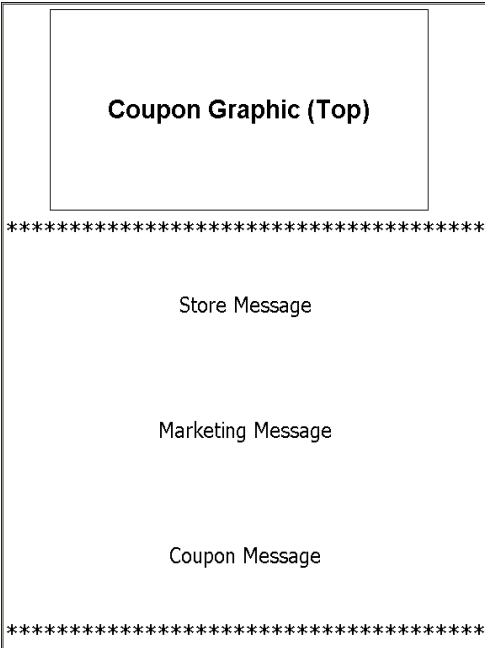
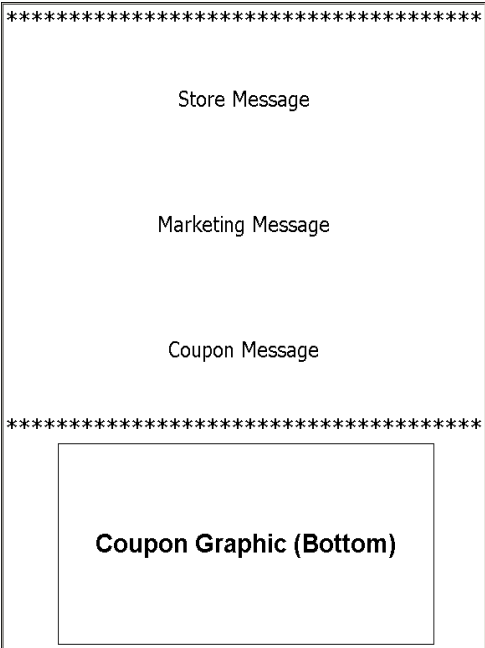
- Transaction Ad: 636 x 476

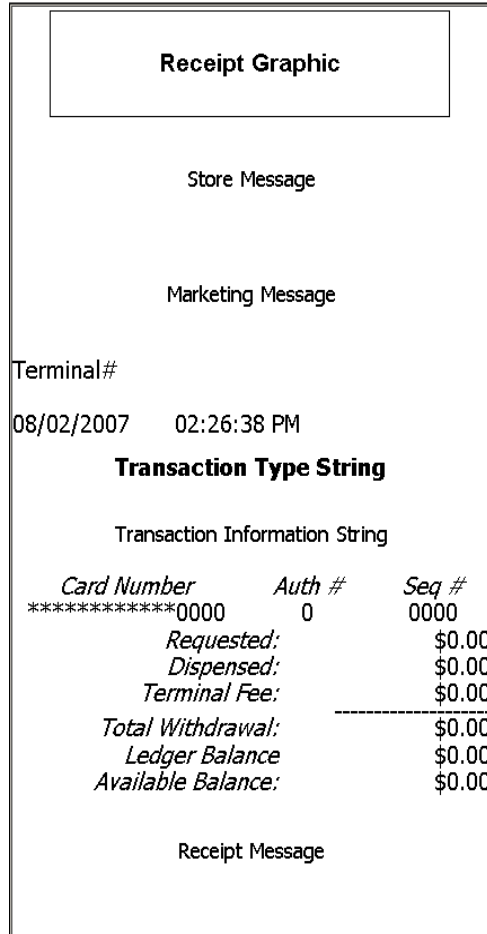
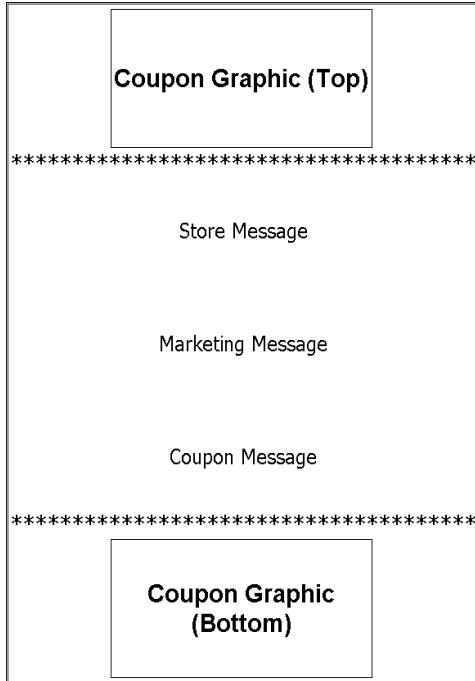


**Coupon and Receipt Graphics**

The following coupon and receipt graphics are available (bmp format only):

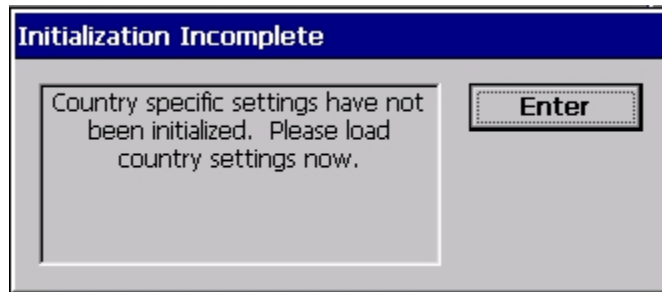
- Receipt Graphic: 480 x 120
- Coupon Graphic (Top): 450 x 225
- Coupon Graphic (Bottom): 450 x 225



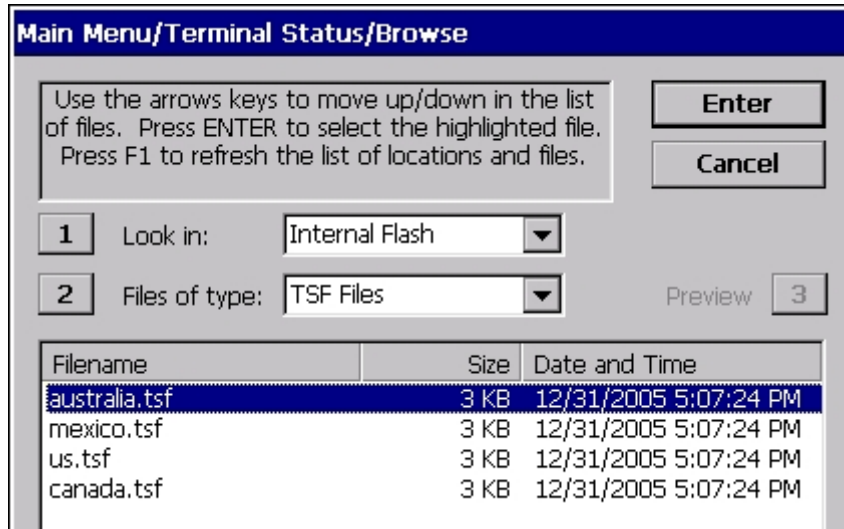


### Multi-Market Release

This software release contains functionality for multiple markets. After the initial installation of a full-load file, upon entering management functions the 'Initialization Incomplete' dialog will be displayed:



After pressing "Enter" on this dialog, the following will appear listing the configuration files (tsf) for each market:



You must select one of the options to continue. Selecting the appropriate country will apply the default settings for that market.

Note that at any time you can reset the market defaults in *Management Functions=>Terminal Status=>Restore Default Parameters*. This option will clear ALL terminal parameters and restore the system to the selected market default values. Restoring parameters from external storage (*Management Functions=>Terminal Status=>Restore Parameters From External Storage*) will also overwrite all market defaults.

### **Archive Unaudited Records**

This software release has the capability to automatically delete journal data without first auditing the journal. This feature can be used to force the terminal to stay in service even when the journal size reaches the maximum defined size.

***IMPORTANT: Only enable this feature if you are aware of the implications of this. Enabling this feature will cause unaudited journal data to be deleted and cannot be recovered.***

The auto archive dialog in *Management => Electronic Journal => Auto Archive* has been modified to add an option to allow archive/delete of unaudited records:

**Auto Archive**

1 Archive to: **None (Delete)** **Enter**

2 Archive when journal size exceeds: **2** MB **Cancel**

3 Archive all audited records older than: **7** days

4  Archive unaudited records

Selecting option 4 to enable this feature will display the following message:

**WARNING!**

**IMPORTANT!**  
Enabling this feature will allow journal data that has not been reviewed or downloaded to be deleted!

**Enter**

**Cancel**

Selecting “Enter” will continue to the next prompt and selecting “Cancel” will leave it disabled.

**WARNING!**

Please be sure you are aware of the impacts of changing this setting before continuing.  
Press "Enter" to continue enabling this setting or "Cancel" to abort.

**Enter**

**Cancel**

Selecting “Enter” will enable the “Archive unaudited records” option and selecting “Cancel” will leave it disabled.

Note that this feature can only be enabled/disabled by the “Master” user. All other users will have this option disabled:

**Auto Archive**

1 Archive to:

2 Archive when journal size exceeds:  MB

3 Archive all audited records older than:  days

4  Archive unaudited records

Changing this setting will log the following entry to the journal:

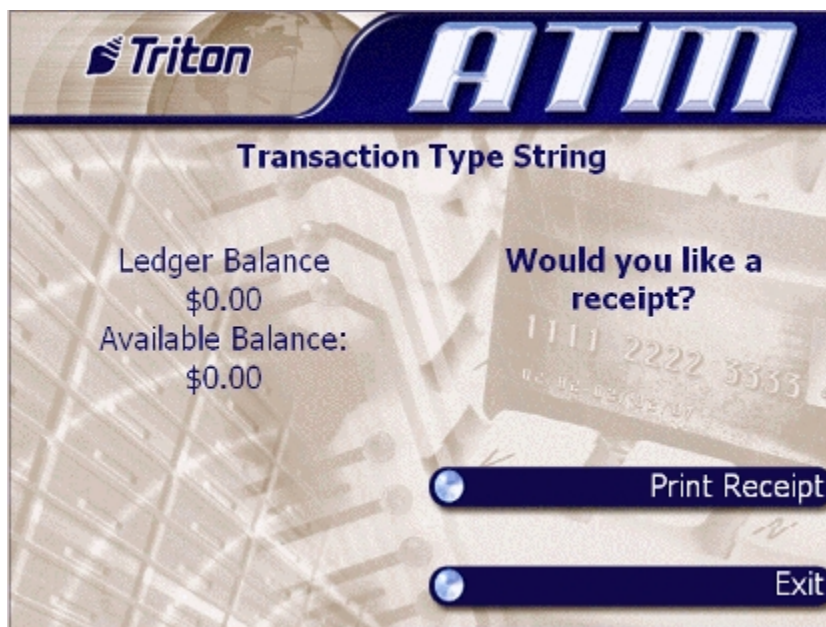
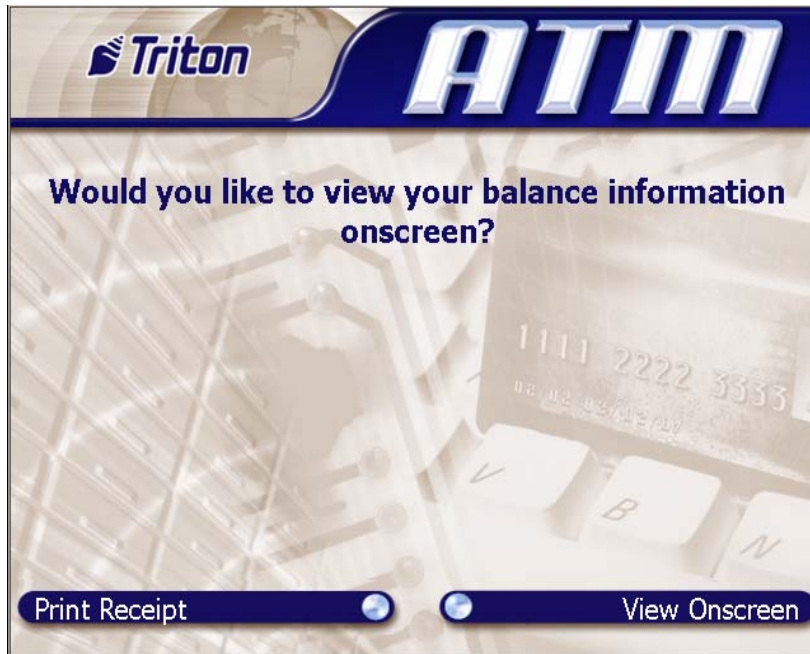
```
Username: Master
Parameter Change: Archive unaudited records
  Old: Disabled
  New: Enabled
```

The current settings can be viewed in the Configuration Summary report:

```
Auto Archive
Archive to: None (Delete)
Archive when journal size exceeds: 2 MB
Archive all audited records older than: 7 days
Archive unaudited records: Yes
```

## Display Balance On-Screen

This software release includes a function to allow the customer to view balance on the screen rather than print it on a receipt.



This option can be enabled/disabled in *Management => Terminal Configuration => Optional Screens*.

### **Mini Statement Transaction Type**

This software release contains a “Mini Statement” transaction type. Selecting this transaction type will send a Mini Statement request to the host and the data sent back from the host will be printed on the customer receipt.

Here is a sample mini statement receipt:



### **PIN Change Transaction Type**

This software release contains a “PIN Change” transaction type. Selecting this transaction type will prompt the customer to enter the new PIN, and re-enter the new PIN.

### **PIN Change and Mini Statement Selected by BIN**

The *PIN Change* and *Mini Statement* transaction types can now be selected by specific BINs in the ISO BIN table. The BINs to allow or not allow these transactions are configured in Management Functions in the ISO/Surcharge Properties configuration dialog (*Management => Terminal Configuration => ISO/Surcharge Properties*).

The ISO properties dialog now includes an ISO action named ‘**Screen Action**’. When this action is selected, a drop down list will be displayed in the ‘**Value**’ area. For this screen file, this list will include the following options:



- Allow PIN Change
- Allow Mini Statement
- Block PIN Change
- Block Mini Statement

These values can be used along with the corresponding *Optional Screens* settings to control the display of the *PIN Change* and *Mini Statement* transactions. The general approach is to set a default behavior for a transaction type (by enabling or disabling in the *Optional Screens* dialog), then configure a set of BINs that will allow the opposite behavior.

For example, to restrict the availability of the PIN Change transaction type to a set of BINs, first use the *Optional Screens* dialog to turn the PIN Change transaction type OFF. Next, use the *ISO Properties* dialog to add a list of BINs with the “Allow PIN Change” value. With this configuration the terminal will restrict the display of the PIN Change transaction type to the BIN list.

Alternatively, if you wish to block PIN Change for a set of BINs, use the *Optional Screens* dialog to turn the PIN Change transaction type ON, then use the *ISO Properties* dialog to add a list of BINs with the “Block PIN Change” value. With this configuration the terminal will NOT display the PIN Change transaction type for the BIN list.

A similar approach can be applied to the Mini Statement transaction type.

### **Prompt for Another Transaction**

This software release contains the option to enable prompting the customer for another transaction when a transaction has completed successfully (transaction chaining). With this option enabled, the customer will be presented with the following screen upon completing a transaction:



Here is the behavior based on customer selection:

1. **Customer chooses YES.** Go directly to the PIN entry screen. The customer's ATM card will not need to be re-scanned. After successful PIN entry, the Transaction Selection screen will be presented.
2. **Customer chooses NO.** Display the Exit Message then return to the Welcome screen.
3. **Customer does nothing.** After 15 seconds the "Need More Time?" prompt appears. If the Customer selects YES within 15 seconds, the continuation prompt will be displayed and repeat the previous steps. If the customer selects NO, or does not select an option within 15 seconds, the Exit Message is displayed and the transaction is completed.

### ***Withdrawal – No Receipt Option***

This release contains a new transaction type called "Withdrawal – No Receipt" that can be presented to the customer on the select transaction screen. This selection will execute a standard withdrawal transaction but will only print a receipt if the transaction is unsuccessful.

### ***Bill Mix Methods***

In previous software releases, if 2 or more cassettes contained the same denomination then all bills would be dispensed from one cassette before using the second. A new bill mix method has been added to alternate between cassettes of like denomination for each transaction. The bill mix methods are:

- Minimize (the current method)
- Minimize EW (for "Even Wear")

This option can be configured in *Management => Terminal Configuration => Cassette Setup*.

### ***Journal Data in Host Response***

This software release contains a new feature to allow journal data to be sent to the host in a transaction or configuration download response message. This feature can only be enabled/disabled through host communications and is not configurable in Management Functions.

Please refer to "Triton Terminal Communications Protocol And Message Format Specification", version TSCD5.34 or later for details on this feature.

*Note: Turning on this feature will cause journal records to be audited and may not be retrieved from Triton Connect or viewed at the terminal through the "Display Unaudited Records" feature. Old journal records can still be viewed using "Display Last X".*

## ***UPS Support***

If a UPS is connected to the ATM, this software release has the capability to detect if the system is on UPS power and shut down the ATM at the first idle time. The ATM will power up immediately when main power has been restored. Please contact Triton Technical Support for information on supported UPS devices and cables.

## ***Report SPED Low Battery to Triton Connect***

This software release will send a warning message (error code 241) to Triton Connect if the SPED battery is low. This error will not take the terminal out of service, and the ATM will contact Triton Connect to clear the error once the battery has been replaced.

## ***No Online Help***

The online help in Management Functions has been removed for the RL2000 ATM.

## ***No Text Receipts***

The RL2000 uses a USB printer which has much faster communications than the serial printer on the RL5000. Due to this print speed increase, the option to select “text” receipts has been removed and all receipts are printed as “graphics”.

## ***New Load File Format***

Software load files for the RL2000 will have a “tfv” extension rather than “tlf”. The “tfv” format is slightly different and provides a method for Triton to sign each load file and only install verified software updates.

*Note: Triton Connect version 4.4 is required to send a “tfv” software update to the ATM.*

## ***LED Brightness Control***

An option to configure the LED lead-through indicator brightness has been added in *Management => Diagnostics => General I/O*.

## Changes to the Communication Specification

The following FID has been added to support sending journal data to the host:

<p>'j'</p>	<p>Journal data – Ten ASCII numbers, optionally followed by size / journal data pairings, always ending with an ANSI CRC-16 checksum. - T<sub>1</sub> T<sub>2</sub> T<sub>3</sub> T<sub>4</sub> T<sub>5</sub> T<sub>6</sub> T<sub>7</sub> T<sub>8</sub> T<sub>9</sub> T<sub>10</sub> (T<sub>11</sub> T<sub>12</sub> T<sub>13</sub>) (Base64 data) T<sub>14</sub> T<sub>15</sub> T<sub>16</sub> T<sub>17</sub></p> <p>1 Numeric (T<sub>1</sub>) - Status Field '0' = Disable '1' = Enable '2'=Incomplete record '3'=ACK '4'=NAK</p> <p>2 Numeric (T<sub>2</sub> T<sub>3</sub>) - Maximum records when sent from host or numbers of records to follow when sent to host.</p> <p>3 Numeric (T<sub>4</sub> T<sub>5</sub> T<sub>6</sub>) - Maximum journal data (256-999 bytes) when sent from host or total journal data (in bytes) to follow when sent to host.</p> <p>4 Numeric (T<sub>7</sub> T<sub>8</sub> T<sub>9</sub> T<sub>10</sub>) – Indicates the number of journal records that have not been audited on the terminal which will include any records included with this message. This field will be zero filled when being sent from the host to the terminal.</p> <p>(T<sub>11</sub> T<sub>12</sub> T<sub>13</sub>) (Base64 data) - The remainder of the packet will be (T<sub>2</sub> T<sub>3</sub>) pairs of 3 ASCII numbers followed by the Base64 representation of the journal record as defined in Triton Connect Journal Command Packet (<i>Triton Terminal Journal Record Format Specification</i>). This part of the packet will only be transmitted from the terminal to the host.</p> <p>3 Numeric (T<sub>11</sub> T<sub>12</sub> T<sub>13</sub>) – size (in bytes) of 1 Base64 (RFC 3548) encoded journal record to follow. ASCII bytes- Base64 representation of the journal record as defined by <i>Triton Terminal Journal Record Format Specification</i>.</p> <p>T<sub>14</sub> T<sub>15</sub> T<sub>16</sub> T<sub>17</sub> -4 ASCII characters that represent the CRC-16 two byte checksum calculated from and including the j fid to the last byte of Base64 data. Each character represents a 4-bit hexadecimal numeral (0-9, A-F). Uses the ANSI CRC-16 error checking protocol standard. See the sample code in APPENDIX F.</p>
------------	---

FID 'uj' has been added to support mini statement receipts:

Host Receipt – 2 ASCII numbers followed by a variable amount of ASCII data to be displayed exactly as formatted by the host. T<sub>1</sub> T<sub>2</sub> (T<sub>3</sub>)

2 Numeric (T<sub>1</sub> T<sub>2</sub>) – 2 ASCII numbers representing the character set selection. Currently ‘00’ will always be sent indicating the default character set should be used.

Variable Length ASCII (T<sub>3</sub>) – Formatted ASCII text that will be printed exactly as it is sent from the host.

Misc FID ‘uk’:

Printer Capabilities- 10 ASCII numbers representing the current configuration of the terminal printer. T<sub>1</sub> T<sub>2</sub> T<sub>3</sub> T<sub>4</sub> T<sub>5</sub> T<sub>6</sub> T<sub>7</sub> T<sub>8</sub> T<sub>9</sub> T<sub>10</sub>

1 Numeric (T<sub>1</sub>) – Represents the current printer mode ‘1’ – Graphic ‘2’ – Text.

3 Numeric (T<sub>2</sub> T<sub>3</sub> T<sub>4</sub>) – This field is reserved for future use, but it will initially contain ‘000’.

2 Numeric (T<sub>5</sub> T<sub>6</sub>) – The maximum number of characters per line.

2 Numeric (T<sub>7</sub> T<sub>8</sub>) – The maximum number of lines per statement.

2 Numeric (T<sub>9</sub> T<sub>10</sub>) – The default character set that is used by the system. ‘00’ will be sent indicating the system default. Future enhancements may specify other character sets.

**Note:** *The ‘uk’ FID will always be sent from the terminal in a configuration download request.*

## Default Parameters

The default values for new features are as follows:

- Archive Unaudited Records: Disabled
- Bill Mix Method: Minimize
- Journal Data in Host Response: Disabled

## Known Issues

### ***Journal Upload Enable/Disable from Management***

If a download keys is initiated from Management Functions (*Key Management=>Download Keys*), the flag in the message response to enable/disable is ignored. This feature will only be enabled or disabled during a transaction request.

## Revision History

Date	Version	Description of Change
August 6, 2007	1.0	Initial Release
August 27, 2007	1.1	Added 5.7" Display Support

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# Software Release Notes RL2000 2.0.0 EMV (UK and International)

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## Affected products RL2000

August 30, 2007

Version 1.1

**Triton Systems of Delaware, Inc.  
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## **Introduction**

This document describes new functionality for the 2.0.0 UK/International (EMV) software release for RL2000. The differences described are from 1.8.6 UK RL5000. Only software changes are documented, please refer to the RL2000 Users Manual for hardware information of the RL2000 ATM.

## **Platforms Affected**

This release is for the following families:

- RL2000

## **Hardware Requirements**

The following is a list of hardware supported by this software:

- Display: 8" Color VGA or 5.7" Color VGA
- Card Reader: MagTek Intellistripe 65 dip reader or Sankyo ICT3K5 motorized card reader
- SPED: SP-06.00 EPP
- Dispenser: TDM50, TMD1xx, TDM2xx, SDD, MiniMech, NMD50
- Printer: Seiko 60mm or 80mm USB Printer without Presenter
- Modem: Triton USB Modem
- 128MB RAM and 128MB Flash

## **Software Requirements**

The following load file is included with this release:

- xd14xemv2.0.0.tfv – Live UK/International with EMV for 8" display
- xd14duke2.0.0.tfv – Live UK/International with EMV for 5.7" display

## **External Dependencies**

The following feature requires Triton Connect Version 4.4 or greater:

- Software updates from Triton Connect.

## Description of Changes

### New Screen File Look

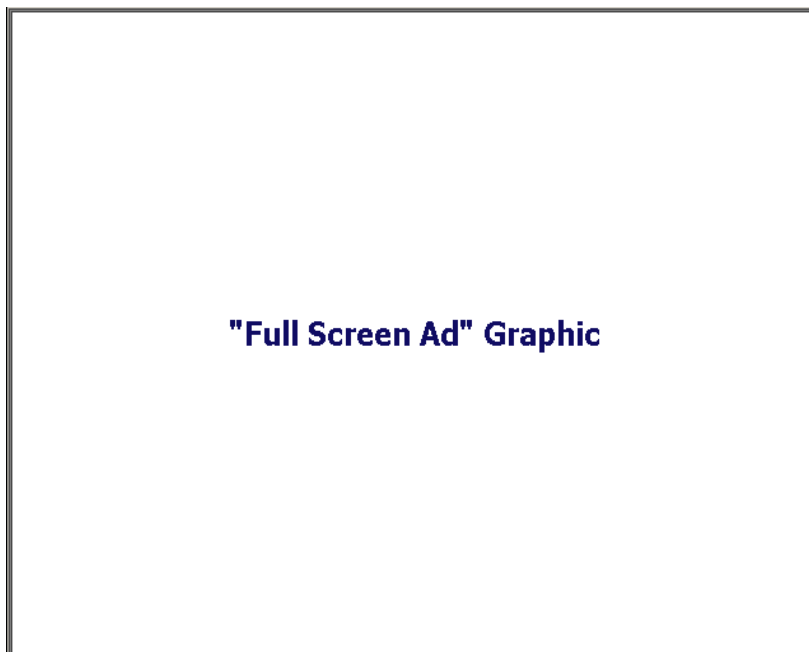
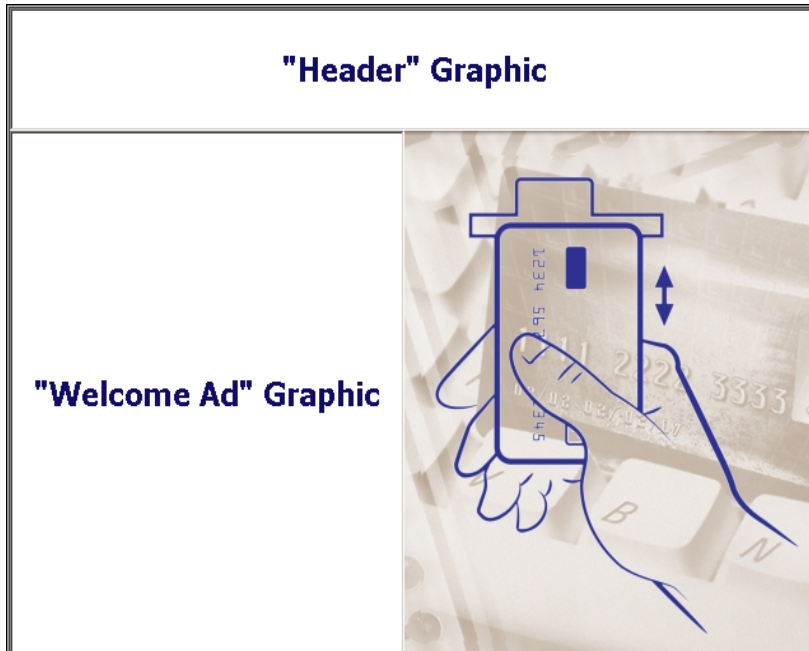
This software release contains a new screen design for customer transactions. Below are some sample screen shots of the customer screens:



## **Ad Graphics (8" Display)**

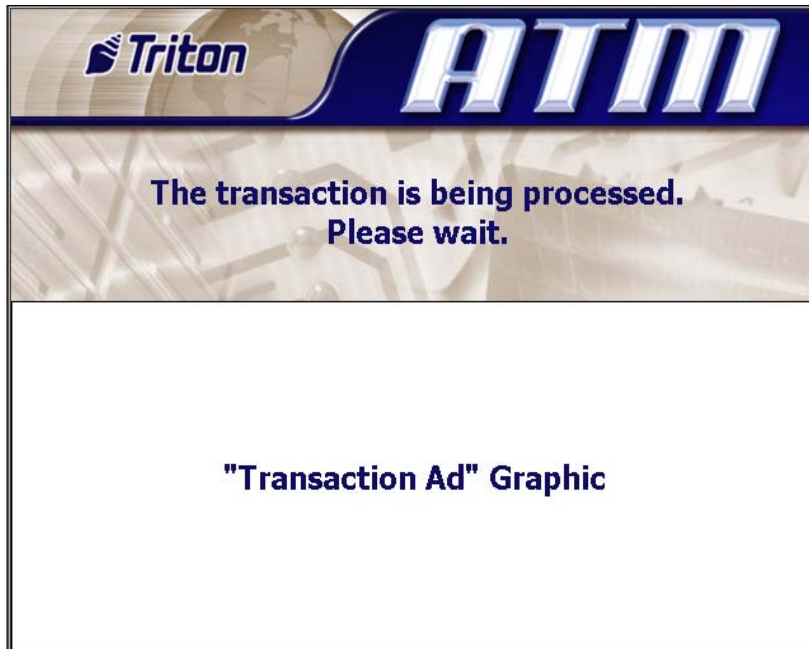
The screen file for this software release contains the following fields for advertisement graphics on the welcome or "Insert Card" screen (with pixel sizes in width x height):

- Header: 636 x 90
- Welcome Ad: 310 x 385
- Full Screen Ad: 636 x 476



The following advertisement graphic is available on the “Transaction Processing” screen:

- Transaction Ad: 636 x 260

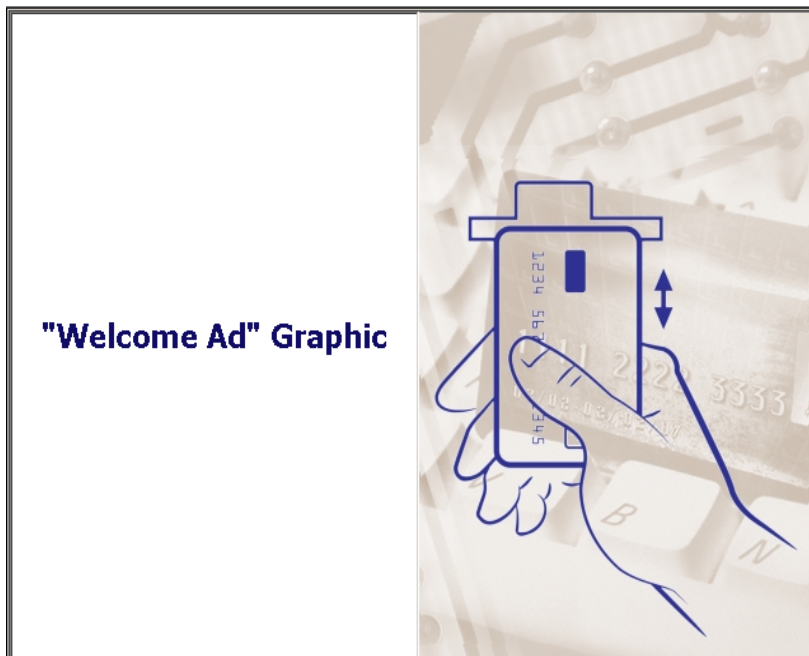


**"Transaction Ad" Graphic**

### ***Ad Graphics (5.7" Display)***

The screen file for the 5.7" display software release contains the following fields for advertisement graphics on the welcome or “Insert Card” screen (with pixel sizes in width x height):

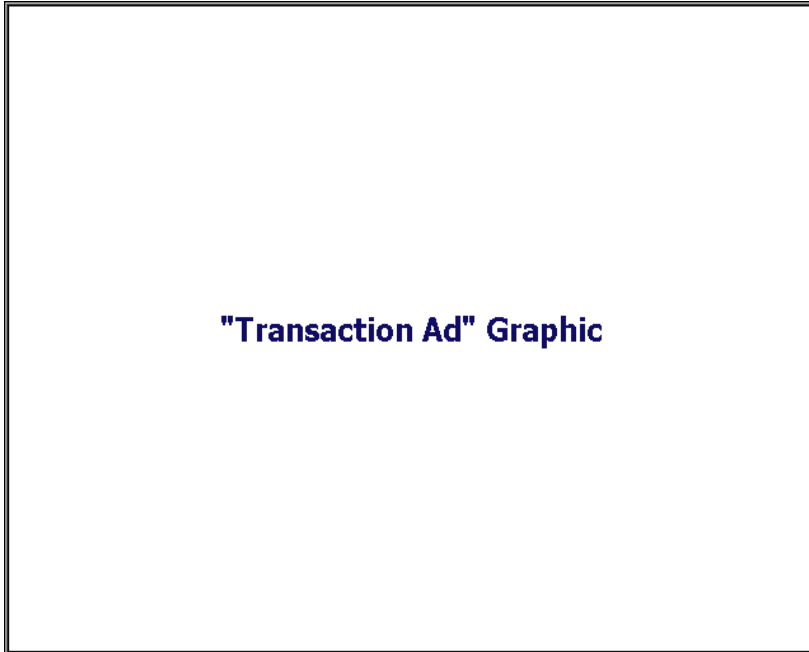
- Welcome Ad: 322 x 476



**"Welcome Ad" Graphic**

The following advertisement graphic is available on the "Transaction Processing" screen:

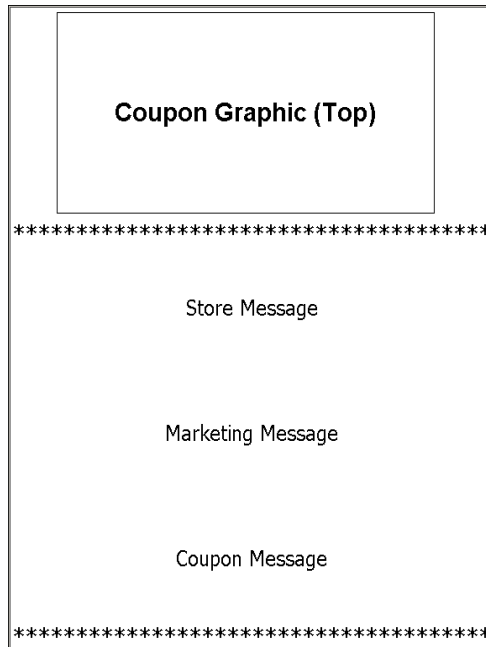
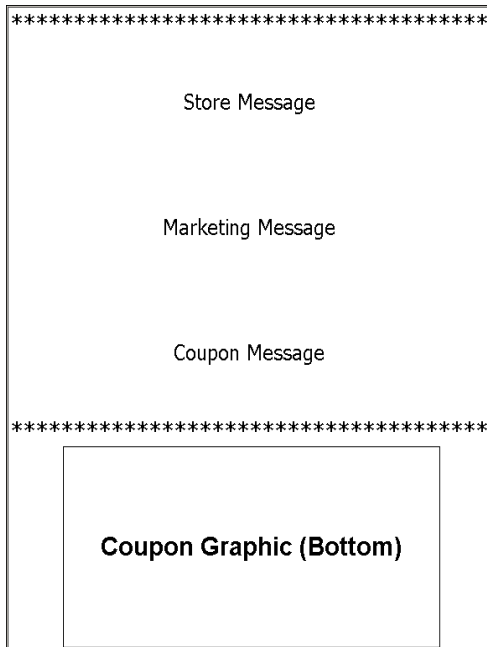
- Transaction Ad: 636 x 476

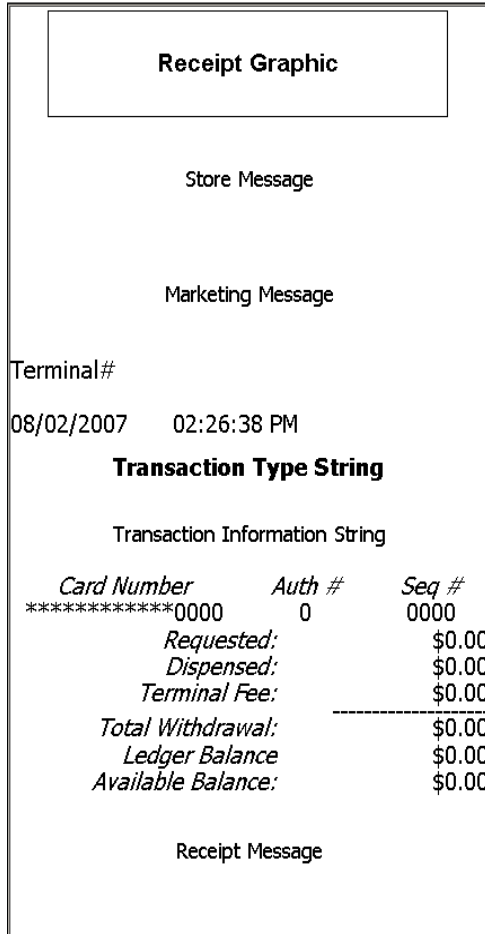
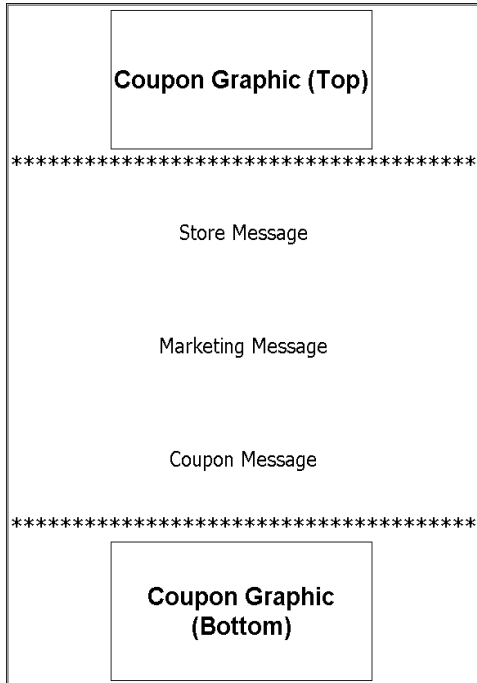


### ***Coupon and Receipt Graphics***

The following coupon and receipt graphics are available (bmp format only):

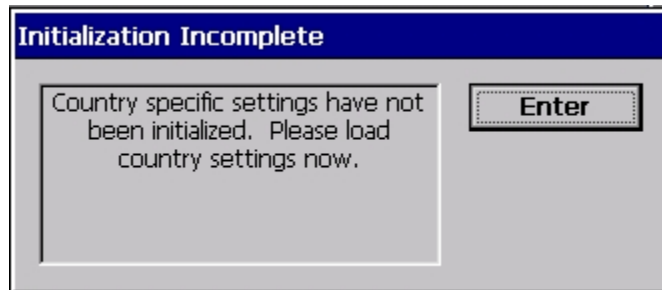
- Receipt Graphic: 480 x 120
- Coupon Graphic (Top): 450 x 225
- Coupon Graphic (Bottom): 450 x 225



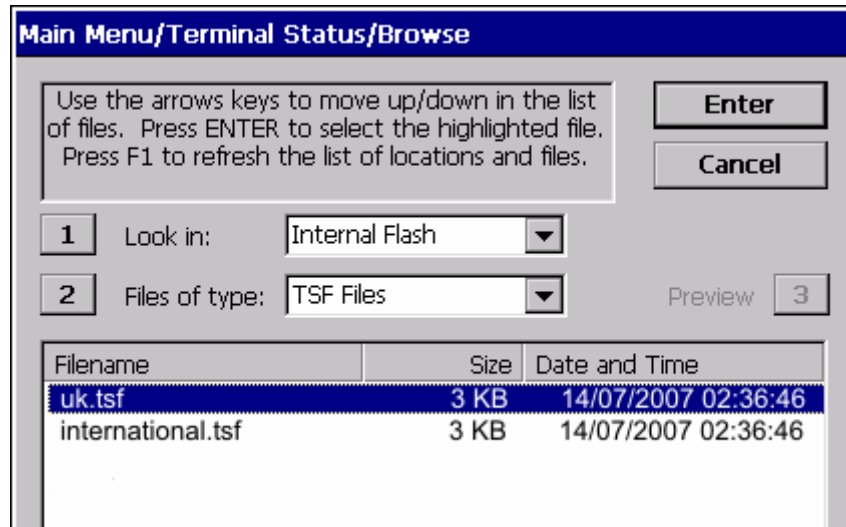


### Multi-Market Release

This software release contains functionality for multiple markets. After the initial installation of a full-load file, upon entering management functions the 'Initialization Incomplete' dialog will be displayed:



After pressing “Enter” on this dialog, the following will appear listing the configuration files (tsf) for each market:



You must select one of the options to continue. Selecting the appropriate country will apply the default settings for that market.

Note that at any time you can reset the market defaults in *Management Functions=>Terminal Status=>Restore Default Parameters*. This option will clear ALL terminal parameters and restore the system to the selected market default values. Restoring parameters from external storage (*Management Functions=>Terminal Status=>Restore Parameters From External Storage*) will also overwrite all market defaults.

## **Archive Unaudited Records**

This software release has the capability to automatically delete journal data without first auditing the journal. This feature can be used to force the terminal to stay in service even when the journal size reaches the maximum defined size.

***IMPORTANT: Only enable this feature if you are aware of the implications of this. Enabling this feature will cause unaudited journal data to be deleted and cannot be recovered.***

The auto archive dialog in *Management => Electronic Journal => Auto Archive* has been modified to add an option to allow archive/delete of unaudited records:

**Auto Archive**

1 Archive to: **None (Delete)** **Enter**

2 Archive when journal size exceeds: **2** MB **Cancel**

3 Archive all audited records older than: **7** days

4  Archive unaudited records

Selecting option 4 to enable this feature will display the following message:

**WARNING!**

**IMPORTANT!**  
Enabling this feature will allow journal data that has not been reviewed or downloaded to be deleted!

**Enter**  
**Cancel**

Selecting “Enter” will continue to the next prompt and selecting “Cancel” will leave it disabled.

**WARNING!**

Please be sure you are aware of the impacts of changing this setting before continuing.  
Press "Enter" to continue enabling this setting or "Cancel" to abort.

**Enter**  
**Cancel**

Selecting “Enter” will enable the “Archive unaudited records” option and selecting “Cancel” will leave it disabled.

Note that this feature can only be enabled/disabled by the “Master” user. All other users will have this option disabled:



**Auto Archive**

1	Archive to:	None (Delete) ▾	Enter
2	Archive when journal size exceeds:	2 MB	Cancel
3	Archive all audited records older than:	7 days	
4	<input type="checkbox"/> Archive unaudited records		

Changing this setting will log the following entry to the journal:

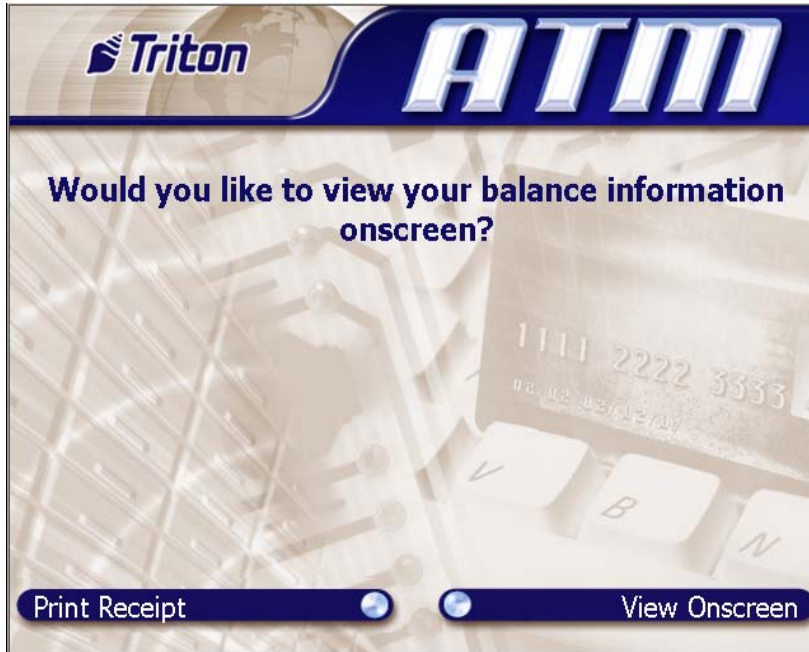
```
Username: Master
Parameter Change: Archive unaudited records
  Old: Disabled
  New: Enabled
```

The current settings can be viewed in the Configuration Summary report:

```
Auto Archive
Archive to: None (Delete)
Archive when journal size exceeds: 2 MB
Archive all audited records older than: 7 days
Archive unaudited records: Yes
```

## Display Balance On-Screen

This software release includes a function to allow the customer to view balance on the screen rather than print it on a receipt.



This option can be enabled/disabled in *Management => Terminal Configuration => Optional Screens*.

## ***PIN Services, Mini Statement and Mobile Top Up Selected by BIN***

The *PIN Services (PIN Change and PIN Unlock)*, *Mini Statement* and *Mobile Top Up (MPTU)* transaction types can now be selected by specific BINs in the ISO BIN table. The BINs to allow or not allow these transactions are configured in Management Functions in the ISO/Surcharge Properties configuration dialog (*Management => Terminal Configuration => ISO/Surcharge Properties*).

The ISO properties dialog now includes an ISO action named '**Screen Action**'. When this action is selected, a drop down list will be displayed in the '**Value**' area. For the UK screen file, this list will include the following options:

- Allow PIN Change
- Allow PIN Unlock
- Allow Mini Statement
- Allow MPTU
- Block PIN Change
- Block PIN Unlock
- Block Mini Statement
- Block MPTU

These values can be used along with the corresponding *Optional Screens* settings to control the display of the *PIN Services (PIN Change and PIN Unlock)*, *Mini Statement* and *Mobile Top Up* transactions. The general approach is to set a default behavior for a transaction type (by enabling or disabling in the *Optional Screens* dialog), then configure a set of BINs that will allow the opposite behavior.

For example, to restrict the availability of the PIN Services transaction types to a set of BINs, first use the *Optional Screens* dialog to turn the selected PIN Service (PIN Change or PIN Unlock) transaction type OFF. Next, use the *ISO Properties* dialog to add a list of BINs with the "Allow PIN Change" or "Allow PIN Unlock" value, as applicable. With this configuration the terminal will restrict the display of the selected PIN Service transaction type to the BIN list.

Alternatively, if you wish to block PIN Services for a set of BINs, use the *Optional Screens* dialog to turn the applicable PIN Service transaction type ON, then use the *ISO Properties* dialog to add a list of BINs with the "Block PIN Change" or "Block PIN Unlock" value, as applicable. With this configuration the terminal will NOT display the selected PIN Service transaction type for the BIN list.

A similar approach can be applied to the Mini Statement and Mobile Top Up transaction types.

## Changes to Withdrawal Types

This software release changes the wording (but not the behavior) of the Withdrawal options on the Transaction Selection screen. The option previously named “Withdrawal – No Receipt” has been renamed as “Withdrawal” and the option previously named “Withdrawal” has been renamed as “Withdrawal with Receipt” as shown here:



## Bill Mix Methods

In previous software releases, if 2 or more cassettes contained the same denomination then all bills would be dispensed from one cassette before using the second. A new bill mix method has been added to alternate between cassettes of like denomination for each transaction. The bill mix methods are:

- Minimize (the current method)
- Minimize EW (for “Even Wear”)

This option can be configured in *Management => Terminal Configuration => Cassette Setup*.

## Journal Data in Host Response

This software release contains a new feature to allow journal data to be sent to the host in a transaction or configuration download response message. This feature can only be

enabled/disabled through host communications and is not configurable in Management Functions.

Please refer to “Triton Terminal Communications Protocol And Message Format Specification”, version TSCD5.34 or later for details on this feature.

*Note: Turning on this feature will cause journal records to be audited and may not be retrieved from Triton Connect or viewed at the terminal through the “Display Unaudited Records” feature. Old journal records can still be viewed using “Display Last X”.*

## **UPS Support**

If a UPS is connected to the ATM, this software release has the capability to detect if the system is on UPS power and shut down the ATM at the first idle time. The ATM will power up immediately when main power has been restored. Please contact Triton Technical Support for information on supported UPS devices and cables.

## **Report SPED Low Battery to Triton Connect**

This software release will send a warning message (error code 241) to Triton Connect if the SPED battery is low. This error will not take the terminal out of service, and the ATM will contact Triton Connect to clear the error once the battery has been replaced.

## **No Online Help**

The online help in Management Functions has been removed for the RL2000 ATM.

## **No Text Receipts**

The RL2000 uses a USB printer which has much faster communications than the serial printer on the RL5000. Due to this print speed increase, the option to select “text” receipts has been removed and all receipts are printed as “graphics”.

## **New Load File Format**

Software load files for the RL2000 will have a “tfv” extension rather than “tlf”. The “tfv” format is slightly different and provides a method for Triton to sign each load file and only install verified software updates.

*Note: Triton Connect version 4.4 is required to send a “tfv” software update to the ATM.*

## ***LED Brightness Control***

An option to configure the LED lead-through indicator brightness has been added in *Management => Diagnostics => General I/O*.

## Changes to the Communication Specification

The following FID has been added to support sending journal data to the host:

<p>‘j’</p>	<p>Journal data – Ten ASCII numbers, optionally followed by size / journal data pairings, always ending with an ANSI CRC-16 checksum. - T<sub>1</sub> T<sub>2</sub> T<sub>3</sub> T<sub>4</sub> T<sub>5</sub> T<sub>6</sub> T<sub>7</sub> T<sub>8</sub> T<sub>9</sub> T<sub>10</sub> (T<sub>11</sub> T<sub>12</sub> T<sub>13</sub>) (Base64 data) T<sub>14</sub> T<sub>15</sub> T<sub>16</sub> T<sub>17</sub></p> <p>1 Numeric (T<sub>1</sub>) - Status Field ‘0’ = Disable ‘1’ = Enable ‘2’=Incomplete record ‘3’=ACK ‘4’=NAK</p> <p>2 Numeric (T<sub>2</sub> T<sub>3</sub>) - Maximum records when sent from host or numbers of records to follow when sent to host.</p> <p>3 Numeric (T<sub>4</sub> T<sub>5</sub> T<sub>6</sub>) - Maximum journal data (256-999 bytes) when sent from host or total journal data (in bytes) to follow when sent to host.</p> <p>4 Numeric (T<sub>7</sub> T<sub>8</sub> T<sub>9</sub> T<sub>10</sub>) – Indicates the number of journal records that have not been audited on the terminal which will include any records included with this message. This field will be zero filled when being sent from the host to the terminal.</p> <p>(T<sub>11</sub> T<sub>12</sub> T<sub>13</sub>) (Base64 data) - The remainder of the packet will be (T<sub>2</sub> T<sub>3</sub>) pairs of 3 ASCII numbers followed by the Base64 representation of the journal record as defined in Triton Connect Journal Command Packet (<i>Triton Terminal Journal Record Format Specification</i>). This part of the packet will only be transmitted from the terminal to the host.</p> <p>3 Numeric (T<sub>11</sub> T<sub>12</sub> T<sub>13</sub>) – size (in bytes) of 1 Base64 (RFC 3548) encoded journal record to follow. ASCII bytes- Base64 representation of the journal record as defined by <i>Triton Terminal Journal Record Format Specification</i>.</p> <p>T<sub>14</sub> T<sub>15</sub> T<sub>16</sub> T<sub>17</sub> -4 ASCII characters that represent the CRC-16 two byte checksum calculated from and including the j fid to the last byte of Base64 data. Each character represents a 4-bit hexadecimal numeral (0-9, A-F). Uses the ANSI CRC-16 error checking protocol standard. See the sample code in APPENDIX F.</p>
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## Default Parameters

The default values for new features are as follows:

- Archive Unaudited Records: Disabled
- Bill Mix Method: Minimize

- Journal Data in Host Response: Disabled

## Known Issues

### ***Journal Upload Enable/Disable from Management***

If a download keys is initiated from Management Functions (*Key Management=>Download Keys*), the flag in the message response to enable/disable is ignored. This feature will only be enabled or disabled during a transaction request.

## Revision History

Date	Version	Description of Change
August 7, 2007	1.0	Initial Release
August 29, 2007	1.1	Added 5.7" Display Support



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# Software Release Notes

## RL2000 2.0.0 Netherlands

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### Affected products

### RL2000

August 27, 2007

Version 1.0

**Triton Systems of Delaware, Inc.**  
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**Long Beach, MS 39560**  
**PHONE: (228) 868-1317**  
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## **Introduction**

This document describes new functionality for the 2.0.0 software release for RL2000 for Netherlands with Fortis screen file. The differences described are from 1.8.6 RL5000. Only software changes are documented, please refer to the RL2000 Users Manual for hardware information of the RL2000 ATM.

## **Platforms Affected**

This release is for the following families:

- RL2000

## **Hardware Requirements**

The following is a list of hardware supported by this software:

- Display: 8" Color VGA
- Card Reader: MagTek Intellistripe 65 Dip Reader
- SPED: SP-06 EPP
- Dispenser: TDM50, TMD1xx, TDM2xx, SDD, MiniMech, NMD50
- Printer: Seiko 60mm or 80mm USB Printer without Presenter
- Modem: Triton USB Modem
- 128MB RAM and 128MB Flash

## **Software Requirements**

The following load file is included with this release:

- xd10xfbn2.0.0.tfv – Full Load File for 8" display

## **External Dependencies**

The following feature requires Triton Connect Version 4.4 or greater:

- Software updates from Triton Connect.

## Description of Changes

### Archive Unaudited Records

This software release has the capability to automatically delete journal data without first auditing the journal. This feature can be used to force the terminal to stay in service even when the journal size reaches the maximum defined size.

**IMPORTANT: Only enable this feature if you are aware of the implications of this. Enabling this feature will cause unaudited journal data to be deleted and cannot be recovered.**

The auto archive dialog in *Management => Electronic Journal => Auto Archive* has been modified to add an option to allow archive/delete of unaudited records:

The screenshot shows the 'Auto Archive' dialog box with the following settings:

- 1 Archive to: None (Delete) [Enter]
- 2 Archive when journal size exceeds: 2 MB [Cancel]
- 3 Archive all audited records older than: 7 days
- 4  Archive unaudited records

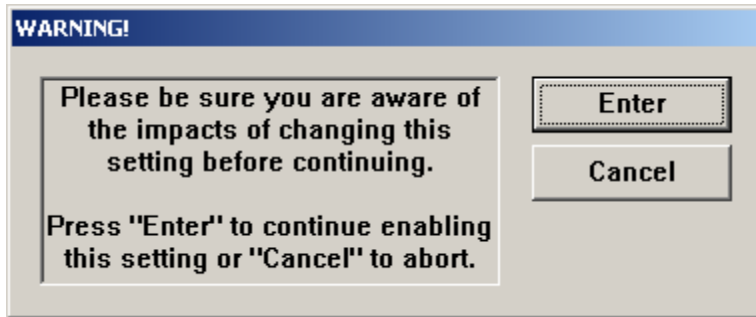
Selecting option 4 to enable this feature will display the following message:

The screenshot shows a 'WARNING!' dialog box with the following text:

**IMPORTANT!**  
Enabling this feature will allow journal data that has not been reviewed or downloaded to be deleted!

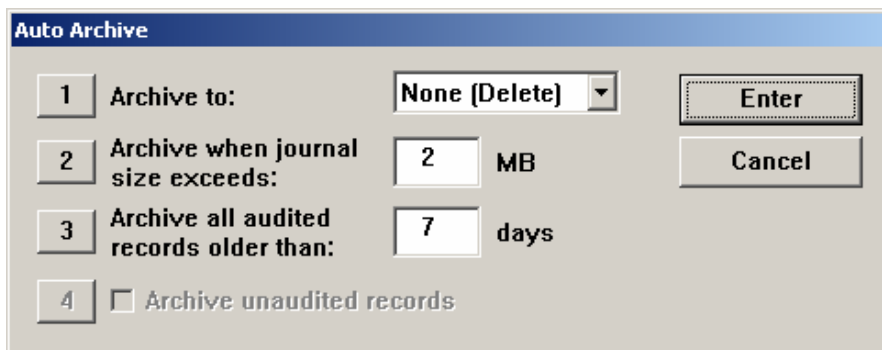
[Enter] [Cancel]

Selecting "Enter" will continue to the next prompt and selecting "Cancel" will leave it disabled.



Selecting “Enter” will enable the “Archive unaudited records” option and selecting “Cancel” will leave it disabled.

Note that this feature can only be enabled/disabled by the “Master” user. All other users will have this option disabled:



Changing this setting will log the following entry to the journal:

```
Username: Master
Parameter Change: Archive unaudited records
  Old: Disabled
  New: Enabled
```

The current settings can be viewed in the Configuration Summary report:

```
Auto Archive
Archive to: None (Delete)
Archive when journal size exceeds: 2 MB
Archive all audited records older than: 7 days
Archive unaudited records: Yes
```

## **Bill Mix Methods**

In previous software releases, if 2 or more cassettes contained the same denomination then all bills would be dispensed from one cassette before using the second. A new bill mix method has been added to alternate between cassettes of like denomination for each transaction. The bill mix methods are:

- Minimize (the current method)
- Minimize EW (for “Even Wear”)

This option can be configured in *Management => Terminal Configuration => Cassette Setup*.

## **Journal Data in Host Response**

This software release contains a new feature to allow journal data to be sent to the host in a transaction or configuration download response message. This feature can only be enabled/disabled through host communications and is not configurable in Management Functions.

Please refer to “Triton Terminal Communications Protocol And Message Format Specification”, version TSCD5.34 or later for details on this feature.

*Note: Turning on this feature will cause journal records to be audited and may not be retrieved from Triton Connect or viewed at the terminal through the “Display Unaudited Records” feature. Old journal records can still be viewed using “Display Last X”.*

## **UPS Support**

If a UPS is connected to the ATM, this software release has the capability to detect if the system is on UPS power and shut down the ATM at the first idle time. The ATM will power up immediately when main power has been restored. Please contact Triton Technical Support for information on supported UPS devices and cables.

## **Report SPED Low Battery to Triton Connect**

This software release will send a warning message (error code 241) to Triton Connect if the SPED battery is low. This error will not take the terminal out of service, and the ATM will contact Triton Connect to clear the error once the battery has been replaced.

## **No Online Help**

The online help in Management Functions has been removed for the RL2000 ATM.

### ***No Text Receipts***

The RL2000 uses a USB printer which has much faster communications than the serial printer on the RL5000. Due to this print speed increase, the option to select “text” receipts has been removed and all receipts are printed as “graphics”.

### ***New Load File Format***

Software load files for the RL2000 will have a “tfv” extension rather than “tlf”. The “tfv” format is slightly different and provides a method for Triton to sign each load file and only install verified software updates.

*Note: Triton Connect version 4.4 is required to send a “tfv” software update to the ATM.*

### ***LED Brightness Control***

An option to configure the LED lead-through indicator brightness has been added in *Management => Diagnostics => General I/O*.

## Changes to the Communication Specification

The following FID has been added to support sending journal data to the host:

<p>‘j’</p>	<p>Journal data – Ten ASCII numbers, optionally followed by size / journal data pairings, always ending with an ANSI CRC-16 checksum. - T<sub>1</sub> T<sub>2</sub> T<sub>3</sub> T<sub>4</sub> T<sub>5</sub> T<sub>6</sub> T<sub>7</sub> T<sub>8</sub> T<sub>9</sub> T<sub>10</sub> (T<sub>11</sub> T<sub>12</sub> T<sub>13</sub>)(Base64 data) T<sub>14</sub> T<sub>15</sub> T<sub>16</sub> T<sub>17</sub></p> <p>1 Numeric (T<sub>1</sub>) - Status Field ‘0’ = Disable ‘1’ = Enable ‘2’=Incomplete record ‘3’=ACK ‘4’=NAK</p> <p>2 Numeric (T<sub>2</sub> T<sub>3</sub>) - Maximum records when sent from host or numbers of records to follow when sent to host.</p> <p>3 Numeric (T<sub>4</sub> T<sub>5</sub> T<sub>6</sub>) - Maximum journal data (256-999 bytes) when sent from host or total journal data (in bytes) to follow when sent to host.</p> <p>4 Numeric (T<sub>7</sub> T<sub>8</sub> T<sub>9</sub> T<sub>10</sub>) – Indicates the number of journal records that have not been audited on the terminal which will include any records included with this message. This field will be zero filled when being sent from the host to the terminal.</p> <p>(T<sub>11</sub> T<sub>12</sub> T<sub>13</sub>)(Base64 data) - The remainder of the packet will be (T<sub>2</sub> T<sub>3</sub>) pairs of 3 ASCII numbers followed by the Base64 representation of the journal record as defined in Triton Connect Journal Command Packet (<i>Triton Terminal Journal Record Format Specification</i>). This part of the packet will only be transmitted from the terminal to the host.</p> <p>3 Numeric (T<sub>11</sub> T<sub>12</sub> T<sub>13</sub>) – size (in bytes) of 1 Base64 (RFC 3548) encoded journal record to follow. ASCII bytes- Base64 representation of the journal record as defined by <i>Triton Terminal Journal Record Format Specification</i>.</p> <p>T<sub>14</sub> T<sub>15</sub> T<sub>16</sub> T<sub>17</sub>-4 ASCII characters that represent the CRC-16 two byte checksum calculated from and including the j fid to the last byte of Base64 data. Each character represents a 4-bit hexadecimal numeral (0-9, A-F). Uses the ANSI CRC-16 error checking protocol standard. See the sample code in APPENDIX F.</p>
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## Default Parameters

The default values for new features are as follows:

- Archive Unaudited Records: Disabled



- Bill Mix Method: Minimize
- Journal Data in Host Response: Disabled

## Known Issues

### ***Journal Upload Enable/Disable from Management***

If a download keys is initiated from Management Functions (*Key Management=>Download Keys*), the flag in the message response to enable/disable is ignored. This feature will only be enabled or disabled during a transaction request.

## Revision History

Date	Version	Description of Change
August 27, 2007	1.0	Initial Release

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# Software Release Notes

## RL2000 2.0.0 South Africa

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### Affected products

### RL2000

November 9, 2007

Version 1.2

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## **Introduction**

This document describes new functionality for the 2.0.0 South Africa (EMV) software release for RL2000. The differences described are from 1.9.0 RL5000. Only software changes are documented, please refer to the RL2000 Users Manual for hardware information of the RL2000 ATM.

## **Platforms Affected**

This release is for the following families:

- RL2000
- 9100 with RL2000 EMV Upgrade

## **Hardware Requirements**

The following is a list of hardware supported by this software:

- Display: 8" Color VGA or 5.7" Color VGA
- Card Reader: MagTek Intellistripe 65 dip reader or Sankyo ICT3K5 motorized card reader
- SPED: SP-06 EPP
- Dispenser: TDM50, TMD1xx, TDM2xx, SDD, MiniMech, NMD50
- Printer: Seiko 60mm or 80mm USB Printer without Presenter
- Modem: Triton USB Modem
- 128MB RAM and 128MB Flash

## **Software Requirements**

The following load file is included with this release:

- xd14xsae2.0.0.tfv – South Africa with EMV for 8" display X2
- xd14dsae2.0.0.tfv – South Africa with EMV for 5.7" display X2

## **External Dependencies**

The following feature requires Triton Connect Version 4.4 or greater:

- Software updates from Triton Connect.

## Description of Changes

### New Screen File Look

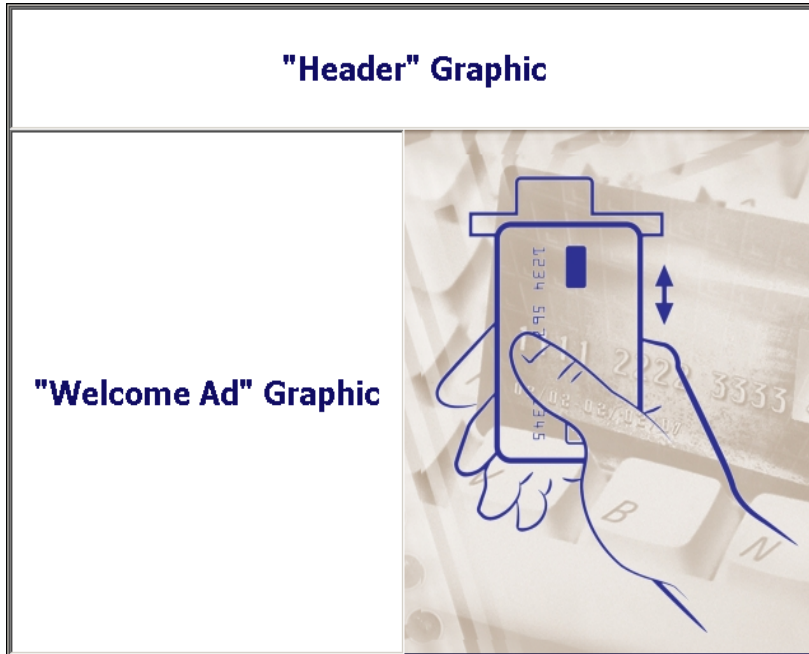
This software release contains a new screen design for customer transactions. Below are some sample screen shots of the customer screens:



### **Ad Graphics (8" Display)**

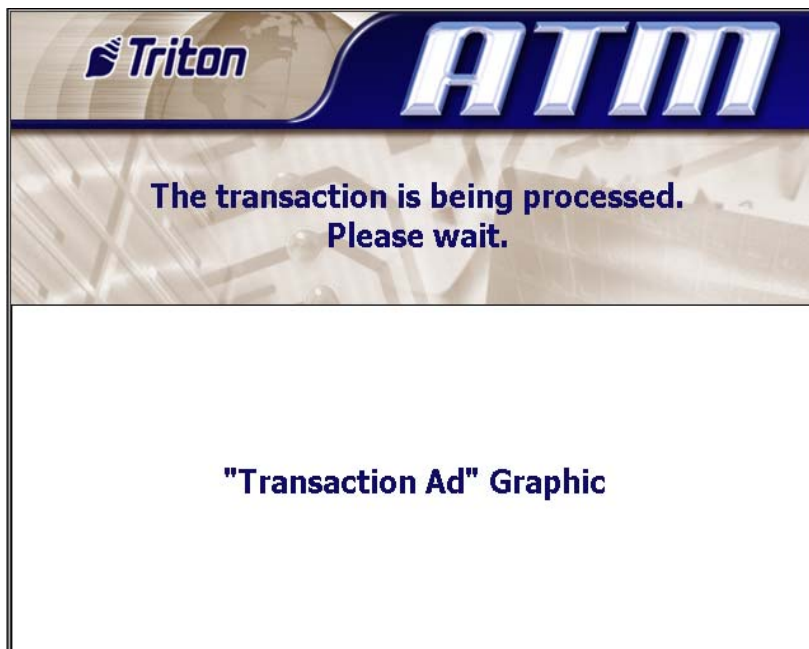
The screen file for this software release contains the following fields for advertisement graphics on the welcome or "Insert Card" screen (with pixel sizes in width x height):

- Header: 636 x 90
- Welcome Ad: 310 x 385



The following advertisement graphic is available on the "Transaction Processing" screen:

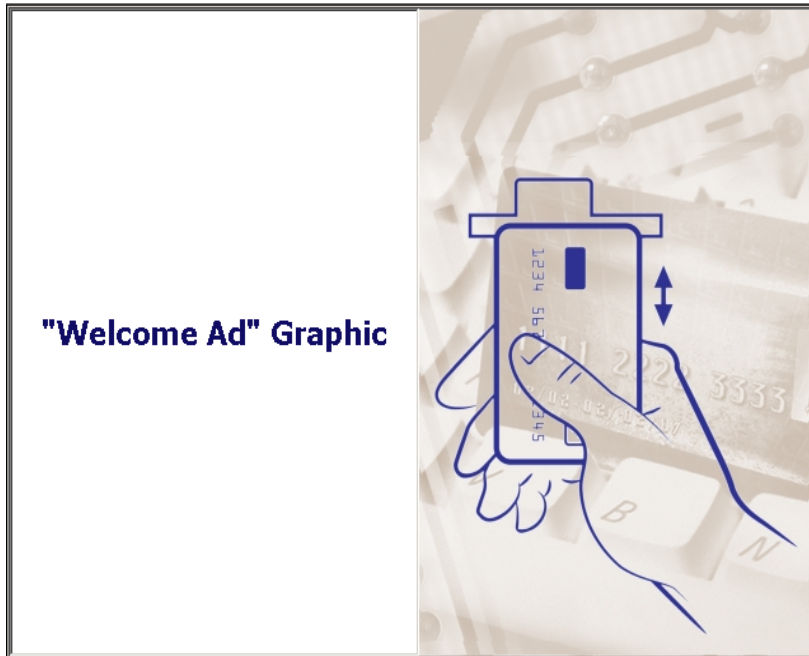
- Transaction Ad: 636 x 260



## **Ad Graphics (5.7" Display)**

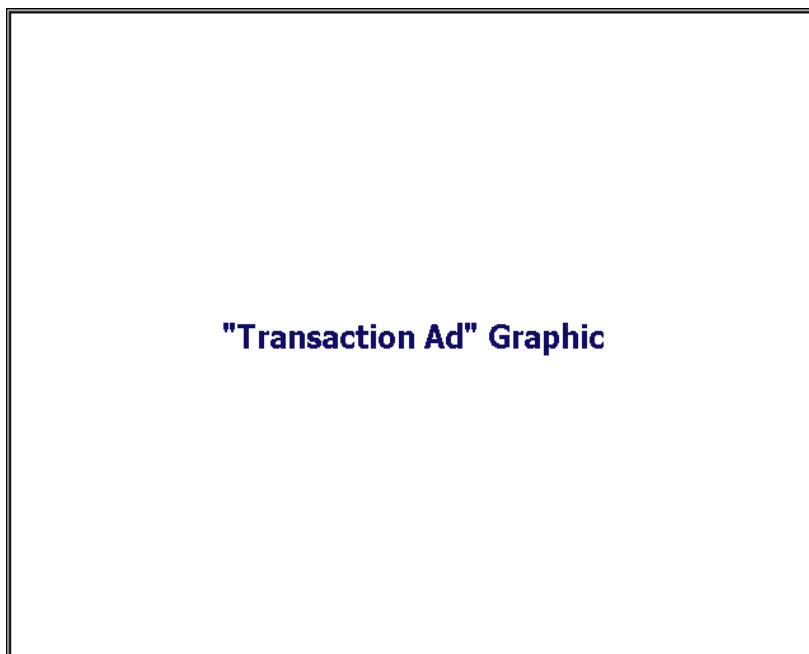
The screen file for the 5.7" display software release contains the following fields for advertisement graphics on the welcome or "Insert Card" screen (with pixel sizes in width x height):

- Welcome Ad: 322 x 476



The following advertisement graphic is available on the "Transaction Processing" screen:

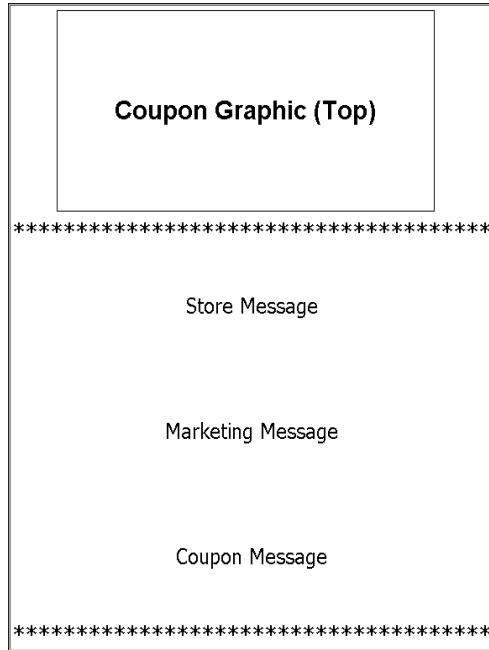
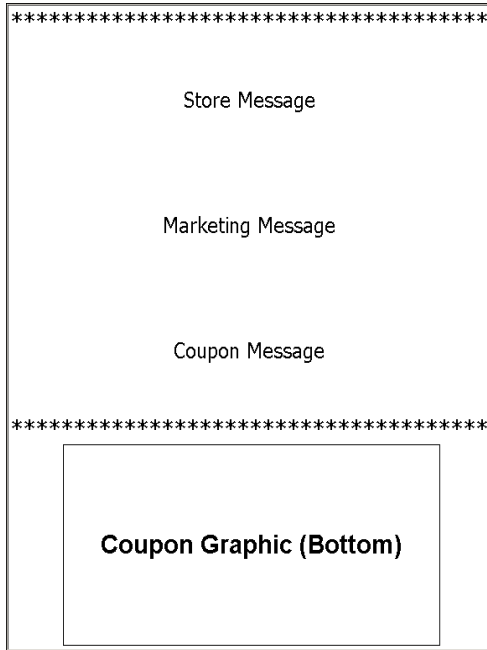
- Transaction Ad: 636 x 476



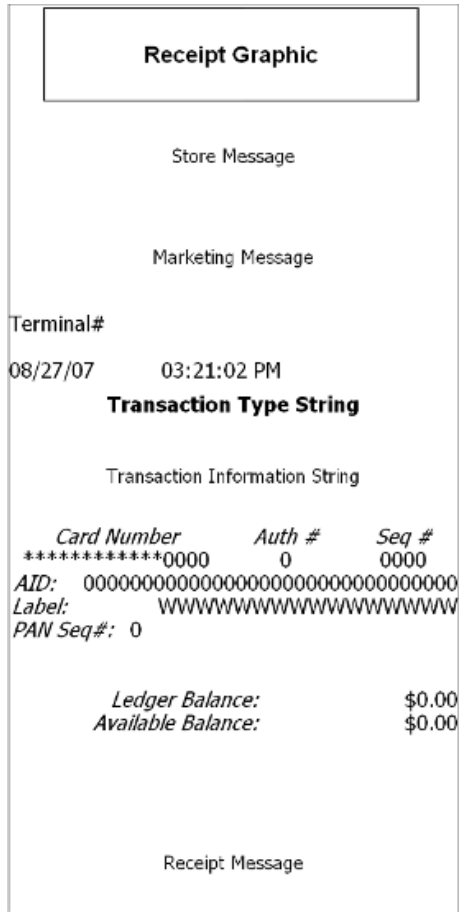
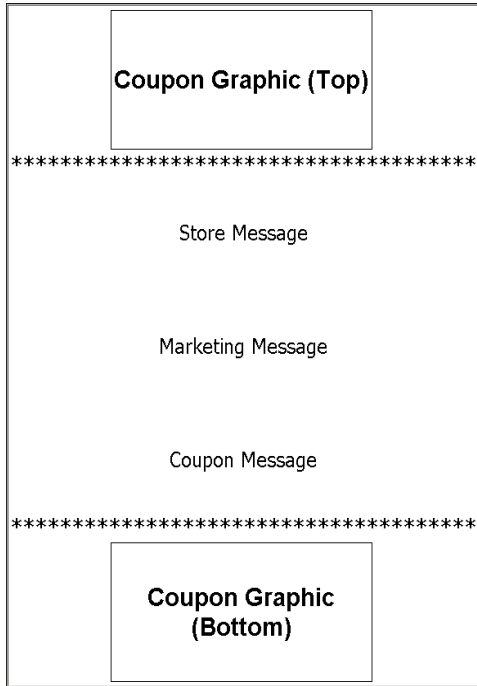
## ***Coupon and Receipt Graphics***

The following coupon and receipt graphics are available:

- Receipt Graphic: 480 x 120
- Coupon Graphic (Top): 450 x 225
- Coupon Graphic (Bottom): 450 x 225







**Archive Unaudited Records**

This software release has the capability to automatically delete journal data without first auditing the journal. This feature can be used to force the terminal to stay in service even when the journal size reaches the maximum defined size.

***IMPORTANT: Only enable this feature if you are aware of the implications of this. Enabling this feature will cause unaudited journal data to be deleted and cannot be recovered.***

The auto archive dialog in *Management => Electronic Journal => Auto Archive* has been modified to add an option to allow archive/delete of unaudited records:

**Auto Archive**

1 Archive to: None (Delete) Enter

2 Archive when journal size exceeds: 2 MB Cancel

3 Archive all audited records older than: 7 days

4  Archive unaudited records

Selecting option 4 to enable this feature will display the following message:

**WARNING!**

**IMPORTANT!**  
Enabling this feature will allow journal data that has not been reviewed or downloaded to be deleted!

Enter  
Cancel

Selecting “Enter” will continue to the next prompt and selecting “Cancel” will leave it disabled.

**WARNING!**

Please be sure you are aware of the impacts of changing this setting before continuing.  
Press "Enter" to continue enabling this setting or "Cancel" to abort.

Enter  
Cancel

Selecting “Enter” will enable the “Archive unaudited records” option and selecting “Cancel” will leave it disabled.

Note that this feature can only be enabled/disabled by the “Master” user. All other users will have this option disabled:

Changing this setting will log the following entry to the journal:

```
Username: Master
Parameter Change: Archive unaudited records
  Old: Disabled
  New: Enabled
```

The current settings can be viewed in the Configuration Summary report:

```
Auto Archive
Archive to: None (Delete)
Archive when journal size exceeds: 2 MB
Archive all audited records older than: 7 days
Archive unaudited records: Yes
```

## **Bill Mix Methods**

In previous software releases, if 2 or more cassettes contained the same denomination then all bills would be dispensed from one cassette before using the second. A new bill mix method has been added to alternate between cassettes of like denomination for each transaction. The bill mix methods are:

- Minimize (the current method)
- Minimize EW (for “Even Wear”)

This option can be configured in *Management => Terminal Configuration => Cassette Setup*.

## **Journal Data in Host Response**

This software release contains a new feature to allow journal data to be sent to the host in a transaction or configuration download response message. This feature can only be enabled/disabled through host communications and is not configurable in Management Functions.

Please refer to “Triton Terminal Communications Protocol And Message Format Specification”, version TSCD5.34 or later for details on this feature.

*Note: Turning on this feature will cause journal records to be audited and may not be retrieved from Triton Connect or viewed at the terminal through the “Display Unaudited Records” feature. Old journal records can still be viewed using “Display Last X”.*

## **UPS Support**

If a UPS is connected to the ATM, this software release has the capability to detect if the system is on UPS power and shut down the ATM at the first idle time. The ATM will power up immediately when main power has been restored. Please contact Triton Technical Support for information on supported UPS devices and cables.

## **Report SPED Low Battery to Triton Connect**

This software release will send a warning message (error code 241) to Triton Connect if the SPED battery is low. This error will not take the terminal out of service, and the ATM will contact Triton Connect to clear the error once the battery has been replaced.

## **No Online Help**

The online help in Management Functions has been removed for the RL2000 ATM.

## **No Text Receipts**

The RL2000 uses a USB printer which has much faster communications than the serial printer on the RL5000. Due to this print speed increase, the option to select “text” receipts has been removed and all receipts are printed as “graphics”.

## **New Load File Format**

Software load files for the RL2000 will have a “tfv” extension rather than “tlf”. The “tfv” format is slightly different and provides a method for Triton to sign each load file and only install verified software updates.

*Note: Triton Connect version 4.4 is required to send a “tfv” software update to the ATM.*

## **LED Brightness Control**

An option to configure the LED lead-through indicator brightness has been added in *Management => Diagnostics => General I/O*.

## Changes to the Communication Specification

The following FID has been added to support sending journal data to the host:

<p>‘j’</p>	<p>Journal data – Ten ASCII numbers, optionally followed by size / journal data pairings, always ending with an ANSI CRC-16 checksum. - T<sub>1</sub> T<sub>2</sub> T<sub>3</sub> T<sub>4</sub> T<sub>5</sub> T<sub>6</sub> T<sub>7</sub> T<sub>8</sub> T<sub>9</sub> T<sub>10</sub> (T<sub>11</sub> T<sub>12</sub> T<sub>13</sub>) (Base64 data) T<sub>14</sub> T<sub>15</sub> T<sub>16</sub> T<sub>17</sub></p> <p>1 Numeric (T<sub>1</sub>) - Status Field ‘0’ = Disable ‘1’ = Enable ‘2’=Incomplete record ‘3’=ACK ‘4’=NAK</p> <p>2 Numeric (T<sub>2</sub> T<sub>3</sub>) - Maximum records when sent from host or numbers of records to follow when sent to host.</p> <p>3 Numeric (T<sub>4</sub> T<sub>5</sub> T<sub>6</sub>) - Maximum journal data (256-999 bytes) when sent from host or total journal data (in bytes) to follow when sent to host.</p> <p>4 Numeric (T<sub>7</sub> T<sub>8</sub> T<sub>9</sub> T<sub>10</sub>) – Indicates the number of journal records that have not been audited on the terminal which will include any records included with this message. This field will be zero filled when being sent from the host to the terminal.</p> <p>(T<sub>11</sub> T<sub>12</sub> T<sub>13</sub>) (Base64 data) - The remainder of the packet will be (T<sub>2</sub> T<sub>3</sub>) pairs of 3 ASCII numbers followed by the Base64 representation of the journal record as defined in Triton Connect Journal Command Packet (<i>Triton Terminal Journal Record Format Specification</i>). This part of the packet will only be transmitted from the terminal to the host.</p> <p>3 Numeric (T<sub>11</sub> T<sub>12</sub> T<sub>13</sub>) – size (in bytes) of 1 Base64 (RFC 3548) encoded journal record to follow. ASCII bytes- Base64 representation of the journal record as defined by <i>Triton Terminal Journal Record Format Specification</i>.</p> <p>T<sub>14</sub> T<sub>15</sub> T<sub>16</sub> T<sub>17</sub> -4 ASCII characters that represent the CRC-16 two byte checksum calculated from and including the j fid to the last byte of Base64 data. Each character represents a 4-bit hexadecimal numeral (0-9, A-F). Uses the ANSI CRC-16 error checking protocol standard. See the sample code in APPENDIX F.</p>
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## Default Parameters

The default values for new features are as follows:

- Archive Unaudited Records: Disabled
- Bill Mix Method: Minimize

- Journal Data in Host Response: Disabled

## Known Issues

### *Journal Upload Enable/Disable from Management*

If a download keys is initiated from Management Functions (*Key Management=>Download Keys*), the flag in the message response to enable/disable is ignored. This feature will only be enabled or disabled during a transaction request.

## Revision History

Date	Version	Description of Change
August 27, 2007	1.0	Initial Release
August 27, 2007	1.1	Replaced sample of receipt graphic under the 'Coupon and Receipt Graphics' heading.
November 9, 2007	1.2	Add support for 5.7" color display.

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# X2 2.0.0 TCL Software Release Notes

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Affected products  
RL5000, FT5000

February 10, 2009

Version 1.0

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## **Introduction**

This document describes new functionality for the 2.0.0 software release for RL2000, RL5000, and FT5000 with X2 controller for use with TCL (Triton Closed Loop) application. This document describes changes from 2.0.0 live US software.

## **Platforms Affected**

This release is for the following families:

- RL5000, FT5000 with X2 Controller

## **Hardware Supported**

The following is a list of hardware supported by this software:

- Display: 10.4" Color VGA
- Card Reader: Magtek 215 Dip Reader, Sankyo ICT3K5 Motorized Reader
- EPP: SP-06
- Dispenser: SDD, NMD50, NMD100
- Printer: Seiko 80mm USB Printer with Presenter
- Modem: N/A (TCP/IP only)

## **Software Requirements**

The following load files are included with this release:

- xd16xtcl2.0.0.tfv – Software for 10.4" display X2

## **External Dependencies**

## Description of Changes

### **Require TCL Security Module**

This software release is designed only to work with a TCL host by requiring a TCL specific security module with the dispenser. If the correct security module is not detected the terminal will go out of service with the following error:

159: EJ Test Feature Failed

### **Dispense More Than 50 Bills**

The TCL ATM software will allow dispensing more than 50 bills by performing multiple dispenses for a single transaction.

Prior to each dispense of a transaction requiring more than 50 bills, the following screen will be displayed:



After each dispense, the customer will be required to re-enter a PIN in order to continue. The following screen will be displayed at this time:



### ***Balance and Withdrawal Transactions Only***

The TCL ATM software release will only support balance inquiry and cash withdrawal transaction types and no surcharge screens will be used.

### ***Optional PIN Entry***

The TCL ATM software release has the capability for the administrator to not require PIN entry for TCL transactions. This can be done by changing the "Enable PIN Entry" option in *Management > Terminal Configuration > Optional Screens*.

## Known Issues

None.

## Revision History

Date	Version	Description of Change
February 10, 2009	1.0	Initial Release

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# X2 2.0.1 Software Release Notes (South Africa)

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Affected products  
RL2000, RL5000, FT5000

November 16, 2007

Version 1.0

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## **Introduction**

This document describes new functionality for the 2.0.1 South Africa (EMV) software release for RL2000, RL5000, FT5000 with X2 controller. The differences described are from XScale 1.9.0.

## **Platforms Affected**

This release is for the following families:

- RL2000, RL5000, FT5000 with X2 Controller

## **Hardware Requirements**

The following is a list of hardware supported by this software:

- Display: 10.4" or 8" Color VGA
- Card Reader: MagTek Intellistripe 65 dip reader or Sankyo ICT3K5 motorized card reader
- SPED: SP-06 EPP
- Dispenser: TDM50, TMD1xx, TDM2xx, SDD, MiniMech, NMD50, NMD100
- Printer: Seiko 60mm or 80mm USB Printer with or without Presenter
- Modem: Radiopad

## **Software Requirements**

The following load file is included with this release:

- xd14xsae2.0.1.tfv – South Africa with EMV for 10.4" or 8" display X2

## **External Dependencies**

The following feature requires Triton Connect Version 4.4 or greater:

- Software updates from Triton Connect.



## Description of Changes

### New Screen File Look

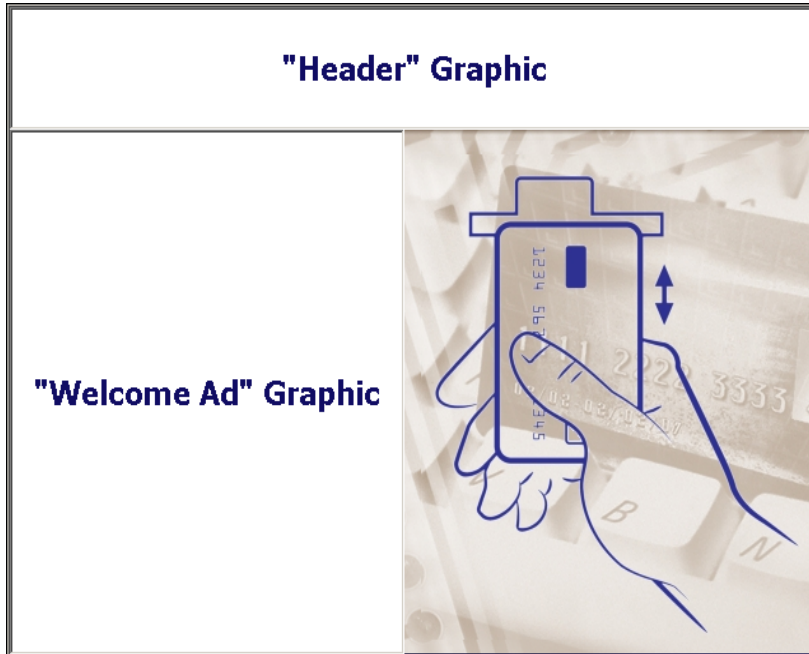
This software release contains a new screen design for customer transactions. Below are some sample screen shots of the customer screens:



## Ad Graphics

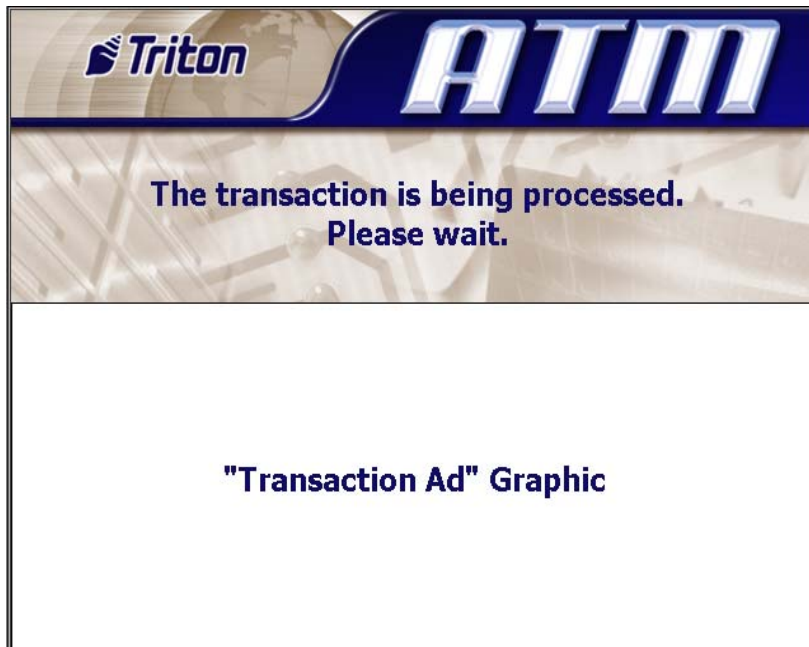
The screen file for this software release contains the following fields for advertisement graphics on the welcome or “Insert Card” screen (with pixel sizes in width x height):

- Header: 636 x 90
- Welcome Ad: 310 x 385



The following advertisement graphic is available on the “Transaction Processing” screen:

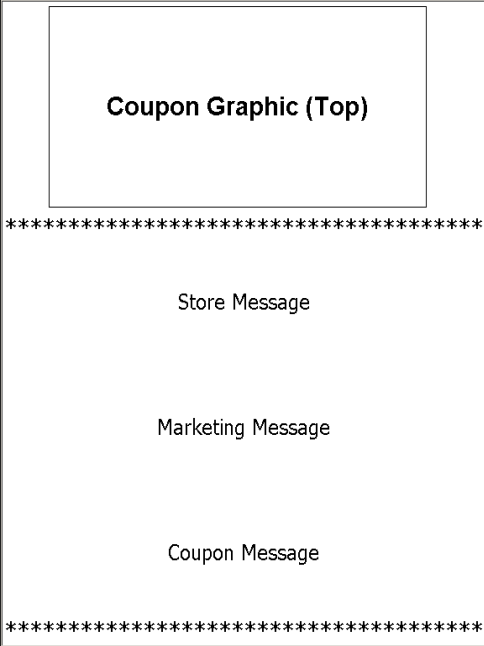
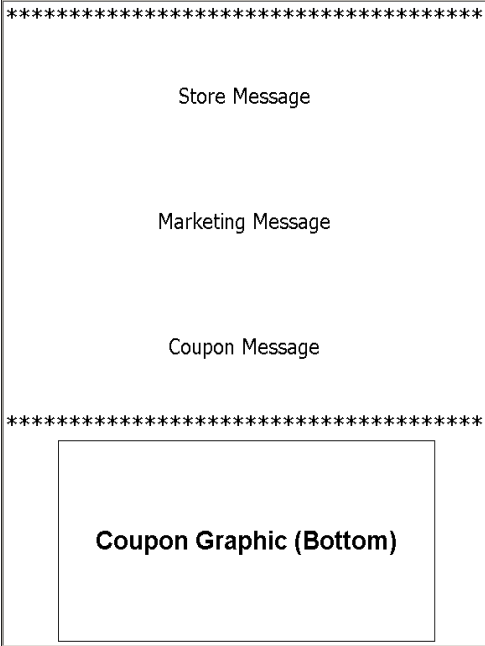
- Transaction Ad: 636 x 260

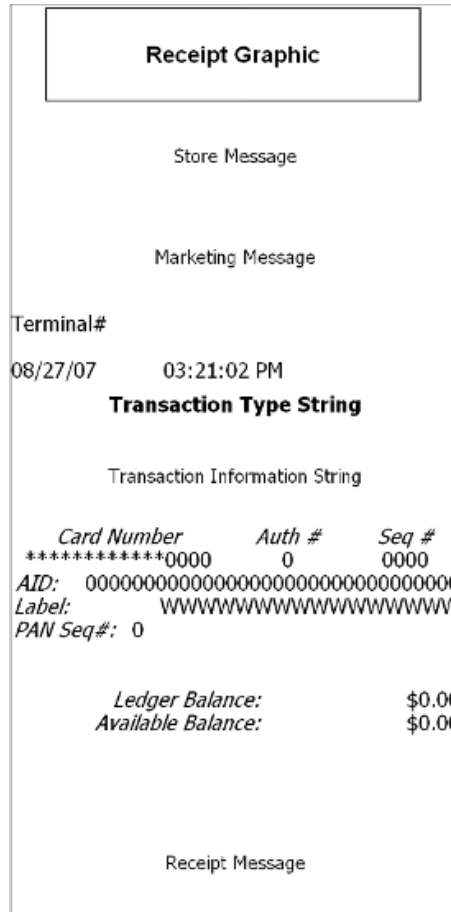
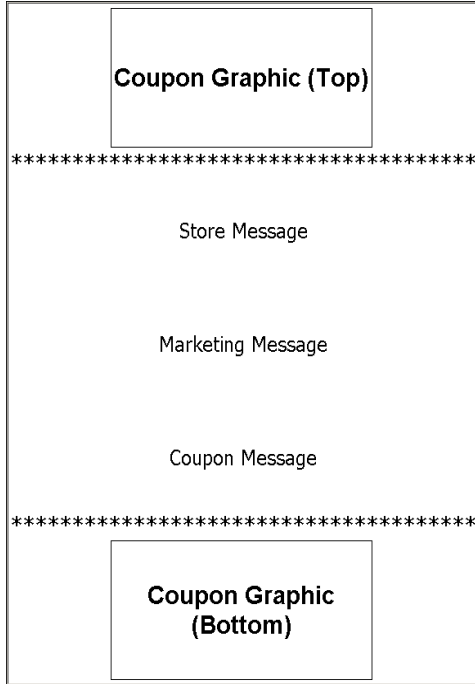


**Coupon and Receipt Graphics**

The following coupon and receipt graphics are available:

- Receipt Graphic: 480 x 120
- Coupon Graphic (Top): 450 x 225
- Coupon Graphic (Bottom): 450 x 225





## **Archive Unaudited Records**

This software release has the capability to automatically delete journal data without first auditing the journal. This feature can be used to force the terminal to stay in service even when the journal size reaches the maximum defined size.

***IMPORTANT: Only enable this feature if you are aware of the implications of this. Enabling this feature will cause unaudited journal data to be deleted and cannot be recovered.***

The auto archive dialog in *Management => Electronic Journal => Auto Archive* has been modified to add an option to allow archive/delete of unaudited records:

**Auto Archive**

1 Archive to: **None (Delete)** **Enter**

2 Archive when journal size exceeds: **2** MB **Cancel**

3 Archive all audited records older than: **7** days

4  Archive unaudited records

Selecting option 4 to enable this feature will display the following message:

**WARNING!**

**IMPORTANT!**  
Enabling this feature will allow journal data that has not been reviewed or downloaded to be deleted!

**Enter**

**Cancel**

Selecting “Enter” will continue to the next prompt and selecting “Cancel” will leave it disabled.

**WARNING!**

Please be sure you are aware of the impacts of changing this setting before continuing.  
Press "Enter" to continue enabling this setting or "Cancel" to abort.

**Enter**

**Cancel**

Selecting “Enter” will enable the “Archive unaudited records” option and selecting “Cancel” will leave it disabled.

Note that this feature can only be enabled/disabled by the “Master” user. All other users will have this option disabled:

Changing this setting will log the following entry to the journal:

```
Username: Master
Parameter Change: Archive unaudited records
  Old: Disabled
  New: Enabled
```

The current settings can be viewed in the Configuration Summary report:

```
Auto Archive
Archive to: None (Delete)
Archive when journal size exceeds: 2 MB
Archive all audited records older than: 7 days
Archive unaudited records: Yes
```

## **Bill Mix Methods**

In previous software releases, if 2 or more cassettes contained the same denomination then all bills would be dispensed from one cassette before using the second. A new bill mix method has been added to alternate between cassettes of like denomination for each transaction. The bill mix methods are:

- Minimize (the current method)
- Minimize EW (for “Even Wear”)

This option can be configured in *Management => Terminal Configuration => Cassette Setup*.

## **Journal Data in Host Response**

This software release contains a new feature to allow journal data to be sent to the host in a transaction or configuration download response message. This feature can only be enabled/disabled through host communications and is not configurable in Management Functions.

Please refer to “Triton Terminal Communications Protocol And Message Format Specification”, version TSCD5.34 or later for details on this feature.

*Note: Turning on this feature will cause journal records to be audited and may not be retrieved from Triton Connect or viewed at the terminal through the “Display Unaudited Records” feature. Old journal records can still be viewed using “Display Last X”.*

## **UPS Support**

If a UPS is connected to the ATM, this software release has the capability to detect if the system is on UPS power and shut down the ATM at the first idle time. The ATM will power up immediately when main power has been restored. Please contact Triton Technical Support for information on supported UPS devices and cables.

## **Report SPED Low Battery to Triton Connect**

This software release will send a warning message (error code 241) to Triton Connect if the SPED battery is low. This error will not take the terminal out of service, and the ATM will contact Triton Connect to clear the error once the battery has been replaced.

## **No Online Help**

The online help in Management Functions has been removed for the RL2000 ATM.

## **No Text Receipts**

The RL2000 uses a USB printer which has much faster communications than the serial printer on the RL5000. Due to this print speed increase, the option to select “text” receipts has been removed and all receipts are printed as “graphics”.

## **New Load File Format**

Software load files for the RL2000 will have a “tfv” extension rather than “tlf”. The “tfv” format is slightly different and provides a method for Triton to sign each load file and only install verified software updates.

*Note: Triton Connect version 4.4 is required to send a “tfv” software update to the ATM.*

## **LED Brightness Control**

An option to configure the LED lead-through indicator brightness has been added in *Management => Diagnostics => General I/O*.



## Changes to the Communication Specification

The following FID has been added to support sending journal data to the host:

<p>‘j’</p>	<p>Journal data – Ten ASCII numbers, optionally followed by size / journal data pairings, always ending with an ANSI CRC-16 checksum. - T<sub>1</sub> T<sub>2</sub> T<sub>3</sub> T<sub>4</sub> T<sub>5</sub> T<sub>6</sub> T<sub>7</sub> T<sub>8</sub> T<sub>9</sub> T<sub>10</sub> (T<sub>11</sub> T<sub>12</sub> T<sub>13</sub>) (Base64 data) T<sub>14</sub> T<sub>15</sub> T<sub>16</sub> T<sub>17</sub></p> <p>1 Numeric (T<sub>1</sub>) - Status Field ‘0’ = Disable ‘1’ = Enable ‘2’=Incomplete record ‘3’=ACK ‘4’=NAK</p> <p>2 Numeric (T<sub>2</sub> T<sub>3</sub>) - Maximum records when sent from host or numbers of records to follow when sent to host.</p> <p>3 Numeric (T<sub>4</sub> T<sub>5</sub> T<sub>6</sub>) - Maximum journal data (256-999 bytes) when sent from host or total journal data (in bytes) to follow when sent to host.</p> <p>4 Numeric (T<sub>7</sub> T<sub>8</sub> T<sub>9</sub> T<sub>10</sub>) – Indicates the number of journal records that have not been audited on the terminal which will include any records included with this message. This field will be zero filled when being sent from the host to the terminal.</p> <p>(T<sub>11</sub> T<sub>12</sub> T<sub>13</sub>) (Base64 data) - The remainder of the packet will be (T<sub>2</sub> T<sub>3</sub>) pairs of 3 ASCII numbers followed by the Base64 representation of the journal record as defined in Triton Connect Journal Command Packet (<i>Triton Terminal Journal Record Format Specification</i>). This part of the packet will only be transmitted from the terminal to the host.</p> <p>3 Numeric (T<sub>11</sub> T<sub>12</sub> T<sub>13</sub>) – size (in bytes) of 1 Base64 (RFC 3548) encoded journal record to follow. ASCII bytes- Base64 representation of the journal record as defined by <i>Triton Terminal Journal Record Format Specification</i>.</p> <p>T<sub>14</sub> T<sub>15</sub> T<sub>16</sub> T<sub>17</sub> -4 ASCII characters that represent the CRC-16 two byte checksum calculated from and including the j fid to the last byte of Base64 data. Each character represents a 4-bit hexadecimal numeral (0-9, A-F). Uses the ANSI CRC-16 error checking protocol standard. See the sample code in APPENDIX F.</p>
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## Default Parameters

The default values for new features are as follows:

- Archive Unaudited Records: Disabled
- Bill Mix Method: Minimize

- Journal Data in Host Response: Disabled

## Known Issues

### *Journal Upload Enable/Disable from Management*

If a download keys is initiated from Management Functions (*Key Management=>Download Keys*), the flag in the message response to enable/disable is ignored. This feature will only be enabled or disabled during a transaction request.

## Revision History

Date	Version	Description of Change
November 16, 2007	1.0	Initial Release

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# Software Release Notes

## X2 2.0.1 EMV (UK and International)

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Affected products  
RL2000, RL5000, FT5000

November 16, 2007

Version 1.0

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## **Introduction**

This document describes new functionality for the 2.0.1 UK/International (EMV) software release for RL2000, RL5000, and FT5000. The differences described are from 1.8.6 UK RL5000.

## **Platforms Affected**

This release is for the following families:

- RL2000
- RL5000
- FT5000

## **Hardware Requirements**

The following is a list of hardware supported by this software:

- Display: 8" Color VGA or 10.4" Color VGA
- Card Reader: MagTek Intellistripe 65 dip reader or Sankyo ICT3K5 motorized card reader
- SPED: SP-05 or SP-06.00 EPP
- Dispenser: TDM50, TMD1xx, TDM2xx, SDD, MiniMech, NMD50, NMD100
- Printer: Seiko 60mm or 80mm USB Printer with or without Presenter
- Modem: Triton USB Modem, MultiTech USB Modem

## **Software Requirements**

The following load file is included with this release:

- xd14xemv2.0.1.tfv – Live UK/International with EMV for 8" or 10.4" display X2

## **External Dependencies**

The following feature requires Triton Connect Version 4.4 or greater:

- Software updates from Triton Connect.

## Description of Changes

### New Screen File Look

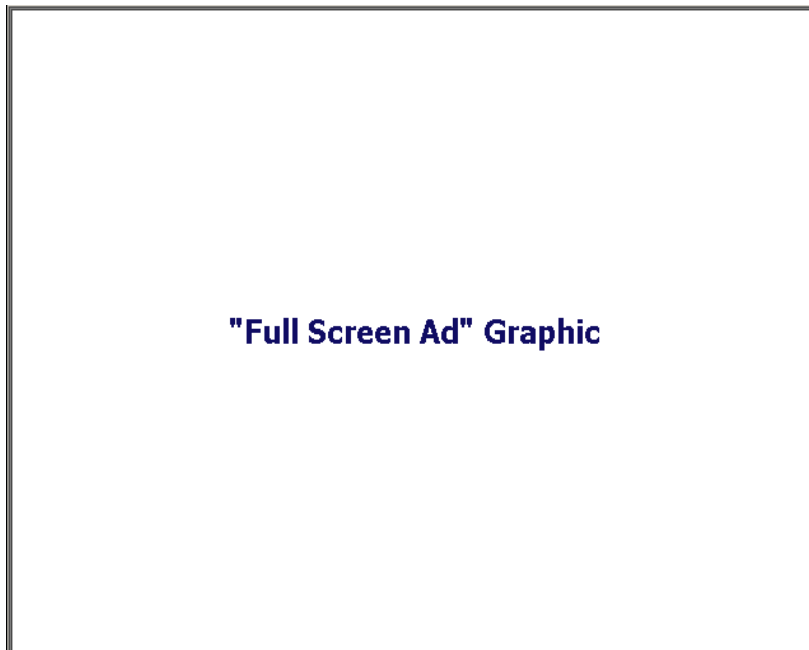
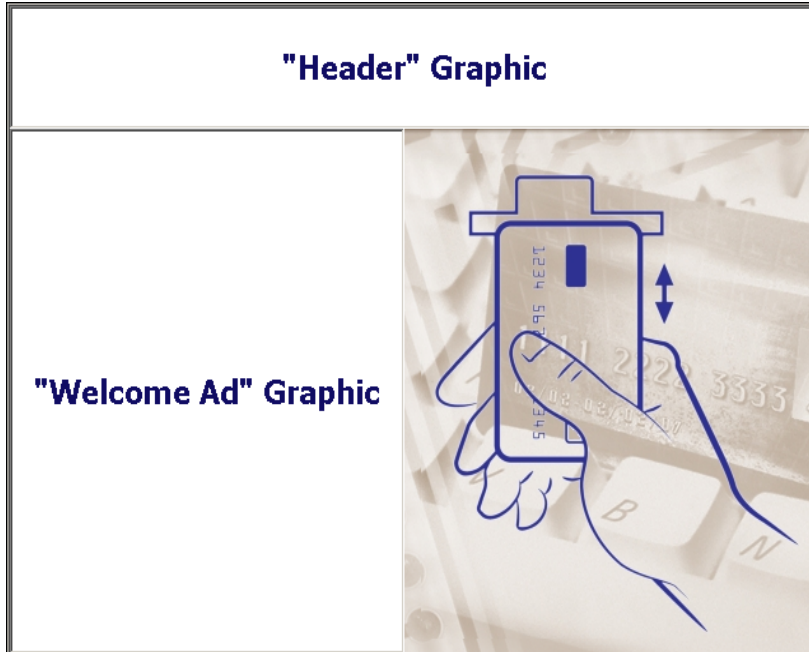
This software release contains a new screen design for customer transactions. Below are some sample screen shots of the customer screens:



## Ad Graphics

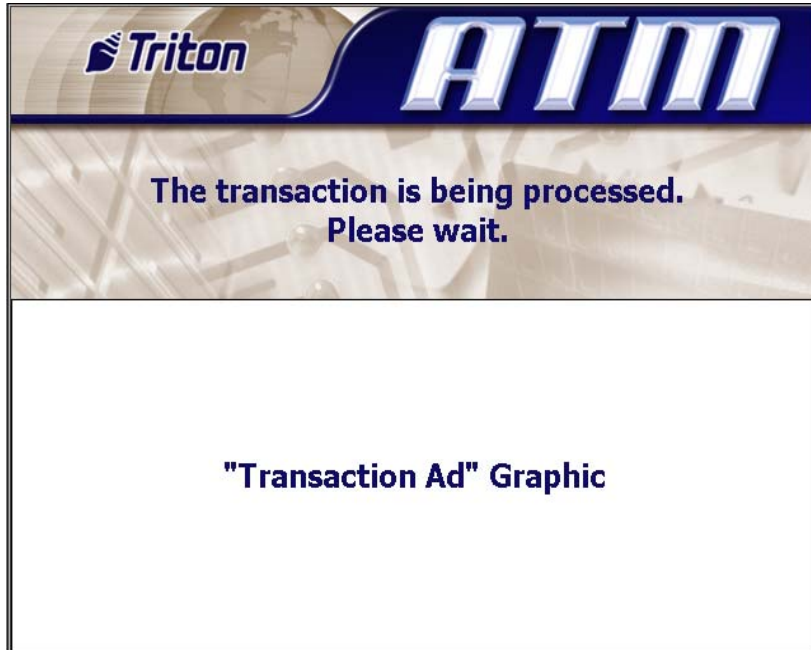
The screen file for this software release contains the following fields for advertisement graphics on the welcome or "Insert Card" screen (with pixel sizes in width x height):

- Header: 636 x 90
- Welcome Ad: 310 x 385
- Full Screen Ad: 636 x 476



The following advertisement graphic is available on the "Transaction Processing" screen:

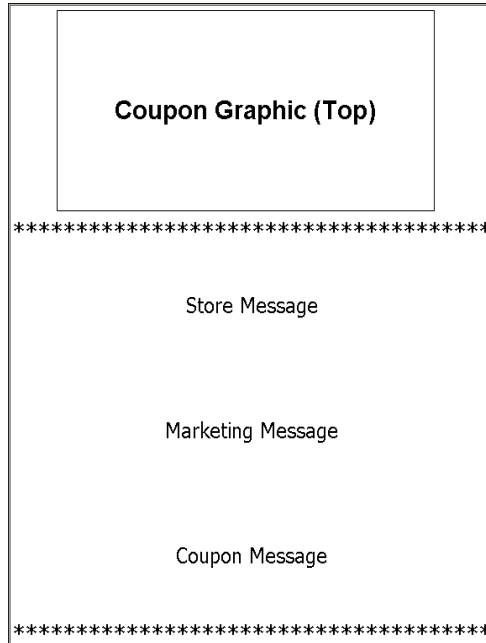
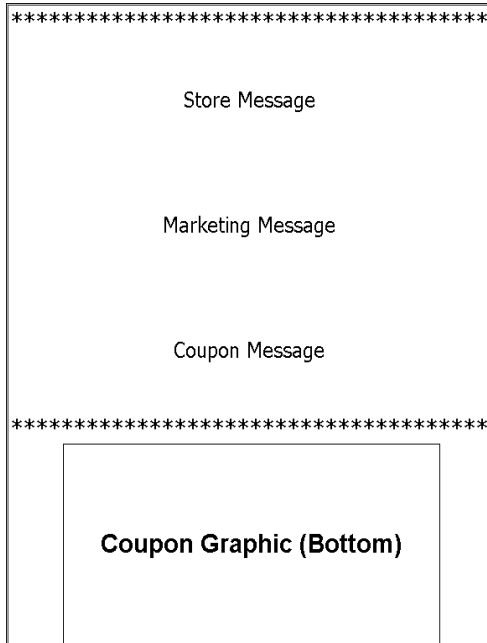
- Transaction Ad: 636 x 260



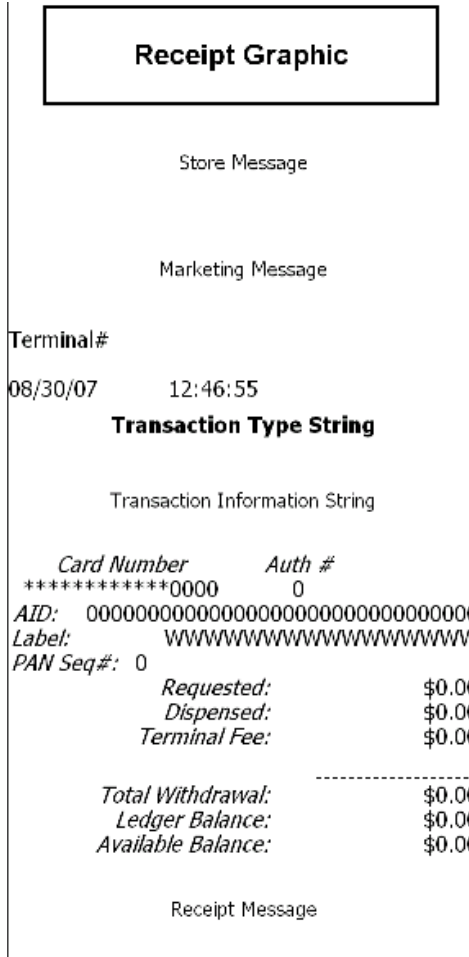
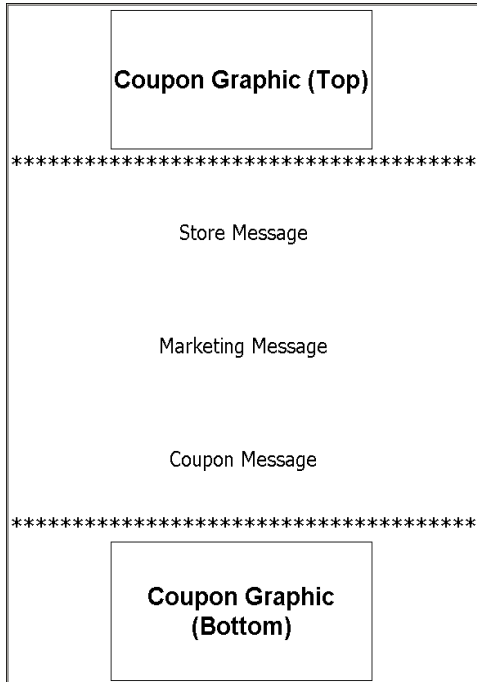
### **Coupon and Receipt Graphics**

The following coupon and receipt graphics are available (bmp format only):

- Receipt Graphic: 480 x 120
- Coupon Graphic (Top): 450 x 225
- Coupon Graphic (Bottom): 450 x 225

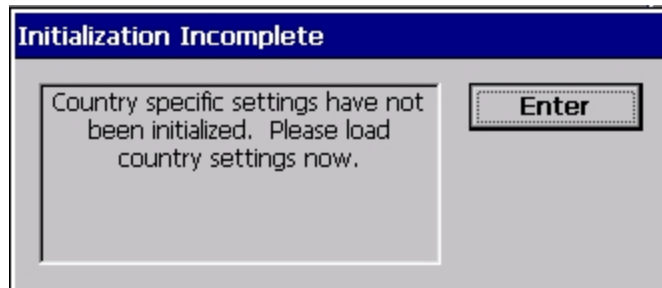




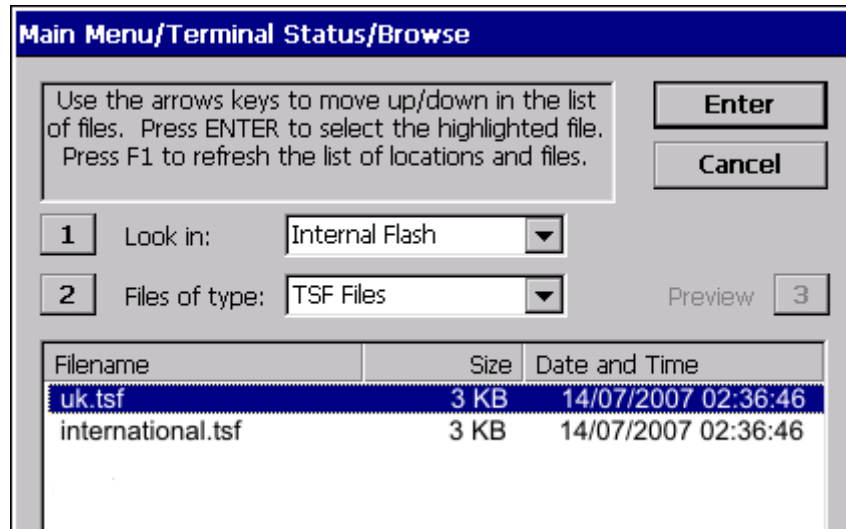


### Multi-Market Release

This software release contains functionality for multiple markets. After the initial installation of a full-load file, upon entering management functions the 'Initialization Incomplete' dialog will be displayed:



After pressing “Enter” on this dialog, the following will appear listing the configuration files (tsf) for each market:



You must select one of the options to continue. Selecting the appropriate country will apply the default settings for that market.

Note that at any time you can reset the market defaults in *Management Functions=>Terminal Status=>Restore Default Parameters*. This option will clear ALL terminal parameters and restore the system to the selected market default values. Restoring parameters from external storage (*Management Functions=>Terminal Status=>Restore Parameters From External Storage*) will also overwrite all market defaults.

## **Archive Unaudited Records**

This software release has the capability to automatically delete journal data without first auditing the journal. This feature can be used to force the terminal to stay in service even when the journal size reaches the maximum defined size.

***IMPORTANT: Only enable this feature if you are aware of the implications of this. Enabling this feature will cause unaudited journal data to be deleted and cannot be recovered.***

The auto archive dialog in *Management => Electronic Journal => Auto Archive* has been modified to add an option to allow archive/delete of unaudited records:

**Auto Archive**

1 Archive to: **None (Delete)** **Enter**

2 Archive when journal size exceeds: **2** MB **Cancel**

3 Archive all audited records older than: **7** days

4  Archive unaudited records

Selecting option 4 to enable this feature will display the following message:

**WARNING!**

**IMPORTANT!**  
Enabling this feature will allow journal data that has not been reviewed or downloaded to be deleted!

**Enter**  
**Cancel**

Selecting “Enter” will continue to the next prompt and selecting “Cancel” will leave it disabled.

**WARNING!**

Please be sure you are aware of the impacts of changing this setting before continuing.  
Press "Enter" to continue enabling this setting or "Cancel" to abort.

**Enter**  
**Cancel**

Selecting “Enter” will enable the “Archive unaudited records” option and selecting “Cancel” will leave it disabled.

Note that this feature can only be enabled/disabled by the “Master” user. All other users will have this option disabled:

**Auto Archive**

1	Archive to:	None (Delete) ▾	Enter
2	Archive when journal size exceeds:	2 MB	Cancel
3	Archive all audited records older than:	7 days	
4	<input type="checkbox"/> Archive unaudited records		

Changing this setting will log the following entry to the journal:

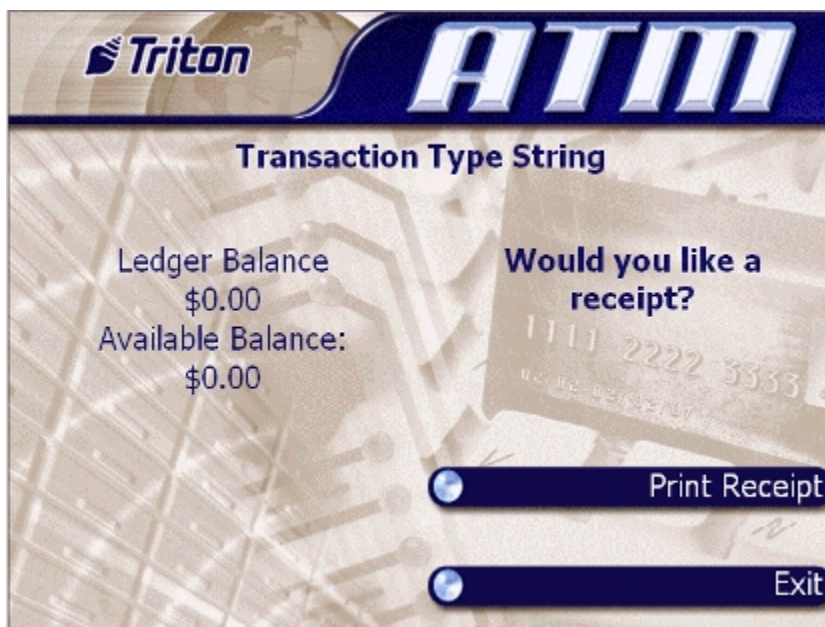
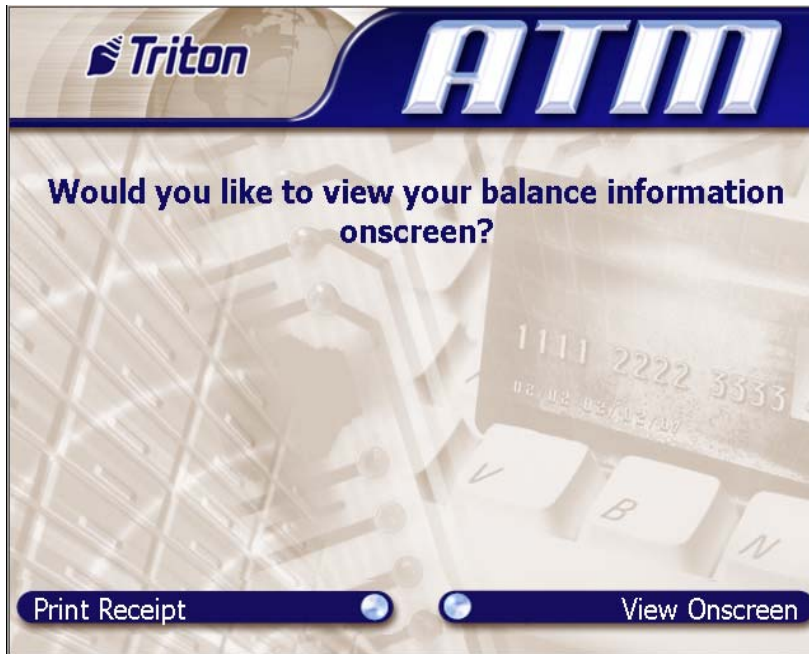
```
Username: Master
Parameter Change: Archive unaudited records
  Old: Disabled
  New: Enabled
```

The current settings can be viewed in the Configuration Summary report:

```
Auto Archive
Archive to: None (Delete)
Archive when journal size exceeds: 2 MB
Archive all audited records older than: 7 days
Archive unaudited records: Yes
```

## Display Balance On-Screen

This software release includes a function to allow the customer to view balance on the screen rather than print it on a receipt.



This option can be enabled/disabled in *Management => Terminal Configuration => Optional Screens*.

## ***PIN Services, Mini Statement and Mobile Top Up Selected by BIN***

The *PIN Services (PIN Change and PIN Unlock)*, *Mini Statement* and *Mobile Top Up (MPTU)* transaction types can now be selected by specific BINs in the ISO BIN table. The BINs to allow or not allow these transactions are configured in Management Functions in the ISO/Surcharge Properties configuration dialog (*Management => Terminal Configuration => ISO/Surcharge Properties*).

The ISO properties dialog now includes an ISO action named '**Screen Action**'. When this action is selected, a drop down list will be displayed in the '**Value**' area. For the UK screen file, this list will include the following options:

- Allow PIN Change
- Allow PIN Unlock
- Allow Mini Statement
- Allow MPTU
- Block PIN Change
- Block PIN Unlock
- Block Mini Statement
- Block MPTU

These values can be used along with the corresponding *Optional Screens* settings to control the display of the *PIN Services (PIN Change and PIN Unlock)*, *Mini Statement* and *Mobile Top Up* transactions. The general approach is to set a default behavior for a transaction type (by enabling or disabling in the *Optional Screens* dialog), then configure a set of BINs that will allow the opposite behavior.

For example, to restrict the availability of the PIN Services transaction types to a set of BINs, first use the *Optional Screens* dialog to turn the selected PIN Service (PIN Change or PIN Unlock) transaction type OFF. Next, use the *ISO Properties* dialog to add a list of BINs with the "Allow PIN Change" or "Allow PIN Unlock" value, as applicable. With this configuration the terminal will restrict the display of the selected PIN Service transaction type to the BIN list.

Alternatively, if you wish to block PIN Services for a set of BINs, use the *Optional Screens* dialog to turn the applicable PIN Service transaction type ON, then use the *ISO Properties* dialog to add a list of BINs with the "Block PIN Change" or "Block PIN Unlock" value, as applicable. With this configuration the terminal will NOT display the selected PIN Service transaction type for the BIN list.

A similar approach can be applied to the Mini Statement and Mobile Top Up transaction types.

## Changes to Withdrawal Types

This software release changes the wording (but not the behavior) of the Withdrawal options on the Transaction Selection screen. The option previously named “Withdrawal – No Receipt” has been renamed as “Withdrawal” and the option previously named “Withdrawal” has been renamed as “Withdrawal with Receipt” as shown here:



## Bill Mix Methods

In previous software releases, if 2 or more cassettes contained the same denomination then all bills would be dispensed from one cassette before using the second. A new bill mix method has been added to alternate between cassettes of like denomination for each transaction. The bill mix methods are:

- Minimize (the current method)
- Minimize EW (for “Even Wear”)

This option can be configured in *Management => Terminal Configuration => Cassette Setup*.

## Journal Data in Host Response

This software release contains a new feature to allow journal data to be sent to the host in a transaction or configuration download response message. This feature can only be

enabled/disabled through host communications and is not configurable in Management Functions.

Please refer to “Triton Terminal Communications Protocol And Message Format Specification”, version TSCD5.34 or later for details on this feature.

*Note: Turning on this feature will cause journal records to be audited and may not be retrieved from Triton Connect or viewed at the terminal through the “Display Unaudited Records” feature. Old journal records can still be viewed using “Display Last X”.*

## **UPS Support**

If a UPS is connected to the ATM, this software release has the capability to detect if the system is on UPS power and shut down the ATM at the first idle time. The ATM will power up immediately when main power has been restored. Please contact Triton Technical Support for information on supported UPS devices and cables.

## **Report SPED Low Battery to Triton Connect**

This software release will send a warning message (error code 241) to Triton Connect if the SPED battery is low. This error will not take the terminal out of service, and the ATM will contact Triton Connect to clear the error once the battery has been replaced.

## **No Online Help**

The online help in Management Functions has been removed for the RL2000 ATM.

## **No Text Receipts**

The RL2000 uses a USB printer which has much faster communications than the serial printer on the RL5000. Due to this print speed increase, the option to select “text” receipts has been removed and all receipts are printed as “graphics”.

## **New Load File Format**

Software load files for the RL2000 will have a “tfv” extension rather than “tlf”. The “tfv” format is slightly different and provides a method for Triton to sign each load file and only install verified software updates.

*Note: Triton Connect version 4.4 is required to send a “tfv” software update to the ATM.*



## ***LED Brightness Control***

An option to configure the LED lead-through indicator brightness has been added in *Management => Diagnostics => General I/O*.

## Changes to the Communication Specification

The following FID has been added to support sending journal data to the host:

<p>'j'</p>	<p>Journal data – Ten ASCII numbers, optionally followed by size / journal data pairings, always ending with an ANSI CRC-16 checksum. - T<sub>1</sub> T<sub>2</sub> T<sub>3</sub> T<sub>4</sub> T<sub>5</sub> T<sub>6</sub> T<sub>7</sub> T<sub>8</sub> T<sub>9</sub> T<sub>10</sub> (T<sub>11</sub> T<sub>12</sub> T<sub>13</sub>) (Base64 data) T<sub>14</sub> T<sub>15</sub> T<sub>16</sub> T<sub>17</sub></p> <p>1 Numeric (T<sub>1</sub>) - Status Field '0' = Disable '1' = Enable '2'=Incomplete record '3'=ACK '4'=NAK</p> <p>2 Numeric (T<sub>2</sub> T<sub>3</sub>) - Maximum records when sent from host or numbers of records to follow when sent to host.</p> <p>3 Numeric (T<sub>4</sub> T<sub>5</sub> T<sub>6</sub>) - Maximum journal data (256-999 bytes) when sent from host or total journal data (in bytes) to follow when sent to host.</p> <p>4 Numeric (T<sub>7</sub> T<sub>8</sub> T<sub>9</sub> T<sub>10</sub>) – Indicates the number of journal records that have not been audited on the terminal which will include any records included with this message. This field will be zero filled when being sent from the host to the terminal.</p> <p>(T<sub>11</sub> T<sub>12</sub> T<sub>13</sub>) (Base64 data) - The remainder of the packet will be (T<sub>2</sub> T<sub>3</sub>) pairs of 3 ASCII numbers followed by the Base64 representation of the journal record as defined in Triton Connect Journal Command Packet (<i>Triton Terminal Journal Record Format Specification</i>). This part of the packet will only be transmitted from the terminal to the host.</p> <p>3 Numeric (T<sub>11</sub> T<sub>12</sub> T<sub>13</sub>) – size (in bytes) of 1 Base64 (RFC 3548) encoded journal record to follow. ASCII bytes- Base64 representation of the journal record as defined by <i>Triton Terminal Journal Record Format Specification</i>.</p> <p>T<sub>14</sub> T<sub>15</sub> T<sub>16</sub> T<sub>17</sub> -4 ASCII characters that represent the CRC-16 two byte checksum calculated from and including the j fid to the last byte of Base64 data. Each character represents a 4-bit hexadecimal numeral (0-9, A-F). Uses the ANSI CRC-16 error checking protocol standard. See the sample code in APPENDIX F.</p>
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## Default Parameters

The default values for new features are as follows:

- Archive Unaudited Records: Disabled
- Bill Mix Method: Minimize

- Journal Data in Host Response: Disabled

## Known Issues

### ***Journal Upload Enable/Disable from Management***

If a download keys is initiated from Management Functions (*Key Management=>Download Keys*), the flag in the message response to enable/disable is ignored. This feature will only be enabled or disabled during a transaction request.

## Revision History

Date	Version	Description of Change
November 16, 2007	1.0	Initial Release

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# X2 2.0.1 Software Release Notes (US, Canada, Australia, Mexico)

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Affected products  
RL2000, RL5000, FT5000, RT2000

October 23, 2007

Version 1.0

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## **Introduction**

This document describes new functionality for the 2.0.1 software release for RL2000, RL5000, FT5000, and RT2000 with X2 controller for US, Canada, Australia, and Mexico. The differences described are from XScale 1.8.6.

## **Platforms Affected**

This release is for the following families:

- RL2000, RL5000, FT5000, RT2000 with X2 Controller

## **Hardware Requirements**

The following is a list of hardware supported by this software:

- Display: 10.4" Color VGA
- Card Reader: Magtek 215 Dip Reader, MagTek Intellistripe 65 Dip Reader, or Sankyo ICT3K5 Motorized Reader
- EPP: Triton SP-05 or SP-06.00
- Dispenser: TDM50, TMD1xx, TDM2xx, SDD, MiniMech, NMD50, NMD100
- Printer: Seiko 80mm USB Printer with Presenter
- Modem: Triton USB Modem or MultiTech USB Modem

## **Software Requirements**

The following load files are included with this release:

- xd10xcsf2.0.1.tfv – US, Canada, Australia, Mexico Software for 10.4" display

## **External Dependencies**

The following feature requires Triton Connect Version 4.4 or greater:

- Software updates from Triton Connect.

## Description of Changes

### New Screen File Look

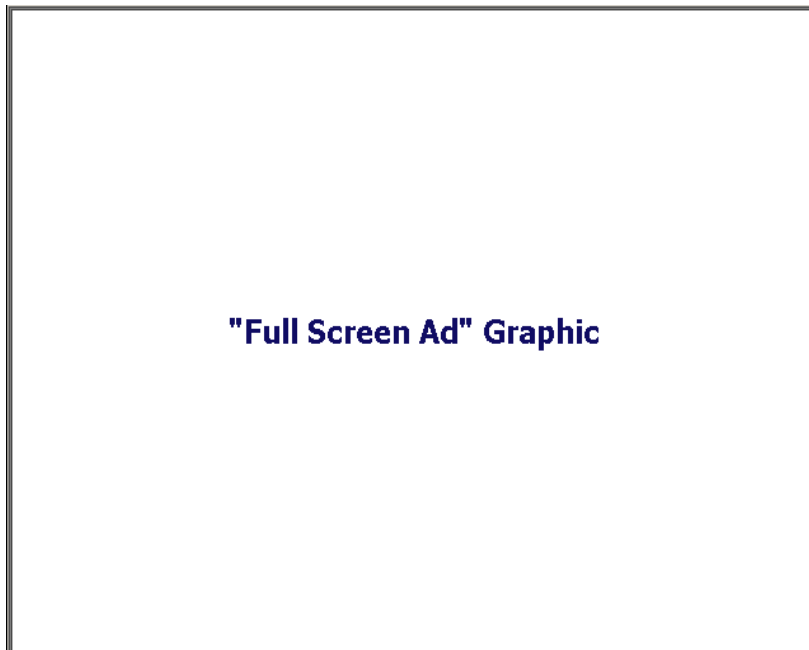
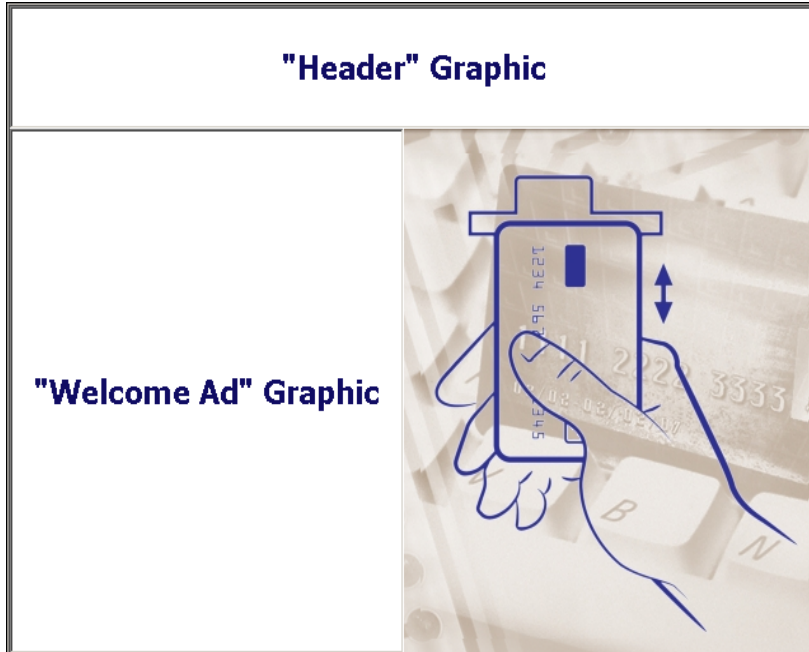
This software release contains a new screen design for customer transactions. Below are some sample screen shots of the customer screens:



## Ad Graphics

The screen file for this software release contains the following fields for advertisement graphics on the welcome or "Insert Card" screen (with pixel sizes in width x height):

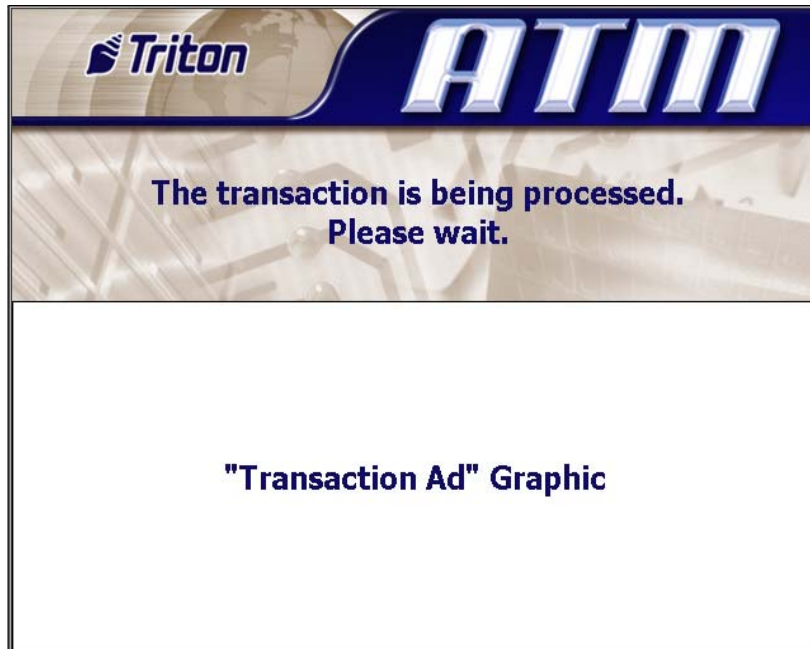
- Header: 636 x 90
- Welcome Ad: 310 x 385
- Full Screen Ad: 636 x 476





The following advertisement graphic is available on the “Transaction Processing” screen:

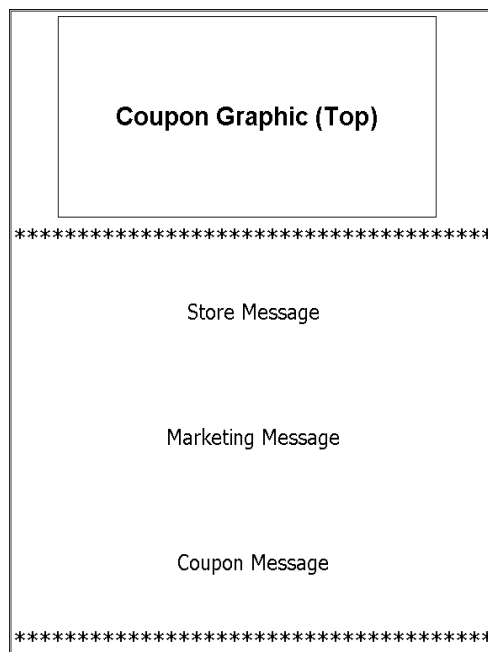
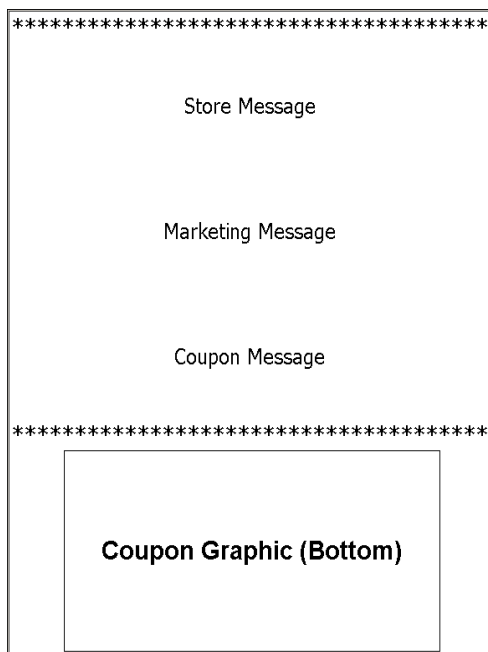
- Transaction Ad: 636 x 260

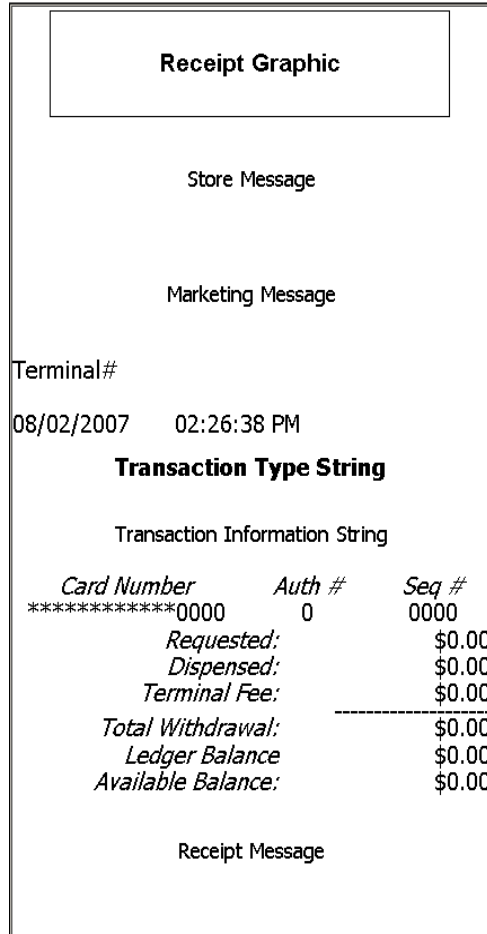
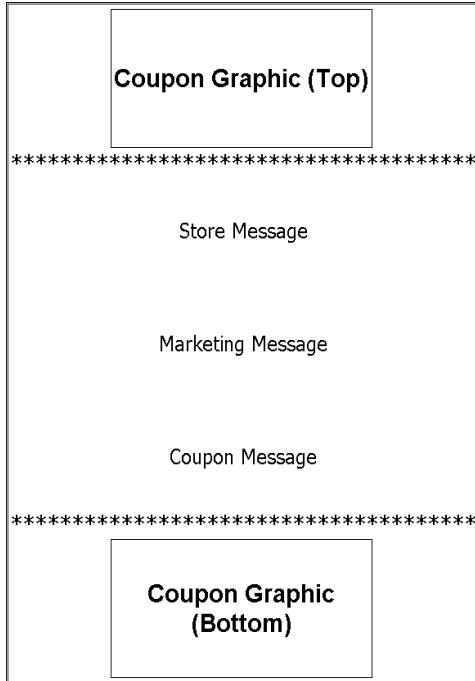


## ***Coupon and Receipt Graphics***

The following coupon and receipt graphics are available (bmp format only):

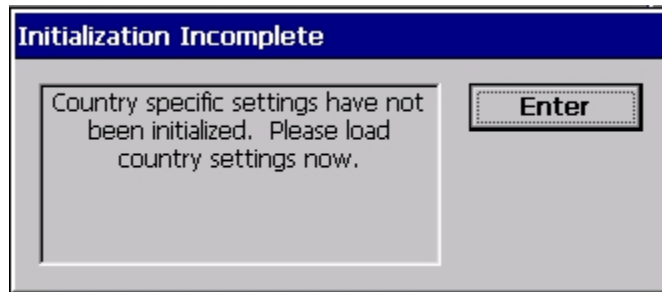
- Receipt Graphic: 480 x 120
- Coupon Graphic (Top): 450 x 225
- Coupon Graphic (Bottom): 450 x 225



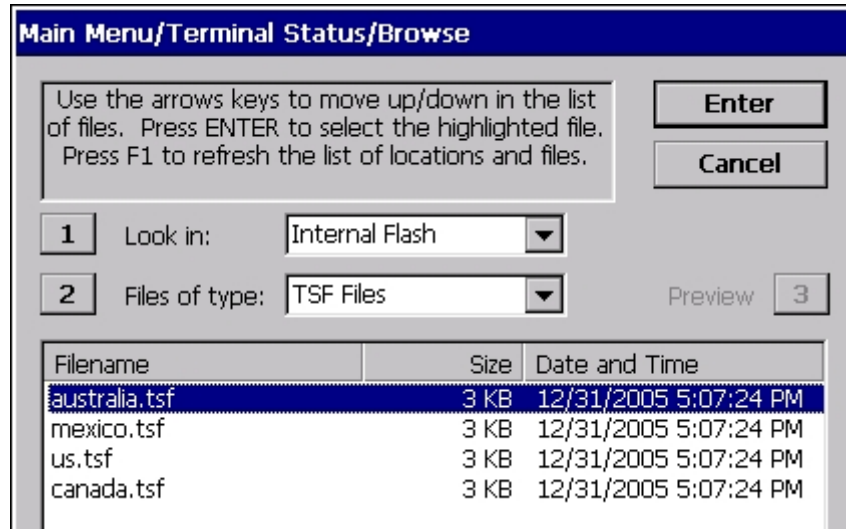


### Multi-Market Release

This software release contains functionality for multiple markets. After the initial installation of a full-load file, upon entering management functions the 'Initialization Incomplete' dialog will be displayed:



After pressing "Enter" on this dialog, the following will appear listing the configuration files (tsf) for each market:



You must select one of the options to continue. Selecting the appropriate country will apply the default settings for that market.

Note that at any time you can reset the market defaults in *Management Functions=>Terminal Status=>Restore Default Parameters*. This option will clear ALL terminal parameters and restore the system to the selected market default values. Restoring parameters from external storage (*Management Functions=>Terminal Status=>Restore Parameters From External Storage*) will also overwrite all market defaults.

### **Archive Unaudited Records**

This software release has the capability to automatically delete journal data without first auditing the journal. This feature can be used to force the terminal to stay in service even when the journal size reaches the maximum defined size.

***IMPORTANT: Only enable this feature if you are aware of the implications of this. Enabling this feature will cause unaudited journal data to be deleted and cannot be recovered.***

The auto archive dialog in *Management => Electronic Journal => Auto Archive* has been modified to add an option to allow archive/delete of unaudited records:

**Auto Archive**

1 Archive to: **None (Delete)** **Enter**

2 Archive when journal size exceeds: **2** MB **Cancel**

3 Archive all audited records older than: **7** days

4  Archive unaudited records

Selecting option 4 to enable this feature will display the following message:

**WARNING!**

**IMPORTANT!**  
Enabling this feature will allow journal data that has not been reviewed or downloaded to be deleted!

**Enter**  
**Cancel**

Selecting “Enter” will continue to the next prompt and selecting “Cancel” will leave it disabled.

**WARNING!**

Please be sure you are aware of the impacts of changing this setting before continuing.  
Press "Enter" to continue enabling this setting or "Cancel" to abort.

**Enter**  
**Cancel**

Selecting “Enter” will enable the “Archive unaudited records” option and selecting “Cancel” will leave it disabled.

Note that this feature can only be enabled/disabled by the “Master” user. All other users will have this option disabled:

**Auto Archive**

1 Archive to:

2 Archive when journal size exceeds:  MB

3 Archive all audited records older than:  days

4  Archive unaudited records

Changing this setting will log the following entry to the journal:

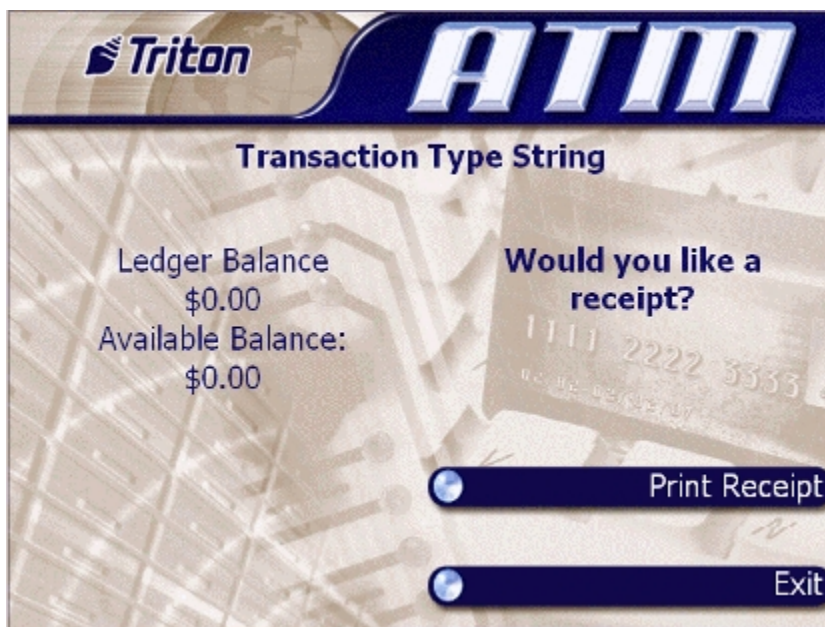
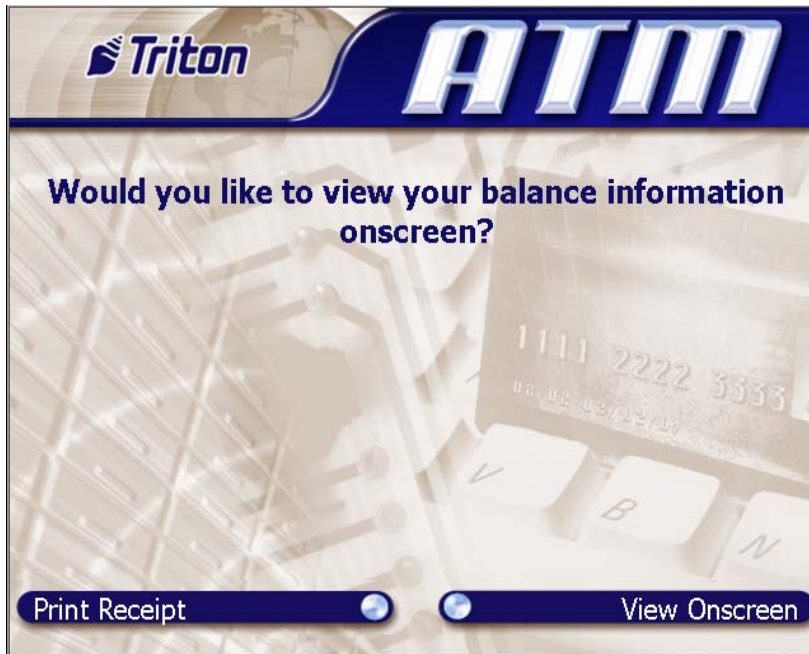
```
Username: Master
Parameter Change: Archive unaudited records
  Old: Disabled
  New: Enabled
```

The current settings can be viewed in the Configuration Summary report:

```
Auto Archive
Archive to: None (Delete)
Archive when journal size exceeds: 2 MB
Archive all audited records older than: 7 days
Archive unaudited records: Yes
```

## Display Balance On-Screen

This software release includes a function to allow the customer to view balance on the screen rather than print it on a receipt.



This option can be enabled/disabled in *Management => Terminal Configuration => Optional Screens*.

### **Mini Statement Transaction Type**

This software release contains a “Mini Statement” transaction type. Selecting this transaction type will send a Mini Statement request to the host and the data sent back from the host will be printed on the customer receipt.

Here is a sample mini statement receipt:

		
Store Message		
Marketing Message		
Terminal#		
08/02/2007 02:26:38 PM		
<b>Transaction Type String</b>		
<i>Card Number</i>	<i>Auth #</i>	<i>Seq #</i>
*****0000	0	0000
MiniStatement Message		

### **PIN Change Transaction Type**

This software release contains a “PIN Change” transaction type. Selecting this transaction type will prompt the customer to enter the new PIN, and re-enter the new PIN.

### **PIN Change and Mini Statement Selected by BIN**

The *PIN Change* and *Mini Statement* transaction types can now be selected by specific BINs in the ISO BIN table. The BINs to allow or not allow these transactions are configured in Management Functions in the ISO/Surcharge Properties configuration dialog (*Management => Terminal Configuration => ISO/Surcharge Properties*).

The ISO properties dialog now includes an ISO action named ‘**Screen Action**’. When this action is selected, a drop down list will be displayed in the ‘**Value**’ area. For this screen file, this list will include the following options:



- Allow PIN Change
- Allow Mini Statement
- Block PIN Change
- Block Mini Statement

These values can be used along with the corresponding *Optional Screens* settings to control the display of the *PIN Change* and *Mini Statement* transactions. The general approach is to set a default behavior for a transaction type (by enabling or disabling in the *Optional Screens* dialog), then configure a set of BINs that will allow the opposite behavior.

For example, to restrict the availability of the PIN Change transaction type to a set of BINs, first use the *Optional Screens* dialog to turn the PIN Change transaction type OFF. Next, use the *ISO Properties* dialog to add a list of BINs with the “Allow PIN Change” value. With this configuration the terminal will restrict the display of the PIN Change transaction type to the BIN list.

Alternatively, if you wish to block PIN Change for a set of BINs, use the *Optional Screens* dialog to turn the PIN Change transaction type ON, then use the *ISO Properties* dialog to add a list of BINs with the “Block PIN Change” value. With this configuration the terminal will NOT display the PIN Change transaction type for the BIN list.

A similar approach can be applied to the Mini Statement transaction type.

### **Prompt for Another Transaction**

This software release contains the option to enable prompting the customer for another transaction when a transaction has completed successfully (transaction chaining). With this option enabled, the customer will be presented with the following screen upon completing a transaction:



Here is the behavior based on customer selection:

1. **Customer chooses YES.** Go directly to the PIN entry screen. The customer's ATM card will not need to be re-scanned. After successful PIN entry, the Transaction Selection screen will be presented.
2. **Customer chooses NO.** Display the Exit Message then return to the Welcome screen.
3. **Customer does nothing.** After 15 seconds the "Need More Time?" prompt appears. If the Customer selects YES within 15 seconds, the continuation prompt will be displayed and repeat the previous steps. If the customer selects NO, or does not select an option within 15 seconds, the Exit Message is displayed and the transaction is completed.

### ***Withdrawal – No Receipt Option***

This release contains a new transaction type called "Withdrawal – No Receipt" that can be presented to the customer on the select transaction screen. This selection will execute a standard withdrawal transaction but will only print a receipt if the transaction is unsuccessful.

### ***Bill Mix Methods***

In previous software releases, if 2 or more cassettes contained the same denomination then all bills would be dispensed from one cassette before using the second. A new bill mix method has been added to alternate between cassettes of like denomination for each transaction. The bill mix methods are:

- Minimize (the current method)
- Minimize EW (for "Even Wear")

This option can be configured in *Management => Terminal Configuration => Cassette Setup*.

### ***Journal Data in Host Response***

This software release contains a new feature to allow journal data to be sent to the host in a transaction or configuration download response message. This feature can only be enabled/disabled through host communications and is not configurable in Management Functions.

Please refer to "Triton Terminal Communications Protocol And Message Format Specification", version TSCD5.34 or later for details on this feature.

*Note: Turning on this feature will cause journal records to be audited and may not be retrieved from Triton Connect or viewed at the terminal through the "Display Unaudited Records" feature. Old journal records can still be viewed using "Display Last X".*

## ***UPS Support***

If a UPS is connected to the ATM, this software release has the capability to detect if the system is on UPS power and shut down the ATM at the first idle time. The ATM will power up immediately when main power has been restored. Please contact Triton Technical Support for information on supported UPS devices and cables.

## ***Report SPED Low Battery to Triton Connect***

This software release will send a warning message (error code 241) to Triton Connect if the SPED battery is low. This error will not take the terminal out of service, and the ATM will contact Triton Connect to clear the error once the battery has been replaced.

## ***No Online Help***

The online help in Management Functions has been removed for the RL2000 ATM.

## ***No Text Receipts***

The X2 system uses a USB printer which has much faster communications than the serial printer on the RL5000. Due to this print speed increase, the option to select “text” receipts has been removed and all receipts are printed as “graphics”.

## ***New Load File Format***

Software load files for the RL2000 will have a “tfv” extension rather than “tlf”. The “tfv” format is slightly different and provides a method for Triton to sign each load file and only install verified software updates.

*Note: Triton Connect version 4.4 is required to send a “tfv” software update to the ATM.*

## ***LED Brightness Control***

An option to configure the LED lead-through indicator brightness has been added in *Management => Diagnostics => General I/O*.

## Changes to the Communication Specification

The following FID has been added to support sending journal data to the host:

<p>'j'</p>	<p>Journal data – Ten ASCII numbers, optionally followed by size / journal data pairings, always ending with an ANSI CRC-16 checksum. - T<sub>1</sub> T<sub>2</sub> T<sub>3</sub> T<sub>4</sub> T<sub>5</sub> T<sub>6</sub> T<sub>7</sub> T<sub>8</sub> T<sub>9</sub> T<sub>10</sub> (T<sub>11</sub> T<sub>12</sub> T<sub>13</sub>)(Base64 data) T<sub>14</sub> T<sub>15</sub> T<sub>16</sub> T<sub>17</sub></p> <p>1 Numeric (T<sub>1</sub>) - Status Field '0' = Disable '1' = Enable '2'=Incomplete record '3'=ACK '4'=NAK</p> <p>2 Numeric (T<sub>2</sub> T<sub>3</sub>) - Maximum records when sent from host or numbers of records to follow when sent to host.</p> <p>3 Numeric (T<sub>4</sub> T<sub>5</sub> T<sub>6</sub>) - Maximum journal data (256-999 bytes) when sent from host or total journal data (in bytes) to follow when sent to host.</p> <p>4 Numeric (T<sub>7</sub> T<sub>8</sub> T<sub>9</sub> T<sub>10</sub>) – Indicates the number of journal records that have not been audited on the terminal which will include any records included with this message. This field will be zero filled when being sent from the host to the terminal.</p> <p>(T<sub>11</sub> T<sub>12</sub> T<sub>13</sub>)(Base64 data) - The remainder of the packet will be (T<sub>2</sub> T<sub>3</sub>) pairs of 3 ASCII numbers followed by the Base64 representation of the journal record as defined in Triton Connect Journal Command Packet (<i>Triton Terminal Journal Record Format Specification</i>). This part of the packet will only be transmitted from the terminal to the host.</p> <p>3 Numeric (T<sub>11</sub> T<sub>12</sub> T<sub>13</sub>) – size (in bytes) of 1 Base64 (RFC 3548) encoded journal record to follow. ASCII bytes- Base64 representation of the journal record as defined by <i>Triton Terminal Journal Record Format Specification</i>.</p> <p>T<sub>14</sub> T<sub>15</sub> T<sub>16</sub> T<sub>17</sub>-4 ASCII characters that represent the CRC-16 two byte checksum calculated from and including the j fid to the last byte of Base64 data. Each character represents a 4-bit hexadecimal numeral (0-9, A-F). Uses the ANSI CRC-16 error checking protocol standard. See the sample code in APPENDIX F.</p>
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FID 'uj' has been added to support mini statement receipts:

Host Receipt – 2 ASCII numbers followed by a variable amount of ASCII data to be displayed exactly as formatted by the host. T<sub>1</sub> T<sub>2</sub> (T<sub>3</sub>)

2 Numeric (T<sub>1</sub> T<sub>2</sub>) – 2 ASCII numbers representing the character set selection. Currently ‘00’ will always be sent indicating the default character set should be used.

Variable Length ASCII (T<sub>3</sub>) – Formatted ASCII text that will be printed exactly as it is sent from the host.

Misc FID ‘uk’:

Printer Capabilities- 10 ASCII numbers representing the current configuration of the terminal printer. T<sub>1</sub> T<sub>2</sub> T<sub>3</sub> T<sub>4</sub> T<sub>5</sub> T<sub>6</sub> T<sub>7</sub> T<sub>8</sub> T<sub>9</sub> T<sub>10</sub>

1 Numeric (T<sub>1</sub>) – Represents the current printer mode ‘1’ – Graphic ‘2’ – Text.

3 Numeric (T<sub>2</sub> T<sub>3</sub> T<sub>4</sub>) – This field is reserved for future use, but it will initially contain ‘000’.

2 Numeric (T<sub>5</sub> T<sub>6</sub>) – The maximum number of characters per line.

2 Numeric (T<sub>7</sub> T<sub>8</sub>) – The maximum number of lines per statement.

2 Numeric (T<sub>9</sub> T<sub>10</sub>) – The default character set that is used by the system. ‘00’ will be sent indicating the system default. Future enhancements may specify other character sets.

**Note:** *The ‘uk’ FID will always be sent from the terminal in a configuration download request.*

## Default Parameters

The default values for new features are as follows:

- Archive Unaudited Records: Disabled
- Bill Mix Method: Minimize
- Journal Data in Host Response: Disabled

## Known Issues

### ***Journal Upload Enable/Disable from Management***

If a download keys is initiated from Management Functions (*Key Management=>Download Keys*), the flag in the message response to enable/disable is ignored. This feature will only be enabled or disabled during a transaction request.

## Revision History

Date	Version	Description of Change
October 23, 2007	1.0	Initial Release

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# X2 2.2.1

## Software Release Notes

### US, Canada, Australia, Mexico

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Affected products  
RL2000, RL5000, FT5000, RT2000

December 5, 2007

Version 1.0

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## Introduction

This document describes new functionality for the 2.2.1 software release for RL2000, RL5000, FT5000, and RT2000 with X2 controller for US, Canada, Australia, and Mexico market. The differences described are from X2 2.0.1.

## Platforms Affected

This release is for the following families:

- RL2000, RL5000, FT5000, RT2000 with X2 Controller

## Hardware Requirements

The following is a list of hardware supported by this software:

- Display: 10.4", 8" or 5.7" Color VGA
- Card Reader: Magtek 215 Dip Reader, MagTek Intellistripe 65 Dip Reader, or Sankyo ICT3K5 Motorized Reader
- EPP: Triton SP-05 or SP-06.00; Sagem PCI EPP
- Dispenser: TDM50, TMD1xx, TDM2xx, SDD, MiniMech, NMD50, NMD100
- Printer:
  - Seiko 80mm USB Printer with Presenter or without Presenter (RL2000 only)
  - Seiko 60mm USB Printer (RL2000 only)
- Modem: Triton USB Modem (X2 only) or MultiTech USB Modem

## Software Requirements

The following load files are included with this release:

- xd10xcsf2.2.1.tfv – Live Common Software for 10.4" or 8" display (US, Canada, Australia, Mexico)
- xd10dcsf2.2.1.tfv – Live Common Software for 5.7" display (US, Canada, Australia)

## External Dependencies

The following feature requires Triton Connect Version 4.4 or greater (X2 requirement):

- Software updates from Triton Connect

## **Description of Changes**

### ***PCI EPP Support***

This version of software will support the Sagem EPP.

### ***Fully support TDM Dispenser Status Report***

The TDM Status report has over 200 click counters and this version of software will print all available click counters.

### ***Invalid PIN Message***

This version of software changes a screen that would display an Invalid PIN message when a communication error occurred with the EPP during PIN entry. This message has been changed to say "An error occurred while processing your PIN".

### ***The terminal will go out service with spaces as the Host phone number***

This version of software will take the terminal out of service if the Host Phone number is not correctly configured.

### ***Rear Service Panel Cassette Closes are performed correctly with only cassette B installed (RT2000 and FT5000 only)***

This version of software correctly performs cassette closes if only a cassette B is installed in the terminal.

### ***Shutter Diagnostics (FT5000 only)***

Under the dispenser diagnostic, a new selection to test the shutter for the FT5000's terminals with a shutter is available. This function will open and close the shutter for diagnostic.

### ***Reason for why a cassette was taken out of service is recorded***

This software will record the reason why a cassette is taken out of service when the cassette is taken out of service by the terminal.

## Revision History

Date	Version	Description of Change
12/5/2007	1.0	Initial Revision

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# X2 2.2.1 Software Release Notes (South Africa)

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Affected products  
RL2000, RL5000, FT5000

December 20, 2007

Version 1.0

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## **Introduction**

This document describes new functionality for the 2.2.1 South Africa (EMV) software release for RL2000, RL5000, and FT5000 with X2 controller. The differences described are from X2 2.0.1.

## **Platforms Affected**

This release is for the following families:

- RL2000, RL5000, FT5000 with X2 Controller

## **Hardware Requirements**

The following is a list of hardware supported by this software:

- Display: 10.4" or 8" Color VGA
- Card Reader: MagTek Intellistripe 65 dip reader or Sankyo ICT3K5 motorized card reader
- SPED: SP-06 EPP, T5
- Dispenser: TDM50, TMD1xx, TDM2xx, SDD, MiniMech, NMD50, NMD100
- Printer: Seiko 60mm or 80mm USB Printer with or without Presenter
- Modem: Radiopad

## **Software Requirements**

The following load file is included with this release:

- xd14xsae2.2.1.tfv – South Africa with EMV for 10.4" or 8" display X2

## **External Dependencies**

The following feature requires Triton Connect Version 4.4 or greater:

- Software updates from Triton Connect.

## **Description of Changes**

### ***PCI EPP Support***

This version of software supports the T5 EPP.

### ***Fully support TDM Dispenser Status Report***

The TDM Status report has over 200 click counters and this version of software will print all available click counters.

### ***The terminal will go out service with spaces as the Host phone number***

This version of software will take the terminal out of service if the Host Phone number is not correctly configured.

### ***Rear Service Panel Cassette Closes are performed correctly with only cassette B installed (FT5000 only)***

This version of software correctly performs cassette closes if only a cassette B is installed in the terminal.

### ***Shutter Diagnostics (FT5000 only)***

Under the dispenser diagnostic, a new selection to test the shutter for the FT5000's terminals with a shutter is available. This function will open and close the shutter for diagnostic.

### ***Reason for why a cassette was taken out of service is recorded***

This software will record the reason why a cassette is taken out of service when the cassette is taken out of service by the terminal.



## Known Issues

### ***Journal Upload Enable/Disable from Management***

If a download keys is initiated from Management Functions (*Key Management=>Download Keys*), the flag in the message response to enable/disable is ignored. This feature will only be enabled or disabled during a transaction request.

## Revision History

Date	Version	Description of Change
12/20/2007	1.0	Initial Release

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# X2 2.2.1 Software Release Notes United Kingdom

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Affected products  
RL2000, RL5000, FT5000, RT2000

March 19, 2008

Version 1.2

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## Introduction

This document describes new functionality for the 2.2.1 software release for RL2000, RL5000, FT5000, and RT2000 with X2 controller for United Kingdom market. The differences described are from X2 2.0.1.

## **Platforms Affected**

This release is for the following families:

- RL2000, RL5000, FT5000, RT2000 with X2 Controller

## **Hardware Requirements**

The following is a list of hardware supported by this software:

- Display: 10.4", 8", 5.7" Color VGA
- Card Reader: MagTek Intellistripe 65 Dip Reader or Sankyo ICT3K5 Motorized Reader
- EPP: Triton SP-05 or SP-06.00; T7 PCI EPP
- Dispenser: TDM50, TMD1xx, TDM2xx, SDD, MiniMech, NMD50, NMD100
- Printer: Seiko 80mm/60mm USB Printer with Presenter or without Presenter (RL2000 only)
- Modem: Triton USB Modem (X2 only) or MultiTech USB Modem

## **Software Requirements**

The following load files are included with this release:

- xd14xemv2.2.1.tfv – United Kingdom Software Full Load for 8" and 10.4" X2
- xd14duke2.2.1.tfv – United Kingdom Software Full Load for 5.7" X2

## **External Dependencies**

The following feature requires Triton Connect Version 4.4 or greater (X2 requirement):

- Software updates from Triton Connect

## **Description of Changes**

### ***PCI EPP Support***

This version of software supports the T7 EPP.

### ***Fully support TDM Dispenser Status Report***

The TDM Status report has over 200 click counters and this version of software will print all available click counters.

### ***Visa ADVT Test Card 22, the applications labels are correctly justified***

This version of software addressed an issue where the application labels were not justified correctly.

### ***Invalid PIN Message***

This version of software changes a screen that would display an Invalid PIN message when a communication error occurred with the EPP during PIN entry. This message has been changed to say "An error occurred while processing your PIN".

### ***Card Not Accepted Screen Display Time***

This version of software lengthened the timeout for displaying a message that indicates to the cardholder that the terminal cannot accept their card type.

### ***Customer name no longer displayed on PIN entry screen***

This version of software has removed the customer name from the PIN entry screen.

### ***Link Surcharge Notification Welcome Screen***

This version of software includes a new screen that will display the surcharge amount to the customer on the welcome screen.

### ***The terminal will go out service with spaces as the Host phone number***

This version of software will take the terminal out of service if the Host Phone number is not correctly configured.

### ***Rear Service Panel Cassette Closes are performed correctly with only cassette B installed (RT2000 and FT5000 only)***

This version of software correctly performs cassette closes if only a cassette B is installed in the terminal.

### ***Shutter Diagnostics (FT5000 only)***

Under the dispenser diagnostic, a new selection to test the shutter for the FT5000's terminals with a shutter is available. This function will open and close the shutter for diagnostic.

### ***Reason for why a cassette was taken out of service is recorded***

This software will record the reason why a cassette is taken out of service when the cassette is taken out of service by the terminal.

### ***New Response code for 036 Fallback not allowed***

This software supports a new response code that indicates Fallback was not allowed by the issuer.

## Revision History

Date	Version	Description of Change
10/23/2007	1.0	Initial Revision
12/20/2007	1.1	Updated Software Requirements
3/19/2008	1.2	Added 5.7" screen to these notes





**T5 PCI-EPP**

# SUPPLEMENT C

## KEY MANAGEMENT PROCEDURES

**T7 PCI-EPP**



## PCI-EPP (T5) / KEY MANAGEMENT PROCEDURES

### DIFFERENCES WITH THE T5 PCI-EPP KEYPAD

①

- **USER PASSWORDS MUST BE AT LEAST 8 CHARACTERS, RATHER THAN 6.**
- **EPP WILL PROMPT WITH ERROR IF FEWER CHARACTERS ENTERED AND THEN TAKE YOU BACK TO PASSWORD ENTRY AT POINT YOU LEFT OFF.**
- **THERE IS NO WAY TO CLEAR THE PASSWORD. HIT <CANCEL> AND START OVER.**

②

- **NO <CLEAR> OR <BACKSPACE> ON KEY ENTRY.**
- **IF ERROR IS MADE IN KEY ENTRY, HIT <CANCEL> AND START KEY ENTRY OVER FROM BEGINNING OF FIRST KEY HALF.**

③

- **YOU MAY ONLY ENTER IN NEW KEYS - NO CHANGE KEY FUNCTIONALITY.**

④

- **YOU HAVE 10 MINUTES TO ENTER IN BOTH USER PASSWORDS BEFORE TIMEOUT.**
  - **IF TIMEOUT OCCURS, YOU MUST START KEY ENTRY OVER FROM SCRATCH.**
  - ***THIS WILL AFFECT STAGING OF UNITS!***
  - **CANNOT ENTER ONE KEY HALF AT WAREHOUSE AND OTHER HALF IN FIELD.**

⑤

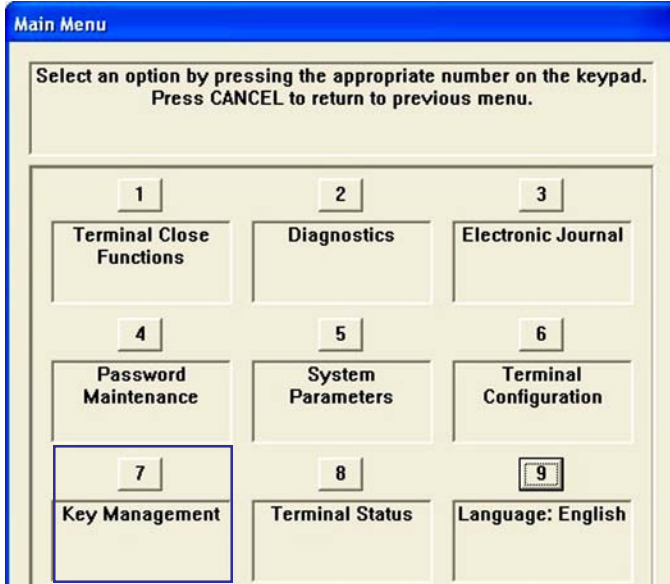
- **PASSWORD ENTRY – CLEAR WILL TAKE YOU BACK TO KEY MANAGEMENT PAGE.**
  - **RE-ENTER PASSWORD.**

⑥

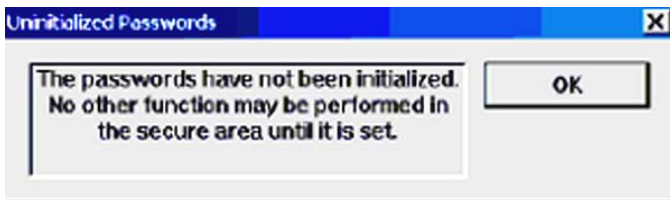
**YOU MUST NOT REMOVE BATTERY FROM EPP WITHOUT FIRST CONNECTING A NEW BATTERY! THIS T5 EPP WILL BE PERMANENTLY DAMAGED IF UNPOWERED AND BATTERY IS REMOVED BEFORE CONNECTING A NEW BATTERY!**

KEY MANAGEMENT PROCEDURES (w/T5 PCI-EPP INSTALLED)

- ① ENTER MANAGEMENT FUNCTIONS > MAIN MENU > KEY MANAGEMENT.



- ② THE “SET PASSWORD INITIALIZATION” PROMPT APPEARS. PRESS <ENTER>.



- ③ SELECT “SET PASSWORD” OPTION.

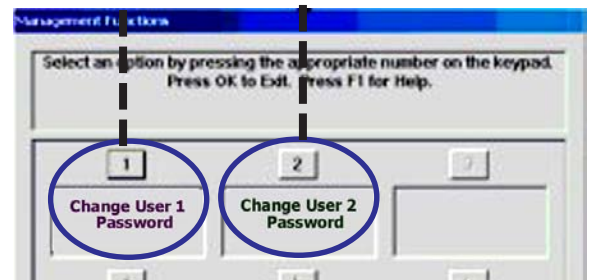
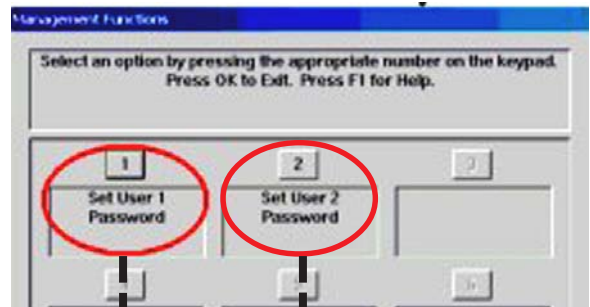


- ④ *NOTE: PREVIOUSLY, USERS HAD TO ENTER THE INITIAL PASSWORD OF SIX (6) “ZEROS” BEFORE BEING ALLOWED TO SET THE PASSWORDS. THIS IS NO LONGER REQUIRED (FOR T5 PCI-EPP ONLY).*

➤ SELECT “SET USER 1 PASSWORD” OPTION. ENTER NEW PASSWORD FOR USER 1. PASSWORDS CAN BE ANYWHERE FROM ‘8’ TO ‘16’ DECIMAL DIGITS. PRESS <ENTER>.

➤ YOU WILL BE PROMPTED AGAIN TO CONFIRM THE NEW PASSWORD. RE-ENTER NEW PASSWORD. PRESS <ENTER>.

AFTER THE PASSWORD IS INITIALIZED, THE “SET USER 1 PASSWORD” OPTION CHANGES TO “CHANGE USER 1 PASSWORD”.



➤ NEXT, SELECT “SET USER 2 PASSWORD” OPTION. FOLLOW THE SAME PROCEDURE FOR ENTERING A NEW PASSWORD FOR USER 2.

WHEN COMPLETED, THE “SET USER 2 PASSWORD” OPTION WILL CHANGE TO “CHANGE USER 2 PASSWORD”.

AFTER COMPLETION, HIT <CANCEL> TO ENTER MASTER KEYS SCREEN (STEP 5).

- ⑤ SELECT “ENTER MASTER KEYS” OPTION.



**IMPORTANT: THE REST OF THE PROCEDURES MUST BE COMPLETED WITHIN A 10 MINUTE PERIOD. IF THE PROCESS TAKES LONGER THAN THAT, THE KEY PARTS WILL NOT BE ABLE TO BE COMBINED!**

- ⑥ ENTER USER 1 PASSWORD. PRESS <ENTER>. ENTER USER 2 PASSWORD. PRESS <ENTER>.

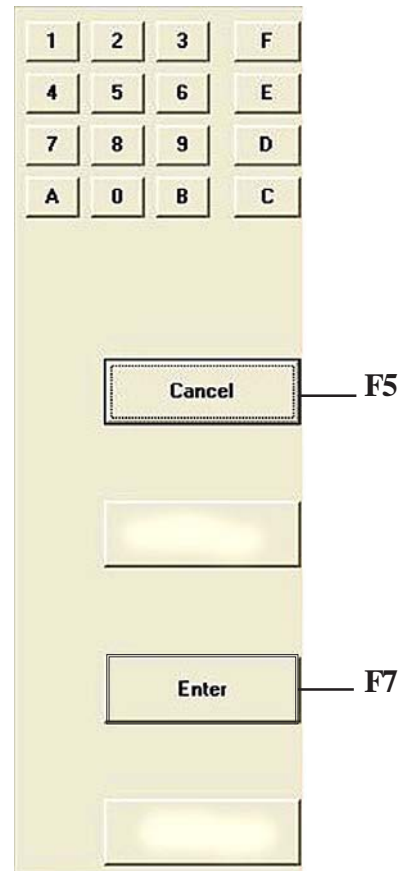


- ⑦ SELECT “ENTER PIN MASTER KEY” OPTION.



- ⑧ USER 1 ENTERS THE FIRST KEY PART (32 CHARACTERS). REFERENCE THE KEY LAYOUT DISPLAY BELOW. THE MAIN KEYPAD WILL MIRROR THE NUMBER/ALPHANUMERIC KEYS.

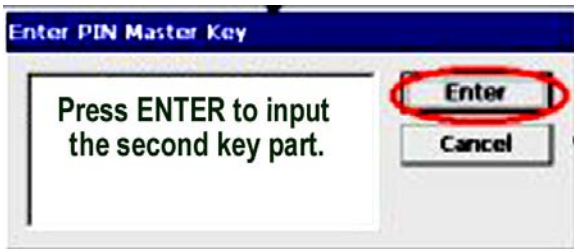
AFTER ENTERING THE KEYS, PRESS THE <ENTER> OPTION ON THE RIGHT-SIDE FUNCTION KEY <F7>.



- ⑨ THE “CHECK DIGITS” PROMPT APPEARS.  
PRESS <ENTER>.



- A PROMPT APPEARS TO ENTER THE SECOND KEY PART.  
PRESS <ENTER>.



- ⑩ USER 2 ENTERS THE SECOND KEY PART (32 CHARACTERS). REFER TO STEP 8 FOR ENTERING KEYS.



- ⑪ THE “CHECK DIGITS” PROMPT APPEARS.



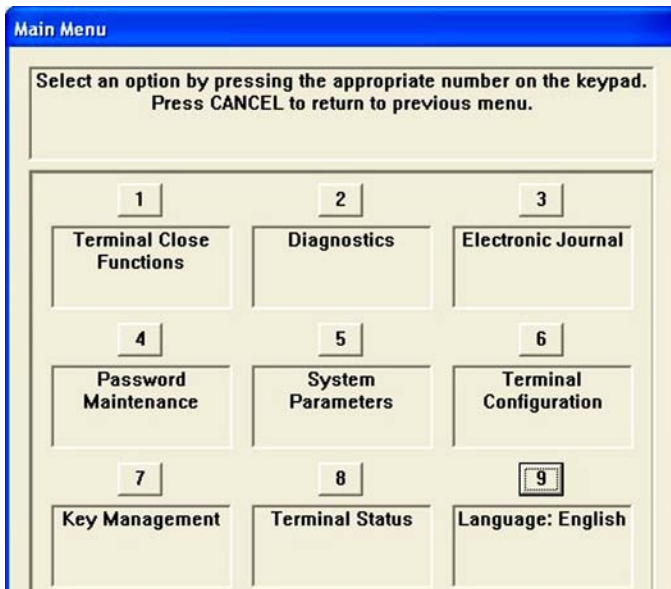
- YOU WILL BE PROMPTED THAT THE KEY WAS SUCCESSFULLY CHANGED.



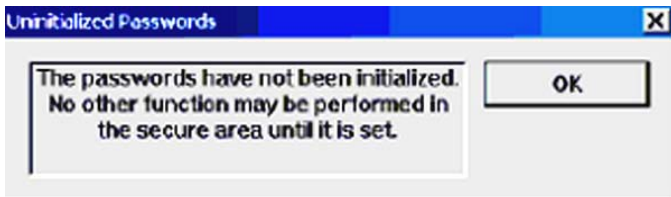
- REPEAT SEQUENCE FOR ENTERING MAC MASTER KEY , IF REQUIRED.

**KEY MANAGEMENT PROCEDURES (w/T7 PCI-EPP INSTALLED)**

① ENTER MANAGEMENT FUNCTIONS > MAIN MENU > KEY MANAGEMENT.



② THE “SET PASSWORD INITIALIZATION” PROMPT APPEARS. PRESS <ENTER>.



③ SELECT “SET PASSWORD” OPTION.

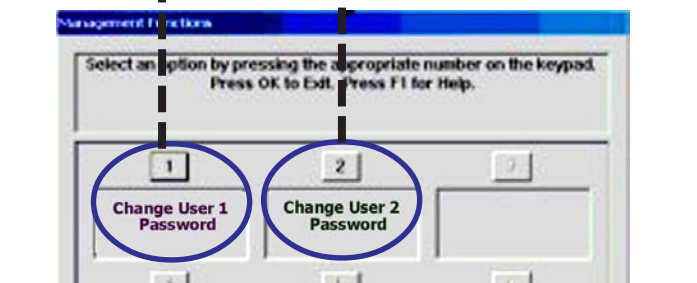
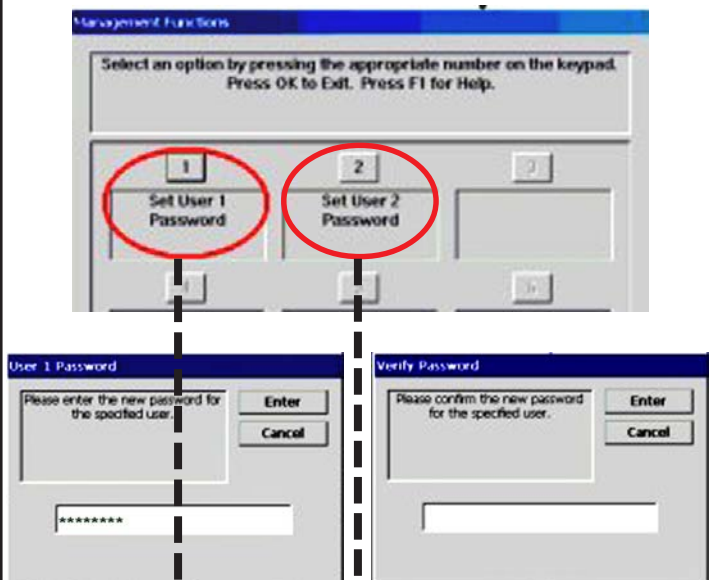


④ THE T7 USER PASSWORDS ARE INITIALLY SET TO SIX (6) “ZEROS (SIMILAR TO VEPP) BEFORE BEING ALLOWED TO SET THE PASSWORDS.

> SELECT “SET USER 1 PASSWORD” OPTION. ENTER NEW PASSWORD FOR USER 1. PASSWORDS CAN BE ANYWHERE FROM ‘6’ TO ‘14’ DECIMAL DIGITS. PRESS <ENTER>.

> YOU WILL BE PROMPTED AGAIN TO CONFIRM THE NEW PASSWORD. RE-ENTER NEW PASSWORD. PRESS <ENTER>.

AFTER THE PASSWORD IS INITIALIZED, THE “SET USER 1 PASSWORD” OPTION CHANGES TO “CHANGE USER 1 PASSWORD”.



> NEXT, SELECT “SET USER 2 PASSWORD” OPTION. FOLLOW THE SAME PROCEDURE FOR ENTERING A NEW PASSWORD FOR USER 2.

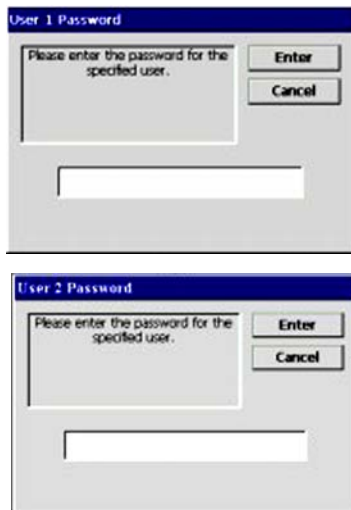
WHEN COMPLETED, THE “SET USER 2 PASSWORD” OPTION WILL CHANGE TO “CHANGE USER 2 PASSWORD”.

AFTER COMPLETION, HIT <CANCEL> TO ENTER MASTER KEYS SCREEN (STEP 5).

- ⑤ SELECT “ENTER MASTER KEYS” OPTION.



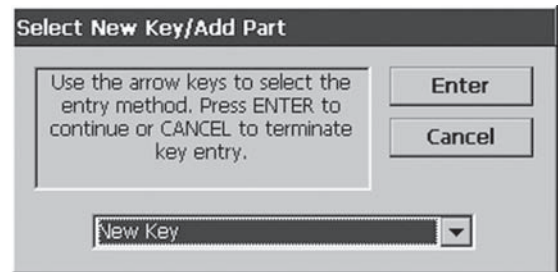
- ⑥ ENTER USER 1 PASSWORD. PRESS <ENTER>. ENTER USER 2 PASSWORD. PRESS <ENTER>.



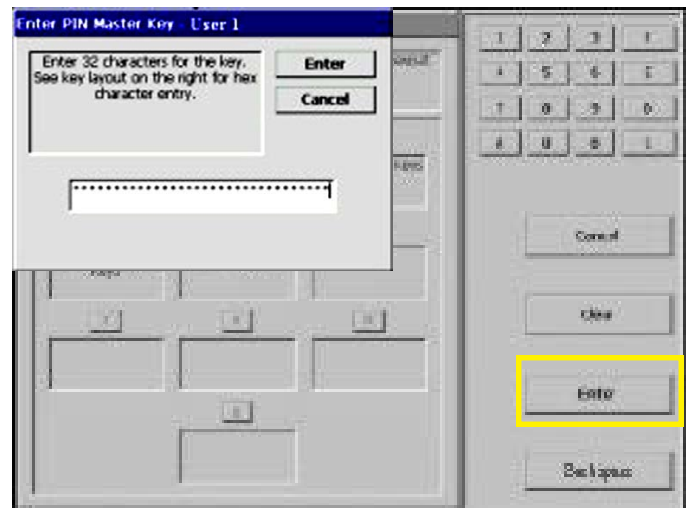
- ⑦ SELECT “ENTER PIN MASTER KEY” OPTION.



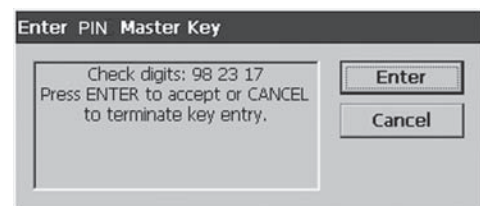
- ⑧ USE THE <ARROW> KEY TO TOGGLE BETWEEN “NEW KEY” OR “ADD PART” (TO AN EXISTING KEY). PRESS <ENTER> FOR THE APPLICABLE ENTRY.



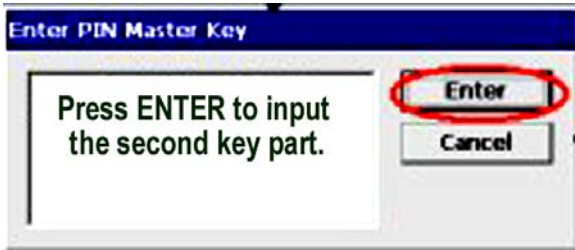
- ⑨ USER 1 ENTERS THE FIRST KEY PART (32 CHARACTERS). REFERENCE THE KEY LAYOUT DISPLAY BELOW. THE MAIN KEYPAD WILL MIRROR THE NUMBER/ALPHA-NUMERIC KEYS. AFTER ENTERING THE KEYS, PRESS THE <ENTER> OPTION ON THE RIGHT-SIDE FUNCTION KEY <F7>.



- ⑩ THE “CHECK DIGITS” PROMPT APPEARS. PRESS <ENTER>.



A PROMPT APPEARS TO ENTER THE SECOND KEY PART. PRESS <ENTER>.



12 YOU WILL BE PROMPTED THAT THE KEY WAS SUCCESSFULLY CHANGED.



11 USER 2 ENTERS THE SECOND KEY PART (32 CHARACTERS). REFER TO STEP 9 FOR ENTERING KEYS.



REPEAT SEQUENCE FOR ENTERING MAC MASTER KEY , IF REQUIRED.

THE "CHECK DIGITS" PROMPT APPEARS.

