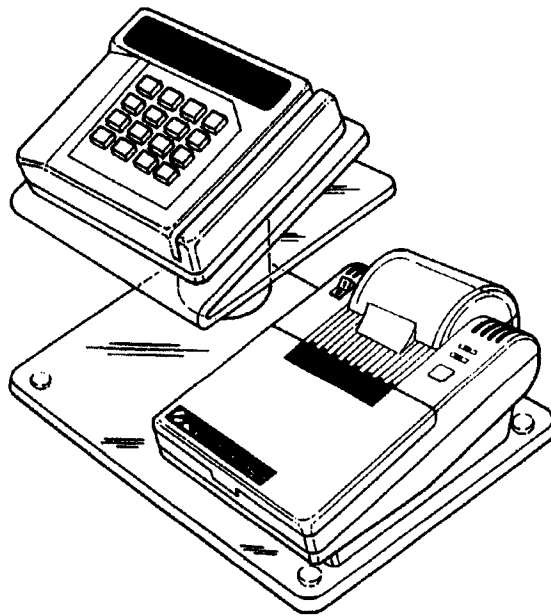# ZON Jr XL/XL 300

FDR XL Enhancements Reference Manual

Application Versions FXESBxx/FXESPxx and FXERxxx/FXFRxxx
VeriFone Part Number 11175, Revision A
Manual Revision 1.0

VeriFone™

THE TRANSACTION AUTOMATION COMPANY

ZON Jr XL/XL 300
FDR XL Enhancements Reference Manual

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1. Introduction

Congratulations on your choice of the VeriFone ZON Jr XL/XL 300 transaction terminal. The XL terminal has many outstanding features that will enable you and your merchants to perform your jobs faster and easier.

Please take the time to read this manual carefully so you become familiar with the equipment and procedures you will need to know to perform functions and transactions on your terminal.

Software Version

The FDR XL Enhancements application software package will load only in XL terminals having software 2.11 and higher. To determine the eprom version your terminal contains, unplug the power cord, then plug it in again. The terminal's display will show you the current eprom version as well as the installed application version.

Roll/Slip Printer

The FDR XL terminal supports the Printer 150 slip printer and the Printer 250 roll printer. Either printer attaches easily to the XL with a connecting cable, and plugs into a standard 115 VAC outlet. If you use the Printer 150 or 250, both terminal and printer can be housed in an optional acrylic stacker that takes up very little counter space. See figure 1-1.

The XL terminal allows you to program a unique merchant header of up to four lines and two message lines for your receipts. Appendices A and B provide printer installation and maintenance details as well as sample receipts and reports for each printer type.
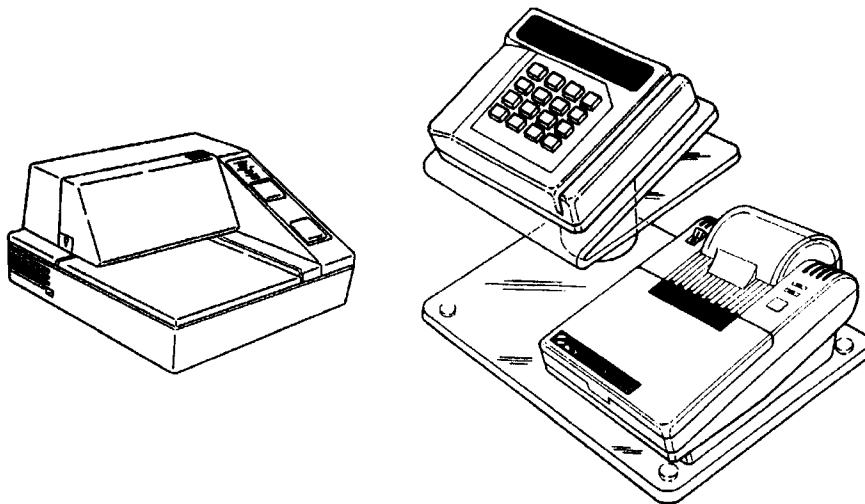
Figure 1-1. Printer 150 and XL Terminal with Printer 250 and Optional Acrylic Stacker

2. Features and Transactions Summary

FDR XL New Features and Benefits

A number of new features not previously available in FDR XL applications head this list of FDR XL Enhancements features and benefits.

★ The Setup function has been expanded to include security options for additional transactions.

★ The Suspend Batch option has been replaced by the Balance Inquiry transaction, which includes Deposit Inquiry.

★ The merchant logo has been increased to 6 lines.

★ The terminal supports roll printers 200 and 250 and slip printers 100 and 150.

★ You can enter 3-digit as well as 4-digit expiration dates.

★ The terminal pre-dials the host on all transactions.

★ The invoice number and authorization number are printed on receipts.

★ Prompting for the authorization number on Ticket Only transactions is a Setup option.

★ Credits and Void roll printer receipts now print in red.

Existing Features

• All captured transactions are numbered for batch review or balance corrections.

• The XL terminal features "echo back" dollar editing. It allows the clerk to see the new dollar amount before the record is updated.

• The Close procedure is simple. If the operator enters an incorrect item count or dollar amount during Close, the terminal displays "OUT OF BALANCE" and returns to the idle prompt.

• The abbreviated record display, as well as the full buffer review, includes code letters indicating transaction type: S = Sale, VS = Void Sale, etc.

• The terminal displays the dollar amount along with the approval message on all Sale, Credit, Ticket Only and Auth Only transactions so that the operator can verify it with the hand-written amount on the sales draft.

• There are account range tables for up to 9 card types.

• There are two separate hosts with individual merchant IDs and phone numbers.

- You can download the application via the keyboard, terminal-to-terminal, or using ZONTALK.

Terminal Transactions Summary

Key No.	Key Name	Explanation
1	SALE	Standard credit card purchase.
2	RETURN	Credits an amount to a customer's account.
3	AUTH ONLY	Obtains authorizations only (no capture).
4	VOID	Voids a previous transaction.
5	TKT ONLY	Electronically captures transactions previously authorized over the telephone.
6	INQUIRY	Displays current batch balance or previous day's deposit.
7	FREE KEY	Use for any customized transaction or function.
8	CHECK	Check Guarantee Service.
9	CLOSE	Close the current batch with the host.

Local or Terminal Functions Summary

Key Sequence	Explanation
BLUE KEY + 1	Item Review
BLUE KEY + 2	Terminal totals
BLUE KEY + 3	Time
BLUE KEY + 4 + (code)	Set-Up functions Code 1 - Host information Code 2 - Card range information Code 3 - Set security flags Code 4 - Update manager password Code 5 - Application options Code 6 - Check guarantee service
BLUE KEY + 5 + option	Print 1 = Detail items 2 = Terminal totals 3 = Reprint last receipt

3. The XL Terminal

The XL is a transaction device, ideal for point-of-sale applications. Its unique design and flexibility allow it to adapt to meet the needs of the dynamic financial/POS industries.

We are confident that you will feel comfortable with your XL terminal. This section will explain how to unpack and install your XL and verify that it is working properly.
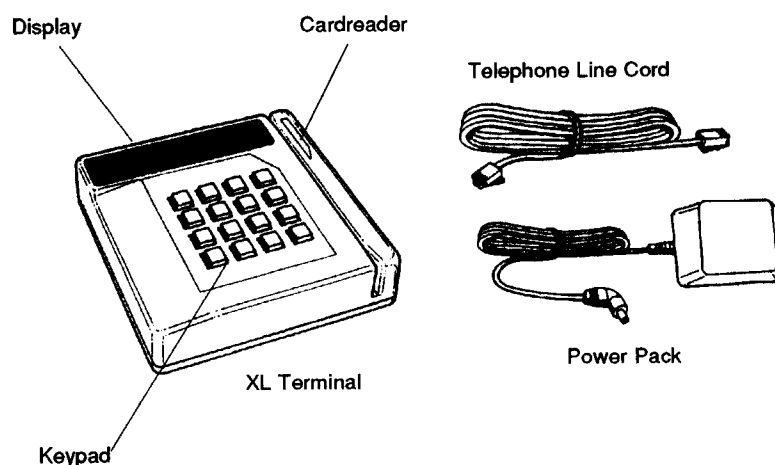
Figure 3-1. XL Terminal

Unpacking Your XL Terminal

Carefully inspect the shipping carton and its contents for damage that occurred during shipping. If the terminal is damaged, immediately file a claim with the shipping company or carrier and notify VeriFone, Inc. Do not use the damaged terminal.

To unpack the XL terminal:

1. With the shipping carton right side up, open the carton's lid and remove the top protective foam piece.

2. Lift the XL terminal, its power transformer and line cord with modular plugs up and out of the box.

3. Place the top protective foam piece back into the shipping carton and close the lid. Save the shipping materials for repacking the XL when moving or shipping it.

4. Remove the protective plastic wrapping from the terminal's display and place the XL on a desk or table top. When choosing a place for your XL terminal, avoid areas with:

- direct sunlight or objects that radiate heat,

- excessive dust,

- electrical "noise" or devices that cause excessive voltage variations such as air conditioners, fans, or high-frequency security devices.

Installing the XL Terminal

Installing the XL terminal is simple and requires no tools.

1. Connect the power transformer's circular connector to the power plug at the rear of the XL terminal.

2. Plug the power transformer's AC connector into a 120 VAC Ground-protected wall outlet.

Power Pin

Connect Power Pack to indoor 120 VAC outlet only
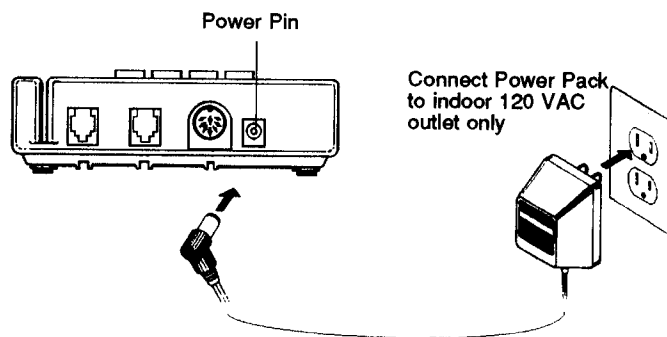
Figure 3-2. Power Transformer Connection

3. Connect one end of the telco cord to one of the modular jacks at the rear of the terminal. Connect the telco cord's other end to a telephone modular wall jack. As figure 3-3 illustrates, either directly insert the modular plug into the wall jack, or use a 4-prong adapter for 4-prong receptacles.

Note: You may connect a standard telephone or handset to the other modular jack at the rear of the terminal.

4. If your system uses the Printer 150 or the Printer 250, see appendices A and B for installation instructions, operational procedures, and sample printed receipts.

5. Upon receiving power the terminal will display "FXERxxx", or "FXFRxxx" the software application version for roll printer applications, or "FXESBxx" or "FXESPxx" for slip printer applications.
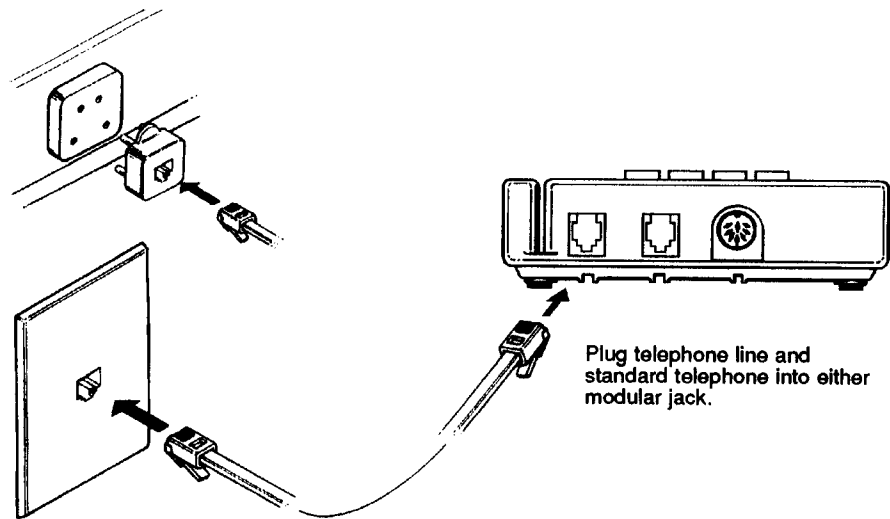
Figure 3-3. Modular Jack and 4-Prong Adapter

XL Hardware Features

Hardware features of the terminal include:

• the display panel,

• the cardreader, and

• the keypad.

The Display Panel

Each XL terminal has a built-in display panel capable of displaying up to 16 fully-formed alpha and numeric characters at a time. The bright fluorescent characters and plastic screen enhance readability while reducing glare. As figure 3-4 illustrates, the 16-character display easily accommodates most system prompts. The XL terminal also supports a scrolling feature that allows you to read prompts or messages longer than 16 characters.

Figure 3-4. Display

The Cardreader

VeriFone equips the XL terminal with an ABA (American Bankers Association) track 2 magnetic cardreader, enabling the XL terminal to read the magnetic stripe on all major credit and bank cards. The cardreader (see figure 3-5) reads a card's magnetic stripe which contains magnetically stored information.

Note: When sliding the card, face the magnetic stripe away from the keypad.
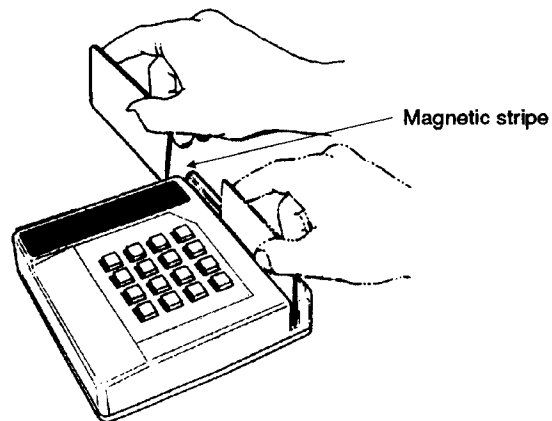
Figure 3-5. Cardreader

The Keypad You communicate with the XL terminal and initiate specific transactions via the terminal's keypad (figure 3-6).   The keypad allows you to select a specific type of transaction, enter data required for the transaction or enter data required to reprogram the terminal.
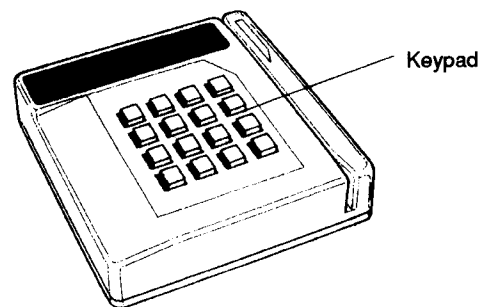
Figure 3-6. Keypad
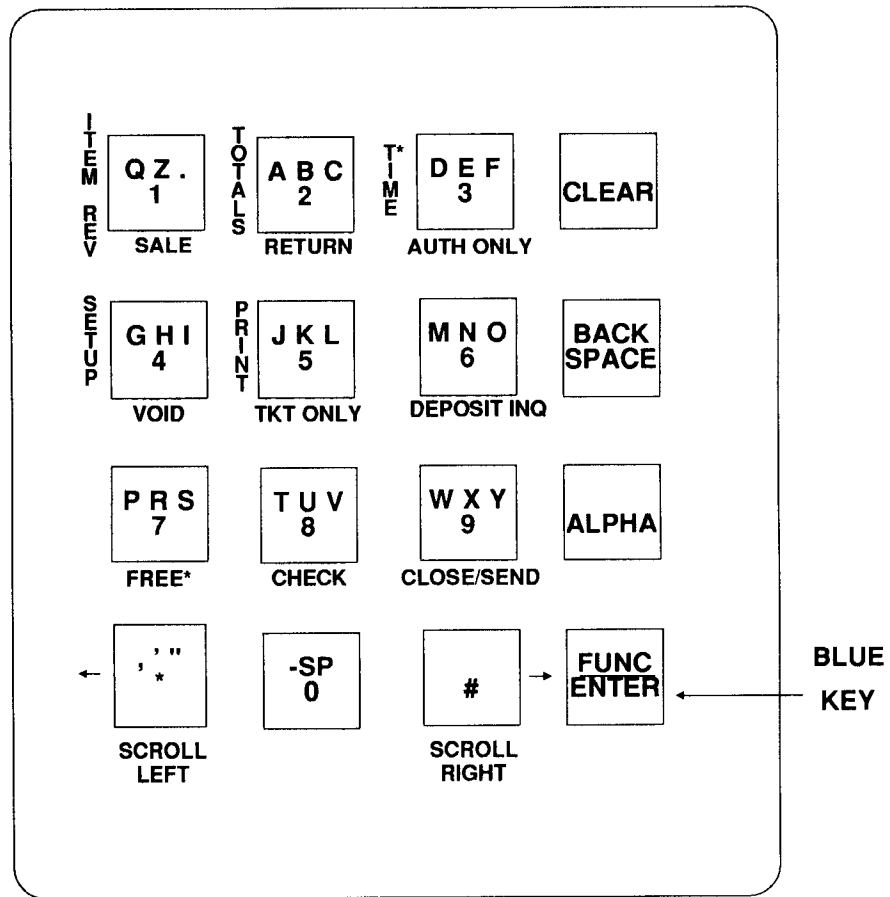
Figure 3-7. FDR XL Terminal Keyboard Layout

This is the FDR overlay for your XL terminal functions, VeriFone part number 00222-86. Please contact your VeriFone sales representative for ordering information.

Note: Key labels marked with an asterisk (*) will not be printed on the overlay.

Maintenance   Caution: To avoid electrical shock and possible damage to the XL terminal,
                         do not allow liquids to enter the terminal's case.

                         Your XL system does not require preventive maintenance. However,
                         VeriFone does recommend periodically cleaning the keypad using a soft
                         paint brush to remove dust.

Service Warranty   VeriFone provides both warranty and non-warranty XL terminal services.
                         Refer to your sales or purchase agreement for specific details on your
                         coverage.

Troubleshooting the   The XL Terminal Troubleshooting Guide lists several common problems and
XL Terminal   the recommended corrective action. If a problem persists, contact your help
                         desk, or call the VeriFone Customer Support Hotline at 1-800-654-1674.

XL Terminal Troubleshooting Guide

Problem	Corrective Action
XL doesn't display the "READY" prompt or any other prompt.	Verify that the power cord plugs into a working, ground protected outlet.If no response is received, unplug the XL terminal's power cord and plug another appliance into the outlet. If the second appliance doesn't work, the power outlet is faulty. If the appliance works, go to the next step.
	Verify that the power cord plugs firmly into the socket at the rear of the terminal.Connect the power cord from another XL to the suspect terminal; if the terminal works, your original power cord and power pack are faulty.
XL unable to complete a transaction. Instead display reads "DIALING," "REDIALING," or "NO COMM W/HOST."	Call the host computer telephone number using a standard telephone. Listen for the modem tone; you should hear it within three seconds of connecting. If you do not hear the tone, or if a person answers, if you get a constant busy signal or if there is no answer, you may have an invalid phone number. Check the host phone numbers
	Call your host computer representative to see if there is a problem with the host. Ensure you have the correct dial type. Check memory location 010; you should have a "0" for tone or a "1" for pulse dialing.

XL Terminal
Specifications

Keypad

16 key alphanumeric keypad
Audio feedback tone (short tone for legal key entry,
longer tone for illegal key entry)

Display

16 character, fully-formed alpha and numeric display
Bright fluorescent
Single key scrolling capability

Communications

Transmits asynchronous, full duplex--internal Bell 103 modem
300 bps on dial operation
Bell (US) modem operation
Allows expansion of transmit and receive buffers as required

Cardreader

Reads American Banking Association standard Track 2 encoded data
Displays magnetic stripe data if desired

Dimensions and Weight

Height: 1.5 in (38.1 mm)
Width: 5.5 in (139.70 mm)
Depth: 6.0 in (152.40 mm)
Shipping Weight: 2.2 lbs (1.0 kg)

4. General Programming

The XL terminal will allow you to:

- review a field,
- move to another field,
- change it if necessary,
- display your new programmed data.

Entering the General Programming Mode

To enter the general programming mode, press BLUE + 7. You will see the prompt:

RECALL WHAT?

Review a Field

Enter the field number you wish to review. For example, enter 100 to see the FDR primary host phone number

100 = 18002289074

To review the contents of another specific field, enter the memory location number.

To quickly move to adjacent fields, press [ENTER] to go to the next field or press [ALPHA] to go back to the previous field.

Change a field

To program or change a field, press BLUE + 7.

Display	Response
RECALL WHAT?	100
100=18002289074	Press [BACKSPACE].
ENTER PASSWORD*	Enter the programming password, then press [ENTER]. *Note: the programming password for the XL is "166831".*
100=	Key in new data, then press [ENTER].

*Perform this step only once. The terminal will remain unlocked until you initiate a transaction or remove the power cord from the terminal.

Note: FDR software has been designed with 6 unique Set-Up functions: BLUE + 4 + codes 1 through 6 to allow you to easily enter FDR host telephone numbers, printer information, etc. You should always use the Set-Up function to enter data in these fields. Use this alternate programming procedure only for entering data in other unique fields such as fraud control, setting the calendar clock, etc.

Entering Alphabetic Characters

Twelve of the sixteen keys on the XL can be used to enter alphanumeric characters. These characters are the letters A through Z, the numerals 0 through 9, and the following special characters: * , ' " - . # : : @ and [space].

Press the key containing the desired character, then press [ALPHA] as many times as required to display the correct character.

Note: The terminal must be in a mode that allows data entry, such as the STORE or RECALL modes, before information can be entered from the keypad. Transaction codes which require entry of alpha characters are an exception to this rule.

The following examples demonstrate how the characters 2, A, B, and C are entered using the [2] key and the [ALPHA] key.

Desired Character	Keys to Press
2	Press the [2] key
A	Press the [2] key Press the [ALPHA] key once
B	Press the [2] key Press the [ALPHA] key twice.
C	Press the [2] key. Press the [ALPHA] key three times.

Setting the Calendar/Clock

You can set the calendar/clock after you unpackage your new XL terminal. The calendar/clock will not copy when you perform a terminal-to-terminal application download.

To set the clock, simultaneously press the [*] and [3] keys. The display will show:

Display	Response
DIAGNOSTICS	Press the [ALPHA] key.
RTC CHIP TEST	Respond to each prompt that follows.
DAY OF WEEK =	Enter a number that represents the day of the week, then press [ENTER]. Sunday = 7 Monday = 1 Tuesday = 2
YEAR = 19	Enter the 2 digits (90, 91, etc.), then press [ENTER].

Display	Response
MONTH =	Enter a number 1 - 12 that represents the month, then press [ENTER]. January = 1, February = 2, March = 3
DATE =	Enter the day of the month, then press [ENTER]. You can enter "2" or "02" for February 2nd.
HOUR =	Enter the hour of the day using a 12-hour clock,, then press [ENTER]. For example, enter "3" for 3 A.M. or P.M.
AM = 0 PM = 1	Enter "0" or "1", then press [ENTER].
MINUTES =	Enter the minutes past the hour (1 - 59), then press [ENTER].
SECONDS =	Enter the seconds past the minute (1 - 59), then press [ENTER]. You may bypass this prompt and press the [ENTER] key.

Note: If you press the [CLEAR] key at any time before you complete this function, the terminal will not accept any of the data you entered and will default to a "zero out" date and time.

"Emptying" a Field

You can easily delete data previously entered in a field in the FDR terminal.

1. Press [CLEAR], [BLUE] and [7].

2. Key in the field you wish to delete. The terminal will display the contents already stored in that field.

3. Press [BACKSPACE].

4. Key in "166831" and press [ENTER].

5. Press [ENTER] again.

6. The terminal will display that field again as <EMPTY>.

Copying or Downloading from One Terminal to Another

You can quickly copy or "download" an application from one terminal to another, using the proper download cable.

This method is much faster than downloads performed over the telephone line.

1. Plug both terminals into a 120 VAC power outlet.

2. Connect the copying cable to the round 8-pin connector on the backs of both terminals. This is the same connector used for the printer.

3. Press [BLUE] + [*] on the Master (sending terminal). The display will show:

UNIT SEND

4. Press [BLUE] + [#] on the Slave (receiving terminal). The display will show:

   UNIT RECEIVE

   Note: Steps 3 and 4 can be done in either order.

5. If the transfer is OK, the terminals will display "UNIT SENDING" and "UNIT RECEIVING".

6. Wait one and-a-half minutes and DO NOT TOUCH ANY KEY.

7. When copying is completed, both displays will read "SUCCESSFUL".

Check Authorization Programming

FDR software features a check guarantee/authorization service using TeleCheck, Telecredit, JBS, or World Check. You can select the particular check authorization service you wish to use in Expanded Setup.

If you want to program your XL terminal to suit a particular merchant's check guarantee program, enter the following control strings in field 807 for an alternate check authorization service.

Telecredit:	QR'11'RF5K.24F8K.2F9K2.6F3K4
J B S:	QF5EF3K4
TeleCheck/ Real Share:	QP370E1R28F3K4
World Check:	QR'62'RF5K.24F8K.2P360K2F3K4
Crosscheck:	QR'22'RF8K1.2F5K.25F9K2.6F3K4

Fraud Control Programming

You can help control credit card fraud at the merchant location several ways using an FDR terminal.

- Require the clerk to key in the last four digits of the embossed card number after sliding the card through the cardreader. The terminal compares data read off the card's magnetic stripe with data entered on the keypad.

- Check the contents of the card's magnetic stripe on the terminal display after sliding it through the card reader.

- Program your terminal for both features.

Program field X06 for each card key you want to have these features, where X = key number.

For example, if you want FRAUD CONTROL on your Sale and Check keys, program fields 106 and 806 (keys 1 and 8).

Field	Entry
X06 (X = key number)	Enter 0, 1, 2, or 3, then press [ENTER]. 0 = None 1 = Enter last 4 digits 2 = display mag stripe 3 = options 1 and 2

**Eliminating
"PROGRAMING
ERR Ø"**

If your XL terminal displays a "PROGRAMING ERR Ø" message, you have two options to attempt recovery:

1. Press the [3] and [5] keys simultaneously. The terminal will re-calculate the check sum digit that may be the cause of the "PROGRAMING ERROR". You will not have to re-load the application.

2. Press the [1] and BLUE Enter keys simultaneously until the calendar/clock re-appears on the display. Your terminal must now be "re-loaded" with software.

5. Programming the FDR XL Terminal for Use

Check memory location 019 to ensure your terminal is loaded with the correct software version before you begin programming. Press BLUE + 7 + 019. The terminal should display "019 = FXxxxxx", the current application version. If memory location 019 contains data other than this, please contact your VeriFone representative.

To prepare your terminal for use, you must enter the Set Up function key sequence (BLUE + 4) and these codes for the selected Set Up.

1 = Host Information   4 = Update manager password
2 = Card Ranges   5 = Application options
3 = Security flags   6 = Check guarantee service

Host Information

Use this function to store FDR telephone numbers, terminal IDs, check guarantee phone numbers, and other required FDR electronic data capture information. To enter the Set-Up mode:

1. Press BLUE + 4.
2. Key in the manager password.
3. Press the BLUE enter key.
4. Press Code 1.

Display	Response
HOST #1 1-PRIMARY PHONE? 2-SECOND PHONE? 1-MERCH ID?	FDR Host #1 primary and secondary phone numbers and merchant ID number. If you need to dial "9" first, then pause, enter "9-XXXXXXX". Each "-" causes a 2-second delay in dialing.
	If this is an FDR "public port" number, you must add "LØ" at the end of the telephone number. For example, if the local "public port" number is 123-4567, you must key in "1234567LØ".
	Note: The "Ø" after the "L" in the above example is the numeric digit zero.
HOST #2 2-PRIMARY PHONE? 2-SECOND PHONE? 2-MERCH ID?	Host 2 primary and secondary telephone numbers and merchant ID.

Account Range Tables (Code 2)

Use this function to program the card types your terminal will accept. To enter the Account Range Set-Up mode:

1. Press BLUE + 4.
2. Key in the manager password.
3. Press the BLUE enter key.
4. Press code 2.

Display	Response
CARD RANGE INFO ACCT RANGE ITEM?	Enter a digit 1 - 9, then press [ENTER].
	The number you enter here determines the field between 043 and 051 in which the card range will be stored. If you enter "1", the entire account range will be stored in field 043.
n-LOW?	Enter the low range of the credit card account number, then press [ENTER]. For example, the low VISA range is 4000.
n-HIGH?	Enter the high range of the credit card account number, then press [ENTER]. For example, the high VISA range is 4999.
n-HOST #?	Enter the host # (1 or 2), then press [ENTER].
n-CARD TYPE?	Enter the card type (1 - 6), then press [ENTER]. For example: 1 = VISA or MasterCard 2 = American Express or Diner's Club 3 = Discover 4 = FDR etc.
n-CARD ABBREV?	Enter the card abbreviation, a maximum of 3 characters, then press [ENTER]. VIS = VISA, MC = MasterCard etc.
	Enter information at each of the following prompts pressing [9] or [6] to enter "Y" or "N".
n-RECEIPT? Y/N	Select "Y" for printed receipts of this card's transactions, or "N" for no receipts.
n-DESC CODES?Y/N	Select "Y" if you wish to be prompted for entry of descriptor codes for this card type, or "N" for no prompting. If you select "Y", continue with the next prompt "NEW CODES?".

Display	Response
NEW CODES? Y/N	Select "Y" if you wish to enter new descriptior codes. *Note: This prompt only appears if valid codes currently exist.*
n-VALID CODES?	Enter up to ten 2-digit codes.
n-INVOICE #? Y/N	Select "Y" if you wish to be prompted for entry of the invoice number for this card type, or "N" for no prompting.

Example   Following is a sample VISA account range with descriptor code, receipt and invoice number turned on.
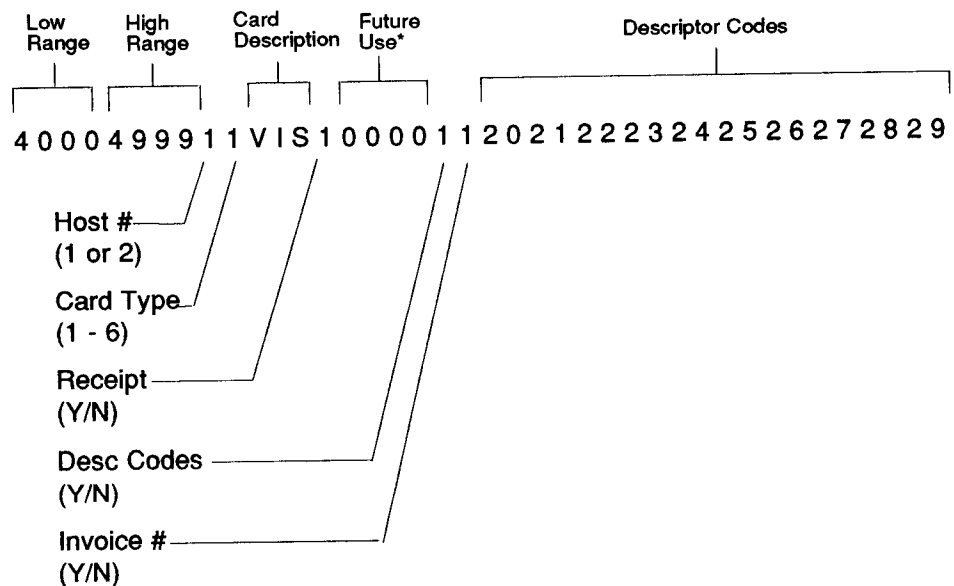
This field is reserved for future use and is not currently used. During account range setup, the field will be automatically filled with zeros. When building ZONTALK files, you must enter the zeros via the PC keyboard.

These are the default account range entries:

Acct Range #1 (043)=4000499911VIS1000000
Acct Range #2 (044)=5000599911MC 1000000
Acct Range #3 (045)=3400379912AMX1000000
Acct Range #4 (046)=3000389912DC 1000000
Acct Range #5 (047)=6011601113DIS1000000
Acct Range #6 (048)=0000099914FDR1000000
Acct Range #7 (049)=<empty>
Acct Range #8 (050)=<empty>
Acct Range #9 (051)=<empty>

Security Setup (Code 3)

Use this function to set password protection for each individual terminal transaction or function. To enter the security setup mode:

1. Press BLUE + 4.
2. Key in the manager password.
3. Press the BLUE enter key.
4. Press code 3.

Display	Response
SECURITY SET VOID? Y/N SET RETURN? Y/N SET ITM REV? Y/N SET TOT REV? Y/N SET CLOSE? Y/N SET INQ? Y/N SET MAN CLR? Y/N SET SETUP? Y/N SET SALE? Y/N SET AUTH? Y/N SET PRINT? Y/N SET TICKET? Y/N	Enter [9] for "Y" to set password protection for a transaction, or [6] for "N" if you do not wish to password protect the transaction.

Set Password (Code 4)

Use this function to update the terminal password. To enter the "Set Password" mode:

1. Press BLUE + 4.
2. Key in the manager password.
3. Press the BLUE enter key.
4. Press code 4.

Display	Response
UPDATE PASSWD ENTER NEW PASSWD VERIFY NEW PASSW	Enter the new manager password. Enter the password a second time to verify. If both entries match, the terminal displays "PASSWORD UPDATED" and returns to the "ENTER SETUP CODE" prompt.

**Options Setup
(Code 5)**

Use this function to set terminal options. To enter the options mode:

1. Press BLUE + 4.
2. Key in the manager password.
3. Press the BLUE enter key.
4. Press code 5.

Display	Response
OPTIONS	Press [9] for "Y" or [6] for "N" for each option selection.
TMNL IDENTIFIER?	Enter the terminal ID if one exists, then press [ENTER], or press [ENTER] to bypass this prompt.
TOTS OPTION? Y/N	Select "Y" if you wish the terminal to automatically insert the total amount when closing a batch, or "N" for manual entry.
BATCH# OPTN? Y/N	Select "Y" for a terminal prompt for entry of a batch number, or "N" for no prompt.
AUTH CODE? Y/N	Select "Y" for a terminal prompt for entry of the authorization code, or "N" for no prompt on Ticket Only transactions.

**Check Setup
(Code 6)**

Use this function to select JBS or Telecheck check guarantee service. To enter the check setup mode:

1. Press BLUE + 4.
2. Key in the manager password.
3. Press the BLUE enter key.
4. Press code 6.

Display	Response
CHECK SELECTION TELECHECK? Y/N JBS? Y/N PRIMARY PHONE? SECOND PHONE? MERCH ID?	Enter the appropriate check guarantee data at each prompt. You cannot scroll past a prompt; you must enter either a "Y" or "N" response.

**Memory Map of
Important Locations**

You can review your programming of an FDR XL terminal by pressing BLUE + 7. See Section 4. General Programming for procedures to follow if you wish to review or change selected fields. Refer to Appendix D. ZONTALK Download Parameters, for specific download information pertaining to your terminal application.

6. Retail Transactions

Retail transactions are common, unprotected transactions that all personnel can perform. These transactions include sale and check authorization, return/credit, void, ticket only, and deposit inquiry. In this mode, the operator can also send a close batch request to the host computer.

At the idle prompt, "nn" indicates spaces left for storage of data capture transactions. For example, READY **3** indicates there is space to store 3 more transactions in the current batch. When the file is full, the idle display will show "BUFFER FULL" and no further transactions will be stored until you close the batch and clear the file from the terminal.

Sale Authorization

This transaction is the normal procedure used to authorize a credit card sale. A credit card sale transaction must be done on all credit card purchases.

Display	Response
1. READY **nn** SALE	Press [SALE] or slide the card through the card reader.The terminal will display the type of transaction.
2. ENTER PASSWORD ******	Enter the manager password if required. The terminal will echo each keypress with an asterisk. Press [ENTER].
3. ENTER ACCOUNT #	Enter the account number via the keypad or slide the card through the cardreader. If entry is made via the cardreader, go to step 5.
4. EXPIRY DATE MMYY PROCESSING ...	Enter the card's expiration date using one or two digits for the month and two digits for the year, then press [ENTER].
5. AMOUNT OF SALE ?	Enter the total amount of the sale without the decimal. Press [ENTER]. *Note: Depending upon settings of the descriptor code and invoice number flags, you may have to complete steps 6 and 7 or continue with step 8.*
6. ENTER DESC CODE nn nn nn nn	Enter the descriptor code, then press [ENTER]. You may enter up to 4 descriptor codes, then press [ENTER] to complete the step. The display will show all descriptor codes entered.

Display	Response
	Note: This prompt will not appear if only 1 descriptor code was entered in the account range table.
7. ENTER INVOICE #	Enter the invoice number up to 8 digits. Press [ENTER].
8. DIALING . . . CONNECTED . . . TRANSMITTING . RECEIVING . . .	WAIT - the terminal is communicating with the host computer.
9. <host message>	Use the [*] and [#] keys to scroll the approval number that appears on the display. If the transaction is disapproved, you should take necessary action. If attached, and the auto-print flag is set to ON, the printer prints a receipt of the transaction. Press [CLEAR] to return to the idle prompt.
10. READY **nn**	The terminal returns to the idle prompt indicating it is ready to proceed with the next transaction.

Return   Follow these procedures to authorize a return/credit.

Display	Response
1. READY **nn** RETURN	Press the [2] key labeled RETURN. The terminal pauses and displays the type of transaction.
2. ENTER PASSWORD ******	Enter the manager password if required. The terminal will echo each keypress with an asterisk. Press [ENTER].
3. ENTER ACCOUNT #	Enter the account number via the keypad or slide the card through the cardreader, then press [ENTER]. If entry is made via the cardreader, continue with step 5.
4. EXPIRY DATE MMYY PROCESSING ...	Enter the card's expiration date using one or two digits for the month and two digits for the year, then press [ENTER].
5. AMOUNT OF SALE ?	Enter the dollar amount of the sale without the decimal, then press [ENTER].

Display	Response
	Note: Depending upon the settings of the descriptor code and invoice number flags, you may have to complete steps 6 and 7 or continue with step 8
6. ENTER DESC CODE nn nn nn nn	Press the descriptor code, followed by [ENTER]. You may enter up to 4 descriptor codes, then press [ENTER] to complete the step. The display will show all description codes entered. *Note: This prompt will not appear if only 1 descriptor code was entered in the account range table.*
7. ENTER INVOICE #	Enter the invoice number up to 8 digits, then press [ENTER].
8. DIALING . . . CONNECTED . . . TRANSMITTING . RECEIVING . . .	WAIT - the terminal is communicating with the host computer.
9. < response>	Use [*] and [#] to scroll the approval number that appears on the display. If the transaction is disapproved, you should take necessary action. If attached and the auto-print flag is set to ON, the printer prints a receipt of the transaction. Press [CLEAR] to return to the idle prompt.
10. READY **nn**	The terminal returns to the idle prompt indicating it is ready to proceed with the next transaction.

Authorization Only

Follow these procedures to authorize a transaction without ticket data capture.

Display	Response
1. READY **nn** AUTH ONLY	Press the [3] key labeled AUTH ONLY.
2. ENTER PASSWORD ******	Enter the manager password if required. The terminal will echo each keypress with an asterisk. Press [ENTER].
3. ENTER ACCOUNT #	Enter the account number via the keypad or slide the card through the cardreader, then press [ENTER]. If entry is made via the cardreader, continue with step 5.

Display	Response
4. EXPIRY DATE MMYY	Enter the card's expiration date using one or two digits for the month and two digits for the year, then press [ENTER].
PROCESSING . . .	
5. AMOUNT OF SALE ?	Enter the dollar amount of the sale without the decimal, then press [ENTER].
6. DIALING . . . CONNECTED . . . TRANSMITTING . RECEIVING . . .	WAIT - the terminal is communicating with the host computer.
7. <response>	Use the [*] and [#] keys to scroll the approval number that appears on the display. If the transaction is disapproved, you should take necessary action.
	If attached and the auto-print flag is set to ON, the printer prints a receipt of the transaction.
	Press [CLEAR] to return to the idle prompt.
8. READY **nn**	The terminal returns to the idle prompt indicating it is ready for the next transaction.

Void Follow these procedures to void a transaction completed earlier in the batch.

Display	Response
1. READY **nn** VOID	Press the [4] key labeled VOID.
2. ENTER PASSWORD ******	Enter the manager password if required. The terminal will echo each keypress with an asterisk. Press [ENTER].
3. ENTER ITEM #	Press [ENTER] to display the last transaction, or enter the item number of the transaction you wish to void, then press [ENTER].
4. 03 $12345.00S 022009001777787 AUTH/TKT 123456	Press [*] or [#] to scroll the display. Press [ENTER] to continue or [CLEAR] to end the transaction.
5. VOID-PRESS ENTER	Press [ENTER] to void or [CLEAR] to end.
PROCESSING . . .	
6. DIALING . . . CONNECTED . . . TRANSMITTING . RECEIVING . . .	WAIT - the terminal is communicating with the host computer.

Display	Response
7. <response>	Use [*] and [#] to scroll the approval number on the display. If the transaction is disapproved, you should take necessary action. If attached and the auto-print flag is set to ON, the printer prints a receipt of the transaction. Press [CLEAR] to return to the the idle prompt.
8. READY **nn**	The terminal returns to the idle prompt indicating it is ready for the next transaction.

Ticket Only

Follow these procedures when processing an Electronic Ticket Capture (ETC) item only.

Display	Response
1. READY **nn** TKT ONLY	Press the [5] key, labeled TKT ONLY.
2. ENTER PASSWORD ******	Enter the manager password. The terminal will echo each keypress with an asterisk. Press [ENTER].
3. ENTER ACCOUNT #	Slide the card through the cardreader or enter the account number on the keyboard, then press [ENTER]. If entry is made via the cardreader, go to step 5.
4. EXPIRY DATE MMYY PROCESSING . . .	Enter the card's expiration date using one or two digits for the month and two digits for the year, then press [ENTER].
5. AMOUNT OF SALE ?	Enter the dollar amount without the decimal, then press [ENTER]. *Note: Depending upon the settings of the descriptor code and invoice number flags, you may have to complete steps 6 and 7 or continue with step 8.*
6. ENTER DESC CODE nn nn nn nn	Enter the descriptor code, followed by [ENTER]. You may enter up to 4 descriptor codes, then press [ENTER] to complete this step. The display will show all descriptor codes entered. *Note: This prompt will not appear if only 1 descriptor code was entered in the account range table.*

Display	Response
7. ENTER INVOICE #	Enter the invoice number up to 8 digits, then press [ENTER].
8. DIALING . . . CONNECTED . . . TRANSMITTING . RECEIVING . . .	WAIT - the terminal is communicating with the host computer.
9. <response>	Use [*] and [#] to scroll the approval number that appears on the display. If the transaction is disapproved, you should take necessary action.
	If attached and the auto-print flag is set to ON, the printer prints a receipt of the transaction. Press [CLEAR] to return to the idle prompt.
10. READY **nn**	The terminal returns to the idle prompt indicating it is ready to proceed with the next transaction.

Inquiry   Follow these procedures to check today's batch balance or the previous business day's deposits.

Display	Response
1. READY **nn** INQUIRY	Press the [6] key labeled DEPOSIT INQ.
2. ENTER PASSWORD ******	Enter the manager password. The terminal will echo each keypress with an asterisk. Press [ENTER].
2. DEP=1 BAL=0	Press "1" for a deposit inquiry or "0" for a balance inquiry.
DEPOSIT INQ or BALANCE INQ	The terminal displays the selected inquiry type.
3. DIALING . . . CONNECTED . . . TRANSMITTING . RECEIVING . . .	WAIT - the terminal is communicating with the host computer.
4. <host response>	A dollar amount will be displayed on the terminal. Press [*] or [#] to scroll the display. Press [CLEAR] to return to the idle prompt.
5. READY **nn**	The terminal returns to the idle prompt indicating it is ready to proceed with the next transaction.

Free Key   Use the [7] key for a customized transaction or function. Refer to section 5. General Programming, to make the following entries:

Memory Location	Description
700	Primary Phone Number
701	Secondary Phone Number
704	Merchant ID
705	Message Format Flag
707	Control String

Telecheck Check Guarantee   Follow this procedure to obtain check approval using Telecheck authorization in a transaction where payment is being made by check.

Note: Use the SETUP function to select JBS or Telecheck format.

Display	Response
1. READY **nn** CHECK	Press the [8] key labeled CHECK.
2. ENTER TRAN CODE	Enter the 3-digit numeric transaction code.
3. ENTER ID NUMBER	Enter the ID number on the keyboard, then press [ENTER].
	Note: Do not use the cardreader. The host computer does not accept this data from a card swipe. The ID number must be manually entered.
4. ENTER STATE CODE	Enter the 2-digit state code.
5. AMOUNT OF SALE ?	Enter the dollar amount of the sale without the decimal, then press [ENTER].
6. DIALING . . . CONNECTED . . . TRANSMITTING . RECEIVING . . .	WAIT - the terminal is communicating with the host computer.
7. <host response>	Press [*] or [#] to scroll the display. Record approval number. Take necessary action if disapproved.
	Press [CLEAR] to return to the idle prompt.
8. READY **nn**	The terminal returns to the idle prompt indicating it is ready to proceed with the next transaction.

JBS
Check Guarantee

Follow this procedure to obtain check approval using JBS authorization in a transaction where payment is being made by check.

Note: Use the Setup Function to select JBS or Telecheck format.

Display	Response
1. READY **nn** CHECK	Press the [8] key labeled CHECK.
2. ENTER TRAN CODE	Enter the 3-digit numeric transaction code.
3. ENTER ID NUMBER	Enter the ID number on the keyboard, then press [ENTER].
	Note: Do not use the cardreader. The host computer does not accept this data from a card swipe. The ID number must be manually entered.
4. AMOUNT OF SALE ?	Enter the dollar amount of the sale without the decimal, then press [ENTER].
5. DIALING . . . CONNECTED . . . TRANSMITTING . RECEIVING . . .	WAIT - the terminal is communicating with the host computer.
6. < host response>	Press [*] or [#] to scroll the display. Record approval number and take necessary action if disapproved.
	Press [CLEAR] to return to the idle prompt.
7. READY **nn**	The terminal returns to the idle prompt indicating it is ready for the next transaction.

Close Batch   Follow this procedure to close a batch of transactions with the host. This will clear the batch from the terminal's memory and enable it to store future transactions.

Display	Response
1. READY **nn** CLOSE BATCH	Press the [9] key labeled CLOSE.
2. ENTER PASSWORD ******	Enter the manager password. The terminal will echo each keypress with an asterisk. Press [ENTER]. If the auto-insert totals and batch number flags are ON, continue with step 4.
3. ENTER AMOUNT	Enter the terminal total dollar amount without the decimal, then press [ENTER]. If the batch number flag is OFF, continue with step 5. *Note: If you enter an incorrect amount, the terminal displays "DOES NOT BALANCE". Press [CLEAR] to return to the idle prompt.*
4. ENTER BATCH #	Enter the batch number, then press [ENTER].
5. DIALING . . . CONNECTED . . . TRANSMITTING . RECEIVING . . .	The terminal is formally closing the batch with the host computer.
6. <host response>	The terminal clears the selected batch from memory. Press [CLEAR] to return to the idle prompt.
7. READY **nn**	The terminal returns to the idle prompt indicating it is ready to proceed with the next transaction.

7. Terminal Functions

Terminal functions include operations that do not require communication with a host. To use the terminal in the function mode, press the [FUNC/ENTER] blue key followed by the desired function key.

*Note: The **nn** indicates the number of spaces left for storage of data capture transactions. For example, READY **3** indicates that there is space for storage of 3 more transactions.*

Item Review   Use this function to review items stored in the terminal capture file.

Display	Response
1. READY **nn**	Press [FUNC] and the [1] key labeled ITEM REV.
2. ENTER PASSWORD ******	Enter the manager password. The terminal will echo each keypress with an asterisk. Press [ENTER].
3. ENTER CARD TYPE	Enter [1], [2] ... [6] for card type or press [ENTER] to review the beginning of the batch.
4. ENTER ITEM #	Enter the item number of the transaction to review or press [ENTER] to review the first item in the batch.
NOT FOUND	The terminal cannot find the item number. *Note: This prompt is a warning and may not be displayed. When it is displayed, press [CLEAR] to return to the idle prompt.*
5. 003 $12345.00 S 022009001777787 AUTH/TKT: 123456	Press [*] or [#] to scroll the display fields. The terminal displays transaction data in three display screens: 1) Item No., Amount, and Tran type 2) Account Number 3) Host Response Press [ENTER] to display the next stored transaction or press [CLEAR] to end. The terminal displays "END OF BATCH" after review of the last item in the batch.
6. READY **nn**	The terminal returns to the idle prompt indicating it is ready to proceed with the next transaction.

Totals Review

Follow this procedure to review terminal totals after closing.

Display	Response
1. READY **nn**	Press [FUNC] and [2].
2. ENTER PASSWORD ******	Enter the manager password. The terminal will echo each keypress with an asterisk. Press [ENTER].
3. ENTER CARD TYPE	Enter [1], [2] . . . [6], for card type or press [ENTER] to go to step 5.
4. n T 56 500.00 n S 53 575.00 n R 3 75.00 n VS 1 20.00 n VR 1 13.00	Press [*] or [#] to scroll the display. Press [ENTER] to review the next total or [CLEAR] to end. The terminal displays totals by card type in four display screens: 1) Card type, No. of Transactions, Amount 2) Card type, S, No. Sales, Amount 3) Card type, R, No. Returns, Amount 4) Card type, VS, No. Sale Voids, Amount 5) Card type, VR, No. Return Voids, Amount
5. TT 56 500.00	The terminal displays totals including number of transactions and total amount. Press [CLEAR] to return to the idle prompt.
6. READY **nn**	The terminal returns to the idle prompt indicating it is ready to proceed with the next transaction.

Time

Follow these steps to display the current time on your terminal.

Display	Response
1. READY **nn**	Press [FUNC] and [3].
ddd mm/dd hh:mm?	The terminal displays the time for 4 seconds, then returns to the idle prompt.
2. READY **nn**	The terminal is ready to proceed with the next transaction.

Print   Follow these procedures to print audit items or to re-print the last receipt.

Display	Response
1. READY **nn**	Press [FUNC] and [5].
2. ENTER PASSWORD ★★★★★	Enter the manager password. The terminal will echo each keypress with an asterisk. Press [ENTER].
3. PRINT OPTION ?	Enter the number that corresponds to the item you wish to print. 1 - detail batch report 2 - terminal totals report 3 - reprint last receipt If you select "1", continue with steps 4 and 5. If you select "2", continue with step 6. If you select "3", continue with step 7.
4. DETAIL ENTER CARD TYPE	Enter the card type, 1 through 6, or press [ENTER] to print details for all card types in the batch.
5. ENTER ITEM #	Enter the item number of the record from which to begin printing, or press [ENTER] to print details for all item numbers.
6. TOTALS	The printer prints terminal totals by card type; the terminal returns to the idle prompt.
7. RE-PRINT	The printer re-prints the last receipt. *Note: If a new transaction has been in-itiated, you will not be able to reprint the last receipt.*
PRINTING . . .	Wait - the printer is printing the selected report.
8. READY **nn**	The terminal returns to the idle prompt in-dicating it is ready to proceed with the next tranaction.

Manual Clear   The manual clear function clears the shadow file without communication with the host computer. This function should not be used unless you are specifically directed to manually clear the buffer.

Display	Response
1. READY **nn** MANUAL CLEAR?	Press [FUNC] and [9]. Press [ENTER] to clear the batch or [CLEAR] to end the function without clearing the batch. The terminal clears its transaction memory and returns to the idle state.
2. READY **nn**	The terminal is ready to proceed with the next transaction.

8. XL Accessories

VeriFone provides an assortment of accessories to enhance your XL terminal. In addition to the Printers 150 and 250, VeriFone also offers:
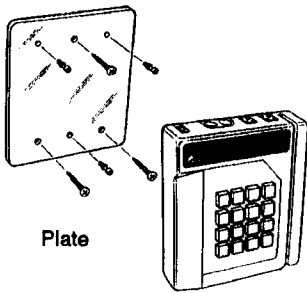
Plate

Wedge

- an extended 3-year warranty on all XL terminals,
- plastic key covers to protect keyboards from dust and spills,
- silk-screened custom key overlays that display your company's logo and other special key functions,
- an assortment of AC power packs for your "spares" inventory
- a variety of printer cables available in different lengths and colors for the XL and Printers 150 and 250,
- stackers that conveniently package your terminal and printer into one small footprint, providing more counter space,
- wedges for mounting your terminal to countertops or walls,
- plates for wall-mounting your terminal,
- telephone cords,
- duplex telephone adapters for connecting multiple telephone devices to a single jack,
- TranzFones that add an integrated cradle/handset telephone to your system. They include a built-in wedge and can be wall mounted.
- consumables such as paper and ribbons you can order by phone (800-233-0522) or FAX (714-434-2498).
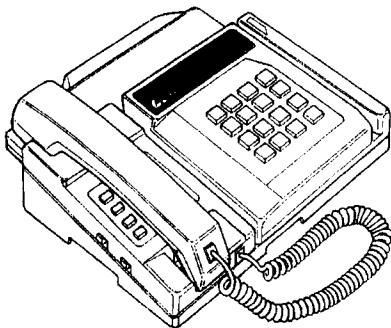
TranzFone
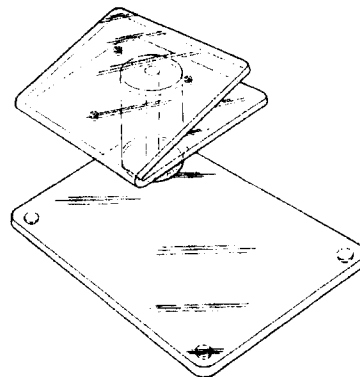
Stacker

Appendix A. Printer 150

Printer 150 Installation

The Printer 150 is a freestanding dot-matrix slip printer for VeriFone terminals or computers equipped with an RS232 serial port. The Printer 150 prints receipts and local reports on forms as thick as three-ply with up to 42 characters per line.
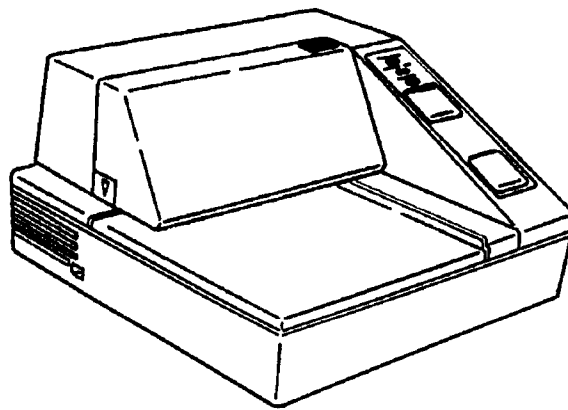
Figure A-1. Printer 150

Standard Model Printer 150

The standard model has two operating modes: the standard mode and the Printer 100 emulation mode. The Printer 100 emulation mode is for terminals with application programs written for use with the VeriFone Printer 100.

Unpacking the Printer 150

Carefully inspect the shipping carton and its contents for damage that occurred during shipping. If the printer is damaged, immediately file a claim with the shipping company or carrier and notify VeriFone, Inc. Do not use the damaged printer.

To unpack the Printer 150:

1. With the shipping carton right side up, open the carton's lid and remove its contents. You should have:

   • Printer 150,

   • power pack,

   • ribbon cassette,

   • AC power cord,

   • Rubber spacer (located under print head)

Rubber Spacer

Ribbon Cassette

Printer 150

Power Packs

Part Number
02396-01

Part Number
10890-01
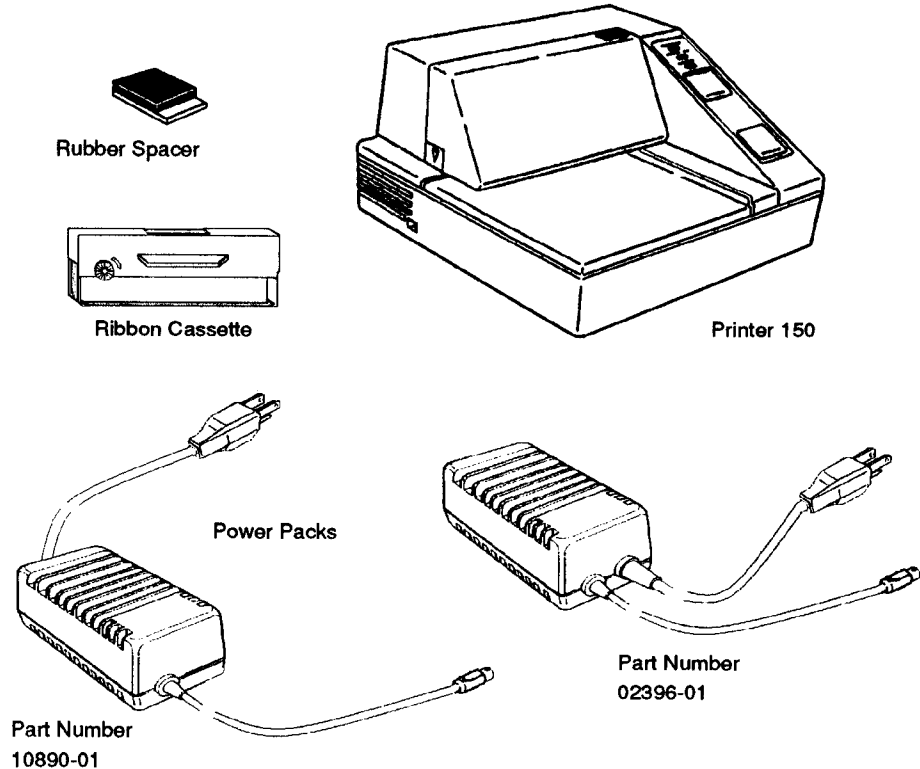
Figure A-2. Printer 150 Components

2. Place the Printer 150 on a solid desk or table top. When choosing a location for your printer, avoid areas with

    •   direct sunlight or objects that radiate heat,

    •   excessive moisture,

    •   excessive dust,

    •   devices that cause excessive voltage fluctuations or electrical noise such as air conditioners, fans, electric motors or high frequency security devices.

3. Remove the rubber spacer from under the print head.

CAUTION: The rubber spacer protects the print head during shipment and must be removed before operating the Printer 150.

Always wedge the rubber spacer securely under the print head overhang prior to storing or shipping the printer (see Figure A-3). Failure to do so may damage the printer and will invalidate your warranty.

Print Head Overhang

Important! Remove spacer before printing.

Always wedge the rubber spacer securely as shown prior to storing or shipping the printer.
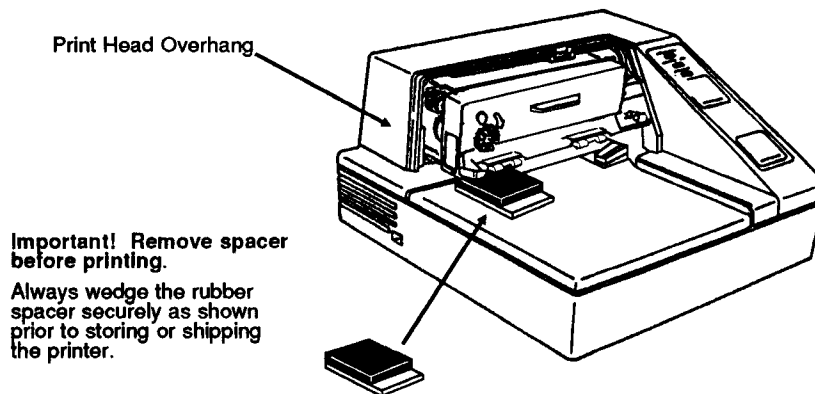
Figure A-3. Rubber Spacer Placement

Setting the DIP Switches

CAUTION: *Always disconnect the power before changing the DIP switch settings.*

A set of 10 DIP switches is located on the underside of the printer (figure A-3). Be sure to check the switch settings as indicated in this installation guide before connecting and operating the Printer 150.

Refer to the table below for Printer 100 emulation mode switch settings.
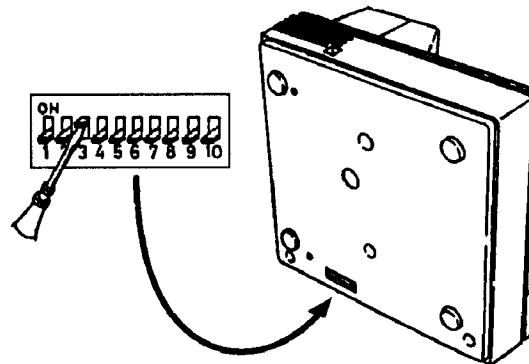
Figure A-4. Location of DIP Switches

Printer 100 Emulation Mode DIP Switch Settings

For ZON Jr XL terminals

Switch No.	1	2	3	4	5	6	7	8	9	10
Position	on	on	on	on	on	on	on	on	off	on

For all other terminals *(Note: Switch 6 is not used.)*

Switch No.	1	2	3	4	5	6	7	8	9	10
Position	on	on	on	off	off	--	on	on	off	on

Printer 150 Standard Mode DIP Switch Settings

Switches 1, 2, 3   Character Set

Country	Switch 1	Switch 2	Switch 3
United States	on	on	on
France	off	on	on
Germany	on	off	on
United Kingdom	off	off	on
Denmark	on	on	off
Sweden	off	on	off
Italy	on	off	off
Spain	off	off	off

Switch 4   **Word Length**

7 bit word	on
8 bit word	off

Switch 5   **Parity Check**

Enabled	on
Disabled	off

Switch 6   **Parity**

Even Parity	on
Odd Parity	off

Switches 7, 8, 9

Baud Rate	Switch 7	Switch 8	Switch 9
110	on	on	on
150	off	on	on
300	on	off	on
600	off	off	on
1200	on	on	off
2400	off	on	off
4800	on	off	off
9600	off	off	off

Switch 10   **Printer Mode**

P100 Emulation	on
Standard	off

Installing the Printer 150

CAUTION: Unplug the terminal's power pack before connecting the Printer 150.

Before installing the Printer 150, you must have the correct printer interface cable.

1. Connect the small plug from the printer power pack to the power connector on the rear of the Printer 150. Ensure that the flat surface is up (arrow facing forward), as shown in Figure A-5).

2. Plug the printer interface cable into the 8-pin mini-DIN connector on the rear of the printer.

3. Plug the other end of the cable into your terminal's RS232 port.

4. Plug the male AC power cord plug into an indoor, grounded 120 volt AC outlet and turn the power switch on. Verify that the green POWER indicator comes on. Do not install or operate the Printer 150 outdoors.

Note: If you are running the Printer 150 in the Printer 100 emulation mode, press the RESET button after you power up your terminal. This will help ensure correct operation with your terminal's application software.

Note: Figure A-5 depicts power pack with part number 02396-01. If power pack with part number 10890-01 is used, the power cord will appear from the opposite side of the power pack (as in Figure A-6); however, this does not effect the connections.

Figure A-5. Printer 150 Connections

Locating the Power Pack

To avoid damage to the printer power pack caused by the inadvertent spilling of liquids into the ventilation holes, the power pack can be mounted on the wall or underneath a counter (see Figure A-6).

Note: Power pack with part number 10890-01 cannot be mounted.

Figure A-6. Wall Mount Option

Replacing the Ribbon Cassette

1. Plug the Printer 150 in and turn the power supply on.

2. Press the RELEASE button on the front control panel to turn the RELEASE light on.

3. Remove the front cover by lightly pressing the top notches and pulling the cover towards the front.

4. Gently pull the ribbon cassette out of the printer.

IMPORTANT: The ribbon cassette cannot be removed unless the RELEASE light on the control panel is on (See Step 2).

5. Take a new ribbon cassette and turn the ribbon knob in the direction shown by the arrow to remove any slack.

6. Insert the new cassette, threading the ribbon under the print head and over the ribbon guides. Align the cassette mounting tabs with the holes in the mounting assembly. Gently push the cassette into place.

7. Insert the printer cover, upper side first, back onto the Printer 150. Push it forward until it clicks into place.

RELEASE Light

Ribbon Cassette

RELEASE Button

Turn clockwise to remove slack.
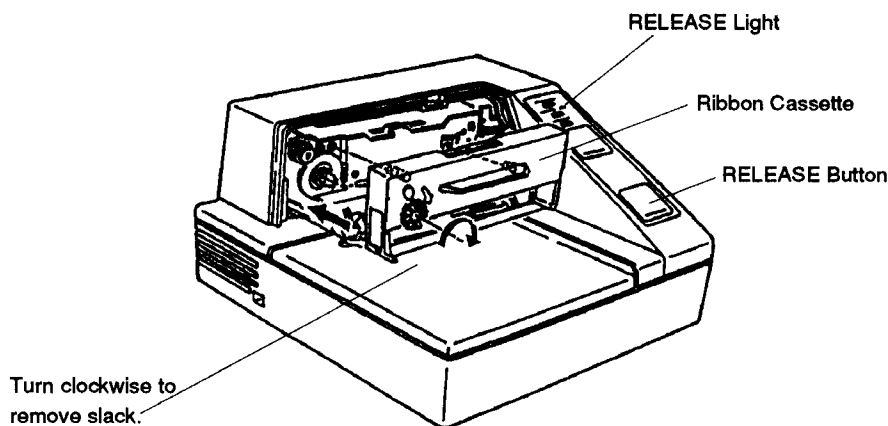
Figure A-7. Ribbon Cassette Replacement

Running the Print Test

1. Turn the power on and press the RELEASE button on the control panel to turn on the RELEASE light.

2. Slide a blank slip form from the left or front side of the printer. Slide the form towards the rear of the printer until it touches the form stop.

3. Unplug the power cord from the printer. Then, while holding down one of the two front panel buttons, plug the power cord back in. The printer will print a short test document.

Cleaning

CAUTION: Never use thinner, trichloroethylene, or ketone based solvents to clean the printer as they may deteriorate plastic parts.

1. Remove dirt with a clean, damp cloth and mild soap. Remove stubborn stains with alcohol or benzine.

2. If necessary use a small vacuum cleaner to remove paper particles and dust from the inside of the printer.

1. Connect the small plug from the printer power pack to the power connector on the rear of the Printer 150. Ensure that the flat surface is up (arrow facing forward), as shown in Figure A-5).

2. Plug the printer interface cable into the 8-pin mini-DIN connector on the rear of the printer.

3. Plug the other end of the cable into your terminal's RS232 port.

4. Plug the male AC power cord plug into an indoor, grounded 120 volt AC outlet and turn the power switch on. Verify that the green POWER indicator comes on. Do not install or operate the Printer 150 outdoors.

Note: If you are running the Printer 150 in the Printer 100 emulation mode, press the RESET button after you power up your terminal. This will help ensure correct operation with your terminal's application software.

Note: Figure A-5 depicts power pack with part number 02396-01. If power pack with part number 10890-01 is used, the power cord will appear from the opposite side of the power pack (as in Figure A-6); however, this does not effect the connections.
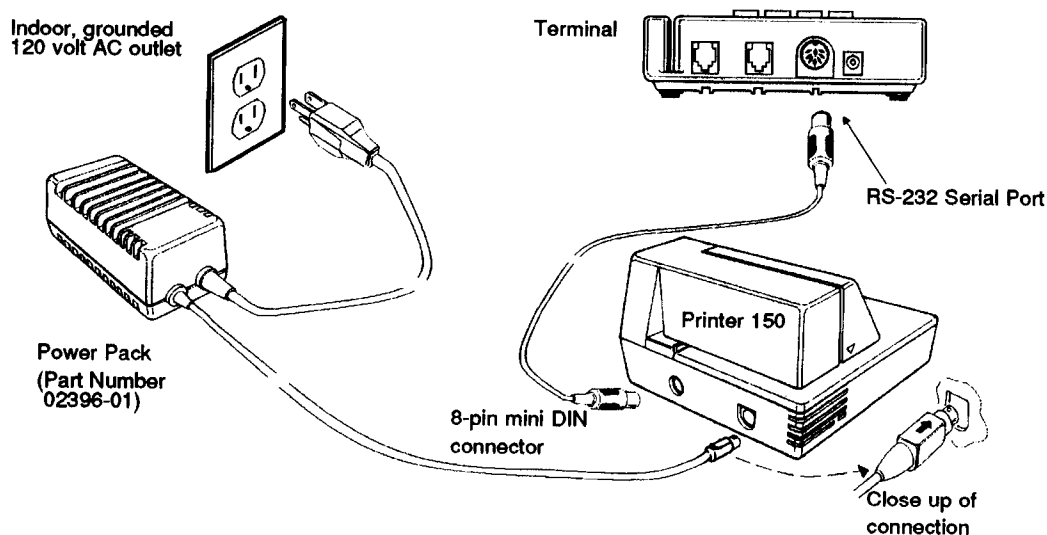

Figure A-5. Printer 150 Connections

Locating the Power Pack

To avoid damage to the printer power pack caused by the inadvertent spilling of liquids into the ventilation holes, the power pack can be mounted on the wall or underneath a counter (see Figure A-6).

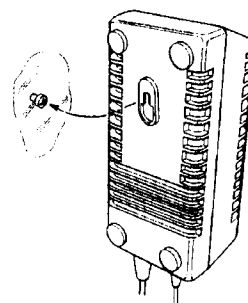*Note: Power pack with part number 10890-01 cannot be mounted.*

Figure A-6. Wall Mount Option

1. Connect the small plug from the printer power pack to the power connector on the rear of the Printer 150. Ensure that the flat surface is up (arrow facing forward), as shown in Figure A-5).

2. Plug the printer interface cable into the 8-pin mini-DIN connector on the rear of the printer.

3. Plug the other end of the cable into your terminal's RS232 port.

4. Plug the male AC power cord plug into an indoor, grounded 120 volt AC outlet and turn the power switch on. Verify that the green POWER indicator comes on. Do not install or operate the Printer 150 outdoors.

Note: If you are running the Printer 150 in the Printer 100 emulation mode, press the RESET button after you power up your terminal. This will help ensure correct operation with your terminal's application software.

Note: Figure A-5 depicts power pack with part number 02396-01. If power pack with part number 10890-01 is used, the power cord will appear from the opposite side of the power pack (as in Figure A-6); however, this does not effect the connections.

Figure A-5. Printer 150 Connections

Locating the Power Pack

To avoid damage to the printer power pack caused by the inadvertent spilling of liquids into the ventilation holes, the power pack can be mounted on the wall or underneath a counter (see Figure A-6).

Note: Power pack with part number 10890-01 cannot be mounted.

Figure A-6. Wall Mount Option

Printer 150 Specifications

Power requirements
Voltage: 110V to 120 volts AC 60 Hz
Power consumption: 5.5 Amps (peak)

Dimensions and weight
Height: 101.5 mm (4.0 in.)
Width: 180 mm (7.1 in.)
Depth: 190.5 mm (7.5 in)
Weight: 1.6 kg. (3.52 lb.)

Printer 150 Accessories

Ribbon Cartridges

VeriFone part number CRM0010-02 (Purple)

Interface Cables

The interface cables are listed here without length specification (-XX suffix). Normally, a -00 suffix denotes a 1 meter length. For other lengths, contact your VeriFone sales representative.

For XL:

| 10465-XX | Printer 100 Emulation Mode |

For TRANZ 330, 340, ZON 530, 530M, 531, 531M, 540, 540M, 541, 541M, ZON II XPe, and ZON II XJ:

| 10448-XX | Standard Mode |
| 10211-XX | Printer 100 Emulation Mode |

For ZON II, ZON XP:

| 10455-XX | Standard Mode |
| 10211-XX | Printer 100 Emulation Mode |

Power Packs

| 02396-01 | U.S. use |
| 10890-01 | International use |

Figure A-8. Sample Universal POS Sale Receipt

```
                    HEADER 1
                    HEADER 2
                    HEADER 3             ◄─────── Headers up to 5 lines
                    HEADER 4
                    HEADER 5
                    HEADER 6


         XXXXXXXXXXXXXXXX XXXX           ◄─────── Merchant ID, Terminal ID (opt)
  mm/dd/yy                  hh:mm  ?M             Terminal date and time


                   INV: 99999999         ◄─────── Invoice number, (optional)


  XXXXXXXXXXXXXXX      XXXX              ◄─────── Account number, exp date


  aaa   AA      aaaaaaaaa  xxxxxx        ◄─────── Card type, tran type, response
                                                 message and code

  mmddyy        xxx   $xxxxx.xx          ◄─────── Date, item number, amount


  AUTH: AAAAAA                           ◄─────── Auth code (optional) appears
                                                 if ticket transaction
```

QUAN.	DESCRIPTION	AMOUNT
	TOTAL	

X _____
CARDHOLDER'S SIGNATURE

Figure A-9. Sample Blank Form Receipt

```
                    HEADER 1
                    HEADER 2
                    HEADER 3                    ◄——— Headers
                    HEADER 4
                    HEADER 5
                    HEADER 6


          XXXXXXXXXXXXXXX XXXX                  ◄——— Merchant ID, Terminal ID
   mm/dd/yy                      hh:mm ?M             (optional)
                                                ◄——— Terminal date and time


                             INV:  99999999     ◄——— Invoice number (optional)


   nnn  aaa   A   $xxxxxx.xx                     ◄——— Detail item #, card/tran type, amt.
   XXXXXXXXXXXXXXX   XXXX                        ◄——— Account number, exp. date
   RESP:  aaaaaaaaa  xxxxx                       ◄——— Host response
   AUTH:  AAAAAA                                 ◄——— Auth code (optional)
                                                      appears if ticket transaction




   X_____             ◄——— Cardholder signature
         SIGNATURE                                    (optional, see setup)



   FLEX MESSAGE 1                                ◄——— Message to cardholder
   FLEX MESSAGE 2                                     (optional 2 flexible lines,
                                                      appear if signature is
                                                      enabled)
```

Figure A-10. Sample Detail Report

```
                    HEADER 1
                    HEADER 2
                    HEADER 3                        ◄──── Headers
                    HEADER 4
                    HEADER 5
                    HEADER 6


          XXXXXXXXXXXXXXXX XXXX                     ◄──── Merchant ID, Terminal ID
    mm/dd/yy                    hh:mm ?M                   (optional)
                                                    ◄──── Terminal date and time


    nnn  aaa   A   $xxxxxx.xx                        ◄──── Detail item #, card/tran type, amt.
    xxxxxxxxxxxxxxxx    xxxx                         ◄──── Account number, exp. date
    RESP:  aaaaaaaaa  xxxxxx                         ◄──── Host response and code


    nnn  aaa   A   $xxxxxx.xx
    xxxxxxxxxxxxxxxx    xxxx
    RESP:  aaaaaaaaa  xxxxxx


    nnn  aaa   A   $xxxxxx.xx
    xxxxxxxxxxxxxxxx    xxxx
    RESP:  aaaaaaaaa  xxxxxx
                  :

                  :

                  :


    END OF BATCH
```

Figure A-11. Sample Totals Report

```
                    HEADER 1
                    HEADER 2
                    HEADER 3                          ←——— Headers
                    HEADER 4
                    HEADER 5
                    HEADER 6


              XXXXXXXXXXXXXXXX XXXX                   ←——— Merchant ID, Terminal ID
                                                           (optional)
        mm/dd/yy                    hh:mm ?M          ←——— Terminal date and time


        #    TRAN   COUNT  AMOUNT
             TT     nnn    XXXXXX.XX                  ←——— Terminal count and amt. totals


        1    S      nnn    XXXXXX.XX                  ←——— Card type 1 totals (S=Sale,
        1    R      nnn    XXXXXX.XX                       R=Return, VS=Void Sale
        1    VS     nnn    XXXXXX.XX                       VR = Void Return
        1    VR     nnn    XXXXXX.XX


        2    S      nnn    XXXXXX.XX                  ←——— Card type 2 totals

                           :
                           :
                           :

        6    S      nnn    XXXXXX.XX                  ←——— Card type 6 totals
        6    R      nnn    XXXXXX.XX
        6    VS     nnn    XXXXXX.XX
        6    VR     nnn    XXXXXX.XX
```

Figure A-12. Sample Batch Closed Report

```
                    BATCH CLOSED
                      HEADER 1
                      HEADER 2
                      HEADER 3           ◄──── Headers
                      HEADER 4
                      HEADER 5
                      HEADER 6


          XXXXXXXXXXXXXXXX  XXXX         ◄──── Merchant ID, Terminal ID
    mm/dd/yy                                   (optional)
                              hh:mm ?M    ◄──── Terminal date and time


    BATCH #: xxxxxxxx                     ◄──── Batch # line (optional)
    # TRANS: nnn                          ◄──── Total number trans in batch
    AMOUNT: $xxxxxxxx.xx                  ◄──── Total dollar amount
    RESP: aaaaaaaaaaaa                    ◄──── Response message
```
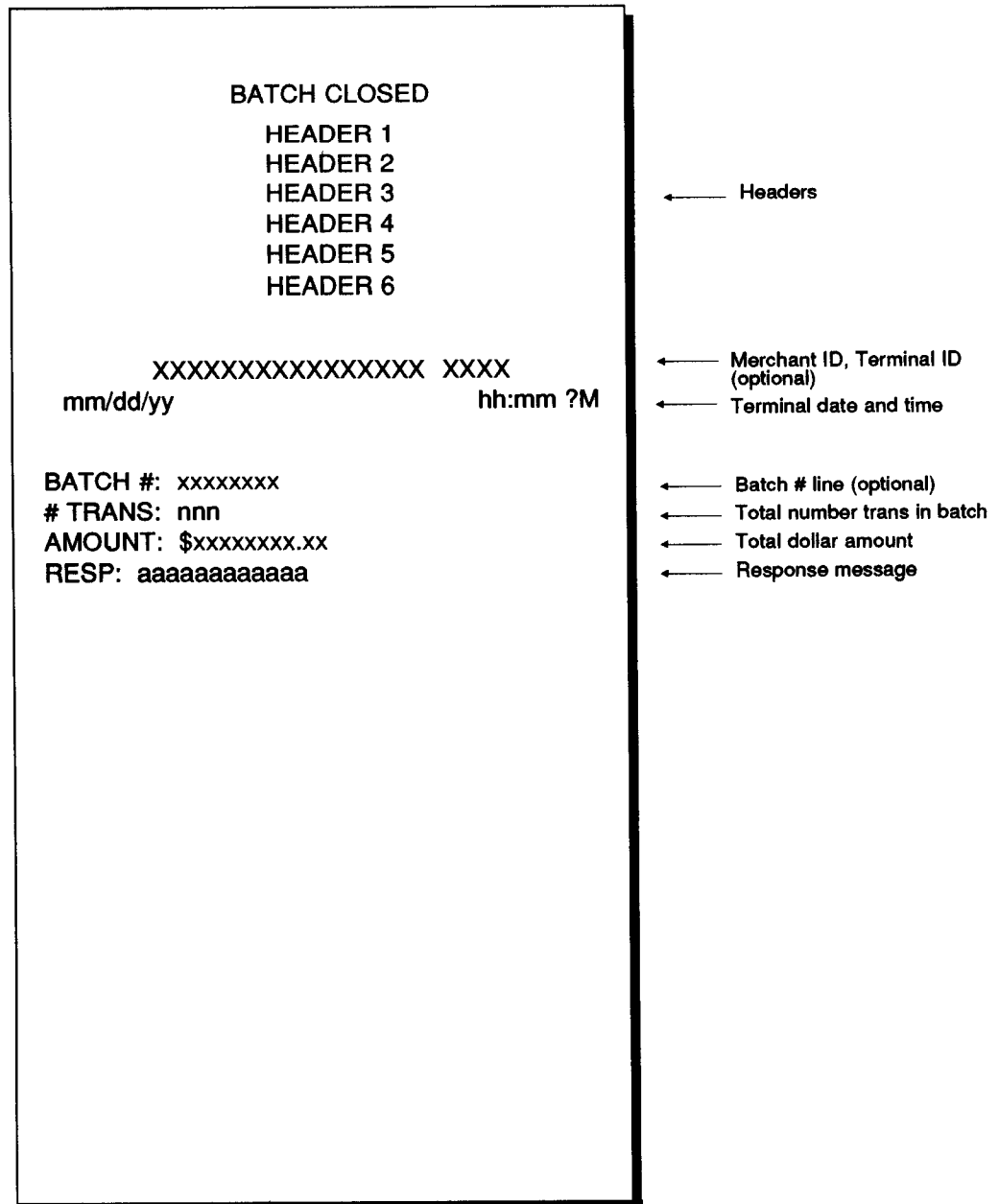
*Note: The batch number prints in the report exactly as entered. "xxxxxxxx"
will appear as blanks if the user pressed [ENTER] to bypass this field during
the transaction. If the batch number option is OFF, a blank line will appear
instead of the batch number line.*

Appendix B. Printer 250

Introduction

The Printer 250 is a freestanding dot-matrix roll printer for VeriFone terminals or computers equipped with an RS-232 serial port. Capable of printing up to 42 characters per line, it is ideal for printing receipts or data on normal or two-ply carbonless three-inch wide roll papers. See pages B-7 to B-10 for sample receipts and reports.
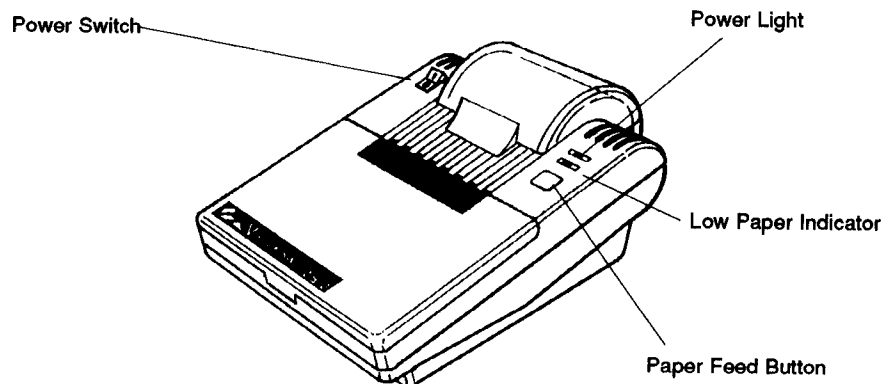
Figure B-1. Printer 250

Unpacking the Printer 250

1. With the shipping carton right side up, open the carton's lid and remove its contents. You should have the components shown in Figure B-2.

Note: Save all packing material in case you ever have to ship the Printer 250 or move it to another location.

2. Place the printer on a solid desk or table top. When choosing a location for the printer, avoid areas with

   - direct sunlight or objects that radiate heat,

   - excessive moisture,

   - excessive dust,

   - devices that cause excessive voltage fluctuations or electrical noise such as air conditioners, fans, electric motors or high frequency security devices.
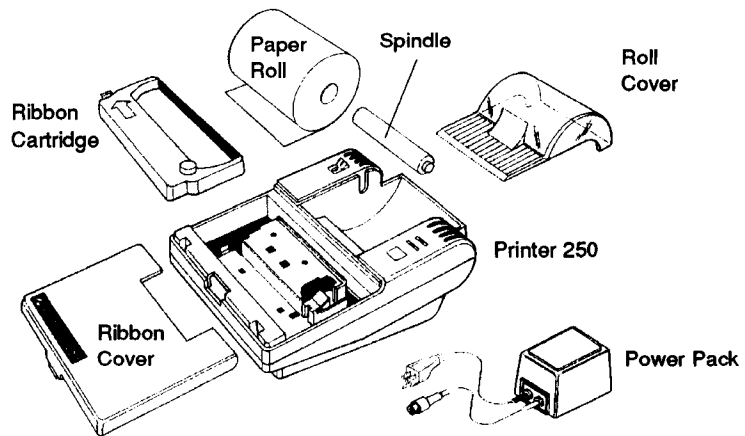
Figure B-2. Printer 250 Components

Setting the Internal DIP Switches

A set of four DIP switches is located under the ink ribbon in your Printer 250. With the ribbon removed, set the switches as indicated on the next page before connecting and operating the printer. The printer will not operate properly if the switches are not set correctly.

Switch off   Switch on

Remove ribbon cover and ink ribbon to locate DIP switches.
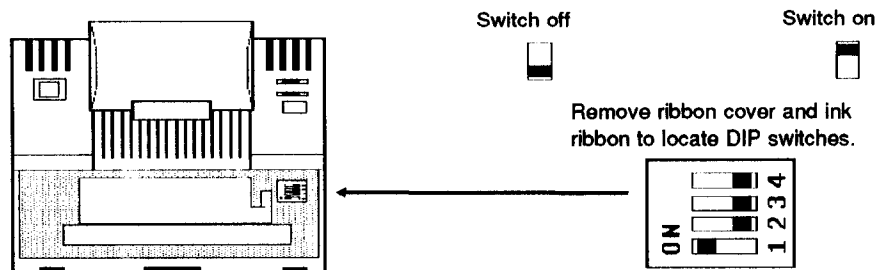
Figure B-3. Location of DIP switches.

CAUTION: Always disconnect the power before changing the DIP switch settings.

Refer to the illustrations and table below for the proper DIP switch settings. If you are not sure of which settings to use, refer to the reference manual for your terminal or computer's application program.

(default setting)

ZON Jr XL,
XL 300
TRANZ 330
TRANZ 340

ZON, ZON II,
ZON II XPe,
ZON II XJ

Switch 1	Parity		
	Even Parity	on	(default setting)
	Odd Parity	off	

Switch 2	Word Length (data bits)		
	7 bit word	off	(default setting)
	8 bit word	on	(no parity)

| Switches 3 and 4	Baud Rate	Switch 3	Switch 4	
	1200	on	on	
	2400	on	off	
	4800	off	on	
	9600	off	off	(default setting)

Installing the Printer 250

CAUTION: Unplug the terminal's power pack before connecting the Printer 250.

Before installing the Printer 250, you must have the correct printer interface cable. The accessories section on page B-6 lists the interface cable part numbers for different VeriFone terminals.

Power Connection

1. Connect the 4-pin mini-DIN plug from the printer power pack to the power connector on the right side of the Printer 250 rear panel.

2. Plug the Printer 250 power pack into an indoor, grounded 120 volt AC outlet. Do not install or operate the Printer 250 outdoors.

Terminal Connection

3. Plug the 8-pin mini-DIN connector on the printer interface cable into the communications port on the left side of the Printer 250 rear panel.

4. Plug the other end of the cable into your terminal's RS-232 port.

5. Plug in the terminal's power pack.

Plug interface cable into your terminal's RS-232 port.

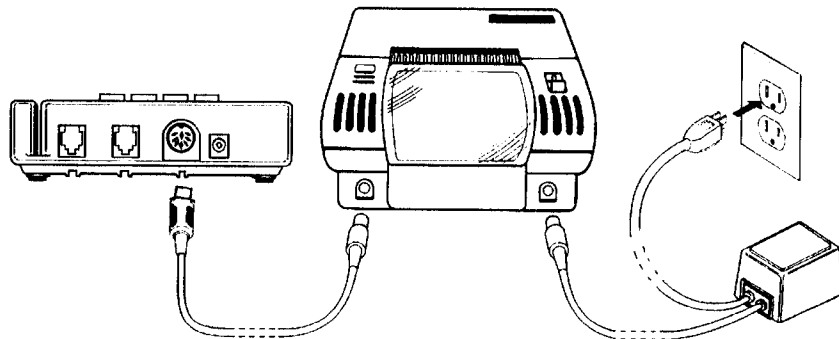Plug power pack only into an indoor, grounded AC outlet.

Figure B-4. Printer Connections

**Installing or
Replacing the
Ribbon Cartridge**

1. Remove the ribbon cover by pressing the front tab and lifting the cover up.

2. If you are replacing an old ribbon, lift the old ribbon out and discard it.

3. Remove the new ribbon cartridge from its protective packaging and insert it, right side first, into the printer. Be sure the round knob is facing up and the ribbon fabric fits between the print head and the ribbon guide.

4. Press the left side of the ribbon cartridge into place. If it does not fit easily, lift the cartridge out and try again. Do not force the ribbon cartridge into place.

5. Turn the small knob on the cartridge clockwise to remove any slack.

6. Insert the two tabs on the rear of the ribbon cover into the slots on the printer.

7. Press the front of the cover down and snap it into place.

Ribbon
Cover

Ribbon Cartridge

Turn knob clockwise to remove
slack. Then insert right side first.
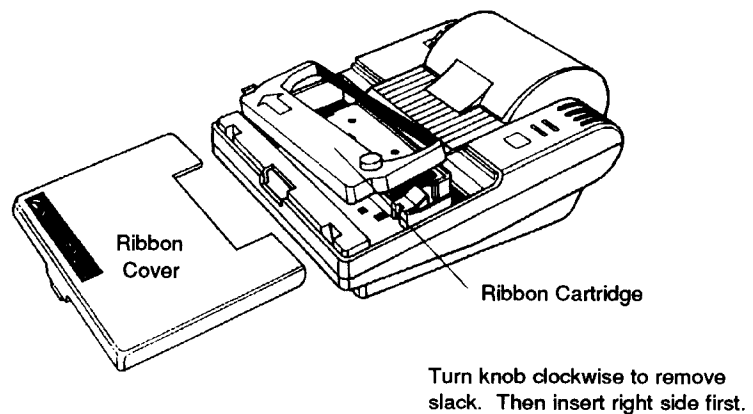
Figure B-5. Installing the Ribbon Cartridge

**Installing the
Paper Roll**

The Printer 250 can accept paper rolls with either 11 mm or 17 mm diameter cores. There are four different types of roll paper available from VeriFone. These are listed by part number and description on page B-6.

Note: For best results, be sure the leading edge of the paper roll is cut cleanly rather than torn before feeding it into the printer. This is particularly important when inserting multiple-part paper.

1. Remove the roll cover by pressing the tab at the rear of the printer and lifting the cover up.

2. Press the "|" symbol on the power switch down to turn the power on.

3. Guide the end of the paper roll into the metal paper slot on the printer. While feeding the end of the paper into the slot with one hand, press the paper feed button several times until the printer grabs the paper.

4. Insert the paper roll spindle into the roll of paper.

5. Insert the spindle with the attached paper roll into the roll cavity. The ends of the spindle must fit into the slots on the sides of the cavity and the paper must feed from the bottom of the roll.

6. Hold the paper feed button down until about two inches of paper emerge from the printer.

7. Replace the roll cover onto the printer, making sure that the paper extends through the slot on top of the printer. Snap the roll cover tab into place.

CAUTION: Pulling paper out from the back of the printer will damage the feed mechanism. See Removing the Paper Roll on this page.
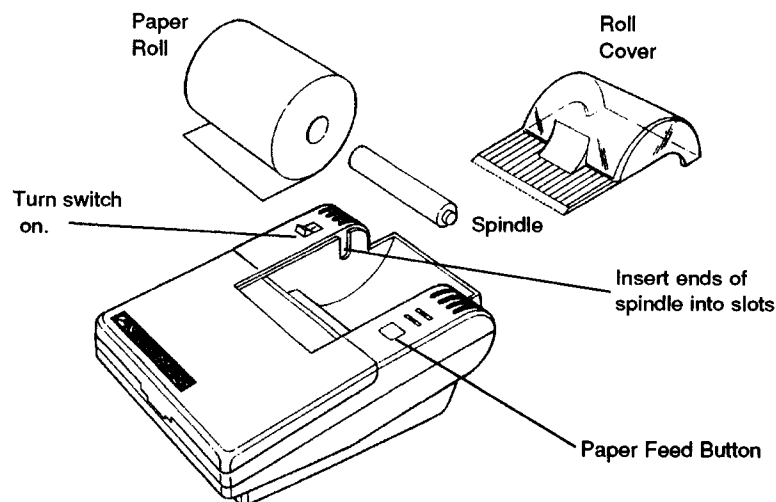
Figure B-6. Installing the Paper Roll (exploded view)

Running the Print Test

1. Turn the power switch off.

2. Hold down the paper feed button and turn the power switch back on. The test will run continuously until the printer is turned off.

Removing the Paper Roll

CAUTION: If you must remove the paper roll, do not pull the paper out from the back of the printer. This could damage the feed mechanism. Instead, cut or tear the paper from the rear of the printer. Use the paper feed button to remove the stub remaining in the feed mechanism.

Cleaning

CAUTION: Never use thinner, trichloroethylene, or ketone based solvents to clean the printer as they may damage plastic parts.

1. Remove dirt using a clean cloth dampened with water and mild soap. You can remove some stubborn stains with alcohol.

2. If necessary use a small vacuum cleaner to remove paper particles and dust from the inside of the printer.

Printer 250 Specifications

Power requirements
Voltage: 110V to 120 volts AC 60 Hz
Power consumption: 20 watts (average) 31 watts (peak)

Dimensions and weight
Height: 105 mm (4.13 in.)
Width: 155 mm (6.1 in.)
Depth: 225 mm (8.86 in.)
Footprint: 310.2 square cm. (48.1 square in.)

Weight (including full roll of paper): 1.37 kg. (3 lb.)

Accessories

VeriFone
Part No.   Description

Ribbon Cartridges

| CRM0009-02 | Purple |
| CRM0009-03 | Red/Black |

Roll paper

CRM0008	Paper, roll 1-ply, 17 mm core
CRM0008-01	Paper, roll 2-ply carbonless, 11 mm core
CRM0008-02	Paper, roll 3-ply carbonless, 11 mm core
CRM0008-03	Paper, roll 1-ply, 11 mm core

Interface Cables

The interface cables are listed here without length specification (-XX suffix). Normally, a -00 suffix denotes a 1 meter length. For other lengths, contact your VeriFone sales representative.

For XL, TRANZ 330, 340, ZON 530, 530M, 531, 531M, 540, 540M, 541, 541M, ZON II XPe*, and ZON II XJ*:

10448-XX with straight terminal connector
10454-XX with 90 degree terminal connector
*Requires 10448-XX cable

For ZON, ZON II:

10512-XX

Figure B-7. Sample Credit Card Receipt.

```
                    HEADER 1
                    HEADER 2
                    HEADER 3                            ◄──── Headers
                    HEADER 4
                    HEADER 5
                    HEADER 6


           XXXXXXXXXXXXXXXX XXXX                        ◄──── Merchant ID, Terminal ID
                                                              (optional)
     DATE mm/dd/yy              TIME hh:mm ?M           ◄──── Terminal date and time


   INV:  99999999                                       ◄──── Invoice number (optional)


   ITEM:  nnn  AAAAAAAA        $xxxxxx.xx               ◄──── Detail item #, card/tran type, amt.
   ACCT: xxxxxxxxxxxxxxx    xxxx                        ◄──── Account number, exp. date
   RESP: aaaaaaaaa  xxxxx                               ◄──── Host response
   AUTH: AAAAAA                                         ◄──── Auth code (optional)
                                                              appears if ticket transaction


   I AGREE TO PAY ABOVE TOTAL AMOUNT                    ◄──── Cardholder agreement
   ACCORDING TO CARD ISSUER AGREEMENT                         (4 flexible lines)
   MERCHANT AGREEMENT IF CREDIT VOUCHER
   FLEX LINE 4




   X ──────────────────────────────────               ◄──── Cardholder signature
         SIGNATURE                                            (optional, see setup)


   TOP COPY-MERCHANT BOTTOM COPY-CUSTOMER               ◄──── Message to cardholder
                FLEX MESSAGE 2                                (optional 2 flexible lines,
                                                              appear if signature is
                                                              enabled)
```
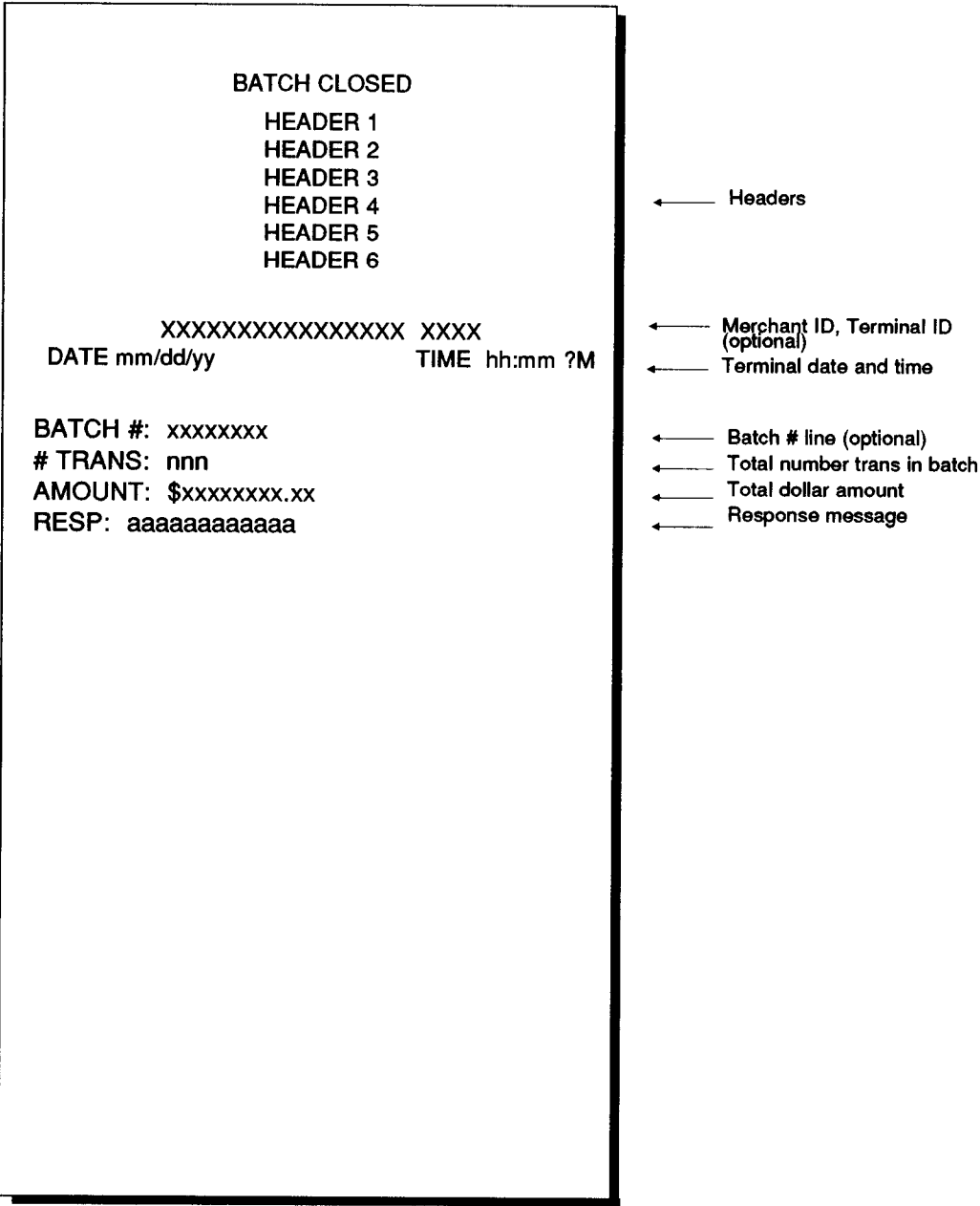
Figure B-8. Sample Detail Report

```
                    HEADER 1
                    HEADER 2
                    HEADER 3
                    HEADER 4          ◄──── Headers
                    HEADER 5
                    HEADER 6


             XXXXXXXXXXXXXXXX XXXX    ◄──── Merchant ID, Terminal ID
      DATE mm/dd/yy            TIME  hh:mm ?M      (optional)
                                      ◄──── Terminal date and time

  ITEM: nnn  aaa   A   $xxxxxx.xx     ◄──── Detail item #, card/tran type, amt.
  ACCT: xxxxxxxxxxxxxxx   xxxx        ◄──── Account number, exp. date
  RESP: aaaaaaaaa  xxxxx              ◄──── Host response and code


  ITEM: nnn  aaa   A   $xxxxxx.xx
  ACCT: xxxxxxxxxxxxxxx   xxxx
  RESP: aaaaaaaaa  xxxxx


  ITEM: nnn  aaa   A   $xxxxxx.xx
  ACCT: xxxxxxxxxxxxxxx   xxxx
  RESP: aaaaaaaaa  xxxxx
              :

              :

              :


  END OF BATCH
```

Figure B-9. Sample Totals Report

```
                    HEADER 1
                    HEADER 2
                    HEADER 3                          ◄──── Headers
                    HEADER 4
                    HEADER 5
                    HEADER 6


          XXXXXXXXXXXXXXXX  XXXX
    DATE mm/dd/yy              TIME  hh:mm ?M         ◄──── Merchant ID, Terminal ID
                                                           (optional)
                                                      ◄──── Terminal date and time

    #    TRAN    COUNT  AMOUNT

         TT       nnn   XXXXXX.XX                     ◄──── Terminal count and amt. totals


    1    S        nnn   XXXXXX.XX
    1    R        nnn   XXXXXX.XX                     ◄──── Card type 1 totals (S=Sale,
    1    VS       nnn   XXXXXX.XX                           R=Return, VS=Void Sale
    1    VR       nnn   XXXXXX.XX                           VR = Void Return


    2    S        nnn   XXXXXX.XX

                         :                            ◄──── Card type 2 totals

                         :

                         :


    6    S        nnn   XXXXXX.XX
    6    R        nnn   XXXXXX.XX                     ◄──── Card type 6 totals
    6    VS       nnn   XXXXXX.XX
    6    VR       nnn   XXXXXX.XX
```

Figure B-10. Sample Batch Closed Report

```
                        BATCH CLOSED
                          HEADER 1
                          HEADER 2
                          HEADER 3                    ◄────── Headers
                          HEADER 4
                          HEADER 5
                          HEADER 6


                  XXXXXXXXXXXXXXXX XXXX              ◄────── Merchant ID, Terminal ID
                                                             (optional)
        DATE mm/dd/yy                   TIME  hh:mm ?M  ◄───── Terminal date and time


        BATCH #:  xxxxxxx                            ◄────── Batch # line (optional)
        # TRANS:  nnn                                ◄────── Total number trans in batch
        AMOUNT:  $xxxxxxxx.xx                        ◄────── Total dollar amount
        RESP:  aaaaaaaaaaaa                          ◄────── Response message
```

Appendix C.
Prompts and Error Messages

The following list includes the prompts and error messages that may appear on your terminal's display. The left column is the message or prompt; the right column contains an explanation of the message and any appropriate required response.

ALREADY VOIDED Display indicating that the transaction selected to be voided has already been voided. Press [CLEAR] to return to the idle prompt.

AMOUNT OF SALE? Enter the total amount of the sale without the decimal, then press [ENTER].

APPROVED: nnnnnn Approval number sent from the host on Authorization Only transactions. Record the number, then press [CLEAR] to return to the idle prompt.

AUTH ONLY Display when the [3] key is pressed requesting authorization of a transaction without ticket data capture. Wait for the next prompt.

AUTH/TKT: nnnnnn The approval number in the response to a Sale transaction.

BUFFER FULL Data capture memory is full and no more transactions can be stored in memory until the data capture file is cleared.

CALL CENTER The operator should call the credit authorization center voice line.

CARD RANGE INFO Setup code 2 was entered allowing the operator to enter card range
ACCT RANGE ITEM? information. Enter the desired response and press [ENTER] after each entry.
n-LOW?
n-HIGH?
n-HOST #?
n-CARD TYPE?
n-CARD ABBREV?
n-RECEIPT?Y/N
n-DESC CODES?Y/N
n-NEW CODES?Y/N
n-VALID CODES?
n-INVOICE #? Y/N

CHECK The [8] key was pressed requesting check authorization. Wait for the next prompt.

CHECK SELECTION TELECHECK? Y/N JBS? Y/N PRIMARY PHONE? SECOND PHONE? MERCH ID?	Setup code 6 was entered enabling the operator to select a check guarantee service. Enter the appropriate data at each prompt, then press [ENTER].
CLOSE BATCH	The Close Batch transaction, key [9], was selected. Wait for the next prompt.
COMMUNICATING	Display when the terminal is sending or receiving data from the download host.
CONNECTED	The terminal has connected with the host computer and is ready to begin communicating.
DECLINED	The host computer has declined authorization of a transaction.
DIALING	The terminal is dialing the host computer.
DOES NOT BALANCE	Display indicating the host balance is not in agreement with the terminal balance. The terminal returns to the idle prompt.
DOWNLOAD DONE	Display after completion of successful download. Press [CLEAR] to return to the idle prompt.
END OF BATCH	The last item in the batch was reviewed in an Item Review function. The terminal returns to the idle prompt.
ENTER ACCOUNT #	Enter the account number on the keyboard, then press [ENTER] or slide the card through the cardreader.
ENTER AMOUNT	Enter the terminal total dollar amount of the batch you wish to close, then press [ENTER].
ENTER BATCH #	Enter the number of the batch you wish to close. Wait for the next prompt.
ENTER CARD TYPE	When reviewing terminal totals, press [1], [2].....[6] for the card type you wish to review.
ENTER DESC CODE	Enter the 2-digit descriptor code, then press [ENTER].
ENTER ID NUMBER	Enter the ID number manually on the keyboard, then press [ENTER] in a Check guarantee transaction.

ENTER INVOICE #	Enter the 8-digit invoice number, then press [ENTER] for Sale, Return, and Ticket Only transactions.
ENTER ITEM #	Enter the item number of the transaction to review, or press [ENTER] to review first item in the batch.
ENTER PASSWORD	Enter the terminal password, then press [ENTER].
ENTER SETUP CODE	Enter the code that corresponds to the selected option during the terminal setup function.
ENTER STATE CODE	Enter the 2-digit state code in a Check Guarantee transaction. Wait for the next prompt.
ENTER TRAN CODE	In a check authorization, enter the 3-digit numeric transaction code.
EXPIRY DATE mmyy	Enter the 3- or 4-digit expiration date using one or two digits for the month and two digits for the year, then press [ENTER].
FUNCTION?	Prompt when you press the [FUNC/ENTER] key. Press the key which corresponds to the function you wish to initiate.
HOST #1 or HOST #2 1 or 2-PRIMARY PHONE? 1 or 2-SECOND PHONE? 1 or 2-MERCH ID?	Setup code 1 was selected enabling the operator to enter host information. Enter the appropriate data at each prompt, then press [ENTER].
INVALID AMOUNT	The amount of sale was entered incorrectly. Press [CLEAR] to return to the idle prompt.
INVALID CARD #	The credit card presented is not acceptable for payment. Press [CLEAR] to return to the idle prompt.
INVALID MRCH #	The merchant ID number is incorrect. Press [CLEAR] to return to the idle prompt.
INVALID TRAN CODE	An invalid transaction number was entered.
MANUAL CLEAR?	Press [ENTER] to clear the batch in the terminal memory.
NO ENQ FROM HOST	The host computer answered the call from the terminal but did not send the ENQ character which tells the terminal to send an authorization request packet. Repeat the transaction, and if you receive the same message, call your authorization center for help.

NO MERCHANT ID

Display when a transaction is initiated and the merchant ID number was not entered in its memory location. Press [CLEAR] to return to the idle prompt, then check the location and correct the merchant ID number, if necessary.

NO TEL NUM

Display when a transaction is initiated and the telephone number was not entered in its memory location. Recall the location and correct the number, if necessary.

NO TRANSACTIONS

Display when operator attempts to VOID or review a transaction and there are none stored in the terminal's memory. Press [CLEAR] to return to the idle promt.

NOT FOUND

The terminal cannot find the entered item number of the transaction to review. Press [CLEAR] to return to the idle prompt.

OPTIONS
TMNL IDENTIFIER?
TOTS OPTION? Y/N
BATCH# OPTN?Y/N
AUTH CODE? Y/N

Setup code 5 was entered enabling the operator to enter terminal identifier and application options. Enter the desired option at each prompt, then press [ENTER].

PASSWORD?

Enter the system password to unlock the terminal's memory. The display will echo each entry with an asterisk (*). Press [ENTER].

PASSWORD
UPDATED

The new manager password was updated correctly. The terminal returns to the "ENTER SETUP CODE" prompt.

PROCESSING...

Display after all credit card data is entered. Wait for the next prompt.

PLEASE TRY AGAIN

The cardreader was unable to read the card swipe. Slide the card again.

PRINT OPTION?

Enter [1] to print detail items, [2] to print terminal totals,or [3] to re-print the last receipt.

READY **nn**

The terminal displays "READY" when it is available to process transactions.

nn = the number of transactions left to be stored in the terminal. For example, READY **3** would indicate that there is space for storage of 3 more transactions.

RECALL WHAT?

Enter the memory location you wish to review.

RECEIVING

The terminal is receiving a response from the host computer.

RETURN Display when initiating procedures to authorize a return/credit. Wait for the next prompt.

RETURN xxxxxx The FDR host response indicating it approves the "RETURN" transaction.

SALE Display when key [1] is pressed when initiating procedures to authorize a sale. Wait for the next prompt.

SECURITY
SET VOID? Y/N
SET RETURN? Y/N
SET ITM REV? Y/N
SET TOT REV? Y/N
SET CLOSE? Y/N
SET INQ? Y/N
SET MAN CLR? Y/N
SET SETUP? Y/N
SET SALE? Y/N
SET AUTH? Y/N
SET PRINT? Y/N
SET TICKET? Y/N

Setup code 6 was entered enabling the operator to set security flags. Select "Y" to require password protection for a transaction or function, or "N" for no password, then press [ENTER].

SERIAL # NOT FND Response from the download host when the terminal serial number stored in location 001 does not match valid serial numbers for a download. Perform the "RECALL" function and correct the number, if necessary.

SETUP [FUNC] [4] was pressed for terminal set up. Wait for the next prompt.

STORE WHAT? Enter the desired memory location (numbers 000 through 999) for storing data in the terminal.

SUCCESSFUL DL The terminal has successfully completed the download. Press [CLEAR] to return to the idle prompt.

TKT ONLY The [5] key was pressed to create an ETC item. Wait for the next prompt.

TMNL IDENTIFIER? Second display when Code 5 is selected in the SETUP function. Enter the 4-digit terminal identifier, then press [ENTER].

TRANSMIT ERROR An invalid transmission was received by the host computer.

TRANSMITTING The terminal is communicating with the host computer.

UNDEFINED CARD The card number is not defined in the account range table. Press [CLEAR] to return to the idle prompt.

UNREADABLE CARD The terminal cannot read the card.

UNSUCCESSFUL DL   The terminal was unable to complete the download. Press the [CLEAR] key and re-initiate the download.

UPDATE PASSWORD   Setup code 4 was entered enabling the operator to update the manager
ENTER NEW PASSWD   password. Enter the new password twice, pressing the [ENTER] key after
VERIFY NEW PASSW   each entry.

VOID   The [VOID] key was pressed to void a transaction that was completed earlier in the batch. Wait for the next prompt.

VOID-PRESS ENTER   Press [ENTER] to void the selected transaction.

WAITING FOR LINE   The terminal is waiting for the line to become available.

Appendix D. ZONTALK Download Parameters

ZONTALK is the Verifone download program that simplifies the process of updating or completely re-programming your VeriFone terminal. Designed to run on an IBM PC, XT, AT or compatible, ZONTALK performs modem downloads to your terminals in the field.

To obtain a ZONTALK download of the FDR XL Enhancements application, you must program the following memory locations with specific information. Refer to section 4 of this reference manual for an explanation of how to program the contents of a field location.

Location	Information to Enter
000	Enter the phone number of a computer running ZONTALK.
001	Enter the serial number of the terminal.
019	Enter the application ID (FXxxxxx). Call your customer service representative for the most current application ID.

When you receive a download from ZONTALK, certain memory locations (parameters) will already have a default setting. These settings may be changed later through the terminal setup function or through manual programming of the terminal. The following list contains the ZONTALK parameters for the FDR XL Enhancements application.

Memory Locations

	Description	Location	Contents/Comments
Terminal Setup	Download Phone Number	00:00	
	Download Date	00:04	
	Number Chars to Scroll	00:06	16
	Multi Trans Timeout	00:07	3
	Beep On/Off	00:09	1
	Signature Line on Slip	03:62	blank=no signature, 1=signature
	Dial Type T=0 P=1	00:10	
	Speed Dial	00:11	
	Parallel Phone Avail	00:12	
	Number Retries	00:13	3
	Telephone Line Test	00:14	2
	RECALL Password	00:17	

	Description	Location	Contents/Comments
	Error Statistics	00:18	
	Terminal Identifier	00:58	
	Security Bit Map	00:59	000000110000 (see note 1, page D-4, for details)
	Manager Password	00:60	123123
	Application Options Map	00:61	0001 (see note 2, page D-5 for details)
Login Strings	Login String 0	00:20	3-81636
	Login String 1	00:21	
	Login String 2	00:22	
	Login String 3	00:23	
	Login String 4	00:24	
	Login String 5	00:25	
	Login String 6	00:26	
	Login String 7	00:27	
	Login String 8	00:28	
Printer Headers	Header Line 1	00:79	
	Header Line 2	00:80	
	Header Line 3	00:81	
	Header Line 4	00:82	
	Header Line 5	00:83	
	Header Line 6	00:84	
Card holder flex lines		00:85	I AGREE TO PAY ABOVE TOTAL AMOUNT
		00:86	ACCORDING TO CARD ISSUER AGREEMENT
		00:87	(MERCHANT AGREEMENT IF CREDIT VOUCHER)
		00:88	
Message Lines		00:89	TOP COPY-MERCHANT BOTTOM COPY-CUSTOMER
		00:90	
Card Type Data	1st Account Range	00:43	4000.4999.11VIS1000000
	2nd Account Range	00:44	5000.5999.11MC 1000000
	3rd Account Range	00:45	3400.3799.12AMX1000000
	4th Account Range	00:46	3000.3899.12DC 1000000
	5th Account Range	00:47	6011.6011.13DIS1000000
	6th Account Range	00:48	0000.0999.14FDR1000000
	7th Account Range	00:49	
	8th Account Range	00:50	
	9th Account Range	00:51	

	Description	Location	Contents/Comments
Host Information	Host 1 Primary Phone #	00:52	
	Host 1 Secondary Phone #	00:53	
	Host 1 Merchant ID	00:54	
	Host 2 Primary Phone #	00:55	
	Host 2 Secondary Phone #	00:56	
	Host 2 Merchant ID	00:57	
Sale - Key 1	Fraud Control Flag	01:06	
	Transaction Prompt	01:08	SALE
	Multi-Trans Flag	01:12	1
Return - Key 2	Fraud Control Flag	02:06	
	Transaction Prompt	02:08	RETURN
	Multi-Trans Flag	02:12	1
Auth Only - Key 3	Fraud Control Flag	03:06	
	Transaction Prompt	03:08	AUTH ONLY
	Multi-Trans Flag	03:12	1
Void - Key 4	Fraud Control Flag	04:06	
	Transaction Prompt	04:08	VOID
	Multi-Trans Flag	04:12	1
Ticket Only - Key 5	Fraud Control Flag	05:06	
	Transaction Prompt	05:08	TKT ONLY
	Multi-Trans Flag	05:12	1
Inquiry - Key 6	Host 1 Primary phone No.	06:00	
	Host 1 Secondary Phone #	06:01	
	Host 1 Merchant ID	06:04	
	Fraud Control Flag	06:06	
	Transaction Prompt	06:08	INQUIRY
	Multi-trans flag	06:12	1
Free Key - Key 7	Primary Phone No.	07:00	
	Secondary Phone No.	07:01	
	Call Center Phone No.	07:02	
	Pickup Card Phone No.	07:03	
	Merchant ID	07:04	
	Message Format Flag	07:05	
	Fraud Control Flag	07:06	
	Trans Control String	07:07	
	Transaction Prompt	07:08	FREE
	Floor Limit	07:09	
	Resp. Anaylsis Ctl String	07:10	
	Auxiliary Ctl String	07:11	
	Multi-trans Flag	07:12	

	Description	Location	Contents/Comments
Check - Key 8	Primary Phone No.	08:00	
	Secondary Phone No.	08:01	
	Call Center Phone No.	08:02	
	Pickup Card Phone No.	08:03	
	Merchant ID	08:04	
	Message Format Flag	08:05	
	Fraud Control Flag	08:06	
	Trans Control String	08:07	QF4K2F5KF8K2F3K4 (Telecheck) QF4K2F5KRF3K4 (JBS)
	Transaction Prompt	08:08	CHECK
	Floor Limit	08:09	
	Resp. Analysis Ctrl String	08:10	
	Auxiliary Ctrl String	08:11	
	Multi-Trans Flag	08:12	1
Close Batch - Key 9	Host 1 Primary Phone #	09:00	
	Host 1 Secondary Phone #	09:01	
	Host 1 Merchant ID	09:04	
	Fraud Control Flag	09:06	
	Transaction Prompt	09:08	CLOSE BATCH
	Multi-trans flag	09:12	1

NOTE 1   Location 00:59, Security Bit Map, contains the string for password protection on transactions and functions. A "1" indicates that the corresponding transaction is password protected. The following lists transactions and functions by position in the string, with examples of settings:

Position	Transaction	Position	Transaction
1	Void	7	Manual clear
2	Returns	8	Setup
3	Item Rev	9	Sale
4	Tots Rev	10	Auth
5	Close Btch	11	Print
6	Inquiry	12	Ticket

For example, a string "100000010000" in memory location 00:59 indicates that Void and Setup functions are password protected.

A string "000001000110" in memory location 00:59 indicates that Deposit/Bal Inquiry, Auth, and Print functions are password protected.

NOTE 2 Location 00:61, Application Options Map, contains the string for terminal options settings where 0 = No and 1 = Yes.

Position	Option
1	Filler "0" reserved for future use
2	Totals auto insert
3	Batch number
4	Authorization code

The default setting for the string in this location is:

061=0001

If you have any questions regarding these parameter settings, contact your VeriFone representative.

Glossary

AC	Alternating Current - used as a primary source of power by power packs and power supplies.
Account Number	(1) A unique series or group of digits used to numerically identify each cardholder. (2) The unique identification number assigned to the account of a specific party, within a given institution.
Alpha mode	A means of allowing you to use the keypad to enter alphabetic characters.
Alphanumeric	Capable of utilizing both alphabetic and numeric characters such as a display panel or keypad or a computer keyboard.
Application	A software program designed with special codes stored in memory for a specific purpose or customer.
Application ID Number	The number identifying which application program is to be downloaded by the ZONTALK software from an IBM PC compatible computer.
ASCII	An abbreviation for American Standard Code for Information Interchange. This standard code is used for transmitting data and in composed of 128 characters in 7-bit binary format.
Asynchronous	Method of transmitting data in which the interval between characters may be of unequal length.
Bar Code	A printed code used for identification purposes consisting of vertical lines of varying spacing and thicknesses. These codes are read by drawing the tip of a bar code wand across it.
Bar Code Wand	A pencil or wand shaped optical scanner for reading bar codes.
Batch File	A file containing a series of transaction details to process as a single unit.
Batch Header	A unique heading or title that identifies a batch.
Baud	The signaling speed equal to the number of signal events per second.
Buffer	A temporary storage area capable of holding up to 258 characters; see "Source Buffer" and "Destination Buffer".
Byte	A group of consecutive bits that make up a character or a logical unit or information. A byte usually consists of eight bits.
Calendar/Clock Chip	A terminal electronic component that keeps track of the date and time.

Cardreader	The slot on the terminal that automatically reads the magnetic stripe or bar code on the back of a specially encoded card.
Card Security or Fraud Control	Measures taken to prevent unauthorized use of encoded identification cards.
Carrier	A frequency signal or tone sent over the telephone (or communication) line and modulated by the modem to transmit/receive data.
CCITT	Committee Consultative International Telegraph and Telephone. International committee that sets standards for international data communications.
Character	A standard bit representation of a letter, number, punctuation, figure or other symbol used in a message or in a control function.
Code	Program text representing letters, digits and other data symbols with binary numbers, such as ASCII.
Control String	A series of terminal control language commands linked together to control the execution of a terminal operation; see "transaction control string" and "function control string".
Copy	To produce a replica of information, usually done to guard against loss or corruption of important records.
CPU	Central Processing Unit. The brain of the computer or terminal that controls either directly or indirectly every function and device associated with the computer/terminal.
Custom Application	An application created to meet the specialized needs of an individual company or institution.
Custom Prompt	A prompt, programmed by a user and stored in one of the controller's general record memory locations.
Data	Information prepared in a particular format for use by the terminal, controller or host computer for a specific transaction or operation.
Data Collection	The process of collecting data from distributed points at which it has been captured or input as a separate operation.
Data Entry	The process of using a keyboard or other device to input data directly into a system.
Data Packets	A piece of information transmitted from one device to another.
Debit Card	Used in many of the same transactions as a credit card except no credit is given and the holder must have funds in his or her account to immediately cover the transaction.
Dedicated Line	See Leased-Line.

Default	A value automatically assigned by the program when another value has not been specified.
Delete	To remove a record or item of data.
Diagnostics	The procedure for detecting and isolating a problem with the controller, terminal or peripheral.
Dial-Up Line	A regular public telephone line. The switching equipment on a dial-up line requires that a party dial the other party before a connection can be made.
Display	The small screen on your terminal that displays prompts and messages to guide you through different operations and to alert you when errors or problems occur.
Download	The process of transferring data from one computing device to another.
EPROM	Erasable Programmable Read-Only Memory. A type of memory chip permanently stored in the terminal. Contains the standard application, operating system and fixed prompts.
File	A collection of logically related records.
Firmware	The basic instructions built into the terminal, stored in ROM and executed automatically.
Fraud Control	Measures taken to prevent unauthorized use of a credit or debit card.
Handshaking	The process of exchanging codes, or contol characters, between two devices. The codes are predetermined and establish a connection between both terminals.
Header	Information and codes added to the beginning of user data, such as a transmission block or packet, which contains the destination, address, source address and message number.
Hookswitch	The switch on a telephone instrument that operates when the handset is removed from its cradle
Host Computer	A central computer used to process transactions; also called a host.
Input	To enter data into a processing system or peripheral device, or the data that is entered.
Idle Prompt	The information shown on the display panel when the device is not performing any operations or transactions. Normally the date and time.
Keypad	The key panel used for entering data and performing operations.
Leased-Line	A private telephone line connected directly to another party.
Line Cord	A telephone type cord with modular plugs for connecting a device to dial-up telephone lines.

Login
: Password information for a particular organization that allows access to a system such as a public switched network (e.g., Telenet, Tymnet). The login also opens an accounting file for the session.

Login String
: A code consisting of a network code, user name and password used to login to a network.

Luhn Check-Digit
: A fraud control measure used in transactions.

Manual Transaction
: Transaction using account information entered from the keypad rather than automatic reading devices such as the card reader.

Memory
: The storage of codes and data in the circuitry of a terminal or computer or other media such as magnetic disk or tape.

Memory Dialing
: A method of automatically dialing telephone numbers stored in a device's memory rather than dialing by hand

Memory Locations
: The segments used to divide the terminal's memory. Identified by a three-digit location number.

Messages
: Words and symbols appearing on the display panel which tell you the kind of information required, the result of a process or if an error has occurred.

Modem
: Short for modulator/demodulator; a device that converts electronic data to audio signals (for transmission over telephone wires) and audio signals back to electronic data.

Network
: An interconnected group of systems, terminals or data facilities that route numerous transactions and data to the proper terminals and host computers.

Nonvolatile Memory
: Memory that retains its contents when power is turned off or lost.

Packet
: A group of bits transmitted as a complete package on a packet-switched network. Often called a message.

Parameters
: Information stored in memory that sets up the device for use with transactions and other operations.

Password
: A confidential code used to gain access to terminal memory or a host computer.

PC
: IBM PC or compatible personal computer used to download applications and data to the terminal. A PC can also be used as a local or remote host computer.

Peripheral
: An attached device (e.g. a printer or PIN Pad), not the central processing device or computer; typically used for I/O.

PIN
: Personal Identification Number. A four to 16 digit confidential code or electronic signature used by card holders to identify themselves as the proper users of a credit or debit card to the host computer.

PIN Pad	A Personal Identification Number input device used for entering a private identification code to validate a transaction.
Port	An interface device capable of attaching to a peripheral, computer, network or other electronic device.
POS Terminal	A terminal used at the point-of-sale (POS) that can process transactions and communicate transaction information with a larger remote computer directly or through a network.
Post Dialing	A feature that dials the host computer after all of the account and transaction information is entered into the terminal.
Power Pack	A device that converts a voltage to a different level so it can be used by a particular device.
Printer	A device used for imprinting records of a transaction on paper
Prompt	A message appearing on the display panel telling you what action is required or what type of information to specify.
Pulse Dialing	A method of telephone dialing that specifies a phone number by the number of electrical pulses sent.
Queue	A group of jobs or messages waiting for service. All insertions are made at one end of the queue and all removals and accesses at the other.
RAM	Random access memory used to store custom applications and temporary data entered during a transaction.
RECALL	Procedure used to display data in a memory location. RECALL can also be used to add or change data.
Record	A collection of data handled together in transfers.
Refund	Refund transaction credits a customer's account with a refunded amount; the terms "refund" and "return" are used interchangeably.
Remote Host Computer	A host computer requiring connection to the transaction system via a dial-up or leased telephone line.
Remote Host Network	A network that connects the terminal to a remote host computer.
Request Data Packet	A request for information from a terminal to the host computer.
Return	A refund transaction which credits a customer's account with the refunded amount.
Ringer	A bell or alarm on a telephone that announces incoming calls.
ROM	Read only memory permanently stored in the device. Contains the standard application program and operating system.

Scroll — To move text across a display screen.

Select — To initiate an action or enable a data path.

Serial Port — Connector for communicating with download computers, other terminals, and printers.

Source Buffer — A "read only" buffer into which you can pull the contents of any of the terminal's five buffers for review.

Start Up — The sequence that occurs when the terminal is turned on (powered up). This sequence includes turning on power and automatic downloading of configuration data for an application.

STORE — Procedure used to store data in a memory location.

String Constant — A sequence of alphanumeric characters enclosed in single quotation marks; for example--'SLIDE CARD' or '1989'.

Swipe — The action of sliding a card through a terminal card reader.

System Password — The password (1[ALPHA][ALPHA]66831)supplied with each TRANZ 330 terminal.

Telephone Jack — Modular type sockets for connecting telephone line cords.

Telephone Line — The standard telephone wiring connecting you to your local or private telephone company.

Terminal — A device used to initiate transactions. The transactions are processed by the terminal itself or by a host computer. These devices have a display panel, keypad, and card reader, and are used to enter transaction information.

Terminal ID — An identification number used by the download computer to determine what data and application programs to send to an individual terminal or controller.

Terminal Parameters — Parameter data related to a specific terminal.

Timeout — A specified period of time in which the terminal stops processing or undertakes a predetermined alernate action. Tone Dialing Also called touch-tone dialing. A method of telephone dialing that uses different pitched tones to specify a phone number.

Track 2 Data — Information stored on track 2 of the magnetic stripe that can be read by the card reader.

Trunk Cable — A cable to which all the components are connected.

User — The person who is using the terminal.

ZONTALK 2000 — A communications program for IBM PC compatible computers used to download applications from the computer to a controller/terminal.

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