



VERIX OPERATING ENVIRONMENT



Installation Guide



SOFTPAY E-PAYMENT APPLICATION



VERIX
DEVELOPER
TOOLKIT
DEVELOPMENT
TOOLS



VERISHIELD SECURITY ARCHITECTURE



OMNI 37XX HAND-OVER-COUNTER MULTI-APPLICATION APPLIANCES



OMNI 33XX MULTI-APPLICATION APPLIANCES



VERIX MULTI-APP CONDUCTOR MULITPLE APPLICATION MANAGEMENT SYSTEM



VERICENTRE APPLIANCE MANAGEMENT SUITE

Omni 37xx Installation Guide © 2002 VeriFone. Inc.

All rights reserved. No part of the contents of this document may be reproduced or transmitted in any form without the written permission of VeriFone, Inc.

The information contained in this document is subject to change without notice. Although VeriFone has attempted to ensure the accuracy of the contents of this document, this document may include errors or omissions. The examples and sample programs are for illustration only and may not be suited for your purpose. You should verify the applicability of any example or sample program before placing the software into productive use. This document, including without limitation the examples and software programs, is supplied "As-Is."

VeriFone, the VeriFone logo, and Omni are registered trademarks of VeriFone. Other brand names or trademarks associated with VeriFone's products and services are trademarks of VeriFone, Inc.

All other brand names and trademarks appearing in this manual are the property of their respective holders.

Comments? Please e-mail all comments in this document to Tell Us More@VeriFone.com

VeriFone, Inc. 2455 Augustine Drive Santa Clara CA 95054-3002

www.verifone.com



CONTENTS

	PREFACE	. 5
	Audience Organization Related Documentation Conventions Used in This Guide	5
CHAPTER 1 Terminal Overview	Omni 37xx	8 8
CHAPTER 2 Terminal Setup	Select Terminal Location Ease of Use Environmental Factors Electrical Considerations Unpack the Shipping Carton. Examine Terminal Features Front Panel Back Panel Establish Telephone Line Connections Install Paper Roll Install/Replace MSAM Cards Connect Optional Device(s) Connect PIN Pad, Smart Card Reader, or Bar Code Wand Connect Check Reader External Printers Supported Connect Terminal Power Pack Routing The Cables Using Wire Clips Smart Card Transaction Magnetic Card Reader Use	9 10 11 11 13 13 16 18 19 20 22 22
CHAPTER 3 Specifications	Power	. 25 . 25 . 25
CHAPTER 4 Maintenance	Cleaning the Terminal	

CHAPTER 5 VeriFone Service	Returning a	Terminal for Service	29
and Support		and Documentation	
		d Cables	
		or Optional Peripherals	
		ne Line Cord	
		ack	
		Printer Paper	
		oll Spindle	
		Cleaning Kit	
	Docume	ntation	31
CHAPTER 6	DI 1 D: 1		0.5
Troubleshooting Guidelines		Not Diel Out	
Guidelilles		es Not Dial Out	
		S Not Print	
		er Jam	
		s Not Respond	
		s Fail To Process	
		k Magnetic Card Reader	
		k Smart Card Reader	
		k Telephone Line	
		'	
	INDEX		37
		LIST OF FIG	
	Figure 1	Omni 37xx Product Components	
	Figure 2	Omni 37xx Froduct Components	
	Figure 3	Connection Ports (Back Panel)	
	Figure 4	Direct Telephone Connection	
	Figure 5	Printer Latch Button	
	Figure 6	Removing Partial Paper Roll	
	Figure 7	Loading Paper Roll	
	Figure 8	Closing Paper Roll Cover	
	Figure 9	MSAM Compartment Door and Locking Screw	17
	Figure 10	MSAM Cardholder Close-Up	17
	Figure 11	Using an MSAM Cardholder	
	Figure 12	Smart Card Reader Connection	
	Figure 13	CR 600 Check Reader Connection	
	Figure 14	Omni 37xx Power Pack Connection	
	Figure 15	Routing Cables Using Cable Wires	
	Figure 16	Inserting the Smart Card	
	Figure 17	Using the Magnetic Card Reader	
	Figure 18	Information Label on Terminal Bottom	
		LIST OF T	
	Table 1	Document Conventions	
	Table 2	Optional Devices Supported	18

PREFACE

This guide is your primary source of information for setting up and installing the Omni 37xx family of terminals.

Audience

This guide is useful for anyone installing and configuring the Omni 37xx terminal. Basic description of the terminal features are also provided.

Organization

This guide is organized as follows:

Chapter 1, Terminal Overview, Provides an overview of the Omni 37xx family of terminals.

Chapter 2, Terminal Setup. Explains how to set up and install the Omni 37xx terminal. It tells you how to select a location, establish power and telephone line connections, and how to configure optional peripheral devices.

Chapter 3 Specifications. Discusses power requirements and dimensions of the Omni 37xx terminal.

Chapter 4, Maintenance. Explains how to maintain your Omni 37xx terminal.

Chapter 5, VeriFone Service and Support. Provides information on contacting your local VeriFone representative or service provider. You will also find information on how to order accessories or documentation from the VeriFone.

Chapter 6, Troubleshooting Guidelines. Provides troubleshooting guidelines, should you encounter a problem in terminal installation and configuration.

Related Documentation

To learn more about Omni 37xx, refer the following set of documents:

- Omni 3750 Quick Installation Guide, VeriFone Part Number (VPN) 22398,
 Rev. C
- Omni 37xx Certifications and Regulations, VPN 22429, Rev. B
- Verix Programmer's Manual, VPN 22380, Rev. E

Conventions Used in This Guide

Various conventions are used to help you quickly identify special formatting. The following table describes these conventions and provides examples of their use.

Table 1 Document Conventions

Convention	Meaning	Example
Blue	Text in blue indicates terms that are cross referenced.	See Conventions Used in This Guide.
Italics	Italic typeface indicates book titles or emphasis.	You <i>must</i> install a roll of thermal-sensitive paper in the printer.

 Table 1
 Document Conventions (continued)

Convention	Meaning	Example
ScreenText - PRE	ScreenText format is used while specifying onscreen text, such as text that you would enter at a command prompt, or to provide an URL.	http://www.verifone.com
NOTE	The pencil icon is used to highlight important information.	RS232-type devices do not work with the PIN Pad port.
CAUTION	The caution symbol indicates hardware or software failure, or loss of data.	The terminal is not waterproof or dustproof, and is intended for indoor use only.
WARNING	The lighting symbol is used as a warning when bodily injury might occur.	Due to risk of shock do not use the terminal near water.



CHAPTER '

Terminal Overview

This chapter provides a brief description of VeriFone's Omni 37xx family of terminals. The Omni 37xx family includes Omni 3700, Omni 3740, and Omni 3750 terminals.

Omni 37xx

The Omni 37xx terminal series represents the shape of things to come in e-payment. The bold ergonomic design is sleek and stylish, offering countertop power and 32-bit performance in an integrated terminal that can be handed to the consumer for input. In addition, the Omni 37xx family serves as the entry point to VeriFone's acclaimed multi-application platform—with the capability to securely support payment and value-added applications on a single terminal.



VeriFone ships variants of the Omni 37xx terminal for different markets. Your terminal may have a different configuration. The following devices may or may not be present: a smart card reader, a printer, and/or zero, two, or four SAM cardholders.



Features At a Glance

- Delivers power and usability in a convenient "hand-over" design.
- Securely supports and runs payment and value-added applications.
- Multi-application operating environment.
- Offers unsurpassed performance on EMV smartcard transactions.
- 32-bit processing and multi-tasking capabilities.
- Security architecture meets specifications for PIN-entry devices (PED) and sophisticated file authentication.

The Omni 37xx provides the right combination of features and functions at the right price. This includes a vertical magnetic-stripe card reader, smart card reader, integrated PINpad, and a quiet, fast, integrated thermal printer.

Features and Benefits

Exceptional Ease Of Use

- Bold design is sleek, stylish, and lightweight for conveniently handing terminal to consumer for PIN entry or other input.
- Intuitive ATM-style interface, large 8 line x 21 character backlit display with split screen capabilities, large keys, and extra-size menu prompts simplify training and reduce calls to the Help Desk.
- Integrated high-speed thermal printer simplifies paper loading and virtually eliminates paper jams.
- Triple-track, high-coercivity card reader handles most magnetic stripe cards.

Countertop Performance in a "Hand-Over" Design

- 32-bit processing and multi-tasking capabilities make short work of payment, payment-related, and value-added applications.
- Exceptional graphics-handling capabilities of display and printer quickly render logos, graphical fonts, and character-based languages.
- VeriCenter Appliance Management Suite employs advanced file compression to streamline downloads of application software simultaneously to hundreds of terminals.
- Integrated PINpad offers added convenience to handle PIN-based applications.
- Ensures uncompromising reliability from VeriFone, the worldwide leader in e-payment.

True Multi-Application Capability

- 1.5 MB of memory and Verix's dynamic memory allocation support two or three typical-sized applications on a single terminal.
- Primary smart card reader and two Security Access Modules (SAMs) safeguard sensitive financial data and support multiple smart card schemes.
- Omni 37xx family of terminals and SoftPay EMV software have received EMV Level 1 and Level 2 Type Approval for smart card solutions. The Verix EMV Library provides efficient development of other EMV-compliant applications.
- VeriShield security architecture meets published specifications for PIN-entry devices (PED) and provides sophisticated file authentication, which prevents execution of unauthorized software on Omni 37xx terminals.

CHAPTER 2

Terminal Setup

This chapter describes terminal setup procedure. You will learn how to:

- Select a location and protect the terminal from adverse Environmental Factors. See Select Terminal Location.
- Unpack the shipping carton. See Unpack the Shipping Carton.
- Examine terminal features. See Examine Terminal Features.
- Establish telephone line connections. See Establish Telephone Line Connections.
- Install paper roll in the printer. See Install Paper Roll.
- Configure optional peripheral devices. See Connect Optional Device(s).
- Establish power connections. See Connect Terminal Power Pack.
- Route cables using wire clips. See Routing The Cables Using Wire Clips.
- Conduct smart card, or credit/debit transactions. See Smart Card Transaction and Magnetic Card Reader Use.

Select Terminal Location

Follow the guidelines described in the following section while selecting a location for your terminal.

Ease of Use

- Select a location convenient for both merchant and cardholder.
- Select a flat support surface, such as a countertop or table.
- Select a location near a power outlet and a telephone/modem line connection.
 For safety, do not string the power cable in a walkway or place across a walkway on the floor.

Environmental Factors

- Do not use the terminal where there is high heat, dust, humidity, moisture, or caustic chemicals or oils.
- Keep the terminal away from direct sunlight and anything that radiates heat, such as a stove or a motor.
- Do not use the terminal outdoors.



The terminal is not waterproof or dustproof, and is intended for indoor use only. Any damage to the unit from exposure to rain or dust may void any warranty.

Electrical **Considerations**

- Avoid using this product during electrical storms.
- Avoid locations near electrical appliances or other devices that cause excessive voltage fluctuations or emit electrical noise (for example, air conditioners, electric motors, neon signs, high-frequency or magnetic security devices, or computer equipment).
- Do not use the terminal near water or in moist conditions.

WARNING



Due to risk of shock or terminal damage, do not use the terminal near water, including a bathtub, wash bowl, kitchen sink or laundry tub, in a wet basement, or near a swimming pool.

Unpack the Shipping Carton

Open the shipping carton and carefully inspect its contents for possible tampering or shipping damage. The Omni 37xx is a secure product and any tampering may cause the terminal to cease to function the way it should.

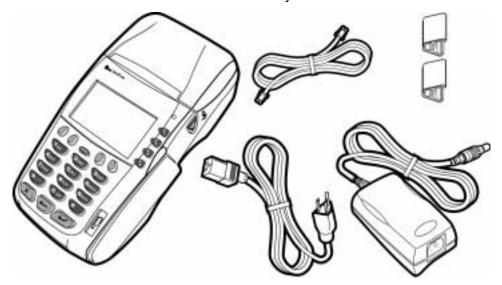


Figure 1 **Omni 37xx Product Components**

- Remove and inspect the following items (see Figure 1):
 - Omni 37xx terminal
 - Power pack
 - Telephone line cord
 - Wire clips
- Remove all plastic wrapping from the terminal and other components.
- Remove the clear protective film from the LCD screen.

WARNING

Do not use a terminal that has been damaged or tampered.



The Omni 37xx terminal comes equipped with tamper-evident labels. If a label or component appears damaged, please notify the shipping company and your VeriFone representative or service provider immediately.

4 Save the shipping carton and packing material for future repacking or moving the terminal.

Examine Terminal Features

Before you continue the installation process notice the following features of the Omni 37xx (see Figure 2):

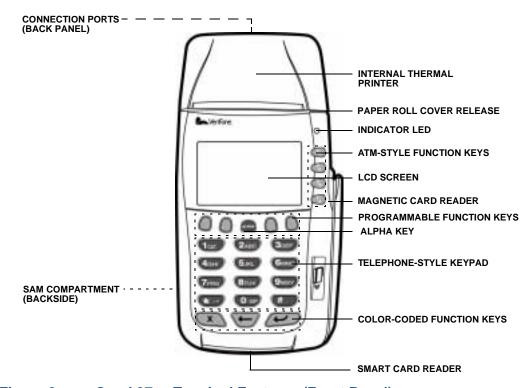


Figure 2 Omni 37xx Terminal Features (Front Panel)

Front Panel

The front panel includes the following features:

- An LCD screen.
- Four types of keys:
 - A 12-key, telephone-style keypad.
 - Four ATM-style function keys, labeled F1 to F4, to the right of the LCD screen.
 - Four unlabeled, **programmable** function (PF) keys above the keypad.
 - Three color-coded function keys below the keypad (icons at right, left-to-right: CANCEL/OFF, BACKSPACE, ENTER/ON).



- An ALPHA key centered at the top of the keypad.
- A magnetic card reader, built into the right side. The icon at right shows the proper swipe direction, with the stripe facing inward, toward the keypad.



- A green/red indicator LED (Light Emitting Diode) with the following states:
 - Steady green light indicates power is ON.

- Slow flashing green (roughly one flash per second) indicates no paper in the printer.
- Fast flashing green (roughly two flashes per second) indicates a printer mechanism error.
- Flashing red indicates the terminal is downloading printer-related files.
- An internal thermal printer.
- A smart card reader, built into the terminal's front side. The icon shown at right indicates the proper card position and insertion direction.



 A SAM (security access module) compartment, built into the bottom side of the terminal. The Omni 37xx terminal contains micromodule-size SAM (MSAM) cardholders for supporting multiple stored-value card programs or other merchant card requirements.



VeriFone ships variants of the Omni 37xx terminal for different markets. Your terminal may have a different configuration. The following devices may or may not be present: a smart card reader, a printer; and/or zero, two, or four SAM cardholders. However, the basic processes described in this guide remains the same, regardless of the terminal configuration.

Back Panel

If you turn the terminal around and view it from just under the hinges of the paper roll cover, you will notice different ports that connect the Omni 37xx to a communications line, optional devices, and the power supply (see Figure 3):

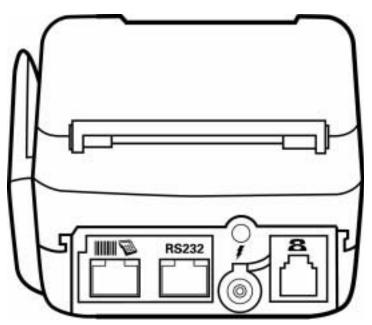


Figure 3 Connection Ports (Back Panel)

 Communications Port can be identified by a telephone-shaped icon, shown at right. Use this port to connect a telephone to the Omni 37xx.



- Two RJ45-type modular jacks (serial ports) are for attaching optional peripheral devices.
 - RS232 port, icon at right, connects a VeriFone CR 600 check reader or other peripheral device.

RS232

 Bar Code and PIN Pad port, icons at right, connects a PIN pad, smart card reader, or bar code wand.



 Power connection port that uses a round port with a lock notch for securely connecting the terminal to a power source. It is identified by the electrical power icon at right.



WARNING



Do not connect the terminal to the power supply until all the peripherals are attached.

Establish Telephone Line Connections

Connect the telephone cord (VeriFone Part Number 00124-17) to the communication port on the terminal then route it directly to a telephone wall jack (see Figure 4). This is a direct connection, and the line is dedicated to the terminal.

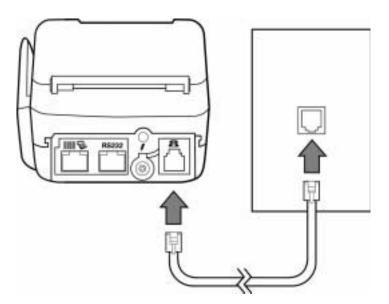


Figure 4 Direct Telephone Connection

Install Paper Roll

A fast, quiet thermal printer is built in to the Omni 37xx. There are no additional printer cables to connect because the printer receives power directly from the terminal.

Before you can process transactions that require a receipt or record, you *must* install a roll of thermal-sensitive paper in the printer. This procedure is described in To Install a Paper Roll section.

The internal thermal printer uses a roll of single-ply, thermal-sensitive paper 58 millimeters (2.25 inches) wide and about 25-33 meters (82-108 feet) long.



Poor-quality paper jams the printer. To order high-quality VeriFone paper, refer the Accessories and Documentation section.



Store thermal paper in a dry, dark area. Handle thermal paper carefully: impact, friction, temperature, humidity, and oil affect the color and storage characteristics of the paper.

Never load a roll of paper with folds, wrinkles, tears, or holes at the edges or in the printing area.

To Install a Paper Roll

- 1 Turn on the terminal. The green LED indicator will blink on and off, indicating that the printer needs paper.
- 2 Press the button on the side of the terminal to unlatch the paper roll cover, then rotate the cover up back on its hinges (see Figure 6).

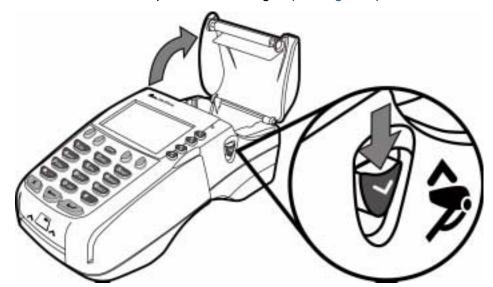


Figure 5 Printer Latch Button

3 If there is a partial roll of paper in the printer tray, remove it by lifting it up (see Figure 6).



Figure 6 Removing Partial Paper Roll

- 4 Loosen the glued leading edge of the paper, or remove the protective strip from the new roll of paper and cut a straight edge across its leading end.
- 5 Hold the roll so the paper feeds from the *bottom* of the roll.
- 6 Drop the paper roll into the printer tray, leaving 7 centimeters (about two inches) of paper sticking up past the serrated metal tear strip (see Figure 7).



Figure 7 Loading Paper Roll

7 Close the cover by gently pressing directly on the paper roll cover until it clicks shut. Allow a small amount of paper to extend outside the cover (see Figure 8).

NOTE

To prevent damage to the print roller on the paper roll cover, always close the cover by gently pressing down on the paper roll cover.



Figure 8 Closing Paper Roll Cover

For paper ordering information, refer to the Accessories and Documentation section.

Install/Replace MSAM Cards

When you first receive your Omni 37xx terminal, you may need to install one or more micromodule-size security access module (MSAM) cards, or you may need to replace old cards with new ones.



Observe standard precautions for handling electrostatically sensitive devices. Electrostatic discharges can damage this equipment. VeriFone recommends using a grounded anti-static wrist strap.

To change or install SAMs

- 1 Remove the power cord from the back of the terminal.
- 2 Place the terminal upside-down on a soft, clean surface to protect the lens from scratches.
- 3 Remove the locking screw and remove the MSAM compartment door (see Figure 9).

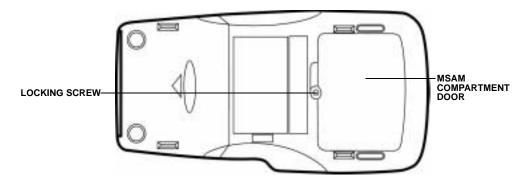


Figure 9 MSAM Compartment Door and Locking Screw

- 4 The MSAM cardholders are now accessible. Each cardholder consists of a hinged tilt-up cover attached to a connector base.
- 5 To unlock a cardholder, slide its locking plate to the unlocked position, shown by the OPEN arrow (see Figure 10).

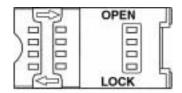


Figure 10 MSAM Cardholder Close-Up

6 Open the cardholder by pivoting the cover on its hinges away from its connector base (see Figure 11).

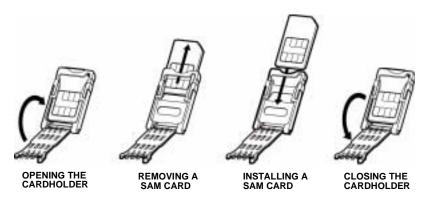


Figure 11 Using an MSAM Cardholder

- 7 Remove any previously-installed MSAM card by sliding the card from the cover.
- 8 Install an MSAM card by aligning the card and carefully sliding it within the guides on the cover until it is fully inserted.



Before inserting the MSAM card, position it as shown in Figure 11, with the card's gold contacts facing the smart car reader end of the terminal. The cardholder connector base has a set of contacts and a notch post on one corner to ensure the MSAM card is positioned correctly when the cover is closed. The MSAM card has a notch on one corner to ensure that it fits into the connector base in only one way.

- 9 Close the cardholder by pivoting the cover back to its connector base (see Figure 11).
- **10** Lock each MSAM cardholder by sliding its locking plate, as shown by the LOCK arrow, until the plate stops (see Figure 10).
- 11 Replace the MSAM compartment door and reinstall the locking screw (see Figure 9).

Connect Optional Device(s)

The Omni 37xx supports some peripheral devices designed for use with electronic point-of-sale terminals.

Use the two ports on the back panel to connect up to two optional devices.



Before connecting any peripheral device, remove the power cord from the back of the terminal and be sure the LED is not lit. Reconnect the power cord only *after* you are finished connecting the peripheral device(s). For complete information about peripheral installation and use, refer to the user documentation supplied with those devices.

The following sections discuss the most common optional devices supported by this terminal.

Table 2 Optional Devices Supported

Optional Device	Connection Port
Barcode	PIN Pad
CR 600	RS232
Console	PIN Pad
External LAN	RS232
PIN Pad	PIN Pad
RS232 Electronic Cash Register	RS232

Other optional devices may be supported. For more information, please contact your VeriFone distributor.



RS232-type devices do not work with the PIN Pad port; PIN Pad-type devices do not work with the RS232 port. If an optional peripheral device does not function correctly, check the port connection.

Connect PIN Pad, Smart Card Reader, or Bar Code Wand

To Connect PIN Pad, Smart Card Reader, or Bar Code Wand

- If necessary, insert the small modular plug on one end of the PIN pad cable into the PIN pad's modular jack.
 For a bar code wand, insert the PIN-type cable into the PIN pad serial port.
 - For a bar code wand, insert the RJ45-type cable into the PIN pad serial port on the back panel.
- 2 If installing a PINPad 101, PINpad 201 or PINpad 1000, position and insert the grommet to secure the cable connection.

If a cable is not already connected to the smart card reader or PINpad 501, insert the small modular plug on one end of the interface cable into the optional device's modular jack.

3 Insert the larger RJ45-type connector on the other end of the PIN pad cable into the PIN pad serial port on the terminal's back panel.

Figure 12 provides an example of a Smart Card Reader connection to a Bar code and PIN pad serial port.

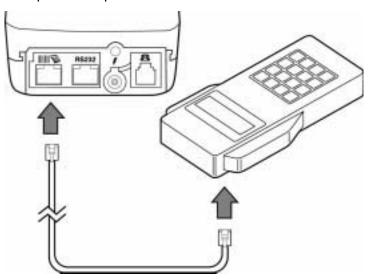


Figure 12 Smart Card Reader Connection

Connect Check Reader

The Omni 37xx base supports two VeriFone check readers: CR 600 and CR 1000*i*. Contact your VeriFone representative or visit the online store at www.verifone.com for information on these devices. Figure 13 provides an example of a peripheral connection to an RS232 port.



Check readers require a separate power source. Before connecting a check reader or similar device, remove the power cord from the back of the terminal and be sure the LED is not lit.

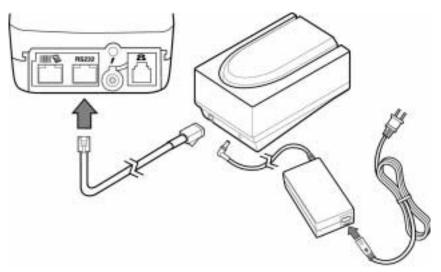


Figure 13 CR 600 Check Reader Connection

External Printers Supported

Although most Omni 37xx variants have an internal thermal printer, it may be convenient to print larger print runs (for example, daily or weekly reports) to an external printer. The Omni 37xx base supports three VeriFone external printers: P250, P350, and P900. Contact your VeriFone representative or visit the online store at www.verifone.com for information on these devices. External printer connections are through the same port as check readers (see Figure 13).

Connect Terminal Power Pack

When you have finished connecting any optional peripheral(s), you are ready to connect the Omni 37xx to a power source:



Using an incorrectly rated power supply may damage the terminal or cause it not to work as specified. Before connecting check to ensure that the power supply being used to power the terminal matches the requirements specified at the back of the terminal. (see Chapter 3, Specifications, for detailed power supply specifications). Obtain the appropriately rated power supply before continuing with troubleshooting.

1 Insert the round barrel connector (see Figure 14) into the power port, identified by the icon at right.





The round barrel connector on the power pack cable has a plastic lock tab that secures the power cable to the terminal.

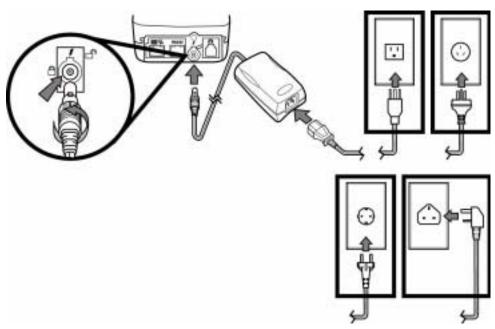


Figure 14 Omni 37xx Power Pack Connection

- To lock the connector into the power port, align the plastic lock tab so it points up. Insert the connector, then twist it to the left.
- To unlock the connector, twist it to the right.
- 2 Insert the power cable into the power pack.
- 3 Plug the power pack cable into a wall outlet or surge protector.

WARNING



Do not plug the power pack into an outdoor outlet or operate the terminal outdoors. Also, disconnecting power during a transaction may cause transaction data files that are not yet stored in terminal memory to be lost.



To protect against possible damage caused by lightning strikes and electrical surges, consider installing a power surge protector.

When the terminal has power, the LCD screen lights and the green LED indicator flashes on and off if the printer has no paper, or stays lit if paper is loaded.

If an application is loaded in the terminal, it starts after the initial VeriFone copyright screen and displays a unique copyright screen. If no application is loaded in the terminal, <code>DOWNLOAD NEEDED</code> appears on screen after the initial VeriFone copyright screen.

Routing The Cables Using Wire Clips

Since the Omni 37xx terminal is a hand-over solution, make sure the cables are routed loosely. Use the two wire clips provided with each terminal to organize loose cables. See Figure 15.

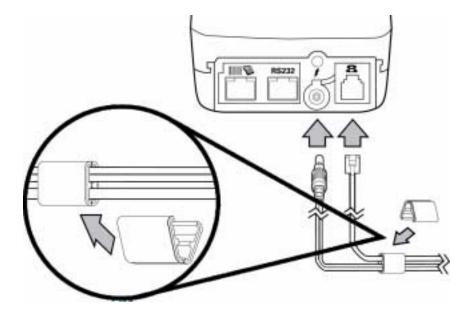


Figure 15 Routing Cables Using Cable Wires

- 1 Place the telephone cord and power cable into the grooves inside the wire clip.
- 2 Close the wire clip and press the halves together until the it snaps closed.
- 3 Unsnap the wire clip, to reposition as necessary.

Smart Card Transaction

The smart card transaction procedure may vary from one application to an another. Verify with your application provider before you perform a smart card transaction.

To Conduct a Smart Card Transaction

- 1 Position a smart card with the contacts facing upward (see Figure 16).
- Insert it into the smart card reader slot in a smooth, continuous motion until it seats firmly.

3 When the LCD screen indicates the transaction is completed, remove the card.

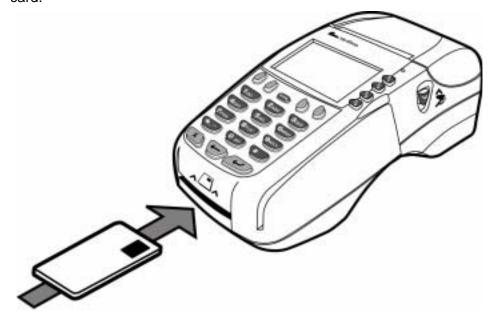


Figure 16 Inserting the Smart Card



Leave the smart card in the card reader until the transaction is completed. Premature removal invalidates the transaction.

Magnetic Card Reader Use

To Conduct a Credit/Debit Card Transaction

- Position a magnetic card with the stripe facing down and inward, toward the keypad.
- 2 Swipe it through the magnetic card reader (see Figure 17).

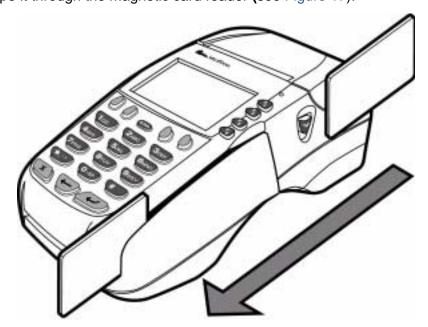


Figure 17 Using the Magnetic Card Reader

TERMINAL SETUP

Magnetic Card Reader Use

CHAPTER 3

Specifications

This chapter discusses power requirements, dimensions and other specifications of the Omni 37xx terminal.

Power

Omni 37xx terminal: 24 V DC; 1.5 A

DC Power Pack

For Non-switching Power Supplies:

UL, ITE Listed, Class 2 Power Supply

Input rated: 110 - 127V ac, 60 Hz.

Output rated: 24V dc 1.5 A

For switching Power Supplies:

UL, ITE Listed, Class 2, Switching Power Supply

Input rated: 100 - 240 V ac, 50/60 Hz.

Output rated: 24 V dc, 1.5 A

Barrel Connector Polarity:



Temperature

- Operating temperature: 0° to 40° C (32° to 104° F)
- Storage temperature: -18° to + 66° C (0° to 150° F)
- Relative humidity: 15% to 90%; no condensation

External Dimensions

- Length: 210 mm (8.3 in)
- Width: 104 mm (4.1 in)
- Depth: 83 mm (3.3 in)
- Weight: 760 gms (1.675 lb)

Weight

Terminal unit weight: 1.28 kg (2.82 lb)

Shipping weight: 3.26 kg (7.19 lb)

The shipping weight includes: shipping carton, terminal, power pack and cable, telephone line cable, one *Omni 37xx Certifications and Regulations*, and one *Omni 37xx Quick Installation Guide*.

SPECIFICATIONS



CHAPTER 4

Maintenance

The Omni 37xx has no user-maintainable parts.

Cleaning the Terminal

To clean the terminal, use a clean cloth slightly dampened with water and a drop or two of mild soap. For stubborn stains, use alcohol or an alcohol-based cleaner. For best results, use a Verifone Cleaning Kit (refer to the Accessories and Documentation section).



Never use thinner, trichloroethylene, or ketone-based solvents – they may deteriorate plastic or rubber parts.

Do not spray cleaners or other solutions directly onto the keypad or LCD screen.

Smart Card Reader

Do not attempt to clean the smart card reader. Doing so may void any warranty. For smart card reader service, contact your VeriFone distributor or service provider.

MAINTENANCE

Smart Card Reader

CHAPTER !

VeriFone Service and Support

For Omni 37xx terminal problems, contact your local VeriFone representative or service provider.

For Omni 37xx product service and repair information:

- USA VeriFone Service and Support Group, 1-800-834-9133,
 Monday Friday, 8 A.M. 7 P.M., EST
- International Contact your VeriFone representative

Returning a Terminal for Service

Before returning the Omni 37xx terminal to VeriFone, you must obtain a Merchandise Return Authorization (MRA) number. The following procedure describes how to return one or more Omni 37xx terminals for repair or replacement (U.S. customers only):



International customers, please contact your local VeriFone representative for assistance with your service, return, or replacement.

- 1 Gather the following information from the printed labels (see Figure 18) on the bottom of *each* Omni 37xx terminal to be returned:
 - Product ID, including the model and part number. For example, "OMNI 3700" and "PTID xxxxxxxx"
 - Serial number (S/N xxx-xxx-xxx)
- Within the United States, call VeriFone toll-free at 1-800-834-9133.
- 3 Select the MRA option from the automated message. The MRA department is open Monday–Friday, 8 A.M.–7 P.M., EST.
- 4 Give the MRA representative the information gathered in Step 1. If the list of serial numbers is long, you can fax the list, along with the information gathered in Step 1, to the MRA department at 502-329-5947 (U.S.)
 - Please address the fax clearly to the attention of the "VeriFone MRA Dept."
 - Include a telephone number where you can be reached and your fax number.
 - You will be issued MRA number(s) and the fax will be returned to you.

NOTE

One MRA number must be issued for each Learning Products Template Version 2.1 terminal you return to VeriFone, even if you are returning several of the same model.

- 5 Describe the problem(s) and provide the shipping address where the repaired or replacement unit must be returned.
- 6 Keep a record of the following items:
 - Assigned MRA number(s).
 - VeriFone serial number assigned to the Omni 37xx terminal you are returning for service or repair (terminal serial numbers are located on the bottom of the unit (see Figure 18).
 - Shipping documentation, such as air bill numbers used to trace the shipment.
 - Model(s) returned (model numbers are located on the VeriFone label on the bottom of the Omni 37xx terminal).

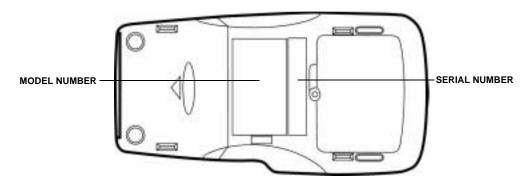


Figure 18 Information Label on Terminal Bottom

Accessories and Documentation

VeriFone produces the following accessories and documentation for the Omni 37xx terminal, as listed below. When ordering, please refer to the part number in the left column.

VeriFone Online Store at www.store.verifone.com

- USA VeriFone Customer Development Center, 800-233-0522,
 Monday Friday, 7 A.M. 5 P.M., MST
- International Contact your VeriFone representative

Download Cables	05651-xx	MOD10-MOD10 (terminal-to-terminal)
	26263-xx	02xxx MOD10-PC DB25F (terminal-to-PC)
	26264-xx	02xxx MOD10-PC DB9F (terminal-to-PC)
Cables for Optional	07041-xx	MOD10-MDIN9 (CR 600/CR 1000i check readers; P250/P355/P900 external printers)
Peripherals	07042-xx	MOD10-4P4C (all VeriFone PIN pads)

Telephone Line Cord	00124-17	2.1-meter (7-foot) telephone line cord, black color, with modular RJ11-type connectors
Power Pack	Contact your local VeriFone distributor to determine which power pack or power cord fits your needs.	
	CPS05791-3A	DC power pack (universal)
	21973-01	Power cable (US)
Wire clip	07826, Rev A	Wire clip
Thermal Printer Paper	CRM0039	High-grade thermal printer paper, 58-mm (2.25-inch) width, 25-meter (82-feet) length; single roll
	CRM0039-01	CRM0039 in 30-roll bulk package
	CRM0040	High-grade thermal printer paper, 58-mm (2.25-inch) width, 33-meter (108.26-feet) length; single roll
Paper Roll Spindle	02117-03	Plastic spindle for 58-mm (2.25-inch) rolls of thermal printer paper; orange color
VeriFone Cleaning Kit	02746-01	Cleaning Kit
Documentation	22398, Rev. C	Omni 3750 Quick Installation Guide
	22429, Rev. B	Omni 37xx Certifications and Regulations
	22380, Rev. E	Verix Programmer's Manual

VERIFONE SERVICE AND SUPPORT

Accessories and Documentation



CHAPTER 6

Troubleshooting Guidelines

The troubleshooting guidelines provided in the following section are included to assist you in successfully installing and configuring your Omni 37xx terminal. If you have problems operating your Omni 37xx terminal, please read through these troubleshooting examples.

If the problem persists even after performing the guidelines outlined, or if the problem is not described below, contact your local VeriFone representative for assistance. Typical examples of malfunction you may encounter while operating your Omni 37xx terminal and steps you can take to resolve them are listed.



The Omni 37xx terminal comes equipped with tamper-evident labels. The Omni 37xx contains no user serviceable parts. Do not, under any circumstance, attempt to disassemble the terminal. Perform only those adjustments or repairs specified in this installation guide. For all other services, contact your local VeriFone service provider. Service conducted by parties other than authorized VeriFone representatives may void any warranty.



Using an incorrectly rated power supply may damage the terminal or cause it not to work as specified. Before troubleshooting, check to ensure that the power supply being used to power the terminal matches the requirements specified at the back of the terminal. (See Chapter 3, Specifications, for detailed power supply specifications). Obtain the appropriately rated power supply before continuing with troubleshooting.

Blank Display

When the Omni 37xx terminal LCD screen does not show correct or clear readable information:

- Check all terminal power connections.
- Check all cable connections and verify that the telephone line is properly connected.
- If the problem persists, contact your local VeriFone service provider for assistance.

Terminal Does Not Dial Out

If the terminal does not dial out:

- Check the telephone line connections.
- Check to make sure the telephone line is working by plugging it into a working telephone and listening for a dial tone.

- Replace the telephone cable that connects the terminal with a cable you know is working correctly.
- If the problem persists, contact your local VeriFone service provider for assistance.

Printer Does Not Print

If the printer does not work properly:

- Check all terminal power connections. The internal thermal printer receives power directly from the Omni 37xx terminal. The green power-on indicator light must be ON.
- Check to make sure the paper roll cover is properly latched.
- If the green power-on indicator is blinking on and off, the printer is out of paper.
 Open the paper roll cover and install a new roll of printer paper, as described in Install Paper Roll.
- If the problem persists, contact your VeriFone distributor or service provider.

Printer Paper Jam

If paper jams up inside the printer:

- Press the button on the side of the terminal to unlatch the paper roll cover, then open the cover.
 - Remove the damaged paper from the paper roll and clear the feed mechanism.
 - Re-install the roll of printer paper, as described in Install Paper Roll.
 - If the problem persists, it may be due to poor paper quality. Install a new roll of higher-quality paper.

See To Install a Paper Roll.



Poor-quality paper may jam the printer. For high-quality VeriFone paper, refer to the Accessories and Documentation section.

Peripherals Device Does Not Work

If any of the peripheral device (PIN Pad, Smart Card Reader, or Bar Code Wand) does not work properly:

- Check the power cable connection to the peripheral device.
- Check that the device connected to the serial port has power and is functioning properly. If possible, perform a self-test on the device in question.
- The cable connecting the optional device to the Omni 37xx terminal serial port may be defective. Try a different serial cable.
- If the problem persists, contact your local VeriFone representative for assistance.

See Connect Optional Device(s).

Keypad Does Not Respond

If the keypad does not respond properly:

- Check the LCD screen. If it displays the wrong character or nothing at all when you press a key, follow the steps outlined in Transactions Fail To Process.
- If pressing a function key does not perform the expected action, refer to the user documentation for that application to ensure you are entering data correctly.
- If the problem persists, contact your local VeriFone representative for assistance.

Transactions Fail To Process

There are several possible reasons why the terminal may not be processing transactions. Use the following steps to check troubleshoot failures.

Check Magnetic Card Reader

- Perform a test transaction using one or more different magnetic stripe cards to ensure the problem is not a defective card.
- Ensure that you are swiping cards properly. With the Omni 37xx card reader, the black, magnetic stripe on the card should face inward, toward the keypad.
- Process a transaction manually using the keypad instead of the card reader. If the manual transaction works, the problem may be a defective card reader. Contact your VeriFone distributor or service provider. If the manual transaction does not work, proceed to Check Telephone Line.

Check Smart Card Reader

- Perform a test transaction using several different smart cards to ensure the problem is not a defective card.
- Ensure that the card is inserted correctly.
- Ensure the MSAM cards are properly inserted in the cardholders and the cardholders are properly secured (see Install/Replace MSAM Cards).
- Process the transaction manually using the keypad instead of the card reader.
 If the manual transaction processes, the problem may be a defective card reader. Contact your VeriFone distributor or service provider. If the manual transaction does not process, proceed to Check Telephone Line.

Check Telephone Line

- Disconnect the telephone line from the back of the Omni 37xx terminal and connect it to a working telephone to check for a dial tone. If there is no dial tone, replace the telephone cable.
- If the problem appears to be with the telephone line, check with the party you
 are trying to call to see if their system is operational. If they are not
 experiencing difficulties with their line, contact the telephone company and
 have your line checked. If the telephone line works, contact your local
 VeriFone representative for assistance.

TROUBLESHOOTING GUIDELINES

Transactions Fail To Process



INDEX

A	1
accessories 30 cables for optional peripherals 30 documentation 31 download cables 30	installation 7 connecting a PINpad 18 connecting a smart card reader/writer 18 connecting optional device(s) 18
ordering 31 paper roll spindle 31 power packs 31 telephone line cord 31 thermal printer paper 31	connecting the terminal power pack 20 connecting the terminal to a telephone line 13 MSAM cardholders 16 MSAM cards 16 peripherals 19
VeriFone cleaning kit 31 B bar code wand connect 18	setting up a direct telephone line connection 13 table of peripheral devices 18 terminal location 9 unpack the shipping carton 10 using the magnetic card reader 23
C	K
cables ordering cables for optional peripherals 30 ordering download cables 30 check readers 19 connect bar code wand 18 connection ports 12 communications port 12 RJ45-type modular jacks 13 bar code 13 PIN Pad 13 RS232 13	keypad troubleshooting 35 M magnetic card reader,using 23 maintenance cleaning the terminal 27 returning a terminal for repair or replacement 29 MSAM cardholders 16 MSAM cards 16
D	optional devices, connecting 18
direct telephone line connection 13 display troubleshooting 33 documentation 30 documentation, ordering 31 download cables, ordering 30 E electrostatic discharge 16	paper rolls for thermal printer 14, 34 peripherals cables 30 check readers 19 installation 19 PINpad 18 printers 19
Cicoliosialic discriarge 10	smart card reader/writers 18

```
table of supported devices 18
PINpad
   connecting 18
power pack
   AC version 31
   connecting 20
   DC version 31
   ordering 31
printer
   paper roll spindle 31
   troubleshooting 34
printer paper
   ordering 31
S
service
   returning a terminal for repair or replacement 29
smart card reader/writer
   connecting 18
T
telephone line connections 13
   direct 13
telephone line cord, ordering 31
terminal
   accessories 30
   cleaning 27
   documentation 30
   repair 29
   replacement 29
   service and support 29
   troubleshooting 33
terminal features
   general 11
thermal printer
   about thermal printer paper 14, 34
   troubleshooting 34
troubleshooting
   display 33
   guidelines 33
   keypad 35
   printer 34
   terminal transactions 35
```



VeriFone, Inc. 2455 Augustine Drive Santa Clara CA 95054-3002 Tel: 408-330-6300

Fax: 408-330-6406 www.verifone.com



SOFTPAY E-PAYMENT APPLICATION



VERIX
DEVELOPER
TOOLKIT
DEVELOPMENT
TOOLS



VERISHIELD SECURITY ARCHITECTURE



OMNI 37XX HAND-OVER-COUNTER MULTI-APPLICATION APPLIANCES



OMNI 33XX MULTI-APPLICATION APPLIANCES



VERIX
MULTI-APP
CONDUCTOR
MULITPLE APPLICATION
MANAGEMENT
SYSTEM



VERICENTRE

APPLIANCE

MANAGEMENT

SUITE



Omni 37xx

Installation Guide



Omni 37XX Installation Guide

(VeriFone Part Number 22399)

Appendix - (Some Wireless Models)

■ Install/Replace SIM Card (GSM models)

The SIM (Subscriber Identity Module) card is a smart card inserted in the Omni 3750 GSM terminal that contains your GSM radio account information. Use the following procedure to replace or install a SIM card.

- 1. Remove screw from SIM card access door on back of Omni 3750 terminal (Fig 1).
- 2. Remove the SIM card access door.
- 3. Open the SIM cardholder and slide the SIM card supplied by your provider into the cardholder.

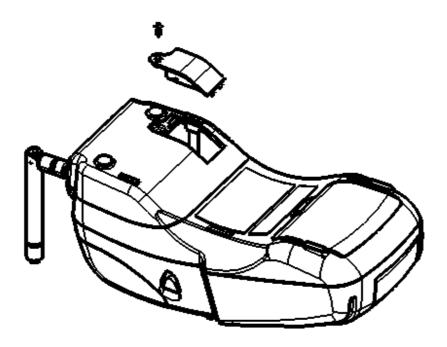


Fig. 1



NOTE: Do not lose the SIM card dust cover or retaining screw.

NOTE: The SIM cardholder has a notch on one corner to ensure the SIM card is positioned correctly. The SIM card has a notch on one corner for easy orientation in the cardholder. When inserting the SIM card, position it with the card's gold contacts facing down.

4. Replace the SIM card access door and screw.

Antenna

For some Omni 3750 terminals to establish a wireless connection, and external antenna is provided. This connection allows communication with your service provider to upload transaction data from the terminal and download system upgrade to the terminal. Radio service is activated by your service provider.

NOTE: Only use the antenna designed for your unit. Failure to use the proper antenna results in the inability to establish a wireless connection.

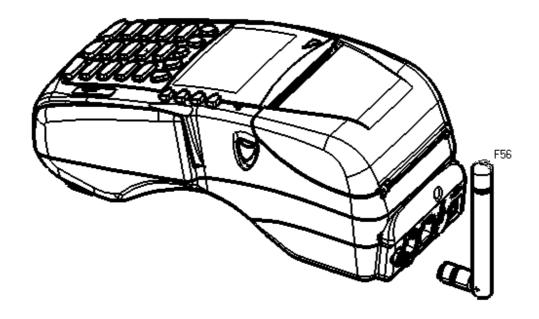
<u>Caution:</u> Never hold the unit by the antenna; doing so may break the connection and void your warranty.

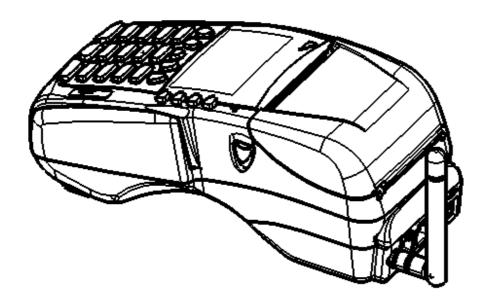
<u>Installation:</u> The Omni 3750 should arrive from manufacture with the antenna attached. If unattached, use the following procedure to install the antenna:

- 1. Locate the antenna port on the back of the Omni 3750 terminal (Fig. 2).
- 2. Align the respective "notch" inside the antenna to the key in the terminal
- 3. Push gently on the center of the base of the antenna until it locks in position.

Orientation: To establish good wireless communication (uplink), it is important that the antenna always be vertically aligned with respect to ground and sky.









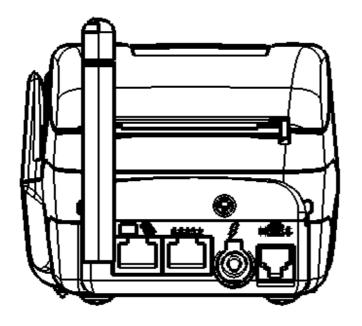


Fig. 2



Note:

FEDERAL COMMUNICATIONS COMMISSION

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:(1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiated radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- -Reorient or relocate the receiving antenna.
- -Increase the separation between the equipment and receiver.
- -Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

The antenna(s) used for this transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. In order to avoid the possibility of exceeding the FCC radio frequency exposure limits, human proximity to the antenna shall not be less than 20cm (8 inches) during normal operation.