

Verifone®

V240m

Installation Guide



V240m Installation Guide
© 2018 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 and the Verifone logo, 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.

Product Warranty

For product warranty information, go to <http://www.verifone.com/terms>.

Comments? Please e-mail all comments on this document to your local Verifone Support Team.

Verifone Inc.
1-800-Verifone
www.verifone.com



CONTENTS

PREFACE 5

Audience 5

Organization 5

Related Documentation 5

Guide Conventions 5

 Acronym Definitions 6

CHAPTER 1

Overview

 V240m Terminal 7

 Front Functions 7

 Back Functions 8

 End Functions 8

 V240m Bases 9

 V240m Charging Base 9

 V240m Full-Feature Base 10

 Features and Benefits 11

 Exceptional Ease of Use and Ergonomics 11

 Critical Security Protection 11

CHAPTER 2

Setup

 Selecting Location 13

 Environmental Factors 14

 Electrical Considerations 14

 Contactless Considerations 14

 PIN Protection Measures 14

 Unpacking Shipping Carton 15

 MSAM/uSD Cards 15

 Opening Card Compartment 15

 Changing or Installing MSAMs 16

 Changing or Installing Micro SD Card 17

 Changing or Installing SIM Card 18

 Loading Printer Paper 18

 Power Supply 19

 USB Power Supply 21

 Cable Connections 21

 Cable Connections Using the Full-Feature Base 22

 Smart Card Reader 23

 Magnetic Stripe Card Reader Use 24

 Contactless Transactions 24

 Camera / Barcode Scanner 25

 Optional Accessories 25

 Full-Feature Base 25

 Charging Base 26

 Periodic Inspection 27

CHAPTER 3
Specifications

V240m Terminal 29
Unit Power Requirements 29
Temperature 29
Humidity 29
External Dimensions 29
Weight 29
Processor 29
Display 29
Magnetic Card Reader 29
Primary Smart Card 29
SAM Card Reader 30
Battery Pack 30
Security 30
V240m Bases 30
Unit Power Requirements 30
Temperature 30
Humidity 30
Security 30

CHAPTER 4
Troubleshooting
Guidelines

Display Panel Does Not Work 31
Keypad Does Not Respond 31
Transactions Fail To Process 31

CHAPTER 5
Service and Support

Maintenance and Cleaning 33
Service Returns 33
Accessories and Documentation 35
Cables 35
Power Supply 35
Accessories 35
Documentation 35

APPENDIX A Caution and Warning Messages 37



This guide is the primary source of information for setting up and installing V240m device.

NOTE



Verifone ships variants of the V240m terminal for different markets. Your terminal may have a different configuration, a different amount of memory, a different radio, and may or may not have a camera.

Audience

This guide provides simple descriptions of the V240m features and the basic information for installing and configuring the V240m.

Organization

This guide is organized as follows:

[Chapter 1, Overview](#). Provides an overview of a V240m device.

[Chapter 2, Setup](#). Explains how to set up and install the V240m and establish connections with other devices.

[Chapter 3, Specifications](#). Discusses the power requirements and dimensions of V240m.

[Chapter 4, Troubleshooting Guidelines](#). Provides troubleshooting tips.

[Chapter 5, Service and Support](#). Provides information on contacting your Verifone service provider, ordering accessories or documentation from Verifone, and maintaining the V240m unit.

[Appendix A, Caution and Warning Messages](#). Shows the UL/cUL certification-compliant translations of all Warning and Caution messages in this installation guide.

Related Documentation

To learn more about the V240m device, please refer to the following documents and their associated Verifone Part Numbers (VPN):

<i>V240m Certifications and Regulations</i>	VPN DOC474-001-EN
<i>V240m Quick Installation Guide</i>	VPN DOC474-002-EN

Guide Conventions



Please refer to the following document conventions for quickly identifying special formatting.

[Table 1](#) 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-references.	See Guide Conventions .
<i>Italics</i>	Italic typeface indicates book titles or emphasis.	You <i>must</i> not use this unit underwater.

Table 1 Document Conventions

Convention	Meaning	Example
	The pencil icon is used to highlight important information.	RS-232-type devices do not work on the communication port.
	The caution symbol indicates hardware or software failure, or loss of data.	The unit is not waterproof or dustproof, and is intended for indoor use only.
	The lightning symbol is used as a warning when bodily injury might occur.	Due to risk of shock do not use the unit near water.

Acronym Definitions Please refer to [Table 2](#) for the acronyms used in this manual.

Table 2 Acronym Definitions

Acronym	Definitions
3DES	Triple Data Encryption Algorithm
AC	Alternating Current
ANSI	American National Standards Institute
cUL	Underwriters' Laboratories of Canada
DC	Direct Current
DUKPT	Derived Unique Key Per Transaction Method as defined in the VISA's <i>POS Equipment Requirement: PIN processing and Data Authentication</i> , International Version 1.0, August 1988
ECR	Electronic Cash Register
EMV	Europay, MasterCard, and Visa
ISO	International Organization for Standardization
MRA	Merchandise Return Authorization
MSAM	Multiple Secure Access Module
LAN	Local Area Network
LCD	Liquid Crystal Display
LED	Light-Emitting Diode
PED	PIN Entry Device
PIN	Personal Identification Number
POS	Point-of-Sale
RS-232	Recommend Standard number 232
SAM	Secure Access Module
UL	Underwriters Laboratories
USB	Universal Serial Bus
VPN	Verifone Part Number



Overview

This chapter presents the basics on the V240m terminal and base.

V240m Terminal

The V240m is a consumer-facing handheld device. The product's design is equally appealing as a handheld PINpad and robust enough to look and function appropriately in a fixed mount setting.

The V240m can utilize over-the-air connectivity, facilitating mobile telephony technology for sending and receiving data, using existing operator-provided 2G, Wi-Fi, Bluetooth, or 3G connectivity.

This guide provides an introduction and basic setup procedures for V240m terminals.

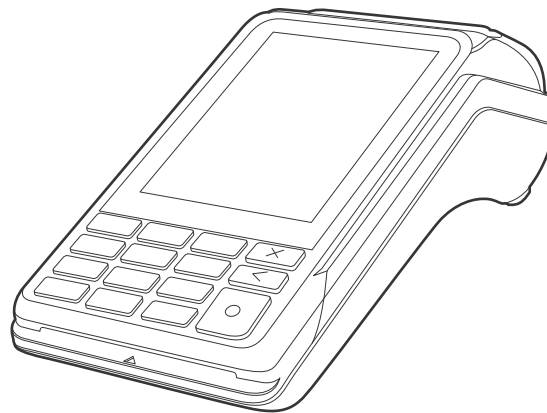


Figure 1 V240m Front View

Front Functions The V240m includes the following features:

- Capacitive touch **LCD display** and **CTLS** tap area
- **Smart card** reader
- **Magnetic card** reader
- Integrated thermal **printer**
- Secure keypad supporting 3x5 matrix containing 0-9, *, #, Cancel, Backspace/Clear, and Enter keys.
 - Dual-function Backspace/Clear key.
 - Customer-entry for Cancel and Enter keys.

Back Functions After removing the rear cover and battery, the underside of the V240m device shows the following:

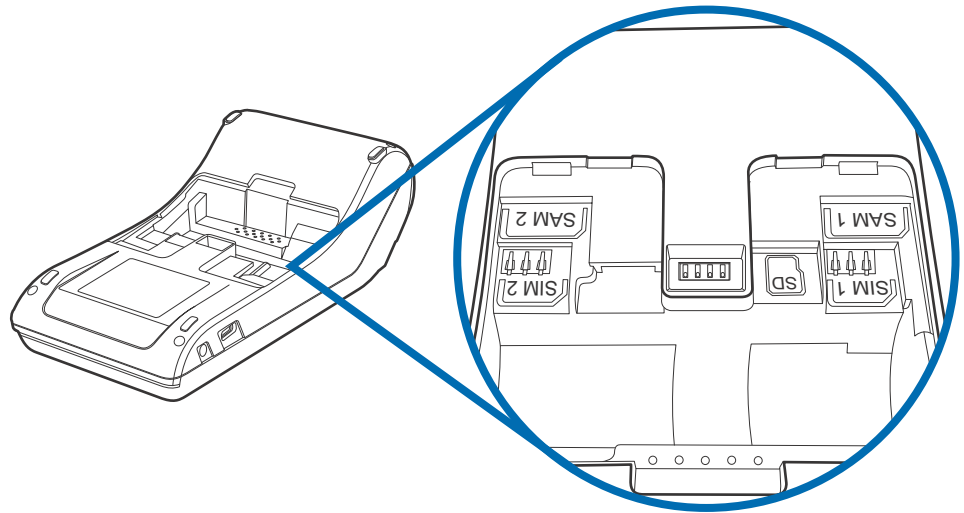


Figure 2 V240m Underside Compartment View

- A **Micro SD** slot
- Dual **MSAM slots** to support stored-value card programs or other merchant card requirements
- Dual **SIM Card** compartments

End Functions The V240m Camera variant includes an end-facing camera array that is capable of barcode and QR code scanning.:

Figure 3 V240m Camera array

V240m Bases

The V240m Base provides a stable mounted platform for the V240m terminal. The Base comes in two versions:

- V240m Charging Base
- V240m Full-Feature Base

The Charging Base supports charging only with no communication functionality. The Full-Feature Base supports several connectivity options and provides serial connection for peripherals (like ECR, check reader, barcode reader, etc.). The USB host port is for maintenance purposes and supports a USB flash drive.

V240m Charging Base

The Charging Base accommodates and supplies power to the V240m and V240m Plus portable terminals.

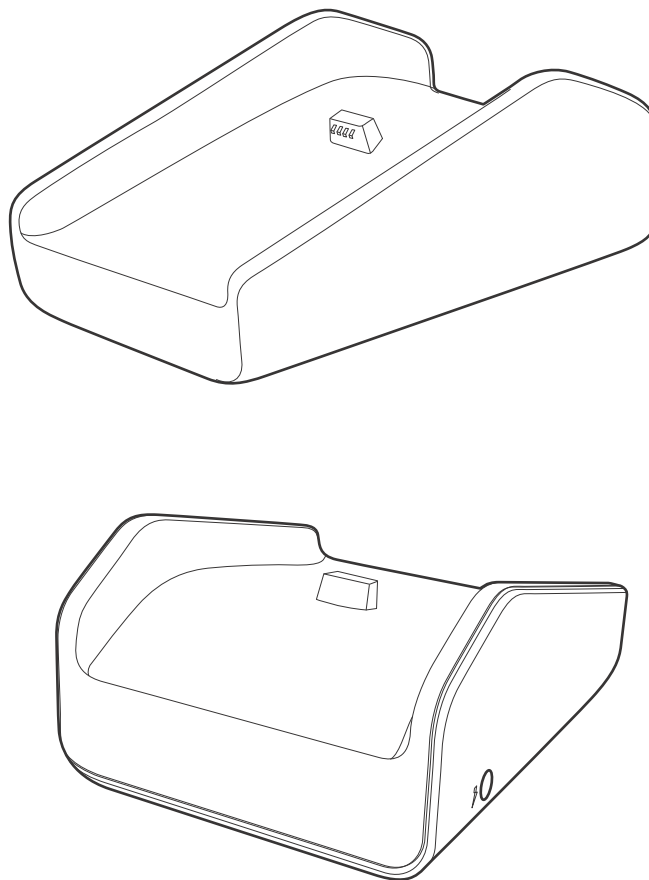


Figure 4 V240m Charging Base, Front and Rear

V240m Full-Feature Base The FF Base supports any failover communication via dial up and Ethernet connections for V240m. The failover will be supported in all network interfaces available in a terminal.

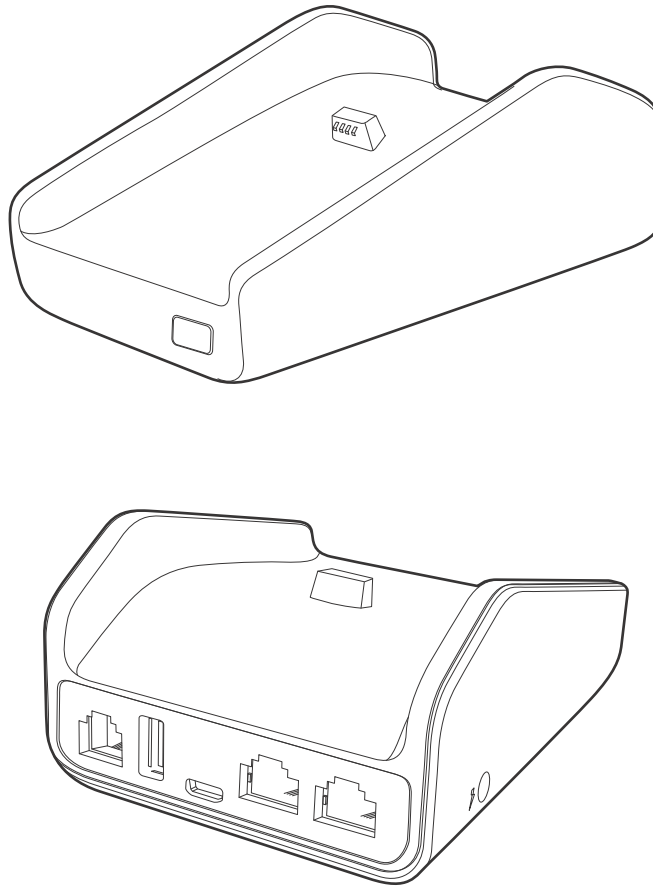


Figure 5 V240m FF Base, Front and Rear

The FF Base supports a minimum of seven simultaneous terminal connections via Bluetooth (BT) as well as the following:

Cable	Configuration
Ethernet port	RJ-45 socket (for connecting PINPad to LAN infrastructure)
RS232 port	RS232 socket (for connecting PINPad to LAN infrastructure), MOD-8 socket, Mini USB & DC-in jack
USB ports	Mini USB and type A USB

Features and Benefits

The V240m terminal and V240m Bases provide the following functionality:

Exceptional Ease of Use and Ergonomics

- Touch screen enables easy menu control and signature capture.
- Battery-powered for mobility and portable operation.
- Integrated thermal printer for fast transaction processing.
- Large, hard-rubber keys provide improved tactile feedback.
- 3.5" capacitive touch screen display.
- 2G capability (for V240m only).
- 3G functionality
- WiFi- and Bluetooth-capable.
- Intuitive keypad interface simplify training and reduce support requests.
- Using the Full-Feature Base, connects with most POS payment terminals, PCs, and ECRs.
- Supports payment transactions in a variety of payment environments.
- Rugged and reliable design absorbs hard knocks found at point-of-sale counters.
- Sleek and stylish shape occupies minimal counter space.
- Bold, ergonomic design fits comfortably in the palm of a hand.
- Optional Charging or Full-Feature Bases expand functionality while providing a stable, battery-charging platform.

Critical Security Protection

- Offers a choice of Master/Session or DUKPT key-management methods to protect PIN-based transactions.
- Offers secure, reliable PIN input for expanding range of PIN-based transactions.
- PCI 5.x-compliant for secure solutions, meeting the PED standard.
- Meets ISO and ANSI standards for PIN encryption, key management, and MAC.
- Key injection simplified and secured with Verifone's SecureKit key loading software.

NOTE



Verifone ships variants of the V240m terminal for different markets. Your terminal may have a different configuration, a different amount of memory, a different radio, and may or may not have a camera.

Setup

This chapter describes the setup procedure for the V240m and charging base, in the following sections:

- Selecting Location
- PIN Protection Measures
- Unpacking Shipping Carton
- MSAM/uSD Cards
- Power Supply
- Cable Connections
- Smart Card Reader
- Magnetic Stripe Card Reader Use
- Contactless Transactions
- Camera / Barcode Scanner
- Optional Accessories



NOTE

Verifone ships variants of the V240m terminal for different markets. Your terminal may have a different configuration, a different amount of memory, a different radio, and may or may not have a camera.

Selecting Location

Use the following guidelines to select the best location for the V240m device.

To Select a Location

Choose a location convenient for both merchant and client:

- Far from heavy metal objects,
- A flat support surface such as a countertop or a table,
- Near a power outlet and the terminal or computer that connects to the V240m.



WARNING

For safety, do not string cables or cords across a walkway.

Environmental Factors

- Do not use the unit where there is high heat, dust, humidity, moisture, or caustic chemicals or oils.
- Keep the unit away from direct sunlight and anything that radiates heat, such as a stove or a motor.
- Do not use the V240m outdoors.



The V240m is not waterproof or dustproof and is intended for indoor use only. Any damage to the unit from exposure to rain or dust can void any warranty.

Electrical Considerations

- Avoid using this product during electrical storms.
- Do not use the V240m unit near water or in moist conditions.
- Disconnect the device from its POS terminal before cleaning.



Due to risk of electrical 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. 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, neon signs, high frequency or magnetic security devices, or electric motors).

Contactless Considerations

Avoid having metallic objects in proximity of the contactless antenna. If you need to mount the terminal to vertical or inclined surfaces, use a flat, non-metallic mounting plate.



Using an enclosed metal frame or mount may negatively affect contactless performance.

PIN Protection Measures

The V240m and V240m Plus are handover devices. Always exercise extreme caution when conducting transactions, especially during PIN entry:

- Hand the terminal directly to the cardholder for PIN entry.
- Encourage the cardholder to hold the terminal close to avoid others from seeing the information being entered.

Verifone also recommends instructing the cardholder regarding safe PIN-entry. This can be done with a combination of:

- Signage on the PED
- Prompts on the display, possibly with a click-through screen
- Literature at the point of sale
- A logo for safe PIN-entry process.

Unpacking Shipping Carton

Carefully inspect the shipping carton and its contents for possible tampering or damage.

- 1 Remove the V240m unit from the shipping carton. The standard package contains the PIN pad, power pack, battery, and printer paper roll. Refer to [Accessories and Documentation](#) for more information about V240m related accessories.

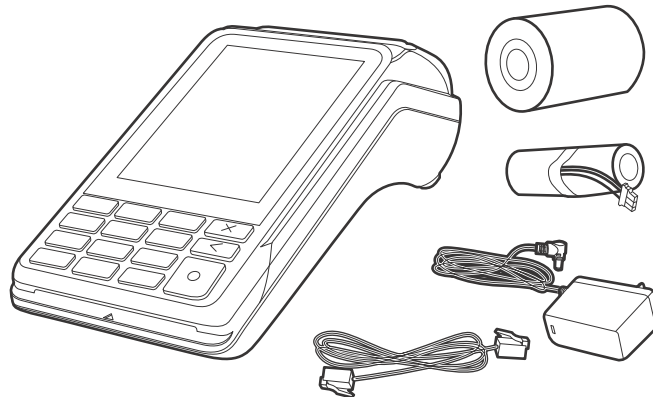


Figure 6 V240m Box Contents



This device is a secure product and any tampering can cause it to cease to function or operate in an unsecured manner.

- 2 Remove any protective plastic wrap and place the unit on a table or countertop.
- 3 Remove the clear protective film from the display.
- 4 Replace all the packing materials, close the lid, and save the carton for repacking or moving the V240m unit or base in the future.



Do not use a unit that has been tampered with or otherwise damaged. This unit comes equipped with tamper-evident label. If a label or component appears damaged, immediately notify the shipping company and your Verifone representative or service provider.

MSAM/uSD Cards

You may need to install or replace the multiple security access module (MSAM), Micro Secure Digital (SD) and Subscriber Identity Module (SIM) cards.



Observe standard precautions in handling electrostatically sensitive devices. Electrostatic discharges can damage the equipment. Verifone recommends using a grounded anti-static wrist strap.

Opening Card Compartment

Use the following steps to get access to the MSAM, SD and SIM card compartment:

- 1 Place the terminal face down on a soft and clean surface to protect the display from scratches.
- 2 Push down the locking tab and swing out the compartment cover.

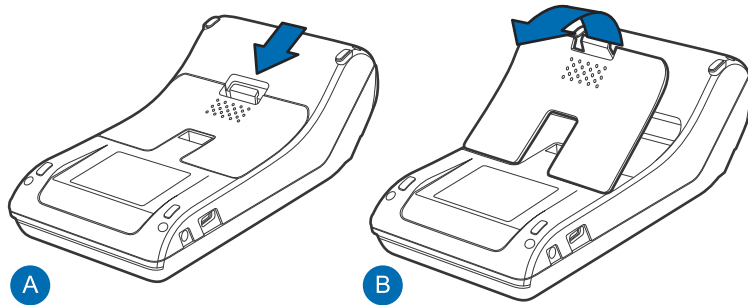


Figure 7 Opening Rear Compartment

- 3 If it is installed, disconnect the battery and place in a secure location.
- 4 The MSAM, SD and SIM cardholders are now accessible.

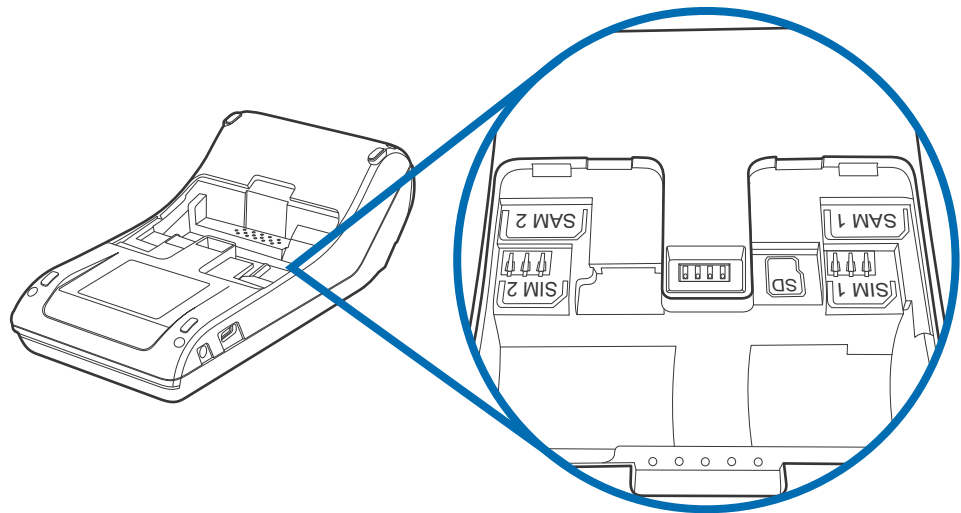


Figure 8 V240m Card Holders

Changing or Installing MSAMs

To change or install MSAM cards:

- 1 Use steps 1 to 3 of [Opening Card Compartment](#) to get to the MSAM cardholder.

- 2 Remove the old card, if any, and install the MSAM card by carefully sliding it into the slot (with the gold contacts facing downward) until fully inserted.

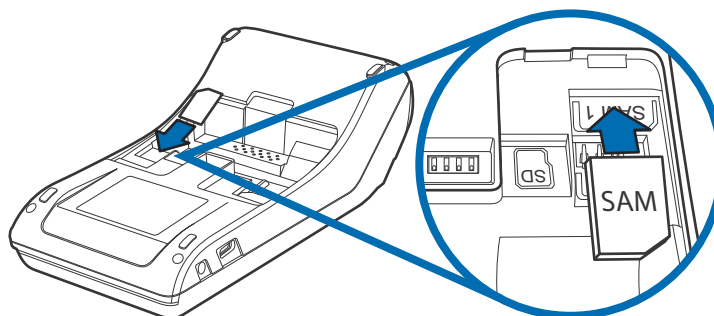


Figure 9 Inserting MSAM Card

NOTE



Insert the card with the card's gold contacts facing away from you, toward the unit.

- 3 If you are finished replacing or inserting cards, reconnect the battery and replace the rear cover.

**Changing or
Installing Micro SD
Card**

To change or install Micro SD cards:

- 1 Use steps 1 to 3 of [Opening Card Compartment](#) to get to the Micro SD cardholder.
- 2 Remove the old card, if any, and insert the Micro SD card by carefully sliding it into the slot (with the gold contacts facing downward) until fully inserted.

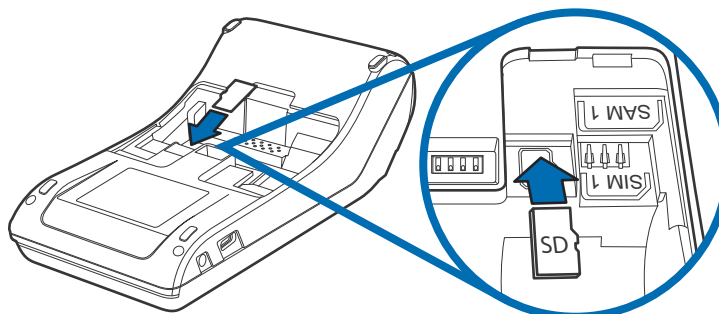


Figure 10 Inserting Micro SD Card

NOTE



Insert the card with the card's gold contacts facing away from you, toward the unit.

- 3 If you are finished replacing or inserting cards, reconnect the battery and replace the rear cover.

Changing or Installing SIM Card

To change or install SIM cards:

- 1 Use steps 1 to 3 of [Opening Card Compartment](#) to get to the SIM cardholder.
- 2 Remove the old card, if any, and insert the SIM card by carefully sliding it into the slot (with the gold contacts facing downward) until fully inserted.

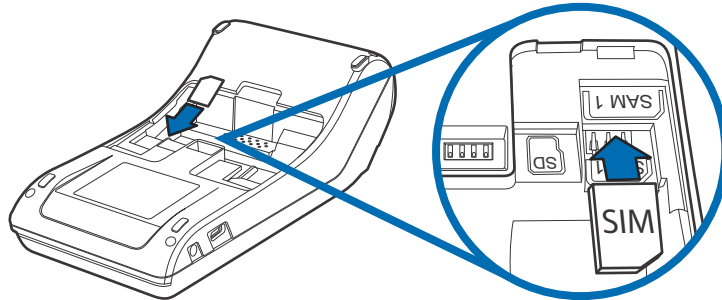


Figure 11 Inserting SIM Card

NOTE



Insert the card with the card's gold contacts facing away from you, toward the unit.

- 3 If you are finished replacing or inserting cards, reconnect the battery and replace the rear cover.

Loading Printer Paper

Use the following steps to load a roll of 57mm x 40mm thermal printer paper into the compartment.

- 1 Unlock the paper compartment by pulling up the latch and swinging the door downwards.

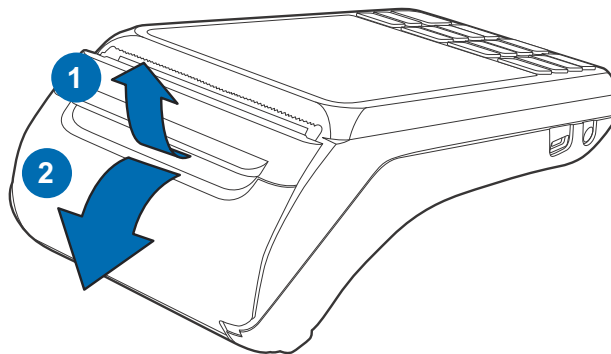


Figure 12 Opening Printer Paper Door

- 2 Load the paper roll as shown in Figure 13, with the edge of the paper on the top of the roll.

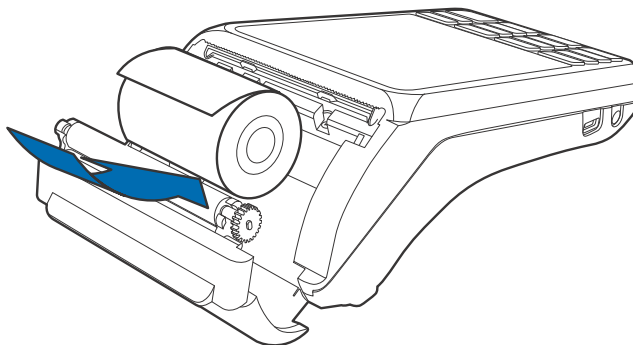


Figure 13 Procedure for Loading Paper Roll

- 3 Pull a length of paper up over the serrated cutter and close the compartment door.

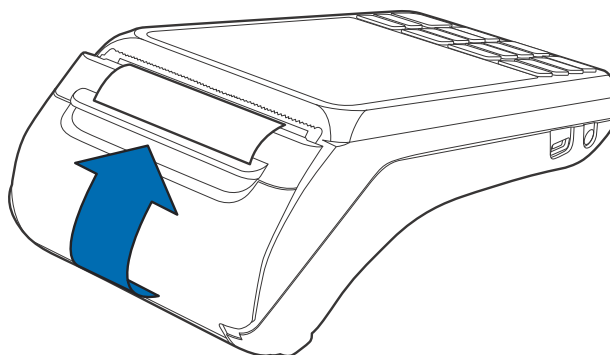


Figure 14 Closing Printer Door



Before processing transactions in battery mode, make sure you have more than 10% battery life. Do not risk losing transaction data or printing capabilities, connect the terminal to the power pack if battery level is below 10%.

Power Supply

Not all configurations and device contexts require the use of a power supply – Verifone ships power supply with the terminal as required.

Contact your Verifone representative if you have changed the context in which the terminal is used or have questions about which power supply should be used.



Using an incorrectly rated power supply can damage the unit or cause it not to work properly. Use only a power pack with VPN PWR474-002-01-A (see [Service and Support](#) for detailed power supply specifications).

Disconnect the power pack cord from the power outlet before connecting a power supply. Connect and route all cables between the terminal, ECR, and PC before plugging the power pack cord into a wall outlet or surge protector.

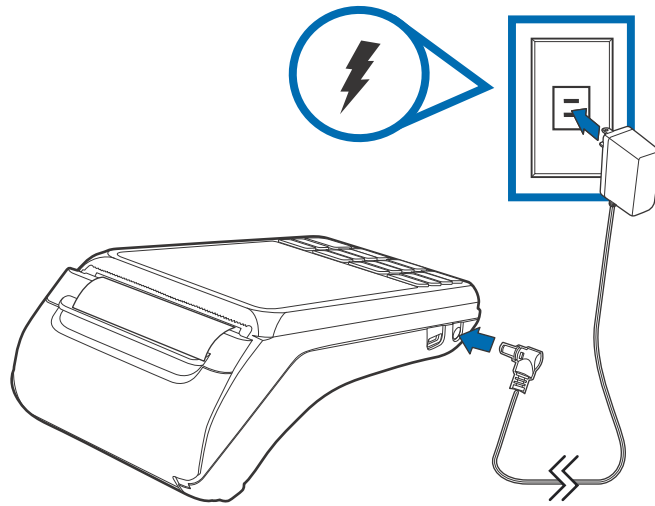


Figure 15 Connecting the Power Pack



WARNING

Do not plug the power pack into an outdoor outlet or operate the terminal outdoors. Disconnecting power during a transaction can cause transaction data files not yet stored in memory to be lost.



NOTE

Verifone recommends installing a power surge protector to protect against possible damage caused by lightning strikes and electrical surges.

When the terminal has power and an application is loaded, the application starts after the initial Verifone copyright screen and displays a unique copyright screen. If no application is loaded, **DOWNLOAD NEEDED** appears on the display after the initial Verifone copyright screen.

USB Power Supply The V240m can be powered with 5 V supply from USB port (5 V at 1 A) with the following power-saving conditions controlled by the OS:

- Micro-processor operating frequency is set to 300 MHz in CTLS mode.
- Switch off multi-media playback function when CTLS payment mode is activated.
- Reduce audio output volume.
- LCD backlight intensity is reduced to 30% (not suitable for high-glare, outdoor usage).
- Keypad backlight is disabled.
- BT and Wi-Fi functions are unavailable.
- Maximum audio output volume is reduced.
- Ethernet functionality is unavailable.
- Multi-media function (video playback or audio function) has to be switched off by user or customer app when CTLS payment mode is activated. Other modes of payment like smart card and MSR payment can be supported.

NOTE

CTLS payment mode is defined as the state of the device where RF transmission is broadcasting to allow for a CTLS payment. This is activated either during the scanning of items or at the completion of scanning items during the checkout process, depending on how the application sets it up. As soon as checkout is complete, the device exits CTLS payment mode and remains off until activated for the next checkout.

Cable Connections

You can connect the V240m to peripherals using the Full-Function Base.

- [Cable Connections Using the Full-Feature Base](#)

WARNING

Turn off or unplug the terminal when connecting or disconnecting the device to avoid device memory corruption and data loss.

Refer to the controlling device instructions for any terminal-specific warnings.

Cable Connections Using the Full-Feature Base

To connect the terminal to other devices via Ethernet, RS-232, and USB, use the V240m Full-Feature (FF) Base. The FF Base provides a standard RJ-45 LAN socket, RS-232 port, a mini-USB port. The V240m terminal must be docked on the base to utilize cable connectivity

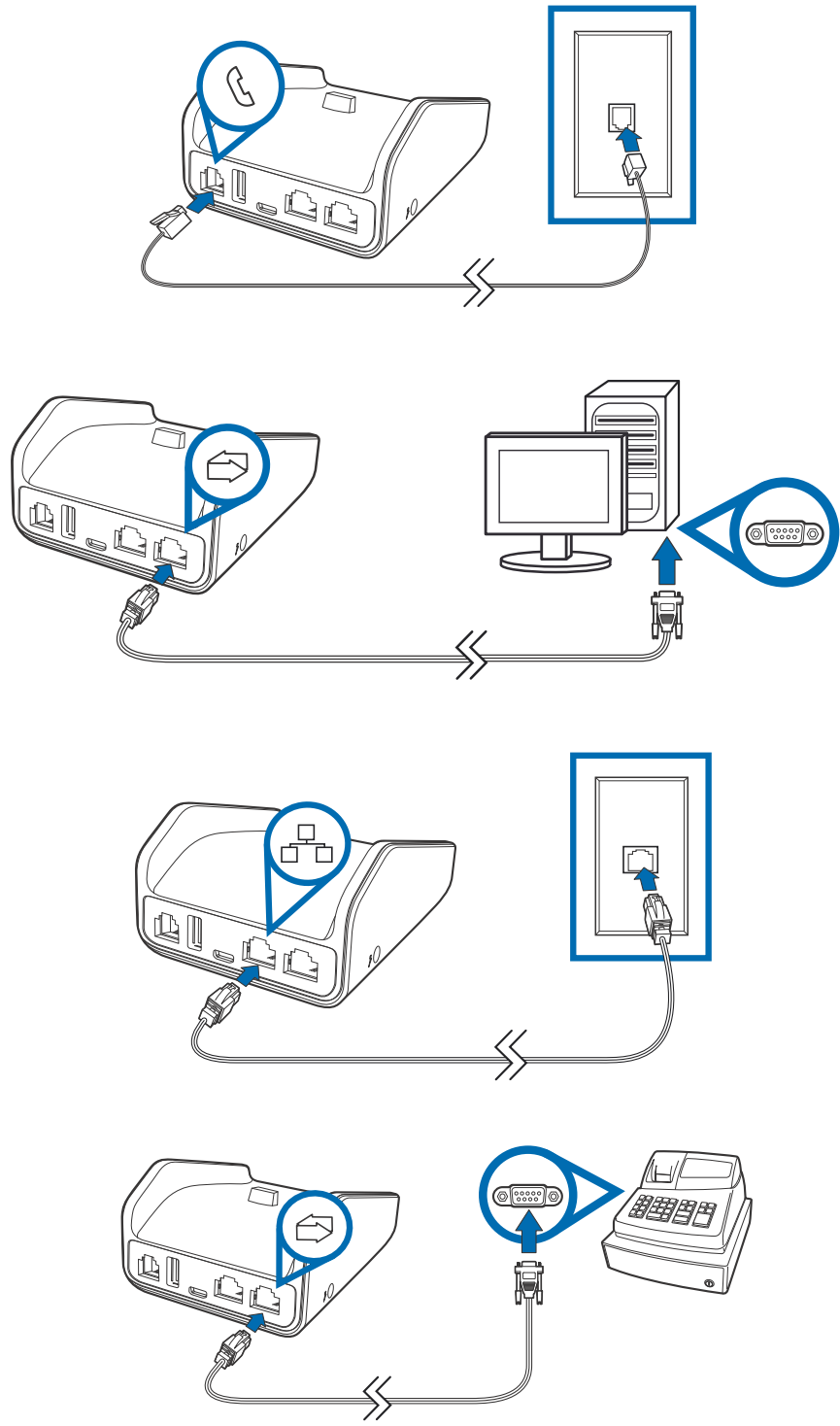


Figure 16 Full-Feature Base Peripheral Connections

The Full-Feature Base features the following:

Cable	Configuration
Ethernet port	RJ-45 socket (for connecting PINPad to LAN infrastructure)
RS232 port	RS232 socket (for connecting PINPad to LAN infrastructure), MOD-8 socket, Mini USB & DC-in jack
USB ports	Mini USB and type A USB

Smart Card Reader

The smart card transaction procedure can vary depending on the application. Verify the proper procedure with your application provider before performing a smart card transaction.

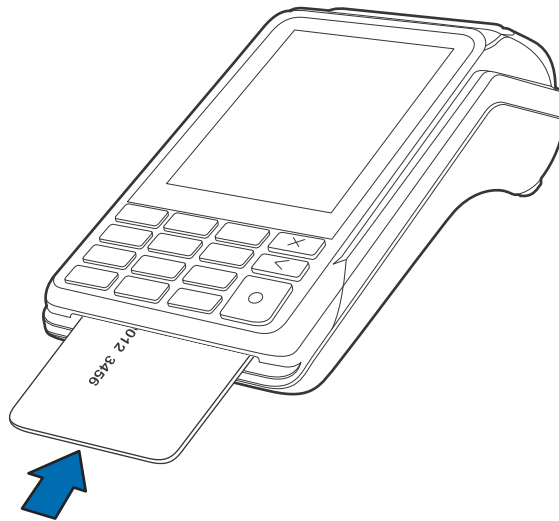


Figure 17 Using the Smart Card Reader

Conducting a Smart Card Transaction

To conduct a smart card transaction:

- 1 Position the smart card with the gold contacts facing upward.
- 2 Insert the card into the smart card reader slot in a smooth, continuous motion until it seats firmly.
- 3 Remove the card when the display indicates the transaction is completed.



CAUTION Leave the smart card in the card reader until the transaction is completed. Premature removal can void the transaction.

Magnetic Stripe Card Reader Use

The V240m has a magnetic card reader that uses a triple track stripe reader. This gives the unit greater reliability over a wide range of swipe speeds and operating environments.

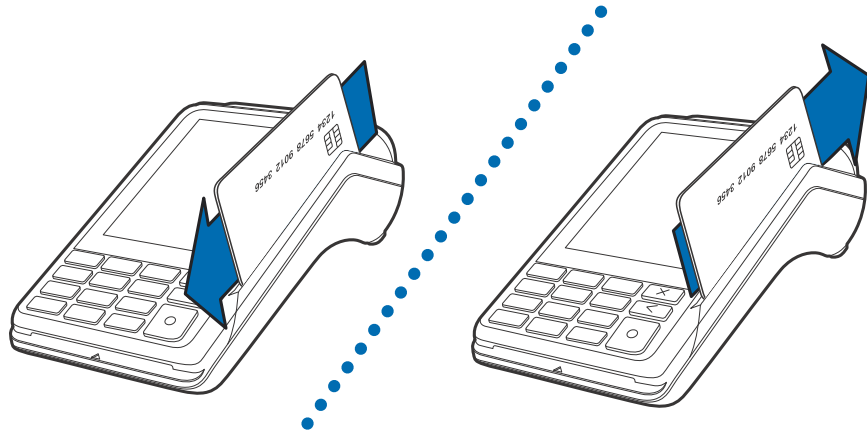


Figure 18 Using the Magnetic Stripe Card Reader

Conducting a Credit/Debit Card Transaction

To conduct a credit or debit card transaction:

- 1 Position a magnetic card with the stripe facing the keypad.
- 2 Swipe it through the magnetic card reader.

Contactless Transactions

The V240m supports contactless transactions through an integrated contactless module. The terminal only becomes active for contactless smart card transactions when initialized by an application.

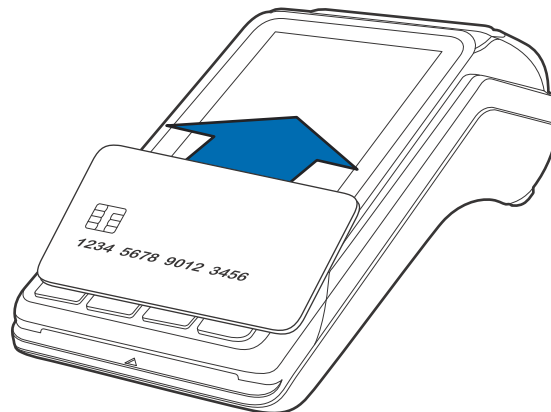


Figure 19 Contactless Transaction

Performing Contactless Transactions

To perform a contactless smart card transaction:

- 1 Gently tap the card onto or hold the card (within 4 cm) against the surface of the display where the contactless logo appears.
- 2 An activated LED visual on the display accompanied by a short beeping sound indicates a successful transaction.

See [Contactless Considerations](#) for more information.

Camera / Barcode Scanner

The V240m Camera variant includes an end-facing camera array that is capable of barcode and QR code scanning.

Optional Accessories

Figure 20 V240m Camera array

These accessories can be used to further enhance the device's functionality. See [Accessories and Documentation](#) for additional information.

Full-Feature Base

The Full-Feature Base (VPN M474-S02-08) provides Bluetooth (BT) v4.2 as well as All BT v4.1 features. It also supplies power, Dial up, Ethernet, USB Host and USB Device, plus powered RS232 connection. See [Cable Connections Using the Full-Feature Base](#).

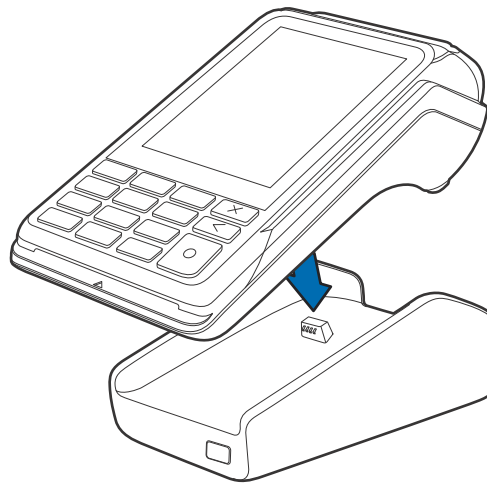


Figure 21 V240m Docking With Full-Feature Base

Charging Base The Charging Base (VPN M474-S02-00) provides a stable dock plus power charging for the V240m terminal.

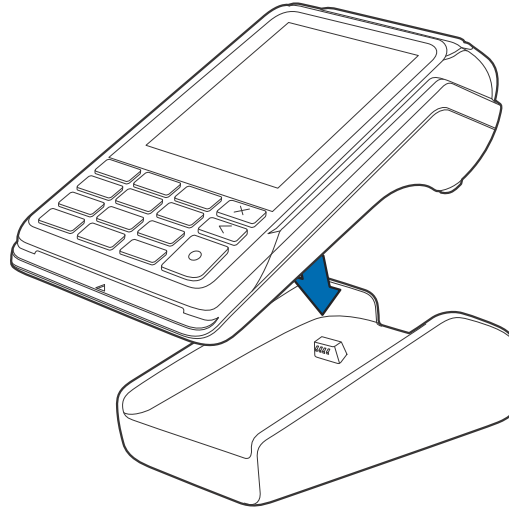


Figure 22 V240m Docking With Charging Base

Periodic Inspection

Periodically inspect the terminal for possible tampering. Signs of tampering may include:

- Wires protruding from the device.
- Foreign objects inserted into the smart card or mag stripe slot.
- Signs of damage to the tamper-evident label.
- Warning message on the device display.

NOTE



If any device is found in tamper state, please remove it immediately from service. Keep it available for potential forensic investigation, and notify your company security officer and your local Verifone representative or service provider. For more information on contacting Verifone, refer to [Service and Support](#).



Specifications

This chapter discusses power requirements, dimensions, and other specifications of the V240m terminal and bases.

V240m Terminal

Refer to the following specifications for the V240m terminal:

Unit Power Requirements

V240m devices have the following power requirements:

- Operating Power: **V240m** 5 V DC, 1A / 2.2A **V240m Camera** 5 V DC, 2.2A

Temperature

- Operating temperature: 0° to 50° C (32° to 122° F)
- Storage temperature: -20° to 60° C (-4° to 140° F)

Humidity

- Relative humidity: 5% to 90% (RH non-condensing)

External Dimensions

- | | V240m | V240m Camera |
|-----------|-------------------|---------------------|
| • Length: | 162.9 mm (6.4 in) | 172.4 mm (6.8 in) |
| • Width: | 75.3 mm (2.9 in) | 75.3 mm (2.9 in) |
| • Depth: | 53.4 mm (2.1 in) | 53.4 mm (2.1 in) |

Weight

- | | | |
|----------------|----------------------------------|---|
| • Unit weight: | V240m
320 g (11.28 oz) | V240m Camera
330 g (11.64 oz) |
|----------------|----------------------------------|---|

Processor

- ARM Cortex A9 32-bit processor

Display

- 3.5" portrait mode transmissive TFT 320 (RGB) x 480 (HVGA)

Magnetic Card Reader

- Triple track (tracks 1, 2, 3), high coercivity, bi-directional

Primary Smart Card

- ISO 7816-3, 1.8 V, 3 V, 5 V
- Synchronous and Asynchronous cards
- EMV Approved

SAM Card Reader

- Two Security Access Modules (SAMs)

Battery Pack

- Rating: 9.1 Wh (3.7 V DC, 2450 mAh)
- Meets IEEE1725 requirements

Security

- 3DES encryption, Master/Session and DUKPT key management
- VeriShield file authentication
- PCI PED 5.x approved

V240m Bases**Charging Base**

- Provides terminal charging on a mounted stand

Full-Feature Base

- Aside from charging, the FF Base provides:
 - Bluetooth
 - 10/100M Ethernet
 - 56K modem
 - Powered RS-232
 - LE Secure feature of BT v4.2 + All BT v4.1 feature
 - USB host
 - USB device

Unit Power Requirements

- Operating Power: 5 V DC, 2.2 A (FF Base)
5 V DC 1 A (Charging Base)

Temperature

- Operating temperature: -5° to 50° C (23° to 122° F)
- Storage temperature: -20° to 60° C (-4° to 140° F)

Humidity

- Relative humidity: 5% to 95% (RH non-condensing)

Security

- PCI 5.x Compliant.



Troubleshooting Guidelines

This chapter lists typical malfunctions that may occur while operating a V240m device and the appropriate corrective action. If the problem persists – even after performing the outlined guidelines, or if the problem is not described, contact your local Verifone representative for assistance.

NOTE

The V240m device uses a tamper-evident case and contains no user-serviceable parts. Do not, under any circumstance, attempt to disassemble the unit. Perform only those adjustments or repairs specified in this guide. For all other services, contact your local Verifone service provider. Service conducted by parties other than authorized Verifone representatives may void any warranty.

Display Panel Does Not Work

Use the following steps to check the display panel:

- 1 Check all the cable connections.
- 2 Check the controlling device's AC outlet to be sure the outlet is supplying sufficient power. Substitute the controlling device's power pack with another power pack.
- 3 The controlling device's application program might not be loaded correctly. Download the application program and try again.
- 4 If the problem persists, contact your local Verifone representative.

Keypad Does Not Respond

Use the following steps to check the keypad:

- 1 Check the display panel. If there are no characters, or the wrong characters are displayed, refer to [Display Panel Does Not Work](#).
- 2 If the problem persists, contact your local Verifone representative.

Transactions Fail To Process

There are several possible reasons why the unit may not be processing transactions. Use the following steps to 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 (see [Magnetic Stripe Card Reader Use](#)).
- 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.

- If the problem persists, contact your local Verifone representative.

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 (see [Magnetic Stripe Card Reader Use](#)).
- Ensure the MSAM cards are properly inserted in the slots and are properly secured (see [MSAM/uSD Cards](#)).
- If the problem persists, contact your local Verifone representative.



Service and Support

Maintenance and Cleaning

The V240m device has no user-serviceable parts. Unless otherwise instructed, do not, under any circumstances, attempt any service, adjustments, or repairs on the unit. Disconnect the device before cleaning.

To clean the unit, periodically 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 [Accessories and Documentation](#)).



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

Because the V240m can be damaged by liquid, do not spray cleaners or other solutions directly onto the keypad or display. Always apply the cleaner to a cloth before cleaning the device.

Service Returns

For V240m equipment failures that cannot be resolved by your help desk or service department, contact one of the following hotlines for 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

Before returning V240m unit to Verifone, you must obtain a Merchandise Return Authorization (MRA) number. The following procedure describes how to return one or more V240m for repair or replacement (U.S. customers only).

NOTE



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 on the bottom of *each* V240m device to be returned:
 - Product ID, including the model and part number. For example, "M474-xxx-xx-xxx-x"

- Serial number (S/N xxx-xxx-xxx)

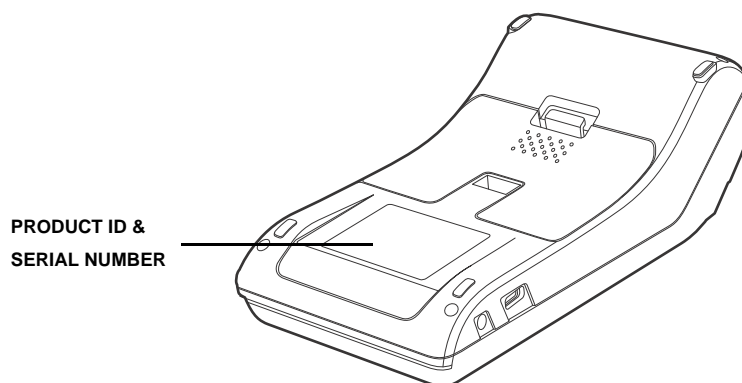


Figure 22 Product ID and Serial Number Location

- 2 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 1-727-953-4172 (U.S.)
 - Please address the fax clearly to the attention of the “Verifone MRA Dept.”
 - Include a telephone number where you can be reached, as well as 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 V240m unit you return to Verifone, even if you are returning several of the same model.

- 5 Describe the problem(s).
- 6 Provide the shipping address where the repaired or replacement unit must be returned.
- 7 Keep a record of the following items:
 - Assigned MRA number(s).
 - The serial number assigned to the V240m device (located at the bottom of the unit).
 - Shipping documentation, such as air bill numbers, used to trace the shipment.
 - Model(s) returned (model numbers are located on the bottom of the unit).

Accessories and Documentation

Verifone produces accessories and documentation for the V240m. 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, 1-800-Verifone (837-4366) Monday - Friday, 7 A.M. - 5 P.M., MST
- International – Contact your Verifone representative

Cables Contact your local Verifone distributor to determine which cable fits your needs.

CBL280-025-02-A	USB Cable 4.1 m
CBL282-045-XX-A	USB cable (as Device). Powered from +9 V/1 A DC adaptor
CBL282-038-XX-A	USB cable (as Device). Powered from +5 V USB Host.
CBL282-033-01-A	Powered USB cable (as Device). Powered from +12 V PUSB Host
CBL282-031-XX-A	RS-232 cable (DB9). Powered from +12 V DC adaptor.
CBL282-036-XX-A	RS-232 cable (RJ45). Powered from Countertop (+12 V).
CBL282-006-01-B	Cable, VX 820 Ethernet/RS232, Dongle 1.0 m

Power Supply PWR474-002-01-A DC power pack

Accessories 02746-01 Verifone Cleaning Kit

Documentation

DOC474-001-EN	V240m Certifications and Regulations
DOC474-002-EN	V240m Quick Installation Guide



Caution and Warning Messages

Products with UL/cUL certification should include French translations of Caution and Warning notices. The following table lists all notices found in the document, their location, and the equivalent French translations.

Table 3 Caution and Warning Messages

Notice	Chapter	Page	English Text	French Text
Warning	Setup	page 13	For safety, do not string cables or cords across a walkway.	<i>Par mesure de sécurité, ne pas les câbles de chaîne ou de cordons à travers une passerelle.</i>
Caution	Setup	page 14	This unit is not waterproof or dustproof, and is intended for indoor use only. Any damage to the unit from exposure to rain or dust can void any warranty.	<i>Cet appareil n'est pas étanche ou à la poussière, et est destiné à une utilisation en intérieur. Tout dommage à l'unité de l'exposition à la pluie ou à la poussière peut annuler la garantie.</i>
Caution	Setup	page 14,	Using an enclosed metal frame or mount may negatively affect contactless performance.	<i>L'utilisation d'un cadre métallique fermé ou de montage peut affecter négativement contact performance.</i>
Warning	Setup	page 14	Due to risk of electrical 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. Also, 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, neon signs, highfrequency or magnetic security devices, or electric motors).	<i>Du fait d'un risque d'électrocution ou d'une détérioration du terminal, ne pas utiliser cet équipement près d'une source d'eau, par exemple près d'une baignoire, d'un lavabo, d'un évier de cuisine ou d'un bac de lavage, dans un sous-sol humide ou à proximité d'une piscine. De même, éviter d'utiliser ce produit lors des orages provoquant des coupures électriques. Éviter de placer le terminal à proximité d'appareils électriques ou autres unités pouvant entraîner des fluctuations de tension importantes ou des interférences électriques, tels que les climatiseurs, enseignes au néon, dispositifs de sécurité à haute fréquence ou équipements électriques.</i>
Caution	Setup	page 15	This device is a secure product and any tampering can cause it to cease to function or operate in an unsecured manner.	<i>Cet appareil est un produit sûr et toute manipulation peut l'amener à cesser de fonctionner ou fonctionner de manière non sécurisée.</i>

Table 3 Caution and Warning Messages (continued)

Notice	Chapter	Page	English Text	French Text
Warning	Setup	page 15	Do not use a unit that has been tampered with or otherwise damaged. This unit comes equipped with tamper-evident label. If a label or component appears damaged, immediately notify the shipping company and your Verifone representative or service provider.	<i>Ne pas utiliser un appareil qui a été altéré ou endommagé. Cet appareil est équipé d'étiquette d'inviolabilité. Si une étiquette ou d'un composant semble être endommagé, en aviser immédiatement la compagnie maritime et votre représentant Verifone ou prestataire de services.</i>
Caution	Setup	page 15	Observe standard precautions in handling electrostatically sensitive devices. Electrostatic discharges can damage the equipment. Verifone recommends using a grounded anti-static wrist strap.	<i>Respecter les précautions standard dans la manipulation d'appareils sensibles aux décharges électrostatiques. Les décharges électrostatiques peuvent endommager le matériel. Verifone recommande d'utiliser un bracelet anti-statique à la terre.</i>
Caution	Setup	page 19	Using an incorrectly rated power supply can damage the unit or cause it not to work properly. Use only a power pack with VPN PWR474-002-01-A.	<i>L'utilisation d'une alimentation incorrecte peut endommager l'appareil ou ne pas fonctionner correctement. Utilisez uniquement un bloc d'alimentation avec VPN PWR474-002-01-A.</i>
Caution	Setup	page 20	Do not plug the power pack into an outdoor outlet or operate the terminal outdoors. Disconnecting power during a transaction can cause transaction data files not yet stored in memory to be lost.	<i>Ne branchez pas le bloc d'alimentation dans une prise extérieure ou n'utilisez pas le terminal à l'extérieur. La déconnexion de l'alimentation pendant une transaction peut entraîner la perte des fichiers de données de transaction qui ne sont pas encore stockés dans la mémoire.</i>
Warning	Setup	page 21	Turn off or unplug the terminal when connecting or disconnecting the device to avoid device memory corruption and data loss. Refer to the controlling device instructions for any terminal-specific warnings.	<i>Éteignez ou débranchez le terminal pour connecter ou déconnecter le dispositif pour éviter la corruption de la mémoire de l'appareil et la perte de données. Reportez-vous aux instructions de l'appareil de contrôle pour tous les avertissements spécifiques au terminal.</i>

Table 3 Caution and Warning Messages (continued)

Notice	Chapter	Page	English Text	French Text
Caution	Setup	page 23	Leave the smart card in the card reader until the transaction is completed. Premature removal can void the transaction.	<i>Laissez la carte à puce dans le lecteur de carte jusqu'à ce que la transaction soit terminée. Le retrait prématuré peut annuler la transaction.</i>
Caution	Service and Support	page 33	Never use thinner, trichloroethylene, or ketone-based solvents – they can deteriorate plastic or rubber parts. Because this device can be damaged by liquid, do not spray cleaners or other solutions directly onto the keypad or display. Always apply the cleaner to a cloth before cleaning the device.	<i>N'utilisez jamais de diluant, le trichloréthylène ou des solvants cétoniques - ils peuvent détériorer les pièces en plastique ou en caoutchouc. Parce que cet appareil peut être endommagé par un liquide, ne pas vaporiser de nettoyage ou d'autres solutions directement sur le clavier ou l'écran. Toujours appliquer le nettoyant sur un chiffon avant de nettoyer l'appareil.</i>



Verifone, Inc.
1-800-Verifone
www.verifone.com

V240m

Installation Guide



FCC Regulations:

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.

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

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 radiate 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.
- Consult the dealer or an experienced radio/TV technician for help.