# P400/P400 PLUS

## Installation Guide

VERIFONE
CONFIDENTIAL

DRAFT

**CHAPTER 4**
**Troubleshooting**
**Guidelines**

**CHAPTER 5**
**Service and Support**

**APPENDIX A**

This guide is the primary source of information for setting up and installing a P400 device.

**Audience**

This guide provides simple descriptions of the P400 features, as well as basic information for installing and configuring the P400.

**Organization**

This guide is organized as follows:

Chapter 1, Overview. Provides an overview of a P400 device.

Chapter 2, Setup. Explains how to set up and install the P400, as well as to establish connections with other devices.

Chapter 3, Specifications. Discusses the power requirements and dimensions of P400.

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 P400 unit.

Appendix A, P400 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 P400 device, please refer to the following documents and their associated Verifone Part Numbers (VPN):

| | |
|---|---|
| *P400 Certifications and Regulations* | VPN DOC435-001-EN |
| *P400 Quick Installation Guide* | VPN DOC435-002-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. |
| *Italics* | Italic typeface indicates book titles or emphasis. | You *must* not use this unit underwater. |
| **NOTE** | The pencil icon is used to highlight important information. | RS-232-type devices do not work on the P400 communication port. |
| **CAUTION** | 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. |
| **WARNING** | 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 *POS Equipment Requirement: PIN processing and Data Authentication*, 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 |

**Table 2    Acronym Definitions**  (continued)

| Acronym | Definitions |
|---------|-------------|
| 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 provides the description and enumeration of features for the P400.

**P400**

The P400 is Verifone's next generation integrated retail PINpad device. Its touchscreen functionality and sophisticated design is perfect for high-end retail establishments.

Although the P400 is a consumer facing handheld device, it can also be fix mounted in some integrated retail scenarios. Given this, the product's design is equally appealing as a handheld PINpad and robust enough to look and function appropriate in a fixed mount setting.

**Front Functions**

The P400 includes the following features:

- Capacitive touch **LCD display**
- Secure keypad supporting 3x5 matrix containing 0-9, *, #, Cancel, Backspace/ Clear, and Enter keys.
  - Supports **telco-style format**
  - Dual-function Backspace/Clear key.
  - Customer-entry for Cancel and Enter keys.

**Back Functions**

The rear of the P400 device shows the following:

- **Cable connector compartment**.
- **Threaded grommets** for attaching the wall mount adapter.
- A **uSD** and a dual-stack **MSAM connectors** built into the back of the unit to support stored-value card programs or other merchant card requirements.

**Features and Benefits**

**Exceptional Ease of Use and Ergonomics**

- Sleek and stylish shape occupies minimal counter space.
- Bold, ergonomic design fits comfortably in the palm of a hand.
- Large, hard-rubber keys provide improved tactile feedback, minimizing errors and maximizing ease-of-use for consumers of all ages.
- Intuitive telco-style interface and colored control keys simplify training and reduce support requests.
- 320 (RGB) x 480 TFT (HVGA) display with a capacitive touch panel.
- Rugged and reliable design.

- Connects with most POS payment terminals.

- Supports payment transactions in a variety of payment environments.

### 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-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.

- Rugged and reliable design absorbs hard knocks found at point-of-sale counters.

- Removable privacy shield offers option of supplemental physical security.

- Connects with most POS payment terminals, PCs, and ECRs.

- USB Connectivity that gives another option to connect with payment terminals, personal computers, and electronic cash registers (ECRs).

# Setup

This chapter describes the setup procedure for the P400, in the following sections:

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

## Selecting Location

Use the following guidelines to select the best location for the P400 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 table,
- Near a power outlet and the terminal or computer that connects to the P400.

**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 P400 outdoors.

**CAUTION**

The P400 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.

- 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 P400 unit in water or in moist conditions.

- Disconnect the device from its POS terminal before cleaning.

| WARNING | 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). |
|---|---|

**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.

| CAUTION | Using an enclosed metal frame or mount may negatively affect contactless performance |
|---|---|

**PIN Protection Measures**

Use the following techniques to provide effective screening of PIN-entry devices (PEDs) during the PIN entry process. You can use these methods in combination, although in some cases a single method might suffice.

- Position the terminal on the check-in stand in such a way as to block visual observation of the PIN-entry process. Examples include:
    - Visual shields designed into the check-in stand. The shields may be solely for shielding purposes, or may be part of the general check stand design.
    - Position the PED so that it is angled in such a way that PIN spying is difficult.
- Install the PED on an adjustable stand that allows consumers to swivel the terminal sideways and/or tilt it forwards/backwards to a position that makes visual observation of the PIN-entry process difficult.
- Position in-store security cameras so that the PIN-entry keypad is not visible.

The following table describes the two preferred mounting methods and the recommended measures to protect from PIN capture in four observation corridors:

**Table 3          Mounting Methods and Protection Measures**

| Method | Cashier | Customer in Queue | Customers Elsewhere | On-site Cameras |
|---|---|---|---|---|
| PINpad without stand | Use signage behind the PED | Install so that customer is between PED and next in queue | No action needed | Do not install within view of cameras |
| PINpad with stand | No action needed | Install so that customer is between PED and next in queue | No action needed | Do not install within view of cameras |

Verifone also recommends instruction of 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.

**Ensuring User Privacy**

Use the following guidelines to protect the user's privacy when he enters his personal identification number (PIN):

- The area of visibility should be no larger than a cone taken from the number 5 key at an angle of 45° and covering an area of 270° directly in front of the user.
- You can secure PIN entry by installing a Privacy Shield.

**Unpacking Shipping Carton**

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

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**CAUTION**

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

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1 Remove the P400 unit from the shipping carton. The standard package contains the PIN pad only and does not include any other cables or accessories. Refer to Accessories and Documentation for more information about P400 related accessories.

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 P400 unit in the future.

WARNING

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/MicroSD Cards

You may need to install one or more multiple security access module (MSAM) cards or replace the old cards.

CAUTION

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

### Changing or Installing MSAMs

To change or install MSAM:

**1**  Place the terminal face down on a soft and clean surface to protect the lens from scratches.

**2**  Slide out and lift the compartment cover. The MSAM cardholders are now accessible.

NOTE

The P400 supports two MSAM cards in a stacked configuration.

**3**  Install the MSAM card by carefully sliding it into the slot until fully inserted.

NOTE

Align in the same direction as the MSAM symbol shown on the compartment case. Insert the MSAM card with the card's gold contacts facing away from you, toward the unit.

### Changing or Installing a MicroSD Card

To change or install MicroSD card:

**1**  Follow steps 1-2 in the Changing or Installing MSAMs section to open the terminal compartment door.

**2**  Insert the MicroSD card directly into the slot across the MSAM card holders.

## Power Supply

Not all P400 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.

CAUTION

Using an incorrectly rated power supply can damage the unit or cause it not to work properly. Use only a power pack with VPN PWR435-001-XX-X (see Specifications 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.

**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.

**Cable Connections**

The P400 has seven general cabling scenarios, depending on what it connects to:

1  Connection to Another Verifone Terminal

2  RS-232 Connection Using an External Power Brick

3  Direct USB Connection

4  USB–Download Support using an External Power Brick

5  USB Connection via PoweredUSB Connection Cable

6  Ethernet Connection with External Power Brick

**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.

**Attaching a Cable Connector to the P400**

Before going into each cabling scenario, the cables first have to be attached to the P400. To attach a cable to the terminal, follow steps 1-2 in the Changing or Installing MSAMs section to open the compartment door then attach the 28 pin connector of the cable to the terminal.

**Connection to Another Verifone Terminal**

The P400 connects to a Verifone terminal via a coiled cable (VPN - CBL282-036-01-A). There is a minimum power requirement for the terminal, currently specified at 4.7 W.

**NOTE**

In cases where the terminal is only able to provide 5 V DC output to power the P400, the terminal must be able to source at least 940 mA of current. Otherwise, the device may not function properly.

**RS-232 Connection Using an External Power Brick**

A special dongle cable is used, where one end of the cable plugs into the P400 while the other end terminates in a DB-9 connector housing. On the housing, a DC jack is provided to connect to an external power brick. This is a generic cable for all RS-232-based hosts (VPN - CBL282-031-XX-A).

**Direct USB Connection**

Similarly, a USB cable (VPN - CBL282-038-XX-A) is required in standard USB environments. For this cable option, the host end has a molded housing which exposes the standard USB plug.

**USB–Download Support using an External Power Brick**

The P400 can connect to other devices via USB while still being connected to an external power brick through the following cable configurations:

**USB Connection via Junction Box Cable**

This cable option (VPN - CBL282-044-01-B) comes with a junction box that provides a mini-style Type B USB socket for connecting to the USB-based host and a DC jack for external power connection. In addition, a Type A USB socket is provided on the junction box to support application download via a USB thumb drive.

**USB Connection via PoweredUSB Connection Cable**

A PoweredUSB cable allows for devices to obtain power through their USB host instead of requiring an independent power supply or external AC adapter. Connect the cable (VPN - CBL282-033-01-A) to the P400 and plug the male USB connector into the corresponding USB port of the connecting device.

**NOTE**

There are two variants of PoweredUSB, one with 12 V DC output and another with 24 V DC. P400 only supports 12 V DC option.

*Power Sequence in USB Connection*

When the unit connected is a USB Host, ensure that it is powered on prior to connecting the USB Device.

**WARNING**

Incorrect power sequence may degrade the SoC Host port.

**Ethernet Connection with External Power Brick**

To connect the terminal to other devices via ethernet, use the cable with a junction box that provides a standard RJ-45 LAN socket, a mini USB port, and a standard DC jack for an external power connection.

The junction box comes in these configurations:

| Cable | Configuration | Part Number |
|-------|---------------|-------------|
| Ethernet with RS232 | Junction box with RJ-45 socket (for connecting PINPad to LAN infrastructure), Mod-10 socket & DC-in jack | CBL282-006-01-B |
| Ethernet with RS232 and Mini USB option | Junction box with RJ-45 socket (for connecting PINPad to LAN infrastructure), Type B socket, Mini USB & DC-in jack | CBL282-005-01-B |
| Ethernet with RS232 and Mini USB option | Junction box with RJ-45 socket (for connecting PINPad to LAN infrastructure), Type B socket, Mini USB, type A USB & DC-in jack | CBL282-044-01-B |

## Smart Card Reader Use

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.

### 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 Card Reader Use

The P400 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.

### 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 P400 supports contactless transactions through an integrated contactless module. The terminal only becomes active for contactless smart card transactions when initialized by an application.

*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.

**2** An activated LED visual on the display accompanied by a short beeping sound indicates a successful transaction.

## Optional Accessories

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

### Privacy Shield

The privacy shield is used to hide the keys when entering user password in a transaction.

*Installing the Privacy Shield*

To install a privacy shield:

**1** Align the hooks on the privacy shield with the corresponding slots beside the keypad on the terminal.

**2** Once the hooks are in place, gently push down on the privacy shield until it snaps into place.

### Stylus and Holder

A stylus with holder can be attached to P400 and used as an alternative device input method.

*Attaching the Stylus Holder*

To attach the stylus:

**1** Align the stylus holder's screw holes with those found on the back of the terminal.

**2** Screw the holder onto the back of the terminal as shown in the illustration below:

### Mounting Adapter

This accessory is used to mount P400 to vertical or inclined surfaces.

*Attaching a Mounting Adapter to P400*

To attach a mounting adapter to P400:

**1** Align the screw holes at the back of the terminal with the corresponding screws on the mounting adapter (this can be done with or without the stylus holder attached).

**2** Screw the mounting adapter in place while keeping the terminal aligned with the mounting adapter.

*Mounting P400 with Mounting Adapter to a Wall or Flat Surface*

To mount the terminal to a wall or flat surface:

**1** Ensure the mounting adapter is attached to the terminal.

**2** Attach three M3 screws (not included in P400 package) to the desired surface. Make sure that they are aligned with the slots on top and at the bottom of the mounting adapter.

3 Secure the terminal with the mounting adapter in place by aligning the holes to the M3 screws then sliding the entire assembly into place.

4 Slide the terminal down to secure it to the mounting plate. To remove the terminal, slide the terminal up and pull away from the mounting plate.

**Mounting P400 to a Flat Surface (Without a Mounting Adapter)**

To mount the terminal to a flat surface:

1 Align the terminal's footers to the holes on the mounting plate.

2 Fit the footers of the terminal into the footer holes.

3 Screw the mounting plate in place.

| NOTE | Customized plates must have four recessed areas big enough to fit the footers of the terminal. This ensures that there is no gap between the terminal and mounting plate. |
|---|---|

**Mounting P400 with Mounting Adapter to a Vertical Bracket**

To mount the terminal with a mounting adapter to a vertical bracket:

1 Ensure the mounting adapter is attached to the terminal.

2 Align the three screw holes of the mounting adapter with the vertical bracket holes.

3 Screw the vertical bracket in place.

### Mounting Considerations

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

| CAUTION | An enclosed metal frame or mount may negatively affect CTLS performance. |
|---|---|

# Specifications

This chapter discusses power requirements, dimensions, and other specifications of the P400 device.

**Unit Power Requirements**

P400

- 5-12 V DC, 500 mA

P400 PLUS

- 5-12 V DC, 1 A

**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**

- Length:     166.70 mm (6.56 in)
- Width:     79.60 mm (3.13 in)
- Depth:     42.30 mm (1.67 in)

**Weight**

- Unit weight:     274 g (9.66 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)

**Security**

- 3DES encryption, Master/Session and DUKPT key management
- VeriShield file authentication
- PCI PED 4.0 approved

# Troubleshooting Guidelines

This chapter lists typical malfunctions that may occur while operating a P400 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 P400 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 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 Card Reader Use).

- Ensure the MSAM cards are properly inserted in the slots and are properly secured (see MSAM/MicroSD Cards).

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

# Service and Support

### Maintenance and Cleaning

The P400 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).

**CAUTION**

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

Because the P400 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 P400 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 P400 unit to Verifone, you must obtain a Merchandise Return Authorization (MRA) number. The following procedure describes how to return one or more P400 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* P400 device to be returned:

- Product ID, including the model and part number. For example, "M180-08x-xx-xxx-x"

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

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.

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**NOTE**

One MRA number must be issued for each P400 unit you return to Verifone, even if you are returning several of the same model.

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**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 P400 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 P400. 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.

| | |
|---|---|
| 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-XXA | PoweredUSB 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 | Ethernet with RS232 |
| CBL282-005-01-B | Ethernet with RS232 and Mini USB |
| CBL282-044-01-B | Ethernet with RS232 and Mini USB |

**Power Supply**

| | |
|---|---|
| PWR435-001-01-A | DC power pack (US) |
| PWR435-001-02-A | DC power pack (UK) |
| PWR435-001-03-A | DC power pack (EU) |
| PWR435-001-04-A | DC power pack (China) |
| PWR435-001-05-A | DC power pack (Brazil) |
| PWR435-001-06-A | DC power pack (Australia) |
| PWR435-001-07-A | DC power pack (South Africa) |

**Privacy Shield**

| | |
|---|---|
| PPLxxx-xxx-xx-x | Optional privacy shield |

**Wall Mount**

| | |
|---|---|
| PPLxxx-xxx-xx-x | Optional wall mount adapter |

**Cleaning Kit**

| | |
|---|---|
| 02746-01 | Verifone Cleaning Kit |

**Documentation**

| | |
|---|---|
| DOCxxx-xxx-EN | P400 Certifications and Regulations |
| DOCxxx-xxx-EN | P400 Quick Installation Guide |

## P400 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 4        Caution and Warning Messages**

| Notice | Chapter | Page | English Text | French Text |
|---|---|---|---|---|
| Warning | Setup | page 11 | For safety, do not string cables or cords across a walkway. | *Par mesure de sécurité, ne pas les câbles de chaîne ou de cordons à travers une passerelle.* |
| Caution | Setup | page 11 | 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. | *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.* |
| Caution | Setup | page 12, page 19 | Using an enclosed metal frame or mount may negatively affect contactless performance. | *L'utilisation d'un cadre métallique fermé ou de montage peut affecter négativement contact performance.* |
| Warning | Setup | page 12 | 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). | *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.* |
| Caution | Setup | page 13 | This device is a secure product and any tampering can cause it to cease to function or operate in an unsecured manner. | *Cet appareil est un produit sûr et toute manipulation peut l'amener à cesser de fonctionner ou fonctionner de manière non sécurisée.* |

**Table 4**     **Caution and Warning Messages** (continued)

| Notice | Chapter | Page | English Text | French Text |
|---|---|---|---|---|
| Warning | Setup | page 14 | 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. | *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.* |
| Caution | Setup | page 14 | Observe standard precautions in handling electrostatically sensitive devices. Electrostatic discharges can damage the equipment. Verifone recommends using a grounded anti-static wrist strap. | *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.* |
| Caution | Setup | | Using an incorrectly rated power supply can damage the unit or cause it not to work properly. Use only a power pack with VPN PWRXXX-xxx-xx-x. | |
| Caution | Setup | | 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. | |
| Warning | Setup | page 15 | 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. | *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.* |
| Caution | Setup | | Leave the smart card in the card reader until the transaction is completed. Premature removal can void the transaction. | |

**Table 4**     **Caution and Warning Messages**  (continued)

| Notice | Chapter | Page | English Text | French Text |
|--------|---------|------|--------------|-------------|
| Warning | Setup | page 16 | Incorrect power sequence may degrade the SoC Host port. | |
| Caution | Service and Support | page 25 | 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. | *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.* |

# P400/P400 PLUS

## Installation Guide

**Federal Communication Commission Interference Statement**

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 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 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.

**FCC Caution:**
- Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.
- This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

**for FCC ID: B32P400PLUS only**
**Radiation Exposure Statement:**
This device meets the government's requirements for exposure to radio waves.
This device is designed and manufactured not to exceed the emission limits for exposure to radio frequency (RF) energy set by the Federal Communications Commission of the U.S. Government.
The exposure standard for wireless device employs a unit of measurement known as the Specific Absorption Rate, or SAR. The SAR limit set by the FCC is 1.6W/kg. [*]Tests for SAR are conducted using standard operating positions accepted by the FCC with the device transmitting at its highest certified power level in all tested frequency bands.

## Industry Canada statement

◆ This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions:
(1) this device may not cause interference, and
(2) this device must accept any interference, including interference that may cause undesired operation of the device.

◆ Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:
(1) l'appareil ne doit pas produire de brouillage, et
(2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement."

● This Class B digital apparatus complies with Canadian ICES-003.
● Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

➢ This device and its antenna(s) must not be co-located or operating in conjunction with any other antenna or transmitter, except tested built-in radios. The County Code Selection feature is disabled for products marketed in the US/ Canada.

➢ Cet appareil et son antenne ne doivent pas être situés ou fonctionner en conjonction avec une autre antenne ou un autre émetteur, exception faites des radios intégrées qui ont été testées. La fonction de sélection de l'indicatif du pays est désactivée pour les produits commercialisés aux États-Unis et au Canada.

**for IC: 787C-P400PLUS only**

**Radiation Exposure Statement:**

The product comply with the Canada portable RF exposure limit set forth for an uncontrolled environment and are safe for intended operation as described in this manual. The further RF exposure reduction can be achieved if the product can be kept as far as possible from the user body or set the device to lower output power if such function is available.

**Déclaration d'exposition aux radiations:**

Le produit est conforme aux limites d'exposition pour les appareils portables RF pour les Etats-Unis et le Canada établies pour un environnement non contrôlé.

Le produit est sûr pour un fonctionnement tel que décrit dans ce manuel. La réduction aux expositions RF peut être augmentée si l'appareil peut être conservé aussi loin que possible du corps de l'utilisateur ou que le dispositif est réglé sur la puissance de sortie la plus faible si une telle fonction est disponible.

**Caution :**

(i) the device for operation in the band 5150-5250 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems;

(ii) the maximum antenna gain permitted for devices in the bands 5250-5350 MHz and 5470-5725 MHz shall comply with the e.i.r.p. limit; and

(iii) the maximum antenna gain permitted for devices in the band 5725-5825 MHz shall comply with the e.i.r.p. limits specified for point-to-point and non point-to-point operation as appropriate.

(iv) the worst-case tilt angle(s) necessary to remain compliant with the e.i.r.p. elevation mask requirement set forth in Section 6.2.2(3) shall be clearly indicated.

(v) Users should also be advised that high-power radars are allocated as primary users (i.e. priority users) of the bands 5250-5350 MHz and 5650-5850 MHz and that these radars could cause interference and/or damage to LE-LAN devices.

**Avertissement:**

(i) les dispositifs fonctionnant dans la bande 5 150-5 250 MHz sont réservés uniquement pour une utilisation à l'intérieur afin de réduire les risques de brouillage préjudiciable aux systèmes de satellites mobiles utilisant les mêmes canaux;

(ii) le gain maximal d'antenne permis pour les dispositifs utilisant les bandes 5 250-5 350 MHz et 5 470-5 725 MHz doit se conformer à la limite de p.i.r.e.;

(iii) le gain maximal d'antenne permis (pour les dispositifs utilisant la bande 5 725-5 825 MHz) doit se conformer à la limite de p.i.r.e. spécifiée pour l'exploitation point à point et non point à point, selon le cas.

(iv) les pires angles d'inclinaison nécessaires pour rester conforme à l'exigence de la p.i.r.e. applicable au masque d'élévation, et énoncée à la section 6.2.2 3), doivent être clairement indiqués.

(v) De plus, les utilisateurs devraient aussi être avisés que les utilisateurs de radars de haute puissance sont désignés utilisateurs principaux (c.-à-d., qu'ils ont la priorité) pour les bandes 5 250-5 350 MHz et 5 650-5 850 MHz et que ces radars pourraient causer du brouillage et/ou des dommages aux dispositifs LAN-EL.