

P630

Installation Guide



P630 Installation Guide
© 2020 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

Verifone Part Number DOC560-333-EN-A, Revision A



CONTENTS

PREFACE	5
Audience	5
Organization	5
Related Documentation	5
Conventions and Acronyms	6
 CHAPTER 1	
Overview	
P630	9
Features and Benefits	9
Back Functions	10
Exceptional Ease of Use and Ergonomics	10
Critical Security Protection	10
Security	10
Contactless Capability	11
Wireless Communication Capability	11
 CHAPTER 2	
Setup	
Device Location	13
Ease of Use	13
Environmental Factors	13
Electrical Considerations	13
Contactless Considerations	14
PIN Protection Measures	14
Ensuring User Privacy	15
Inside the Shipping Carton	15
MSAM/uSD Cards	15
Installing or Changing MSAM/uSD Card	16
Power Supply	16
Cable Connections	17
Attaching a Cable Connector to the P630	17
Connection to Another Verifone Terminal	18
RS-232 Connection Using an External Power Brick	22
Ethernet Connection with External Power Brick	22
Smart Card Reader	23
Magnetic Stripe Card Reader Use	24
Contactless Transactions	24
Optional Accessories	25
Privacy Shield	25
Stylus and Holder	27
Mounting Plate	27
Periodic Inspection	28
 CHAPTER 3	
Specifications	
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
	Security	30
CHAPTER 4		
Maintenance and Cleaning	General Care	31
	Additional Safety Information	32
	Surface Cleaning	32
	Smart Card Reader Cleaning	32
	Magnetic Stripe Cleaning	33
	Decommissioning/Removal from Service	33
CHAPTER 5		
Service and Support	Returning a Device for Service	35
	Accessories and Documentation	36
	Cables	36
	Power Supply	36
	Privacy Shield	37
	Mounting Plate	37
	Stylus Pen	37
	Stylus Holder	37
	Cleaning Kit	37
	Documentation	37
CHAPTER 6		
Troubleshooting Guidelines	Display Panel Does Not Work	39
	Keypad Does Not Respond	39
	Transactions Fail to Process	39
APPENDIX A	Caution and Warning Messages	41



This guide is the primary source of information for setting up and installing P630 device.

Audience

This guide is useful to the engineers who are involved in installing and configuring the P630 device.

Organization

This guide is organized as follows:

Chapter 1, [Overview](#). Provides an overview of the P630 device.

Chapter 2, [Setup](#). Explains how to set up and install the P630 device, select a location and establish connection with other devices.

Chapter 3, [Specifications](#). Discusses power requirements and dimensions of the P630 device.

Chapter 4, [Maintenance and Cleaning](#). Explains how to maintain your P630 device.

Chapter 5, [Service and Support](#). Provides information on how to contact your Verifone representative or service provider and information on how to order accessories and documentation from Verifone.

Chapter 6, [Troubleshooting Guidelines](#). Provides troubleshooting guidelines, should you encounter a problem in device installation.

[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 P630 device, refer to the following set of documents:




<i>P630 Certifications and Regulations</i>	VPN DOC560-111-EN
<i>P630 Quick Installation Guide</i>	VPN DOC560-222-EN

Conventions and Acronyms

This section describes the conventions and acronyms used in this guide.

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.
NOTE 	The pencil icon is used to highlight important information.	RS-232-type devices do not work on the P630 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.

Various acronyms are used in place of full definition. Table 2 represents acronyms and their definitions.

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

Table 2 **Acronym Definitions** (continued)

Acronym	Definitions
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 describes the features of P630.

P630

The P630 is Verifone's next generation integrated retail PINpad device. Its touchscreen functionality and sophisticated design is perfect for high-end retail establishments.

The P630 is a consumer-facing handheld device. It can also be fix-mounted in some integrated retail scenarios. The product's design is equally appealing as a handheld PINpad and robust enough to look and function appropriately in a fixed mount setting.

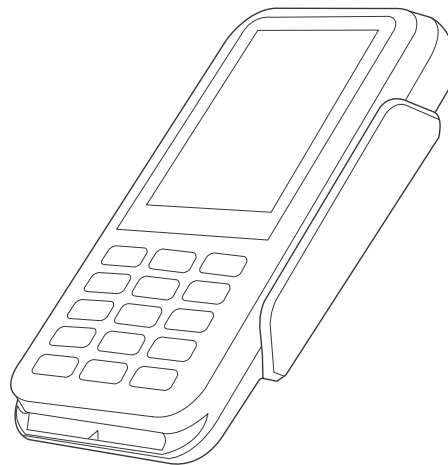


Figure 1 **P630 Touch**

Features and Benefits

The P630 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 P630 device shows the following:

- **Cable connector compartment.**
- **Threaded grommets** for attaching the mounting plate.
- **A dual-stack (uSD+MSAM) and single MSAM connectors** built into the back of the unit to support stored-value card programs or other merchant card requirements.

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 method 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 for physical security.
- Connects with most POS payment terminals, PCs and ECRs.

Security

- Incorporates tamper-detection circuitry to resist unauthorized intrusion and supports a broad spectrum of software-based security features.
- PCI 5.x approved for debit and other PIN-based transactions.
- EMV Level 1 Type Approval.
- Supports reliable security available including SSL, VeriShield file authentication and VeriShield Protect to help prevent fraud and other intrusions.

- With Kensington lock feature resident in the terminal as part of the case.

Contactless Capability

- Advanced contactless architecture that future-proofs investment with a single contactless interface (SingleCI), SoftSAMs and side-by-side application architecture.
- On-screen tap zone for optimized user experience.
- Accepts EMV, NFC and mag-stripe contactless payments as well as PINbased transactions.

Wireless Communication Capability

- Bluetooth:
 - Supports BT v4.2 LE
- WLAN:
 - Supports 2.4GHz/5.0GHz frequency band
 - Supports 802.11 a/b/g/n up to 150Mbps



CHAPTER 2

Setup

This chapter describes the setup procedure for the P630 in the following sections:

- Device Location
- PIN Protection Measures
- Inside the Shipping Carton
- MSAM/uSD Cards
- Power Supply
- Cable Connections
- Smart Card Reader
- Magnetic Stripe Card Reader Use
- Contactless Transactions
- Optional Accessories

Device Location

Following are the guidelines used to select an ideal location for the terminal.

Ease of Use

- Select a location convenient for both merchant and cardholder.
- Select a flat support surface, such as a countertop or table, or mount it on a mounting stand supplied by Verifone.
- Select a location near power outlet, POS, ECR, or computer connected to the terminal. Do not string cables or cords across a walkway for safety.

Environmental Factors

- Do not use the unit where there is high heat, dust, humidity, moisture, 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 terminal outdoors.



The terminal is not waterproof or dustproof. It 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 terminal near water or in moist conditions.
- Disconnect the device from its POS terminal before cleaning.



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 to avoid shock or damage.

Contactless Considerations

Avoid having metallic objects in the proximity of 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

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 on the check-in stand. The shields may be solely for shielding purposes or may be part of the general check-in stand design.
 - Position the terminal 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 forward/backward 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 against PIN capture in four observation corridors:

Table 3 Mounting Methods and Protection Measures

Method	Cashier	Customer in Queue	Customers Elsewhere	On-site Cameras
Countertop 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
Countertop 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 instructions to 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 not be 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](#) (optional).

Inside the Shipping Carton

Open the shipping carton and carefully inspect its contents for possible tampering or shipping damage. The terminal is a secure product. Tampering causes it to cease to function or to operate in an unsecured manner.

1 Remove and inspect the contents of the shipping carton. The terminal ships in multiple configurations. The carton may include all or any of the following:

- Device
- Connectivity cable



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



Power supply, connectivity cubes and base modules are shipped separately or depending on customer requirements.

- 2** Remove all plastic wrapping from the terminal and components.
- 3** Remove the clear protective film from the display.
- 4** Save the shipping carton and packing material for future repacking or moving of the device.



Do not use a tampered or a damaged unit. The unit comes equipped with tamper-evident labels. If a label or component appears damaged, please notify the shipping company and your Verifone service provider immediately.

MSAM/uSD Cards

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

To install or replace Micro SD card:

- 1 Turn off the terminal.
- 2 Place the terminal face down on a soft and clean surface.
- 3 Remove cable cover as shown in [Figure 2](#).
- 4 Insert the card into the slot.

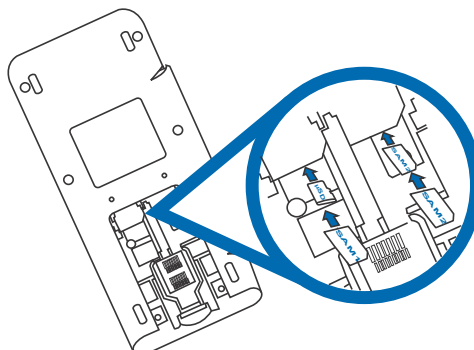


Figure 2 MSAM/uSD Slots



CAUTION

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

Installing or Changing MSAM/uSD Card

To install or change uSD or MSAM card:

- 1 Place the terminal face down on a soft and clean surface to protect the lens from scratches.
- 2 Release the screw.
- 3 Slide out and lift the compartment cover. The uSD and MSAM cardholders are now accessible.
- 4 Install the uSD or MSAM card by carefully sliding it into the slot until fully inserted.



NOTE

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

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.



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 PWR435-101- * - 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.

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 P630 has several cabling scenarios, depending on what it connects to:

- 1 Connection to Another Verifone Terminal.
- 2 RS-232 Connection Using an External Power Brick.
- 3 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 P630

The cables first have to be attached to the P630. To attach a cable to the terminal, follow steps:

- Step 1: Release the screw.
- Step 2: Slide out the cable cover.
- Step 3: Attach the 28-PIN connector of the cable to the terminal.
- Step 4: Slide in the cable cover.
- Step 5: Fix the screw.

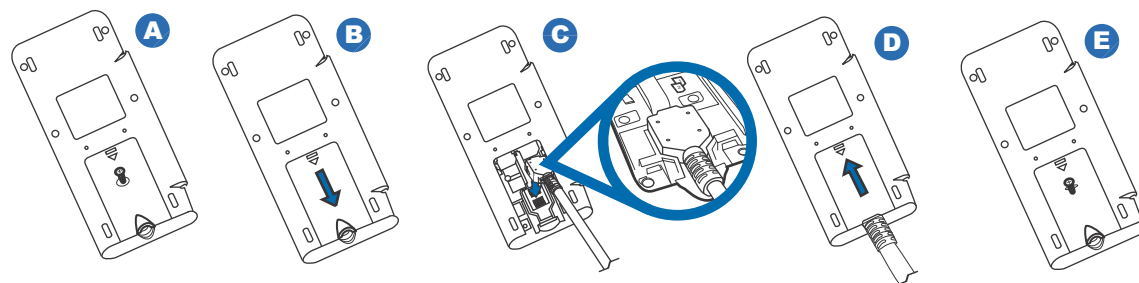


Figure 3 Using the 28-Pin Connector

**Connection to
Another Verifone
Terminal**

The P630 can be powered by another Verifone terminal by [Serial Connection](#).

Serial Connection

- **Configuration 1 - P630 to V200c**

Connect the 28-pin connector of the coiled serial cable (VPN - CBL282-036-01-A) to P630, then insert the other end of the cable to the multi-communication port of V200c.

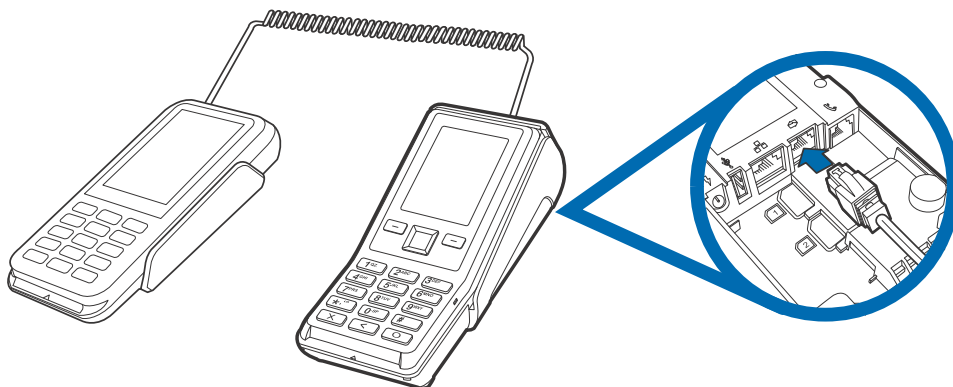


Figure 4 Connecting to V200c via Serial Connection

- **Configuration 2 - P630 to VX 520**

Connect the 28-pin connector of the coiled serial cable (VPN - CBL282-036-01-A) to P630, then insert the other end of the cable to the RS-232 port of VX 520.



Figure 5 Connecting to VX 520 via Serial Connection

NOTE



To ensure that power consumption of P630 is within the limits of the VX 520 port power, the following limitations must apply:

- Media playback is not allowed.
- Reduce Audio volume by adjusting the volume bar through the System Mode.

Reduce audio volume to the position similar below:

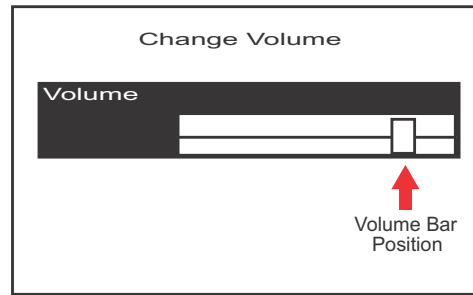


Figure 6 Suggested Position of Volume Bar

- **Configuration 3 - P630 Full Feature**

In order for the P630 to support full feature without any limitation, it is required to power the PINpad with an external power supply.

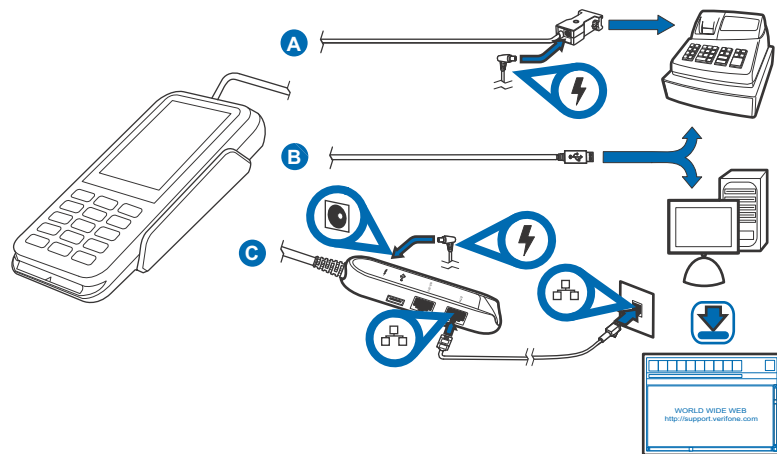


Figure 7 Powering PINpad with External Power Supply

- **Configuration 4 - P630 to V200c**

P630 can be powered via the V200c multi-communication port of V200c, which also supports USB connectivity. Insert the USB cable CBL435-002-01-A directly to the multi-communication port of V200c.

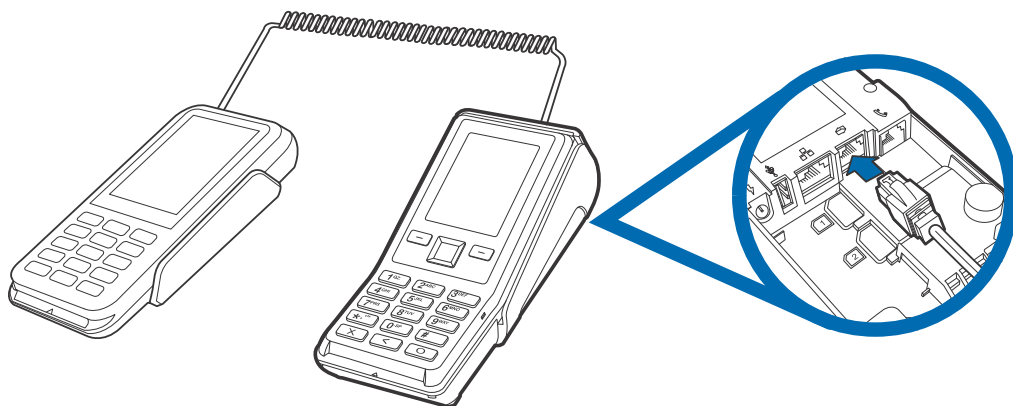


Figure 8 Connecting to V200c via Serial Connection

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

A special dongle cable is used, where one end of the cable plugs into the P630 while the other end terminates into the 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 RS232-based hosts (VPN - CBL282-031-XX-A).

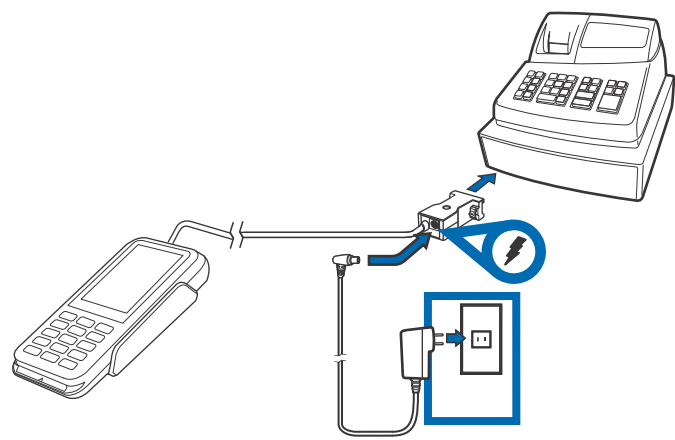


Figure 9 Connecting to RS232-Based Host

**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-8 socket & DC-in jack	CBL282-006-01-B
Ethernet and Mini-USB option	Junction box with RJ-45 socket (for connecting PINPad to LAN infrastructure), MOD-8 socket, Mini USB & DC-in jack	CBL435-005-02-A
Ethernet with RS232 and USB option	Junction box with RJ-45 socket (for connecting PINPad to LAN infrastructure), MOD-8 socket, Mini USB, type A USB & DC-in jack	CBL435-044-01-A

The figure below shows the connections available on the external power brick.

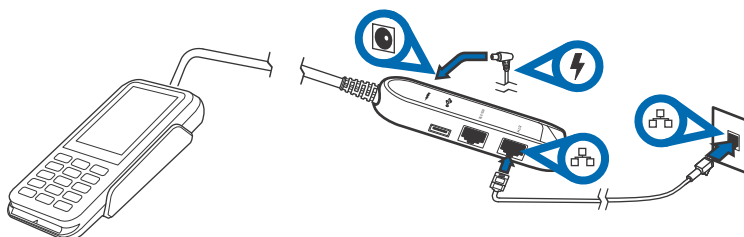


Figure 10 Available Connections on the External Power Brick

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.

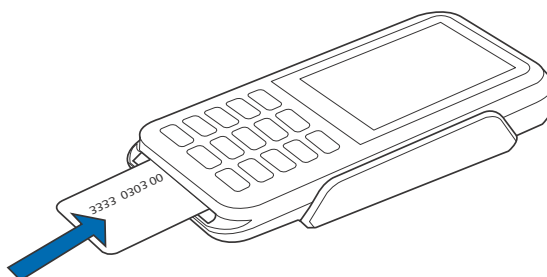


Figure 11 Using the Smart Card Reader

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 P630 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.

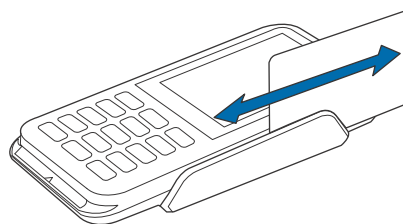


Figure 12 Using the Magnetic Stripe Card Reader

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 P630 supports contactless transactions through an integrated contactless module. The terminal only becomes active for contactless smart card transactions when initialized by an application.

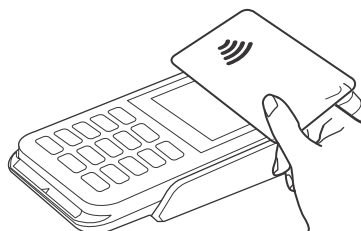


Figure 13 Contactless Transaction

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 Transactions](#) for more information.

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. Two types of privacy shields can be used:

- Standard Type - This privacy shield is PCI-compliant. This must be used when P630 is not mounted on a swivel stand.



Figure 14 Standard Type Privacy Shield

NOTE



Failure to use the privacy shield in PCI-compliant manner will void PCI compliance for the affected device.

- Half-height type - This privacy shield is not PCI-compliant. This may only be used when P630 is mounted on a swivel stand.



Figure 15 **Half-height Type Privacy Shield**

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 P630 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.

Mounting Plate

This accessory is used to mount P630 to vertical or inclined surfaces.

Attaching a Mounting Plate to P630

To attach a mounting plate to P630:

- 1 Align the screw holes at the back of the terminal with the corresponding screws on the mounting plate (this can be done with or without the stylus holder attached).
- 2 Screw the mounting plate in place, keeping the terminal aligned.

Mounting P630 with Mounting Plate to a Wall or Flat Surface

To mount the terminal to a wall or flat surface:

- 1 Ensure the mounting plate is attached to the terminal.
- 2 Attach three M3 screws (not included in P630 package) to the desired surface. Make sure that they are aligned with the slots on top and at the bottom of the mounting plate.
- 3 Secure the terminal with the mounting plate in place by aligning the holes to the M3 screws and 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 P630 to a Flat Surface (Without a Mounting Plate)

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 P630 with Mounting Plate to a Vertical Bracket

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

- 1** Ensure the mounting plate is attached to the terminal.
- 2** Align the three screw holes of the mounting plate 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.

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 P630 device.

Unit Power Requirements	P630 device has the following power requirements:
	<ul style="list-style-type: none">Full capabilities: 110V - 240V AC, 1A
Temperature	<ul style="list-style-type: none">Operating temperature: 0° to 45°C (32° to 113° F)Storage temperature: -20° to 60°C (-4° to 140° F)
Humidity	<ul style="list-style-type: none">Relative humidity: 5% to 90% (RH non-condensing)
External Dimensions	<ul style="list-style-type: none">Length: 170.26 mm (6.70 in)Width: 76.58 mm (3.01 in)Height: 31.85 mm (1.25 in)
Weight	<ul style="list-style-type: none">Unit weight: 303 g (10.68 oz)
Processor	<ul style="list-style-type: none">Android processor QUALCOMM 8909 Cortex-A7 Quad-Core CPU
Display	<ul style="list-style-type: none">3.5" portrait mode transmissive TFT 320 (RGB) x 480 (HVGA)
Magnetic Card Reader	<ul style="list-style-type: none">Triple track (tracks 1, 2, 3), high coercivity, bi-directional
Primary Smart Card	<ul style="list-style-type: none">ISO 7816-3, 1.8V, 3V, 5VSynchronous and Asynchronous cardsEMV Approved

SAM Card Reader

Security

- Two Security Access Modules (SAMs)
- 3DES encryption, Master/Session and DUKPT key management
- VeriShield file authentication
- PCI PED 5.x approved



Maintenance and Cleaning

The P630 device has no user-maintainable parts. It can, however, be cleaned.

General Care

Your device is a product of superior design and craftsmanship and should be treated with care. The following suggestions will help you protect your warranty coverage.

- Keep the device dry. Precipitation, humidity and all types of liquids or moisture can contain minerals that will corrode electronic circuits. If your device gets wet, switch off the power and allow the device to dry completely before replacing it.
- Do not use or store the device in dusty and dirty areas. Its moving parts and electronic components can be damaged.
- Do not store the device in hot areas. High temperatures can shorten the life of electronic devices, damage batteries and warp or melt certain plastics.
- Do not store the device in cold areas. It can form moisture inside the device and damage electronic circuit boards when the device returns to its normal temperature.
- Do not drop, knock, or shake the device. Rough handling can break internal circuit boards and fine mechanics.
- Do not paint the device. Paint can clog the moving parts and prevent proper operation.
- Keep the device free from any small and loose items (such as paper clips, staples, or coins) that could accidentally get inside it through an opening, such as the SAM slots or the primary smart card reader slot.
- Do not attempt to open the device other than as instructed in this guide. This device has security features that protect it from tampering. For example, the file content will be deleted if the device's outer casing is opened.
- Use only the power adapter that came with your device. Adapters of other electronic devices may look similar, but they may affect your device's performance or damage it.
- Do not use this device in any area with a potentially explosive atmosphere. Follow all signs and instructions. Potentially explosive atmospheres include areas where you would normally be advised to turn off your vehicle engine. Sparks in such areas could cause an explosion or fire resulting in bodily injury or even death.

These suggestions apply equally to your device, or any of its attachments, or accessories. If your device is not working properly, then take it to the nearest authorized service facility for servicing or replacement. For your safety, have this device serviced only by a Verifone-authorized service provider.

Additional Safety Information

The following are additional safety information for using this device.

Surface Cleaning

To clean the device, 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.



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

Do not spray cleaners or other solutions directly onto the device.

Smart Card Reader Cleaning

The Smart Card Reader (SCR) must be cleaned on a regular basis, as dirt accumulation can lead to SCR reading problems. SCR can be cleaned using commercially available card reader cleaning cards or using recommended Verifone cleaning card (PN 02746-02).

Cleaning the SCR

To clean the SCR:

- 1** Inspect the device's SCR for presence of foreign objects before cleaning Customer Smart Card.
 - a** If unit shows no presence of foreign objects, test the SCR function and record results. Proceed to [Step 2](#).



Send your device to a Verifone authorized repair center if foreign objects are found in the SCR at any time during SCR inspection, test diagnostics, or cleaning process. Removal of foreign objects from the SCR by customers may void device warranty.

- 2** Clean the SCR with approved or recommended Verifone cleaning card. It is advised always to use new cleaning cards at all times.



If using a commercially available cleaning card use **ONLY** an approved SCR cleaning card made specifically for POS SCR devices or Petroleum SCR.

- 3** Test the SCR after cleaning.
 - a** If SCR tests out okay as “passing”, then the unit is ready for Customer Smart Card use.
 - b** If SCR tests out as “failing”, then send the unit for repair. Provide details to repair center when SCR fails testing, either before cleaning OR after cleaning OR both before and after cleaning.

Magnetic Stripe Cleaning

The Magnetic Stripe Reader (MSR) must be cleaned on a regular basis (daily to once a week, depending on usage), as dirt accumulation can lead to MSR reading problems. MSR can be cleaned using commercially available card reader cleaning cards or using recommended Verifone cleaning card (PN 02746-02).



NOTE

If using a commercially available cleaning card use **ONLY** an approved MSR cleaning card made specifically for POS MSR Card reader devices or Petroleum MSR card readers.

Decommissioning/ Removal from Service

The decommissioning procedure applies to P200 and P630 series PCI PTS version 5.x POI-approved devices.



NOTE

Failure to use this decommission procedure causes non-compliance to the PCI PTS POI Modular Security Requirements version 4.0 approval of the device.

To securely decommission the device:

- 1 Prepare your tool — a #8 Phillips head screwdriver is necessary.
- 2 Ensure that the device is disconnected from power and any other cables.
- 3 Turn the device face down, exposing the rear of the device.
- 4 Using the Phillips head screwdriver, remove each of the eight screws. Four of the screws are covered by the rear cable cover. You must remove the cable cover to access these screws.

One screw is covered by a tamper-evident security label. Push the screwdriver through this label to access the screw.
- 5 Once all the identified screws have been removed, carefully separate the top housing plastics from the bottom 1mm, then pinch the top and bottom housing back together ensuring proper fit.
- 6 Reinsert all of the screws previously removed. Tighten each screw completely.
- 7 Insert the power cable and power up the device.
- 8 Turn the device face up showing the display and keypad. Verify that the unit is in an “Active Tamper.” You should see the *TAMPER* message displayed on the screen.



Service and Support

Contact your local Verifone representative or service provider for any problems on your terminal.

For product service and repair information:

- USA – Verifone Service and Support Group, 1-800-Verifone (837-4366)
- Monday - Friday, 8 A.M. - 8 P.M., Eastern time
- International – Contact your Verifone representative

Returning a Device for Service

You must obtain a Merchandise Return Authorization (MRA) number before returning the terminal to Verifone. The following procedure describes how to return one or more terminals for repair or replacement (U.S. customers only).

NOTE

For international customers, please contact your local Verifone representative for assistance with your service, return, or replacement.

- 1 Get the following information from the printed labels at the back of each P630 to be returned:
 - Product ID, including the model and part number. For example, “P630” and “M560 XXX-XXX-XXX.”
 - Serial number (S/N nnn-nnn-nnn)
- 2 Obtain the MRA number(s) by completing one of the following:
 - a Call Verifone toll-free within the United States at 1-800-Verifone and follow the automated menu options.
 - Select the MRA option from the automated message. The MRA department is open Monday to Friday, 8 A.M.–8 P.M., Eastern Time.
 - Give the MRA representative the information you gathered in Step 1.
 - Complete the Inquiry Contact Form at <https://www.verifone.com/en/us/contact-us>.
 - Address the Subject box to “Verifone MRA Dept.”

- Reference the model and part number in the Note box.



One MRA number must be issued for each P630 you return to Verifone, even if you are returning several of the same model.

- 3 Describe the problem(s).
- 4 Provide the shipping address where the repaired or replacement unit must be returned.
- 5 Keep a record of the following items:
 - Assigned MRA number(s).
 - Verifone serial number assigned to the P630 you are returning for service or repair (device serial numbers are located at the back of the unit).
 - Shipping documentation, such as air bill numbers used to trace the shipment.
 - Model(s) returned (model numbers are located on the Verifone label at the back of the P630).

Accessories and Documentation

Verifone produces the following accessories and documentation for the P630. When ordering, please take note of the part number.

- Verifone online store www.estore.verifone.com
- USA – Verifone Customer Development Center, 800-Verifone (837-4366), Monday - Friday, 7 A.M. - 8 P.M., Eastern time
- 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
CBL282-033-01-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
CBL435-002-01-A	USB cable 2.65 m, connect to P630 to MOD10 port of V200c
CBL435-005-02-A	P630/P200 Ethernet and Mini-USB Dongle
CBL435-044-01-A	P630/P200 USB/Ethernet/RS232, Dongle Cable 1.0 m

Power Supply

PWR435-101-01-A	DC power pack (US)
PWR435-101-02-A	DC power pack (UK)
PWR435-101-03-A	DC power pack (EU)

	PWR435-101-04-A	DC power pack (Australia)
Privacy Shield	PPL435-007-01-A	Standard privacy shield
	PPL435-013-01-A	Half-height privacy shield
Mounting Plate	PPL435-009-01-A	Optional mounting plate
Stylus Pen	PPL435-010-01-A	
Stylus Holder	PPL435-008-01-A	
Cleaning Kit	02746-01	Verifone Cleaning Kit
Documentation	DOC560-111-EN	P630 Certifications and Regulations
	DOC560-222-EN	P630 Quick Installation Guide



Troubleshooting Guidelines

This chapter lists typical malfunctions that may occur while operating a P630 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 P630 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.



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.	<i>Par mesure de sécurité, ne pas les câbles de chaîne ou de cordons à travers une passerelle.</i>
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.	<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 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, high frequency 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 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.	<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 16	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 16	Using an incorrectly rated power supply can damage the unit or cause it not to work properly. Use only a power pack with VPN PWR435-101-01-A.	
Caution	Setup	page 17	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 17	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>
Caution	Setup	page 24	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 23	Incorrect power sequence may degrade the SoC Host port.	
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

P630

Installation Guide

