e285

Installation Guide

e285 Installation Guide
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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 DOC087-513-EN-A, Revision A.5

This guide is your primary source of information for setting up the e285.

Audience

This guide is useful for anyone installing an e285 device. Basic descriptions of the device features are also provided.

Organization

This guide is organized as follows:

Chapter 1, Device Overview. Provides an overview of the e285.

Chapter 2, Device Setup. Explains how to set up the e285 device. It tells you how to select a location, establish power connection, and install the SIM/SAM card.

Chapter 3, Specifications. Discusses power requirements and dimensions of the e285.

Chapter 4, Maintenance and Cleaning. Explains how to maintain your e285.

Chapter 5, Verifone Service and Support. Provides information on how to contact your local Verifone representative or service provider, and information on how to order accessories or documentation from Verifone.

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

Related Documentation

To learn more about the e285, refer to the following set of documents:

e285 Certifications and Regulations Sheet	VPN DOC087-511-EN-x
e285 Quick Installation Guide	VPN DOC087-512-EN-x

Conventions and Acronyms

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

Various conventions are used to help you quickly identify 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 referenced.	See Conventions and Acronyms.
Italics	Italic typeface indicates book titles or emphasis.	You *must* install a roll of thermal-sensitive paper in the printer.
Courier	The courier type face is used while specifying onscreen text, such as text that you would enter at a command prompt, or to provide an URL.	`http://www.verifone.com`
NOTE	The pencil icon is used to highlight important information.	RS-232-type devices do not work with the PIN pad port.
CAUTION	The caution symbol indicates possible hardware or software failure, or loss of data.	The device 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 device near water.

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

Table 2   Acronym Definitions

Acronym	Definitions
AC	Alternating Current
ARM	Acorn RISC Machine
EMV	Europay MasterCard and VISA
LCD	Liquid Crystal Display
LED	Light Emitting Diode
NFC	Near Field Communication
MRA	Merchandise Return Authorization
MSAM	Micromodule-Size Security Access Module
PCI	Payment Card Industry
PED	PIN Entry Device
PIN	Personal Identification Number
SIM	Subscriber Identity Module
USB	Universal Serial Bus
VPN	Verifone Part Number

Device Overview

This chapter provides a brief description of the e285 device.

The e285 is as a standalone, wireless handheld payment device, making it easy to process a transaction anywhere. It provides mobile payment capabilities via 3G connectivity. The e285 is also a powerful 3G/Bluetooth/Wi-Fi solution – featuring advanced communications for fewer dropped transactions so merchants can accept payments securely, extending their point of sale opportunities.

The e285's capacitive-touch with physical keypad design makes it easily pocketable while still accepting all payment methods - MSR, PSCR, Contactless and wallets. The easy to read color touch screen is capable of signature capture and is fully supported by Verifone's developer toolkits that provide everything needed to transform ideas into applications.

Figure 1   The e285 Unit

Key Features

• **300 MHz A9 processor** delivers **power** and **usability** in a **convenient** "hand-over" design.	• Offers **unsurpassed performance** on **EMV** smart card transactions.
• **Multi-application** operating environment.	• **Security** architecture exceeds specifications for PCI-PED and sophisticated **file authentication.**
• **Advanced memory architecture** to meet tomorrow's needs.	• **Multiple connectivity and contactless** options.
• **32-bit processing** and **multi-tasking** capabilities.	• Drop-resistant design minimizes breakage.

Features and Benefits

The e285 provides the right combination of features and functions including a triple-track magnetic-stripe card reader, smart card reader, integrated PIN pad, and contactless/NFC support.

Triple Radio Performance

- The dynamic combination of Bluetooth chip, Wi-Fi and powerful 3G radio delivers fast, wireless payment convenience, fewer dropped transactions and flexible point-of-sale options.

Modern Application Environment

- Reliable operating system and powerful tools to create richer customer experiences.
- Common Engage software architecture enables faster and more cost effective application development.

Accepts All Forms of Payment On-the-Go

- Accommodates all payment types - Magstrip, EMV, Contactless/NFC, and mobile wallets along with a 2.8-inch color touch screen capable of signature capture.

Exceptional Ease of Use

- The lightweight, compact, stylish, and ergonomic balance allows convenient device hand-off to the consumer for PIN entry or other input.
- Horizontal magnetic stripe card reader for optimal card swiping and reading.
- The e285 size is easily able to be dropped in most pockets.

Performance and Durability

- Powerful 300 MHz A9 processing completes transactions quickly.
- High-capacity lithium-ion battery pack (3.8 V / 1800mAh with Maxell ICP425262AHR battery cell) that easily supports a full 12-hour business day on a single charge.
- The USB-C port allows for convenient product charging as well as connection to Android, iOS, and Windows devices.
- Rounded corners to minimize breakage and drop-resistant to 3 feet on concrete surfaces.
- 256MB Flash, 128MB DDR of memory

Security

- PCI PED 5.x approved for debit and other PIN-based transactions
- Tamper-resistant construction, SSL protocols
- Direct key injection using industry standard HSMs
- VeriShield Retain
- VeriShield Remote Key
- Verifone Secure Data
- VeriShield Total Protect
- MasterCard TQM
- IPP8 functionality plus multiple DUKPT engines

- EMV L1 and L2

- ISO7816-3, ISO7816-10, and EMV 4.3 standards

Connectivity   **USB host/ device port**

- Support UART0 software debug (TXD0, RXD0).

- USB2.0 high speed

- Support 5V/200mA for external USB peripherals

- USB host or device is configured by SW

- Type C USB connector at bottom

- Communication port for smart device on charge stand (Android, Windows, or iDevice)

Bluetooth (wireless communication)

- Bluetooth 4.1 + EDR compliant

- Support Eddystone + iBeacon

- RF transmitter output power Class 1

- RF receiver GFSK typical -90dBm, /4 PSK typical -90dBm, 8DPSK typical -83dBm

- UART3 interface for SOC communicates to BT

WiFi (wireless communication)

- Support 802.11b/g/n connectivity for communicating with WiFi AP

- Single band support (2.4GHz only, no support for 5GHz)

- BCM43455 module

- SDIO for host interface

3G (wireless communication)

- Gemalto EHS6

- GPRS/GSM Class 10

- UMTS/HSPA DL 7.2Mbps, UL 5.7Mbps

- Host interface USB

- Use RING0 for all wake events (new FW update from Gemalto)

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Device Setup

This chapter describes the device setup procedure. You will learn about:

- Usage Guidelines
- Unpacking the Shipping Carton
- Device Features
- Removing the Battery Cover
- Installing micro SIM and/or SAM Cards
- Using the Battery
- Connecting to a Computer
- Conducting Wireless Transactions
- Using the Smart Card Reader
- Using the Magnetic Card Reader
- Using the CTLS Reader

Usage Guidelines

Follow these guidelines when using your e285.

Environmental Factors

- Select a flat support surface, such as a countertop or table, to keep the device safe in between uses.
- Do not use the device where there is high heat, dust, humidity, moisture, or caustic chemicals or oils.
- Keep the device away from direct sunlight and anything that radiates heat, such as a stove or motor.
- Do not use the device outdoors.

CAUTION

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

Personal Security Considerations

The e285 is a handover device. Always exercise extreme caution when conducting transactions especially during PIN entry.

- Hand the e285 directly to the cardholder for PIN entry.
- Encourage the cardholder to hold the e285 close to avoid others from seeing the information entered.

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 device near water or in moist conditions.

Unpacking the Shipping Carton

Open the shipping carton and carefully inspect its contents for possible tampering or shipping damage. The e285 is a secure product and any tampering may cause the device to cease to function properly.

1 Remove and inspect the following items:

- e285 unit
- USB-C cable

2 Remove all plastic wrapping from the unit and other components.

3 Remove the clear protective film from the unit.

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

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

NOTE	Charge the e285 device for eight hours before initial use.

Device Features

Before you continue the installation process, familiarize yourself with the features of the e285. (See Figure 2)

Front Panel   The front panel includes the following features:

MAGNETIC
STRIPE READER

LCD DISPLAY

KEYPAD

SMART CARD READER
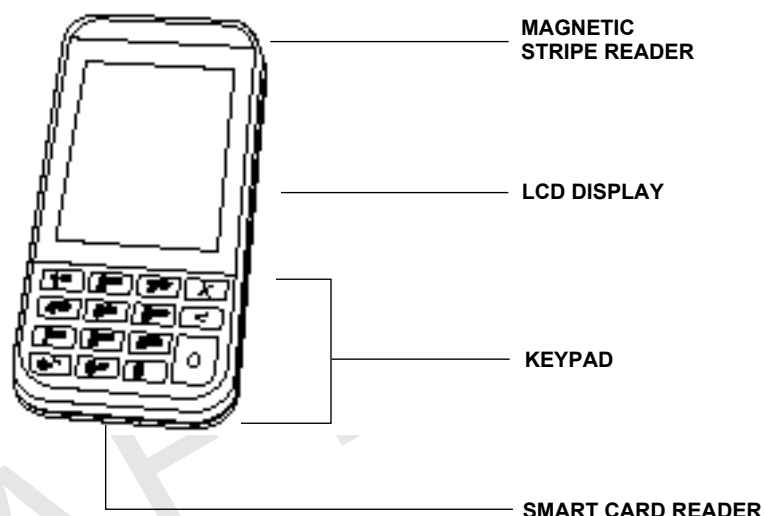
Figure 2   e285 Device Features (Front Panel)

• A colored capacitive-touch **LCD Display**

• Two types of keys:

   a **telephone style keypad** (keypads may vary in style).

   b three color-coded function keys below the keypad (from top to bottom: **CANCEL**, **CLEAR**, **ENTER**).

• A **smart card reader** built into the bottom of the device to process smart card transactions. For directions on how to use a smart card, see Using the Smart Card Reader.

• A **magnetic card reader**, built into the top part of the device for performing debit or credit card transactions. Swipe the card with the magnetic stripe facing down, away from the display. For directions on how to use a magnetic card, see Using the Magnetic Card Reader.

• A **Power LED** located on the left side that acts as power/charging indicators.

• A **CTLS functionality** for contactless payments. For directions on how to conduct contactless transactions, see Using the CTLS Reader.

• A micro **SIM** compartment, built into the bottom of the device inside the back compartment (SIM on 3G version only).

• A micro **SAM** compartment, built into the bottom of the device inside the back compartment.

Removing the Battery Cover

Remove the battery cover to access the battery as well as the micro SIM and micro SAM slots.

1 Turn off the device.

2 Place the device upside down on a soft, clean surface to protect the screen from scratches.

3 If installed, loosen the retaining screw.

4 Slide the battery cover down, away from the magnetic card reader.

Installing micro SIM and/or SAM Cards

The e285 device supports the installation of a GSM SIM (Subscriber Identity Module) and/or SAM (Security Access Module). Use the following procedures to install a SIM and/or SAM card.

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

1 Follow the steps in Removing the Battery Cover

2 Insert the SIM and/or SAM card with the gold contacts facing down.

3 Reinstall the battery cover back and if it was previously installed, reinstall and tighten the retaining screw.

Initial Battery Charging

After unpacking your e285 device, connect the power pack to the unit for eight hours or until fully charged.

The battery has a safety circuit to protect the Li-ion cells from overcharging and over-discharging. If the battery is over-discharged, the safety circuit shuts down the battery. The battery must then be recharged to restore operation.

Starting Up and Shutting Down

The e285 device starts up differently depending on how it is powered.

• The device starts up automatically when the e285 is connected to a non-battery power source, regardless of the battery charge state.

• To manually power up, hold the green key down for about 4 seconds until the device displays the startup screen.

NOTE The 4-second power-up delay prevents device startup if the green key is accidentally held down. The time required to hold the green key down to power up the device is configurable.

The device lights up once the power is on.

NOTE The Verifone copyright screen starts and displays a unique copyright screen.If the terminal comes pre-loaded with an application, this starts after the initial Verifone copyright screen and usually displays its own copyright screen.

To manually shutdown, hold the red key down for about 4 seconds until the device screen stays blank.

NOTE

The e285 device will only operate when the battery is installed unless connected to AC power, for example, in a stand.

Using the Battery

The e285 device uses a single cell Li-ion battery which features:

- The battery has a safety circuit that:
    - Prevents cell damage from overcharge, over-discharge, or overheating.
    - Activates when the battery is left in an unused device for extended periods.
- The battery provides power to the security circuit when the e285 device has no external power source.
- Li-ion batteries are not affected by shallow charging.

Follow these best practices for best function:

- Conserve battery power by turning the e285 device off when not in use.
- Keep the Li-ion battery inserted in the device and power up the device periodically to check the battery charge. Do not let the battery charge fall below 10% for extended periods of time as this may permanently diminish battery capacity.
- Recharge the battery by connecting the USB-C end of the power pack to the device and plugging the other end of the power pack into a wall outlet.

NOTE

The e285 device automatically shuts off when the battery reaches the *critically low* charge state. If this occurs, the battery must be recharged for a minimum of 1/2 hour before it can power the device. *It may take several recharge attempts to reset the safety circuit* when charging a battery that has been discharged below this critical state.

The e285 device has a simple two-color LED with two energized states:

- solid amber: charging
- solid white: charging complete

Battery Life

Charging and discharging the e285 battery hundreds of times will wear out the battery. Significantly reduced operating times indicate the need for battery replacement (see Accessories and Documentation for ordering information).

WARNING Do not dispose batteries in a fire. Li-ion batteries must be recycled or disposed of properly. Do not dispose Li-ion batteries in municipal waste sites.

Charging the Battery

After installing the battery, the e285 device can be connected to the optional power pack or charged with a wireless charger,.

CAUTION

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

WARNING

Do not plug the power pack into an outdoor outlet or operate the device outdoors.

During a transaction, disconnecting the power by removing the battery or unplugging the device from a wall power while at very low battery charge may cause transaction data files not yet stored in the device memory to be lost.

Charging via the Power Pack

Verifone offers the optional power supply (VPN PWR087-300-01-A) to connect the device directly to a power outlet and to charge the battery.

1 Insert the USB-C plug into the USB-C port of the e285 device.

2 Plug the AC power pack into a wall outlet or powered surge protector.

TIP

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

Charging with the Folio

Verifone also offers wireless charging accessories (VPN **TBD**) that can be connect to the optional power supply (VPN PWR087-300-01-A) to charge the e285 device when fitted with the Folio accessory.

1 Insert the USB-C plug into the USB-C port of the wireless charging accessory.

2 Plug the AC power pack into a wall outlet or powered surge protector.

3 Set the rear cover of the Folio-equipped e285 device against the front face of the wireless charger.

NOTE

When the e285 device is fitted with the Folio accessory, the Folio has inductive charging that allows charging from any Qi charger.

Verifone provides specific accessories, as well (see Accessories and Documentation for ordering information).

Upon startup, the e285 device loads it's application, displays the Verifone copyright screen, and shows a unique copyright screen.

NOTE

If there is no available application in the device, **DOWNLOAD NEEDED** appears on screen after the initial Verifone copyright screen.

Connecting to a Computer

Connect the e285 device to a PC or laptop to download applications.

1 Insert the USB-C plug into the USB-C port of the e285

2 Connect the other end of the USB-C plug into the host computer's USB port.

Conducting Wireless Transactions

To conduct a wireless transaction:

• Ensure the device is in an optimal position for transmitting.

• Follow the on-screen instructions provided with your application.

Using the Smart Card Reader

The smart card transaction procedure may vary from one application to another. Verify the procedure with your application provider before performing a smart card transaction.

1 Position the smart card with the contacts facing upward (see illustration below).

2 Insert the card into the reader slot in a smooth, continuous motion until it seats firmly.

3 Wait for the application to indicate a completed transaction before removing the card. Premature card removal invalidates the transaction.

Figure 3   **Inserting a Smart Card**

Using the Magnetic Card Reader

Use the magnetic stripe reader to perform credit and debit card transactions.

1 Position the card with the magnetic stripe facing backwards.

2 To ensure a proper read of the magnetic swipe card, insert the magnetic card from the top of the device, as shown in the illustration below.

Figure 4   Using Magnetic Stripe Card

3 Swipe the card through the magnetic card reader.

Using the CTLS Reader

The e285 supports contactless credit or debit card transactions. To perform a contactless transaction, gently tap the card or hold the card against the surface of the contactless antenna, located above the keypad and LCD.

Figure 5   Using the CTLS Reader

Using Accessories

Verifone makes multiple accessories available:

• Optional power supply (VPN PWR087-300-01-A)

• Folio with with inductive Qi charging (VPN TBD)

• Charging Cradles for Bulk Charger (VPN TBD)

• Bulk Charger (VPN TBD)

See Accessories and Documentation for ordering information.

Specifications

This chapter discusses power requirements, dimensions, and other specifications of the e285 device.

Unit Power Requirement
- Input power rating: 5 V DC, 1 A
  Charging via USB-C to computer system or Verifone-certified power adapter

Temperature
- Operating Environment: 0°C to +50 °C (32 °F to 122 °F)
- Non-Operating Environment: -20 °C to +60°C (- 4 °F to 140°F)
- Relative humidity: 5% to 90% RH non-condensing

External Dimensions
- **Length:** 138 mm
- **Width:** 68 mm
- **Height:** 17.6 mm

Weight
- 186 grams

Memory
- 256 MB Flash, 128MB DDR

Magnetic Stripe Card
- Triple-track
- Supports bi-directional card read, swipe speed at 10 IPS to 40 IPS

SAM Card Reader
- Non-sliding
- Card conserving plated landing contacts
- SC voltage 1.8V, 3.0V, 5.0V

Communication
- BT, WiFi, and 3G Options

Display
- 2.8" Color Touch (320 X 240)

SD Memory
- NAND Flash: 2 Gbit with 8-bit bus width
- LPDDR2 SDRAM memory: 1 Gbit with 32-bit bus width

Maintenance and Cleaning

The e285 device has no user-maintainable parts. It can, however, be cleaned.

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.

CAUTION

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

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

Terminal Contacts

Gently swab the contacts with alcohol or contact cleaner to remove the dirt. It is important that the exposed contacts of the e285 battery stay clean and unbent.

CAUTION

Avoid touching the contacts of the e285 battery. Finger oils tarnish contacts, causing bad connections. When operating on battery power and experiencing a high occurrence of bad or incomplete data transfers, clean the contacts

Magnetic Card Reader

Dirt accumulation can lead to MSR reading problems unless you clean the magnetic stripe reader (MSR) on a regular basis (daily to once a week, depending on usage).

Clean the MSR using commercially available card reader cleaning cards, or using Verifone's recommended MSR-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 terminals or Petroleum MSR card readers.

Smart Card Reader

Do not attempt to clean the Smart Card Reader (SCR). Doing so may void any warranty. For smart card reader service, contact your Verifone distributor or service provider.

CAUTION

If you find foreign objects in the SCR, send your terminal to a Verifone authorized repair center.

Do not use Verifone's recommended MSR-cleaning card (PN 02746-02) or commercially available card reader cleaning cards with the SCR.

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**Additional
Safety
Information**

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The following is additional information for your safety in using this device.

WARNING

Potentially Explosive Environments

When using the device in areas with potential risk of explosion, such as petrol stations, follow the advice of all signs and instructions. If there has been a leak, do not use this device.

Verifone Service and Support

For e285 problems, contact your local Verifone representative or service provider.

For e285 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

Before returning a e285, you must obtain an MRA number. The following procedure describes how to return one or more devices for repair or replacement (U.S. customers only).

NOTE

Customers outside the United States are advised to contact their local Verifone representative for assistance regarding service, return, or replacement of devices and accessories.

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1 Get the following information from the printed labels at the back of *each* e285 to be returned:

- Product ID, including the model and part number. For example, "e285" and "M087-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. 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 727-953-4172 (U.S.).

b Address a fax to "Verifone MRA Dept." with the model and part number(s)

- Include a telephone number where you can be reached and your fax number.

c Complete the Inquiry Contact Form at `http://www.verifone.com/aboutus/contact/contact_form.cfm`.

- Address the Subject box with to "Verifone MRA Dept."

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

> **NOTE**
>
> One MRA number must be issued for each e285 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 e285 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 e285).

Accessories and Documentation

Verifone produces the following accessories and documentation for the e285. When ordering, please take note of the part number.

- Verifone online store at `www.store.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

Accessories

Verifone Certified Power Adapter	PWR087-300-01-A
Verifone Cleaning Kit	02746-02-GRU
Verifone Folio with with inductive Qi charging	VPN TBD
Verifone Charging Cradles for Bulk Charger	VPN TBD
Verifone Bulk Charger	VPN TBD

Documentation

e285 Certifications and Regulations Sheet	VPN DOC087-511-EN-x
e285 Quick Installation Guide	VPN DOC087-512-EN-x

CHAPTER 6

Troubleshooting Guidelines

The troubleshooting guidelines provided in the following section are included to help you install and configure your e285 successfully. Typical examples of malfunction you may encounter while operating your e285 and steps you can take to resolve them are listed in this chapter.

If the problem persists even after performing the outlined guidelines or if the problem is not described below, contact your local Verifone representative for assistance.

NOTE The e285 comes equipped with tamper-evident labels. The e285 unit contains no user serviceable parts. Do not, under any circumstance, attempt to disassemble the device. 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.

CAUTION Use only a Verifone-supplied power pack. Using an incorrectly rated power supply may damage the device or cause it not to work as specified. Before troubleshooting, ensure that the power supply being used to power the device matches the requirements specified at the bottom of the device. (See Specifications, for detailed power supply specifications.) Obtain the appropriately rated power supply before continuing with troubleshooting.

Device Does Not Start
- Ensure that the battery charge state is not below the critically low level.
- Replace or recharge the battery.
- Check if the battery is properly inserted.
- Ensure that you pressed the green ENTER/ON key for approximately four seconds, until the unit lights up.

Device Display Does Not Show Correct/ Readable Info
- Replace or recharge the battery.
- Connect the e285 into a known-good power supply (if available) to see if this clears the problem.
- If the problem persists, contact your local Verifone representative for assistance.

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Battery Does Not Charge

The e285 battery must initially receive a full charge to ensure proper operation.

NOTE

- Allow the e285 device to remain connected to the power pack or Qi charger for eight hours to ensure the battery receives a full charge.

- Li-ion batteries are not affected by shallow charging. Furthermore, when the device has no external power source or battery the coin cell battery provides power to the security circuit.

- Uninstalling the battery and unplugging the device power pack reduce the life of the coin cell battery, which does not recharge and must be replaced if drained.

- Conserve battery power by turning the e285 device off when not in use. Keep the Li-ion battery inserted in the device and power up the device periodically to check the battery charge. Do not let the battery charge fall below 10% for extended periods of time as this may permanently diminish the battery capacity. Recharge the battery by attaching USB end of the power pack to the device and plugging the other end of the power pack into a wall outlet.

- The e285 device automatically shuts off when the battery reaches the *critically low* charge state. If this occurs, the battery must recharge a minimum of 1/2 hour before it can power the device. *It may take several recharge attempts to reset the safety circuit* when charging a battery that has been discharged below this critical state.

Blank Display

When the e285 device display screen does not show correct or clearly readable information:

- The battery pack may not be connected properly. Remove and reinstall the battery pack.

- Check device power connection.

- Remove and reapply power to the device.

- If the problem persists, contact your local Verifone service provider.

Keypad Does Not Respond

If the keypad does not respond properly:

- Check the device display. If it displays the wrong character or nothing at all when you press a key, follow the steps outlined in Transactions Fail To Process.

- If pressing a function key does not perform the expected action, refer to the user documentation for that application to ensure you are entering data correctly.

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

Transactions Fail To Process

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

Check the Magnetic Card Reader

- Perform a test transaction using one or more different magnetic stripe cards to ensure the problem is not a defective card.

- Ensure that you are swiping cards properly. With the e285 card reader, the black magnetic stripe on the card should face down and outward, away from the keypad (see Figure 4).

- Process a transaction manually, using the keypad instead of the card reader. If the manual transaction works, the problem may be a defective card reader.

- Contact your Verifone distributor or service provider.

- If the manual transaction does not work, proceed to Check the Signal Strength.

Check the 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 and that the card is not removed prematurely.

- Ensure the SIM card is properly inserted (see Installing micro SIM and/or SAM Cards).

- Contact your Verifone distributor or service provider.

- If the manual transaction does not work, proceed to Check the Signal Strength.

Check the Signal Strength

- On-screen signal-strength indicator displays at least one bar to indicate connectivity to radio network.

- Ensure that the radio has been activated by your service provider.

Caution and Warning Messages

e285 Caution and Warning Messages

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

Table 3   Caution and Warning Messages

Notice	Chapter	Page	English Text	French Text
Caution	Setup	page 12	The terminal is not waterproof or dustproof, and is intended for indoor use only.	*Le terminal est pas étanche ou à la poussière, et est destiné à une utilisation en intérieur.*
			Any damage to the unit from exposure to rain or dust may void any warranty.	*Tout dommage à l'unité de l'exposition à la pluie ou à la poussière peut annuler la garantie.*
Warning	Setup	page 13	Do not use a unit that has been tampered with or otherwise damaged. This unit comes equipped with tamper-evident labels. If a label or component appears damaged, immediately notify the shipping company and your Verifone representative or service provider.	*Ne pas utiliser une unité qui a été altéré ou endommagé. Cet appareil est équipé d' étiquettes inviolables. Si une étiquette ou d'un composant semble endommagé, avertissez immédiatement la compagnie de navigation et votre représentant ou du prestataire de services Verifone.*
Caution	Setup	page 15	Observe standard precautions when handling electrostatically sensitive devices. Electrostatic discharges can damage this equipment. Verifone recommends using a grounded anti-static wrist strap.	*Respecter les précautions standard lors de la manipulation des appareils sensibles aux dées électrostatiques. Les dées électrostatiques peuvent endommager cet équipement. Verifone recommande d'utiliser un bracelet anti-statique à la terre.*
Caution	Setup	page 17	Using an incorrectly rated power supply may damage the terminal or cause it not to work as specified. Before troubleshooting, ensure that the power supply being used to power the terminal matches the requirements specified on the bottom of the terminal. (See Specifications, for detailed power supply specifications.) Obtain the appropriately rated power supply before continuing with troubleshooting.	*Utilisation d'une alimentation mal classé peut endommager le terminal ou de l'empêcher de travailler comme spécifié. Avant de dépannage, assurez-vous que l'alimentation est utilisé pour alimenter le terminal correspond aux exigences spécifiées sur le fond de la borne. (Voir le, Caractéristiques, pour les caractéristiques de l'alimentation.) Obtenir l'alimentation nominale appropriée avant de continuer avec le dépannage.*

Table 3   **Caution and Warning Messages** (continued)

Notice	Chapter	Page	English Text	French Text
Warning	Setup	page 17	Do not plug the power pack into an outdoor outlet or operate the terminal outdoors.	*Ne pas brancher le bloc d'alimentation à une prise extérieure ou exploiter le terminal à l'extérieur.*
			Disconnecting the power during a transaction may cause transaction data files not yet stored in terminal memory to be lost.	*Déconnexion de l' alimentation lors d'une transaction peut entraîner des fichiers de données de transaction non encore stockées dans la mémoire terminal pour être perdu.*
			To protect against possible damage caused by lightning strikes and electrical surges, consider installing a power surge protector.	*Pour se protéger contre de possibles dommages causés par la foudre et les surtensions électriques, pensez à installer un protecteur de surtension.*
Warning	Setup	18	Do not dispose batteries in a fire. Li-ion batteries must be recycled or disposed of properly.	*Ne jetez pas les batteries au feu. Les batteries Li-ion doivent être recyclées ou éliminées correctement.*
			Do not dispose Li-ion batteries in municipal waste sites.	*Ne jetez pas les batteries Li-ion dans les sites de déchets municipaux.*
Caution	Maintenance and Cleaning	page 23	Never use thinner, trichloroethylene, or ketone-based solvents – they can deteriorate plastic or rubber parts.	*Ne jamais utiliser de diluant, le trichloréthylène ou des solvants à base de cétone - ils peuvent détériorer les pièces en plastique ou en caoutchouc.*
Caution	Maintenance and Cleaning		Avoid touching the contacts of the e285 battery. Finger oils tarnish contacts, causing bad connections. When operating on battery power and experiencing a high occurrence of bad or incomplete data transfers, clean the contacts.	*Évitez de toucher les contacts de la batterie e285. Les huiles de doigt ternissent les contacts, provoquant de mauvaises connexions. Lorsque vous utilisez une batterie et que la transmission de données est incorrecte ou incomplète, nettoyez les contacts.*
Caution	Troubleshooting Guidelines	27	Using an incorrectly rated power supply may damage the unit or cause it to not work properly. Before troubleshooting, ensure that the power supply used to power the unit matches the specified requirements (see Specifications for detailed power supply specifications). If not, obtain the appropriately rated power supply before continuing with troubleshooting.	*Utilisation d'une alimentation mal classé peut endommager l'appareil ou provoquer sa ne fonctionne pas correctement. Avant de dépannage, assurez-vous que l'alimentation utilisée pour alimenter l'unité correspond aux exigences spécifiées (voir spécifications pour les caractéristiques de l'alimentation). Si non, obtenir l'alimentation nominale appropriée avant de continuer avec le dépannage.*

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Installation Guide