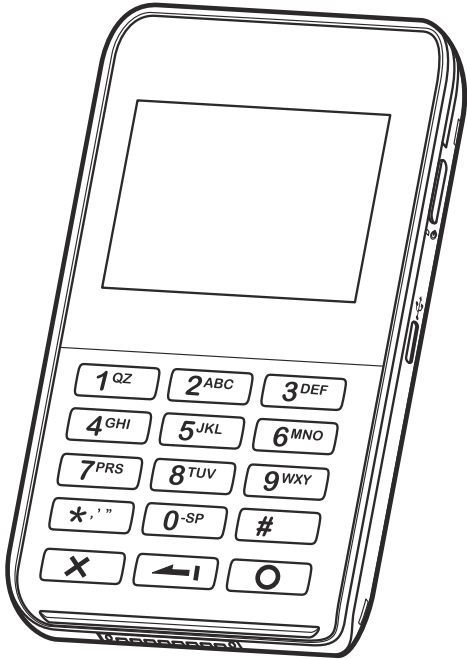


e355

Installation Guide



e355 Installation Guide
© 2015 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.

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

WARNING



The e355 uses a lithium-ion rechargeable battery. Do not dispose the e355 in a fire. Lithium-ion polymer batteries must be recycled or disposed of properly. Do not dispose lithium-ion polymer batteries in municipal waste sites.



VERIFONE
CONFIDENTIAL
DRAFT
REVISION A.2



Verifone, Inc.
2099 Gateway Place, Suite 600
San Jose, CA, 95110 USA
1-800-VERIFONE

www.verifone.com



CONTENTS

| | |
|--|----|
| PREFACE | 5 |
| Audience | 5 |
| Organization | 5 |
| Related Documentation | 5 |
| Conventions and Acronyms | 6 |
| | |
| CHAPTER 1 Device Overview | |
| Features and Benefits | 8 |
| Exceptional Ease of Use | 8 |
| Performance and Durability | 8 |
| Security | 8 |
| Contactless Capability | 8 |
| | |
| CHAPTER 2 Device Setup | |
| Usage Guidelines | 10 |
| Environmental Factors | 10 |
| Personal Security Considerations | 10 |
| Electrical Considerations | 10 |
| Unpacking the Shipping Carton | 10 |
| Examining e355 Device Features | 11 |
| Front View | 11 |
| Back View | 13 |
| Installing/Replacing an MSAM Card | 13 |
| Manually Starting and Resetting the e355 | 15 |
| Connecting the e355 to a Power Source or a Host Computer | 15 |
| Color Behavior | 16 |
| Using the Smart Card Reader | 17 |
| Using the Magnetic Stripe Reader | 17 |
| Using the CTLS Reader | 18 |
| Using the Barcode Reader | 18 |
| Examining e355 Frame Features | 19 |
| Front View | 19 |
| Back View | 19 |
| Attaching the e355 Device to the e355 Frame | 20 |
| Attaching a Tablet to the e355 Frame | 20 |
| Connecting the e355 Frame to a Power Source | 21 |
| | |
| CHAPTER 3 Specifications | |
| Power | 23 |
| Temperature | 23 |
| External Dimensions | 23 |
| | |
| CHAPTER 4 Maintenance | |
| Cleaning the Device | 25 |
| Smart Card Reader | 25 |

CHAPTER 5
Verifone Service and Support

- Returning a Device for Service 27
- Accessories and Documentation 28
 - Accessories. 28
 - Documentation 28
- Battery Pack Instructions 28

CHAPTER 6
Troubleshooting Guidelines

- Device Does Not Start 29
- Device Display Does Not Show Correct/Readable Info 29
- Blank Display 30
- Keypad Does Not Respond 30
- Transactions Fail To Process 30

VERIFONE
CONFIDENTIAL
DRAFT
REVISION A.6





This guide is your primary source of information for setting up the e355.

Audience

This guide is useful for anyone installing an e355 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 e355.

Chapter 2, Device Setup. Explains how to set up the e355 device. It tells you how to select a location, establish power connection, and install the MSAM card.

Chapter 3, Specifications. Discusses power requirements and dimensions of the e355.

Chapter 4, Maintenance. Explains how to maintain your e355.

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 e355, refer to the following set of documents:

e355 Certifications and Regulations Sheet

VPN DOC087-061-EN

e355 Quick Installation Guide

VPN DOC087-062-EN

e355 Web site




www.paywaremobile.com

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 . |
| <i>Italics</i> | Italic typeface indicates book titles or emphasis. | You <i>must</i> 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. | <code>http://www.verifone.com</code> |
|  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 e355.

The e355 connects with various tablet devices for the next generation of PAYware Mobile enterprise. It supports the use of the SPP standard to connect between the e355 and tablet.

Some of the e355's key features include: a fast processor, large memory, the latest PCI 4.0 security, integrated 2D barcode scanner, mechanical keypad, integrated contactless and NFC-ready, in a small most versatile form factor.

The e355 is a portable, battery-powered device designed to fit your hands comfortably and is ideal for consumer-facing and merchant-facing retail integrated applications. It has a removable battery that can be charged by external power adapter through a micro-USB connector and gang charger. It also features a crisp 320 x 240 color LCD display.

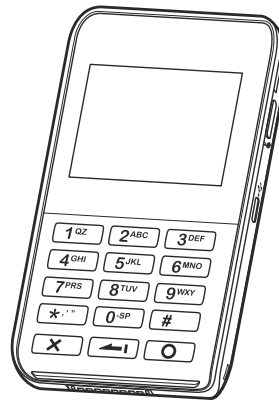


Figure 1 The e355 Unit

Key Features

- **400 MHz ARM11 processor** delivers **power** and **usability** in a **convenient** "hand-over" design
- **Multi-application** operating environment
- **Advanced memory architecture** to meet tomorrow's needs
- **32-bit processing** and **multi-tasking** capabilities
- Offers **unsurpassed performance** on **EMV** smart card transactions
- **Security** architecture exceeds specifications for PCI-PED and sophisticated **file authentication**
- **Multiple connectivity and contactless** options
- **Spill-resistant design** prevents liquid from entering the unit by forcing it down and off the front of the device

Features and Benefits

The e355 provides the right combination of features and functions including a triple-track magnetic-stripe card reader, smart card reader, integrated PIN pad, colored display, 2D barcode reader, and contactless/NFC support.

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.
- Large, well-placed, mechanical keys provide a continuity of user experience between the e355 and the iOS, Android, or Windows device.
- Horizontal magnetic stripe card reader with an enlarged card entrance delivers optimal card swiping and reading without the need to visually guide the card.
- The e355 size is easily able to be dropped in most pockets. An optional hands-free holster is available that fits the server's or clerk's belt so that the e355 can be quickly removed and easily handed to the customer.

Performance and Durability

- Powerful 400-mHz ARM11 processing completes transactions quickly.
- High-capacity lithium-ion polymer battery can rapidly charge and offer 10+ hours of power.
- Standard Micro-USB port allows for convenient product charging.
- Rounded corners to minimize breakage and drop-resistant to 3 feet on concrete surfaces.
- 192 MB of standard memory.

Security

- PCI PED 4.x approved for debit and other PIN-based transactions
- EMV Level 1 type approval
- Tamper-resistant construction, SSL protocols, and VeriShield file authentication
- Supports VeriShield Protect encryption implementations

Contactless Capability

- Advanced contactless architecture that future-proofs investment with a single contactless interface (SingleCI), SoftSAMs, and side-by-side application architecture.
- Large tap zone (above the keypad) that encompasses the PIN pad optimizes user experience.
- Contactless version accepts EMV in addition to magnetic stripe contactless payments as well as PIN-based transactions.



Device Setup

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

- Usage Guidelines
- Unpacking the Shipping Carton

For e355 Device

- Examining e355 Device Features
- Installing/Replacing an MSAM Card
- Manually Starting and Resetting the e355
- Connecting the e355 to a Power Source or a Host Computer
- Color Behavior
- Using the Smart Card Reader
- Using the Magnetic Stripe Reader
- Using the CTLS Reader
- Using the Barcode Reader

For e355 Frame

- Examining e355 Frame Features
- Attaching the e355 Device to the e355 Frame
- Attaching a Tablet to the e355 Frame
- Connecting the e355 Frame to a Power Source

Usage Guidelines

Use the following guidelines when using your e355.

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.



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 e355 is a handover device. Always exercise extreme caution when conducting transactions especially during PIN entry.

- Hand the e355 directly to the cardholder for PIN entry.
- Encourage the cardholder to hold the e355 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 e355 is a secure product and any tampering may cause the device to cease to function properly.

To unpack the shipping carton

- 1 Remove and inspect the following items:
 - e355 unit
 - USB to Micro-USB cable
- 2 Remove all plastic wrapping from the unit and other components.

- 3 Remove the clear protective film from the unit.



Do not use a unit that has been damaged or tampered with. The e355 comes equipped with tamper-evident labels. If a label or component appears damaged or if the device appears to have been opened, please notify the shipping company and your Verifone representative or service provider immediately.

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



Charge the e355 device for eight hours before initial use.

Examining e355 Device Features

Before you continue the installation process, familiarize yourself with the features of the e355. (See [Figure 3](#) and [Figure 2](#))



Verifone ships variants of the e355 for different markets. Your device may have a different configuration. The following devices may or may not be present: a CTLS reader, smart card reader, or a barcode scanner. However, the basic processes described in this guide remain the same, regardless of device configuration.

Front View The front panel includes the following features:

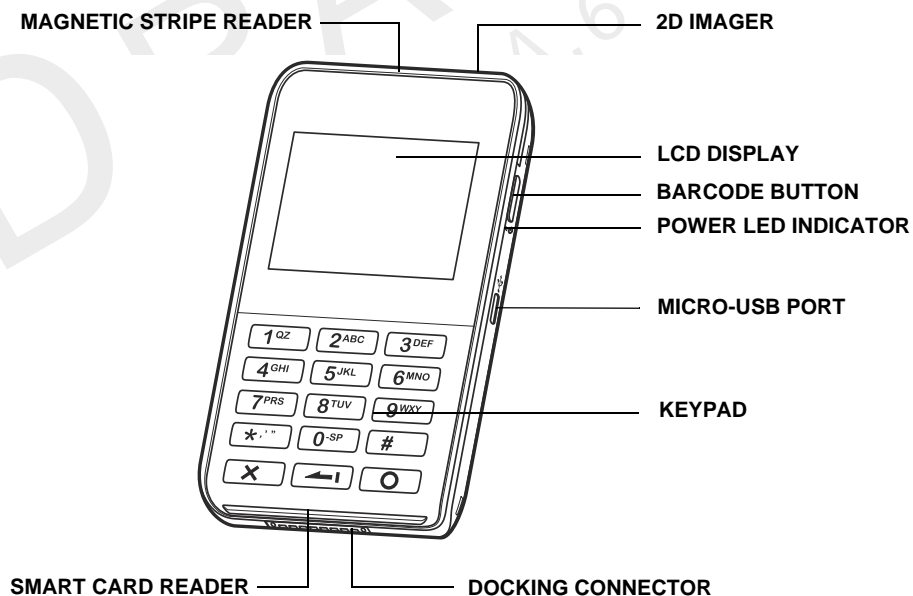


Figure 2 e355 Device Features (Front View)

- A 320 x 240 pixel color **LCD Display**
- **Barcode Buttons** located on both sides of the e355 to activate the 2D imager for scanning barcodes. (See [Using the Barcode Reader](#))

- A **Power LED Indicator** beside the Micro-USB port indicates the e355 device's operational state.
- A **Micro-USB port** located on the right side for data connection and power charging. You can also use this connect the e355 to a computer using a standard USB to Micro-USB cable (VPN CBL000-049-01-A). (See [Connecting the e355 to a Power Source or a Host Computer](#))
- Two types of keys on the mechanical keypad:
 - a A 12-key **keypad**
 - b Three **color-coded function keys** below the keypad

CAUTION

Do NOT paste anything on the keypad surface to avoid malfunction.

- A **Docking Connector** at the bottom of the device to connect to the optional e355 Frame.
- A **Smart Card Reader** to process smart card transactions (See [Using the Smart Card Reader](#))
- A **Magnetic Stripe Reader**, for performing debit or credit card transactions (See [Using the Magnetic Stripe Reader](#)).
- A **2D Imager** located on top of the device for scanning barcodes; an audible “beep” indicates a successful scan. (See [Using the Barcode Reader](#))
- **LEDs** that act as CTLS activity, system power, and charging indicators (See [Color Behavior](#))
- A **CTLS functionality** for contactless payments (See [Using the CTLS Reader](#))

Back View The front panel includes the following features:

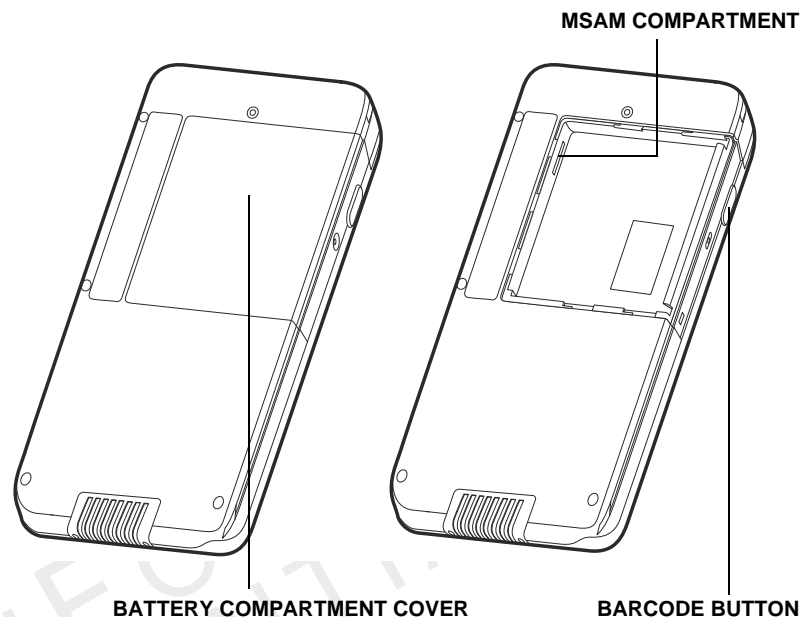


Figure 3 e355 Device Features (Back View)

- A **Battery Compartment Cover**. Remove the cover to access the removable battery and the MSAM compartment.
- An **MSAM (Micromodule-Size Security Access Module) Compartment** to support stored-value card programs or other merchant card requirements. (See [Installing/Replacing an MSAM Card](#))



NOTE The MSAM compartment is located inside the battery compartment. Remove the battery to display the access the compartment.

- **Barcode Buttons** located on both sides of the e355 to activate the 2D imager for scanning barcodes. (See [Using the Barcode Reader](#))

Installing/Replacing an MSAM Card

When you first receive your e355, you may need to install an MSAM card or you may need to replace an old 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.



NOTE Not all applications require the use of an MSAM card.

To install/replace MSAM

- 1 Unplug any cables or chargers from the e355.
- 2 Remove the screw from the battery cover.
- 3 Slide the cover outwards, away from the device.
- 4 Remove the battery by gently pulling the plastic tab to access the MSAM compartment. The MSAM compartment is located on the left side of the battery compartment.
- 5 Insert the MSAM card with the gold contacts facing up.

NOTE



Make sure that the MSAM card is fully inserted to be able to re-insert the battery.

- 6 Re-insert the battery by aligning the gold contacts in the battery with the pins on the e355 device.

NOTE



The plastic tab attached to the battery allows you to easily remove the battery from the compartment. Make sure that the plastic tab is still visible after insertion.

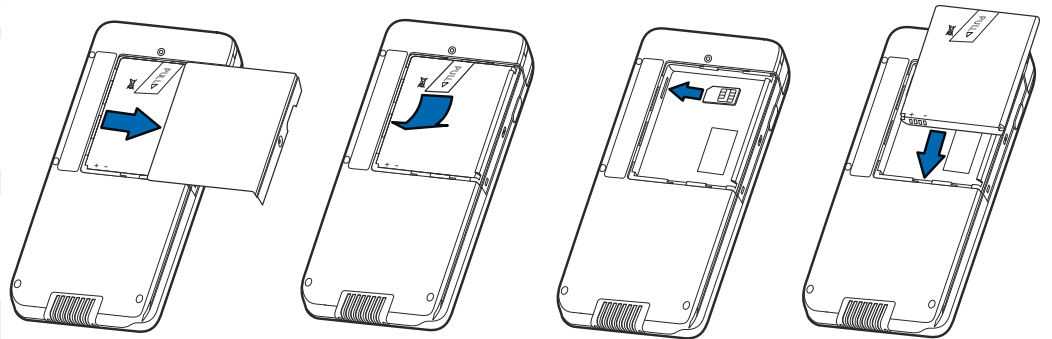


Figure 4 Inserting an MSAM Card

- 7 Place the battery cover back and tighten the screw.

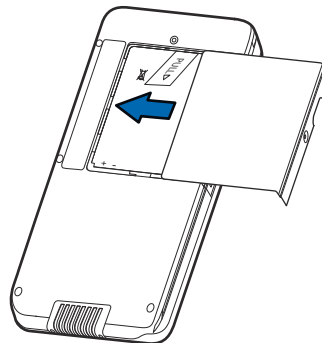


Figure 5 Returning the battery cover

Manually Starting and Resetting the e355

To turn on the e355, press and hold the **Enter** key for at least five seconds.

The Reset Button is located between the right Barcode Button and Power LED Indicator.



The Reset Button resets the device to its initialized state. **NEVER** use the Reset button unless instructed by a Verifone support representative.

Connecting the e355 to a Power Source or a Host Computer

Plug the wall-mount charger to an external power source and connect it to the e355 to charge the device. You can also connect the e355 to a computer to synchronize data and/or charge the device.

NOTE



Charge the e355 device for eight hours before initial use.

To Connect the e355 to a Wall-mount Charger

- 1 Plug the Verifone-certified wall-mount charger into a wall outlet or powered surge protector.
- 2 Insert the Micro-USB cable into the port located on the side of the e355.

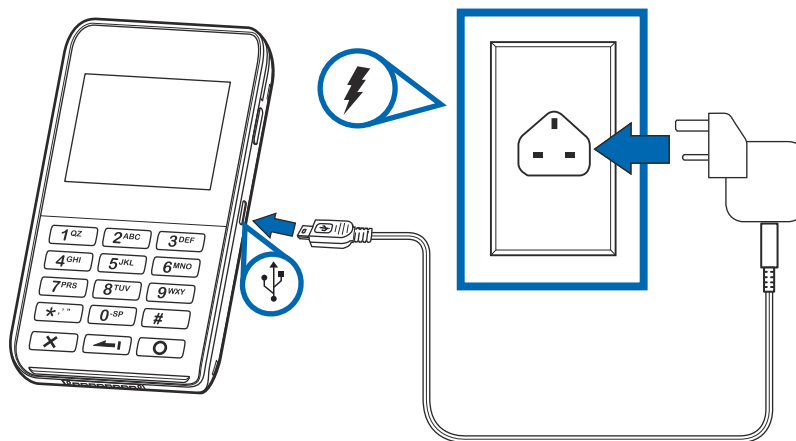


Figure 6 Connecting the e355 to a Wall-mount Charger

- To Connect the e355 to a Host Computer via Micro-USB**
- 1 Connect the Micro-USB cable into the port located on the side of the e355.
 - 2 Connect the other end of the Micro-USB cable into the host computer's USB port.

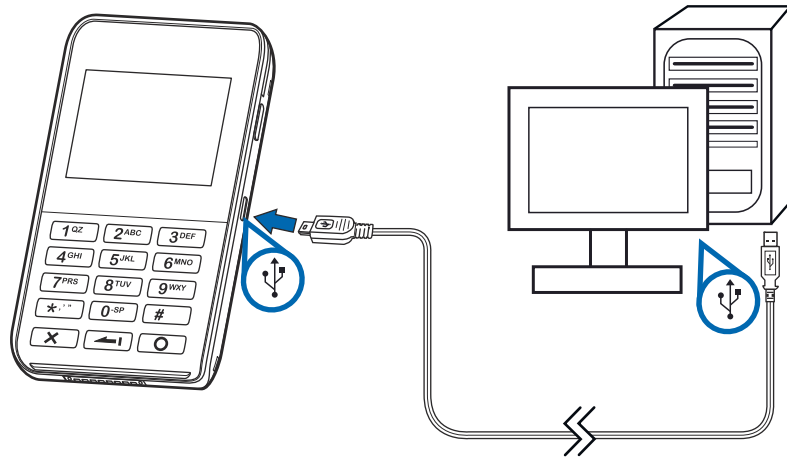


Figure 7 Connecting the e355 to a Host Computer

Color Behavior The following table shows the behavior of the LEDs during various system power states.

| Sleep | Battery Low | Battery Extremely Low | Battery Charging | Charging Timer Fault | Normal Operation | LED Behavior |
|-------|-------------|-----------------------|------------------|----------------------|------------------|---|
| Y | | | | | | Green, blinks every 4 seconds |
| | Y | | | | | Red, 1Hz rate, 50% duty cycle (Battery low condition: battery voltage <3.7V) |
| | | Y | | | | Red, 4Hz rate, 50% duty cycle (Battery extremely low condition: battery voltage <3.6V) |
| | | | Y | | | Orange, 1Hz rate, 50% duty cycle |
| | | | | Y | | Orange, on continuously |
| | | | | | Y | Green, on continuously |
| | | | | | | LEDs are turned OFF when charging the e355 on a gang charger |

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.

To conduct a smart card transaction

- 1 Position the smart card with the contacts facing in the same direction as the keypad.
- 2 Insert the card into the reader slot in a smooth, continuous motion until it seats firmly.

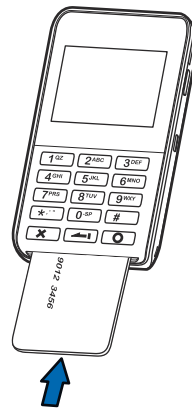


Figure 8 Inserting a Smart Card

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

Using the Magnetic Stripe Reader

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

To conduct a credit/debit card transaction

- 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 [Figure 9](#).

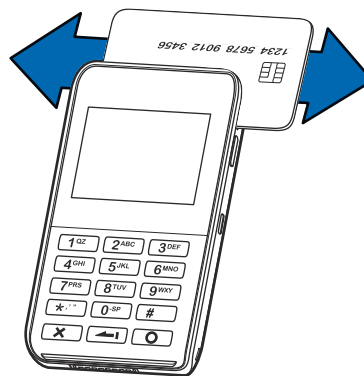


Figure 9 Using Magnetic Stripe Card

- 3 Swipe the card through the magnetic card reader.

Using the CTLS Reader

The e355 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 with a CTLS symbol.



Figure 10 Using the CTLS reader

Using the Barcode Reader

The Barcode buttons located on either side of the e355, activate the barcode reader (see Figure 3). Press either button to scan barcodes.



Figure 11 Using the Barcode Reader

NOTE



When activated, do not point the barcode reader directly at a person to avoid unnecessary harm or injury.

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

Examining e355 Frame Features

The following section discusses the features of the e355 Frame. (See Figure 3 and Figure 2)

Front View The front panel includes the following features:



Figure 12 e355 Frame (Front View)

- A **Locking Screw** to secure the e355 device to the Frame.



The locking screw is captive, which means that it cannot be fully removed from the slot.

- An **Eject Button** below the Locking Screw to easily remove the e355 device from the Frame.
- A **Micro-USB** cover. Remove the cover to access the e355 device's Micro-USB port for power and data connection.
- **Barcode Buttons** located on both sides to activate the e355 device's 2D imager for scanning barcodes.
- A **Docking Connector** to connect to the e355 device.
- A **Power Connector** to charge the e355 and tablet devices.

Back View The front panel includes the following features:



Figure 13 e355 Frame (Back View)

- A **Removable Module** that serves as a locking attachment for the tablet and the e355 frame.
- A **Locking Screw** on the upper left side of of the e355 Frame back panel to secure the tablet and the Removable Module.



The locking screw is captive, which means that it cannot be fully removed from the slot.

- An **Eject Button** beside the Locking Screw to easily remove the Removable Module.
- A **Tablet Connector** to connect the e355 Frame to an Apple, Android, or Windows tablet.

Attaching the e355 Device to the e355 Frame

The e355 can be used both as a standalone device or connected to an e355 Frame. When a tablet is connected to e355 Frame, the payment application in the tablet can utilize the e355 device to perform payment transactions.

To attach the device to the frame

- 1 To unlock, turn the locking screws counter-clockwise.
- 2 Gently slide the e355 device downwards until it locks in place.
- 3 Turn the locking screws clockwise to secure the e355 device from the e355 Frame.

To remove the device from the frame

- 1 To unlock, turn the locking screws counter-clockwise.
- 2 Push the Eject Button downwards to disengage the e355 device from the e355 Frame.
- 3 Turn the locking screws clockwise.

NOTE



When turning the locking screws, place the e231 on a smooth and flat surface to avoid scratching the tablet screen.

Attaching a Tablet to the e355 Frame

Follow these procedures to attach/remove a tablet to/from the e355 Frame.

To attach a tablet to the frame

- 1 Take out the Removable Module by turning the locking screws counter-clockwise and sliding the Eject Button to the right.
- 2 Insert the tablet by aligning the Tablet Connector on the e355 Frame with the tablet's connection port.
- 3 Place the Removable Module back by guiding the pins to the slots on the e355 Frame.
- 4 Turn the locking screws clockwise to secure the tablet to the e355 Frame.

- To remove the tablet from the frame**
- 1 Take out the Removable Module by turning the locking screws counter-clockwise and sliding the Eject Button to the right.
 - 2 Carefully pull the tablet upwards to disengage it from the e355 Frame.
 - 3 Place the Removable Module back by guiding the pins to the slots on the e355 Frame.
 - 4 Turn the locking screws clockwise.



NOTE When turning the locking screws, place the e231 on a smooth and flat surface to avoid scratching the tablet screen.

Connecting the e355 Frame to a Power Source Plug the wall-mount charger to an external power source and connect it to the e355 Frame to charge the tablet and the device.

- To Connect the e355 Frame to a Wall-mount Charger**
- 1 Plug the Verifone-certified wall-mount charger into a wall outlet or powered surge protector.
 - 2 Insert the barrel connector into the port located at bottom of the e355 Frame front panel.

CONFIDENTIAL
DRAFT
REVISION A.6



VERIFONE
CONFIDENTIAL
DRAFT
REVISION A.6



Specifications

This chapter discusses power requirements, dimensions, and other specifications of the e355 device.

Power

Charging via Micro-USB to computer system or Verifone-certified power adapter:
5 V DC, 2 A

Temperature

- **Operating Temperature:** -5° to 40°C (23° to 104°F)
- **Relative humidity:** 5% to 95%; RH non-condensing

External Dimensions

- **Length:** 131 mm
- **Width:** 71.5 mm
- **Depth:** 15.7 mm

VERIFONE
CONFIDENTIAL
DRAFT
REVISION A.6

VERIFONE
CONFIDENTIAL
DRAFT
REVISION A.6



Maintenance

The e355 device has no user-maintainable parts.

Cleaning the Device

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.

Smart Card Reader

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

CONFIDENTIAL
DRAFT
REVISION A.6



VERIFONE
CONFIDENTIAL
DRAFT
REVISION A.6



Verifone Service and Support

For e355 problems, contact your local Verifone representative or service provider.

For e355 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 e355, 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.

To return a device for service

- 1 Get the following information from the printed labels at the back of *each* e355 to be returned:
 - Product ID, including the model and part number. For example, “e355” and “M087-XXX-XXX-XXX.”
 - Serial number (S/N nnn-xxx-xxx)
- 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.



One MRA number must be issued for each e355 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 e355 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 e355).

Accessories and Documentation

Verifone produces the following accessories and documentation for the e355. 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 | 02746-01 |

Documentation

| | |
|--|--|
| <i>e355 Certifications and Regulations Sheet</i> | VPN DOC087-061-EN |
| <i>e355 Quick Installation Guide</i> | VPN DOC087-062-EN |
| <i>e355 Web site</i> | www.paywaremobile.com |

Battery Pack Instructions

Dispose of the battery pack in accordance with all national, state, and local laws and regulations as regionally required. Some batteries may be recycled and may be accepted for disposal at local recycling centers. Please refer to [Installing/Replacing an MSAM Card](#) for instructions on battery removal and insertion.



There is a risk of explosion if the battery is replaced by an incorrect type.

Troubleshooting Guidelines

The troubleshooting guidelines provided in the following section are included to help you install and configure your e355 successfully. Typical examples of malfunction you may encounter while operating your e355 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 e355 comes equipped with tamper-evident labels. The e355 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.
- Recharge the battery.
- Check if the battery is properly inserted. Remove the screw from the battery cover. Slide the cover outwards, away from the device and check if the device and battery contacts are aligned.

Device Display Does Not Show Correct/Readable Info

- Recharge the battery.
- Connect the e355 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.

Blank Display

When the e355 display screen does not show correct or clearly readable information:

- Check device power connection.
- Remove and reapply power to the device. To do this, press and hold the power/reset button.
- 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 the problem persists, contact your local Verifone representative.
- Place a paper clip or a similar tool in the hole located on the side of the device near the Barcode button to press the Reset Button.

CAUTION



Do NOT paste anything on the keypad surface to avoid malfunction.

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.
- The side of the card where the black magnetic stripe is should be visible. Insert the magnetic stripe card from the top of the device going downwards in a smooth and continuous manner (see [Figure 9](#)).

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 MSAM cards are properly inserted (see [Installing/Replacing an MSAM Card](#)).
- Contact your Verifone distributor or service provider.

Check the connection with the Apple, Andriod, or Windows Tablet

- Validate connections to Apple/Android/Windows tablet.
- Check if the application is able to communicate with the e355.

- Contact your Verifone distributor or service provider.

VERIFONE
CONFIDENTIAL
DRAFT
REVISION A.6





Verifone, Inc.
2099 Gateway Place, Suite 600
San Jose, CA, 95110 USA
1-800-VERIFONE
www.verifone.com

e355

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.

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 complies with RSS-310 of Industry Canada. Operation is subject to the condition that this device does not cause harmful interference.

- Cet appareil est conforme à la norme RSS-310 d'Industrie Canada. L'opération est soumise à la condition que cet appareil ne provoque aucune interférence nuisible.

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.

- 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.

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:

Le guide d'utilisation des dispositifs pour réseaux locaux doit inclure des instructions précises sur les restrictions susmentionnées, notamment :

(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.