

# e285 Power Bank

## *Installation Guide*



e285 Power Bank 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.

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

## **Audience**

This guide is useful for anyone installing e285 Power Bank.

## **Organization**

This guide is organized as follows:

[Chapter 1, Device Overview](#). Provides an overview of the e285 Power Bank.

[Chapter 2, e285 Power Bank Setup](#). Explains how to set up the e285 Power Bank device.

[Chapter 3, Specifications](#). Discusses power requirements and dimensions of the e285 Power Bank.

[Chapter 4, Maintenance and Cleaning](#). Explains how to maintain your e285 Power Bank.

[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 and 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 Power Bank, refer to the following set of documents:

<i>e285 Power Bank Certifications and Regulations</i>	VPN DOC087-528-EN
<i>e285 Power Bank Quick Installation Guide</i>	VPN DOC087-52X-EN

## 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 <a href="#">Conventions and Acronyms</a> .
<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 typeface 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](#) represents 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
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 Power Bank.

This e285 Power Bank provides an external battery to prolong the operating time of the terminal.

e285 Power Bank is to increase battery capacity by 150% of its current value of e285 device.

Verifone offers a "Holster" (ACC087-036-01-A) to allow the e285 Power Bank to be carried on a belt or on a lanyard.



**Figure 1 e285 Power Bank**

### Features and Benefits

- Adds up to 150% capacity to existing e285 terminal battery (3.8 v nominal, 4.35 v max charge level. 1800 mAh)
- Battery shall have a 1.5 year life expectancy
- Design supports Verifone e285
- Four contact pins on the bottom of both the iPhone and payment reader cases enable charging in the Multi-Device Charger
- Soft-touch finish
- Secure metal screw lock top cap (Screw spare part ACC087-035-01-A, top cap spare part ACC087-034-01-A)

- Testing and Compliance
- Design enables access for card swipe
- USB-C Port on the bottom allows the ability to charge via cable



## e285 Power Bank Setup

This chapter describes the device setup procedure.

### **Power Bank Location**

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

#### **Ease of Use**

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

#### **Environmental Factors**

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



The Power Bank 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.

#### **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 power bank from the e285 before cleaning. Do not apply liquid near the contacts inside or on the bottom of the power bank.

### **Inside the Shipping Carton**

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

## **Unpacking the Shipping Carton**

To unpack the shipping carton:

- 1** Inspect the contents of the shipping carton. The carton may include all or any of the following:
  - e285 Power Bank
  - Connectivity cable (Charge cable (USB-C to USB-A) is supplied with the e285. Not included with the power bank)
- 2** Remove all plastic wrapping from the Power Bank and components.
- 3** Save the shipping carton and packing material for future repacking or moving of the device

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**CAUTION**



Do not use a damaged unit. If a component appears to be damaged, please notify the shipping company and your Verifone service provider immediately.

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## Power Bank Features

Before you continue the installation process, familiarize yourself with the features of the e285 Power Bank. (See [Figure 2](#))

Power Bank for Verifone e285 includes the following features:



**Figure 2** e285 Power Bank

- Input Interface
  - Cabled Input @ USB-C Receptacle Connector
  - Charging pads
- Output Interface
  - USB-C Plug Connector
- Battery Indicator
  - 4 White LED Indications
- Battery Level Indicator Button
  - 1 Battery level indicator button to control turn on/off charging Verifone e285 from the Power Bank.

## Instructions for Use

Following are the steps to use the power bank.

### NOTE



Please fully charge the Power Bank before using.

- 1 Remove the screw to remove the top cap of the case. Once the terminal is installed replace the top cap and the screw. (See [Figure 3](#))
- 2 Open Protective flap of USB-C port. (See [Figure 2](#))
- 3 Insert the power supply cable USB-C to the Power bank and plug the other end to the power supply. (See [Figure 2](#))



**Figure 3 Top Cover Open of e285 Power Bank**

- 4** The Power Bank's LED indicator will light up to indicate the charging process has begun.
- 5** e285 Power Bank LED state without any wall charger attached:
  - 1st LED represents 25% State of Charge
  - 2nd LED represents 50% State of Charge
  - 3rd LED represents 75% State of Charge
  - 4th LED represents 100% State of Charge (Full Charge)



**Figure 4 Battery Indicator button and LEDs**

- 6 e285 Power Bank LED state while connected to wall charger:
  - 1st LED blinking represents the power bank is in charging mode and the battery is between 1% to 24%. Once the 1st LED is solid, then the power bank is 25% charged.
  - 2nd LED blinking represents the power bank is in charging mode and the battery is between 26% to 49%. Once the 2nd LED is solid, then the power bank is 50% charged.
  - 3rd LED blinking represents the power bank is in charging mode and the battery is between 51% to 74%. Once the 3rd LED is solid, then the power bank is 75% charged.
  - 4th LED blinking represents the power bank is in charging mode and the battery is between 76% to 99%. Once the 4th LED is solid, then the power bank is 100% charged.
- 7 If the e285 Power Bank does not charge within 12 hours, then the power bank will enter protection mode and stop receiving power from the wall charger. When this protection mode is active the 4 LEDs on the back of the power bank will flash (0.5 sec "ON" & 0.5 sec "OFF") continuously to inform user.
- 8 To exit this protection mode, the e285 Power Bank needs to be disconnected from the wall charger and then re-connected. If the e285 power bank still cannot be charged in 12 hours, then it will re-enter the protection mode.
- 9 30 minutes timeout after the e285 goes to sleep. Press the button to wake the power bank back up once the e285 is awake.

## Charge & Sync

Connect the case to power using any USB-C charger to allow pass-through charge & sync; the device charges first, and then the juice pack's internal battery.

### Auto-detect Charging

- a Auto detect capability is required at the output connector (USB-C Plug)
- b Auto detect is required when the input (either when the wall adapter or Multi-Charger) is attached to the juice pack.



- 1 Wall Adapter can be connected to the USB-C receptacle connector of the juice pack.
- 2 Multi-Charger can be connected to the Charging Pads of the juice pack.

## Input Detection

- 1 Power bank will be able to charge from:
  - a Any 5W, 10W, 12W
  - b Any 18W, 20W, 29W (if possible Apple), 30W, 61W, 87W, 96W
  - c PC/ Mac 5W~7.5W
  - d BC1.2 chargers defined in the USB BC1.2 specification
- 2 Will not take power from any smart device (e.g., a smartphone)
- 3 Default to 2.5W (if cannot identify the power source) per USB-IF requirement.

### Charging Duration & Operating Temperatures

Able to activate & charge the product in dead battery mode with any adapter (either Non-PD or PD adapters)

- 1 The power bank is charged from 0% to 100% within 3.5 hours with a juice pack by itself.
- 2 The power bank is charged from 0% to 100% within 3.5 hours when the juice pack is 0% and e285 is inserted within the juice pack & it is at 100%.
- 3 The power bank and e285 are charged from 0% to 100% in 7 hours total. (3.5 hours for each)
- 4 The power bank is charged while having the e285 device inserted in 25°C ambient environment.

### Sleep Mode

Activates Sleep mode after 30 secs from the moment any of these items below are performed:

- If Power Bank stops receiving input power given battery discharge is not enabled.
- If there is no activity from the user after a single press & release of the Battery Indicator Button.
- If e285 is removed for more than 30 minutes from the Power Bank.

### Holster for Verifone e285 Power Bank

Verifone offers a "Holster" to allow the power pack to be carried on a belt or on a lanyard.



Figure 5 Holster for e285 Power Bank

### Important Safety Instructions

When using this product, basic precautions should always be followed, including the following:

- To reduce the risk of injury, close supervision is necessary when the product is used near children.

- Do not put fingers or hands into the product.
- Do not expose the power bank to rain or snow.
- Do not use the power bank more than the mentioned output rating. Overload outputs above rating may result in a risk of fire or injury to persons.
- Do not use a power bank that is damaged or modified. Damaged or modified batteries may exhibit unpredictable behavior resulting in fire, explosion, or risk of injury.
- Do not disassemble the power bank. Take it to a qualified service person when service or repair is required. Incorrect reassembly may result in a risk of fire or injury to persons.
- Do not expose a power pack to fire or excessive temperature. Exposure to fire or temperatures above 212°F (100°C) may cause an explosion.
- Have servicing performed by a qualified repair person using only identical replacement parts. This will ensure that the safety of the product is maintained.
- Switch off the power bank when not in use.
- Consult the dealer or an experienced technician for help.



**CAUTION** To comply with the limits of the Class B digital device, according to Part 15 of the FCC Rules, this device must be used with certified peripherals and shielded cables. All peripherals must be shielded and grounded. Operation with non-certified peripherals or non-shielded cables may result in interference to radio or reception.

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## Specifications

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

### Unit Power Requirement

#### Battery Output Capacity & Configuration

- 3.8V/ Cell; 2700 mAh Li-ion (polymer) battery, 10.26Wh, 1S1P

#### Input Capability

- Cabled Input @ USB-C Receptacle Connector
  - Input Voltage:  $5V \pm 0.25V$  ( $\pm 5\%$ )
  - Input Current Capability: 1.0A (Max)
- Multi-Charger Input @ Charging pads
  - Input Voltage:  $5V \pm 0.25V$  ( $\pm 5\%$ )
  - Input Current Capability: 1.0A (Max)
- 4 Charging pads
  - VBUS
  - D-
  - D+
  - GND
- Battery as the input to the rest of the system (Juice Pack's Internal Battery charges the e285)
  - Input Voltage: 3.2- 4.35V
  - Input Current Capability: 2.7A (Max)

#### Output Capability

- In Pass-through Mode:
- Cabled Input @ USB-C Receptacle Connector
  - Output Voltage @ USB-C Plug Connector:  $5V \pm 0.25V$  ( $\pm 5\%$ )
  - Output Current @ USB-C Plug Connector: 1.0A required
  - Output Power @ USB-C Plug Connector: 5W
- Battery as the input to the rest of the system (Juice Pack's Internal Battery charges the e285)

- Output Voltage @ USB-C Plug Connector: 5V, 0.25V (5%)
- Output Current @ USB-C Plug Connector: 1.0A required
- Output Power @ USB-C Plug Connector: 5W

## Temperature

- Storage Temperature
- Discharge:  $-20^{\circ}\text{C}$  to  $+60^{\circ}\text{C}$
- Operating RH 5% to 95% non-condensing
- Storage RH 5% to 95% non-condensing
- 1 month:  $-20^{\circ}\text{C}$  to  $+60^{\circ}\text{C}$
- 3 months:  $-20^{\circ}\text{C}$  to  $+45^{\circ}\text{C}$
- 1 year:  $-20^{\circ}\text{C}$  to  $+25^{\circ}\text{C}$

Recovery capacity should be more than 80% after the first full charge.

Operating temperature  $0^{\circ}\text{C}$  to  $50^{\circ}\text{C}$  during discharge.

Thermal rise during charging at operating temperature shall not exceed  $13^{\circ}\text{C}$ .

## External Dimensions

- **Length:** 153.16mm
- **Width:** 71.59mm
- **Height:** 27mm

## Weight

- 110 grams



## Maintenance and Cleaning

The e285 Power Bank device has no user-maintainable parts. It can, however, be cleaned. Your Power Bank 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, and warp or melt certain plastics.
- Do not store the device in cold areas. Moisture can form 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 USB-C port and prevent proper fit with the terminal.
- 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.
- Do not attempt to open the device other than as instructed in this guide.

These suggestions apply equally to your Power Bank or any of its attachments or accessories. If your device is not working properly, 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.

## 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.

- Cleaning - Recommended cleaning agents are listed below.
  - Hand soap
  - Dish wash detergent
- Moisture - Avoid a very humid environment for storage or operating.
  - Storage Temperature
  - Storage RH 5% to 95% non-condensing
  - 1 month: -20°C to +60°C
  - 3 months: -20°C to +45°C
  - 1 year: -20°C to +25°C
  - Recovery capacity should be more than 80% after the first full charge.
- Don't leave the product outside in the sun.



**CAUTION** 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 keypad or display.

## Additional Safety Information

The following is additional safety information for using this device.

### Potentially Explosive Environments

Do not use this device in any area with a potentially explosive atmosphere. Follow all signs and instructions. Potentially explosive atmosphere 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.

## Verifone Service and Support

Contact your local Verifone representative or service provider for any problems with your Power Bank.

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

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



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 e285 Power Bank to be returned:
  - Product ID, including the model and part number. For example, “e285 Power Bank” and “ACC087-026-01-A”.
- 2 Obtain the MRA number(s) by completing one of the following:
  - 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 e285 Power Bank you return to Verifone, even if you are returning several of the same models.

- 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).
  - 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 Power Bank).

## Documentation

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

- Verifone online store [www.estore.verifone.com](http://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

*e285 Power Bank Certifications and Regulations*      VPN DOC087-528-EN

*e285 Power Bank Quick Installation Guide*      VPN DOC087-52X-EN



## Troubleshooting Guidelines

The troubleshooting guidelines provided in the following section are included to help you install and configure your e285 Power Bank successfully. Typical examples of malfunction you may encounter while operating your e285 Power Bank 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.



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**NOTE** The e285 Power Bank 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.

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### Device Does Not Start

Terminal does not receive charge from the power bank:

- Ensure the Power Bank is ON by pressing the button next to the LEDs on the back of the unit.
- Ensure that the e285 is properly installed into the power bank and fully seated on the connector. The Power Bank top case will not go ON if the e285 is not seated correctly.
- Ensure that the power bank is charged fully by checking the LEDs on the rear of the Power Bank.

## **Battery Does Not Charge**

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

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**NOTE**



- Allow the e285 Power Bank device to remain connected to the power pack or Qi charger for eight hours to ensure the battery receives a full charge.
  - When the power bank discharges completely the e285 will work on its internal battery until depleted. Please refer to the e285 IG document for charge state and actions for the terminal.
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