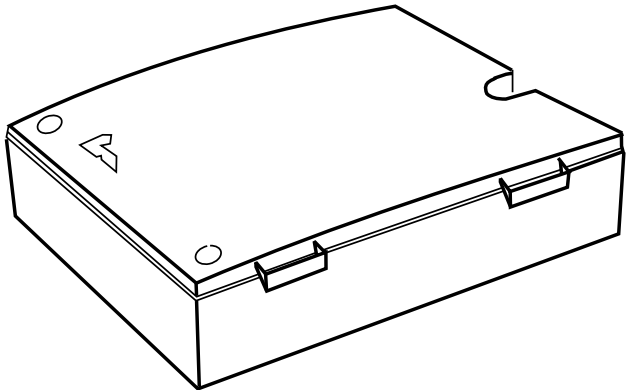


# SC 225

## *Installation Guide*



## **Lithium Battery Caution**

The Random Access Memory (RAM) in the SC 225 terminal is protected by a lithium battery. Do not, *under any circumstances*, attempt to replace this battery. Failure to comply may invalidate the product warranty.

*SC 225 Installation Guide*

VeriFone Part Number: 26375, Revision A

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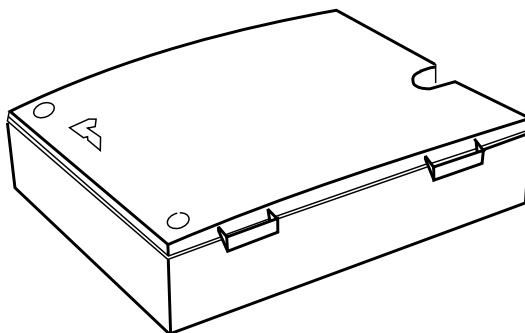
**Comments?** Please email all comments on this document to [Tell\\_Us\\_More@VeriFone.com](mailto:Tell_Us_More@VeriFone.com).

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### Introduction

The SC 225 is a low-cost, add-on peripheral providing stored-value card (SVC) and multi-security access module (SAM) capabilities to your SC 4XX or SC 542/550/552 smart card reader/writers. It is ideal for customers who wish to support a combination of SVC applications, secured payment schemes, and loyalty programs—all in the same terminal and at the same time.



**Figure 1 SC 225 unit**

Used in conjunction with the SC 4XX or SC 542/550/552 devices, the SC 225 upgrades the single SAM resident in the SC 4XX or SC 542/550/552 to a four-SAM configuration. In fact, each SAM is an independent, removable, processor card fully enclosed within the terminal to perform all card-related cryptology.

In addition to this multiple smart card support, the SC 225 offers memory options of up to 2 megabytes. This may be used to supplement application memory space in the terminal, or to expand transaction memory space, thus extending the time between settlements.

And the only physical connections between the SC 225, the SC 4XX or SC 542/550/552, and the device that controls the SC 4XX or SC 542/550/552 are the SC 225's RS-232 ports: COM1 attaches to the terminal and operates as data communication equipment (DCE); COM2 attaches to the SC 4XX or SC 542/550/552 and operates as data terminal equipment (DTE).

## Selecting a Location for Your System

Select a location for your SC 225 device that is convenient for the operator and offers adequate ventilation and protection. In general, avoid:

- Excessive heat
- Oil or moisture
- Excessive dust
- Devices that cause excessive voltage fluctuations or electrical noise, such as air conditioners, fans, electric motors, or high-frequency security devices
- Direct sunlight or objects that radiate heat

## Unpacking

Carefully inspect the shipping carton and its contents for damage that may have occurred during shipment. If any of the contents appears damaged, file a claim immediately with the shipping company and notify your VeriFone sales representative. Do not use damaged equipment.

1. With the shipping carton right side up, open the carton's lid and remove all contents. You should typically have a SC 225 device, a power pack, and an Installation Guide.
2. Remove any protective plastic wrapping from the components and place on a table or countertop.

3. Save the carton and packing material for repacking or moving your equipment in the future.

### Connecting the SC 225 to an SC 552 Device and TRANZ 460 Terminal

The SC 225 serves as a link between your SC 552 device and the TRANZ 460 terminal. For this purpose, a Y-shaped interface cable (P/N 14183) is used.



**Caution:** Before connecting the SC 225 to your terminal or peripheral, ensure that your terminal is not processing a transaction and is at its idle prompt, otherwise program corruption or loss of data may occur.

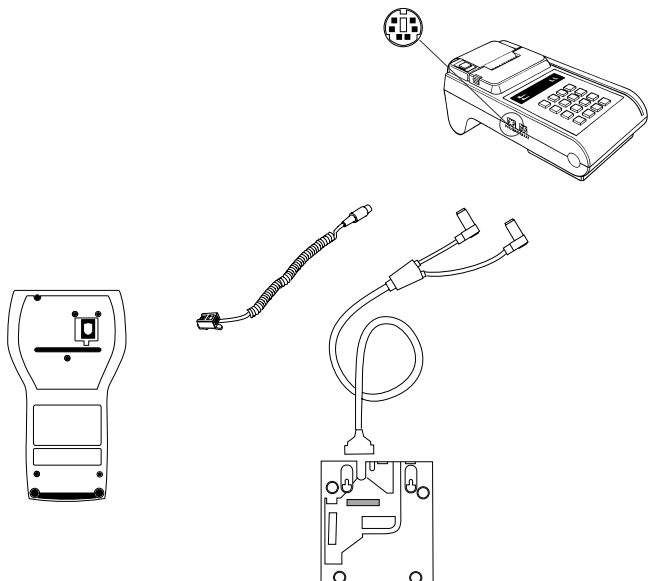
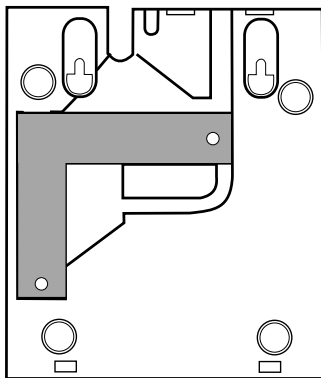


Figure 2 SC 225-SC 552-TRANZ 460 Connection

1. Turn off/unplug power to the SC 552 device, the TRANZ 460 terminal, and any peripheral equipment.
2. Disconnect the SC 552 device from the TRANZ 460 terminal.
3. If you have a device plugged into the TRANZ 460 terminal's PIN/bar port, disconnect the device now.
4. Plug the 41-pin connector of the interface cable into the bottom of the SC 225. Use the connector that guides the cable to the rear of the SC 225 and place the cable in that channel.
5. Use a screwdriver to attach the L-shaped bracket over the two ports on the bottom of the SC 225 (see Figure 3); two screws are provided.



**Figure 3 Attaching the L-shaped cable retention bracket**

6. Plug the 6-pin right-angle mini-DIN male connector of the interface cable into the PIN/bar port of the TRANZ 460 terminal.

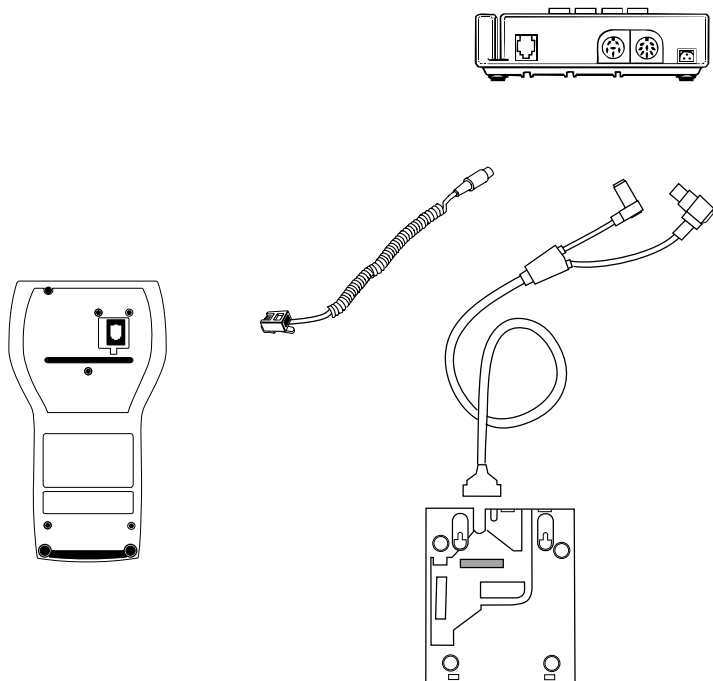
7. Plug the 6-pin right-angle mini-DIN female connector of the interface cable to the 6-pin mini-DIN connector of the coiled cable (P/N 03021-00).
8. Connect the RJ11 plug of the coiled cable into the SC 552 device.
9. Connect any additional peripheral equipment to the SC 552 and the TRANZ 460 terminal.
10. Apply power to the SC 552 device, the TRANZ 460 terminal, the SC 225, and all peripheral equipment.

### Connecting the SC 225 to an SC 552 Device and TRANZ 380 Terminal

The SC 225 serves as a link between your SC 552 device and the TRANZ 380 terminal. For this purpose, an RS-232 interface Y-shaped cable (P/N 14266-XX) is used.



**Caution:** Before connecting the SC 225 to your terminal or peripheral, ensure that your terminal is not processing a transaction and is at its idle prompt, otherwise program corruption or loss of data may occur.



**Figure 4 SC 225-SC 552-TRANZ 380 Connection**

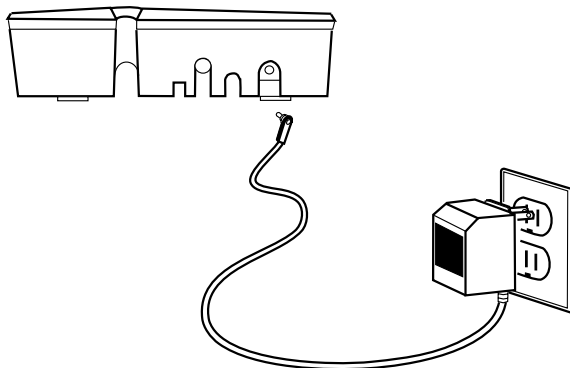
1. Turn off/unplug power to the SC 552 device, the TRANZ 380 terminal, and any peripheral equipment.
2. Disconnect the SC 552 device from the TRANZ 380 terminal.
3. If you have a device plugged into the TRANZ 380 terminal's PIN/bar port, disconnect the device now.
4. Plug the 41-pin connector of the interface cable into the bottom of the SC 225. Use the connector that guides the cable to the rear of the SC 225 and place the cable in that channel.

5. Use a screwdriver to attach the L-shaped bracket over the two ports on the bottom of the SC 225 (see Figure 3); two screws are provided.
6. Plug the 6-pin right-angle DIN male connector of the interface cable into the PIN/bar port of the TRANZ 380 terminal.
7. Plug the 6-pin right-angle mini-DIN female connector of the interface cable to the 6-pin mini-DIN connector of the coiled cable (P/N 03021-00).
8. Connect the RJ11 plug of the coiled cable into the SC 552.
9. Connect any additional peripheral equipment to the SC 552 and the TRANZ 380 terminal.
10. Apply power to the SC 552 device, the TRANZ 380 terminal, the SC 225, and all peripheral equipment.

### Connecting the SC 225 Power Pack



**Caution:** Do not plug the power pack into an outdoor outlet or operate the SC 225 outdoors.



**Figure 5 SC 225 Power Pack Connection**

1. Plug the small power pack connector into the power port located on the right side of the SC 225 rear panel.
2. Plug the AC connector from the power pack into an indoor, AC wall outlet.

## Cleaning



**Caution:** Never use thinner, trichloroethylene, or ketone-based solvents because they may deteriorate plastic parts.

Remove dirt using a clean cloth dampened with water and mild soap. Remove stubborn stains with alcohol and benzine.

## Service

Do *not*, under any circumstances, attempt any service, adjustments, or repairs to this unit yourself. Contact VeriFone or a reputable service agency. Service conducted by other than VeriFone does not qualify for our warranty.

Before returning a unit to VeriFone, you must obtain a Merchandise Return Authorization (MRA) number by calling the VeriFone Customer Support Hot Line. If you are located in the United States, call our toll-free number, **800-834-9133**; if you are not located in the United States, call 714-979-1870 (this number is in the USA) or contact your VeriFone representative.

# Specifications

## Power Requirement

### SC 225 Terminal

Input: 9 to 15V DC, 250 mA

### Power Packs

OMNI 12XX/SC 2XX power pack, 04789-01:

- Input: 115 V ~ (115 V AC); 60 Hz; 0,5 A (0.5 A)
- Output: 12 V DC; 0,25 A (250 mA)

OMNI 12XX/SC 2XX power pack, 04789-02

- Input: 230 V ~ (230 V AC); 50 Hz; 0,5 A (500 mA)
- Output: 14 V DC; 0,25 A (250 mA)

Barrel Connector Polarity:



## Environmental

- Operating temperature:  
0 to 40 degrees C (32 to 104 degrees F)
- Storage temperature:  
-18 to 66 degrees C (0 to 150 degrees F)
- Humidity:  
15 to 90% relative humidity, no condensation

## Dimensions and Weight

- Height: 44 mm (1.8 in.)
- Width: 106 mm (4.2 in.)
- Depth: 145 mm (5.7 in.)
- Weight: 0.32 kg (0.7 lb)



## Declaration of Conformity

according to ISO/IEC Guide 22 and EN 45014

**Manufacturer's Name:** Hewlett-Packard Company VASD

**Manufacturer's Address:** VeriFone  
3755 Atherton Rd.  
Rocklin, CA 95765  
USA

declares that the product:

**Product Name:** SC 225

**Product Options:** All

conforms to the following Product Specifications:

**Safety:** IEC 60950:1991+A1+A2


**EMC** CISPR 22:1993 +A1+A2 / EN 55022:1994 +A1+A2 - Class B <sup>1)</sup>  
IEC 801-2:1984 / EN 50082-1:1992 - 4 kV CD, 8 kV AD  
IEC 801-3:1984 / EN 50082-1:1992 - 3 V/m, 27-500 MHz  
IEC 801-4:1988 / EN 50082-1:1992 - 0.5 kV Signal Lines,  
1 kV Power Lines

### Supplementary Information:

The product herewith complies with the requirements of the Low Voltage Directive 73/23/EEC and the EMC Directive 89/336/EEC and carries the CE marking accordingly.

1) The product was tested with VeriFone Point of Sale (POS) systems.

Rocklin, CA USA  
May 22, 2000

  
\_\_\_\_\_  
**Jeff James**  
Regulatory Engineering Manager

European contact for regulatory topics only:

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# Accessories

## How to Order

Ordering VeriFone accessories and consumable supplies is easier than ever. The VeriFone Online Store, on the Internet at [www.store.verifone.com](http://www.store.verifone.com), provides easy access and secure ordering for products and accessories, as well as up-to-the-minute information about VeriFone countertop systems.

In the United States, you can telephone-order accessories from the VeriFone Customer Development Center, at 1-800-233-0522, Monday through Friday from 7 A.M. to 5 P.M., Mountain Standard Time. If you are not located in the United States, please contact your VeriFone representative.

You can order the SC 225 accessories and documentation listed below. When ordering, please refer to the listed part number.

To order SAM cards, contact the institution that supplied you with the SC 225 device. The institution will contact the appropriate supplier (not VeriFone).

### Cables

The following cables can be used to connect the SC 225 unit to SC 4XX or SC 542/550/552 devices and the device that controls them.

03021-00	Coiled cable (connection to SC 552)
14183-XX	Interface Y-cable, SC 225 (41-pin connector) to TRANZ 460 (6-pin right-angle mini-DIN male connector) to SC 552 (6-pin right-angle mini-DIN female connector)
14247-01	Download cable, PC to SC 2XX
14266-XX	Interface Y-cable, SC 225 (41-pin connector) to TRANZ 380 (6-pin right-angle DIN male connector) to SC 552 (6-pin right-angle mini-DIN female connector)
14334-XX	Interface Y-cable, SC 225

### Power Pack

Contact your local VeriFone distributor to determine which power pack fits your needs. See “Power Packs,” on page 12, for power pack specifications.

04789-01	OMNI 12XX/SC 2XX power pack
04789-02	OMNI 12XX/SC 2XX power pack

### Documentation

26376: SC 225 Reference Manual



2099 Gateway Place  
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San Jose, CA 95110  
Ph: 408-232-7800  
Fax: 408-232-7811  
World Wide Web: [www.verifone.com](http://www.verifone.com)

# SC 225

## *Installation Guide*

VeriFone Part Number: 26375, Revision A  
of Hewlett-Packard Company



Printed on recycled paper.