HP Mini Magnetic Stripe Reader for Point of Sale System

User Guide

About This Guide

This guide provides information on setting and using the HP USB Mini-MSR for Point of Sale System.

⚠ **WARNING!**   Text set off in this manner indicates that failure to follow directions could result in bodily harm or loss of life.

△ **CAUTION:**   Text set off in this manner indicates that failure to follow directions could result in damage to equipment or loss of information.

📝 **NOTE:**   Text set off in this manner provides important supplemental information.

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1 Product Features

HP Mini MSR

The HP Mini MSR (Magnetic Stripe Reader) is designed to work with point of sale system hardware and program applications. The reader features:

- Plug and play design

- Reads 1, 2, or 3 track(s) of magnetic stripe information

- Direct transmission of data to the POS computer

- Captive USB cable

- Powered from the POS computer

- LED and beep indicators

- Programmable format using a configuration utility

- Screws, touch fastener, and brackets for mounting provided

- Software and regulatory notices for this product are available on the *HP Point of Sale System Software and Documentation* CD

2   Installation Instructions

Mounting the Reader

You can attach the reader to a flat surface using two screws or touch fastener tape or you can attach the reader to an HP LCD monitor or HP touchscreen LCD monitor using the MSR mounting brackets provided in the kit. A Phillips screwdriver is required for screw mounting or for mounting the brackets to the LCD monitor.

Screw Mount

Three sets of M3 screws are provided in the kit to mount the reader. Select the appropriate size screws based on the thickness of the surface to which the reader is mounted.

1.   Position the reader on a flat surface. Drill holes in the surface, if required.

2.   Install two M3 screws through the mounting surface and into the mounting holes in the bottom of the reader, then tighten the screws. Refer to the illustration below as a guide to the mounting hole locations on the reader. Measurements are in millimeters.
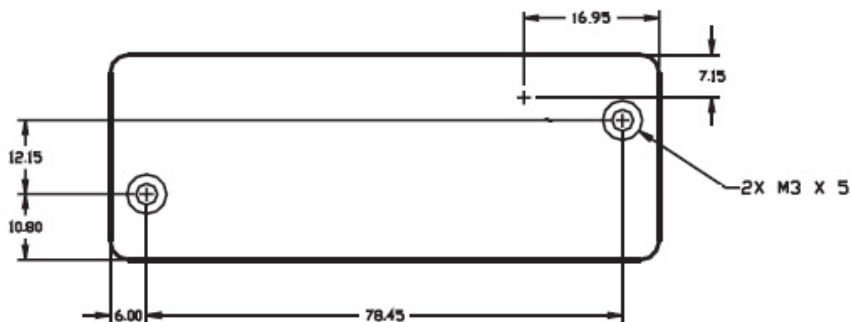
Touch Fastener Mount

1.   Peel the paper liner off one side of the two touch fastener pieces and place the sticky sides on the bottom of the reader. Add the two complimentary touch fastener pieces to the touch fastener on the reader.

2.   Peel the paper liner off the added two pieces of touch fastener and press the reader to the intended surface.

3.   Test the reader to ensure the touch fastener is secure.

LCD Monitor Mount

The reader can be mounted to an HP LCD monitor model with accessory rails or to an HP touchscreen LCD monitor. Refer to the instruction document, *HP Mini-MSR Mounting Brackets for HP LCD Monitors Installation Guide*, that is included with the reader. The brackets will allow the reader to be installed onto the right side, left side or center location of the monitor.

Installing the OPOS or JPOS Drivers

If OPOS or JPOS drivers are required with your POS application, follow the installation instructions below.

1. Turn on the POS computer.

2. Insert the *HP Point of Sale System Software and Documentation* CD into the CD or DVD drive on the POS computer.

3. Read and Accept the End User License Agreement. The main menu will display.

4. On the main menu, click HP USB Mini-MSR.

5. Select and install the OPOS or JPOS drivers required for your POS application.

Using the Reader

1. Plug the reader's USB cable into a USB port on the POS computer. The USB drivers for the reader will automatically install.

2. Slide a card in either direction through the reader slot with the magnetic stripe facing the magnetic head. The head is on the opposite side of the LED indicator.

3. While swiping a card through the reader, the LED turns off.

4. Once the entire magnetic stripe has been read:

    a. A green LED will indicate a "good read" and the reader will beep once to indicate a good read on each track. If all three tracks are read successfully, the reader will beep three times.

    b. A red LED for a 1/2 second will indicate a "bad read."

3   Configuration Settings

HP Mini MSR Default Settings

The reader is shipped with default configuration settings. The default settings allow the reader to read all data of a standard encoded magnetic stripe card.

Table 3-1 HP Mini MSR Default Settings

Magnetic Track Basic Data Format	
Track 1	<SS1><T1 Data><ES><ENTER>[1]
Track 2	<SS2><T2 Data><ES><ENTER>[1]
Track 3	<SS3><T1 Data><ES><ENTER>[1]
Where:	
SS1(start sentinel track 1) = %	
SS2(start sentinel track 2) = ;	
SS3(start sentinel track 3) = ; for ISO, % for AAMVA	
ES(end sentinel all tracks) = ?	
Keyboard/USB Communication Default Settings	
Terminal	IBM PC/AT
Polling Interval	1 ms
Language	US English
Start or End Sentinel	Characters in encoding format which come before the first data character (start) and after the last data character (end), indicating the beginning and end, respectively, of data.
Track Separator	A designated character which separates data tracks.
Terminator:	A designated character which comes at the end of the last track of data, to separate card reads.
LRC	Check character, following end sentinel.

[1] The <ENTER> characters (shown above) between tracks 1 & 2 and 2 & 3 denote the default character for this position, the Track Separator position. The <ENTER> characters shown for track 3 denotes the default character for this position, the Terminator position.

4 Troubleshooting

Solving Common Problems

The following table lists possible problems, the possible cause of each problem, and the recommended solutions.

Table 4-1 Solving Common Problems

Problem	Cause	Solution
After swiping a card through the reader, a red LED lights.	Indicates a bad read on the card.	Swipe the card again at a steady and medium speed.
		Review the orientation of the card stripe to be sure it is in contact with the read head.
		Swipe a different card through the reader slot to determine the quality of the magnetic stripe.
The reader is not responding after swiping a card through the stripe.	Interface cable is loose.	Be sure the USB power cable is connected to the computer. The reader will emit one long beep when power is first applied.
	Poor hardware or USB connection.	Change to another USB port.
No audible beep.	Computer audio is not turned on.	Check that the computer audio is on. Connecting and disconnecting the USB reader causes a device connection sound.
After connecting the reader, the computer did not indicate new hardware found.	USB drivers are not installed.	Install USB drivers by: ● Restarting the computer. ● Scanning the computer for new hardware through the Windows Device Manager. ● Installing USB drivers for your computer from the operating system CD. ● Reinstalling your operating system software.

Online Technical Support

For the online access to technical support information, self-solve tools, online assistance, community forums or IT experts, broad multivendor knowledge base, monitoring and diagnostic tools, go to http://www.hp.com/support.

Preparing to Call Technical Support

HP provides hardware break/fix support for this product.

If you can not solve a problem using the troubleshooting tips in this section, you may need to call technical support. Have the following information available when you call:

- If connected to an HP POS computer, provide the serial number of the POS computer
- Purchase date on invoice
- Spares part number located on the label underneath the product
- Condition under which the problem occurred
- Error messages received
- Hardware configuration
- Hardware and software you are using

Comprehensive technical support is available online at http://www.hp.com/support.

You can also call HP for technical support. Refer to HP Technical Support Phone Numbers on the *HP Point of Sale System Software and Documentation* CD.

5 Technical Specifications

HP Mini MSR

Table 5-1 HP Mini MSR Technical Specifications

Power Requirements	Power supplied by the POS Computer via the USB port
Operating Current	40mA maximum during magnetic stripe reading
Operating Temperature	0°C to 55°C (32°F to 131°F)
Storage Temperature	-30°C to 70°C (-22°F to 158°F)
Relative Humidity	Maximum 95% non-condensing
Magnetic Head Life	1,000,000 passes minimum
Rail and Cover Life	1,000,000 passes minimum
Magnetic Stripe Recording Method	Two-frequency coherent phase (F2F) compatible with ISO 7811, ANSI and AAMVA
Maximum Number of Tracks	3 tracks
Swipe Speed	76 to 1524 mm (3 to 60 in.) per second, bidirectional
Card Thickness	0.381 to 1.143 mm (0.015 to 0.045 in.)
Slot Width	0.050 in. max
Dimensions	Length: 100 mm (3.94 in.) Width: 35 mm (1.38 in.) Height: 30 mm (1.18 in.)
Weight	130.4 grams (4.6 oz.)
Cable Length	1.8 m (6 ft.) straight cable
Indicators	Tri-color LED and beeper

Table 5-1 HP Mini MSR Technical Specifications (continued)

LEDs	Green: initial power on
	Green: good read
	Red: bad read
	Off: swiping a card
Beeps	Single beep: good read
	Three beeps: good read on all three tracks

6 Agency Regulatory Notices

Federal Communications Commission Notice

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 or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the 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 or television technician for help.

Modifications

The FCC requires the user to be notified that any changes or modifications made to this device that are not expressly approved by Hewlett Packard Company may void the user's authority to operate the equipment.

Cables

Connections to this device must be made with shielded cables with metallic RFI/EMI connector hoods to maintain compliance with FCC Rules and Regulations.

Declaration of Conformity for Products Marked with the FCC Logo (United States Only)

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.

2. This device must accept any interference received, including interference that may cause undesired operation.

For questions regarding the product, contact:

Hewlett Packard Company

P. O. Box 692000, Mail Stop 530113

Houston, Texas 77269-2000

Or, call 1-800-HP-INVENT (1-800 474-6836)

For questions regarding this FCC declaration, contact:

Hewlett Packard Company

P. O. Box 692000, Mail Stop 510101

Houston, Texas 77269-2000

Or, call (281) 514-3333

To identify this product, refer to the Part, Series, or Model number found on the product.

Canadian Notice

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Avis Canadien

Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.
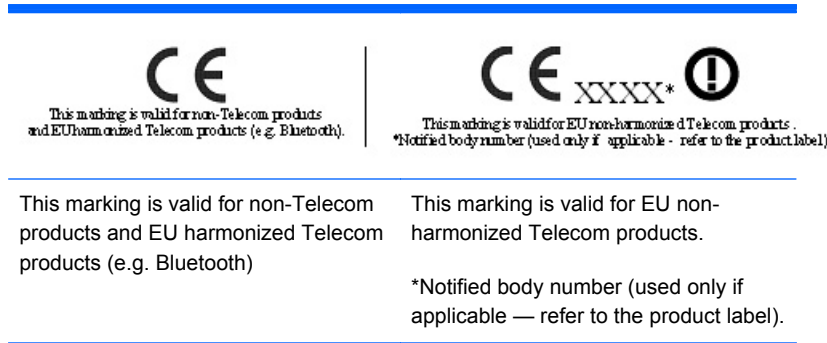
European Union Regulatory Notice

This product complies with the following EU Directives:

- Low Voltage Directive 2006/95/EC

- EMC Directive 2004/108/EC

- EuP Directive 2005/32/EC, where applicable

Compliance with these directives implies conformity to applicable harmonized European standards (European Norms) which are listed on the EU Declaration of Conformity issued by Hewlett-Packard for this product or product family.

This compliance is indicated by the following conformity marking placed on the product:

This marking is valid for non-Telecom products and EU harmonized Telecom products (e.g. Bluetooth)	This marking is valid for EU non-harmonized Telecom products. *Notified body number (used only if applicable — refer to the product label).

Hewlett-Packard GmbH, HQ-TRE, Herrenberger Strasse 140, 71034 Boeblingen, Germany

The official EU CE declaration of conformity for this device may be found at http://www.hp.com/go/certificates.

Japanese Notice

この装置は、クラスB情報技術装置です。この装置は、家庭環
境で使用することを目的としていますが、この装置がラジオや
テレビジョン受信機に近接して使用されると、受信障害を引き
起こすことがあります。取扱説明書に従って正しい取り扱いを
して下さい。

VCCI-B

Korean Notice

B급 기기 (가정용 정보통신기기)

이 기기는 가정용으로 전자파적합등록을 한 기기로서
주거지역에서는 물론 모든지역에서 사용할 수 있습니다.

Product Environmental Notices

Disposal of Waste Equipment by Users in Private Household in the European Union

This symbol on the product or on its packaging indicates that this product must not be disposed of with your household waste. Instead, it is your responsibility to dispose of your waste equipment by handing it over to a designated collection point for the recycling or waste electrical and electronic equipment. The separate collection and recycling of your waste equipment at the time of disposal will help to conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment. For more information about where you can drop off your waste equipment for recycling, please contact the local city office, the household waste disposal service or the shop where you purchased the product.

Chemical Substances

HP is committed to providing our customers with information about the chemical substances in our products as needed to comply with legal requirements such as REACH *(Regulation EC No 1907/2006 of the European Parliament and the Council)*. A chemical information report for this product can be found at: http://www.hp.com/go/reach

Restriction of Hazardous Substances (RoHS)

A Japanese regulatory requirement, defined by specification JIS C 0950, 2005, mandates that manufacturers provide Material Content Declarations for certain categories of electronic products offered for sale after July 1, 2006. To view the JIS C 0950 material declaration for this product, visit http://www.hp.com/go/jisc0950.

2008年、日本における製品含有表示方法、JISC0950が公示されました。製造事業者は、2006年7月1日以降に販売される電気・電子機器の特定化学物質の含有につきまして情報提供を義務付けられました。製品の部材表示につきましては、www.hp.com/go/jisc0950を参照してください。

有毒有害物质/元素的名称及含量表

根据中国
《电子信息产品污染控制管理办法》

部件名称	有毒有害物质和元素					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr(VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
扬声器	X	O	O	O	O	O
其它 I/O PCA	X	O	O	O	O	O
机箱/其它	X	O	O	O	O	O
风扇	X	O	O	O	O	O
鼠标	X	O	O	O	O	O
键盘	X	O	O	O	O	O
内存	X	O	O	O	O	O
电缆/其它	X	O	O	O	O	O
处理器	X	O	O	O	O	O
电源	X	O	O	O	O	O
主 PCA	X	O	O	O	O	O
内部/外部介质 读取设备	X	O	O	O	O	O
外部控制设备	X	O	O	O	O	O
硬盘驱动器	X	O	O	O	O	O

O：表示该有毒或有害物质在该部件所有均质材料中的含量均在 SJ/T11363-2006 标准规定的限量要求以下。

X：表示该有毒或有害物质至少在该部件所用的某一均质材料中的含量超 出 SJ/T11363-2006 标准规定的限量要求。

表中标有"X"的所有部件都符合欧盟 RoHS 法规 — "欧洲议会和欧盟理 事会 2003 年 1 月 27 日关于电子电器设备中限制使用某些有害物质的 2002/95/EC 号指令"。

注：环保使用期限的参考标识取决于产品正常工作的温度和湿度等条件。

Turkey EEE Regulation

In Conformity with the EEE Regulation

EEE Yönetmeliğine Uygundur

HP Recycling Program

HP encourages customers to recycle used electronic hardware, HP original print cartridges, and rechargeable batteries. For more information about recycling programs, go to http://www.hp.com/recycle.