

# HP USB Receipt Printer for Point of Sale Systems User Guide



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## About This Guide

This guide provides information on setting and using the HP USB Receipt Printer for Point of Sale Systems.

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- ⚠ **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

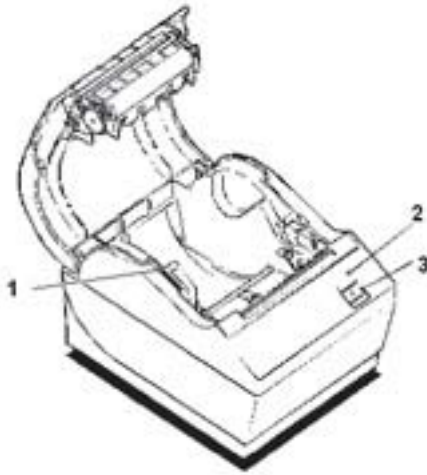
## HP USB Receipt Printer



The HP USB Receipt Printer is designed to work with point of sale system hardware and program applications. The receipt printer features:

- Thermal printing technology
- Drop-in paper loading and top exit for receipts
- Software generated indicator beeps
- LED status indicator
- 8 dots/mm print resolution with up to 130 mm/second throughput speed
- USB power cable provided
- Selectable 44 or 56 columns of print on 80 mm wide thermal paper
- Software and regulatory notices for this product are available on the *HP Point of Sale System Software and Documentation CD*

## Identifying User Controls



- 
- |       |  |
|-------|--|
| 1     | Reset Button - resets the printer if a paper jam or fault condition occurs. After pressing the reset button, the printer performs a start-up routine, as if having been turned off, then on again. |
| <hr/> |  |
| 2     | LED indicator - shows printer status. A continuous green (non-flashing) light indicates an On, no-fault condition.   |
| <hr/> |  |
| 3     | Paper Feed button - advances the paper. Use this button in conjunction with the reset button to print the diagnostic mode or to access the configuration menu.                                     |
- 

## Identifying Rear Connectors



- 
- |       |   |
|-------|---|
| 1     | USB Power Connector - connects the printer to the POS computer and provides power to the printer. |
| <hr/> |   |
| 2     | DIP Switches - enable changes to the configuration menu settings.                                 |
| <hr/> |   |
| 3     | Cash Drawer Connector - connects the printer to the cash drawer.                                  |
-



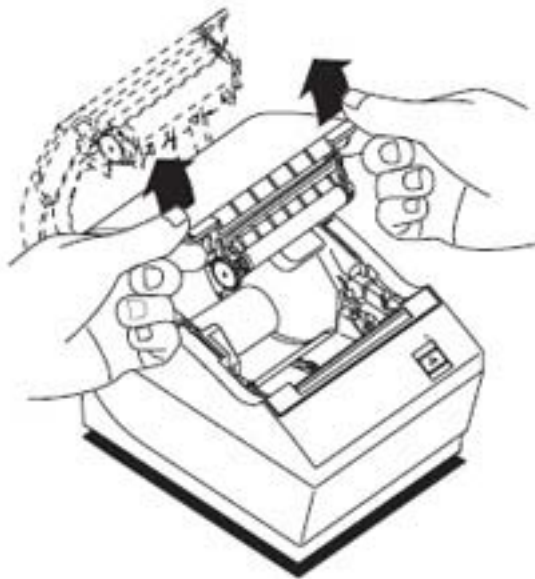
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## 2 Setting Up the Printer

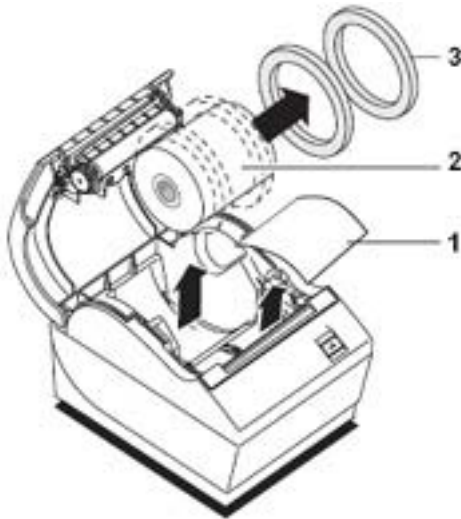
Before setting up the receipt printer, ensure power is turned off to the printer, POS computer and other attached devices.

### Loading the Starter Paper Roll

1. Open the rear cover by pushing up on each side of the cover until it unsnaps.



2. Remove the test printout (1), then lift the starter paper roll (2) out of the paper bucket and slide the two paper roll supports (3) off. Discard the paper roll supports.



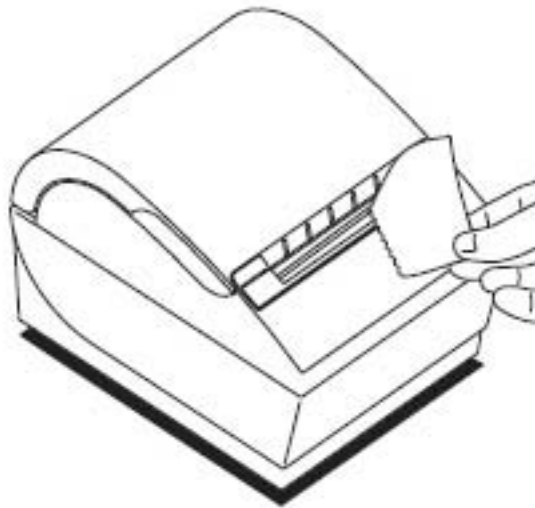
3. Remove all tape on the leading edge of the roll.
4. Place the starter paper roll back into the bucket so that it unrolls from the bottom.




5. Close the rear cover.




6. Tear excess paper across the tear-off blade.

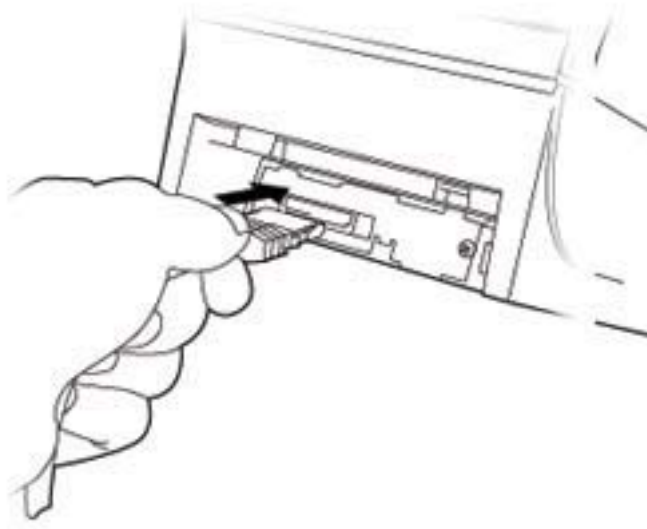


## Connecting the Cables

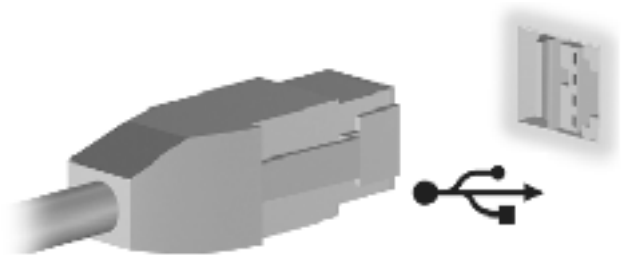
 **NOTE:** Place the printer on a level surface and position it in a location that allows access to cables, room to open the cover and away from traffic areas to limit the chance of being bumped or damaged.

 **CAUTION:** Connect cables to the printer before turning on power to the POS computer.

1. Turn off the POS computer.
2. Open the connector cover on the rear of the printer.
3. Plug the USB power cable into the interface connector on the receipt printer.



4. Plug the other end of the USB power cable into the 24V powered USB connector on the POS computer.



5. Plug the cash drawer cable into the cash drawer connector (RJ12) on the printer and the other end of the cable (RJ45) to the interface connector on the cash drawer.
6. Close the connector cover on the rear of the receipt printer, ensuring that the USB and cash drawer cables are aligned with the slots provided for each connector.
7. Turn on the POS computer. If the **Found New Hardware Wizard** pops up, click the **Cancel** button.


The receipt printer will beep and the green LED on the top cover will light up initializing the printer.

# Installing the Drivers

The software and documentation CD provided with this product includes the USB, OPOS and JPOS drivers. Depending on your POS computer's operating system, install the USB and OPOS drivers or JPOS drivers.

1. Follow the steps in the previous section to connect the printer cables and 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. The CD will run automatically.
3. Read and accept the End User License Agreement. The main menu of the CD will be displayed.
4. On the main menu in the **Printer** column, select **Windows and OPOS Drivers** or **JPOS Drivers** from the **Driver Installation** column. Follow the instructions on the screen to complete the installation.
5. If you installed the OPOS drivers:
  - a. On the second page of the InstallShield Wizard, you are given the option of installing both the USB and OPOS drivers or only the USB drivers. Select **USB & OPOS Drivers** to install both drivers, or select **USB/OPOS Driver Selection** to install only the USB drivers. Follow the instructions in the Wizard to complete the installation.

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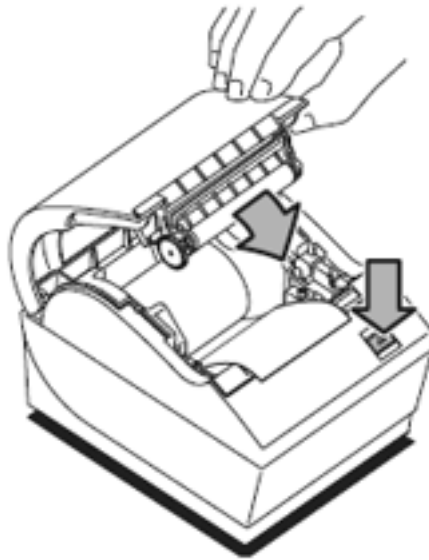
 **NOTE:** If you select the **USB/OPS Driver Selection** option, you can still choose to install the OPOS drivers by clicking the **OPOS Control Objects** check box on the next page in the Wizard.

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  - b. You must install the CCO package. On the main menu in the **Common Control Objects (OCC)** column, click the **CCO Package** from the **Driver Installation** column. Follow the instructions on the screen to install the CCO package.

## Running the Startup Diagnostics Test

Run diagnostics to test the startup cycle of the printer.

1. Open the rear cover by pushing up on each side of the cover until it unsnaps.
2. Press and hold the paper feed button while closing the rear cover.



If the printer passes the startup diagnostic test, the printer emits a two-tone beep (low then high frequency) and prints all of the configuration menu settings. The paper feed button is enabled and the printer is ready for normal operation.

If the printer fails the startup diagnostic test, the printer beeps and the LED flashes a set number of times indicating the nature of the failure. If a failure occurs and the conditions below can not be corrected, contact an authorized HP service provider.

LED and Tone Sequence	Possible Condition
Two-tone beep (high and low frequencies)	Startup diagnostics completed successfully
Single beep, single LED flash	Indicates a data transmission boot failure
Double beep, double LED flash	Indicates memory failure
Triple beep, triple LED flash	Indicates a programmable ROM failure
Two-tone beep (high and low frequencies), continuous flashing of LED	Indicates a data transmission error occurred or the DIP switch is in ON position, indicating Flash Download Mode

---

## 3 Operating the Printer

### Using Printer Controls

The following sections describe the printer control buttons and indicators.

#### Paper Feed Button

Press the paper feed button to advance the paper. Use this button in conjunction with the reset button to print the diagnostic mode or allow access to the configuration menu.

#### LED Indicators

The green LED provide printer status by shining or flashing. A continuous (non-flashing) LED represents an "ON," no-fault condition.

LED Indicator	Status
Flashes slowly	Printhead is too hot or voltages out of range
Flashes quickly	Paper is out, cover is off, knife is unable to home or knife jam

#### Beep Indicators

A single beep indicates the printer has successfully completed its start-up routine (after having been reset or the power turned on). If the printer beeps twice, a problem may be indicated. Refer to [Troubleshooting on page 15](#) in this guide to determine the problem and solution.

## Loading the Receipt Paper

Change the paper when either of the following conditions occur:

- Color stripe appears on the receipt paper, indicating the paper is low. Change the paper as soon as possible to avoid running out of paper part way through a transaction.
- Green LED flashes quickly indicating the paper is out. Change the paper immediately or data may be lost.

---

△ **CAUTION:** Do not operate the printer or POS computer to print if the printer runs out of paper. The printer will not operate without paper, but it may continue to accept data from the POS computer. Because the printer cannot print that additional data, it may be lost.

---

To load paper into the printer:

1. Open the rear cover by lifting up on each side of the cover until it unsnaps.
2. Remove the used paper roll.
3. Tear off the end of the new roll, so that the edge is loose.
4. Place the new roll into the paper bucket with a few inches of paper extending over the cabinet front.


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△ **CAUTION:** The paper must unroll from the bottom to ensure that the printer will print and to prevent paper jamming.

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5. Close the cover. Pull the excess paper across the tear-off blade and remove.
6. Advance the paper, if necessary, by pressing the paper feed button.

---

 **NOTE:** In the event of a paper jam, remove the roll and tear a new clean edge. Place the roll into the paper bucket, so that it unrolls from the bottom of the roll.

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# Configuring the Printer

The printer is shipped with all print functions and parameters preset. The following functions and settings can be changed using the configuration menu.

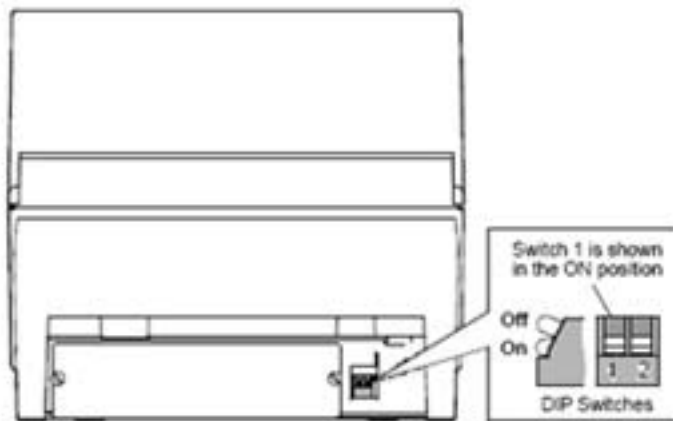
- Communication interface
- Printer emulations
- Printer settings and functions

△ **CAUTION:** If you must change the settings do so carefully to avoid changing other functions.

To change any of the preset functions and parameters of the printer, you will need to run a print test. During the test run, the configuration menu is printed on the receipt with instructions for selecting and changing any of the functions or parameters. The test ends with a partial cut of the paper, then begins again. A test printout may use several feet of paper to complete.

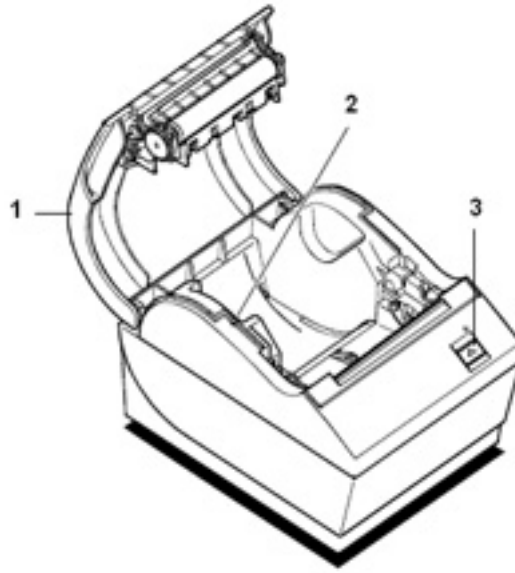
To start the test:

1. Open the connector cover on the back of the printer.
2. Set DIP switch 1 to the ON position (down). DIP switch 2 must always be set to the ON position (down).



3. Be sure paper is installed in the printer. If paper is not installed, follow the previous procedure in this chapter to load the paper.
4. Open the rear cover (1) and press the reset button (2).

5. Press and hold the paper feed button (3) while closing the rear cover.



The printer beeps, prints the current configuration, then prints the first question. The printer pauses and waits for you to choose a main menu selection.

6. Follow the instructions on the scrolling menu and continue through the menu selection until you are prompted to “**Save New Parameters?**” Select **Yes** or **No**.
  - a. If **Yes** is selected, return DIP switch 1 to the OFF position (up). Then repeat steps 4 and 5 above. The diagnostic printout verifies new settings.
  - b. If **No** is selected, the printer returns to the menu to set parameters again.
7. When you are finished, press the reset button. The printer resets with the new selections.

The following is a sample printer configuration menu.

## \*\*\* - Printer Config Menu \*\*\*

This config menu allows you to set general printer parameters

Sub-menus are entered and selections are made using the Paper Feed Button :

- short click : Feed Button is quickly depressed then released
- long click : Feed Button is held down more than 1 second then released

### CAUTION !!

The settings are predetermined in factory and should generally not be changed.  
If you must change the settings do so carefully to avoid changing other functions.

\*\*\*\*\*

## MAIN MENU

Select a sub-menu :

- |                                  |             |
|----------------------------------|-------------|
| - EXIT                           | -> 1 click  |
| - Print Current Configuration    | -> 2 clicks |
| - Set Communication Interface    | -> 3 clicks |
| - Set Diagnostics Modes          | -> 4 clicks |
| - Set Emulation/Software Options | -> 5 clicks |
| - Set Hardware Options           | -> 6 clicks |

Enter code, then hold Button DOWN  
at least 1 second to validate

---

## 4 Maintenance Guidelines

### Cleaning the Printer


Clean the outside of the cabinet as needed to remove dust and finger marks. Use any household cleaner made for plastics. Test it first on a small unseen area. Clean the receipt printer paper bucket with a clean, damp cloth.

The cabinet materials and finish are durable and resistant to the following items:

- Cleaning solutions
- Cooking oils
- Lubricants
- Ultraviolet light
- Fuels

### Cleaning the Thermal Printhead

△ **CAUTION:** Do not clean the inside of the printer with any cleaner. Do not allow cleaning spray to come in contact with the thermal printhead. Damage to the internal electronics or thermal printhead could occur.

 **NOTE:** The thermal printhead does not normally require cleaning when recommended paper grades are used. If non-recommended paper is used over an extended period, attempting to clean the printhead will have little effect on the print quality.

1. Turn off the receipt printer and POS computer.
2. Unplug the receipt printer from the POS computer and the cash drawer, if connected.
3. Wipe the printhead with a cotton swab moistened with rubbing alcohol.

△ **CAUTION:** Do not use rubbing alcohol to clean any internal parts of the printer other than the printhead. Damage will occur.

If spotty or light printing problems persist after cleaning the thermal printhead, the entire thermal mechanism may need to be replaced.

△ **CAUTION:** Using non-recommended paper over an extended period of time can result in printhead failure. Refer to [Technical Specifications on page 17](#) for paper specifications.

# A Troubleshooting

## Solving Common Problems

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

Problem	Possible Cause	Solution
Green LED, quick continuous flashing.	Paper is out.	Install a new paper roll.
	Cover is off.	Close the cover.
	Knife unable to home.	Check the knife to see if it needs to be replaced.
Printer beeps (two-tone - low frequency, high frequency).	Indicates problems.	Run the startup diagnostics to see if this corrects the problem. If this does not work, contact technical support.
Printer beeps and flashes green LED in various combinations.	Printer is turned on, after being turned off, and is ready to operate.	No action required.
	Indicates a serious problems if occurring during normal operation.	Run the startup diagnostics. If this does not work, contact technical support.
Colored stripe is on the receipt.	Paper is low.	Change the paper roll.
Receipt does not come out all the way.	Paper is jammed.	Open the receipt cover, inspect the knife, and clear the jammed paper.
Printer starts to print, but stops before the receipt has been printed.	Paper is jammed.	Open the receipt cover, inspect the knife, and clear the jammed paper.
Receipt is not cut.	Paper is jammed.	Open the receipt cover, inspect the knife, and clear the jammed paper.
Print is light or spotty.	Paper roll is loaded incorrectly.	Check that the paper is loaded properly.
	Thermal printhead is dirty.	Use the recommended thermal receipt paper. Refer to <a href="#">Technical Specifications on page 17</a> in this guide for paper specifications and recommendation.
	Variations in paper.	Increase the print density in "Set Hardware Options" of the printer configuration menu to 110% or 120% as needed.
Vertical column of print is missing.	Printhead is defective.	Replace the thermal mechanism.
One side of the receipt is missing.	Printhead is defective.	Replace the thermal mechanism.

Problem	Possible Cause	Solution
Printer does not function when turned on.	The printer is not plugged in.	Check that printer cables are properly connected at both ends.  Check that the POS computer is turned on.
	Receipt cover is not fully closed.	Close and latch the receipt cover.
The system does not go into standby.	The printer does not support full Advanced Power Management (APM) features.	Initiate standby again. When the system resumes from standby, the printer will return to its normal operating condition.
		Or  Save your data and restart the computer.
Printer does not work after the system comes out of standby.	Printer does not support full Advanced Power Management (APM) features.	If this is the first time the system goes into standby, initiate standby again to get the printer functioning. When the system resumes from standby, the printer will return to its normal operating condition.
		Or  Save your data and restart the computer.

## Using the Worldwide Web

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. Refer to the *Support Telephone Numbers* guide on the *HP Point of Sale System Software and Documentation* CD. Have the following information available when you call:

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

## B Technical Specifications

### HP USB Receipt Printer Specifications

<b>Reliability</b>	
Thermal Receipt Mechanism	55 million lines
Receipt Knife	1.5 million cuts
<b>Power Requirements</b>	
Power Requirements from Host (Integrated):	
Voltage	24Vdc +/- 10% +5 volts for logic circuit
Amps	2 Amps maximum current draw
Operating Temperature	5°C to 45°C (41°F to 113°F)
Operating Humidity	10% to 90%
	5% to 40%
Storage:	
Temperature	-10°C to 50°C (14°F to 122°F)
Humidity	5% to 90%
Transit:	
Temperature	-40°C to 60°C (-40°F to 140°F)
Humidity	5% to 95%
Condensation	Condensation may occur when the printer is moved from cold to warm areas after shipment. The printer's design permits operation after drying out and stabilizing at room temperature.
<b>Dimensions and Weight</b>	
Height:	
With covers closed	35 mm (5.34")
With covers open	216 mm (8.53")
Width	144 mm (5.66")
Depth	184 mm (7.24")
Weight	1.3 kg (2.9 lbs)

Printing Specifications	
Print Speed	38.4 lines per second (standard spacing)
Printhead	Direct thermal, fixed head, 640 dots (576 addressable - 80.0 mm) (640 addressable - 82.5 mm)
Paper Feed	130 mm per second (maximum)

## Characters

The following sections list the print modes and character sizes.

### Print Modes

Available print modes:

- Standard
- Compressed
- Double high
- Double wide
- Upside down
- Rotated
- Underlined
- Bold
- Reverse
- Italic
- Scaled

### Print Size

Character sizes for the standard and compressed mode:

- Standard
  - 15.6 characters per inch
  - 44 characters per line
  - 13 x 24 dots cell size
- Compressed
  - 20.3 characters per inch
  - 56 characters per line
  - 10 x 24 dots cell size



# Thermal Paper Specifications

The printer requires qualified thermal paper with the following dimensions:

Width	Diameter	Length
80 mm $\pm$ .2 mm (3.15 in. $\pm$ .02 in.)	90 mm max. (3.54 in.)	322 ft. nominal

The above figures are based on a core diameter of 22  $\pm$  .5 mm (.87 in.) outside, 11.5  $\pm$  .5 mm (.45 in.) inside.

The paper must not be attached at the core. Use paper with a colored stripe at the end to indicate that the paper is running low.

The following paper grades produced by their respective manufacturers are recommended. There are a number of paper converters qualified to provide this paper, provided the POS rolls are from these recommended grades. Use of other papers may result in excessive printhead contamination, light print, missing print, and/or void the printer warranty.

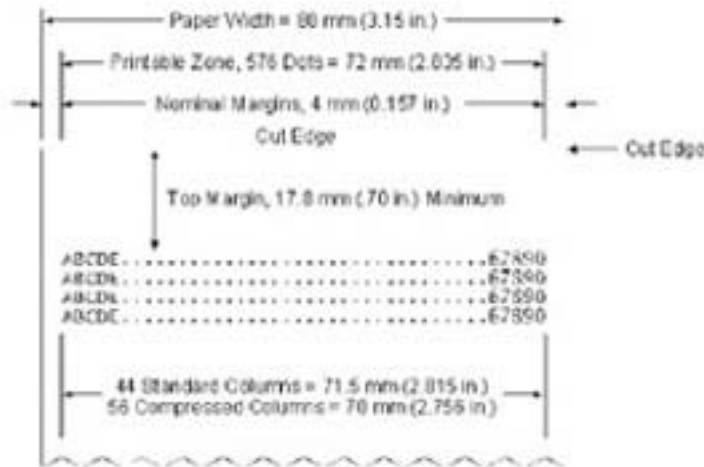
To order paper rolls, contact your converter of choice.

Paper Manufacturer	Paper Identification/Grade
Kanzaki Specialty Papers (USA)	P-300
Ware, MA	P-310
	P-350
	P-354
	TO-260
	TO-282
	TO-381L
Appleton Papers, Inc. (USA)	Alpha 400-2.3 (T1030)
Appleton, WI	Alpha 800-2.3 (T1012A)
	POS Plus 600-2.0
	Resiste 900-3.0 (T2162)
	Alpha 900-3.4 (SUPERIOR)
Jujo Thermal LTD.	AF50KS-E3
Kauttua, Finland	AP62KS-E3
Mitsubishi Int'l Corp.	P-5035
New York, NY	T-8051
	TP-8065
Oji Paper Company Ltd	KF-60
Tokyo, Japan	PD-170R
	PD-160R

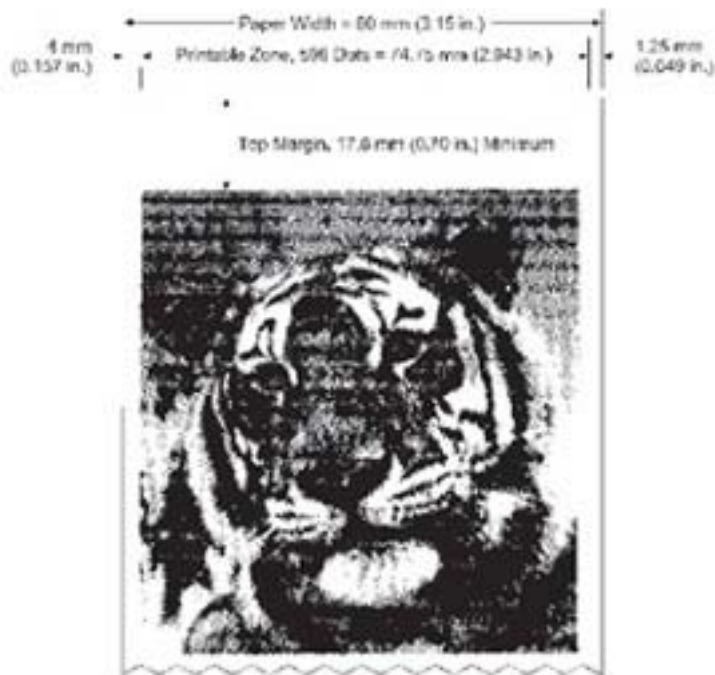
## Print Zones for 80 mm Paper

Specifications of print zone for 80 mm paper:

- 576 dots (addressable) @ 8 dots/mm, centered on 80 mm
- Standard Mode minimum margins: 2.5 mm (.098 inches)
- Top margin to manual tear-off: 17.8 mm (0.70 inches)
- Top margin to knife cut: 19.0 mm (0.75 inches)



When printing graphics or logos converted from 6 dot/ mm to 8 dot/ mm, the printable zone is expanded to 598 dots.



## Adjusting Print Density

Adjusting the paper density and density of receipt print lines make it possible to adjust the energy level of the printhead to darken the printout. An adjustment should only be made when necessary. The factory setting is 100%.

- △ **WARNING!** Choose an energy level no higher than necessary to achieve a dark printout. Failure to observe this rule may result in a printer service call or void the printer warranty.

When the printer prints high density print lines (text or graphics), it automatically slows down.

To change the print density:

1. Enter the configuration menu. Refer to [Operating the Printer on page 9](#) for instructions on running the configuration menu.
2. Select "Set Hardware Options" from the main menu. The "Hardware Options Menu" is printed on the receipt and the question "Set Print Density?" asked.
3. Answer YES (Long click). A warning is printed, followed by:  
  
Print Density  
  
100% 1 Click  
  
110% (+) 2 Clicks  
  
120% (++) 3 Clicks
4. Enter code, then hold the paper feed button DOWN at least 1 second to validate.

## Duty Cycle Restrictions (Printing Solid Blocks)

There are restrictions on the duty cycle because of the heat generated by the receipt thermal printhead when printing solid blocks (regardless of the length of the block in relation to the print line). The restrictions are ambient temperature, the percentage of time (measured against one minute) of continuous solid printing, and the amount of coverage.

- △ **CAUTION:** When the duty cycle approaches the limits shown in the table, the receipt printhead will heat up and shut down. This may damage the printhead.

To avoid this problem, do one or a combination of the following:

1. Reduce the amount of coverage.
2. Reduce the time of continuous solid printing.
3. Reduce the ambient temperature.

## Allowable Duty Cycle (Measured Over One Minute of Continuous Printing)

Amount of Solid Coverage	25°C	35°C	50°C
20%	100%	50%	20%
40%	50%	25%	10%
100%	20%	10%	4%

For reference:

- A typical receipt with text (contains some blank spaces) is approximately 12% dot coverage.
- A full line of text characters (every cell on the line has a character in it) is approximately 25% dot coverage.
- Graphics are approximately 40% dot coverage.
- Barcodes are approximately 50% dot coverage.
- A solid black line is 100% dot coverage.

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# C 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.


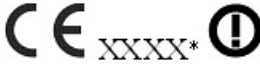
## European Union Regulatory Notice

This product complies with the following EU Directives:

- Low Voltage Directive 2006/95/EC
- EMC Directive 2004/108/EC

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:

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

## Japanese Notice

この装置は、情報処理装置等電波障害自主規制協議会（VCCI）の基準に基づくクラス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。

## 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>.

2005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、<http://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	○	○	○	○	○
其它 I/O PCA	X	○	○	○	○	○
机箱/其它	X	○	○	○	○	○
风扇	X	○	○	○	○	○
鼠标	X	○	○	○	○	○
键盘	X	○	○	○	○	○
内存	X	○	○	○	○	○
电缆/其它	X	○	○	○	○	○
处理器	X	○	○	○	○	○
电源	X	○	○	○	○	○
主 PCA	X	○	○	○	○	○
内部/外部介质 读取设备	X	○	○	○	○	○
外部控制设备	X	○	○	○	○	○
硬盘驱动器	X	○	○	○	○	○

○：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。