



# HP Thermal Receipt Printers for Point of Sale System

User Guide

Supports the following models:

A799-C40D-HN00

A799-C40W-HN00

A799-C80D-HN00

A799-C80W-HN00

A799-C80E-HP00

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## About This Guide

This guide provides information on setting up and using the HP Thermal Receipt Printers for Point of Sale Systems.

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 **WARNING!** Information denoted by this word indicates that failure to follow directions could result in bodily harm or loss of life.

 **CAUTION:** Information denoted by this word indicates that failure to follow directions could result in damage to equipment or loss of information.

 **NOTE:** Information denoted by this word provides important supplemental information.

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# 1 Product features

## HP Thermal Receipt Printers

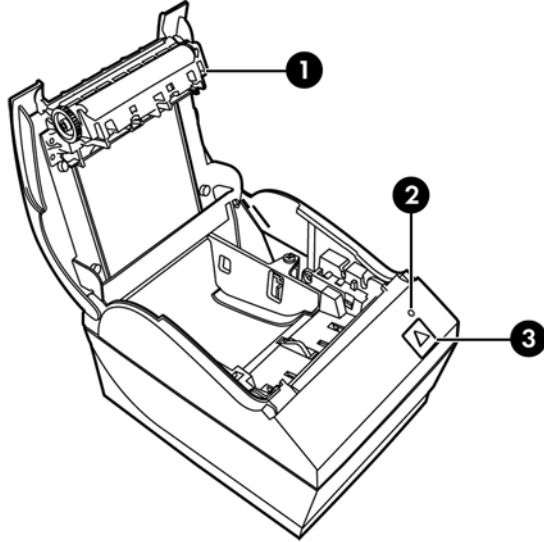


HP Thermal Receipt Printers are designed to work with point of sale system hardware and program applications. The printers features include:


- Thermal printing technology that prevents changing a printer ribbon and cartridge
- Powered USB interface model with USB power cable provided or serial/USB interface model with separate power cable provided
- Snap open receipt cover and drop-in paper loading
- Software generated indicator beeps
- LED status indicator
- 8 MB flash memory, history EEROM, 4k buffer
- 8 dots/mm print resolution with up to 250 mm/second (A799) or 350 mm/second (A799 II) throughput speed
- Selectable 44 (standard) or 56 (compressed) or 64 (compressed, select models and languages only) columns of print on 80 mm wide thermal paper
- Paper low and paper out sensor


- Software and product documentation provided at <http://www.hp.com>
- For regulatory and safety notices, refer to the *Product Notices* included with your product.

## Identifying user controls



- 
- |       |   |
|-------|---|
| 1     | Receipt cover - Snap opens to easily drop the paper roll in place.  |
| <hr/> |   |
| 2     | Status LED - the green LED indicates basic information about the printer status. A steady green light indicates the printer is on and operating normally. A flashing LED indicates the printer needs operator assistance. |
| <hr/> |   |
| 3     | Paper feed button - during normal use the paper feed button advances the paper. It is also used to access the configuration menu.   |
- 

 **NOTE:** A single beep indicates the printer has successfully completed its startup routine. It should beep after being powered up or reset. If the printer beeps twice, it may be experiencing a problem. Refer to [Troubleshooting on page 24](#) in this guide for more information.

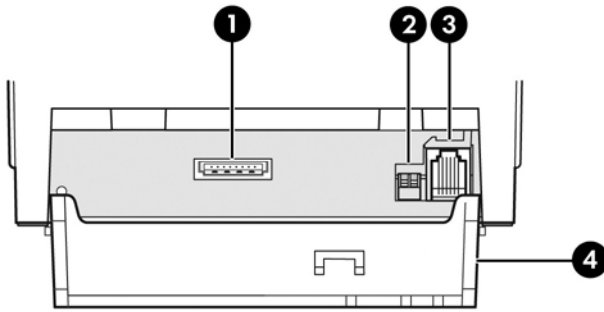
 **NOTE:** The models shown in the illustrations may vary from the product selected but the instructions remain the same.

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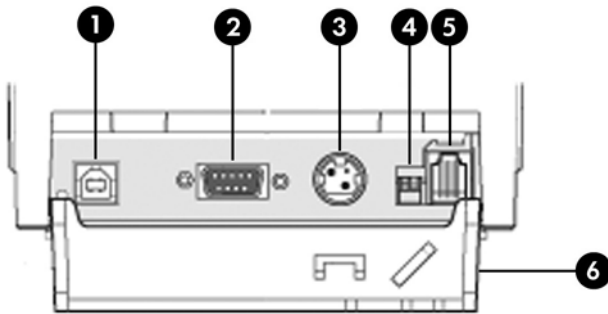
# Identifying rear connectors

## Powered USB model (A799)



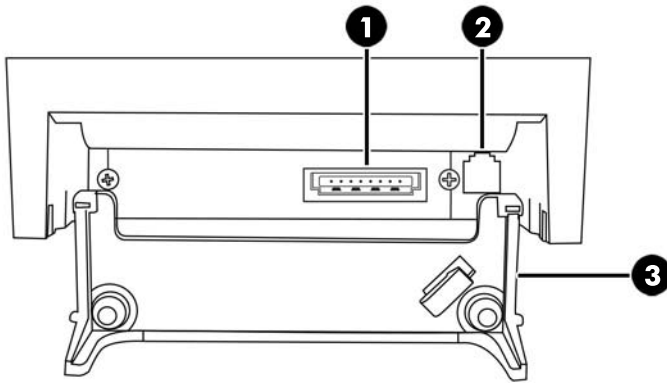
- 
- 1 USB power connector - connects the printer to the POS computer and provides power to the printer.
  - 2 Configuration switch (DIP switch 1) - allows you to change the configuration settings of the printer.
  - 3 Cash drawer connector - connects the printer to the cash drawer.
  - 4 Connector cover - the connector cover provides protection and strain relief for the printer connectors and cables. This cover should remain on the printer and cables routed as described in Chapter 2.
- 

## Serial/USB model (A799)



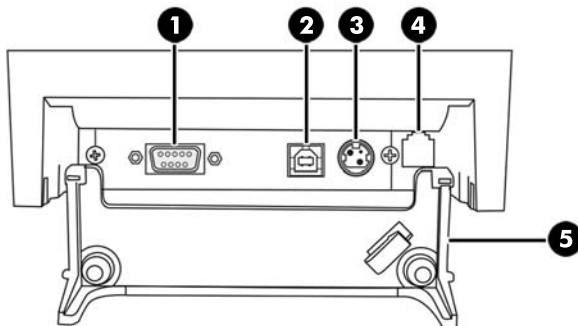
- 
- 1 USB connector - connects the printer to the POS computer.
  - 2 Serial connector - connects the printer to the POS computer.
  - 3 Power connector - connects the printer to the POS computer for power.
  - 4 Configuration switch (DIP switch 1) - allows you to change the configuration settings of the printer.
  - 5 Cash drawer connector - connects the printer to the cash drawer.
  - 6 Connector cover - the connector cover provides protection and strain relief for the printer connectors and cables. This cover should remain on the printer and cables routed as described in Chapter 2.
-

## Powered USB model (A799 II)



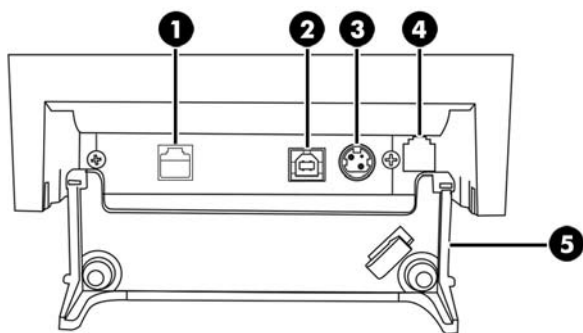
- 
- 1 USB power connector - connects the printer to the POS computer and provides power to the printer.
  - 2 Cash drawer connector - connects the printer to the cash drawer.
  - 3 Connector cover - the connector cover provides protection and strain relief for the printer connectors and cables. This cover should remain on the printer and cables routed as described in Chapter 2.
- 

## Serial/USB model (A799 II)



- 
- 1 Serial connector - connects the printer to the POS computer.
  - 2 USB connector - connects the printer to the POS computer.
  - 3 Power connector - connects the printer to the POS computer for power.
  - 4 Cash drawer connector - connects the printer to the cash drawer.
  - 5 Connector cover - the connector cover provides protection and strain relief for the printer connectors and cables. This cover should remain on the printer and cables routed as described in Chapter 2.
-

## Ethernet/USB model (A799 II)



- 
- 1 Ethernet connector - connects the printer to the LAN.
  - 2 USB connector - connects the printer to the POS computer.
  - 3 Power connector - connects the printer to the POS computer for power.
  - 4 Cash drawer connector - connects the printer to the cash drawer.
  - 5 Connector cover - the connector cover provides protection and strain relief for the printer connectors and cables. This cover should remain on the printer and cables routed as described in Chapter 2.
-

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## 2 Setting up the printer

### Checking the packing list


Save the packing materials in case you need to repack the printer for shipping or storage. Before installation, check that all the items listed below have been shipped.

- Printer
- Starter roll of receipt paper
- Test printout
- Serial model
  - USB cable
  - Serial cable
  - Power supply and cable
- Ethernet model
  - USB cable
  - Ethernet cable
  - Power supply and cable
- PUSB model
  - USB power cable

### Loading or changing the receipt paper

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

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 **CAUTION:** You must use qualified paper rolls with the HP printers. The list of qualified paper is in [Technical specifications on page 30](#). Using unqualified paper may void the warranty.

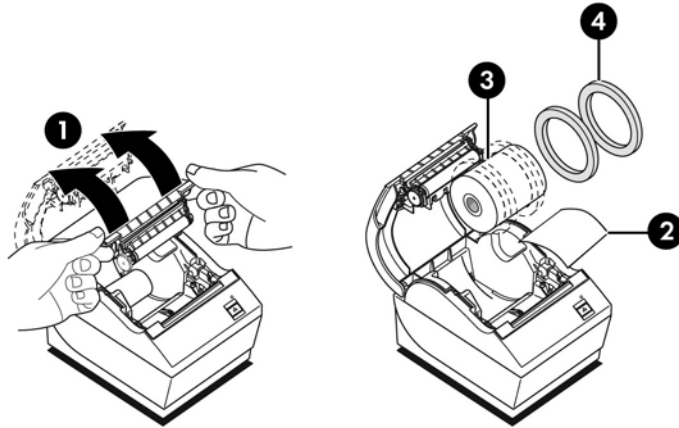
---

The same procedure will be used to change the paper as you load it during installation. The minor difference is noted in the directions below.


1. Open the receipt cover by pushing up on each side of the cover (1) until it unsnaps.

- 2. Loading:** Remove the test printout (2) and starter roll thermal paper (3). Slide the supports off the roll (4).

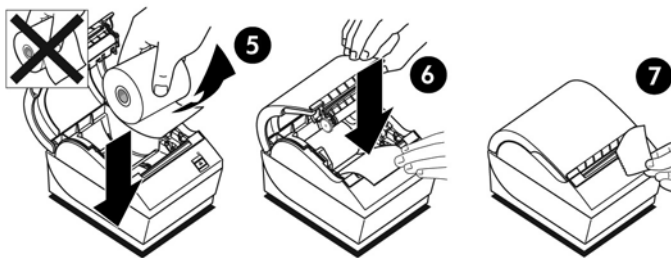
**Changing:** Remove the used paper roll.



- 3.** Tear a clean edge on the new receipt paper roll, making sure the tape has been completely removed.
- 4.** Place the receipt paper into the paper compartment so it **unrolls from the bottom** (5). Leave a few inches of paper sticking out of the printer.
- 5.** While holding the paper in place, close the receipt cover (6). To test that the paper is loaded correctly, advance the paper with the paper feed button.

 **NOTE:** If the paper jams, be sure the roll is inserted correctly. Refer to the previous illustration in this section for proper paper orientation.


- 6.** Tear the excess paper off against the blade in the cover (7).




## Adjusting the paper low setting

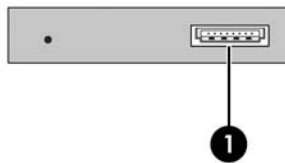
The amount of paper left on the roll when the “paper low” indication is given by the printer should be approximately 5-20 feet/1.5-6.1 meters. If too much paper is left, there is an adjustable setting in the configuration menu that can be modified. For instruction on entering the configuration menu, refer to [Operating the printer on page 15](#). In the configuration menu, enter the **Hardware Options** section and vary the “paper low extension” setting. The setting chosen will decrease the amount of footage at paper low.

## 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. The POS computer should always be turned off before connecting the communication cable.

1. Turn off the POS computer.
2. Open the connector cover on the rear of the printer to locate the connectors.
3. For printers with a USB power connector:
  - a. Plug the printer end of the USB power cable into the USB power connector (1) on the printer. Plug the other end of the USB power cable into the 24V powered USB connector on the POS computer.
  - b. Route the USB power cable from the printer through the strain relief tab on the connector cover of the printer.



For printers with serial, USB, and power connectors:

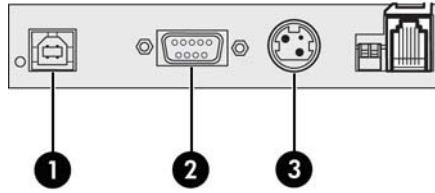
- a. Plug the printer end of the USB cable into the USB connector (1) or the serial cable into the serial connector (2) on the printer. Plug the other end of the cable into the appropriate connector on the POS computer.

 **NOTE:** You can use either the USB cable or the serial cable as the data interface with the POS computer. Do not use both.

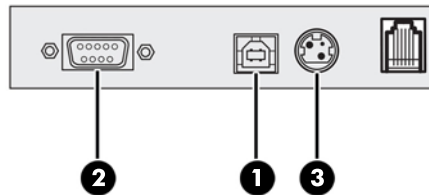
If using the serial interface, connect the 9-pin female to 9-pin female null modem serial cable between the printer and POS computer.

Legacy serial printer models may not include a cable.

- b. Plug the printer end of the power cable into the power connector (3) on the printer. Plug the other end of the power cable into the 24V powered USB connector on the POS computer.
- c. Route the power cable and the USB cable or serial cable from the printer through the strain relief tab on the connector cover of the printer.
  - A799 USB, serial, and power connectors:



- A799 II USB, serial, and power connectors:



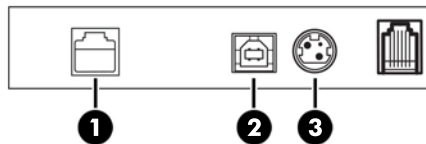
For printers with Ethernet, USB, and power connectors:

- Plug the Ethernet cable from the LAN into the Ethernet connector (1) on the printer. Plug the printer end of the USB cable into the USB connector (2) on the printer and plug the other end of the cable into the appropriate connector on the POS computer.



**NOTE:** You can use both the Ethernet cable and the USB cable as the data interface with the POS computer. When both Ethernet and USB cables are plugged into the printer, the communication defaults to Ethernet after several minutes of the USB being inactive.

- Plug the cable with the DIN connector into the power connector (3) on the printer. Plug the A/C power cord into the other end of the power supply. Plug the A/C power cord into an electrical receptacle.
- Route the power cable, Ethernet cable, and USB cable from the printer through the strain relief tab on the connector cover of the printer.

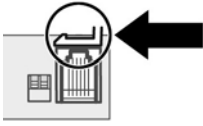


- Plug the cash drawer cable into the cash drawer connector (RJ12) on the printer and the other end of the cable (RJ45) into the interface connector on the cash drawer.



**NOTE:** The cash drawer cable is not included with the printer.

5. Route the cash drawer cable up and through the strain clip above the connector and through the opening in the connector cover when closed.



6. Close the connector cover on the rear of the printer, ensuring that all cables are aligned with the slots provided for each connector.

## Turning on the printer

After connecting the cables to the printer and POS computer, 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

Depending on your POS computer's operating system, install the OPOS drivers or the JPOS drivers.

To download the drivers, go to <http://www.hp.com/support>. Select your country or region, select **Drivers & Downloads**, and then enter the name of your retail point of sale system in the **Find by Product** search field. Click **Go**.



# Ethernet terminology and default setup

For the printer to operate with Ethernet, a series of commands must be set within the printer. These commands can only be set through the host computer and are not configurable through the printer configuration menu.

Default setup instructions and a sample Ethernet diagnostic printout are shown below. Note the differences between an Ethernet and a standard RS-232C printout.

## Ethernet terminology

Before making command settings, review the following description of terms to fully understand their intended meaning.

<b>MAC address</b>	A unique hexadecimal serial number assigned to each Ethernet network device to identify it on the network. Each printer communication board gets a unique number from an assigned range of numbers. Numbers start with: 00:E0:70.
<b>IP address</b>	A unique number that identifies each node on a network and to specify routing information. Each node must be assigned a unique IP address. The address is made up of two distinct parts: a network ID, which identifies the network; and a host ID, which is typically assigned by the administrator. These addresses are typically represented in dotted-decimal notation, such as 138.58.11.27. The default setting is: 192.0.0.192
<b>Net mask</b>	A series of bits designed to "mask" certain portions of an IP address and is used primarily for subnetting. The standard netmask for a Class C network is 255.255.255.0, with the last octet (.0) directing the host to look there for the machine number. The rest (255) is the network number. The default setting is 0.0.0.0. The net mask is used to determine if a gateway is needed to reach an address.
<b>Gateway</b>	A hardware or software set-up that translates between two dissimilar protocols. A gateway, even when the printer is on another subnet, is not always needed. The printer initiates no connection and obtains the gateway address from the host packets. The default setting is 0.0.0.0 (none)
<b>HTTP</b>	An application protocol for connection to the Internet. With HTTP, the printer's Ethernet settings can be configured with a Web GUI. The HTTP server listens on port 80. The default setting is to have HTTP enabled.
<b>Raw TCP/IP Port</b>	Enables the printer to listen for raw TCP/IP communications. Specifying this to zero will disable raw TCP/IP connections. Default value is 9001 enabled.
<b>DHCP</b>	Allows "leasing" of IP address for a limited time. If no IP address is found at start-up, the printer waits for two more minutes. If no address is found after two minutes DHCP will automatically set the default IP address. Default: enabled

## Ethernet default setup

To return the printer to the default settings, put the printer in the boot mode and hold down the feed switch until you hear the high-low-high tones (about 10 seconds).

The default settings are:

DHCP Enabled

Default IP 192.0.0.192 (in use after 2 minute Bootp time-out)

Net mask of 0.0.0.0 (causes default mask of selected IP to be used)

HTTP Server Port 80 active

Raw TCP/IP Port 9001 active

**Sample diagnostic printout of an Ethernet printer:**

```

*** A799II - Diagnostics Form ***

Model number       : A799-780E-TD00
Serial number      : 0000000000

Flash Firmware
Revision          : V1.27
CRC               : F755
P/N              : 189-799A127B

H/W parameters
Flash Memory Size : 8 Mbytes
Flash Logos/Fonts : 640 kbytes
Flash User Storage : 0 kbytes
Flash Perm'nt Fonts : 5504 kbytes
Flash Journal Size : 0 kbytes
SRAM Size         : 8192 kbytes
Head setting      : H
Motor ID          : 1
Paper Type Setting : Type 0, Monochrome
Color Density Adj : n/a
Print Density, Mono : 80%
Max Speed         : 350 mm/sec
Paper Width       : 80 mm
Max Power         : Level 1
Knife             : Enabled
Partial Cut       : 135 steps
Paper Low Sensor  : Enabled
No Paper Low Extension

Comm. Interfaces

```

```

Interface          : Ethernet
Ethernet Type      : Wired
Parameters
MAC Address        : 00:E0:70:00:50:2B
IP Address         : 10.1.2.16
Net Mask           : 255.255.0.0
Gateway           : 10.1.1.2
Raw TCPIP Port    : 9001
Loop Back Port    : Disabled
Http Server Port  : 80
DHCP               : Enabled
Client ID         : 00E070F04207
Inactivity Timeout : Disabled
Keep Alive Pings  : Disabled

```

```

***To Enter Printer Config Menu***
Press Feed Button Within the
Next Two Seconds

```

The circled area on the printout above shows Ethernet settings. These settings can not be changed through the configuration menu and must be set by sending commands from the host. See [Ethernet setup commands on page 35](#).

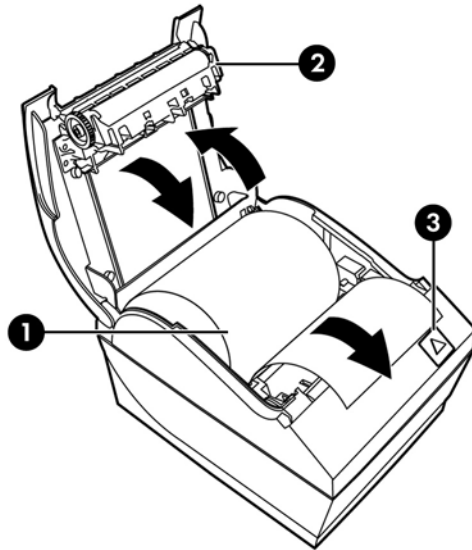
## Testing the printer

If the printer is functioning normally, it will beep once. If it responds differently, refer to [Troubleshooting on page 24](#), or contact your regional HP authorized service provider for HP Point of Sale System products.

The printer will arrive for installation pre-configured. The printer's current configuration appears on the test (diagnostics) printout. However, if you would like to run a new print test or check the configurations, you can run a diagnostics printout detailing the current configuration.

To run a diagnostics test:

1. Be sure paper is in the printer (1).
2. Open the receipt cover (2).
3. Press and hold the paper feed button (3).
4. Close the receipt cover, continually holding the paper feed button until the configuration printout begins.



For additional instructions on configuring the printer, refer to [Operating the printer on page 15](#).

## Extending your character sets and fonts

The following character sets and code pages are available for this printer. Most models come with the code preinstalled. To confirm which code pages are resident, print out the Diagnostic form (refer to Chapter 3 for instructions). To download code pages that are not currently resident, go to HP support website at <http://www.hp.com/support>.

- Code Page 437 US English
- Code Page 737 Greek
- Code Page 850 Multilingual
- Code Page 852 Central Europe
- Code Page 857 Turkish
- Code Page 858 Eurosymbol
- Code Page 860 Portuguese
- Code Page 862 Hebrew

- Code Page 863 French Canadian
- Code Page 865 Nordic
- Code Page 866 Cyrillic
- Code Page 874 Thai
- Code Page 932 Kanji
- Code Page 936 Simplified Chinese
- Code Page 950 Traditional Chinese
- Code Page 949 Korean (Hangul)
- Code Page 1251 Cyrillic
- Code Page 1252 Windows Latin 1
- Code Page 1255 Hebrew
- Code Page 1256 Arabic
- Code Page KZ-1048 Kazakhstan


## 3 Operating the printer

### Configuring the printer

The configuration menu allows you to set general printer parameters. The test prints the diagnostics form, which details settings for all functions. The printer will partially cut the paper between each variation.

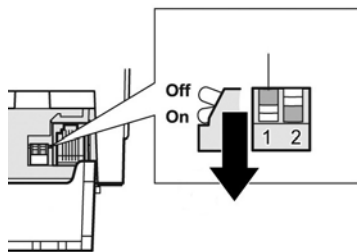
The test ends with a partial cut of the paper. A complete test printout may require the use of several feet of paper.

Since the printer is usually shipped pre-configured, most users do not need to change the configuration of the printer. If you make adjustments to the configuration, be careful not to inadvertently change settings that may affect the printer's performance. HP does not recommend that users change the printer configuration.

 **NOTE:** The printer is shipped with a test printout that includes the preset configuration. If you run into problems after changing the printer configuration, use the settings as a default.

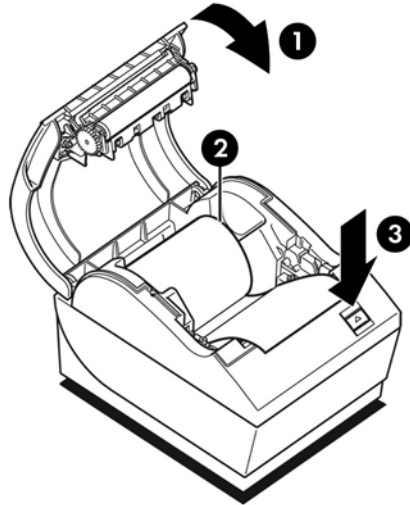
### Entering the configuration mode for model A799

1. Turn off power to the printer.
2. Open the rear connector cover.
3. Set DIP switch 1 to the ON position (down). DIP switch 2 should be in the OFF position (up).



4. Be sure the receipt paper (1) is loaded in the printer before proceeding (for instructions on loading the receipt paper, refer to [Setting up the printer on page 6](#)).
5. Close the receipt cover (2).
6. Turn on power to the printer and immediately press and hold the paper feed button (3) until the configuration printout begins.

- The printer beeps, then prints the diagnostics form and the configuration main menu.
- The printer pauses and waits for a main menu selection to be made (see sample printout on the following page in this chapter; short clicks are used, except when answering Yes or validating selection).

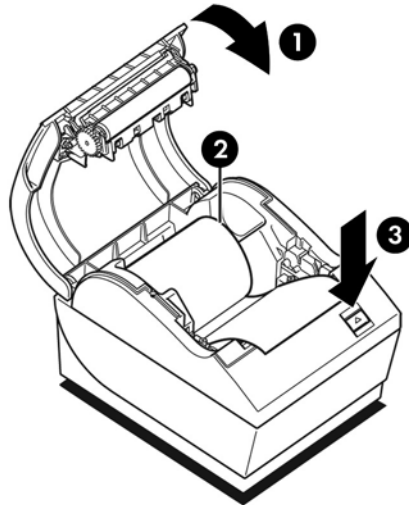


7. To communicate with the printer, press the paper feed button using either short or long clicks. Use a long click for “yes” (more than one second) and a short click for “no.” Follow the printed instructions to make selections.
8. Continue through your menu selections until you are prompted, **Save New Parameters?**. Select “Yes” or “No.”
  - a. If you wish to save, select **Yes**, then return DIP Switch 1 to the OFF position (up).
  - b. Open the receipt cover.
  - c. Press and hold the paper feed button while closing the receipt cover.
  - d. The diagnostic printout verifies your new settings.
9. If you would like to continue configuring the printer, select **No**. The printer then returns to the configuration menu, where you can set parameters again.

## Entering the configuration mode for model A799 II

1. Turn off power to the printer.
2. Open the rear connector cover.
3. Be sure the receipt paper (1) is loaded in the printer before proceeding (for instructions on loading the receipt paper, refer to [Setting up the printer on page 6](#)).
4. Close the receipt cover (2).
5. Turn on power to the printer and immediately press and hold the paper feed button (3) until the configuration printout begins.

- The printer beeps, then prints the diagnostics form and the configuration main menu.
- Press the paper feed button within two seconds to enter the configuration main menu.
- The printer pauses and waits for a main menu selection to be made (see sample printout on the following page in this chapter; short clicks are used, except when answering Yes or validating selection).



6. To communicate with the printer, press the paper feed button using either short or long clicks. Use a long click for “yes” (more than one second) and a short click for “no.” Follow the printed instructions to make selections.
7. Continue through your menu selections until you are prompted, **Save New Parameters?**. Select “Yes” or “No.”
  - a. Reset the printer.
  - b. Open the receipt cover.
  - c. Press and hold the paper feed button while closing the receipt cover.
  - d. The diagnostic printout verifies your new settings.

# Sample configuration menu

The following are sample printer configuration menus.

```

*** A799 – Diagnostics Form ***
ReceiptWare Enabled

Model number      : A799-720D
Serial number     : K07101234

Boot Firmware
Revision          : V0.02
CRC               : 7790
P/N              : 189-7940109B

Flash Firmware
Revision          : V0.02
CRC               : 86BD
P/N              : 189-7940110B

H/W parameters
Flash Memory Size : 2 Mbytes
Flash Logos/Fonts : 896 kbytes
Flash User Storage : 64 kbytes
Flash Journal Size : 64 kbytes
SRAM Size          : 256 kbytes
Head setting      : F
Motor ID          : 1
Paper Type setting : Type 0, Monochrome
Color Density Adj : n/a
Print Density (Mono) : 100%
Max Speed         : 250 mm/sec
Paper Width       : 80 mm
Max Power         : 55 W
Knife             : Enabled
Partial Cut       : 110 steps
Paper Low Sensor  : Enabled
Paper Logo Extension : 10 ft

Comm. Interface
RX Buffer Size    : 4096
Interface type   : RS232/USB
Parameters
  Baud Rate      : 115200
  Data Bits      : 8
  Stop Bit       : 1
  Parity         : NONE
  Flow Control   : DTR/DSR
  Reception Errors : Ignore
  USB Driver Type : Native
  USB Packet w/Error : Reject

Resident Code Pages : 437, 850, 852, 858
                   : 860, 863, 865, 866
                   : 1252, 862, 737, 857

Logo(s) defined    : YES
User Char(s) defined : NO
Journal Unused     : 64 kbytes
  
```

To enter Printer Config Menu :  
 1) Flip DIP switch #1 down  
 2) Reset the printer, while holding the Paper Feed button down

```

xxx A799II - Diagnostics Form xxx
ReceiptWare Enabled

Model number      : A799-C80D-HN00
Serial number     : K134301094

Flash Firmware
Revision          : V1.25
CRC               : 18E3
P/N              : 189-799A125B

H/W parameters
Flash Memory Size : 8 Mbytes
Flash Logos/Fonts : 640 kbytes
Flash User Storage : 0 kbytes
Flash Perm'nt Fonts : 5504 kbytes
Flash Journal Size : 0 kbytes
RAM Size          : 8192 kbytes
Head setting      : H
Motor ID          : 1
Paper Type setting : Type 0, Monochrome
Color Density Adj : n/a
Print Density, Mono : 80 %
Max Speed         : 350 mm/sec
Paper Width       : 80 mm
Max Power         : Level 1
Knife             : Enabled
Partial Cut       : 135 steps
Paper Low Sensor  : Enabled
No Paper Low Extension

Comm. Interfaces
Interface         : USB
RX Buffer Size    : 4096
USB Driver Type   : Printer Class
Interface         : RS232
RX Buffer Size    : 4096
Parameters
  Baud Rate      : 115200
  Data Bits      : 8
  Stop Bit       : 1
  Parity         : NONE
  Flow Control   : DTR/DSR
  Reception Errors : Ignore

Resident Code Pages : 437, 850, 852, 858
                   : 860, 863, 865, 866
                   : 1252, 862, 737, 857
                   : 1251, 1255, KZ-1048

Logo(s) defined    : NO
User Char(s) defined : NO
Permanent Fonts    : YES
Journal Unused     : 0 kbytes
  
```

xxxTo Enter Printer Config Menu  
 Press Feed Button Within The  
 Next Two Seconds

Print test and Configuration menu samples. (Shown approximately 60% of size.)

Short clicks are used in the main menu selections.



## Monochrome paper print density (default)

This function makes it possible to adjust the energy level of the printhead, density of the printout, or adjust the paper variations. An adjustment should only be made when necessary. The factory setting is 100%.

**⚠ CAUTION:** 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 voiding of the printer warranty. Running at a higher energy level will reduce the printhead life.

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 [Entering the configuration mode for model A799 on page 15](#).

2. Select **Set Hardware Options** from the main menu.

Printer responds, **Hardware Options Menu**, and when scrolled prompts, **Set Print Density?**.

3. Select **Yes**.

A warning is printed, followed by the density adjustment selections.

Using the paper feed button, enter clicks for selection, then hold button down at least 1 second to validate.

## Color density

This function makes it possible to adjust the energy level of the printhead to darken the color printing or adjust for paper variations. An adjustment should only be made when necessary. The factory setting is 80%.

**⚠ CAUTION:** 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 voiding of the printer warranty. Running at a higher energy level will reduce the printhead life.

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

### To change the color density:

1. Enter the configuration menu. Refer to [Entering the configuration mode for model A799 on page 15](#).

2. Select **Set Hardware Options** from the main menu.

Printer responds, **Hardware Options Menu**, and when scrolled prompts, **Set Color Density Adjustment?**.

3. Select **Yes**.

A warning is printed, followed by the density adjustment selections.

Using the paper feed button, enter clicks for selection, then hold button down at least 1 second to validate.

## When to change the receipt paper

Change the paper when it is near the end of the roll or out. When the paper is low, you will want to monitor usage to avoid running out part way through a transaction. When the paper is out, you must load a new roll immediately or data may be lost!


**When paper is low:**

- Colored stripe appears on the receipt paper, (if paper is purchased with stripe) and indicates enough paper remains for a small transaction.
- The green LED flashes slowly indicating that approximately 4.5 meters/15 feet of paper remains. If too much paper is left on the roll, the “paper low” setting can be adjusted by entering the configuration menu and changing the “paper low” extension setting.

**When paper is out:**

Green LED flashes quickly indicating the paper must be installed.


---

 **CAUTION:** Do not try to operate the printer or POS computer if the printer runs out of paper. The printer may continue to accept data from the POS computer even though it is unable to print. Data may be lost as a result.

---

For instructions on how to change the receipt paper, refer to [Loading or changing the receipt paper on page 6](#).

---

 **NOTE:** When changing the type of paper being used, you must set the printer to the new paper type. This is done through the command 1D 81 m n or through the configuration menu (refer to [Entering the configuration mode for model A799 on page 15](#)).

---

**Paper type grades**

- Type 0: Monochrome
- Type 4: Two-color

## Setting the printhead


The printhead energy rating and printer setting must match. The setting will be preconfigured from the factory but may require changing if service to the thermal mechanism is required. The “Head Setting” on the diagnostic printout must match the letter marked on the front right of the thermal mechanism. Whenever the thermal mechanism is replaced, if the letter on the mechanism is different from the head setting, you must enter the configuration menu and set the printhead to match. Contact an HP authorized service provider to replace the thermal mechanism.

## Preventing printhead overheating

There are restrictions on the duty cycle because of the heat generated by the 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.

Keep in mind that the ambient temperature may be affected by factors such as direct exposure to sun or close proximity to heating elements.

---

 **CAUTION:** When the duty cycle exceeds the limits shown in the following 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 dot coverage.
2. Reduce the time of continuous solid printing.
3. Reduce the ambient temperature.

<b>Allowable duty cycle (measured over one minute of continuous printing)</b>			
<b>Amount of Dot Coverage</b>	<b>Ambient Temperature</b>		
	<b>25°C</b>	<b>35°C</b>	<b>50°C</b>
20%	100%*	50%*	20%*
40%	50%*	25%*	10%*
100%	20%*	10%*	4%*

\*Duty Cycle - Percentage of time that the specified “Amount of Solid Coverage” can be printed during a one minute period of time. Example: at 20% solid coverage, 35° C temperature, a 50% duty cycle is to be used, resulting in 30 seconds of printing and 30 seconds without printing.

**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.

---

## 4 Maintenance guidelines

### Cleaning the printer

Clean the outside of the cabinet as needed to remove dust and finger marks. Clean the printer cabinet and paper bucket with a clean, damp cloth moistened with Isopropyl alcohol.

---

**⚠ CAUTION:** DO NOT use denatured alcohol or any other form of alcohol other than Isopropyl alcohol to clean the printer cabinet or paper bucket.

---

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 printer and POS computer.
2. Unplug the printer from the POS computer and the cash drawer, if connected.
3. Wipe the printhead with a cotton swab moistened with Isopropyl alcohol.

---


**⚠ CAUTION:** DO NOT use any other form of cleaner other than Isopropyl alcohol to clean the printhead or it will destroy the printhead.

**CAUTION:** DO NOT use Isopropyl 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 30](#) for paper specifications. HP is not responsible for printhead failure due to non-recommended paper.

---

---

# A Troubleshooting

## Diagnostics

The printer performs three primary diagnostic tests that provide useful information about the printer's operating status:

- Startup diagnostics, performed during the printer's startup cycle
- Runtime diagnostics
- Remote diagnostics, maintained during normal operation and reported in the print test

### Startup diagnostics

When the printer receives power or performs a hardware reset, it automatically performs the startup diagnostics (also known as level 0 diagnostics) during the startup cycle. The printer:

- Turns off the motors
- Performs boot CR check of the firmware ROM, test external SRAM, test EEPROM, and test main program CRC

Failure causes startup diagnostics to stop; the printer beeps and the LED flashes a set number of times, indicating the nature of the failure. The following table describes the specific tone and LED sequences.

LED Behavior	Failure
One blink	Boot CRC error
Two blinks	RAM failure
Three blinks	EEPROM failure
Four blinks	Memory initialization failure

To resolve:

- Check if paper is present
- Return the knife to the home position; failure causes a fault condition
- Check if the rear cover is closed; failure does not interrupt the startup cycle

When the startup diagnostics are complete, the printer makes a two-tone beep (low then high frequency), the paper feed button is enabled, and the printer is ready for normal operation.

If the printer has not been turned on before, or a new EEPROM has been installed, the default values for the printer functions will be loaded into the EEPROM during startup.

## Runtime diagnostics

Runtime diagnostics (sometimes called level 2 diagnostics) run during normal printer operation. When the following conditions occur, the printer automatically turns off the appropriate motors and disables printing to prevent damage to the printer.

- Paper out
- Rear cover open
- Knife unable to home
- Printhead too hot
- Voltages out of range

The LED on the operator panel will signal when these conditions occur as well as indicate printer state or mode.

LED Behavior	Printer Status
Off	No power
Fast blink	Firmware download
Fast blink	Level 0 diagnostics (occurs at power on, and on reset)
Slow blink	Paper low, temperature error or voltage error
Steady on	All other issues

## Remote diagnostics

Remote diagnostics (sometimes called level 3 diagnostics) keep track of the following tallies and prints them on the receipt during the print test. These tallies can be used to determine the printer's state of health.

- Model number
- Serial number
- CRC number
- Number of lines printed
- Number of knife cuts
- Number of hours the printer has been on
- Number of flash cycles
- Number of cutter jams
- Number of times the cover is opened
- Maximum temperature reached

## 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.	Load a new paper roll. Refer to <a href="#">Setting up the printer on page 6</a> .
	Receipt cover open.	Close the cover.
	Knife unable to home.	Stop using the printer. Check the knife to see if it needs to be replaced. Contact your regional HP authorized service provider for HP Point of Sale System products.
Green LED, slow steady flashing.	Paper is low (if paper low sensor is installed).	Load a new paper roll. Refer to <a href="#">Setting up the printer on page 6</a> .
	Continuous printing of graphics has overheated the printhead.	Reduce the demand on the printer.
	Other problems may be indicated.	Stop using the printer. Contact your regional HP authorized service provider for HP Point of Sale System products.
Continuous flashing of LED	DIP switch is in ON position, indicating flash download mode.	Put the DIP switch in the OFF position for normal operation.
Printer beeps (two-tone - low frequency, high frequency).	Printer has been turned on and is ready to operate.	No action required.
Printer beeps and flashes green LED in various combinations.	Indicates serious conditions.	Stop using the printer. Contact your regional HP authorized service provider for HP Point of Sale System products.
Colored stripe is on the receipt.	Paper is low.	Change the paper roll.
Double beep, double LED flash.	SRAM test failure.	Run the startup diagnostics again. If this does not work, contact your regional HP authorized service provider for HP Point of Sale System products.
Triple beep, triple LED flash.	EEPROM test failure.	Run the startup diagnostics again. If this does not work, contact your regional HP authorized service provider for HP Point of Sale System products.
Two-tone beep (high frequency, low frequency.)	Main program CRC test failure.	Run the startup diagnostics again. If this does not work, contact your regional HP authorized service provider for HP Point of Sale System products.
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 while the receipt is being 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.
	The knife is not enabled.	Enable the knife in the configuration menu. Refer to <a href="#">Operating the printer on page 15</a> .



Problem	Possible Cause	Solution
Print is light or spotty.	Paper roll is loaded incorrectly.	Check that the paper is loaded properly.
	Thermal printhead is dirty.	Clean thermal printhead with Isopropyl alcohol. Use the recommended thermal receipt paper. Refer to <a href="#">Technical specifications on page 30</a> in this guide for paper specifications and recommendation.  <b>NOTE:</b> If paper has been used which is not on the recommend paper list, resulting in a dirty printhead, the printhead may require cleaning prior to switching back to recommended paper. See <a href="#">Technical specifications on page 30</a> for a list. If non-recommended paper is used over an extended period, attempting to clean the printhead will have little effect on print quality. Do not try to clean within the printer except as indicated in <a href="#">Maintenance guidelines on page 22</a> .
	Variations in paper.	Increase the print density in “Set Hardware Options” of the printer configuration menu to 110% or 120% as needed.
Color print is light.	Variations in paper.	Increase energy level of printhead in “Color Density Adj” of the printer configuration menu.
Inconsistent printing, no two-color print.	Paper type used and paper type setting do not match.	Print the diagnostic form and verify setting paper type setting to type 0, 1, 4, or 5.
Vertical column of print is missing.	Printhead is defective or indicates a serious condition with the printer electronics.	Stop using the printer. Contact your regional HP authorized service provider for HP Point of Sale System products.
One side of the receipt is missing.	Printhead is defective or indicates a serious condition with the printer electronics.	Stop using the printer. Contact your regional HP authorized service provider for HP Point of Sale System products.
Printout has missing characters or wrong characters.	Wrong type of serial cable is being used.	You must use a null modem serial cable for the printer to function properly.
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.
	DIP switch 2 has been left in the ON position.	Return DIP switch 2 to the OFF (up) position.
	Printer is not correctly configured.	Check the printer’s configuration and reconfigure if necessary. Refer to <a href="#">Operating the printer on page 15</a> .
	Power supply voltage is out of range.	Measure the voltage with an AC voltmeter and check measurement against the power supply label: the voltage should be 24V +/-10%.

<b>Problem</b>	<b>Possible Cause</b>	<b>Solution</b>
	Printhead has overheated because operating environment is above recommended temperature.	Adjust room temperature or move the printer to a cooler location.
	Printhead has overheated because of continuous printing or graphics.	Reduce the demand on the printer.
	Printhead has gotten too cool because the operating environment is below recommended temperature.	Adjust the room temperature or move the printer to a warmer location.  <b>NOTE:</b> The printer will shut off when it is above or below recommended temperature.
	Interrupted data signal over USB connection.	Ensure the USB cable is not more than 5 meters long, with no extensions; eliminate hubs.
	Faulty USB port.	Plug cable into another USB port on the POS computer.
	Faulty serial port.	Plug cable into another serial port on the POS computer.
	Wrong type of serial cable is being used.	You must use a null modem serial cable for the printer to function properly.
Printer stops functioning.	Printhead has overheated.	Allow printhead to cool down.
	Interrupted data signal over USB connection.	Ensure the standard USB cable is no more than 5 meters long with no extensions; eliminate hubs.
	Faulty USB port.	Plug cable into another USB port on the POS computer.
	Faulty serial port.	Plug cable into another serial port on the POS computer.
Printer goes off-line (red LED on USB connector is on or off).	USB or serial cable is not connected properly.	If printer does not auto-recover after 5-20 seconds, reconnect the USB or serial cable, reset the printer, reboot the POS computer, check that the USB or serial cable is properly connected at both ends.

## Product support

For additional information on using this product, go to <http://www.hp.com/support>. Select your country or region, select **Drivers & Downloads**, and then enter the name of your retail point of sale system in the **Find by Product** search field. Click **Go**.

If the information provided in the guide does not address your questions, you can contact support. For U.S. support, go to <http://www.hp.com/go/contactHP>. For worldwide support, go to [http://welcome.hp.com/country/us/en/wwcontact\\_us.html](http://welcome.hp.com/country/us/en/wwcontact_us.html).

Here you can:

- Chat online with an HP technician



---

**NOTE:** When support chat is not available in a particular language, it is available in English.

---

- Find support telephone numbers
- Locate an HP service center

## 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. Contact your regional HP authorized service provider for HP Point of Sale System products. Have the following information available when you call:

- Serial number of the HP accessory located on the label underneath the product
- 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

## Ordering paper rolls

To order paper rolls, contact your converter of choice. Refer to [Qualified paper grades on page 32](#) for contact information.

## B Technical specifications

### HP Thermal Receipt Printer

<b>Printer Specifications</b>	
<b>Interface</b>	Powered USB (some models)
	USB or Serial (some models)
<b>Memory</b>	8 MB flash memory, 512KB RAM A799; 8MB RAM A799II
<b>Power Requirements</b>	
Operating Voltage	24Vdc +/- 10%
	+5 volts for logic circuit
Power Consumption	2.3 Amps maximum current draw
<b>Temperature</b>	
Operating Temperature	5°C to 28°C (41°F to 82°F)
	28°C to 45°C (82°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	134 mm (5.34")
Width	144 mm (5.66")
Depth	184 mm (7.24")

<b>Printer Specifications</b>	
Weight	1.3 kg (2.9 lbs)
<b>Printing Specification</b>	
Speed - Monochrome	250 mm/sec (A799); 350 mm/sec (A799 II)
Two-color capability	Yes
Receipt - columns	44/56
Paper roll size	80 mm x 90 mm
Paper low	Standard (out and low)
Resolution	203 DPI
Knife	Standard (ceramic, rotary)

## Characters appearance

The appearance of text can be changed using the following available print modes:

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

## 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

## Ordering thermal paper

The printer requires qualified thermal paper with the following dimensions:

Width	Diameter	Length
80 ± 0.2 mm (3.15 ± 0.01 in.)	90 mm max. (3.54 in.)	98 meters (322 ft.) nominal

The above figures are based on a core diameter of 22 ± 0.5 mm (0.87 in.) outside, 11.5 ± 0.5 mm (0.45 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, required when the printer is positioned vertically.

## Qualified paper grades

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.



**NOTE:** When changing paper type, you will need to set the printer to that paper type by sending the “Set paper type” command (1D 81 m n) or by changing the paper type setting in the configuration menu. (Refer to [Operating the printer on page 15](#) to enter the configuration menu.)

To order paper rolls, contact your converter of choice.

## Monochrome (black ink) paper

Qualified Manufacturer	Paper Grade (Density)
Appleton Papers, Inc. (USA)	Alpha 400-23 (Light)
825 E. Wisconsin Avenue	Alpha 800-24 (Standard)
Appleton, WI	POS-Plus 600-24 (Light)
Voice: (800)922-1729	Alpha 900-34 (Standard)
Fax: (800)922-1712	

<b>Qualified Manufacturer</b>	<b>Paper Grade (Density)</b>
Kanzaki Specialty Papers (USA)	P30023 (Light)
20 Cummings St.	P31023 (Standard)
Ware, MA 01082-2002	P35024 (Standard)
Voice: (888)526-9254	P35032 (Standard)
Fax: (413)731-8864	P39023 (Standard)
	P30521 (Standard)
	P30523 (Standard); P31523; P35532
Jujo Thermal LTD.	AF50KS-E3 (Standard)
P.O. Box 92 FIN-27501	AP62KS-E3 (Standard)
Kauttua, Finland	
Voice: (358)2-8393-2900	
Fax: (358)2-3893-2419	
OJI Paper Company Ltd.	KF-60 (Standard)
5-12-8 Ginza Chuo-ku	PD-170R (Light)
Tokyo 104, Japan	PD-160R (Standard)
Voice: (81)3-5550-3076	
Fax: (81)3-5550-2950	
Koehler UK LTD. (GB)	KT55-F20 (Standard)
Voice: (44)1322-661010	
Mitsubishi Int'l Corp (USA)	P-5035 (Light)
520 Madison Ave.	T-8051 (Standard)
New York, New York 10022-4223	TP-8065 (Standard)
Voice: (212)605-2000	
Fax: (212)605-2597	

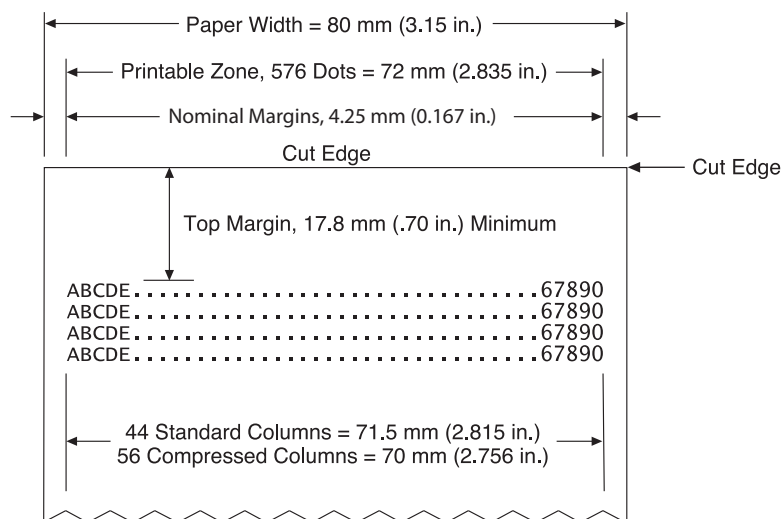
## Two-color paper

Qualified Manufacturer	Paper Grade (Density)
Kanzaki Specialty Papers (USA)	P-310 RB (Red and Black)
20 Cummings St.	P-320 RB (Red and Black)
Ware, MA 01082-2002	P-320 BB (Blue and Black)
Voice: (413)736-3216	P-320 GB (Green/Black)
Fax: (413)731-8864	
Mitsubishi Int'l Corp (USA)	PB-770 (Blue/Black)
520 Madison Ave.	
New York, New York 10022-4223	
Voice: (212)605-2000	
Fax: (212)605-2597	

## 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: 2.0 mm (0.079 inches)
- Top margin to manual tear-off: 17.8 mm (0.70 inches)
- Top margin to knife cut: 19.0 mm (0.75 inches)





# C Ethernet setup commands

The following commands are designed to set the required printer internal parameters for Ethernet operation. The commands can only be used in the Flash download (boot) mode (1B 5B 7D).

---

Restore default settings			
<b>ASCII</b>	US	BS	NUL
<b>Hexadecimal</b>	1F	08	00
<b>Decimal</b>	31	8	0

---

Restores the Ethernet settings to the preset values.

---

Default settings are:

IP address:	192.0.0.192 (in use after boot time-out of two minutes)
Net mask:	0.0.0.0 (default mask of selected IP is used)
Gateway:	none
Raw TCP/IP port 9001:	active
HTTP port 80:	active
DHCP:	enabled
Inactivity timeout:	enabled
Keep alive pings:	enabled

---

---

Setting IP address							
<b>ASCII</b>	US	BS	SOH	<i>n1</i>	<i>n2</i>	<i>n3</i>	<i>n4</i>
<b>Hexadecimal</b>	1F	08	01	<i>n1</i>	<i>n2</i>	<i>n3</i>	<i>n4</i>
<b>Decimal</b>	31	8	1	<i>n1</i>	<i>n2</i>	<i>n3</i>	<i>n4</i>
<b>Default:</b>	192.0.0.192						

---

Sets the IP address value specified by the values of *n1* to *n4*.

---

---

Setting Net Mask							
<b>ASCII</b>	US	BS	STX	<i>n1</i>	<i>n2</i>	<i>n3</i>	<i>n4</i>

---

---

**Setting Net Mask**

---

<b>Hexadecimal</b>	1F	08	02	<i>n1</i>	<i>n2</i>	<i>n3</i>	<i>n4</i>
<b>Decimal</b>	31	8	2	<i>n1</i>	<i>n2</i>	<i>n3</i>	<i>n4</i>
<b>Default:</b>	0.0.0.0						

---

Sets the Net Mask value specified by the values of *n1* to *n4*.

---

---

**Setting the Gateway**

---

<b>ASCII</b>	US	BS	ETX	<i>n1</i>	<i>n2</i>	<i>n3</i>	<i>n4</i>
<b>Hexadecimal</b>	1F	08	03	<i>n1</i>	<i>n2</i>	<i>n3</i>	<i>n4</i>
<b>Decimal</b>	31	8	3	<i>n1</i>	<i>n2</i>	<i>n3</i>	<i>n4</i>
<b>Default:</b>	none						

---

Sets the printer to the gateway having the IP address value specified by the values *n1* to *n4*. A gateway, even when the printer is on another subnet, is not always needed.

The printer initiates no connection and obtains the gateway address from the host packets

---

---

**Setting raw TCP/IP port**

---

<b>ASCII</b>	US	BS	EOT	<i>n1</i>	<i>n2</i>
<b>Hexadecimal</b>	1F	08	04	<i>n1</i>	<i>n2</i>
<b>Decimal</b>	31	8	4	<i>n1</i>	<i>n2</i>

---

**n1:** Low order byte of port #

**n2:** High order byte of port #

---

**Default:** Port = 9001

---

Sets the port where the printer will look for raw TCP/IP communications. Setting port number to 0 disables raw TCP/IP communications.

---

---

**DHCP (auto-configuration)**

---

<b>ASCII</b>	US	BS	BS	<i>n1</i>
<b>Hexadecimal</b>	1F	08	08	<i>n1</i>
<b>Decimal</b>	31	8	8	<i>n1</i>

---

**n1 = 0:** disabled

**n1 = 1:** enabled

---

**Default:** enabled

---

Enables or disables the use of DHCP at power-up to obtain an IP address. If no address is found within two minutes, DHCP obtains the default IP address.

---

---

**Inactivity timeout**

---

<b>ASCII</b>	US	BS	HT	<i>n1</i>
--------------	----	----	----	-----------

---

<b>Hexadecimal</b>	1F	08	09	<i>n1</i>
--------------------	----	----	----	-----------

---

<b>Decimal</b>	31	8	9	<i>n1</i>
----------------	----	---	---	-----------

---

<b>n1 = 0:</b>	disabled
----------------	----------

---

<b>n1 = 1:</b>	enabled
----------------	---------

---

<b>Default:</b>	enabled
-----------------	---------

---

Enables or disables resetting of open TCP ports after five (5) minutes inactivity.

---

---

**Keep alive pings**

---

<b>ASCII</b>	US	BS	LF	<i>n1</i>
--------------	----	----	----	-----------

---

<b>Hexadecimal</b>	1F	08	0A	<i>n1</i>
--------------------	----	----	----	-----------

---

<b>Decimal</b>	31	8	10	<i>n1</i>
----------------	----	---	----	-----------

---

<b>n1 = 0:</b>	disabled
----------------	----------

---

<b>n1 = 1:</b>	enabled
----------------	---------

---

<b>Default:</b>	enabled
-----------------	---------

---

Enables or disables sending of the keep alive pings (self arps). Keep alive pings may be required for use with such things as smart hubs; to remind the smart hub to which port a printer is connected.

If enabled, self arps are sent every ten (10) minutes.

---

---

**Set HTTP Port**

---

<b>ASCII</b>	US	BS	S0	<i>n1</i>	<i>n2</i>
--------------	----	----	----	-----------	-----------

---

<b>Hexadecimal</b>	1F	08	0E	<i>n1</i>	<i>n2</i>
--------------------	----	----	----	-----------	-----------

---

<b>Decimal</b>	31	8	14	<i>n1</i>	<i>n2</i>
----------------	----	---	----	-----------	-----------

---

<b>n1:</b>	Low order byte of port #
------------	--------------------------

---

<b>n2:</b>	High order byte of port #
------------	---------------------------

---

<b>Default:</b>	Port = 80
-----------------	-----------

---

Sets the port where the HTTP server will listen. Setting port number to 0 disables HTTP communications.

---

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# D Installing the Ethernet printer on your OS network



**NOTE:** Refer to the programming guide for instructions on installing an Ethernet printer on a network with OPOS/JPOS.

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## Installing an Ethernet printer on a network with Windows 7/8

1. Plug the printer into the network and turn power on.
2. Run a diagnostic sample and get the printer IP address. If there is a problem with the IP address then reset the printer communication parameters and try again.
3. Make sure Raw TCP/IP is enabled and the port is set. If using a web server, ensure HTTP is enabled and the port is also set. (Default configuration of the printer is sufficient for installation).
4. Go to the Control Panel, then Devices and Printers.
5. Choose Add a Printer, Add a Local printer (do not choose network printer), and choose Create a New Port. Select Standard TCP/IP Port and click next.
6. Input the printer IP address in the Hostname or IP address box. Uncheck Query the Printer. In the next screen, Windows will attempt to detect the TCP/IP port and then ask for additional port information. Select Generic Network Card.
7. At the Install Printer Driver Window, choose Have Disk and Browse to the appropriate mini driver location and select the appropriate mini driver.
8. Name the printer and select preferred sharing options. Once the printer is installed, do not print the test page yet.
9. Go back to the Printers and right click on the printer you just installed, choose Printer Properties.
10. Go to Ports and highlight the port for the printer you just installed and select Configure port. Choose Raw for protocol and under Raw settings, add the port number (9001 is the default configuration setting). Click OK and close the properties window.
11. Go to the printers again and right click on the newly installed printer. Go to printer properties and print a test page.
12. If successful, you should now be able to use this printer from any Windows program.

## Installing an Ethernet printer on a network with Windows XP/Vista

1. Plug the printer into the network and turn power on.
2. Run a diagnostic sample and get the printer IP address. If there is a problem with the IP address then reset the printer communication parameters and try again.
3. Make sure Raw TCP/IP is enabled and the port is set. If using a web server, ensure HTTP is enabled and the port is also set. (Default configuration of the printer is sufficient for installation).
4. Go to the Control Panel/Printers window.
5. Choose Add a Printer, Local printer (do not choose network printer), uncheck Automatically detect, and choose Create a New Port. Select Standard TCP/IP Port.
6. Input the printer IP address in the IP address box. Uncheck Query for Printer or Auto Query if applicable. In the next screen, Windows will attempt to detect the TCP/IP port and then ask for additional port information. Select Generic Network Card for Device Type.
7. At the Install Printer Driver Window, choose Have Disk and Browse to the appropriate mini driver location and select the appropriate mini driver.
8. Name the printer and select preferred sharing options. Once the printer is installed, do not print the test page yet.
9. Go back to the Printers group and right click on the printer you just installed, choose properties.
10. Go to Ports and highlight the port for the printer you just installed and select Configure port. Choose Raw for protocol and under Raw settings, add the port number (9001 is the default configuration setting). Click OK and close the properties window.
11. Go to the printer group again and right click on the newly installed printer. Go to properties and print a test page.
12. If successful, you should now be able to use this printer from any Windows program.