EZ16
Ribbon Printer
User's Guide

EasyRibbons.com
417 Egypt Road
Norristown, PA 19403
USA
www.EasyRibbons.com

Contents

Before You Begin

This section provides you with safety information, technical support information, and sources for additional product information.

Safety Information

Your safety is extremely important. Read and follow all warnings and cautions in this document before handling and operating EasyRibbons.com equipment. You can be seriously injured, and equipment and data can be damaged if you do not follow the safety warnings and cautions.

This section explains how to identify and understand warnings, cautions, and notes that are in this document. You may also see icons that tell you when to follow ESD procedures.

A warning alerts you of an operating procedure, practice, condition, or statement that must be strictly observed to avoid death or serious injury to the persons working on the equipment.

A caution alerts you to an operating procedure, practice, condition, or statement that must be strictly observed to prevent equipment damage or destruction, or corruption or loss of data.

This icon appears at the beginning of any procedure in this manual that could cause you to touch components (such as printed circuit boards) that are susceptible to damage from electrostatic discharge (ESD). When you see this icon, you must follow standard ESD guidelines to avoid damaging the equipment you are servicing.

Note: Notes either provide extra information about a topic or contain special instructions for handling a particular condition or set of circumstances.

Services and Support

Warranty Information

EasyRibbons.com warrants the hardware products to be free from defects in material and workmanship under normal use and service. EasyRibbons.com's obligation under this warranty is limited to correcting the defect in the product or any part thereof which is defective in material or workmanship and which within one (1) year from the date of shipment to Buyer is returned to EasyRibbons.com with transportation charges prepaid. Select products include an extended warranty period as identified in the EasyRibbons.com Price Guide. Buyer must obtain a Return Material Authorization before the product may be returned. If EasyRibbons.com determines the product failed due to defects in material or workmanship, EasyRibbons.com shall repair or replace (at EasyRibbons.com's option) the defective product free of charge.

EasyRibbons.com's warranty for supplies; including spare parts, printheads, cutter assemblies, media, pre-printed labels and batteries is limited solely to free-of-charge replacement of such supplies within ninety (90) days of shipment to Buyer. Replacement shall be determined by EasyRibbons.com wherein such supplies fail to meet applicable specifications and were purchased directly from EasyRibbons.com for use with EasyRibbons.com products and provided Buyer has complied with the handling, storage and shelf life requirements as specified by EasyRibbons.com. EasyRibbons.com shall have no responsibility whatsoever for consumable supplies purchased from any other source.

EasyRibbons.com provides software on an "as is" basis only.

These warranties do not extend to any defect, fault, or accident, which is caused by improper or inadequate maintenance, installation or use by Buyer or its customers; Buyer's software, hardware or interfacing; modifications to the product(s) not authorized by EasyRibbons.com; misuse or misapplication of the product(s) by Buyer or its customers; operation of the product(s) outside environmental or electrical specifications; gross negligence, accident, or disaster.

EasyRibbons.com shall not warrant and hereby specifically disclaims any express or implied warranty with respect to coverage by EasyRibbons.com RF (Radio Frequency) products unless EasyRibbons.com has performed a site survey installed the RF products. Buyer releases EasyRibbons.com from any and all liability related to coverage by the RF products if EasyRibbons.com has not performed the described services.

Any representation or warranty made by any other person, including distributors, resellers, dealers, employees and representatives of EasyRibbons.com, which are inconsistent or in conflict with or additive to the terms of this Warranty, shall not be binding on EasyRibbons.com unless reduced to writing and approved in writing by an officer of EasyRibbons.com.

THE ABOVE WARRANTIES ARE EXCLUSIVE OF, AND IN LIEU OF, ALL OTHER WARRANTIES, WRITTEN OR ORAL, EXPRESS OR IMPLIED, STATUTORY OR OTHERWISE. NO IMPLIED STATUTORY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE SHALL APPLY. EASYRIBBONS.COM SHALL NOT BE LIABLE FOR ANY DAMAGES SUSTAINED BY BUYER ARISING FROM DELAY IN THE REPLACEMENT OR REPAIR OF PRODUCTS UNDER THE ABOVE WARRANTY.

Disclaimer of warranties: The sample code included in this document is presented for reference only. The code does not necessarily represent complete, tested programs. The code is provided "as is with all faults." All warranties are expressly disclaimed, including the implied warranties of merchantability and fitness for a particular purpose.

Web Support

Visit our web site at www.EasyRibbons.com to download our current manuals (in PDF).

Telephone Support

In the USA and Canada, call **888.464.4438**. Elsewhere, call 610.620.3447.

Who Should Read This Manual

This user's guide is for the person who is responsible for installing, configuring, and maintaining the EZ16 printer. This user's guide provides you with information about the features of the EZ16 printer, and how to install, configure, operate, maintain, and troubleshoot it.

Patent Information

Product is covered by one or more of the following patents:

5,581,293; 5,613,790; 5,927,876; 6,088,049; 6,345,920

There may be other U.S. and foreign patents pending.

1

Using the EZ16 Printer

Use this chapter to familiarize yourself with the EZ16 printer. This chapter contains these sections:

- Introducing the EZ16 Printer
- Identifying the Parts of the Printer
- Understanding the Feed Button
- Understanding the Status LED
- Loading Ribbon
- Loading Thermal Transfer Film
- Turning On the Printer
- Performing a Testprint
- Creating and Printing Labels

Introducing the EZ16 Printer

The EZ16 ribbon printer is lightweight, reliable, and easy-to-use, thermal transfer printer that is available in 203 and 300 dpi models.

Both models come with parallel, serial RS-232, and USB ports. You can also install a CompactFlash card adapter on the EZ16.

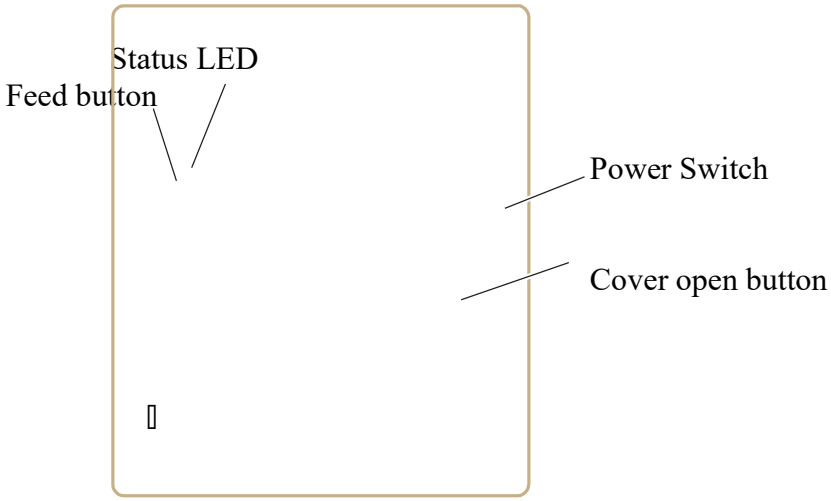
The discharge of electrostatic energy accumulated on the human body, clothing, or other surfaces can damage or destroy the printhead or electronic components used in these printers. Avoid touching the electrical connectors while unpacking or setting up your printer.

Identifying the Parts of the Printer

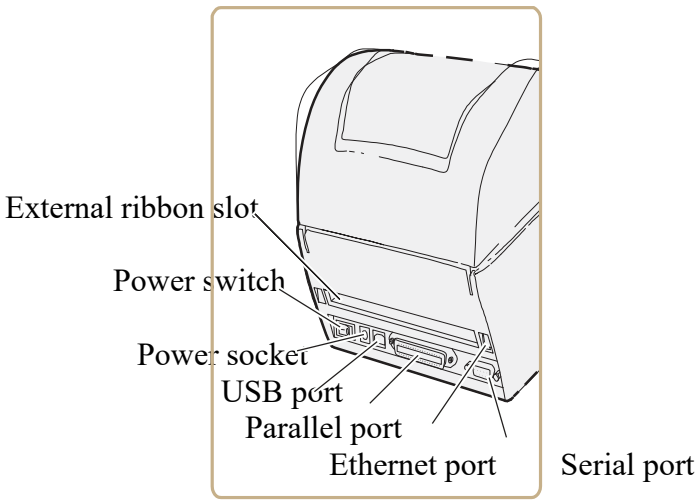
Use this section to familiarize yourself with the parts of the EZ16 printer.

Identifying the Parts of the EZ16

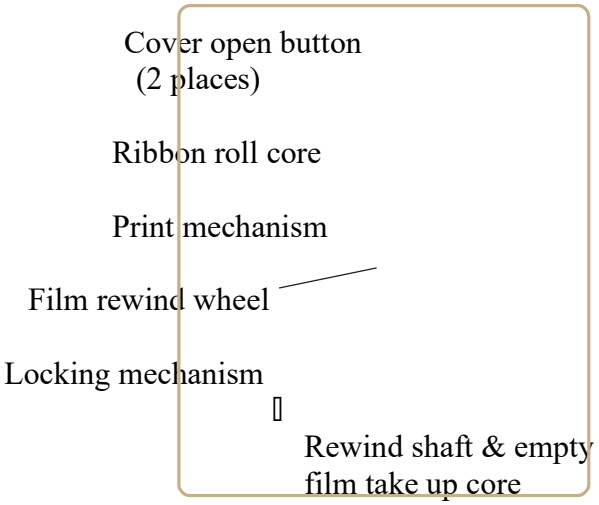
Use the illustrations in this section to identify the parts of the EZ16.

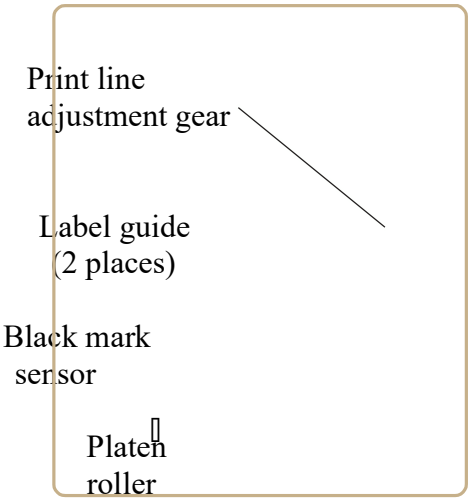


EZ16 Front View: *The printer controlled by a Power switch (located behind the printer), a Feed button, and a multi-color status LED. Cover open buttons located on each side of the printer provide access to the ribbon compartment.*



EZ16 Rear View





EZ16 Media Compartment: *The EZ16 is a thermal transfer printer. The media compartment accommodates the ribbon supply and the transfer film supply.*

Understanding the Feed Button

Use the next table to understand the functions of the Feed button.

Understanding the Feed Button

Press and release the Feed button	The ribbon advances a short distance out of the printer.
Hold down the Feed button while turning the power on	The printer enters Media Sensing mode. When you release the button, the printer performs a test print. For more information, see “Performing a Test print” on page 13.

Understanding the Status LED

The status LED turns green, orange, or red to indicate the current status of the printer. Use the next table to understand the status LED states.

Status LED States

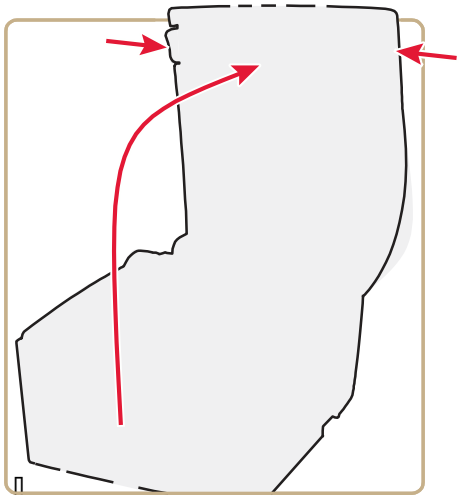
Blinking green	The printer is in auto sensing mode. The printer is downloading a font, form, or graphic.
Solid green	The printer is in Ready mode. The printer is in Print mode. The printer is in Dump mode.
Solid orange	The printer is in Boot mode.
Blinking red	There is a ribbon jam, or the printhead or stepper motor is overheated. The printer is downloading firmware.
Solid red	The printer is out of ribbon or film. The printer is in Error mode.

Loading Media

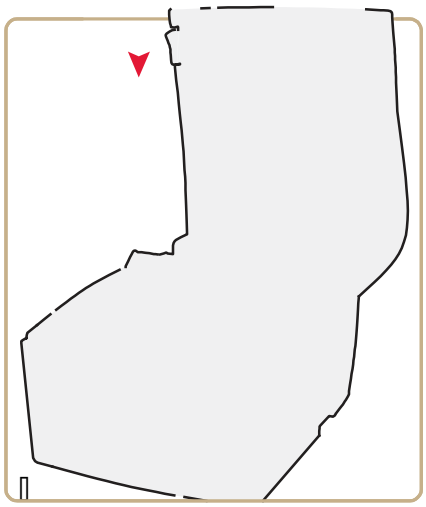
Loading Ribbon

To load ribbon roll

1 Press the cover open buttons on both sides, and open the cover.



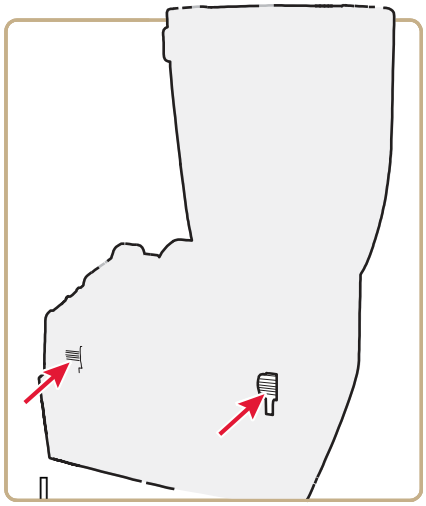
2 Remove the spindle and insert a roll of ribbon. If you are replacing a roll of ribbon, make sure you remove the empty ribbon roll core.



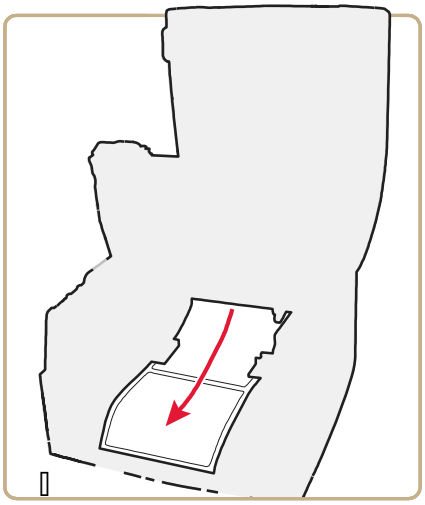
Note: The EZ16 spindle lifts completely out of the compartment.

3 Replace the spindle.

4 Press the locking mechanism and open the print mechanism and film container.

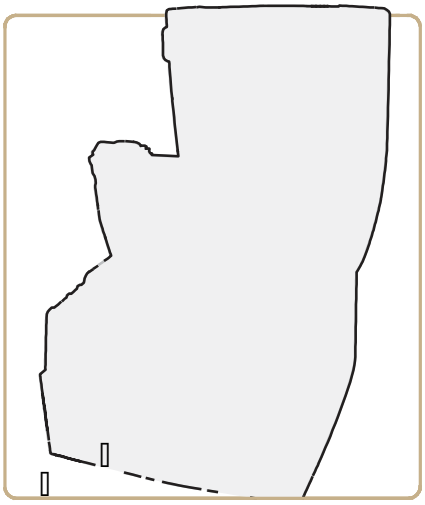


5 Put the ribbon between the ribbon guides and pull it forward.



Pulling the ribbon forward on the EZ16

6 Adjust the ribbon guides to fit your ribbon.



7 Continue with “Loading Thermal Transfer Film” on page 27.

Loading Media From an External Supply

You can place the ribbon supply behind the printer, like the EasyRibbons External Ribbon Stand.

To load media from an external supply

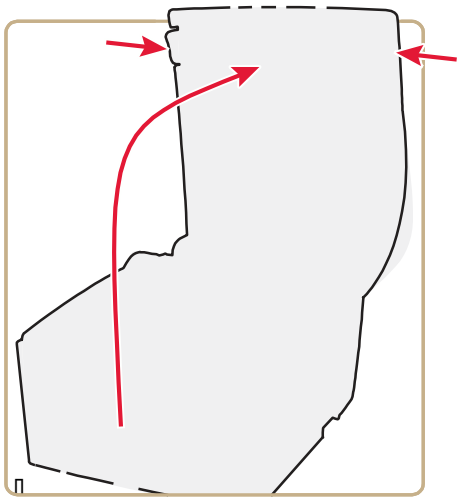
- Insert the media through the slot in the back of the printer. You do not use the spindle.

Note: Make sure to protect the media from direct sunlight and from dust, dirt, or other foreign particles that can impair the printout quality or cause unnecessary wear to the printhead.

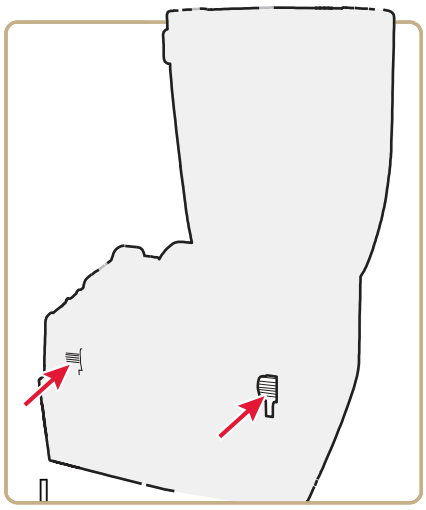
Loading Thermal Transfer Film

To load a thermal transfer film roll

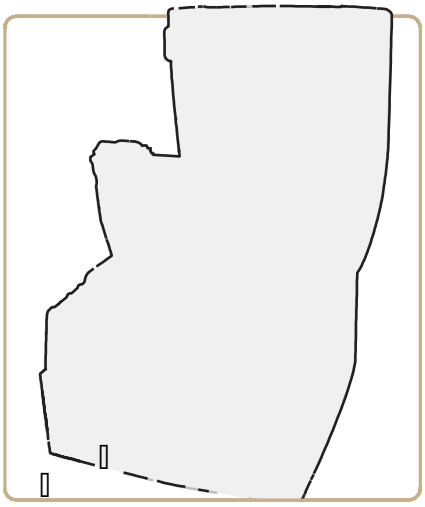
1 Press the cover open buttons on both sides, and open the cover.



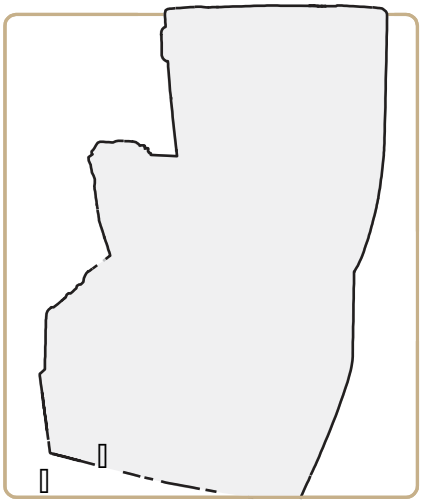
2 Press the locking mechanism and open the print mechanism and film container.



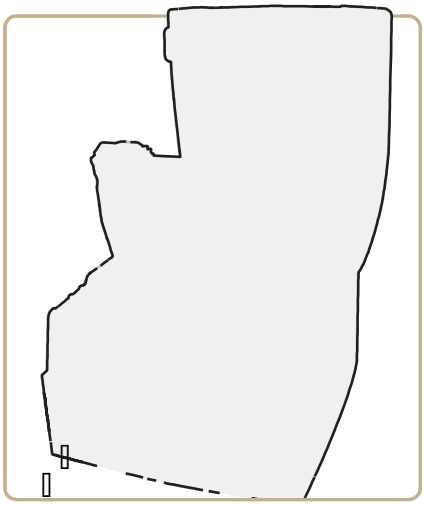
3 Insert the empty ribbon take up core onto the ribbon rewind wheel. Make sure you attach the cardboard spindle to the core.



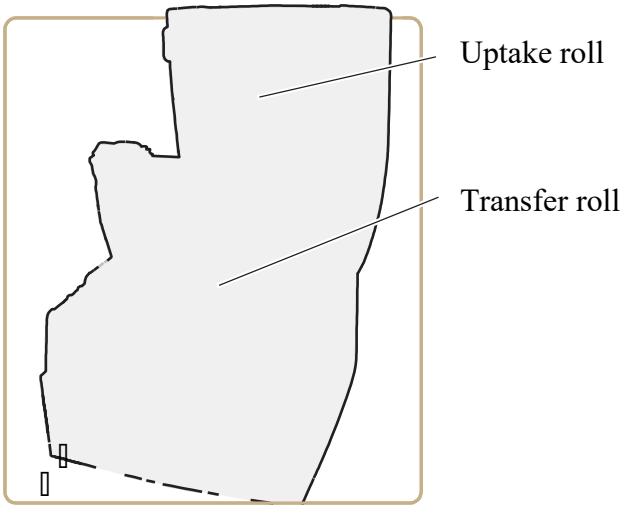
4 Insert a new transfer film roll onto the film supply shaft.



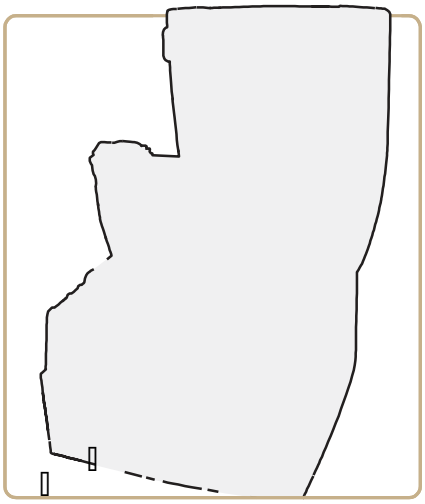
5 Take the leader end of the transfer film and attach the leader to the top of the rewind core. Make sure to center align the film leader with the core.



6 Place the uptake roll and transfer film into their respective slots.



7 Close the print carriage and firmly press down on both sides until the print carriage clicks and is locked into place.



8 Firmly close the printer top cover.

9 Press the Feed button until the status LED turns green.

When you switch between different types of transfer film, you can remove a partially used transfer film and save it for later use.

To remove a partially used film

1 Press the cover open buttons on both sides, and open the cover.

2 Press the green release tabs at the bottom of the top cover on both sides of the printhead, and lift the print carriage halfway up while keeping the top cover fully opened.

3 Rewind the unused film onto the supply spool.

5 Remove the roll by pushing it to the left until the right end disengages, and then lift up the roll.

6 Remove the rewind roll by pushing it to the left until the right end disengages, and then lift it out. Dispose of the used film.

Note: Keep the film core to use the next time you load film.

Turning On the Printer

This section describes how to turn on the printer.

There is a danger of personal injury if the printer and power supply are operated in an environment where they can get wet. Use only EasyRibbons.com power supply adapter.

To turn on the printer

1 Place the printer on a stable surface.

2 Place the power supply adapter in a suitable location between the printer and an electrical outlet. The power supply adapter can be used for 100 to 240 VAC, 50 to 60 Hz.

3 Make sure the printer is off.

4 Insert the round connector on the power cord into the power receptacle in the back of the printer.

5 Insert the power cord plug into an AC socket.

6 Turn the printer on.

7 The status LED changes from red to green indicating that the power is turned on.

Performing a Testprint

You can print a test (perform a testprint) to:

- make sure that your printer is working properly.
- get your printer setup, hardware, and network information.
- check print quality and determine which adjustments to make.

To perform a testprint

1 Load ribbon in the printer. For help, see “Loading Ribbon” on page 5.

2 Press and hold the Feed button while turning the printer on. The status LED blinks green for 2 seconds, blinks red for 2 seconds, and then blinks green again.

3 Release the Feed button when the LED is blinking green.

4 After a short delay, a test label prints and the printer enters Dump mode.

5 Press the Feed button once to return to normal operation.

Or, press and hold the Feed button for at least 3 seconds after the test label prints to reset the printer to the default settings. The status LED turns red to indicate that the printer was reset to the default settings, and then it turns green.

2
Connecting the Printer

Use this chapter to connect the printer to your PC or your network.
In this chapter you will find these sections:

- Connecting the Printer to Your PC
- Connecting to a Computer
- Setting the Printer Driver
- Set Speed & Darkness

Connecting the Printer to Your PC

You can connect the printer to your PC using a serial cable, or USB cable. After you connect your printer to your PC, you can send commands to your printer using a terminal emulation program, such as HyperTerminal.

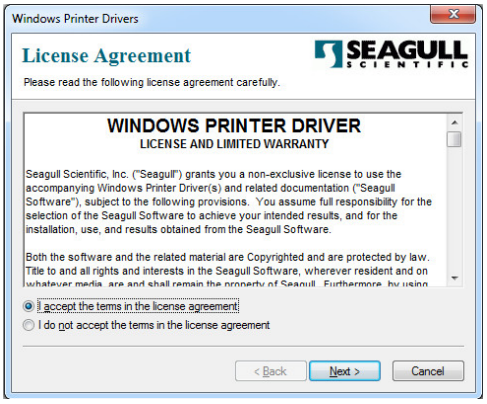
Connecting the Printer Through the USB Interface

Connect the USB cable to the connector on the back of the printer and connect the other end to your PC. You do not need to set up any parameters for USB communications.

Connecting the Printer Through the Serial Port

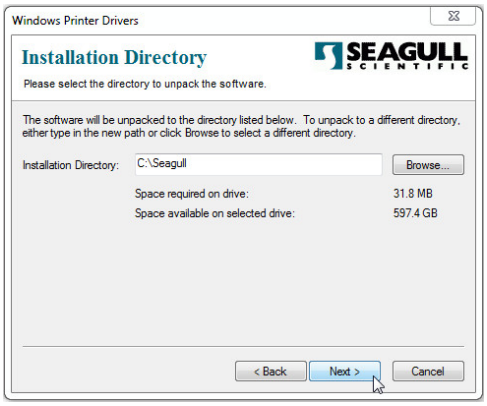
Connect the serial cable to the connector on the back of the printer and connect the other end to your PC.

Connecting to a Computer

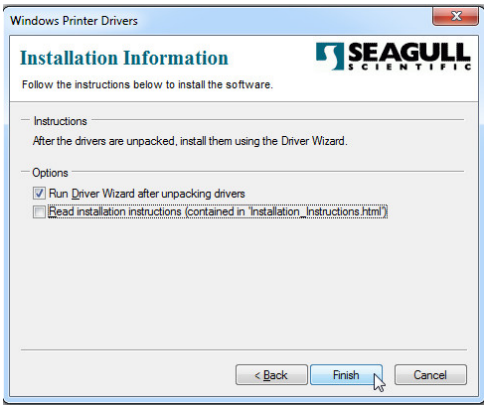


Insert the CD in your computer and select View to see the files on the CD. Double click on the Drivers folder and on **EasyRibbons16_driver.exe** and click on Run to install the printer driver.

Select **I accept the terms in the license agreement** and click Next >.

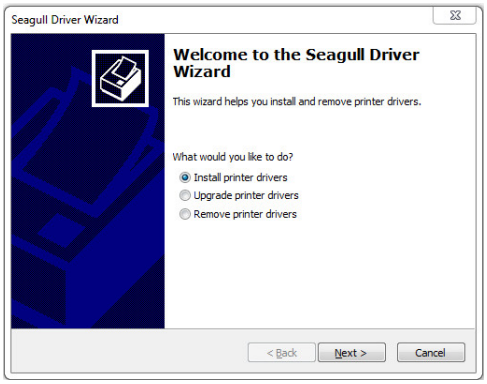


Allow the installer to use the default directory and click Next >.

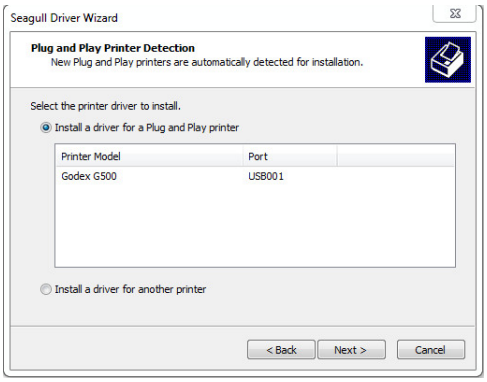


Unselect **Read installation instructions** and click Finish.

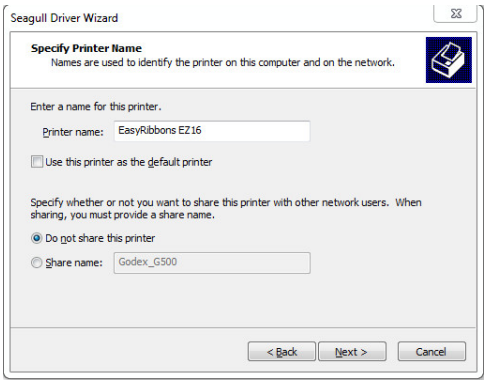
Answer Yes to the Security question if it appears.



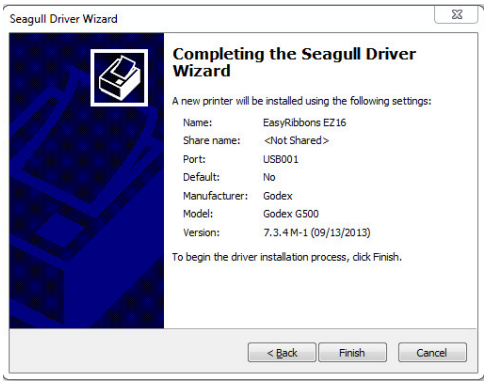
Confirm **Install printer drivers** is selected and click Next >.



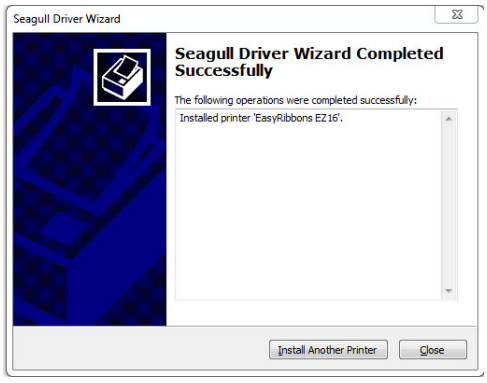
Select Godex G500 and take note of the port. Click Next >.



Rename the printer **EasyRibbons EZ16** and click Next >.



Click Finish.

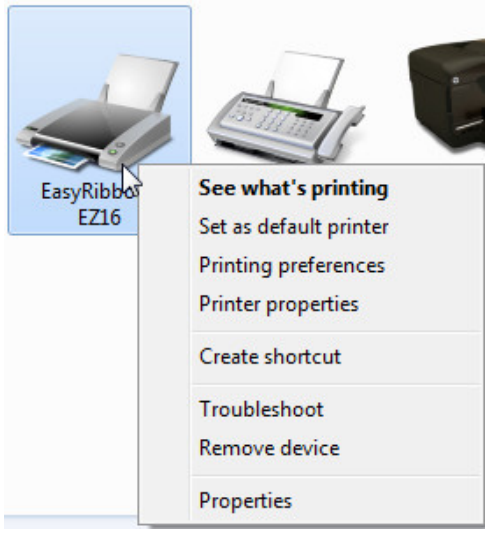


Click **Install** on the Windows Security window to continue.

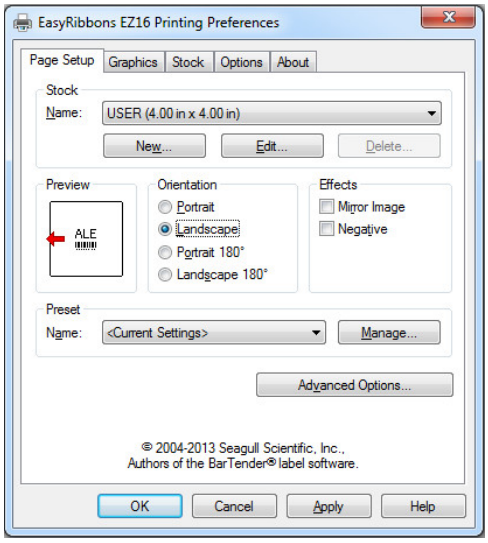
Click Close.

Setting the Printer Driver

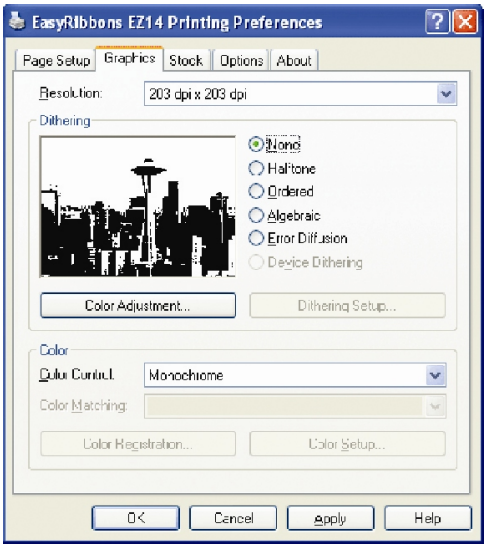
Click on **Start** and select **Devices and Printers**.



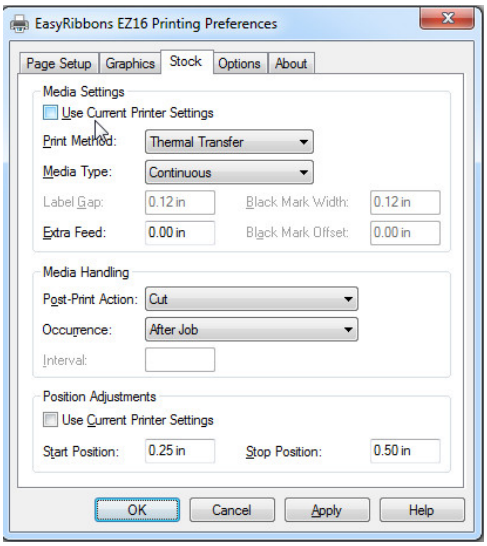
Right click on **EasyRibbons EZ16** and select **Printing Preferences…** from the drop down menu.



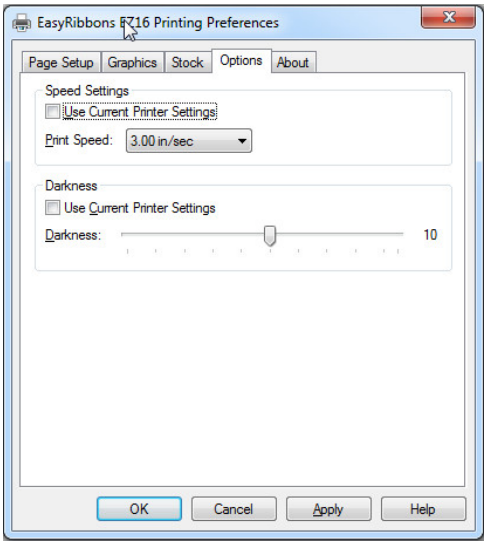
Page Setup
Orientation: Landscape



Graphics
Dithering: None



Stock
Media Settings
Uncheck Use Current Printer Settings
Print Method: Thermal Transfer
Media Type: Continuous
Media Handling
Post-Print Action: Cut
Occurrence: After Job
Position Adjustments
Uncheck Use Current Printer Settings
Start Position: 0.25in
Stop Position: 0.5 in



Options:
Speed Settings:
Uncheck Use Current Printer Settings
Print Speed: 2.00 in/sec
Darkness:
Uncheck Use Current Printer Setting
Darkness: 10
Click on **Apply**
Click on **OK**

3

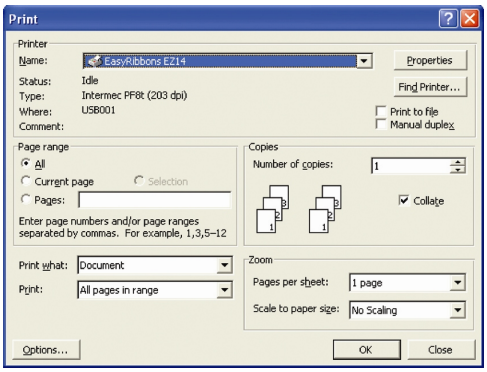
Creating and Printing Ribbons

Use this chapter to create and print ribbons. This chapter contains these sections:

- Print Setup (Windows XP / Vista / 7 / 8)
- Using Microsoft Word
- Using WordArt Module

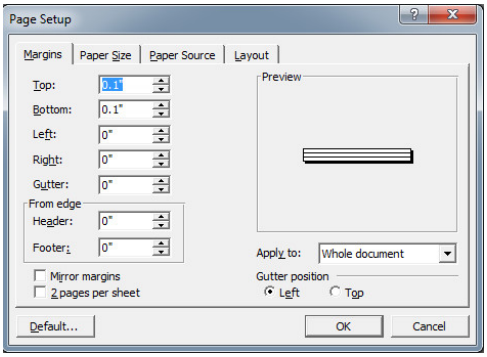
Creating and Printing Ribbons

Print Setup (Windows XP / Vista / 7 / 8)

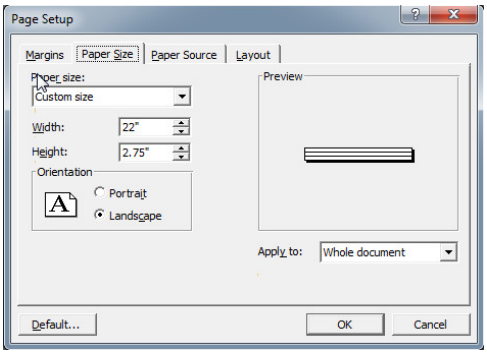


From the **File** menu, select **Print**

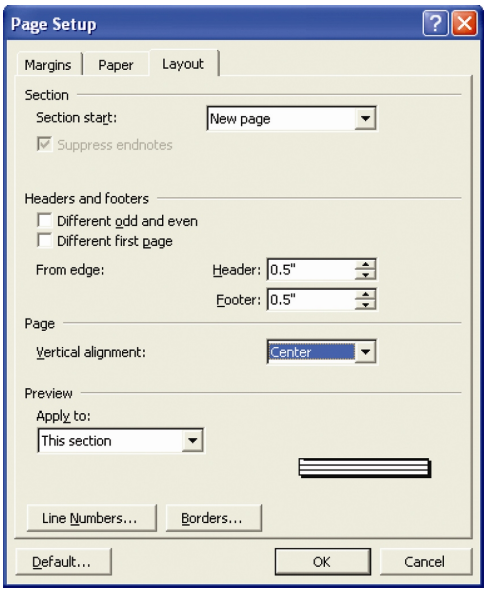
In the **Name:** field select the EasyRibbons EZ16 Printer. Click on **Close** (not OK) when exiting the Printer window.



From the **File** menu, select **Page Setup** and set the options as shown:
Orientation: Landscape
Margins:
Set as follows:
Top: .1"
Bottom: .1”
Left: 0”
Right: 0”



Paper:
Paper Size: Custom size
Width: 22” (560 mm)
Height: width of the Ribbon (max. 4.33 in)
#9 ribbon: 1.37 in (35 mm)
#40 ribbon: 2.75 in (70 mm)
#100 ribbon: 3.93 in (100 mm)



Layout:
Vertical Alignment: Center

Click on **OK**.

Using Microsoft Word

Size of the Fonts

Select a font and change the size by clicking on the default size and typing a new value (ex. 130) and press **Enter.**

To increase or decrease the size of the text, select the whole text (it becomes white on a black background) and set a new value with the keyboard (refer to WORD User's Manual).

Text on 1 line

Type Your Text Here

Configure the Print Setup, adjust the font and the size for the letters, as above.
Align the text to the left.
Install a ribbon roll into the printer and adjust it so you have the leader before the area for the text.
Close the Print Mechanism.
Click on **File > Print >** select your **EasyRibbons** printer.
Click on **OK** to start the print. After a delay of about 15 seconds the print process starts.

If the text is **longer than 22 inches**, Word will automatically create a new page placed under the first one. Place the cursor on the last character of line 1 and press the **ENTER** key to create a space before the first word of line 2. This "second" page will be printed just after the first one.

Type Your Text Here without
any Restriction of Length

Text on 2 lines

Proceed like above but the size of characters must about half the size than on a one line ribbon (ex. 65).
When the size is correct both lines appear on the same page.
If text is displayed like above, select the whole text and reduce the size of letters until both lines are displayed on the same page (like below).

Type Your Text Here Without
Any Restriction In Length

In order to spare print ribbon don't center the text but keep it aligned to the left at first. Then the right Indent  can be shifted until it is near the end of the longest line. Then click on center alignment.

Using WordArt Module

Installing Ready-to-use Files

The following files are included on the EZ16 CD in the *Ribbon Samples\WordArt* folder. The *Ribbon Samples* folder can be copied to your hard drive for click and print ease.

30mm = 1 line text on ribbon 1¼" (30 mm) wide

50mm = 1 line text on ribbon 2" (50 mm) wide

75mm = 1 line text on ribbon 2½" (75 mm) wide

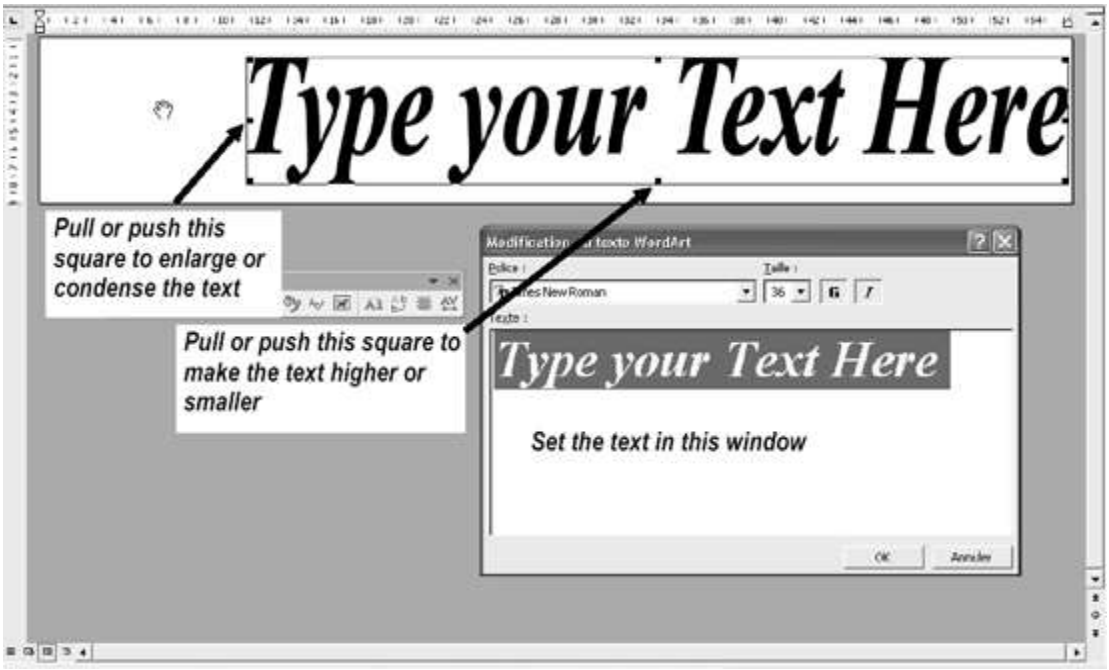
75mm2 = 2 lines text on ribbon 2½" (75 mm) wide

100mm = 1 line text on ribbon 4" (100 mm) wide

100mm2 = 2 lines text on ribbon 4" (100 mm) wide

Set & Print Texts

Open the file you wish and double-click on the text.



Change text and font according to your needs.

These files use the WordArt module of WORD 2000 and later. For more information please refer to Microsoft Word User's Manual.

In the Main Menu select **File > Print** . Select the **EasyRibbons EZ16** printer and click on **OK**

Note: A "Margins Error" message may be displayed (because all "standard" printers require margins). Always click on **Yes** (Windows XP) or **Ignore** (other Windows)!

4

Troubleshooting and Maintaining the Printer

Use this chapter to troubleshoot and maintain your printer. This chapter contains these sections:

- Troubleshooting the Printer
- Cleaning the Printer
- Adjusting the Printer

Troubleshooting the Printer

You may have printer operation, print quality, or printer communication problems at some time during the life of your printer. You can easily fix most of the problems you encounter. If you cannot find the answer to your problem in this section, you may need to contact Product Support.

Contacting Product Support

To talk to EasyRibbons.com Support in the USA. or Canada, call: 888.464.4438

Outside the USA and Canada call 610.620.3447.

Before calling EasyRibbons.com Support, make sure you have the following information ready:

- Printer serial number
- Firmware type and version
- Ethernet, wireless, or serial port settings

You can find all of the information listed above in the printer menu system or on a testprint page.

Troubleshooting Tips

Use these tips to help resolve problems with the printer:

- Make sure all cables are correctly connected.
- Perform a test print. For help, see “Performing a Testprint” on page 13. Make sure that the settings on the test page match the intended settings for your printer.
- Test communications by sending a command to the serial port.
- Check the communications port (such as USB or parallel) you are using to connect your printer to your PC. Make sure the port you are using is not being used by another application.

Troubleshooting Printer Problems and Finding Solutions

Use this section to find possible solutions to printer problems.

Printer Problems and Possible Solutions

The status LED is off, but the power is on.	Make sure the connectors on the power supply are securely plugged into the printer and an AC outlet.
The status LED is green, but the printer is not feeding media.	Make sure the correct type of interface cable is securely plugged into the printer and computer.
Only partial ribbons are being printed.	Make sure the print carriage is fully locked. Open the printer and lower the printhead completely.
The print quality is poor.	Try these possible solutions: • Clean the printhead. For help, see “Cleaning the Printhead” on page 55. • Adjust the printhead pressure. For help, see “Adjusting the Printer” on page 56..
The printer seems to be working but nothing prints.	Verify that the printer is loaded with thermal transfer ribbon and that the ink-coated side (dull side) of the ribbon is facing the media. If not, reload the ribbon correctly.
The printing stops and status LED is orange.	There may be a media jam. Open the printer and check for stuck ribbon.
The printer continues to print or feed when it should stop printing.	Check to see if the label gap sensor is blocked. Open the top cover, remove the blockage, and clean the printhead. For help, see “Cleaning the Printhead” on page 55.

Cleaning the Printer

Clean your printer regularly to maintain the quality of your labels and extend the life of your printer.

Cleaning the Case

Keep your EZ16 printer clean by periodically wiping it with a soft cloth dampened with water. Do not use abrasive cleaners or solvents that may scratch the surface.

Adjusting the Printer

Keeping the printhead properly balanced is crucial for obtaining high quality printouts. You can adjust the:

- printhead pressure.
- printhead alignment.
- printhead sensor mode (dotline).

Adjusting the Thermal Printhead Pressure

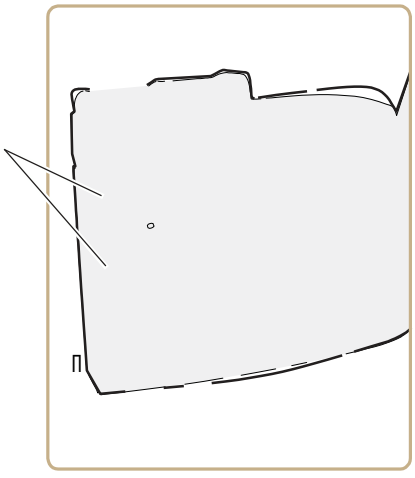
When you print with different ribbon materials or use different types of film on the EZ16, print quality may be affected due to differences in the material. If this happens, adjust the thermal printhead pressure appropriately for the type of material you are using.

To adjust thermal printhead pressure

1 Turn off power to the printer.

2 Press the cover open buttons on both sides, and open the cover.

3 Use a slotted screwdriver to turn the screws clockwise to increase printhead pressure or counterclockwise to decrease printhead pressure.

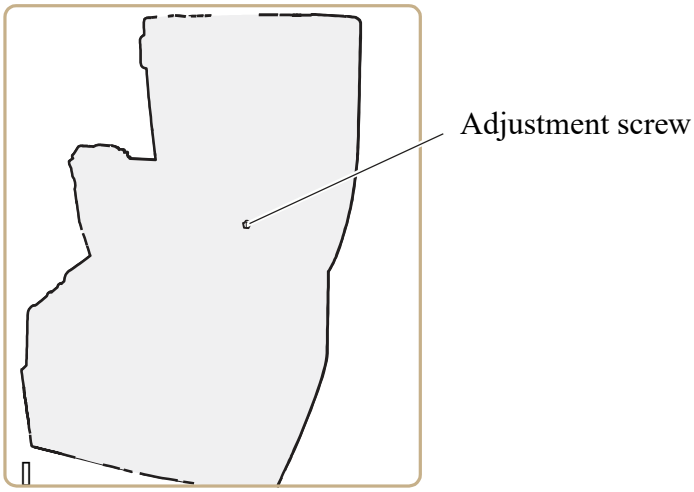


Adjusting the Printhead Alignment

You can improve the print quality by adjusting the alignment between the printhead and the platen roller.

To adjust the printhead alignment

- Turn the adjustment screw counterclockwise or clockwise to adjust the contact between the printhead and platen roller.



Adjusting the Black Mark Sensor

This sensor MUST be in the default, far-right position, or “Out of Paper”, “Media not Loaded”, or other media fault errors may continually occur.

To locate and adjust the black mark/label stop sensor

1 Open the top of the printer.

2 Lift the printhead.

The black mark sensor is near the front of the printer, behind the roller, in a groove that runs from the left side to the middle of the printer. The sensor optics are visible as a small slit on the left, and there is a ridged finger-notch to the right.

3 If the sensor is not all the way to the right, put your fingertip in the ridged finger-notch and slide the sensor all the way to the right. Do not touch the sensor itself, because natural finger oils may dirty the optics.

4 Lower the printhead, close the printer, and try printing again.

A

Printer Specifications

EZ16 Printer Specifications

Physical Specifications

Dimensions: 285 x 172 x 226 mm (11.2 x 6.8 x 8.9 in)

Weight: 2.72 kg (6 lb)

Power Specifications

Adapter Input Voltage: v100 to 240 V, 1-6 A 50-60 Hz

Printer Input Voltage: x 24 V 2,5 A

Temperature and Humidity Specifications

Operating Temperature: 5°C to 40°C (41°F to 104°F)

Storage Temperature: -20°C to 50°C (-4°F to 122°F)

Operating Humidity: 30 to 85% non-condensing

Storage Humidity: 10 to 90% non-condensing

Communications and Connectivity

- Serial port: RS-232 (DB-9)
- USB 2.0
- IEEE 802.3 10/100 Base-Tx Ethernet port (RJ-45)

Memory

- 8 MB Flash
- 16 MB SDRAM

EZ16 Print Speed, Resolution, and General Media Specifications

Print Mode	Thermal Transfer
Print Speed (variable) Printhead Resolution	203 dpi: 2, 3, 4 & 5 ips 8 dot/mm (203 dpi)
Print Length	203 dpi: 4 to 1727 mm (0.16 to 68.00 in)
Print Width (maximum)	108 mm (4.25 in)
Ribbon Roll Diameter (max)	127 mm (5 in)
Film Roll Core Diameter	12.5 mm (1/2 in) supply
	25 mm (1 in) take-up
Film Width	30 to 110 mm (1.18 to 4.33 in)
Film Thickness	0.05 to 0.18 mm (0.002 to 0.007 in)

EZ16 Interfaces

Serial Cable Pins and Descriptions

Pin	Host - DB9 Socket	Printer - DB9 Plug
1		+5V, maximum 500 mA
2	RXD	TXD
3	TXD	RXD
4	DTR	N/C
5	GND	GND
6	DSR	RTS
7	RTS	CTS
8	CTS	RTS
9	RI	N/C

Setting: RTS/CTS
RS-232 housing: 9-pin to 9-pin

Note: The total current output from the serial port cannot exceed 500 mA.

USB Interface

Use this table to understand the USB cable interface.

USB Cable Pins and Descriptions

1	VBUS
2	D-
3	D+
4	GND

Connector Type: B

B
Default Settings

Printer Default Settings

Serial Communication Parameters

Baud rate	9600
Data bits	8
Parity	None
Stop bits	1
Protocol	Xon/Xoff

COM Parameters

Interface	USB Device
USB keyboard	US

Network Parameters

IP Selection	DHCP
IP Address	N/A
Netmask	N/A
Default router	N/A
DHCP response	N/A
MAC address	N/A

Test/Service Parameters

Testprint	N/A
Data dump	Off

Media Parameters

Media type	Gap
Paper type	DT (Direct Thermal)
LBL dots	1200 dots
Darkness	12
LBL reset point	0
Form adjust dots X	+0
Form adjust Y	+0

Configuration Parameters

Emulation mode	N/A
Print speed	2 in/sec
Cutter	Not installed