PitneyBowes

W660/W680 Printers

Operator Guide

Notice

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NOTE: W660/W680

The similarity of the W660 and W680 printers allows their features and operation to be documented together. The principle difference in these printers is that the W680 is a color printer that uses both a black and color ink cartridge. The W660 only uses a black ink cartridge.

The photos and illustrations in this document are of the W680 printer, but representative of each printer.

Chapter 1, W660/W680 Overview

Chapter 2, Setting Up the W660/W680 Printer

Chapter 3, W660/W680 Basics

Chapter 4, Using the W660/W680 With Your Computer

Chapter 5, Printer Maintenance

Chapter 6, Troubleshooting

Chapter 1

The W660/W680 Printer Overview
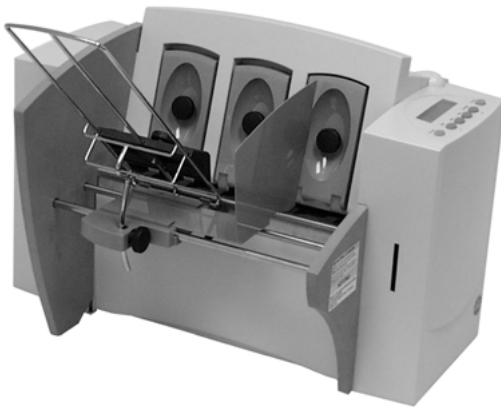
The Pitney Bowes W660/W680 is a versatile, easy-to-use desk-top printer designed for addressing applications.

This chapter explains what's in this guide, and tells you how to order supplies and where to get more information about using your W660/W680.

In this chapter:

Welcome to the W660/ W680 Ink Jet Printer

The Pitney Bowes W660/W680 ink jet printer is a desktop printer used to print addresses, graphics and other information, *in color (W680),* on a wide range of material of various sizes, construction and composition. With the W660/W680 you can define the font, placement, print quality and bar code characteristics for your addresses.

This Operator Guide shows you how to:

- Set up the W660/W680 printer
- Connect it to your computer
- Define your envelope layout
- Print a test mail piece
- Send a mail job to the printer from your computer application.

Using This Guide

Refer to this guide for information about printer setup, operation and troubleshooting. It is divided into the following chapters:

Chapter 1, Introduction
Contains an overview of the W660/W680 Operator Guide, information about ordering supplies and a list of help resources.

Chapter 2, Setting Up the the printer.
Contains instructions for assembling your printer.

Chapter 3, Printer Basics
Explains how to set up your printer to run a job.

Chapter 4, Using the Printer With Your Computer
Contains instructions for installing the printer driver, selecting the printer from your software program and sending a mail job from your computer.

Chapter 5, Printer Maintenance
Describes how to keep the printer clean and functioning properly.

Chapter 6, Troubleshooting
Contains a list of possible problems and their solutions.

Appendix A, Control Panel Menus

Explains the Main Menu and Setup Menu options available on the W660/W680 control panel.

Appendix B, Specifications

Provides hardware and material specifications. Your printer will run at its best when your material conforms to our specifications.

System Requirements

In order to operate the W660/W680 with your computer, your system must meet the following requirements:

CPU	80486 or Pentium recommended 8 MB RAM recommended; 16 MB or more preferred
Operating System	Windows 95/98/2000/NT/ME
Parallel Cable	A parallel cable is supplied with your printer. If you choose to use another cable, make sure it isn't any longer than 10 feet.
Or Serial Cable	To use the serial port, a serial cable of no more than 15 feet in length is required.

Getting Help

As you use your printer, there may be times when you need help to solve a specific application problem, or you may want additional information about printer operation. Pitney Bowes provides several information resources.

Online Help

The W660/W680 Print Driver has a built-in help system. To get to the driver, click on Properties from Windows print dialog box. Right- click on items in question for the "What's This" Help button.

If you're using Pitney Bowes programs such as Envelope Designer™ or SmartMailer™, press the **F1** key while you're using the program to display information about the open screen. Select the Help menu to display a list of topics or search for a term. Refer to the documentation supplied with these programs for more information.

Getting Help (continued)

Phone Support

If you need technical support, call the Pitney Bowes National Diagnostic Center at:

(800) 253-6565

Before You Call...

Please see *Chapter 6, Troubleshooting*, for a description of common problems and their solutions. If you need to call, please have the following information at hand:

- Product name: W660/W680.
- Serial number: See back of unit.
- Nature of problem: What happens and when does it happen?
- The steps you've already taken to solve the problem and the results.

The World Wide Web

We encourage you to visit our web site at:

http://www.pb.com

You'll find the latest information about our products and services as well as answers to frequently asked technical questions.

Printer Options

Pitney Bowes offers several very useful options for your W660/W680:

- Envelope Designer™ lets you create a professional looking envelope in a matter of seconds—you don't have to bother with the print driver or make manual settings.
- The W853 Ink Dryer helps to eliminate smudging on difficult materials like glossy stock.
- The W760 Power Stacker holds up to 300 #10 envelopes. It helps maintain a neat stack in ZIP Code order when you run long jobs.
- SmartMailer software refines and presorts mailing list entries to enable faster mail delivery at the lowest possible rates.

**Ordering
Supplies**

You can order supplies for your W660/W680 printer directly through the Pitney Bowes Supply Line. To place an order, call:

(800) 243-7824

The following supplies are available for your W660/W680 printer:

- Single Black Ink Cartridge (order number 711-1)
- Single Color Ink Cartridge (W680 only) (order number 660-5)
- 4 Pack of Black Ink Cartridges (order number 660-9)

Chapter 2

Setting Up the W660/W680 Printer

This chapter explains how to unpack, assemble and connect your new printer.
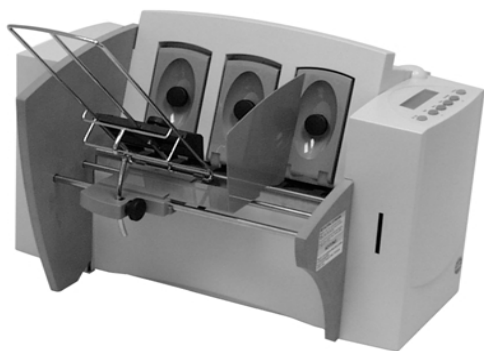
In this chapter:

Unpacking the Printer

As you remove the W660/W680 contents from the box, check the parts against the list on the opposite page.

(Shipped Assembled)
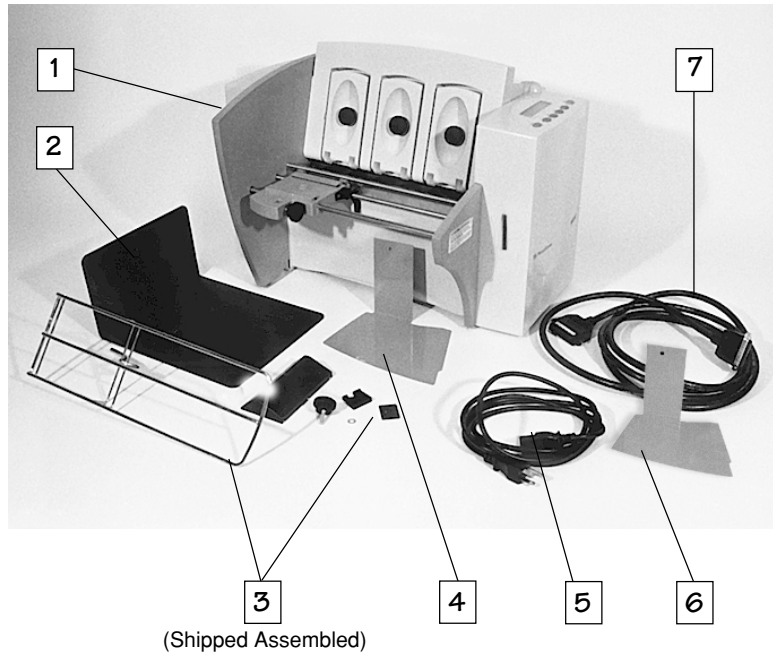
Unpacking the Printer

Package Contents

1. W660 or W80 Printer

2. Output Stacker

3. Wire Frame with Feed Ramp, Washer and Retaining Knob (Input Material Stacker assembled)

4. Long Sliding Fence

5. Power Cord

6. Short Sliding Fence

7. Parallel Cable

Not Shown:

• Printer Driver Software (SAPS)

• Ink Jet Cartridges (Color - W680 only, and Black - both models)

• Quick Setup Instructions

• Printer Operating Guide

• Operator Training Guide

• PostNet Certificate

• Installation Quality Report

• Operator Safety Tip Card

Setting Up the W660/W680

The assembled printer should look like the picture below. The parts you have to put together are identified.

Wireframe Input Stacker **Feed Ramp and Lock Knob** **Sliding Fence**

Output Stacker
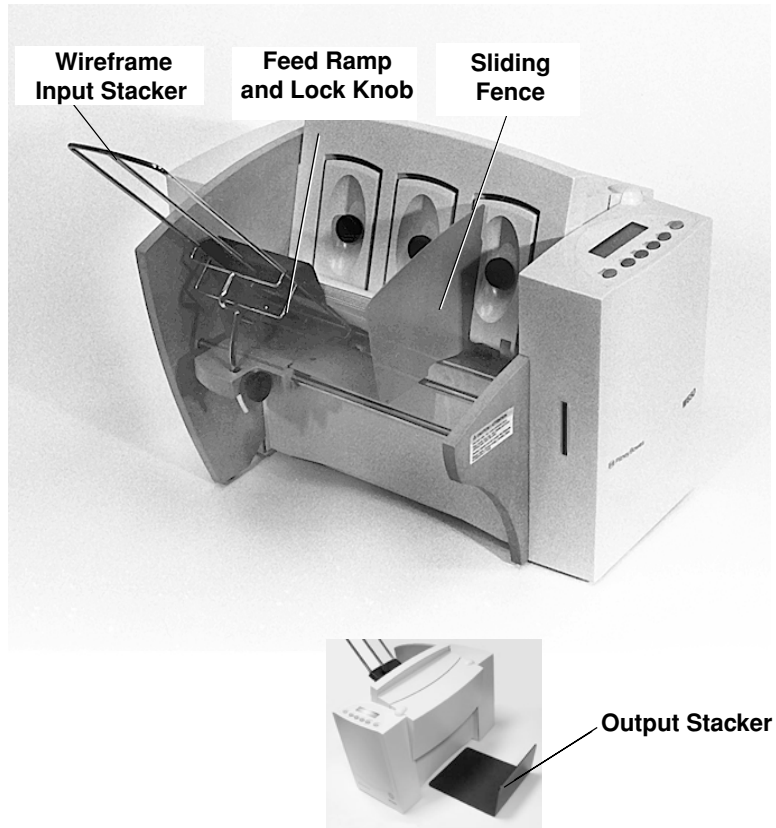
Refer to this picture as you set up your printer. Follow the steps on pages 2-7 through 2-15. The following product orientation will be useful in performing these steps:

Front is the area of the printer housing the LCD.
Rear is the area of the printer with the cable interface panel.
Left side is the input area of the printer.
Right side is the output area of the printer.

Choosing a Location for Your Printer

Follow these guidelines and safety precautions when selecting a location for your printer.

- Place the printer on a table or other stable, level surface within the cable's length (Parallel 10 feet max. - Serial 15 feet max.) of your computer.

- Allow for adequate space. The W660/W680 is 14.7 inches high, 16.2 inches wide and 21.7 inches deep, without the wire frame input stacker.

- Allow for adequate ventilation around the base and rear of the printer.

- Protect the printer from heat, dust and moisture. Avoid placing the printer in direct sunlight.

Important Safety Notes

- To protect against electric shock, plug the machine into a properly grounded wall outlet. DO NOT use an adapter plug. Use of an adapter could compromise the ground and cause a possible shock hazard or damage to the equipment in the event of a short circuit.

- DO NOT remove the ground pin from the line cord.

- Avoid using outlets controlled by wall switches. Someone could accidently shut your printer off.

- The power cord wall plug is the primary means of disconnecting the machine from the AC power. The wall outlet should be near the machine and easily accessible.

- DO NOT route the power cord over sharp edges or trap it between pieces of furniture.

- Insure that there is no strain on the power cord where it passes between the equipment, walls or furniture.

- Be certain the area in front of the wall receptacle into which the machine is plugged is free from obstruction.

**Important
Safety Notes**

- Do not remove covers. The machine covers serve to enclose hazardous parts. If the machine has been dropped or has otherwise had the covers stressed in any way, report it to your Pitney Bowes Customer Service Representative.• Keep fingers, loose clothing, jewelry and long hair away from the moving parts.

- To reduce the risk of fire and/or electrical shock, do not attempt to disassemble this machine. If service is required, contact your Pitney Bowes Customer Service Representative.

- Use only Pitney Bowes approved supplied ink cartridges and cleaners. Read all instructions before attempting to operate the equipment.

In addition, follow any specific occupational safety and health standards for your workplace or area.

**Assembling the
W660/W680**

Once you've placed the printer in a suitable location, assemble the printer components in the following order:

NOTE: Do not plug the printer into the power source until you've completed steps 1-4.

1. Install the wireframe input stacker (page 2-7).
2. Install the sliding fence (page 2-8).
3. Position the output stacker (page 2-9).
4. Connect the parallel or serial cable (page 2-10).*
5. Attach the power cord and turn the printer ON (page 2-11).
6. Install the ink jet cartridges (page 2-13).

Instructions for installing each of these components start on the next page.

* Requires use of a small flat-head screwdriver.

Assembling the W660/W680 (continued)

1. Attach the Wire Frame to the Printer.

1. Hook the bottom edge of the wire frame under the tabs in the frame slide.

2. Rotate the wire frame and insert the curved metal bar on the bottom of the frame into the height adjustment slot. See photos below.

Curved metal Bar **Wire Frame Bottom Edge**

Tabs **Lock Lever** **Height Adjustment Slot** **Lock Knob**
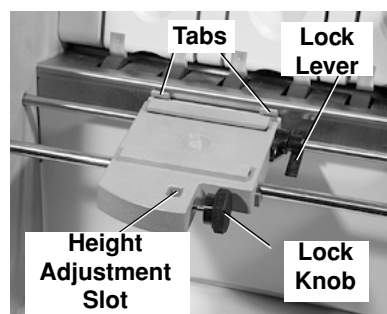
3. Adjust the height of the wireframe so it's positioned at about a 45 degree angle. Turn the lock knob on the side of the slide clockwise to hold the wireframe in position.

You can adjust both the height and side-to-side position of the wireframe to accommodate the size and type of the material you're running. We talk about this in the next chapter.

Assembling the W660/W680 (continued)

2. Install the Sliding Fence

The W660/W680 has two fences—a long one and a short one. Use the short fence when printing material smaller than a #10 envelope. Use the long fence for larger material.

Slide the square edge of the sliding fence into the slots on the frame slide as shown below. The fence fits snugly in the slots to ensure accurate positioning during operation. The next chapter explains how to set the fence to the width of the material you're running.

Sliding Fence in Position
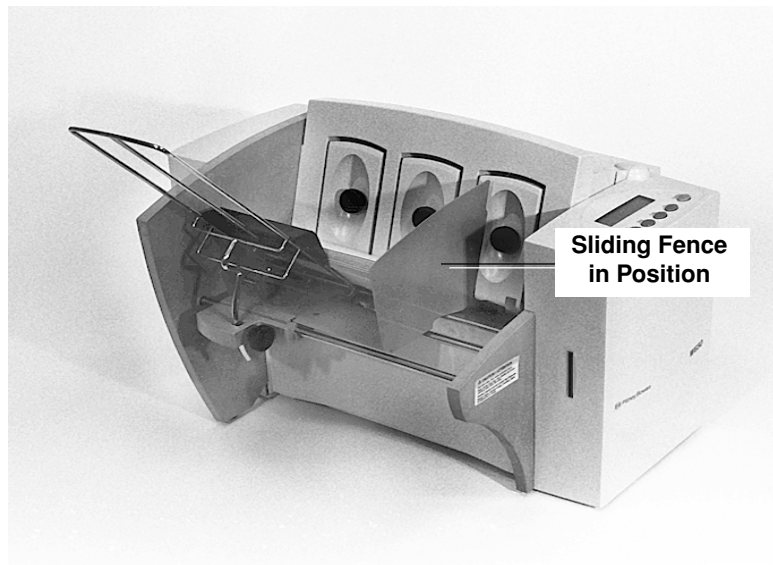
Assembling the W660/W680 (continued)

3. Position the Output Stacker Tray

Printed material is deposited in the output stacker tray. The tray can stack up to 150 #10 envelopes. Slide it under the output area of the printer as shown below, then center it on the output area. Right to left placement of the tray varies with the size of the media being printed.

Output Stacker Tray
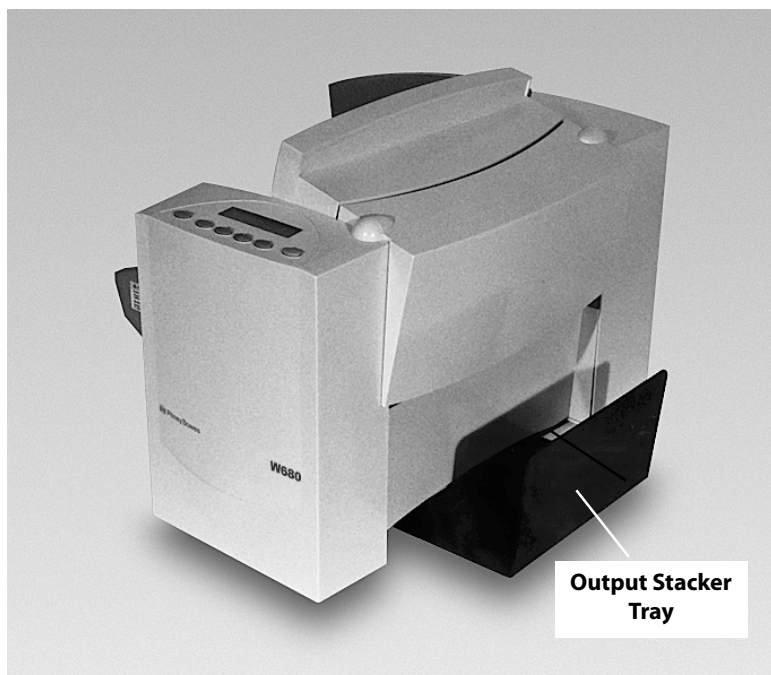
Connecting the W660/W680 to Your Computer

4. Connecting the Parallel Cable or Serial Cable

Use the parallel cable supplied to connect the W660/W680 to your computer, or use an approved serial cable.

Each end of the parallel cable has a connector. One end is labelled "Printer" and the other is labelled "Computer."

1. To connect the Parallel Cable to the printer, align the end of the cable connector labelled "Printer" with the parallel port on the interface panel at the rear of the printer. (See the figure below.) Push the cable connector into the port.

Serial Port

Parallel Port

Power Switch

Power Receptacle

Fuse
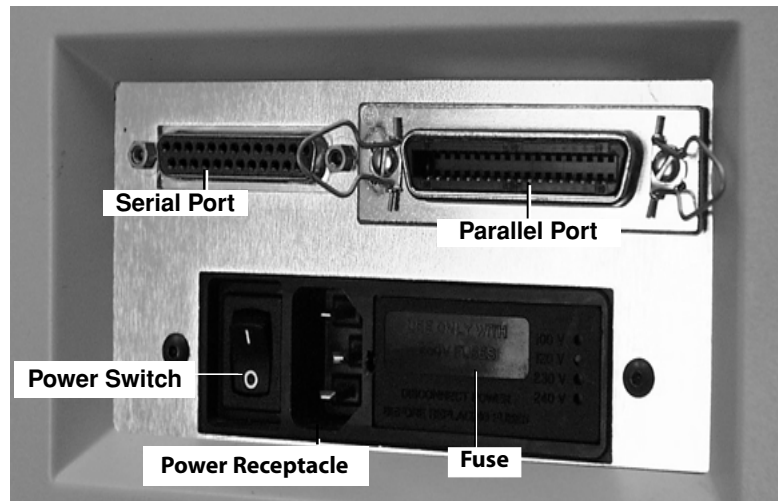
2. Secure the connector by snapping the two wire clips over the corresponding tabs on the connector, as shown in the figure below.
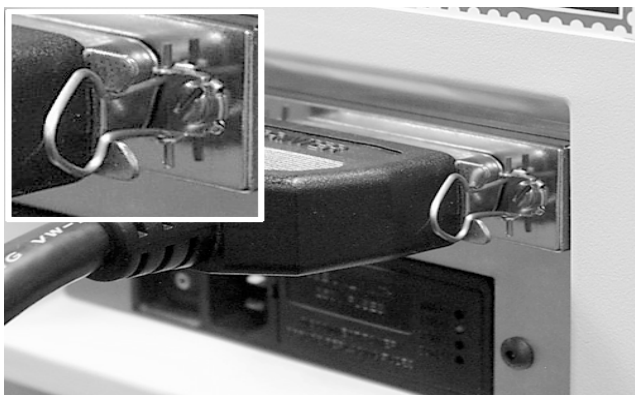
3. Align the end of the cable connector labelled "Computer" with the printer port on your computer, then push the cable connector into the port. Secure the connection by tightening the screws on either side of the connector.

4. To connect a Serial Cable to the printer, align the 25 pin male connector end of the cable with the serial port on the left side of the printer's interface. Attach the cable to the printer and the computer's hex jack screws using the thumb screws in the connectors.

5. Initialize the W660/W680's communication port by sending data to either the parallel or serial port. When the serial interface is used, the W660/W680 Communications menu settings must be configured to match the computer settings. Configure the computer to use either the XON/XOFF or DTR handshaking settings to communicate with the W660/W680. Use the following sub menus to change the W660/W680 serial communications: A. Baud Rate, B. Parity, C. Word Length and D. Line Termination.

Connecting to Power

5. Connect the Power Cord

1. Connect the female end of the power cord to the power receptacle in the interface panel. Refer to the figure on page 2-10.

2. Plug the male end of the power cord into a grounded outlet. Please review the safety information on pages 2-9 and 2-10.

Turning On the W660/W680

Once you've connected the cable, press the printer's power switch to the "|" (ON) position. The switch is located next to the power cord receptacle.

When you turn the printer on:

- The LCD menu shows the "STARTUP" and "INITIALIZING" screens.
- After the print head carriage moves to the right and parks in the maintenance station, the LCD shows the "ON LINE" screen.

Installing and Removing the Ink Jet Cartridges

6. Install the Ink Jet Cartridges (Color & Black).

The printer uses Ink Jet Cartridges for printing. You must install a black only cartridge (W660), or a black and a color cartridge (W680), before you can print. To begin:

1. With the printer on, press the On Line key until the display reads OFF LINE.

2. Open the Transport Door of the printer.

3. Press the Cartridge+ key on the control panel to move the carriage to the middle of the printer.

4. Remove the color (W680 only) or black cartridge (both models) from its shipping container by peeling the top cover off. Be careful not to touch the copper ribbon.

⚠️ **WARNING!** The ink in the cartridge may be harmful if swallowed. Keep new and used cartridges out of reach of children. Discard empty cartridges immediately.

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5. Gently remove the tape covering the ink nozzles on the print cartridge. Be careful not to touch the copper nozzles.

6. Gently insert the cartridge (color to the right, black to the left) into the carriage at approximately a 20 degree angle with copper strip to the bottom and in first. Press down on the cartridge until it is seated.

Note: The print cartridge photos in this section are of the W680 printer. The W660 has only one cartridge.

Installing and Removing the Ink Jet Cartridges (continued)

7. Push the cartridge forward (away from you) until it snaps in place.

8. Close the Transport Door.

9. The prompt asks about resetting the ink level. Select "YES" if you have installed a new cartridge. Otherwise, select "NO".

10. Press Enter. The display returns to the "OFF LINE" screen.

Note: The print cartridge photos in this section are of the W680 printer. The W660 has only one cartridge.

Installing and Removing the Ink Jet Cartridges (continued)

Removing the Ink Jet Cartridges

To remove or replace the ink jet cartridges, follow these steps:

1. With the printer on, press the On Line key until the display reads OFF LINE.

2. Open the Transport Door of the printer.

3. Press the Cartridge key on the control panel. This moves the carriage to the middle of the printer.

4. To remove the ink jet cartridge (color or black), place your thumb on the grooved surface and press down until it pops loose.

5. Lift the print cartridge out of the cradle.
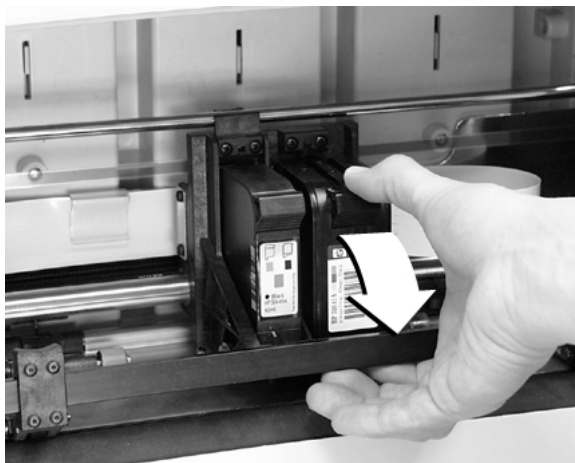
Chapter 3

W660/W680 Basics
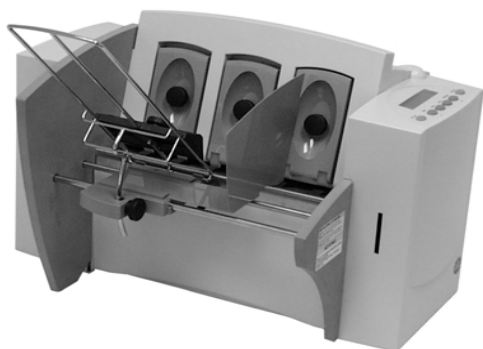
In this chapter you'll learn about key features of the W660/W680 printer and how to adjust it to meet the requirements of your print jobs.

In this chapter:

Printer Features

The W660/W680 has the following features:

Speed (pieces per hour):	9000 # 10 envelopes, 3 lines, 10 pt, Black
Print Qualities	Draft, Letter, Executive
Internal Fonts:	13 (14 including Code 39 Barcode)
Optional Font Card	
Font Point Size:	4 to 30
Material Thickness:	0.003" to .118"

Speed

Printer speed refers to the number of pieces of mail that can be processed in an hour. The W660/W680 can process 9000 number 10 envelopes per hour, depending on the address content and configuration. Printer speed depends on the number of characters per line, the number of lines, character size, font, interface, barcode, material size and graphics.

Print Qualities

The printer has three selectable print qualities: Draft (fastest speed), Letter (medium speed) and Executive (slowest speed).

Internal Fonts

A font is a set of characters (letters, numbers and symbols) that use the same typeface. The W660/W680 has thirteen (plus Code 39 barcode) different typefaces: Courier, Sans Serif, Roman, OCR A, Quincy, Springer, Hancock, Alpine, Baxter, Marina, Stencil, Windmill, and Silicon. You can select these fonts from the printer control panel menus.

If you set up a print job from your computer, you can use any font that is available from your software application.

Font Size

Font size refers to the size of each typeface. The W660/W680 uses from 4 to 30 point size for internal or downloaded fonts.

Printer Features (continued)

Material Thickness

Thickness refers to the size of the material that is processed through the printer. The W660/W680 can handle material from .003" up to .118" thick.

Media Size

The W660/W680 can print on the following range of material sizes.

	Width	Height	Thickness
Maximum	12.5" (317.5 mm)	15" (381 mm)	.118" (3.0 mm)
Minimum	3 " (76 mm)	5" (127 mm)	.003" (.0762 mm)

For envelope addressing purposes, the W660/W680 is compatible with any word processor or database application that can print a mailing label.

Approved Media Types

The printer can be used with the following types of material:

- Envelopes
- Booklets-Tabbed
- Catalog envelopes
- Postcards
- Self Mailers
- Paper

All envelopes must be without windows, empty and unsealed. Any folded material needs to be tabbed.

Refer to *Appendix B, Specifications*, for detailed specifications for the W660/W680, including specific requirements for using each type of material.

Other printer features include:
- Ink Jet technology with shuttling head.
- Interface to a standard IBM® compatible computer.

- Prints USPS POSTNET certified bar code.
- LCD menu display available in seven languages.
- Memory capable of storing up to eight jobs.
- Printing virtually anywhere on an envelope.
- Graphic printing capability.

Setting Up A Job

Setting up a print job means adjusting the printer to accommodate the width, height, thickness and weight of your material. There are two things that determine how reliably your printer feeds: the setup adjustments and the quality of your material. A good setup minimizes misfeeds and jams. And your printer will perform at its best when you run material that falls within our published specifications. Please see Appendix B for complete material specifications.

The figure on the next page calls out key machine components, each of which is briefly described in the text that follows. Refer to the figure on the next page for component location.

1. H-Block Separators
Adjust to the thickness of your material. The gap between the H-Block separator fingers and the feed rollers should be just enough to allow a single piece to feed through the printer.

2. Input Area
Where you stack material for printing. You'll make most setup adjustments in this general area.

3. Interface Panel (Not Shown)
Located on the lower part of the rear cover, the panel has the ON/OFF switch, parallel cable connector and power cord receptacle.

4. Wire Frame
Supports the material stack. Adjust the feed angle to accommodate the weight of the material you're running. Adjust its side-to-side position so it's centered under the stack.

Setting Up A Job (continued)

5. Feed Ramp and Lock Knob

The feed ramp adds a gentle slope to the stack to help feeding. Lower the feed ramp until the top of the bottom piece in the stack reaches the middle of the feed ram. Secure the feed ramp with the lock knob.

6. Wireframe Slide

Slides the wireframe side to side. Lock in position with the lock lever (Item 7).

7. Wireframe Slide Lock Lever (Not Shown)

Locks the wireframe slide in position.
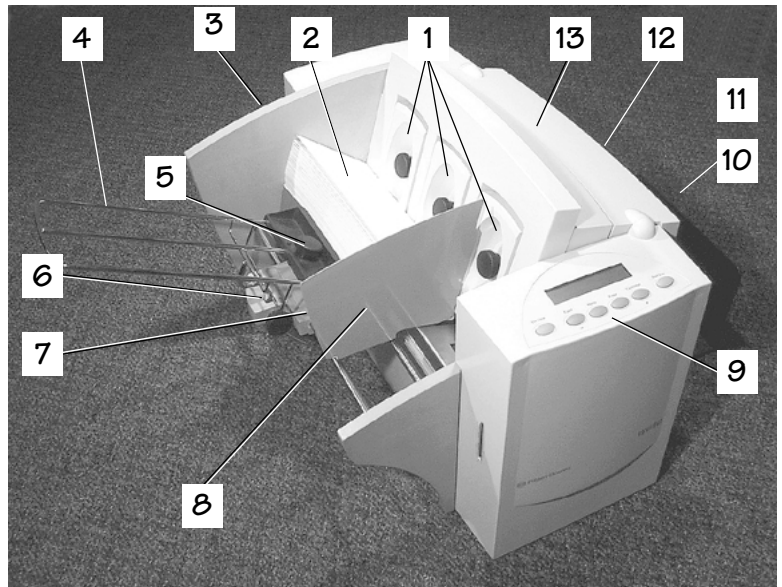
8. Feed Fence

Helps confine the stack. Adjust to the width of your material plus 1/16" clearance.

9. Control Panel

Use the control panel buttons to access printer menus, define print options, run the print job, position the print carriage and turn the printer on and off line. See *Appendix A, Printer Menus,*

Setting Up A Job (continued)

for detailed instructions. If you have the W660/W680 print driver loaded on your computer, you can easily perform these functions from within your application.

10. OutputStacker Tray

Printed material is deposited in the stacker (catch) tray. The tray holds about 5" of material.

11. Output Area

Where printed material is ejected from the printer.

12. Exit Rollers (Not Shown)

Guides the printed material as it exits the printer. Adjust so that each roller overlaps the edge of the material by 1/4".

13. Transport Door

Open to gain access to the print cartridge and exit rollers.

The following procedure describes the steps for setting up a job.

1. Set the Separator Gap

Switching from one material type to another requires setting the gap between the separators and the feed roller before printing begins. To find the correct spacing, refer to the figure on the next page and follow the instructions below:

1. Loosen the lock knobs to unlock all three H-Blocks.

2. Lift all three H-Blocks to their highest position and lock in place.

3. Place a sample piece of material into the input area. Align the sample with the left wall of the input area, then place it between the separator fingers (the lower section of the H-Blocks) and the feed roller.

4. Lower only the H-Blocks that come in direct contact with the sample material. Make sure the material is between the separator fingers and the feed rollers, and that the separator fingers do not directly contact the feed rollers.

Setting Up A Job (continued)

5. Lock each separator in place.

NOTE: If the separator gap is not set properly, the printer will misfeed or jam. If the gap is to big, the printer will feed doubles (two or more pieces at the same time). If the gap is too small, material will jam at the feed roller entrance. If you're running post cards and have feeding problems, set a smaller gap between the H-Block separators and feed rollers, or use thinner media.

Setting the Separator Gap

H-Block Separator

Lock Knob

Support Plate

Place a sample piece against the input wall and between the separator fingers and the feed roller

Setting Up A Job (continued)

Setup Example Using # 10 Envelopes:

When you set the feed gap for a number 10 envelope, the width of the envelope will fall completely under the inside and middle H-Blocks, but only half way under the outer H-Block.

In this case, remove the sliding fence, then follow this procedure:

1. Slide the #10 envelope over until it is under both fingers of the outermost H-Block.

2. Lower the outer H-Block so it contacts the material, then lock the H-Block in place.

3. With all H-Blocks locked in position, slide the envelope back to its original position.

Setting Up A Job (continued)

2. Center the Wireform under the Material

1. Place a sample piece of material in the feed area, up against the support plate.

2. Push down on the wireframe lock lever to free the wireframe slide.

3. Center the wireframe under your sample piece of material.

4. Pull up on the lock lever to secure the wireframe in position.

Lock Lever
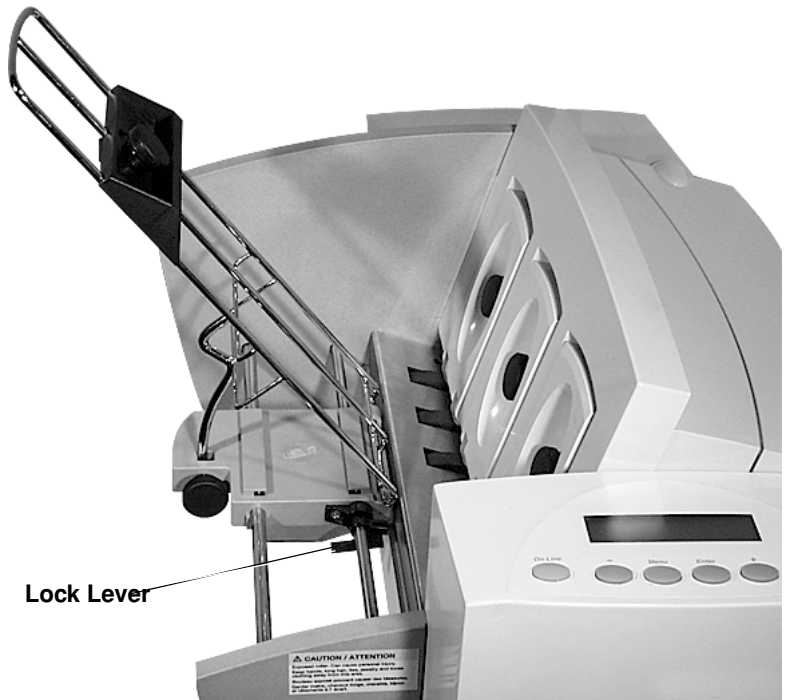
Setting Up A Job (continued)

3. Set the Feed Angle

The feed angle of the wireframe input stacker depends on the type of material you're running:

- **Heavy material**—adjust to a low angle
- **Standard material**—adjust to the center (45 degree angle)
- **Light material**—adjust to a high angle

To make the adjustment:

1. Loosen the lock knob on the wireframe slide.

2. Move the wireframe up or down as required.

3. Tighten the lock knob to secure the wireframe.
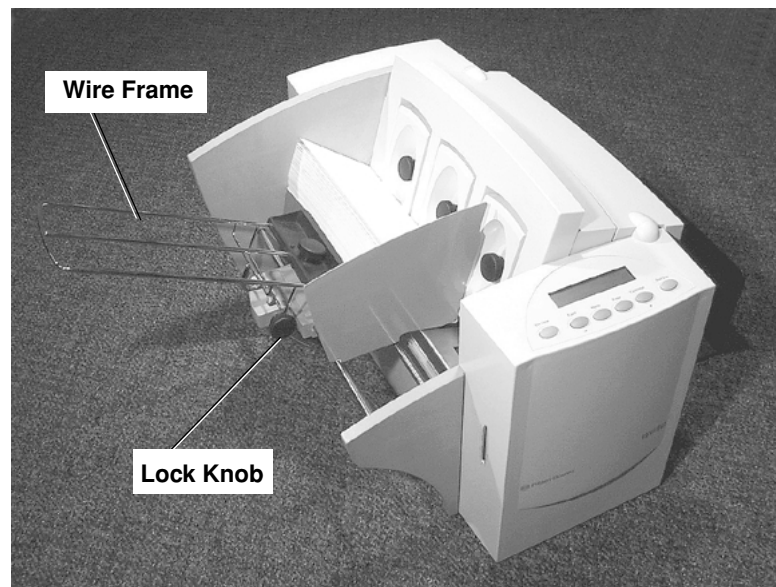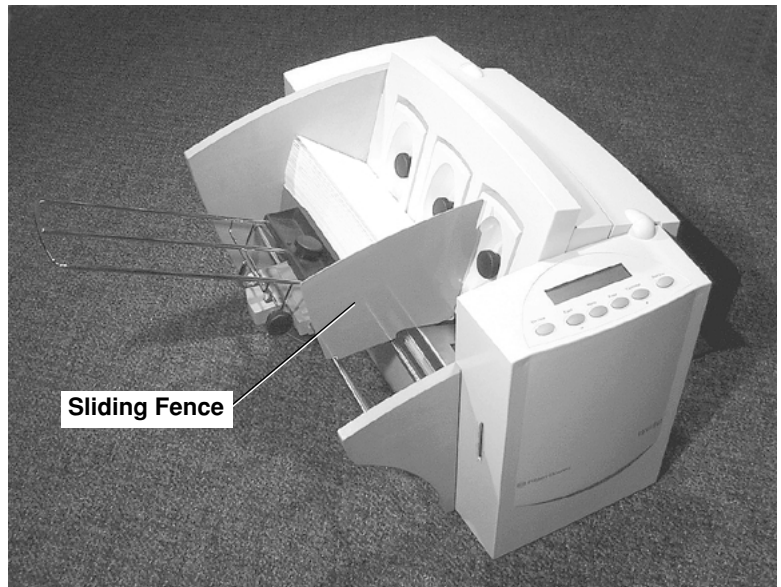
Setting Up A Job (continued)

4. Position the Sliding Fence

Your printer comes with two sliding fences—a long one and a short one. Use the long fence for number 10 envelopes and larger materials. Use the short fence for materials smaller than a number 10 envelope.

To position the fence:

1. Place a sample piece or trial stack of material in the input area.

2. Slide the fence until it almost touches the stack of material.

3. Check that there's about 1/16" clearance (the thickness of adime) between the fence and the stack.

NOTE: Proper clearance is important. If you push the fence tight up against the stack, it could retard feeding and cause jams. If the clearance is too great, pieces could skew as they feed into the printer.

Sliding Fence

Setting Up A Job (continued)

5. Load Material

Once your printer is set up, you can load material and make a test print. Avoid misfeeds by following these precautions:

1. Make sure the input area is free of dust and other matter.

2. Take a manageable amount of material and while holding it as shown, fan all sides of the material to separate each piece. This step helps keep misfeeds to a minimum.

3 Tamp the material on a flat surface, making sure that the stack is square.

4 Shingle the stack as you load it into the input area. Load envelopes so the side to be printed faces up. Flaps should be down and oriented away from the feed roller (flaps trailing).

5. Position the right edge of the envelopes flush against the support plate. Begin with just a few envelopes to start the stack and get the proper contour, then add several more pieces. Then, add the remainder of the stack.

NOTE: Envelope feeding is generally more reliable if there are more than just a couple of envelopes in the input bin.

6. Adjust the position of the feed ramp as described on the next page.

Setting Up A Job (continued)

6. Adjust the Position of the Feed Ramp

With a stack of material loaded:

1. Loosen the lock knob that holds the feed ramp in position.

2. Lower the feed ramp until the top of the bottom piece of the stack reaches the middle of the feed ramp.

3. Tighten the feed ramp's lock knob to hold it in position.

Feed Ramp
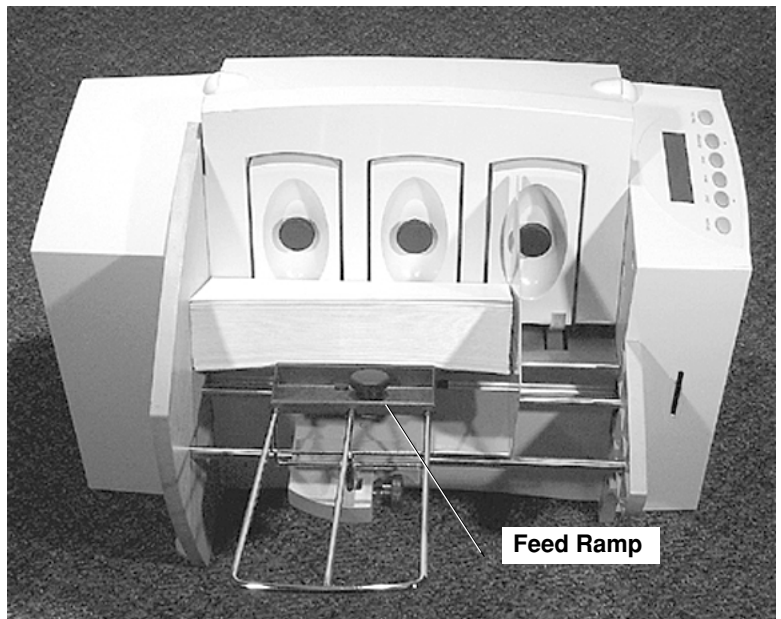
At this point, it's a good idea to recheck your setup adjustments:

- Is the separator gap adjustment correct?

- Is the wireframe centered under the material?

- Is the feed angle okay?

- Is there a slight clearance between the sliding fence and the edge of the stack?

Setting Up A Job (continued)

7. Adjust the Media Thickness Lever

The media thickness lever sets the distance between the printhead and the material. Use it to compensate for different material thicknesses. The lever is located inside the printer under the transport door, as shown below.

Set for approximate material thickness. Up position for thicker material (.118"), down position for paper or card stock (.010").

Media Thickness Lever
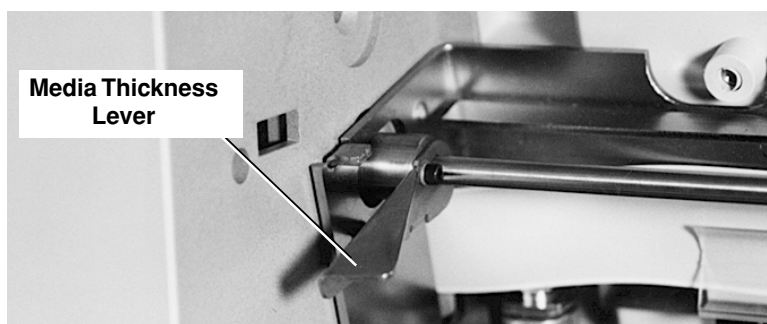
Print a test piece (page 3-16) with the lever in the middle position. If the address appears blurred or too light, lower the lever; if the address appears smeared, raise the lever

A Note about Print Quality

The W660/W680 is designed to feed and print on a range of materials with various finishes and coatings. However, the sharpness of the print may vary with different materials, depending on how absorbent the surface is, as well as other qualities.

You'll get best results using white wove bonded stock. Printing is less sharp on Tyvek, recycled and glossy material. It is also possible that ink may not dry thoroughly on certain very glossy materials. Always test high gloss materials for their drying qualities before you buy them in quantity and attempt to run a print job.

Setting Up A Job (continued)

8. Adjust the Upper Exit Rollers

Adjust the upper exit rollers so the outside edge of the rollers overlap the left and right edges of the material by 1/4". Slide the rollers from side to side to make the adjustment.
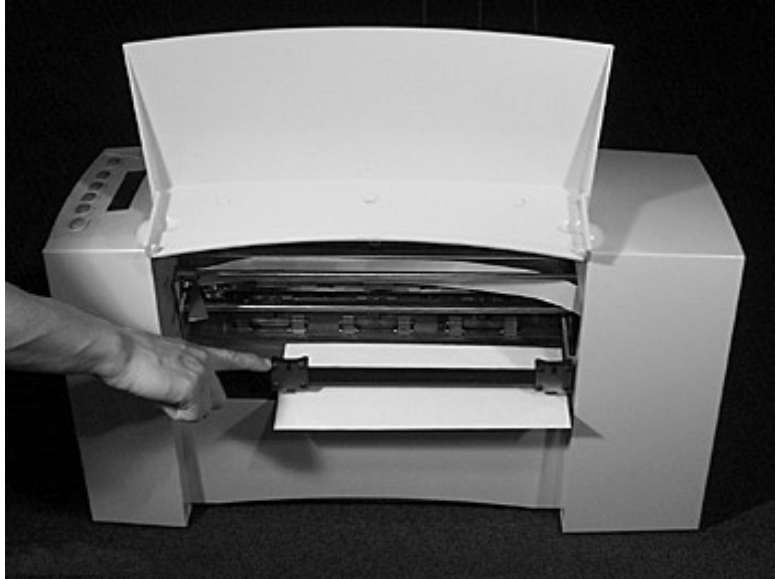
IMPORTANT: Make sure the rollers do not touch any printed area of the material. If this happens, the rollers will act like a printing press and imprint a faint impression at incremental distances on the material. If this happens, move the roller or rollers toward the nearest clear zone, that is, an area free of printing.

### Output Stack Height

The output stacker holds up to five inches of material before it becomes necessary to remove the stack from the bin. The optional W760 stacker increases capacity to 300 #10 envelopes.

NOTE: As the stack approaches the 5" limit, there is a potential for stacking misfeed (pieces not neatly stacked one on top of the other). This can cause envelopes to stack out of ZIP Code sequence.

Setting Up A Job (continued)

9. Print a Test Piece

1. Make sure material is loaded properly. (Or you can use a single test piece if you'd like to check your setup adjustments.)

2. Turn the printer ON. The On/Off switch is located on the interface panel at the rear of the machine. Wait for the printer to finish its startup routine and for the "ON LINE" screen to appear on the LCD.

3. Press the On Line button on the printer control panel until the LCD display reads OFF LINE.

4. Press the "Test Env." button. A single envelope will feed and a sample address should print.

5. Check the print quality. If it's not what you want, adjust the media thickness lever (page 3-14) as required and run another test piece by pressing the Test Env. button on the interface panel at the rear of the machine.
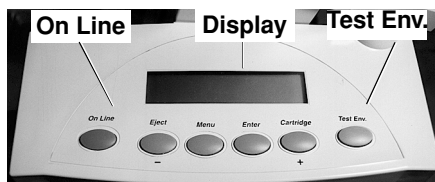
When you're satisfied with the setup adjustments, you're ready to run the job. The next chapter explains use of the printer with your computer.

Chapter 4

Using the W660/ W680 With Your Computer
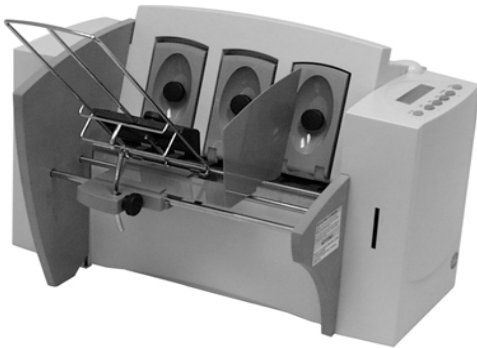
This chapter has instructions for installing the W660/W680 printer driver and selecting the printer from a computer application.

In this chapter:

NOTE: Graphics that show the W680 also represent the W660.

Installing the W660/W680 Printer Driver

Before using the W660/W680 printer with your computer, you must install the W660/W680 printer driver. The driver gives your computer information about the printer you're using, and tells the printer about the settings you want to use in your print job.

To install the W660/W680 printer driver, follow these steps:

1. Turn on your computer and wait for it to finish booting.

2. Insert the Pitney Bowes Stand Alone Printing (Envelope Designer Plus) software into the CD-ROM drive. After a few seconds, the ADDRESSRIGHT Printing System Welcome message displays on the monitor. If it doesn't, do the following:

   • Click the Start menu, then select the Run option.

   • Click "Browse" and type D:\setup.exe ("D" equals the CD-ROM drive letter). If your CD-ROM drive is designated by a different drive letter, type the correct letter in the command line.

   • Click "OK" in the Run window. The Run window closes and the ADDRESSRIGHT Printing System Welcome window appears.

3. When you are ready, click "OK" to proceed with the installation.

Installing the W660/W680 Printer Driver (continued)

An install update message displays briefly, followed by the Install window which displays a prompt for restarting the system.
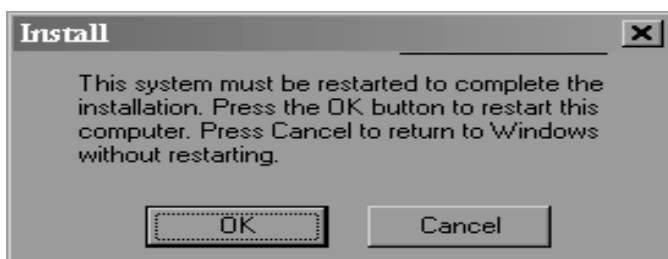
4. Click "OK" to restart the computer.

5. When the Applications Running window appears, shut down any running applications, then click "OK".

The Options List window displays.
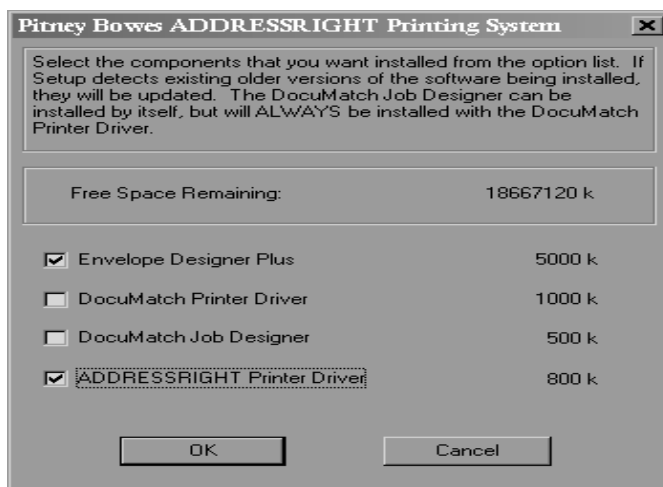
6. Select the desired components, then click "OK".

Installing the W660/W680 Printer Driver (continued)

An install update message window displays briefly, followed by the Destination Directory window.
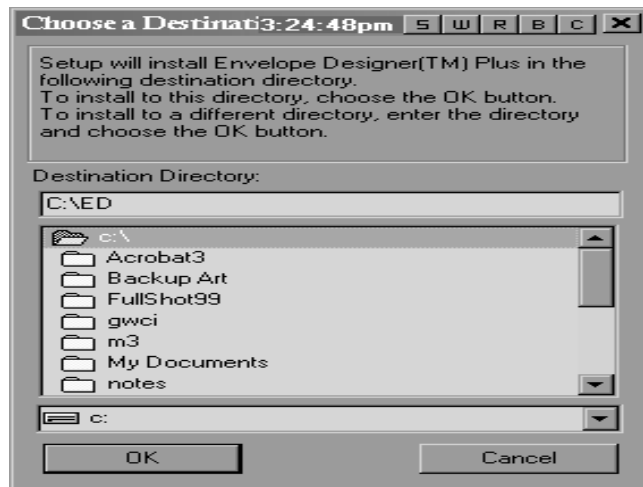
An install update message window displays briefly, followed by the Program Folder window.

8. Select the desired folder, then click "OK".

Installing the W660/W680 Printer Driver (continued)

An install update message window displays briefly, followed by a prompt to create a printer.
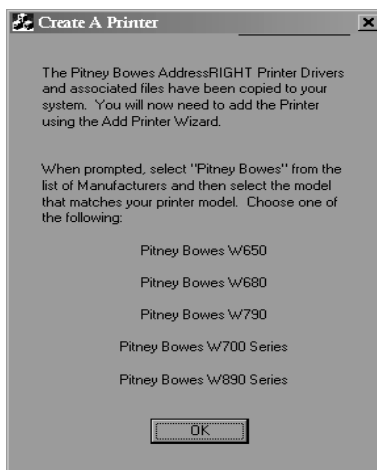
9. Click "OK" to enter the program for adding a printer to your computer setup.

An install update message displays briefly, followed by the first window in the Add Printer Wizard. It prompts you to begin installing the printer.
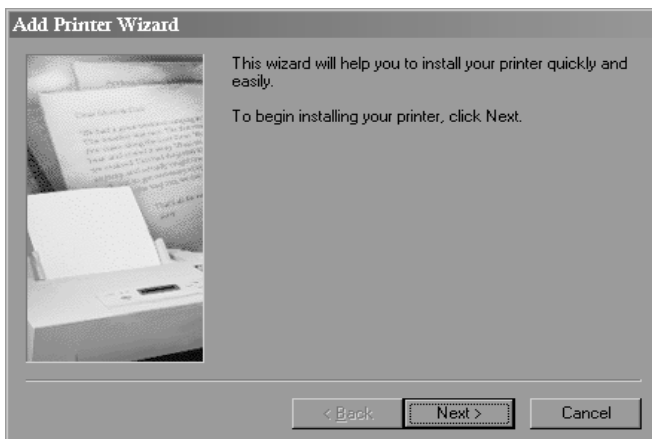
10. Click "Next" to begin the installation process.

Installing the W660/W680 Printer Driver (continued)

The window for designating the printer connection displays.
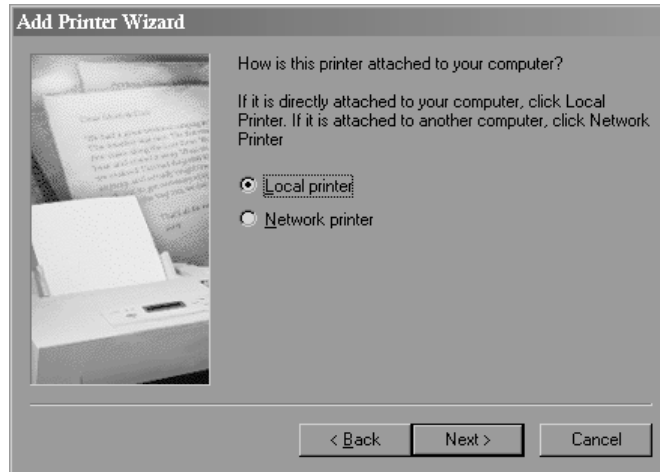
11. Select from the available options, then click "Next".

The window for identifying the printer manufacturer and model displays.
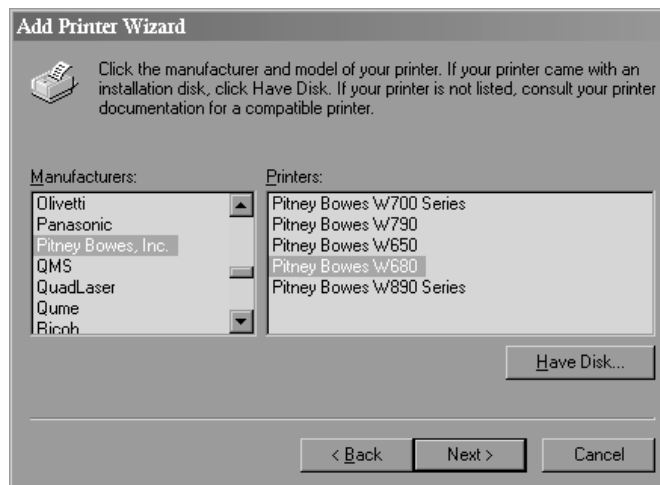
12. Select Pitney Bowes from the Manufactures area and Pitney Bowes W660 or W680 from the Printers area. Then, click the "Next" button.

Installing the W660/W680 Printer Driver (continued)

The window for selecting the port displays. The default port is highlighted
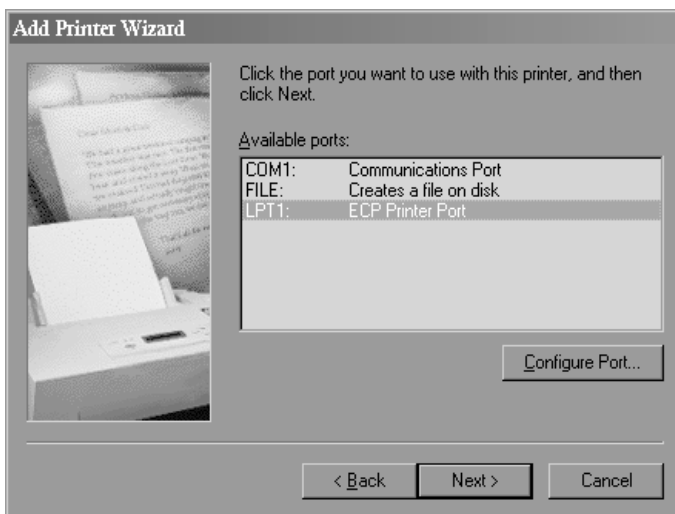
When the next window displays, Pitney Bowes W660 or W680 appears in the printer name area. The prompt asks you to indicate if you want to use this printer as the default setting.
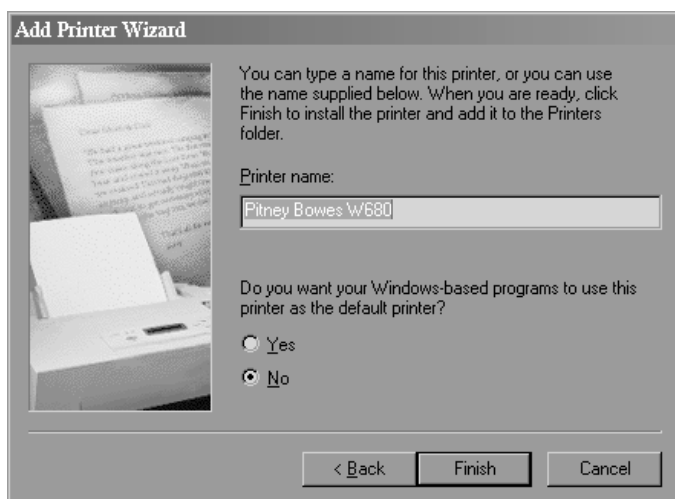
14. Select "Yes" if you plan to dedicate your system to mailings. Otherwise, select "No". After making the desired selection, click "Finish".

Installing the W660/W680 Printer Driver (continued)

The Envelope Printer Accelerator Setup window displays.
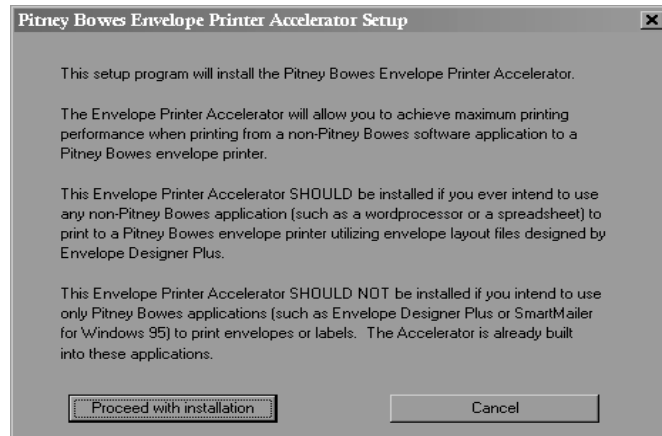
15. Select "Proceed with installation" if you intend to use non-Pitney Bowes applications and refer to step 17 on the next page for additional instructions. Otherwise, select "Cancel".

If you selected "Cancel", the Update Complete window displays.

16. Remove the printer CD-ROM, then click "OK". The system automatically restarts and the installation process is finished.

Installing the W660/W680 Printer Driver (continued)

If you selected "Proceed with installation", the 3rd Party Envelope Printing Setup window displays.
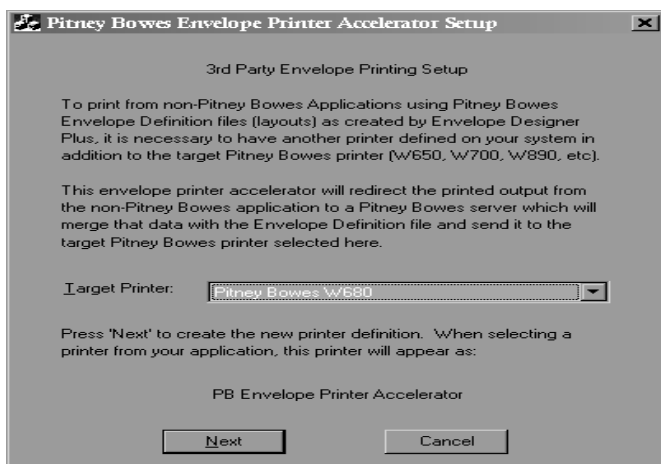
17. Select the printer to be targeted by the Accelerator, then click "Next".

The Successful Configuration window displays.
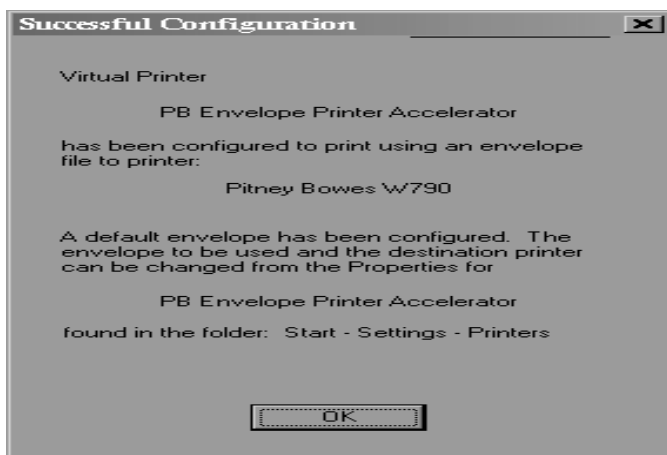
18. Click "OK" to complete the installation process.

Selecting Printer Properties

This section describes printer properties and use of the windows for selecting the available options. To access the main properties window, follow these steps:

1. Click the "Start" button in the task bar, then select "Settings".

2. Click "Printers." The Printer window displays.

3. Right click the Pitney Bowes icon, then left click the Properties option.

The **Properties** window opens and displays eight tabs, each of which allows access to different printer options. Note that the **General** tab window displays when the **Properties** window opens.
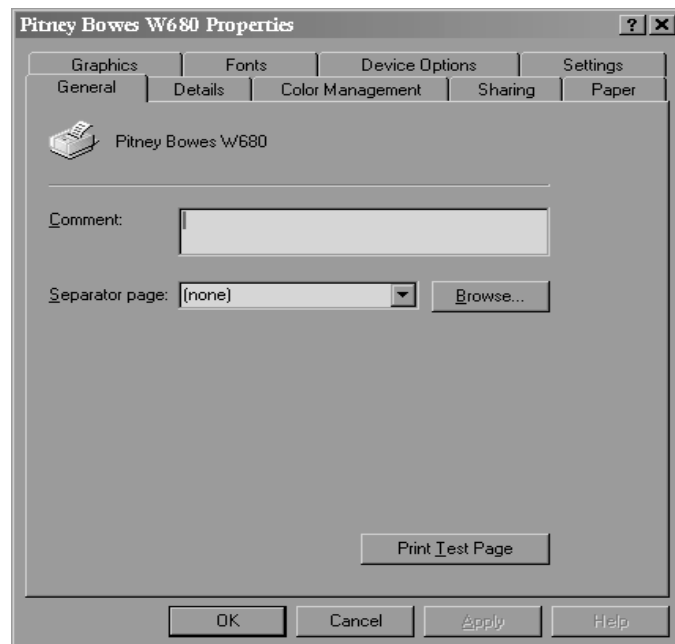
To access another option, left click on the appropriate tab. A window for the selected option displays.

**Using the
Printer
Properties
Window**

NOTE: An explanation of items in the tab windows is also available by doing the following:

- Right click an item to display the "What's This" button.
- Right or left click this button to display the information about the selected item.

Use of the window for each tabbed item follows, starting with the **General** tab window.

If the **General** tab window is not currently active, left click the **General** tab.
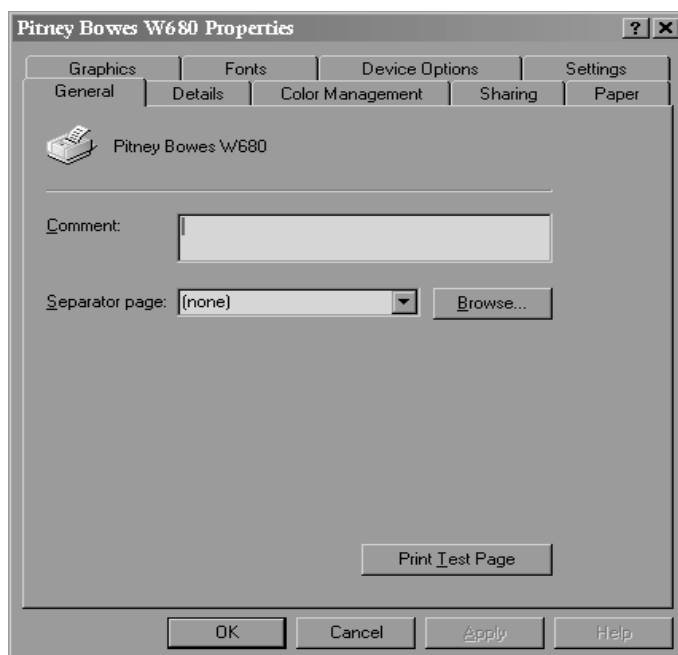
Using the Printer Properties Window

Use the **Comment** area to make a statement about the printer. For example, you might want to indicate what the printer should be used for and when it is available. If this printer is shared, the comment entered in this area displays on the computers sharing this printer.

Use the **Separator** page area to insert a page between each printed document. Options for this item are available through the pull-down menu and include: none; Full; and Simple. To insert a page that includes a graphic, select Full. To insert a page that has text only, select Simple.

To look for and select the file that you want to use as the separator page, click the "Browse" button

To print a test page to ensure that the printer is set up correctly, click the "Print Test Page" button.

The "OK, "Cancel", and "Apply" buttons display at the bottom of each tab window and work the same way in each window. Note that the "Apply" button is active only after a setting in the tab window is changed.

- To save the selected settings and close the **Properties** window, click the "OK" button.

- To save the selected setting and keep open the **Properties** window, click the "Apply" button.

- To close the dialog box without saving any changes made to the options in a tab window, click the "Cancel" button.

Using the Printer Properties Window
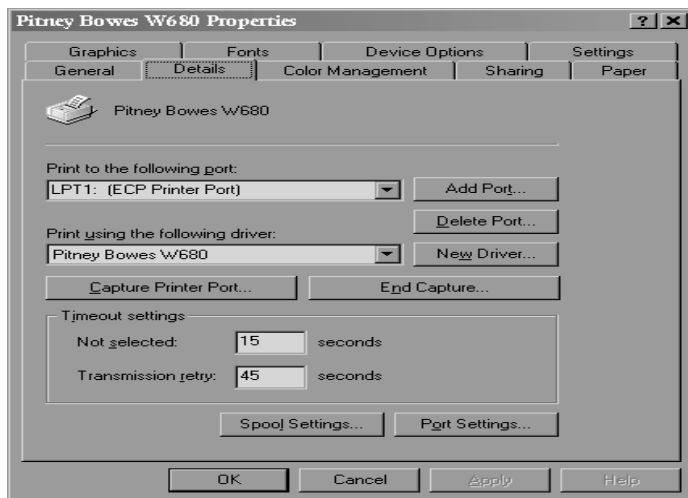
To display the **Details** window, left click the **Details** tab in the **Properties** window.

Use the **Print to the following port** area to select the port to which the printer is connected or the path to your network printer. Options for designating the port include the following:

- Type in the path.
- Selecting a path from the drop-down list.
- Click on "Add Port" to select the type of port you want to add.

The "Delete Port" option allows point and click removal of unwanted port designations.

Use the **Print using the following drive** area to display the type of printer in use. A drop-down menu shows the available options. The selected driver must match the printer or be compatible with it.

To change or update the printer driver, click the "New Driver" option.

Using the Printer Properties Window

Use the "Capture Printer Port" option to map a path to the network drive.

Use the "End Capture" option to remove the mapping of a port from a network drive.

Use the Timeout Settings in the following manner:

- Choose the "Not Selected" area to specify the time (in seconds) that Windows will wait for the printer to be online before reporting an error.
- Choose the "Transmission retry "area to specify the time (in seconds) that Windows will wait for the printer to be ready to print before reporting an error.

Use "Spool Settings" to specify how the document is sent to the printer, ". Use the "What's This" feature to clarify the choices available in the Spool Settings menu.

Use "Port Settings" to change the printer port settings.

If you make any changes to the original settings, click "Apply" to save the settings and keep the **Properties** window open. Click" OK" to save the settings and close the **Properties** window.

**Using the
Printer
Properties
Window**
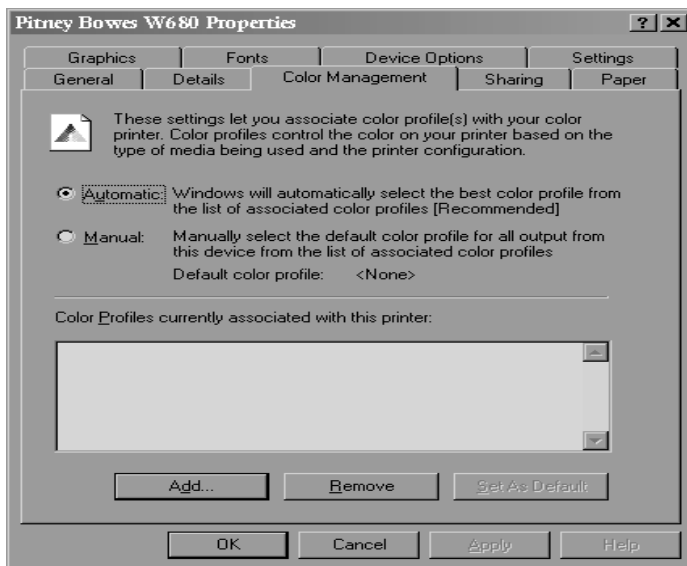
To display the **Color Management** window, left click the **Color Management** tab in the **Properties** window.

Choosing "Automatic" allows the system to select the best colors from the available profile. The "Automatic" option is the manufacturer-recommended choice.

Choosing "Manual" allows you to choose the desired colors.

If you make any changes to the original settings, click "Apply" to save the settings and keep the **Properties** window open. Click "OK" to save the settings and close the **Properties** window.

Using the Printer Properties Window
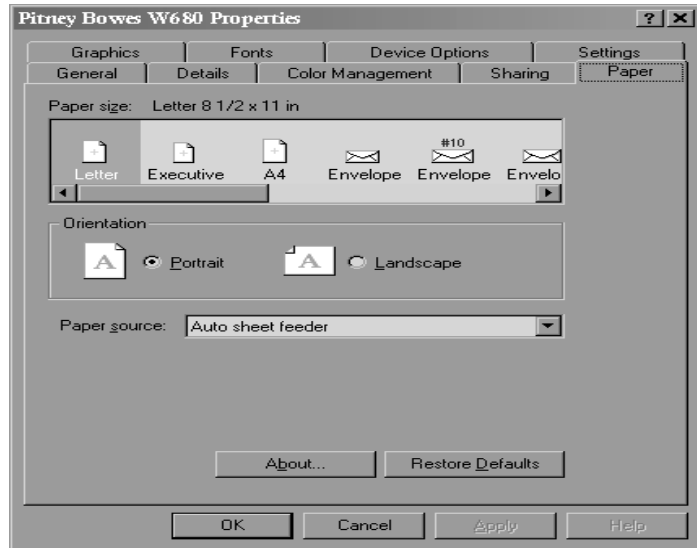
To display the Paper window, left click the **Paper** tab in the **Properties** window.

Use the **Paper Size** area to select the size or envelope that is to be printed. Click on the desired size from the selection that includes three paper sizes, eight envelope sizes, and an option to customize the size.

Use the **Orientation** area to select how the document is positioned on the paper when it is printed. Options for this item are Portrait and Landscape.

Use the **Paper source** area to specify the location of the paper to be used in the print job. Different printers support different paper sources and offer options such as, upper tray, envelope feed, and manual feed. For the W660/W680 the only paper source option is Auto sheet feeder.

Using the Printer Properties Window

Use the "Restore Defaults" button to return the printer to the manufacturer recommended paper settings

If you make any changes to the original settings, click "Apply" to save the settings and keep the **Properties** window open. Click "OK"" to save the settings and close the **Properties** window.

**Using the
Printer
Properties
Window**

Pitney Bowes W680 Properties

General | Details | Color Management | Sharing | Paper
Graphics | Fonts | Device Options | Settings

Resolution: 300 DPI

Dithering

○ None
○ Coarse
● Fine
○ Line art
○ Error diffusion

Intensity

Darkest ———————— Lightest

Current intensity: 100

Color... | Restore Defaults

OK | Cancel | Apply | Help
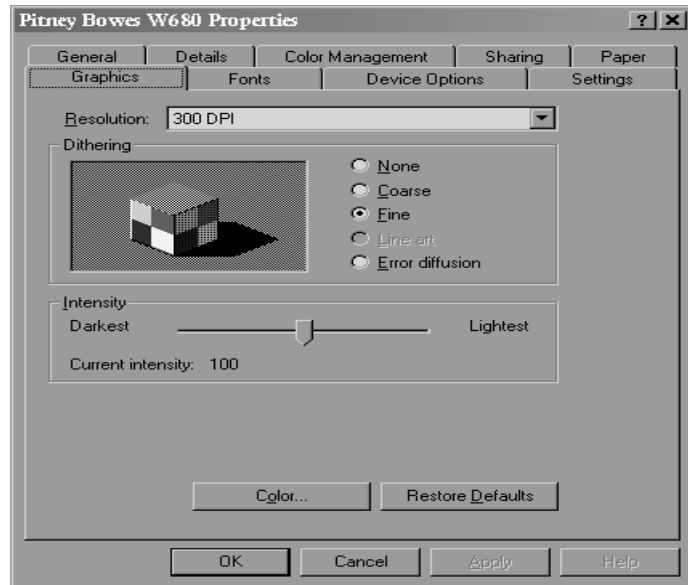
To display the **Graphics** window, left click the **Graphics** tab in the
Properties window.

Use the **Resolution** area to select the DPI (dots per square inch)
for the printer. The setting for the W660/W680 is 300 DPI.

Use the **Dither** area to select one of the following options to
blend pure colors into patterns:

- Select None for no dithering.
- Select Fine for resolution settings of 200 DPI or less.
- Select Coarse for resolution settings of 300 DPI or higher.
- Select Line art for well-defined borders of graphic art
  with black, white, and gray shadings.
- Select Error diffusion for photographs or pictures
  without sharp, well-defined edges.

**Using the
Printer
Properties
Window**

Use the **Intensity scale** to select the desired level of darkness for
the printed document.

Use the "Color" button to display the color and rendering con-
trols. Use the "What's This" feature for help in selecting the
options best suited to do the job.

Use the "Restore Defaults" button to return the printer to the
manufacturer-recommended graphic settings.

If you make any changes to the original settings, click "Apply" to
save the settings and keep the **Properties** window open. Click
"OK" to save the settings and close the **Properties** window.

Using the Printer Properties Window
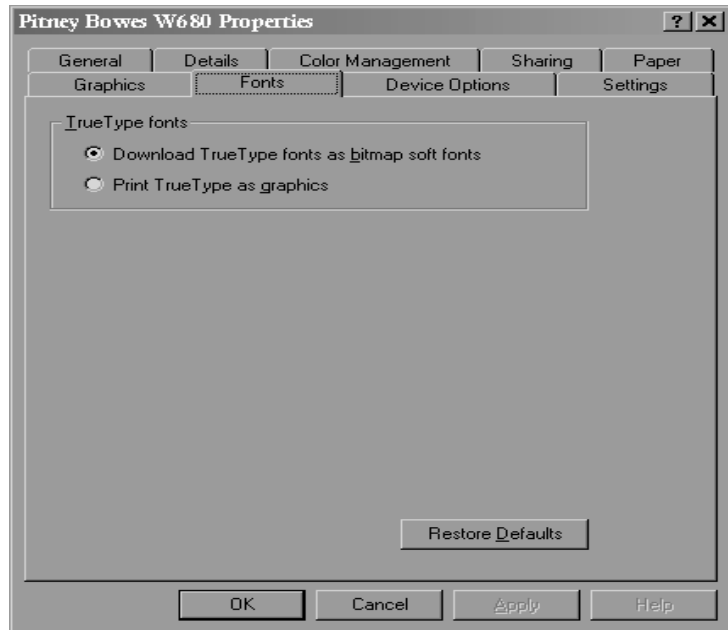
To display the **Fonts** window, left click the **Font** tab in the **Properties** window.

Use the **Download True Type fonts as bitmap fonts:** options for maximum printing speed. With this option selected, each character is sent to the printer and remembered and doesn't need to be sent again for the rest of the job.

Use the **Print True Type as graphics** option to print graphics over text. With this option selected, all text is sent as graphics and resent on every page, thus greatly reducing print speed.

Use the "Restore Defaults" button to return the printer to the manufacturer-recommended font settings

If you make any changes to the original settings, click "Apply" to save the settings and keep the Properties window open. Click "OK" to save the settings and close the Properties window.

Using the Printer Properties Window

To display the **Device Options** window, left click the Device Options tab in the **Properties** window.

Use the **Image Control** option to change the way graphics and text are printed. Three options are available. Right click on each option to use the "What's This" feature to determine the option best suited to the job

The **Printer Memory** areas specify use of the printer memory. The first area indicates the amount of available memory. For the W660/W680, it is unchangeable at 2.5MB.

While the **Printer memory tracking** permits user adjustment of the printer memory to the level of complexity of the document being printed, the recommended setting is the manufacturer default.

Using the Printer Properties Window

Use the "Restore Defaults" button to return the printer to the manufacturer-recommended settings

If you make any changes to the original settings, click "Apply" to save the settings and keep the **Properties** window open. Click "OK" to save the settings and close the **Properties** window.

*Using the
Printer
Properties
Window*

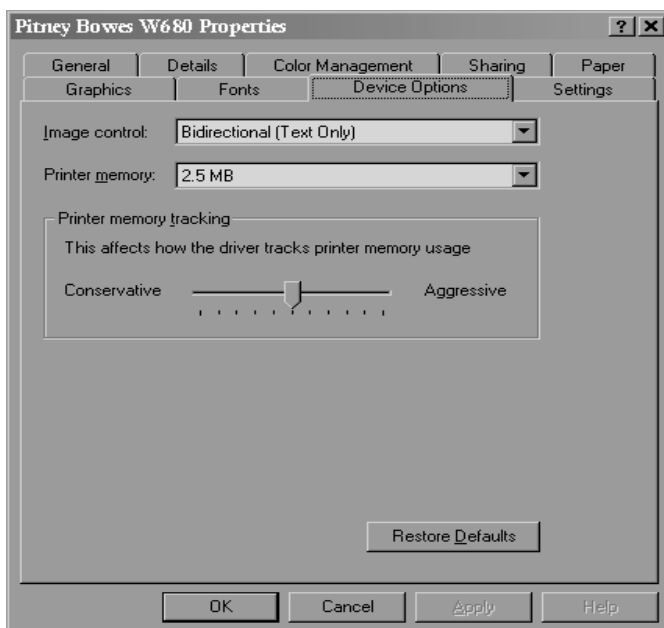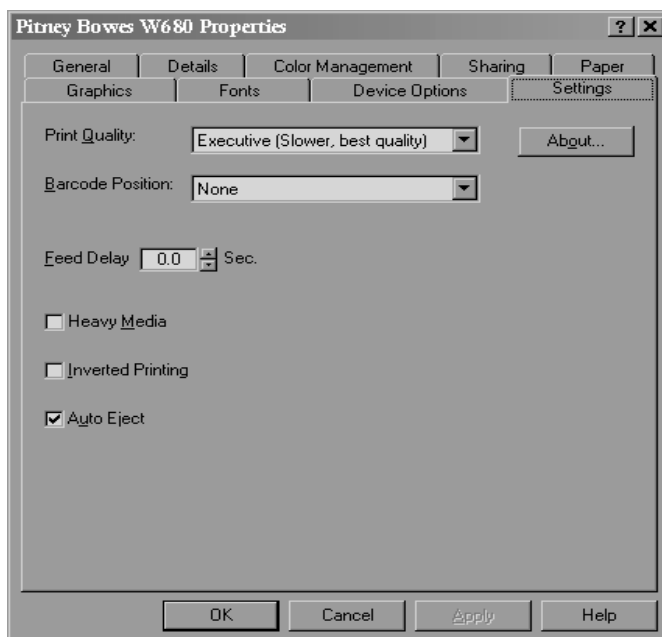To display the **Settings** window, left click the Settings tab in the **Properties** window.

Use the **Print Quality** area to select the desired level of reproduction of the printed documented. Three levels are available:

- Draft prints readable documents of low contrast at the fastest printing speed.

- Letter prints documents with acceptable contrast. Printing speed with option is slower than Draft printing, but faster than Executive printing.

- Executive prints documents of high contrast. With this option selected, printing is slower than that of the other two options.

Use the **Feed Delay** area to select the time (in seconds) that the printer will pause before feeding the next mailpiece. Settings for this option range from 0 to 30 seconds.

Using the Printer Properties Window

Use the **Heavy Media** option when the job consists of stuffed or thick envelopes, newsletters, or multi-page catalogs. Selecting this option decreases printer throughput, as the heavier media feeds 25% slower than regular weight envelopes. Also, more torque is applied to the motor, which ultimately prolongs the motor's life.

Use the Inverted Printing option to do the following:

- print of the left side of an oversized envelope
- when the printer head cannot reach the far end of an oversized envelope (larger than 9 1/4"). Note that envelopes must be fed flap first into the printer to have the addresses line up properly.

When the **Auto Eject** option is checked, the last piece of media in a stack automatically ejects itself from the printer.

When the "About" button is clicked, a window displays and indicates the Pitney Bowes W660/W680 Printer Driver version and copyright information.

Selecting the W660/W680 Printer From a Windows Application

The following steps explain how to select the W660/W680 printer from a Windows software application. The steps are similar for most applications. You can also refer to your application's documentation for specific instructions on installing selecting printers.

1. Start the software application that you use when printing envelopes with the W660/W680 printer and open the file you want to use.

2. From the File menu, select Print. The Print dialog box appears.

3. Click on the arrow in the Printer Name box. When you click on the arrow, a drop-down list box appears containing the names of the available printers.

The illustration below shows a typical print dialog box with the W660 or W680 selected.
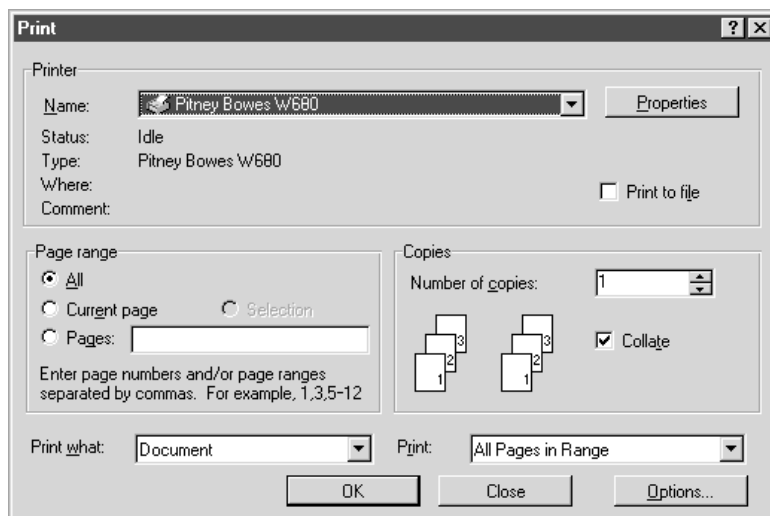
4. Click OK to send the job to the printer.

Selecting the W660/W680 Printer From a Windows Application (continued)

Once you've made this selection, your print job will automatically go to the W660/W680 printer when you select File/Print provided the W660/W680 is selected as the default printer). Remember to change the printer selection back to your regular printer for your other printing jobs.

Envelope Designer™

The Pitney Bowes Envelope Designer™ is an easy-to-use program that helps you create professional-looking envelope layouts quickly. With Envelope Designer, you can create and position a mailing address, return address, single-line message, barcode and graphics. Envelope Designer has an extensive online help system and a Wizard that guides you through the entire design process. Envelope Designer virtually eliminates the need for setting up your envelope manually, using either the print driver options or the printer's control panel menu options.

To access Envelop Designer, follow these steps:

1. Click Start in the task bar, then select Programs.

2. Select Pitney Bowes Printing, then left click Envelope Designer (TM) Plus. The program displays a sample envelope for you to customize.

Chapter 5

Printer Maintenance
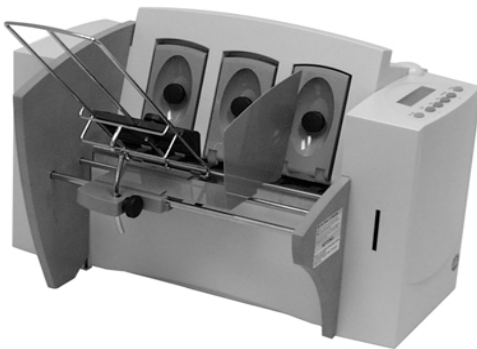
This chapter describes the maintenance procedures you should perform on a regular basis to keep your printer running trouble-free.

In this chapter:

Preventive Maintenance

The Pitney Bowes W660/W680 Ink Jet Printer is designed for trouble- free service with a minimal amount of care. You should schedule regular cleaning of the Feed Rollers, Exit Rollers and Lower Guide.

Cleaning

⚠️ **Caution**

Clean print head, cartridge, ink surfaces and covers with plain water only. (Water works best!)

Clean all rubber rollers with isopropyl, denatured and rubbing alcohol only.

Use of any other cleaning solvents will void all warranties.

Keep petroleum based cleaning solvents away from rubber or plastic parts. Anything but alcohol will cause premature breakdown of the rubber compound.

Print Quality Problems

The print head performs a self cleaning cycle periodically. If print quality is unacceptable, try the following:

- Adjust the media thickness lever (page 3-13) to see if print quality improves.
- Clean the print head cartridge: dampen a soft cotton cloth with water and wipe the nozzles clean.
- Install a new ink cartridge (page 2-13).
- From the Setup Menu, select 3. Purge Printhead. The purging process clears any clogged ink on the print nozzle. Often this returns the print quality to a normal level. See *Appendix A, Control Panel Menus*, for information on using this feature.

Exit Rollers

If the right and left exit rollers are misaligned, that is, contact printed surfaces, they can become contaminated with ink. Use water to dampen a soft cloth and remove the ink from the rollers.

Sensor

A film and/or dust can build up on the sensors and cause misfeeds of the material. Lift the transport door and use compressed air to blow dust from the sensors. Cans of compressed air are available from many computer supply houses.

Sensor Location
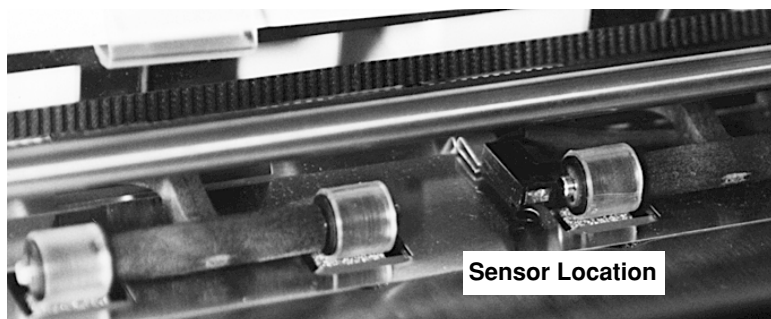
Floor Assembly and Top Cover

Periodically wipe the cover and floor assembly (feed deck) with a soft cotton cloth, dampened with water only.

Chapter 6

Troubleshooting

This chapter lists some common printer problems and offers suggestions on how to fix them.

In this chapter:

Problems and Solutions

Before calling our National Diagnostic Center or your Pitney Bowes Customer Service Representative, look for your problem below. If you can solve the problem yourself, you will be able to resume printing sooner.

Feed Problems

Problem	Intermittent Feed
Reason:	Feed ramp not used.
Solution:	The feed ramp adds a gentle slope to the stack and helps feeding. If you're using the prop, check the H-Block gap for proper separation. Also make sure the wire frame is centered under the material. See pages 3-9 and 3-13.)
Reason:	Dirty feed rollers.
Solution:	Clean the feed roller with denatured alcohol. DO NOT use any other solvents or detergents. They could damage the feed rollers.
Reason:	Paper dust present (yellow or white residue), blocking feed sensor.
Solution:	Clean sensor with compressed air (see page 5-3).

Problem	Multifeed (Feeds Doubles) or Skewing
Reason:	Separators (H-blocks) not set correctly. Also sliding fence set incorrectly.
Solution:	Adjust H-blocks to thickness of material. See page 3-6. Check sliding fence position. See page 3-11.

Print Quality Problems

Problem   **No Print**

Reason: Ink cartridge problem.

Solution: Purge ink cartridge (pg A-23).
Clean cartridge jets with soft cotton
cloth and water (in line with colors as
shown).
Change to a new cartridge.

Correct

Incorrect

Problem   **Gray or Light Print - Black Ink**
Off Color or Low Intensity - Color Ink - W680
only

Reason: Ink supply is low.
Solution: Check adjustment of the media thickness lever
(page 3-14). If this fails to correct the problem,
replace ink cartridge (pages 2-13, 2-15).

Problem   **Address Smudging**

Reason: Incorrect media thickness lever setting.
Ink may not dry on very high gloss material.

Solution: Check whether media thickness lever is adjusted
too low (page 3-13).
Try using less glossy material.
Check exit rollers.

Problem   **Address Printing is not Sharp**

Reason: Incorrect media thickness lever setting. Also,
unsuitable material.

Solution: Check whether envelope thickness lever is
adjusted too high (page 3-14).
Print quality is less sharp when using Tyvek,
recycled or glossy media.

Print Quality Problems (continued)

Problem	**Unwanted Bolding**

Reason: Escape sequence turning on bold or bold selection in printer's menu options is set to bold.

Solution: Turn off bolding in software and/or turn bold selection in printer menu OFF. See Appendix A for instructions. If problem still exists, call Pitney Bowes for service.

Problem	**Addresses "Walking"**

Reason: Incorrect Address Setup.

Solution: Count carriage returns and line feeds and adjust Lines Per Address to the same number. Also check line termination: Typical, CR=CR; LF=LF. Other choices, (CR=CR+LF;LF=LF), (CR=CR; LF=CR+LF), (CR=CR+LF;LF=CR+LF), double spacing.

Interface Problems

Problem	**No Communications; Printer Does Not Re-spond**

Reason: Incorrect print driver, bad parallel or serial cable, bad printer controller board.

Solution: Use W660/W680 print driver; replace parallel or serial cable. Make sure cable connections are tight, and that they are correct. Refer to serial pin diagram on the next page. If the problem still persists, call Pitney Bowes for service.

Clear memory (pg A-16).

Cycle power.

Connector Diagram

Serial Pin Connector Diagram

```
              PRINTER                                    COMPUTER
               DB25                                        DB25
CHS GND        [1]─────────────────────────────────────[1]    CHS GND
    TXD        [2]─────────────────────────────────────[3]    RXD
    RXD        [3]─────────────────────────────────────[2]    TXD
    CTS        [5]──────────┐                           [20]   DTR
    DSR        [6]──────────┤        ┌──────────────────[7]    SIG GND
SIG GND        [7]──────────┼────────┘      ┌───────────[5]    CTS
    DTR        [20]         └───────────────┘           [6]    DSR
```

```
               DB25                                        DB9
CHS GND        [1]────────────────────────────
    TXD        [2]─────────────────────────────────────[2]    RXD
    RXD        [3]─────────────────────────────────────[3]    TXD
    CTS        [5]──────────┐                           [4]    DTR
    DSR        [6]──────────┤        ┌──────────────────[6]    DSR
    DTR        [20]         └────────┤                  [8]    CTS
SIG GND        [7]──────────────────────────────────────[5]   SIG GND
```
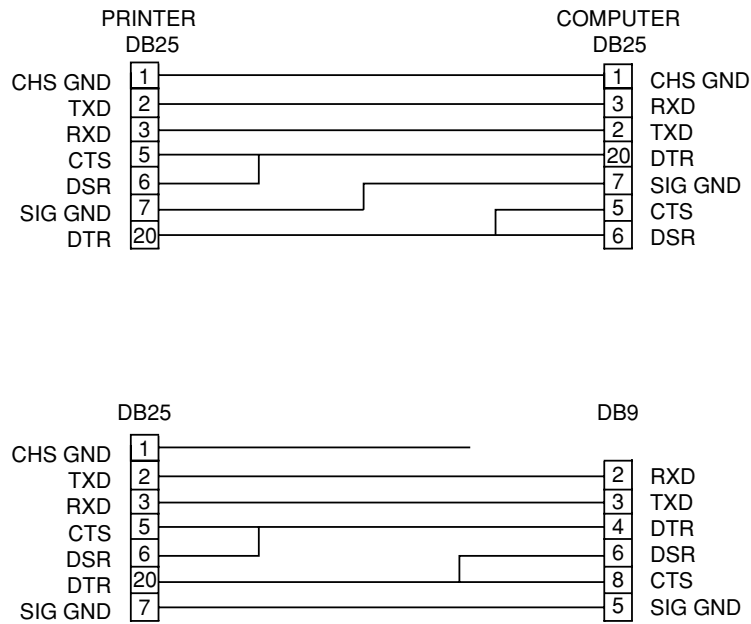
Motor Problems

Problem   **Motor Turning but no Feed Roller Movement**

Reason: Mechanical problem.

Solution: Call Pitney Bowes for Service.

Barcode Problems

Problem   **Barcode (Lower Right) is not Printing**

Reason: Barcode not enabled

Solution: Turn barcode ON using Envelope Designer™, or the W660/W680 print driver or the printer's control panel menus.

Reason: Missing ZIP Code.

Solution: Insert ZIP Code.

Reason: Invalid ZIP Code format.

Solution: Check ZIP Code for invalid character. Example: Zero (0) can only be the number, not the letter (O). Verify that there is a dash inserted between the 5 + 4 ZIP Code Per DMM manual specifications.

Reason: Address too low.

Solution: Verify the bottom of the last line of the address field is not less than 5/8" from bottom edge of the media.

Barcode Problems (continued)

Problem	**Address too High**
Reason:	Address field is within 1/10" of the top edge of the media.
Solution:	Move address field down to within DMM specifications.

Other Problems

Problem	**Paper Out or Paper Jam**
Reason:	Input area is empty.
Solution:	Refill the input area.
Reason:	H-Block separators not adjusted correctly.
Solution:	Adjust the H-Blocks to the thickness of the material you're running. See page 3-6.
Reason:	Paper jam obstructing paper path.
Solution:	Clear obstructed path.
Reason:	Dirty paper feed sensor.
Solution:	Clean sensor with compressed air. See page 5-3.

Problem	**Shuttle Jam**
Reason:	Envelope thickness lever is set too low for material.
Solution:	Open the transport door and adjust the media thickness lever. See page 3-14.

Other Problems (continued)

Reason:	Lower rail shaft dirty.
Solution:	Wipe lower rail shaft clean.

Problem   **Memory Card Error**

Reason: The card was removed while the printer was reading it.

Solution: Do not remove the card while the printer is in use. If the card has been removed, insert the card, turn the printer off, then turn the printer on again.


Problem   **Out of Memory**

Reason: The printer can run out of memory when downloading fonts or graphics.

Solution: This generally means you're trying to use a graphic (artwork) that's too big or you have too many fonts or too large a font size. If the out-of-memory message appears, try reducing the size of your art and limiting the number and size of your fonts. Then shut the printer OFF, then ON and retry.

Appendix A

Using the Control Panel Menus
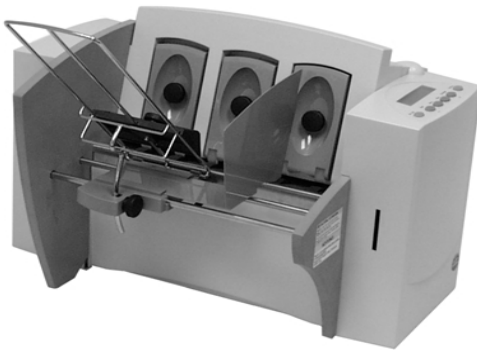
The printer menus are used to control how your printed material looks. This chapter describes each menu and its options.

In this Appendix:

Using the Control Panel

Use the buttons on the control panel to get to the printer menus, define the print options, run a print job, position the print carriage and turn the printer on line and off line.

If you've installed the W660/W680 printer driver on your computer, you'll normally perform these actions from within the application you're using to set up your envelope layout.

The buttons on the control panel perform the following functions:

This Button...	Does This...
On Line	Toggles (switches) between ON LINE (communicates with host) and OFF LINE (no communications with host). Note that the functions of two buttons, Eject/- and Cartridge/+, vary, depending on whether the printer is ONLINE or OFFLINE.
Eject/- (minus)	When printer is offline, press to eject the last printed piece from the printer. When printer is online, press to scroll through menu items from bottom to top.

Menu	Displays the options on the Main Menu and the Setup Menu. The printer must be OFF LINE to access the menus.
Enter	Press to select the currently displayed menu option.
Cartridge/+(plus)	With the printer OFFLINE, press to move the ink cartridge holder to the center of the printer. This makes it easy to remove the cartridge.
	With the printer ONLINE, press to scroll forward through the menu options.
Test Env.	Prints a test envelope. This is very useful when you set up a print job.

Using the Menus

The W660/W680 has two menus, both displayed on the LCD:

- Use the Main Menu to control how your printed material looks.
- Use the Setup Menu to configure your printer so it will function correctly with your computer.

NOTE: The printer must be OFFLINE to access the menu options. To select an option:

Using the Menus (continued)

To select an option:

1. Press the On Line button until the LCD message displays "OFF LINE".

2. To access the MAIN MENU, press the Menu button.

3. To access the SETUP MENU, press and hold the Menu button for four (4) seconds.

4. Press the plus (+) or minus (−) buttons to move through the list of menu options.

5. When the appropriate menu option appears, press the Enter button to display the choices associated with that option.

6. Press + or − to scroll through the choices. When an option has an asterisk (*) in front of it, means that option is presently selected.

    Upon receipt of the printer from the factory, the asterisk is typically the default setting.

    When you press the Enter button to define a new option, an asterisk will appear before the selected option.

7. Press the Menu button several times to back out of the Menu until the printer displays OFF LINE. Then press the ON LINE button to print

Using the Main Menu

The Main Menu options are:

1. Address Layout

2. Print Quality

3. Font

4. Barcode

5. Address Recovery

6. Clear Counter

7. Job Settings

NOTE: The settings you define in a software application such as SmartMailer™ override any settings you choose in the printer menus.

Using the Main Menu (continued)

Main Menu	Menu Options
1. ADDRESS LAYOUT	A. DISTANCE TO RIGHT B. DISTANCE TO BOTTOM C. LINE SPACING D. ORIENTATION E. ORIENTATION CONTROL
2. PRINT QUALITY	DRAFT EXECUTIVE LETTER
3. FONT	A. NAME B. SIZE C. WIDTH D. BOLD E. ITALIC F. OUTLINE
4. BARCODE	A. LOCATION B. 5 DIGIT ON/OFF C. 9 DIGIT ON/OFF
5. ADDRESS RECOVERY	A. GET ADDRESS B. CLEAR MEMORY
6. CLEAR COUNTER	CLEAR ADDRESS (YES/NO) PIECE COUNTERS
7. JOB SETTINGS	A. LOAD B. SAVE

NOTE: To print a list of the Main Menu and Setup Menu settings, press the test button when ROM REV is displayed - i*n the Setup Menu.*

1. Address Layout

Use the Address Layout option to set up the way an address appears on the printed material. The printable width is limited to 9.4" from the right side of the mail piece. The printable height is 15" measured from the bottom edge of the mail piece.

Define the following options from this menu:

A. Distance to Right (Left Margin)

This option sets the start of the address (the left side of the address) as measured from the right side of the envelope. For # 10 envelopes this should be about 5.5".

Press the + or – buttons to increase or decrease the Distance to Right, (+ MORE or – LESS) defined in inches or millimeters. The left margin is the distance measured from the right edge of the material to the first printable character. Press the Enter button to select the desired measurement.
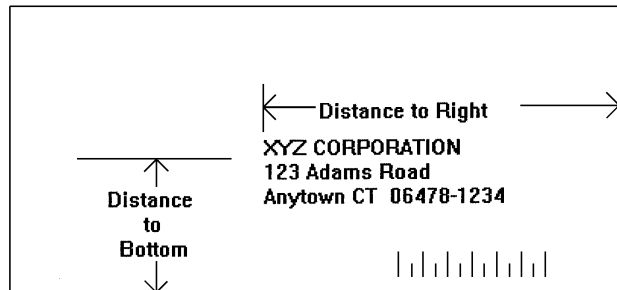
1. Address Layout (continued)

B. Distance to Bottom (Bottom Margin)

Use this option to set the distance from the top address line to the bottom of the envelope. For #10 envelopes this should be about two inches.

Press the + or – buttons to increase or decrease the Distance to Bottom, (+ MORE or – LESS) defined in inches or millimeters. The bottom margin is the distance between the bottom edge of the material and base of first line of the address. Minimum distance between the last line of the address and the bottom edge of the material is 5/8 inches. If less than 5/8 inches, the lower right barcode will not be printed. Press the Enter button to enable the desired measurement.

C. Line Spacing

Press the + or – buttons to increase or decrease the Line Spacing (i.e., 3, 4, 6, 8 lines/inch or Automatic), defined in lines per inch. Automatic line pitch selection is based on industry-standard definitions for line spacing for each print pitch and style selected. The printer will automatically select the correct setting for the font and size of the characters being printed.

D. Orientation

The choices are Normal and Inverted. Select Normal for most applications. This tells the printer that the bottom edge of the material feeds first, with the right side running against the right side of the printer.

The Inverted option tells the printer that the top edge of the material feeds first. Select this option if, for example, you need to feed envelopes flap first.

E. Orientation Control

The choices are Automatic and Manual. When Orientation Control is set to Automatic, the printer acknowledges the orientation commands sent from the computer. Setting Orientation to Manual notifies the printer to use the menu settings for orientation.

1. Address Layout (continued)

To use the Address Layout option:

1. Press the On Line button until the display reads OFF LINE.

2. Press the Menu button to display the Main Menu.

3. Press the + or - buttons to scroll through the Main Menu options until 1. ADDRESS LAYOUT appears on the LCD panel.

4. Press the Enter button to select this option.

5. Press the + or – buttons to scroll through the ADDRESS LAYOUT options.

6. Press the Enter button to select the desired option (A, B, C, D or E).

7. Press the + or - buttons to scroll through the choices associated with each option.

8. When you've finished making selections, press the menu button several times to back out of the menu until the printer displays OFF LINE. Then press the On Line button to enable the printer.

2. Print Quality

Use the print quality option to select the resolution of the printed addresses—Executive, Letter or Draft.

Note: All color print quality specifications only apply to the W680.

A. Executive Quality
Black - 600 x 600 DPI - Color 300 x 300 DPI

This is the darkest of the three print qualities. It prints at the slowest speed, uses the most ink and delivers the best quality printout. Executive quality prints envelopes that require a professional appearance.

B. Letter Quality
Black - 300 x 600 DPI - Color 300 x 200 DPI

Letter quality is used for envelopes that require a finished, polished appearance.

C. Draft Quality (150 DPI)
Black - 300 x 300 DPI - Color 300 x 150 DPI

This is the lightest of the three and prints at the fastest speed. Draft quality prints envelopes at the highest speed and saves ink.

To use the Print Quality option:

1. Press the ON LINE button until the display reads OFF LINE.

2. Press the Menu button to display the Main Menu.

3. Press the + or – buttons to scroll through the Main Menu options until the Print Quality option is displayed on the LCD panel.

4. Press the Enter button to select the option you want.

2. Print Quality (continued)

5. Press the + or – buttons to scroll through the Print Quality options, until the desired option (Executive, Letter or Draft) is displayed on the LCD panel.

6. Press the Enter button to select the desired option.

7. After you've made your selection, press the Menu button several times to back out of the Menu until the printer displays OFF LINE. Then, press the On Line button to enable the printer.

3. Font Selection
The W660/W680 has thirteen available fonts (typefaces, plus barcode): Courier, Sans Serif, Roman, OCR A, Quincy, Springer, Hancock, Alpine, Baxter, Marina, Stencil, Windmill, and Silicon. All fonts are scalable from 4 to 30 point size, and can be printed in regular, **bold,** *italic.* and `outline` style. The W660/W680 also supports downloaded fonts. This means that if you are using Windows, all the fonts installed in Windows are available. This also applies to any DOS™ applications that can download fonts.

The options on this menu are Name, Width, Bold and Italic.

A. Name
The printer has thirteen internal fonts as described above, and one barcode font.

B. Size
The font size (internal or external) can be set from 4 to 30 point.

C. Width
The font width is Normal (100%), thin (75%), condensed (50%), wide (125%) or expanded (150%).

D. Bold
This is the darkest imprint because character stroke weight (thickness of print) is increased. Use Bold to emphasize or highlight text in an address.

3. Font Selection (continued)

E. Italic

Italic characters have decreased stroke weight, print at an oblique angle and print somewhat lighter than standard or bold typefaces. Use italic to provide emphasis and add flair to address text that requires a finished, polished appearance.

F. Outline

Use this option to print only the outline or the edge of the font's shape. All records printed using Outline will appear as hollow text.

To select the font options:

1. Press the + or – buttons to scroll through the Main Menu options until the "FONT" option displays on the LCD panel.

2. Press the + or – buttons to scroll through the Font options until the desired option appears on the LCD panel.

3. Press the Enter button to select the desired option (A, B, C, D, E or F).

4. After making your selections, press the Menu button several times to back out of the Menu until the printer displays OFF LINE. Then, press the On Line button to enable the printer.

4. Barcode

Use this option to include a USPS-certified barcode on your mailpieces. The W660/W680 can print a 5- or 11-digit barcode. If you select Off, it means that if the computer sends a 5-digit ZIP Code, it won't print a barcode; only the 9-digit ZIP Codes and Delivery Points will print.

The options on the barcode menu are Location and 5-Digit On/Off.

A. Location

Press the Enter and + buttons to select the Location where you want the barcode to print. (Lower Right Corner, Above Address, Below Address or turn Barcode Off).

B. 5-Digit On / Off

If a 5-digit barcode is required, selecting the 5-digit barcode option (5-Digit ON) lets you print either 5-digit or 11-digit barcodes as requested by the computer.

1. Press the + or – buttons to scroll through the Main Menu options until the BARCODE option displays on the LCD panel.

2. Press the Enter button to select this option.

3. Press the + or – buttons to scroll through the Barcode options, until the desired option (A. Location and B. 5-Digit On/Off) displays on the LCD panel.

4. Press the Enter button to select an option.
   Use this option to define where the U.S. Postal Service POSTNET™ Barcode will print.

4. Barcode (continued)

5. Press the Enter button at the 5-digit barcode prompt and use + or – to turn the option ON or OFF.

6. After making your selections, press the Menu button several times to back out of the menu until the printer displays OFF LINE. Then, press the On Line button to enable the printer.

5. Address Recovery

Use this option to direct the printer's memory to go back a certain number of addresses when an error occurs in order to reprint the address. The options on this menu are A. Get Addresses and B. Clear Memory.

A. Get Addresses

Select Get Addresses after a jam is cleared and you want to restart printing at the point where the printer left off just before the jam occurred. To retrieve any address in the data buffer, press the Enter button. The first 16 characters of the first line of the last address printed will be displayed on the LCD. Press the + or – buttons to scroll through the addresses. When the desired address appears, press the Enter button to print that address plus the remaining addresses in the buffer.

B. Clear Memory

Select Clear Memory before you start a new batch printing. This is required because the memory will contain up to twenty addresses from the previous batch.

To use this menu option:

1. Press the + or – buttons to scroll through the Main Menu options until the ADDRESS RECOVERY option displays on the LCD panel.

2. Press the Enter button to select this option.

3. Press the + or – buttons to scroll through the Address Recovery options until the desired option (A. Get Address or B. Clear Memory) displays on the LCD panel.

5. Address Recovery (continued)

4. Press the Enter button to select the desired option.

5. After making your selection, press the Menu button several times to back out of the Menu, until the printer displays OFF LINE. Then, press the On Line button to enable the printer.

6. Clear Counter   Use this option to clear the piece (batch) counter.

1. Press the + or – buttons to scroll through the Main Menu options until the 6. CLEAR PIECE COUNTER option displays on the LCD panel.

2. Press the Enter button to select this option.

3. Press the + or – button to select CLEAR PIECE COUNTER, (+ YES or – NO).

4. After you've made your selection, press the Menu button several times to back out of the Menu, until the printer displays OFF LINE. Then, press the On Line button to enable the printer.

7. Job Settings   The W660/W680 Printer can hold eight job presets in memory. This eliminates the need for changes to the printer setup when you change print jobs. The options on this menu are A. LOAD and B. SAVE.

A. Load
Select this option to retrieve a previous job setup. Press + (for more) or – (for less) to increase or decrease the desired job number. Press the Enter button to select the desired option.

B. Save
Use this option to save the current envelope setup (address position, barcode position, number of lines per inch, and so on). The printer saves the setup as a job number (1 through 8). You must keep a record of these setups and the number you as-signed. Press + (MORE) or – (LESS) to increase or decrease the desired job number. Press the Enter button to select the desired option.

7. Job Settings (continued)

To use this option to direct the printer to Load or Save the Job Setting as a certain number:

1. Press the + or – buttons to scroll through the Main Menu options until the 7. JOB SETTINGS option appears on the LCD panel.

2. Press the Enter button to select this option.

3. Press the + or – buttons to select A. Load or B. Save.

4. Press the Enter button to select the desired option.

5. After making your selection, press the Menu button several times to back out of the Menu, until the printer displays OFF LINE. Then, press the On Line button to enable the printer.

NOTE: If your printer is attached to a computer, use this menu to configure your printer so it is compatible with your computer's setup.

Using the Setup Menu

To access the Setup Menu, the printer must be OFF LINE. (The LCD display toggles between ON LINE and OFF LINE). If the printer is ON LINE, press the On Line button once so the LCD displays OFF LINE. Then, press and hold the Menu button for four seconds to display the Setup Menu.

The Setup Menu options are:

1. Heavy Media Mode

2. Test Print Head

3. Purge Print Head

4. Lines Per Address

5. Communications

6. Hex Dump Mode

7. Languages

8. Envelope Feed Delay

9. Envelope Auto Eject

10. ROM Revision

Using the Setup Menu (continued)

Setup Menu

Menu Options

1. HEAVY MEDIA MODE

2. TEST PRINT HEAD

3. PURGE PRINT HEAD

4. LINES PER ADDRESS

5. COMMUNICATIONS

A. BAUD RATE
B. PARITY
C. WORD LENGTH
D. LINE TERMINATION

6. HEX DUMP MODE

7. LANGUAGE

A. SYMBOL SET
B. INCH/MILLIMETER
C. MENU LANGUAGE

8. ENVELOPE FEED DELAY

9. ENVELOPE AUTO EJECT

10. ROM REVISION # AND MAINTENANCE COUNT

NOTE: To print a list of the Main Menu and Setup Menu settings, press the test button when ROM REV displays.

1. Heavy Media Mode

The only time you need to turn this mode on is when you are using long, heavy envelopes. This option increases motor torque. This option is normally OFF.

To use this option:

1. Press the + or – buttons to scroll through the Setup Menu options until the 1. HEAVY MEDIA LOAD appears on the LCD panel.

2. Press the Enter button to select this option.

3. Press the + or – buttons to select A. ON or B. OFF.

4. Press the Enter button to select the desired option.

5. After making your selection, press the Menu button several times to back out of the Menu, until the printer displays OFF LINE. Then, press the On Line button to enable the printer.

2. Test Print Head

Before you select this option, make sure that the material is loaded in the printer input area so you can print a test pattern.

To use this option:

1. Press the + or – buttons to scroll through the Setup Menu options until the 2. TEST PRINT HEAD option appears on the LCD panel.

2. Press the Enter button to select this option.
   The LCD will display "Print test pattern?"

3. Press + for Yes to print the test pattern, or press – for No to cancel.
   If you press +, "Please wait...Test pattern is printing"

2. Test Print Head (continued)

displays. The printer prints a diagonal line across the material. If a gap is present within the diagonal line, the nozzle may be blocked and need to be cleaned.

4. Press the Menu button to back out of the menu until the printer displays OFF LINE. Then press the On Line Button to enable the printer.

3. Purge Print Head

The purging process clears any clogged ink on the print nozzle. Often this will return the print quality to a normal level. To select this option:

1. Press the + or – buttons to scroll through the Setup Menu options until 3. PURGE TEST HEAD appears on the LCD panel.

2. Press the Enter button to select this option.

3. To select Purge Print Head cycle, press Enter when the "Purge Print Head?" message displays.

   This option can be enabled by pressing the + button (YES) or disabled by pressing the – button (NO). If enabled, the printer will display "Please wait...Ink Jets being purged".

4. Press the Menu button to back out of the menu until the printer displays "OFF LINE". Then press the On Line Button to enable the printer.

4. Lines Per Address

Use this option to set the number of lines in the address field.

1. Press the + or – buttons to scroll through the Setup Menu options until 4. LINES PER ADDRESS appears on the LCD panel.

**4. Lines Per
Address
(continued)**

2. Press the Enter button to select this option.

3. The LCD displays "LINES/ADDRESS + (MORE) or –
    (LESS)".

    The range is from 1 to 66 lines. To select the range, press
    the + button (MORE) or – button (LESS). The printer
    can print an address which is typically between 3 and 8
    lines.

4. Press the Menu button to back out of the menu until the
    printer displays OFF LINE. Then, press the On Line
    Button to enable the printer.

5. Communications

Transmitting data from the computer to the W660/W680 is by
way of the parallel interface or the serial interface. The printer
automatically senses the interface through which data is being
sent. When the computer uses the W660/W680's parallel inter-
face *no communication settings are required.*

When the serial interface is used, the W660/W680 Communica-
tions menu settings must be configured *to match* the computer
settings. Configure the computer to use either the XON/XOFF or
DTR handshaking settings to communicate with the W660/
W680. Use the following sub menus to change the W660/W680
serial communications. A. Baud Rate, B Parity, C. Word Length
and D. Line Termination.

NOTE: To verify that the computer and the W660/W680 are
communicating, with the printer on-line, type DIR>PRN
and press Enter.

5. Communications (continued)

A. Baud Rate

The Baud Rate choices are (1200), (2400), (4800), (9600) and (19200).

B. Parity

Parity determines the integrity of data that is sent. The choices are (ODD), (EVEN) AND (NONE).

C. Word Length

The choices are (7 DATA BITS) and (8 DATA BITS).

D. Line Termination

Typical software line termination is CR=CR;LF=LF. If your software is not typical, the line termination can be modified. The menu choices are (CR=CR;LF=LF), (CR=CR+LF;LF=LF), (CR=CR;LF=CR+LF), (CR=CR+LF;LF=CR+LF).

To use the Communications option:

1. Press the ON LINE button until the display reads OFF LINE.

2. Press the Menu button for four seconds to display the Setup Menu.

3. Press the + or – buttons to scroll through the Setup Menu options until the Communications option displays on the LCD panel.

4. Press the Enter button to select the options you want. Continue to press menu, the + and - buttons and enter to scroll to and select the options' next levels.

6. Hex Dump Mode

The information provided here is for those of our customers who are technically inclined.

The Hex Dump Mode option causes the printer to print all commands and data it receives from the computer in a hexa-decimal format. Use this feature to check the integrity of your data. When you enable this option, instead of addresses printing, a HEX dump of the data stream prints on the material. To use this option, the printer must be attached to a computer.

1. Press the + or – buttons to scroll through the Setup Menu options until 6. HEX DUMP MODE appears.

2. Press the Enter button to select this option which configures the printer to print raw ASCII data. This is very useful when troubleshooting computer (software) installation problems. See the HEX chart below for review.

MSB

DEC		0	16	32	48	64	80	96	112
	HEX	0	1	2	3	4	5	6	7
0	0	NUL	DLE	SP	0	@	P	`	p
1	1	SOH	DC1	!	1	A	Q	a	q
2	2	STX	DC2	"	2	B	R	b	r
3	3	ETX	DC3	#	3	C	S	c	s
4	4	EOT	DC4	$	4	D	T	d	t
5	5	ENQ	NAK	%	5	E	U	e	u
6	6	ACK	SYN	&	6	F	V	f	v
7	7	BEL	ETB	'	7	G	W	g	w
8	8	BS	CAN	(	8	H	X	h	x
9	9	NT	EM	)	9	I	Y	i	y
10	A	LF	SUB	*	:	J	Z	j	z
11	B	VT	ESC	+	;	K	[	k	{
12	C	FF	FS	,	<	L	\	l	|
13	D	CR	GS	–	=	M	]	m	}
14	E	SO	RS	•	>	N	^	n	-
15	F	SI	US	/	?	O	_	o	DEL

LSB (row label on left side)

6. Hex Dump Mode (continued)

EXAMPLE:

The capital letter **A** is a **HEX 41**. Find the letter **A** on the above chart, and look towards the top of the chart (MSB) and locate the HEX number **4**. Then look to the left side of the chart (LSB) and locate the HEX number **1**. Therefore the HEX number is MSB=4 and LSB 1= 41.

This chart can be easily understood by memorizing five HEX codes: Capital A is 41 Hex, numbers are 30's (0 is 30 HEX, 1 is 31 HEX etc.), Carriage Return (CR) is 0D, Line Feed (LF) is 0A and Form Feed is 0C.

When HEX Mode is disabled, a typical address will be printed on a single envelope. When Hex Mode is enabled, the same address will be printed on several envelopes (3 to 5) because HEX codes are two digits each separated by brackets. Since a capital letter A is a Hex [41], there are 4 elements printed for each character of the address.

When reviewing addresses printed in HEX mode, start from the end of the address (ZIP Code 30's number) and count backward toward the beginning of the address. Count the number of CRs [0D] and LFs [0A]. Verify that the printer's address setup has the same number of CRs and LFs as the address printed. If there is a variation in the number of CRs or LFs between addresses, then the address MUST be terminated with a (form feed) FF [0C] (within the data sent to the printer).

When you're finished using this option, use the Menu button to back out of the menu until the printer displays OFF LINE. Then press the On Line button and send addresses to the printer.

7. Language

The W660/W680 has several language sets installed. The options on the language menu are: A. Symbol Set, B. Inch / Millimeter, C. Menu Language.

A. Symbol Set

The symbol set contains the International Standards Organization (ISO) character set substitution tables. They include the following:

ISO 6 ANSI ASCII

    ISO 69 FRENCH
    ISO 21 GERMAN
    ISO 4 UK
    ISO 60 NORW/DAN
    ISO 11 SWED/FIN
    ISO 15 ITALIAN
    ISO 17 SPANISH
    ISO 61 NORW/DAN
    ISO 10 SWED/FIN
    ISO 16 PORTUGUESE

ISO CHAR SET

    ISO 8859
    Roman 8
    WINDOWS LATIN
    PC 8

7. Language
(continued)

B. Inch / Millimeter
This option selects the printer Measurement system—Inch or Millimeter.

C. Menu Languages
This option changes the LCD control panel menu to the language you want. Supported languages are English, German, French, Italian, Spanish, Dutch and Polish.

To use this option:

1. Press the + or – buttons to scroll through the Setup Menu options until 7. LANGUAGE appears on the LCD panel.

2. Press the Enter button to select this option.

3. Press Enter to select the Language option you want to use—A, B or C.

4. Press the + button or – button to view the menu languages available. Press Enter to select an option.

5. When you've finished making selections, press the Menu button to back out of the menu until the printer displays OFF LINE. Then, press the On Line Button to enable the printer.

8. Envelope Feed Delay

Use this option to feed very glossy material or if extra ink drying time is needed. This option slightly reduces the overall through-put of the printer.

To use this option:

1. Press the + or – buttons to scroll through the Setup Menu options until 8. FEED DELAY appears on the LCD panel.

2. Press the Enter button to select this option. The time delay (0 to 30 seconds) can be adjusted by pressing the + button (MORE) or – button (LESS).

3. When you've finished making selections, press the Menu button to back out of the menu until the printer displays OFF LINE. Then, press the On Line Button to enable the printer.

9. Auto Envelope Eject

Use this option to automatically eject the last envelope in your job.

To use this option:

1. Press the + or – buttons to scroll through the Setup Menu options until 9. AUTO ENVELOPE EJECT appears on the LCD panel.

2. Press the Enter button to select this option.

3. Press the + button (ON) or the - button (OFF).

4. Press the Menu button to back out of the menu until the printer displays "OFF LINE". Then, press the On Line Button to enable the printer.

10. ROM Revision Number

This option is extremely useful whenever it is necessary to verify the Firmware Revision installed in the printer. It is also useful to determine if your printer requires an upgrade.

The Maintenance Count, which is the total number of print cycles accumulated, is also displayed. This information is helpful in determining solutions to printer problems.

To momentarily view the ROM Revision and the Maintenance Count:

1. Press the + or – buttons to scroll through the Setup Menu options until 10. ROM REVISION NUMBER appears on the LCD panel.

2. Press the Enter button to select this option.

3. Press the Menu button to back out of the menu until the printer displays "OFF LINE". Then, press the On Line Button to enable the printer.

Appendix B

W660/W680 Specifications
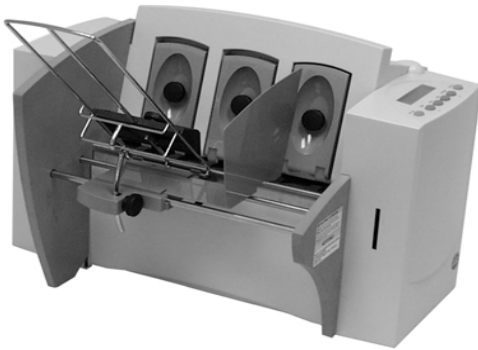
This Appendix contains detailed hardware and material specifications for the W660/W680 printer.

Equipment Specifications

Physical Dimensions

14.7" (37.3 cm) high; 16.2" (41.2 cm) wide; 21.7" (55.1 cm) deep (without wireform).

Weight

44.11 lbs. (20 kg), including print cartridges (B & C) and catch bin.

Electrical

Domestic (W660/W680): 120VAC, 60Hz, 1A
International (W661/W681): 220-240VAC, 50Hz, 0.5A

Agency Approvals

UL/cUL/VDE-GS

Interface

Centronics Parallel and Serial.

Control Language

PCL5, modified

Driver Compatibility

Windows 95/98/2000/NT/ME compatible

Address Recovery

Memory buffer holds a maximum of 20 addresses

Print Modes (Print Resolution)

Note: All color print quality specifications only apply to the W680.

•	Draft:	Black - 300 x 300 DPI	-	Color 300 x 150 DPI
•	Letter Quality:	Black - 300 x 600 DPI	-	Color 300 x 200 DPI
•	Executive:	Black - 600 x 600 DPI	-	Color 300 x 300 DPI

Fonts

Resident Fonts

Courier, Sans Serif, Roman, OCR A, Quincy, Springer, Hancock, Alpine, Baxter, Marina, Stencil, Windmill, Silicon, and Code 39 Barcode (All fonts are scalable from 4 to 30 pt size.)

Resident Font Enhancements

•	Bold	•	Expanded	•	Outline
•	Condensed	•	Italic		

Equipment Specifications (continued)

Downloadable Fonts

Supports bitmapped, downloadable fonts.

Cartridge Fonts

Not Required. Fonts are downloaded with addresses.

Barcode Printing

The W660/W680 can print a 5- or 11-digit USPS NAIC-certified POSTNET barcode in one of three positions: the lower right of the envelope; above the address block; and below the address block.

User-Definable Parameters

· Font Characteristics
· Address Placement
· Barcode Characteristics
· Print Quality

Throughput

Nine thousand (9,000) pieces per hour, depending on print mode, media size, number of address lines, and barcode imprinting. The following throughput specifications are typical for number 10 envelopes, size **10 point type and 3 lines per address:**

Destination Address Throughput

Three lines, 18 characters per line, no barcode, margin 5 inch (12.7 cm), **Black Only**

Draft	Letter	Executive
9,000	8,000	7,000

Five lines, 18 characters per line, no barcode, margin 5 inch (12.7 cm), **Black Only**

Draft	Letter	Executive
5,600	5,600	4,400

Margin 5 inch (12.7 cm) **Black & Color**

Draft
1,000

NOTE: Graphics will affect throughput speed.

Stacker Capacity

Input Stacker: 200 #10 Envelopes
Output Stacker: 150 #10 Envelopes

Effective Print Area

The printable width is 9.4 inches measured from the right side of the mailpiece. The printable height is 15 inches measured from the bottom edge of the mailpiece. See the figure at the top of the next page.

Trailing Edge (Top)   **Flap on opposite side**

Feed Direction

Left   **Right**

Leading Edge (Bottom)
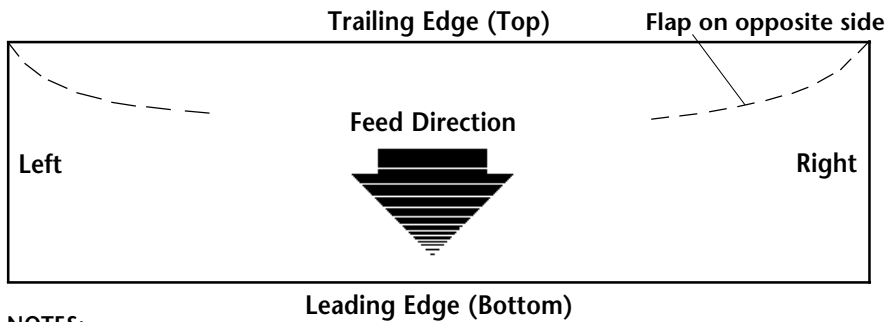
NOTES:

1. All edges are viewed from the front surface of the material.
2. Two clear zones, each 0.3 inches wide, are required on the mailpiece to allow clearance for the exit rollers.
3. Printing is allowed to the top edge of the media, however print quality will be degraded.
4. The lower 5/8 inch of the material is reserved for the lower right barcode when it is used.

Equipment Specifications (continued)

Printhead/InkJet Cartridges

Cartridges: User-replaceable ink jet
Single Black Ink Cartridge - 711-1
Single Color Ink Cartridge - 660-5 - W680 only
4 Pack of Black Ink Cartridges - 660-9

Print Position Accuracy

For a #10 envelope (Acclaim #10 WW Commercial, Regular):

Horizontal: within +/- 1.5mm

Vertical: within +/- 1.5mm

Skew: within +/- 1 degree

For other media:

Horizontal: within +/- 3.0mm

Vertical: within +/- 3.0mm

Skew: within +/- 2-1/2 degrees

Environmental Limits

Operating Conditions	Temperature: 55 to 95°F (12 to 35°C)
	Humidity: 8 to 80%
	Maximum Wet Bulb Temperature: 80°F (27°C)

Equipment Specifications (continued)

Storage Conditions	Temperature (Printer): 42 to 100ºF (5 to 40ºC)
	Humidity (Supplies): 10 to 90%
	Maximum Wet Bulb Temperature: 85ºF (29ºC)
Shipment Conditions:	Temperature (Printer): -40 to 140ºF
	Humidity (Supplies): 5 to 100%
	Maximum Wet Bulb Temperature: 85ºF (29ºC)

Noise Level

Idle Mode: <6.6 Bel (A)

Operating Mode: <7.3 Bel(A)

Operator position: no more than 65 dBa referenced to 20 µpa.

Recommended Usage

Pitney Bowes has tested this machine under many different conditions and recommends that you do not exceed the usage levels specified below:

• Monthly usage is 77,000 pieces

  NOTE: Usage beyond these recommended cycles is not covered under your Equipment Maintenance Agreement.

• Product life is 5 years or 4,620,000 cycles

Material Specifications

Approved Media

The paper types listed below are approved for use with the W660/W680 Printer. Please note that the dimensional limits above apply in all cases, and that all media (flats, envelopes, postcards, catalog envelopes, etc.) must be without windows, unstuffed and unsealed.

- White Wove
- Bond paper
- Recycled paper
- Coated paper
- Card stock
- Brown kraft
- Manila

Material Size and Thickness

	Width	Height	Thickness
Minimum	3" (76mm)	5" (127mm)	.003" (.0762mm)
Maximum	12.5" (317.5mm)	15" (381mm)	.125" (3.175mm)

Also see the table on the next page.

Material Notes

Envelopes have a flap along the long edge and are processed by the printer non-flap edge first. Envelopes may have either a diagonal or straight edge along the envelope flap.

Booklets are defined as media having physical dimensions 6 x 9" or larger. Booklets have an opening along their long edge which is covered by a flap with an adhesive seal.

Catalog envelopes have an opening along their short edge which is closed by a flap with an adhesive seal.

Postcards have no folds or bends. The printable side may have a higher surface roughness than the non-printable side.

Self-mailers may be of "C," "Z," or 1/2-folded construction. They may not exceed the maximum allowable thickness as specified on the previous page and must be tabbed per postal regulations.

A catalog may consist of multiple pages bound by adhesive or tabs on the feed edge or at 90 degrees with respect to the feed edge.

Sheet stock may consist of 16 to 28 lb. bond as well as 60 to 80 lb. coated stock. The size and thickness constraints specified above apply.

Envelope Sizes

Name	Style	Dimensions (Inch) Height x Width	Dimensions (Metric) Height x Width
#6-1/4		3-1/2 x 6"	89 x 152 mm
#6-1/2	Square	6-1/2 x 6-1/2"	165 x 165
#6-3/4	Commercial	3-5/8 x 6-1/2"	216 x 165
#8-1/2	Square	8-1/2 x 8-1/2"	261 x 261
#4	Baronial	3-5/8" x 5-1/8"	92 x 130
#5	Baronial	4-1/8 x 5-5/8"	105 x 142
#5-1/2	Baronial	4-3/8 x 6-3/4"	110 x 171
#6	Baronial	4-3/4 x 6-1/2"	121 x 165
#7-3/4	Official	3-7/8 x 7-1/2"	98 x 190
#7	Official	3-3/4 x 6-3/4	95 x 171
#8-5/8	Official	3-5/8 x 8-5/8"	92 x 219
#9	Official	3-7/8 x 8-7/8"	98 x 225
#10	Official	4-1/8 x 9-1/2"	104 x 241
#11	Official	4-1/2 x 10-3/8"	114 x 263
#12	Official	4-3/4 x 11"	120 x 279
#14	Official	5 x 11-1/2"	127 x 292
Monarch		3-7/8 x 7-1/2"	98 x 190
C4	DIN C4	9 x 12-3/4"	229 x 324
C5	DIN C5	6-3/8 x 9"	162 x 229
C6	DIN C6	4-1/2 x 6-3/8"	114 x 162
DL		4-3/8 8-11/16"	110 x 220

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