Pitney Bowes

DA900 AddressRight™ Printer

Operating Guide

FCC Compliance

This equipment had been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy, and if not installed and used in accordance with the users manuals, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Shielded cables must be used with this unit to insure compliance with Class A limits.

Canadian DOC Compliance

This digital apparatus does not exceed in the Class A limits for radio noise emissions from digital apparatus set out in the Interference-causing Equipment Regulations (Standard ICES-003) of the Canadian Department of Communications.

Le present appareil numerique n'emet pas de bruits radioelectriques depassant les limites applicables aux appareils numeriques de la class A prescrites dans le Reglement sur le brouillage radioelectrique edicte par le ministere des Communications du Canada.

SV60970-OG Rev. A September 2002

Contents

Contents

7 Maintenance

8 Troubleshooting

Contents

9   Supplies and Options

Appendices

Index

1

Introduction

1 Introduction

About Your Printer

The Pitney Bowes DA900 AddressRight™ Printer is a high-speed inkjet printer designed to help you produce professional-looking envelopes. It offers these advanced features:

- Crisp, clear, high-quality printing using advanced inkjet technology

- Multiple-color printing: black, red, blue and fast-drying black

- Easy control of fonts, font placement, barcode characteristics and graphics

- Extensive graphic printing capability

- Up to 24 text blocks

- High speed printing for greater throughput per hour

- Ability to print virtually all international postal barcodes

- Easy feeding with built-in, top-loading feeder

- Expanded media choices allow printing on a wide range of papers and sizes

- Multiple print speeds for different quality levels

- Multi-database capacity

- Suitable for use with most text editors, word processing and mail list programs. Especially recommended for use with Pitney Bowes SmartMailer™ and Envelope Designer™ Plus.
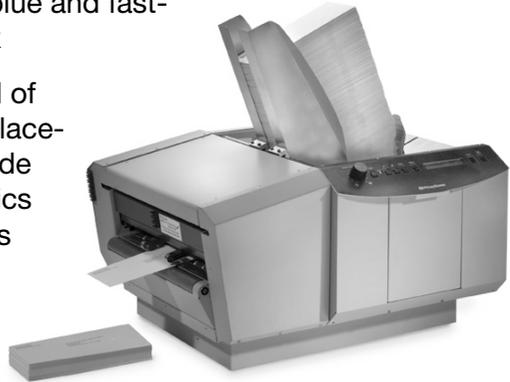
What's in this Book

This operator guide explains how to set up, use and maintain your DA900 AddressRight™ Printer. The sections include:

1 Introduction
Introduces you to the DA900 AddressRight™ Printer and includes important safety notes.

2 Specifications
Lists complete product and material specifications.

3 Meet the DA900 Printer
Familiarizes you with the names of the printer parts, including the user control panel.

4 Set Up the Printer
Explains how to assemble and connect the printer to your computer.

5 Printer Adjustments
Explains how to set up the printer for your job.

6 Using the DA900 Print Driver
Explains how to set up the printer driver software.

7 Maintenance
Explains how to care for your printer and keep it functioning properly.

8 Troubleshooting
Explains how to fix common problems and tells you what error messages mean.

9 Supplies and Options
Lists the supplies available for your printer and explains how to order them.

Appendices
Provides a glossary of technical terms and DA900 application notes.

1 Introduction

What Do I Need To Know?

You should be familiar with your computer and basic Windows® operations. For example, you should know how to open and close windows and menu items using a mouse or equivalent keyboard commands. If you're not sure how to do something, consult the *Microsoft Windows User's Guide* or choose Help from the Windows Start menu.

Other Sources of Information

- Separator Installation Instructions (SV60866)

- Feed Roller Installation Instructions (SV60867)

- Bulk Ink Installation Instructions (SV60868)

- W980 Stacker User Guide (SV60305)

Important Safety Notes

> ⚠ **IMPORTANT!** Please follow these common-sense precautions whenever you use your printer.

- Read and save all instructions before you attempt to operate your printer.

- 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.

- DO NOT use an outlet that shares the same circuit with other machines with heavy current demand such as air conditioners, refrigerators, etc.

Important Safety Notes (continued)

- Use the power cord wall plug as 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.

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

- To reduce the risk of fire or electrical shock, DO NOT attempt to disassemble this machine. If service is required, contact Pitney Bowes customer service.

- Use only Pitney Bowes approved and supplied ink cartridges and cleaners.

- Avoid touching moving parts or materials while the machine is in use. Before clearing a jam, be sure machine mechanisms come to a complete stop.

- Use the equipment only for its intended purpose.

- Always follow the specific occupational safety and health standards prescribed for your workplace.

- Turn off the machine and unplug power cords at the end of the working day to reduce the risk of injury.

Notes

2

Specifications

2 Specifications

Media Requirements

For best results, make sure your material fully conforms to our published specifications. See the table below and the material notes that follow.

Media Size

The DA900 can print on the following range of material sizes:

	Width	Height	Thickness
Maximum	17"	13.5"	0.375"
Minimum	5"	3.5"	0.004"

Stapling/Clipping

IMPORTANT! Never run stapled or paper-clipped media through your printer. These methods of binding the mail-piece will seriously damage your printer. The printer's warranty *does not* cover components damaged through improper use.

Any folded material needs to be tabbed. See the figure below.

Tab
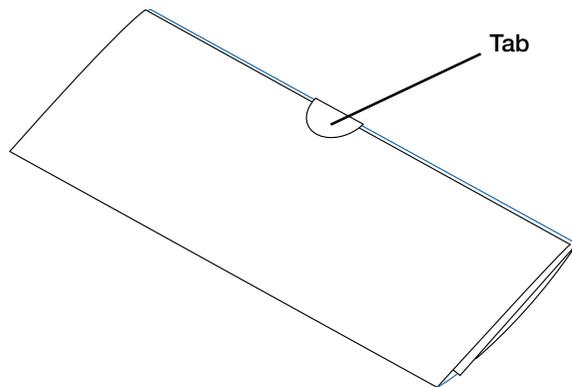
Types of Media

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

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

Media Requirements (continued)

The printer is designed to feed and print on a range of materials with various finishes and coatings. However, since coated or gloss stocks do not easily absorb ink, smearing may occur. Print may appear fuzzy on porous paper. The texture of the media has a direct effect on both the print quality and ink drying time.

Be aware that when printing in high quality mode or humid conditions, drying time increases.

It is best to test each new type of media to determine performance levels before beginning the job. If you require fast-drying ink, contact the Pitney Bowes Supply Line℠. See *Chapter 8—Supplies and Options.*

Printer Output

Image Area: 3" x 17" using six printheads.

Average Media Output: These specifications apply to any image size and type that fits within the 3" x 17" print area, including text, graphics and barcodes. Average media output varies depending on material used, length of media, machine condition and operator skill.

Print Quality	Speed
600 x 150 dpi	21,800 #10 envelopes/hr.
600 x 200 dpi	18,000 #10 envelopes/hr.
600 x 300 dpi	13,000 #10 envelopes/hr.
600 x 600 dpi	7,200 #10 envelopes/hr.

Graphics and Logos: Allows printing of bitmapped graphics and logos.

Font Point Size: Downloadable fonts up to 72 points.

2 - Specifications

2 Specifications

Physical Equipment Specifications

Physical Dimensions:	17" (430mm) H; 25.4" (645mm) W; 21" (535mm) D
Weight:	20.7lbs. (45.5kg) with 6 ink car tridges
Operator Display:	2 x 24 characters
Control Language:	PCL5, modified

Performance Specifications

Product Life:	30,000,000 pieces or five years after installation, whichever comes first.
Duty Cycle:	Normal Usage: 157,000 pieces per month Maximum Usage: 500,000 pieces per month
Average throughput:	21,800 DL envelopes/hr. max at 150 x 600 d.p.i.
Noise Level:	Idle Mode < 6.6 Bel (A) Operating Mode < 8.4 Bel (A) Operator Position < 73 dBa
Electrical:	100-120VAC; 60Hz; 2.5A
Ports:	1 Parallel Port; 1 USB port

Environmental Requirements

Operating Conditions:	Temperature: 12 to 35°C Humidity: 10 to 80%
Nonoperating Conditions (power off):	Temperature: 5 to 40°C Humidity: 10 to 90%

Computer Requirements

- An IBM or IBM-compatible 133 Megahertz Pentium computer or better.

- 32MB RAM, minimum.

- 1GB minimum available hard drive space.

- Available LPT1 Parallel Port. IMPORTANT: you must set this to Extended Parallel Port (EPP) configuration or the equivalent highest speed bi-directional configuration.

  OR

- Available USB Port.

- Windows® XP, 95, 98, NT 4.0 or NT2000 installed. All must operate in a non-networked environment.

- A 6X CD-ROM drive or better.

- A 13" monitor capable of 800 x 600 resolution or better.

- Keyboard and mouse.

Options   W980 Stacker

2 - Specifications

Notes

3

Meet the DA900 Printer

Printer Components
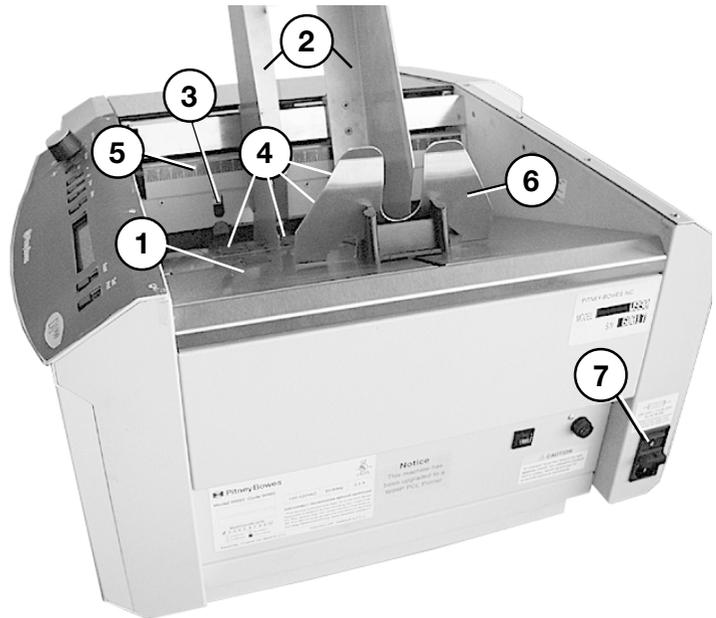
1. **Feed Deck**

   Stack media for printing here.

2. **Side Guides**

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

3. **Separators**

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

4. **Feed Rollers**

   Feed material through to the printing area.

5. **Ruler**

   Helps center the media in the hopper and sets the adjustment of the side guides.

Printer Components

6. **Feed Ramp**

    The feed ramp supports the trailing edge of the media, providing a forward feeding angle. You can move it left to right to adjust the angle for various media lengths.

7. **Power Panel**

    The panel has the ON/OFF switch (fused) and power cord receptacle. The parallel cable connector is located on the rear of the printer.
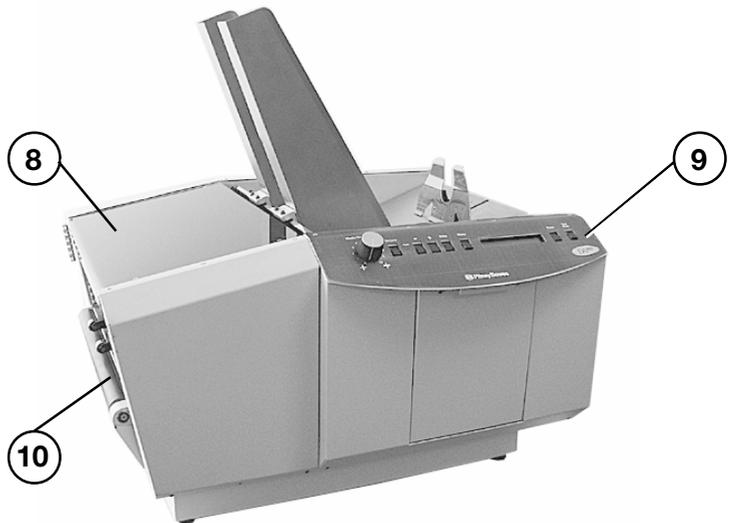
8. **Transport Door**

    Opens to gain access to the print cartridges and exit rollers.

9. **Control Panel**

    Use the control panel buttons to access printer menus, purge the printheads, and turn the printer on and off line. See the following page for a close-up view and description of panel controls.

10. **Output Area**

    Printed material is ejected from printer here.

3 – Meet the DA900

Control Panel
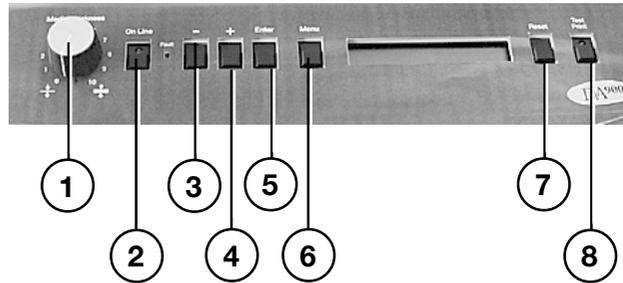
1. **Media Thickness Adjustment** — Turn knob counterclockwise for thin media, clockwise for thick media.
2. **On Line Button** — Turns the printer on and off line. When lit, the DA900 is ready to accept data from your computer and begin printing.
3. **- Key** — When in menu mode scrolls to the previous selection. When in select mode, scrolls through choices.
4. **+ Key** — When in menu mode, scrolls to the next selection. When in select mode, scrolls through the choices.
5. **Enter Key** — Selects the currently displayed menu options.
6. **Menu** — Displays the options on the Main Menu and the Setup Menu. The printer must be off line to access the menus.
7. **Reset** — Clear the memory of the DA900 and wait for new information from the computer.
8. **Test Print** — Prints a test envelope to verify print quality and feed.

**DA900 Printer
Control Panel
Messages**

PRINTER OFFLINE - Printer is waiting for data and the main drive motor is off. This message appears when you turn the power on.

PRINTER ONLINE - The main drive motor is on and waiting for the feeder to be turned on.

PRINTING - Both main drive and feeder are on. Printer is feeding media and printing. If no media is in the hopper, the printer shuts down after one half second.

SETUP MENU -The printer is in Setup Mode.

SERVICE MENU - The printer is in Service Mode.

TEST PRINTING - The printer is in Test Mode. Press ENTER to print a test sheet.

ENTER TO FEED - Press the ENTER key to engage the feeder.

ENTER TO STOP FEED - Press the ENTER key to disengage the feeder.

OUT OF PAPER - The paper sensor does not detect media within one half second of starting the feeder.

OPERATOR STOP - The operator caused the printer to stop printing.

REMOTE STOP - The software stopped the printer from printing.

PAPER JAM - Paper jam detected.

Setup Menu Functions

To place the printer in Setup Mode, hold the MENU key for two seconds. Use the + and - keys to move through the functions.

TOTAL COUNT - Displays the total pieces fed.

PR W990 - Displays the current version of BIOS software

3 - Meet the DA900

DA900 Menu Options

Press the Menu key to access the Main Menu.

Press + Key to move from one option to the next.

Press Enter to clear Counter.

Printer Offline	0000
Clear Batch Counter	

Make sure there is material in the feeder.
Press Enter to Stop Purge.

Printer Offline	0000
Press Enter to Purge	

Printer Offline	0000
Press Enter to Stop	

Press Enter to Toggle ON/OFF

Printer Offline	0000
Printer Enhancement is ON	

Press Enter to Reset Ink to 100%

Printer Offline	0000
Enter when Head 1 Filled	

Printer Offline	0000
Enter when Head 2 Filled	

Printer Offline	0000
Enter when Head 3 Filled	

Printer Offline	0000
Enter when Head 4 Filled	

Printer Offline	0000
Enter when Head 5 Filled	

Printer Offline	0000
Enter when Head 6 Filled	

DA900 Menu Options

Press the Menu key (hold for two seconds) to access the Setup Menu.

Press + Key to move from one option to the next.

```
Setup Menu                    0000
Total Count:                  0000
```

```
Setup Menu                    0000
PB W991              VX.XX rX pXX
```

The DA900 can use a Bulk Ink system for each Head.

```
Head 1 Uses a Cartridge
Enter to use Bulk Ink
```

Press Enter to change from Cartridge to Bulk Ink or from Bulk Ink to Cartridge

```
Head 2 Uses a Cartridge
Enter to use Bulk Ink
```

```
Head 3 Uses a Cartridge
Enter to use Bulk Ink
```

```
Head 4 Uses a Cartridge
Enter to use Bulk Ink
```

```
Head 5 Uses a Cartridge
Enter to use Bulk Ink
```

```
Head 6 Uses a Cartridge
Enter to use Bulk Ink
```

3 – Meet the DA900

Notes

4

Setting Up Your Printer

4 Setting Up Your Printer

About this Chapter   Your printer is normally installed by your Pitney Bowes Customer Service Representative. We've included these instructions for your convenience in the event you need to move your printer and reinstall it.

To install your printer and software, follow steps 1 through 10 in this chapter.

1. Choose a Good Location   Choose a stable, safe surface for your printer.

2. Unpack the Printer   As you remove the contents from the box, check all parts against the list below.

Package Contents
- Printer
- Inkjet Cartridges (6)
- Parallel Printer Cable
- USB Printer Cable
- Side Guides
- Power Cord
- Allen Wrench
- Separator Tips
- Segment Rollers
- Installation Quality Report
- Operator Safety Tip Card
- Installation Quality Card
- USPS Template
- Printer Driver/Envelope Designer™ Plus Software CD
- Quick Setup Instructions
- Quick Reference Instructions
- Operating Guide

3. Remove the Plastic from the Transport Cover

Plastic

4. Remove the Foam from the Printhead Area

Foam Blocks
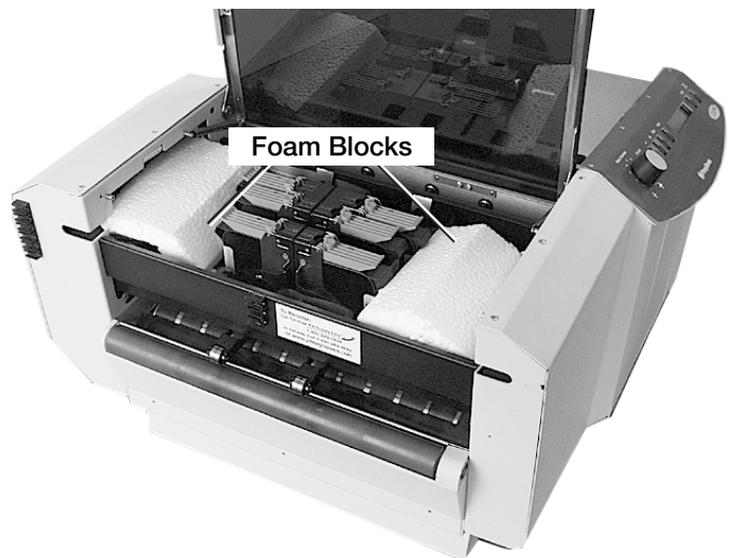
5. Attach the Side Guides to the Printer

1. Position the side guide screw holes so they align with the screw holes on the side guide block assembly. See the picture below.

2. Insert the screws provided and tighten them so that the side guides are firmly attached to the side guide block assembly. You need a standard #2 Phillips head screwdriver to do this.
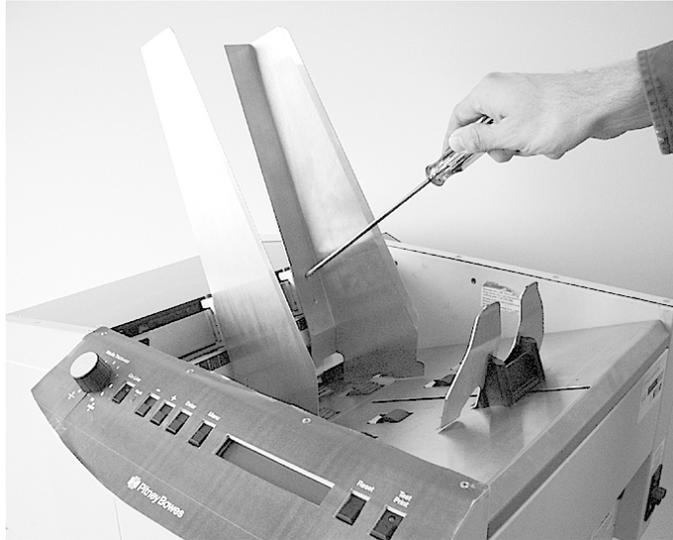
6. Install the Ink Cartridges

You can install up to six inkjet cartridges in your printer. Cartridges are held in place by vertical brackets on the inkjet cartridge holder.

NOTE: You do not have to install cartridges in all positions to run the printer. The number you install depends on your addressing requirements.

Install the cartridges as follows:

1. Remove the inkjet cartridge from its packaging. Avoid touching the copper contacts and gold printhead.

2. Remove protective tape from the printhead.

3. Lift the transport cover over the output area.

4. Lift the blue retaining lever above the inkjet cartridge holder.

6. Install the Ink Cartridges (continued)

HINT: When you store cartridges outside of the printer overnight, place them in the docking station. For prolonged storage, place them in a covered Tupperware-type container with a damp sponge or towel to maintain humidity.

5. With the gold printhead contacts pointing toward the printhead holder pins, fully insert the cartridge into the holder. DO NOT contact or bend the printhead holder pins.
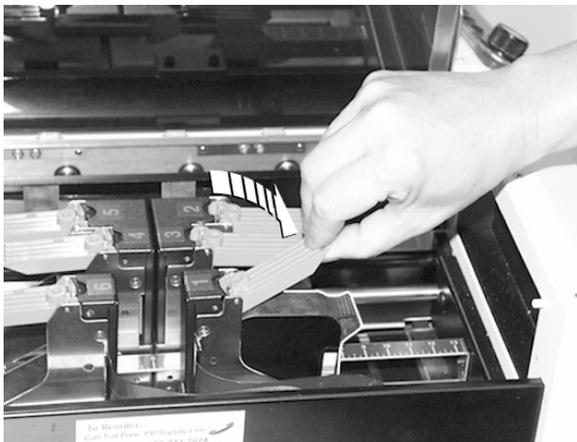
6. With the cartridge fully inserted, lower the blue retaining lever. This pulls the cartridge inward to contact the printhead holder pins.

7. Close the latch.

8. Repeat the above procedure for the remaining cartridges.

WARNING! Cartridge ink may be harmful if swallowed. Keep new and used cartridges out of the reach of children. Always discard empty cartridges immediately.

7. Install the Bulk Ink Cartridge

1. Unpack contents of box. Make sure you have:

   - Three Bulk Ink Cartridges

   - Three Bulk Ink Printheads

   - Bulk Ink Cartridge Shelf

   - Three Screws

2. Attach tray for bulk ink cartridge by aligning the three screw holes on the tray with the three screw holes on the bottom rear of the printer.

3. Place bulk ink cartridge on tray.

7. Install the Bulk Ink Cartridge (continued)

4. Connect hose attached to bulk ink cartridge to printhead cartridge.

5. Channel hose attached to bulk ink cartridge to clips on printer as shown.

6. Insert printhead cartridge into holder.

8. Connect to Your Computer

The printer is equipped with both a USB and parallel port as shown below. You can use either port to establish communications between the printer and your computer.

1. If you're using the USB port, plug one end of the USB cable into the printer's USB port, and the other end into the computer's USB port.

2. If you're using the parallel port, align the end of the cable connector labeled "printer" with the 37-pin female "D" connector located on the rear panel of the printer. Secure the connector by snapping the wire clips over the corresponding tabs on the cable as shown below.

USB Port   Parallel Port
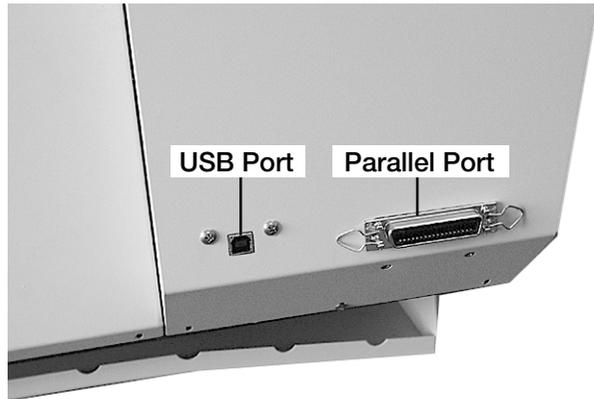
Align the end of the cable connector labeled "computer" with the parallel port on your computer, then push the cable connector into the port. Secure the connection by tightening the screws on either side of the cable.

IMPORTANT! You must set your computer's parallel port to the EPP (Enhanced Parallel Port) setting. You need to enter your computer's hardware setup mode at *startup* before the operating system loads. Refer to the user instructions for your computer if you are unsure about how to do this. Be sure to save the new settings before you exit the setup mode.

4 - Setup

8. Connect to Your Computer (continued)

A Special Note for DEC Computer Users:

1. Hold F2 during bootup.
2. Choose "advanced" and then "integrated peripherals".
3. Change parallel port settings (using plus and minus keys) to:
   Parallel Port: 378, IRQ7
   Parallel Port Mode: ECP-DMA1 or ECP-DMA3
4. Save settings.

9. Connect to Power

1. Connect the female end of the power cord to the power receptacle located on the right side of the printer as shown below.
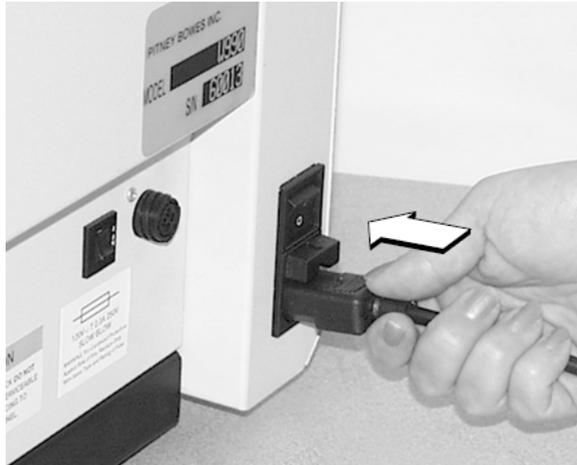
2. Plug the male end of the power cord into a grounded outlet. Avoid switched outlets and those that share circuits with machines that have heavy current demand such as air conditioners, refrigerators, etc.

   Also, please review the safety information in *Chapter 1— Introduction* of this guide.

10. Turn On the Printer

Once you've connected the cable, press the printer's power switch to the "I" (ON) position. The printer control panel should read: "Printer Offline."

11. Install the Print Driver Follow the installation instructions on the CD-ROM furnished with your printer.

5
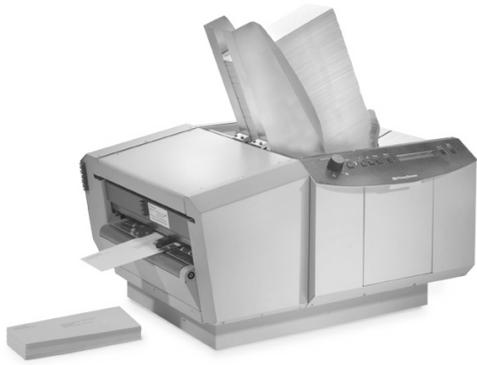
Printer Adjustments

About this Chapter

To print a job, you must set up the printer for the job and make print selections from the software.

This chapter explains how to:

- Adjust the printer to accommodate the width, height, thickness and weight of your material
- Position the printheads

These setup adjustments determine how reliably your printer feeds. To set the printer properly follow the steps in this chapter.

1. Set the Separator Gap

1. Be sure your media falls within the specifications listed in Chapter 2 of this guide.

2. Release the separator locking lever located on the left side of the feeder as shown below.

Push down to unlock
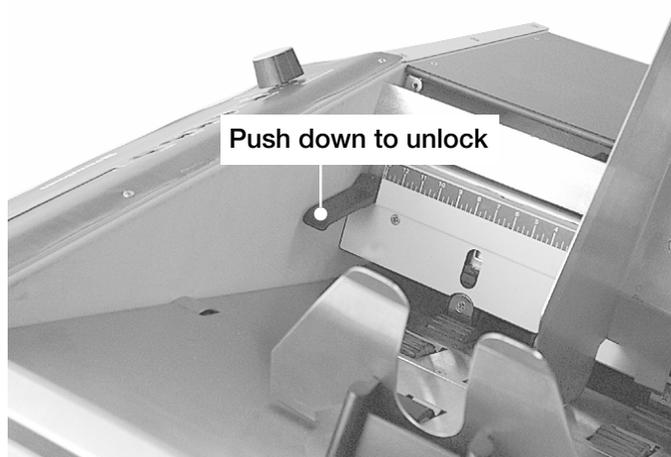
1. Set the Separator Gap

3. Raise the four separators to their up and locked position. (Use the two center separators for narrow media and all

Always print a test piece after making any of the adjustments in this chapter.

1. Set the Separator Gap

4. Using the ruler as a guide, center the media for this print job under the separators and lower them to rest on the media.

HINT: Never run stapled or paper-clipped media through your printer.

5. Move the locking lever up to lock the separators in place.

Push up to lock
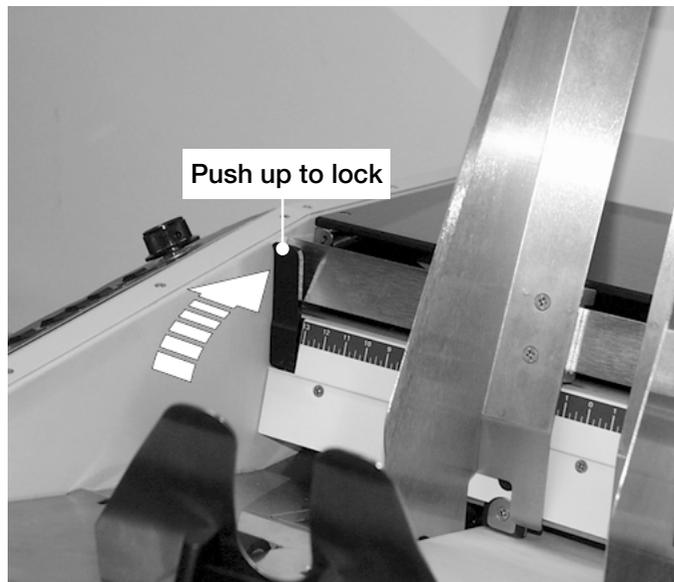
2. Adjust the Side Guides

Place one piece of media on the feeder table and adjust the side guides to the width of the media plus 1/16".

Always print a test piece after making any of the adjustments in this chapter.

3. Adjust the Feed Ramp

1. Always fan (aerate) your media before placing it on the feed deck.

2. Place your stack of media on the input area of the feed deck.

3. Adjust the feed ramp so that it lifts the back of the stack of the media.

Always print a test piece after making any of the adjustments in this chapter.

4. Adjust for Media Thickness

The media thickness knob located on the front control panel (see below) sets the distance between the printheads and the material. This distance must vary according to the thickness of the material fed.

To adjust for media thickness:

1. Determine the correct thickness setting by printing a test piece with the knob in the middle position.

   Turn the knob clockwise for thicker material, counterclockwise for thinner material.

Media Thickness	Dial Setting
0.004 to 1/32"	0 to 2
1/32 to 1/8"	2 to 3
1/8 to 1/4"	3 to 7
1/4 to 3/8"	7 to 10

Media Thickness Knob

2. If the address on the test piece appears blurred or too light, lower the printhead (turn knob counterclockwise). If the address appears smeared, turn knob clockwise in small increments and continue testing until the printing is clear.

5. Physically Position the Printheads

Before your printer can print your media, you must position the printheads to match their positions on the template you have designed.

To position the printheads:

1. Open the cover.

2. Check that the printheads have the correct color cartridges. Change if necessary.

3. Loosen the knobs shown below.

4. Using the ruler between printheads 2 through 5 and 1 and 6, slide each printhead to the required position.

5. Tighten each locking knob.

Ruler

print heads

exit roller

Indicates position of Knobs
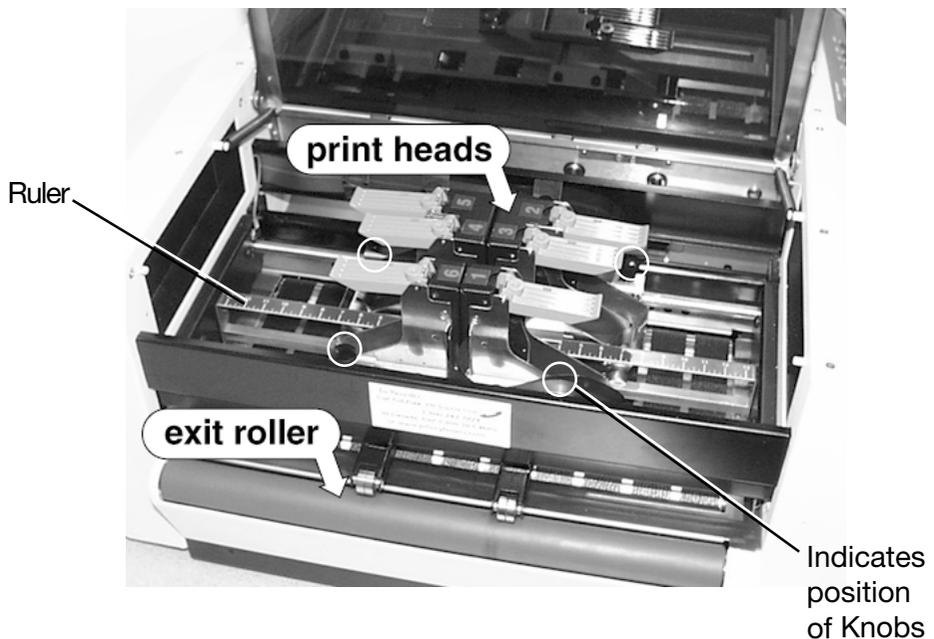
6. Adjust the Upper Exit Rollers

The upper exit rollers will move when you move printheads one and six. You may need to adjust them so that they do not touch any printed area of the exiting material.

Note that when you adjust the rollers, you are also moving printheads 1 and 6 because they are attached.

To adjust the upper exit rollers:

1. Loosen the locking knob on the printhead holder assembly.

2. Slide printheads 1 and 6 to where you want them.

3. Tighten the locking knob.

5 - Adjust Printer
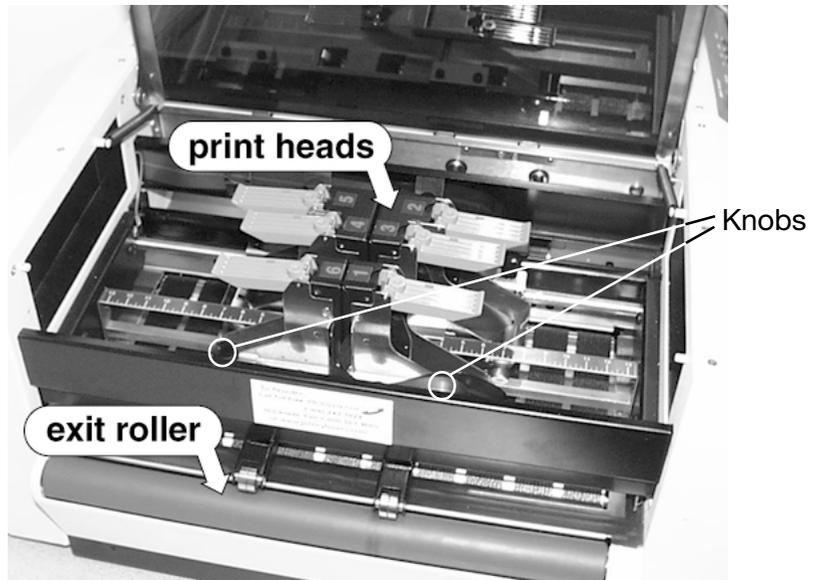
7. Print Test Pieces

We recommend that you print a test piece every time you change any of the adjustments covered in this chapter.

1. Make sure your material conforms to our published specifications and that its loaded properly.

2. Turn the printer on and wait for the *Printer Offline* prompt to appear on the operator display.

3. Press the **Test Print** button on the printer control panel. The operator display prompts *Test Printing Enter to Feed*.

4. Press **Enter**. The envelope feeds and a sample address prints.

5. Press **Enter** again to stop printing.

6. Check print quality. If it is not satisfactory, you can make changes using the setup options available in the DA900 print driver. See Chapter 6.

   If your material is not feeding reliably, check all setup adjustments in this chapter, particularly the setting of the media thickness knob.

6
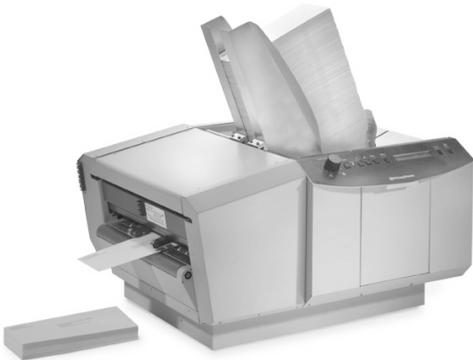
Using the DA900 Print Driver

About this Chapter

This chapter explains how to use the DA900 print driver. The instructions assume the print driver is installed and you are running Windows 2000, XP or NT.

IMPORTANT! Please note that the print driver is compatible with Windows 98, but that the driver screens differ somewhat from those shown here. Setup options, however, are the same, and the instructions presented in this chapter apply generally to all versions of the Windows operating system with which the print driver is compatible.

The information in this chapter is limited to an explanation of advanced setup options specific to the DA900 printer. Other options such as printer sharing, port assignments, security and device settings are not covered here. These settings are best left to advanced users or system administrators

About Envelope Designer™ Plus

Envelope Designer Plus is included on the installation CD-ROM furnished with your printer. It is a an easy-to-use software application that lets you design an envelope template to help you position the printheads of your DA900. The online help furnished with the application includes useful information about the DA900 print driver. You will also find helpful information in *Appendix B— DA900 Application Notes.*

If you are using a third-party mail list program, consult the user instructions furnished with it.

Making the DA900 the Default Print Driver

1. From the Start Menu, select Settings.

2. Click on Printers.

3. Right Click on the Pitney Bowes DA900 icon.

4. Click on Set as Default Printer. A check mark appears next to the Pitney Bowes DA900 icon.

Accessing the Print Driver

1. From the Start Menu, select Settings.

2. Click on Printers.

3. Right Click on the Pitney Bowes DA900 icon.

4. Click on Properties. The Printer Properties dialog box displays as shown on the next page.

If you're running Envelope Designer Plus, you can select certain print driver options from within the program. To do so:

1. Open the Envelope Designer Plus application.

2. Click on the printer icon. The Print Envelope dialog box displays.

3. Click on Properties. You can choose the page orientation you want (portrait or landscape). See page 6-5.

4. Click on Advanced... to

    • select paper size (page 6-6)

    • adjust the printheads (page 6-7)

    • choose print quality (page 6-8)

    • select the feed delay (page 6-9)

    • invert printing (page 6-10)

    • select a language (page 6-11)

6 – Print Driver

**The General
Tab**
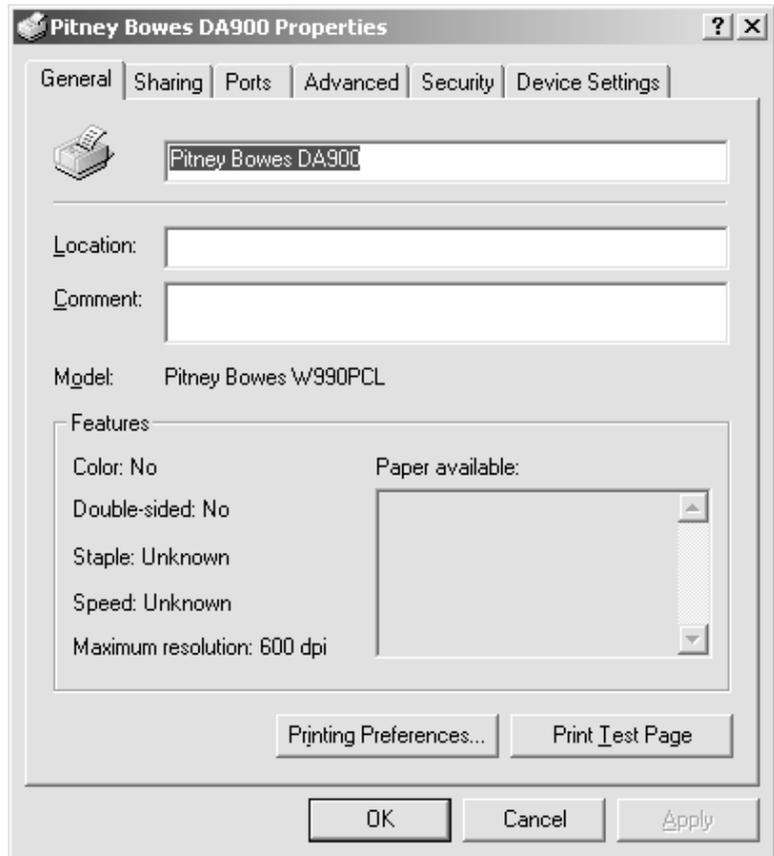
This is the printer properties window as it appears in the
Windows 2000, XP and NT environments. The window
displays information about your printer and allows you to
enter its location and any comments.

Click on **Print Test Page** to test printer operation.

Click on **Printing Preferences...** to set up advanced op-
tions. The Printing Preferences window displays as shown
on the next page.

Printing Preferences
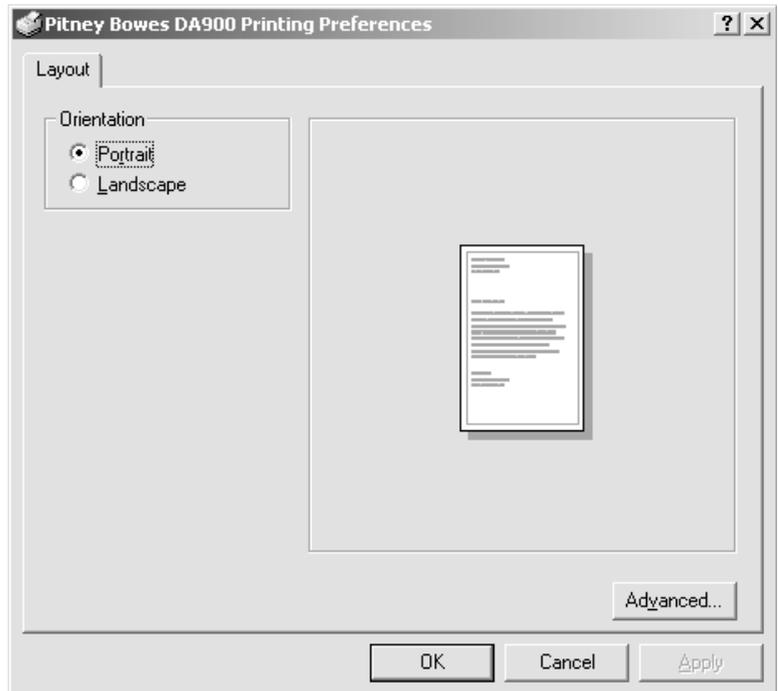
Select the orientation of your media using this window. The choices are Portrait and Landscape. The default or normal setting is portrait. This is suitable for the majority of applications since most media feeds best with the short edge leading.

A very few applications, such as small, square envelopes might require a landscape orientation.

Once you've made your selection, click on **OK** to confirm it.

Click on **Advanced...** to make additional printer settings. The window shown on the next page displays.

6 - Print Driver

Advanced Options:
Paper Size

Pitney Bowes W990PCL Advanced Options   ? X

  Pitney Bowes W990PCL Advanced Document Settings
  ⊟ Paper/Output
       Paper Size: | Letter   ▼ |
  ⊟ Document Option ⊠ Env C4 324 x 229 mm ▲
       Head Adjustr ⊠ Env C5 162 x 229 mm
       Print Quality, ⊠ Env DL 110 x 220 mm
       Feed Delay: ⊠ Env Monarch 3 7/8 x 7 1/2 in
       Inverted Prin ⊠ Envelope #10 Breadthwise
       Language: En ⊠ Envelope #14
     Driver Versio ⊠ Envelope B4
                 ⊠ Envelope B5
                 ⊠ Envelope B6
                 ⊠ Envelope C4
                 ⊠ Envelope C5
                 ⊠ Envelope DL Breadthwise ▼

                             | OK | | Cancel |

Use this option to select the media size you're running.
Once you've made your selection from the list box, click
OK to confirm it.

**Advanced Options:
Head Adjustment
(Print Heads)**

Print Heads ✕

Please enter the adjustment for each print head. The values
must be between -48 and 48.

┌─ Adjustment ─────────────────────────────────────┐
│   │
│   Adjustment head 1:   [0]   ▲▼   │
│   │
│   Adjustment head 2:   [0]   ▲▼   │
│   │
│   Adjustment head 3:   [0]   ▲▼   │
│   │
│   Adjustment head 4:   [0]   ▲▼   │
│   │
│   Adjustment head 5:   [0]   ▲▼   │
│   │
│   Adjustment head 6:   [0]   ▲▼   │
│   │
│   [Default]   │
│   │
└───┘

              [OK   ]   [Cancel]
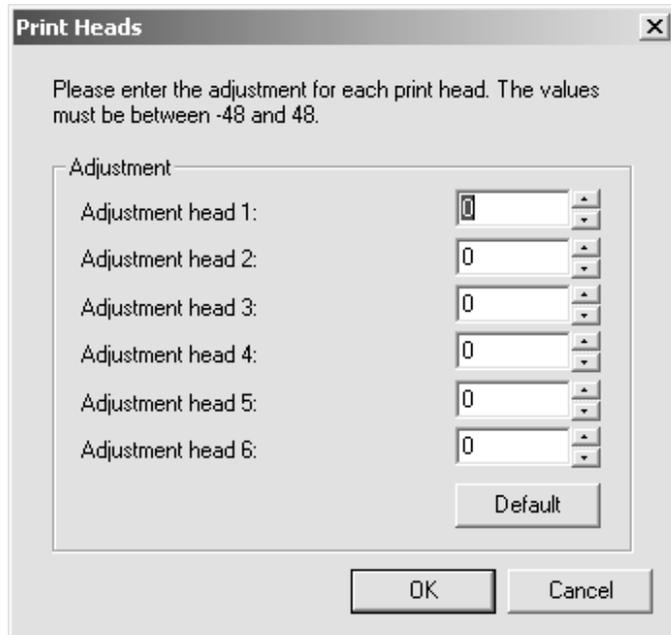
Hint: For additional in-
formation on printhead
placement, see *Appen-
dix B—DA900 Applica-
tion Notes.*

This option permits precise alignment of text or graphic
elements printed by adjacent printheads. You can adjust
the point at which each printhead fires in increments of
0.001 inch. You can delay printing (-) up to a maximum of
0.048 inch or accelerate it (+) up to a maximum of 0.048
inch. The default (normal) value is 0. Click OK when
you've entered the values you want.

The recommended adjustment process is:

1. Use Envelope Designer™ Plus to determine correct
   printhead position. Note the location of the printhead
   bands relative to the ruler displayed in the envelope
   template.

2. Physically position the printheads. See Chapter 5.

3. Run several test pieces to check the alignment of text
   and graphic elements.

4. If fine adjustment is required, enter an adjustment
   value for the appropriate printhead(s). Continue to ad-
   just in small increments and repeat tests until align-
   ment is satisfactory.

6 – Print Driver

Advanced Options: Print Quality

Print Quality   ×

Resolution in DPI: 150 DPI ▾

Belt speed (IPS):   22 ▾

OK   Cancel
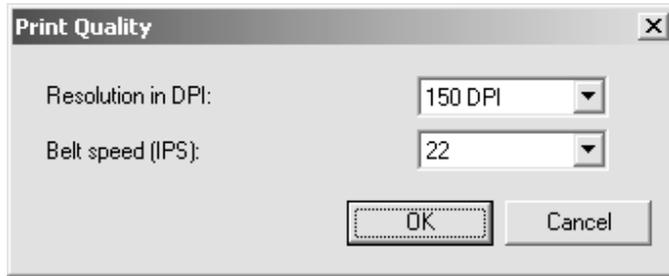
The settings in this dialog box determine print quality.

- 150 dpi is equivalent to draft quality

- 300 dpi is equivalent to near letter quality

- 600 dpi is equivalent to letter quality

The higher the resolution setting and the slower the belt speed, the sharper the print quality. High resolution printing lowers average throughput.

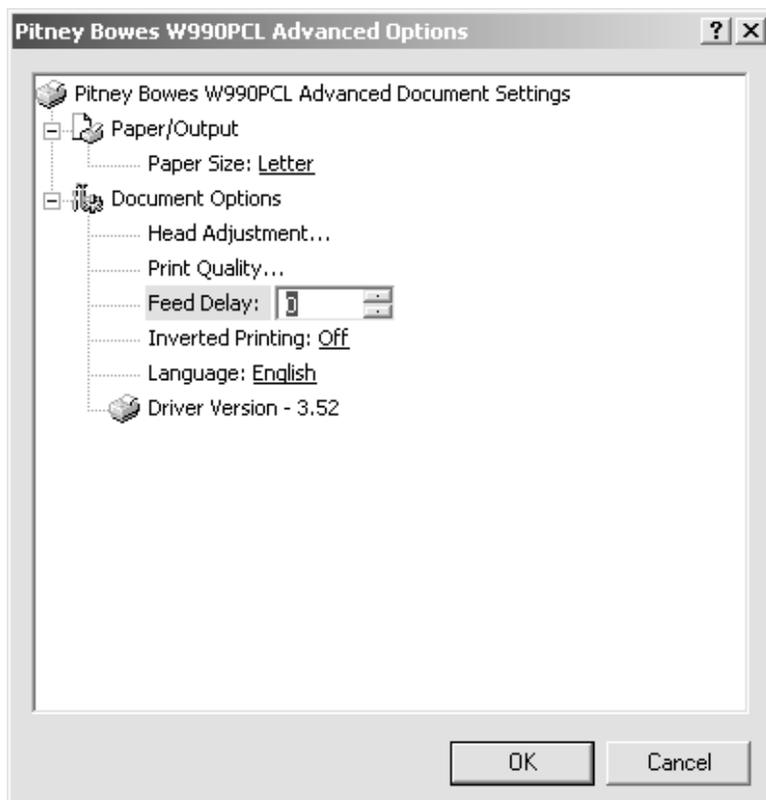When you've made your selections, click on **OK**.

NOTE: When 600 dpi is selected, the only available belt speed is 22.

Choosing an acceptable resolution for your particular job is a matter of finding the right balance between quality and productivity. You must also consider the quality of the paper stock you are using. See *Media Requirements* on page 2-3.

Advanced Options:
Feed Delay

```
Pitney Bowes W990PCL Advanced Options                    [?][X]

   Pitney Bowes W990PCL Advanced Document Settings
   ⊟ Paper/Output
      ┈┈┈┈ Paper Size: Letter
   ⊟ Document Options
      ┈┈┈┈ Head Adjustment...
      ┈┈┈┈ Print Quality...
      ┈┈┈┈ Feed Delay: [0]  ▲▼
      ┈┈┈┈ Inverted Printing: Off
      ┈┈┈┈ Language: English
      ┈┈ Driver Version - 3.52




                              [    OK    ]    [  Cancel  ]
```

The feed delay option allows you to insert a "pause" between envelope feeds. In other words, the delay *increases* the gap between envelopes as they exit the printer. The pause allows you to check print quality or lessen the possibility of jams as printed envelopes are stacking. The delay also allows for more print drying time, especially when you are running coated stock or using the stacker option.

You can enter a feed delay value of 0 (no feed delay) up to 600 milliseconds (maximum delay). The default (normal) value is 0. Click **OK** to confirm your selection.

Whenever you change the feed delay value, we recommend you run test envelopes to assure proper feeding and satisfactory envelope drying.

6 – Print Driver

Advanced Options: Inverted Printing

Pitney Bowes W990PCL Advanced Options

Pitney Bowes W990PCL Advanced Document Settings
- Paper/Output
  - Paper Size: Letter
- Document Options
  - Head Adjustment...
  - Print Quality...
  - Feed Delay: 0 Tenths of a Second
  - Inverted Printing: Off
    - Off
    - On
  - Language: English
  - Driver Version - 3.5

OK   Cancel

Special Note for Envelope Designer™ Plus Users:

You *cannot* select inverted printing from Envelope Designer's Edit menu. You will see a warning message if you attempt to do so. Select inverted printing from the Advanced Options window as instructed here.
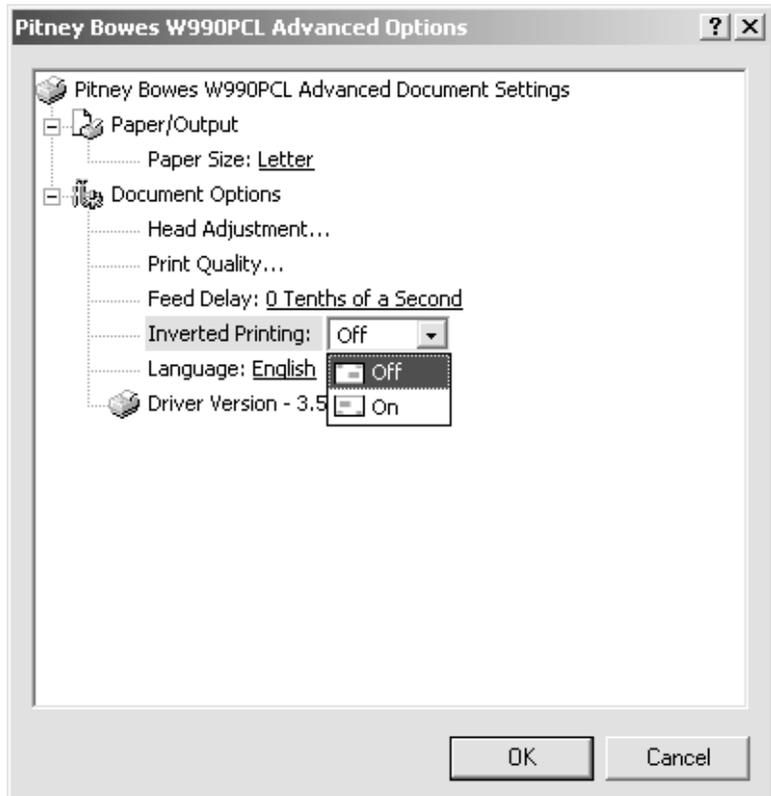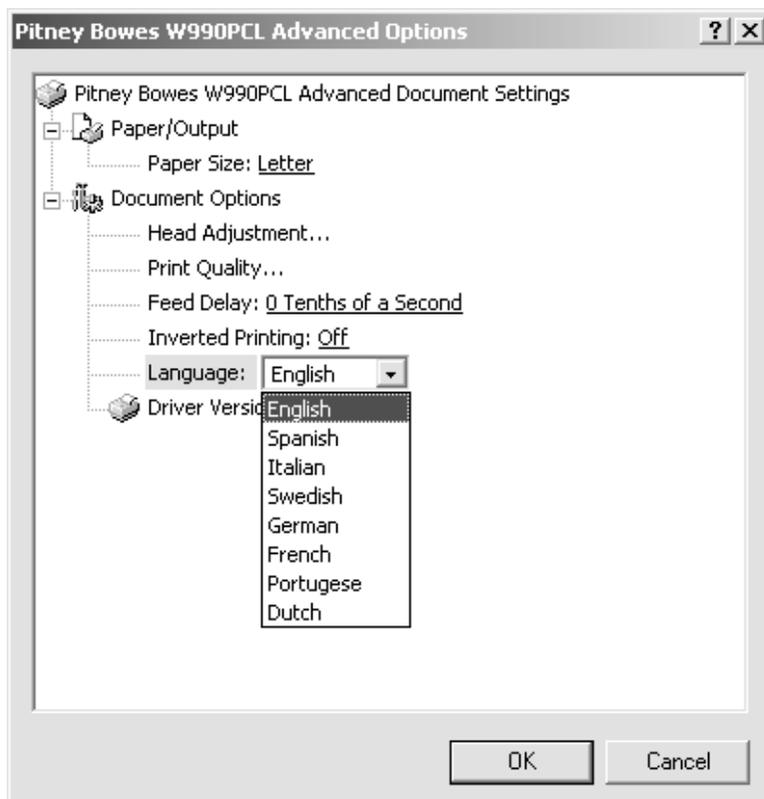
You can choose to invert printing by selecting the appropriate option (Off or On) from the list box. Off is the default (normal) setting. Click **OK** to confirm your selection.

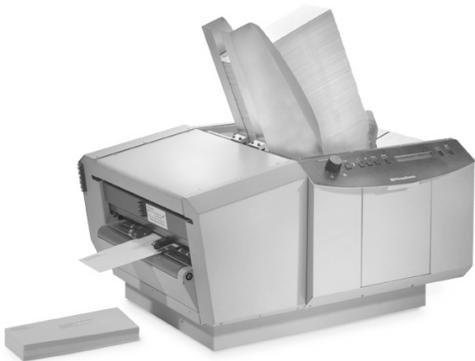Inverted printing may be useful in the following situations:

- You want to feed envelopes flap first. This approach can solve envelope nesting problems when using a power stacker.

- The printer heads cannot reach the far end of an oversized envelope. With inverted printing selected, feed envelopes backwards (rotate 180 degrees and feed flap down and leading).

- You want to print on the left side of an oversized envelope.

Advanced Options: Language

Pitney Bowes W990PCL Advanced Options   ? ✕

Pitney Bowes W990PCL Advanced Document Settings
- Paper/Output
  - Paper Size: <u>Letter</u>
- Document Options
  - Head Adjustment...
  - Print Quality...
  - Feed Delay: <u>0 Tenths of a Second</u>
  - Inverted Printing: <u>Off</u>
  - Language: English ▾
  - Driver Version
    - English
    - Spanish
    - Italian
    - Swedish
    - German
    - French
    - Portugese
    - Dutch

    OK   Cancel

While eight choices are displayed in the Language list box, only English is currently supported.

6 – Print Driver

Notes

7

Maintenance

General Cleaning

Your printer is designed to provide trouble-free service with a minimal amount of care. To keep it in top condition, you should schedule regular cleaning of the feed rollers, exit rollers and lower guide.

- Clean the printhead cartridge and cover with a lint-free cloth and *distilled* water only. Order cleaning kit, supply #902-1. See Chapter 8 for ordering instructions.

- Never spray or pour water directly on or into the printer; excess liquid could harm electronic parts. Always dampen a rag and apply it to the parts to be cleaned.

- Clean all rubber rollers and transport belts with water or alcohol.

- Keep petroleum-based cleaning solvents away from rubber or plastic parts.

 **NOTE:** Use of any other cleaning solvents will void all warranties.

Replacing the Inkjet Cartridge

Follow the steps below to replace the inkjet cartridge.

1. Lift up the blue retaining lever located above the cartridge holder.

2. Remove the cartridge by pulling the top toward you and lift the cartridge up and out of the holder.

3. Remove a new print cartridge from its packaging. Take care not to touch the copper contacts or printhead nozzles. Remove protective tape from the printhead.

Replacing the Inkjet Cartridge (continued)

4. With the gold printhead contacts pointing toward the printhead holder pins, insert cartridge into holder. See the figure below. Use extreme caution not to contact or bend printhead holder pins.
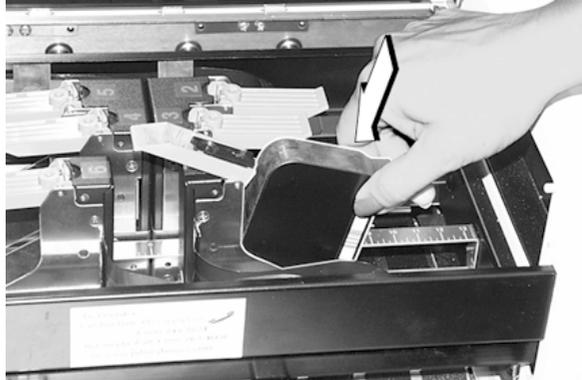
5. With the cartridge inserted, lower the blue retaining lever. This pulls the cartridge inward to make contact with the printhead holder pins.

6. Repeat this procedure for each cartridge.

Setting "Ink Left" Feature When Replacing Cartridges

When loading new inkjet cartridges for the first time:

1. After loading the new cartridges, turn the printer on.

2. Press the **Menu** key.

3. Press the **+** key until the message "**Enter when Head 1 is filled**" appears in the display.

4. Press the **Enter** key and the message "**Head 1 has new Cartridge**" appears in the display.

5. Press the **+** key again for Head 2 and repeat steps 4 and 5 until all of the cartridges have been identified.

Setting "Ink Left" Feature When Replacing Cartridges (continued)

6. To check that you have identified ("filled") all of the cartridges, press and hold the **Test Print** key until the Service Menu appears. Then use the **–** key to display the following message:

    Service Menu: Ink Levels
    100% 100% 100% 100% 100% 100%

    NOTE: Step 6 can also be used to check the level of the ink in the cartridges at any time during operation of the printer.

    When replacing empty cartridge with new cartridge:

1. When the ink in the cartridge reaches a low level, the printer will stop feeding and the following message will be displayed:
    Printer Offline   *nnn*
    Head *n* Low: Press ENTER

    NOTE: "*nnn*" is the number of the head with a low ink supply.

2. Press **Enter** and the following will be displayed:
    Printer Offline   *nnn*
    ENTER when head is filled

3. Replace the cartridge and press **Enter** again. The display will change to the following:
    Printer Offline   *nnn*
    Head *n* has a new cartridge

IMPORTANT: You should replace a cartridge when the printer indicates the ink has run out. If you don't, or reset the ink left setting to circumvent the low ink warning, the cartridge will run out of ink very soon after and prevent you from printing.


Store the inkjet cartridges in the docking station (photo, next page) or in an area that is free of dust and paper particles. Do not keep them in an area that is too dry for a long period of time. Discard used cartridges in the normal manner.

**Setting "Ink Left"
Feature When
Replacing
Cartridges
(continued)**

**When switching
between standard
cartridges and
bulk ink cartridg-
es:**

1. Press and hold
   the **Menu** key
   until the follow-
   ing message
   appears:
   Setup Menu
   Total Count *nn*
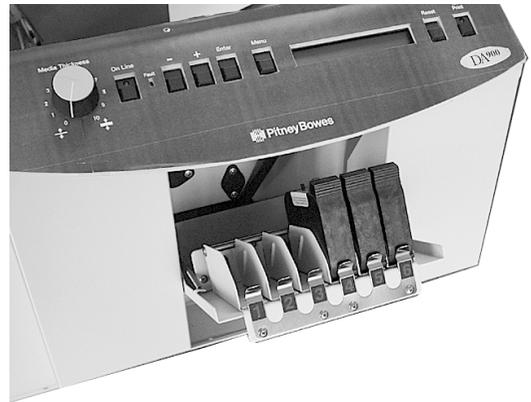
Cartridge Storage

   NOTE: *"nnn"* is the number of the head with a low ink
   supply.

2. To switch to a bulk ink cartridge from a standard cartridge:

   Press the **+** key until the message below appears:
   Head *n* uses a cartridge
   Enter to use bulk ink

   Press **Enter** and the following message will appear:
   Head *n* is using bulk ink
   Enter to use a cartridge

3. To switch to a standard cartridge from a bulk ink cartridge:

   Press the **+** key until the message below appears:
   Head *n* uses a bulk ink
   Enter to use cartridge

   Press **Enter** and the following message will appear:
   Head *n* uses a cartridge
   Enter to use bulk ink

4. Press the **+** key to move to the next head and repeat steps
   2 and 3 as necessary.

Purging the Printhead Nozzles

If the printhead is inactive for a period of time, ink may dry in the nozzle. White streaks will then appear in the printed text or graphic.

To obtain better quality, purge the printhead nozzles:

1. Turn on the printer.

2. Feed in paper (for the purged ink to fall on).

3. Press the **Menu** key; "Enter to Purge" displays on the control panel.

4. Press the **Enter** key and the printheads purge.

Cleaning the Printheads

To achieve good print quality, maintenance of the printhead is required. Paper fiber, dust and dried ink can build up on the printhead.

To clean the printhead:

1. Use a lint-free towel with no chemical additives to clean the printhead. Moisten the towel with *distilled* water. (An abrasive cloth can put scratches on the printhead, preventing ink from coming out of the nozzle properly.)

2. Wipe the cartridge nozzles in the direction of the nozzle rows. Harmful particles on the top of the printhead can be wiped into the nozzles if you are not careful. See the figure below for the proper way to wipe the ink cartridge.

Cleaning the Media Sensor

It is important to keep the media sensor clean. Use compressed air to blow dust from the sensor.
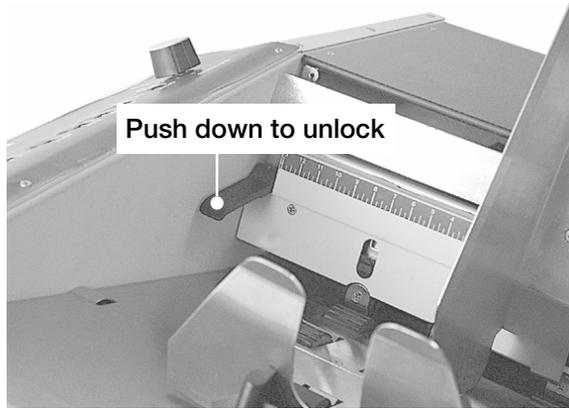
See the figure below for the location of the sensor.
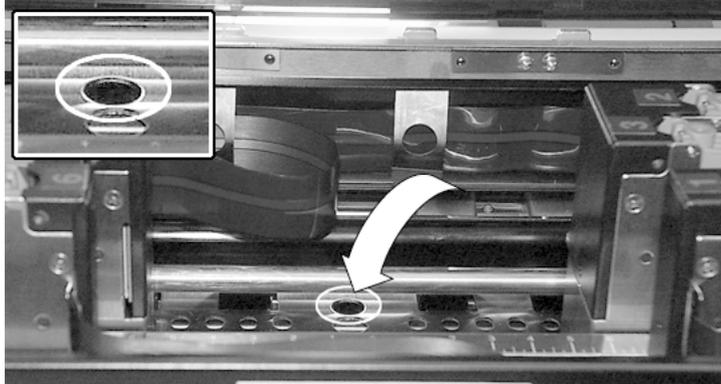
**NOTE:** Move printheads 2/3 and 4/5 to the outside to gain better access to the sensor.

Replacing the Separator Tips

To replace the separator tips:

1. Before changing the separator tips, unplug the printer.

2. Release the separator locking lever on the left side of the feeder, as shown below.

Push down to unlock

3. Push down the black tab on the separator to expose the screw, as shown below.

4. Move the separator locking lever up to its locked position.
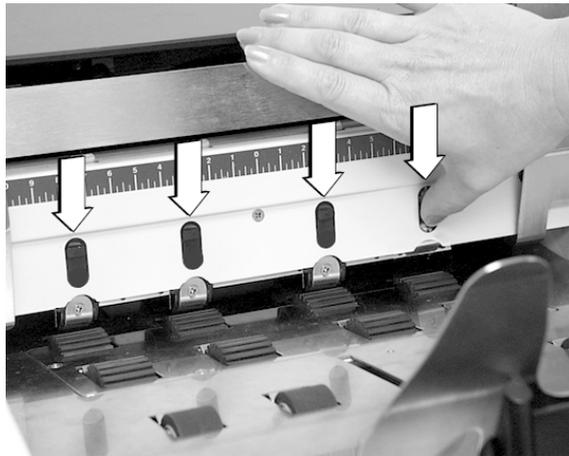
Replacing the Separator Tips (continued)

5. Using a Phillips screwdriver, remove the screw and metal cover over the separator tip. Use the tip of the screwdriver to push down on the separator tip. Unlock and remove the separator tip.

6. Replace with a new rubber separator tip.

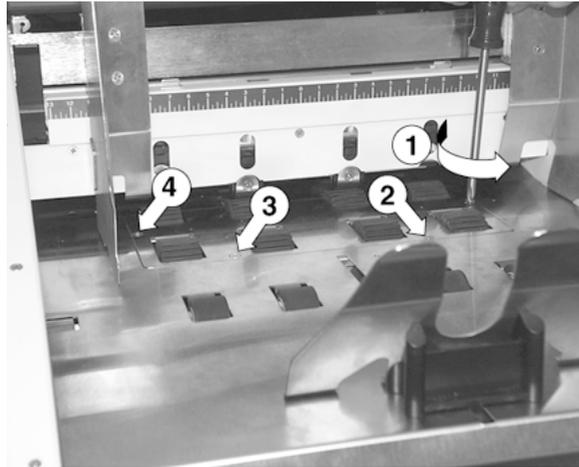7. Reinstall the metal cover and screw as shown below. Do not overtighten.

Replacing the Feed Rollers

To replace the feed rollers:

1. Before removing the feed roller access plate, unplug the power to the printer.

2. Using a Phillips screwdriver, remove the four screws from the feed roller access plate. See below.
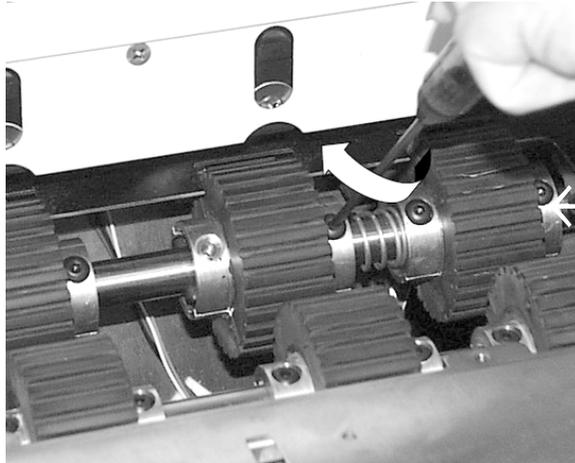

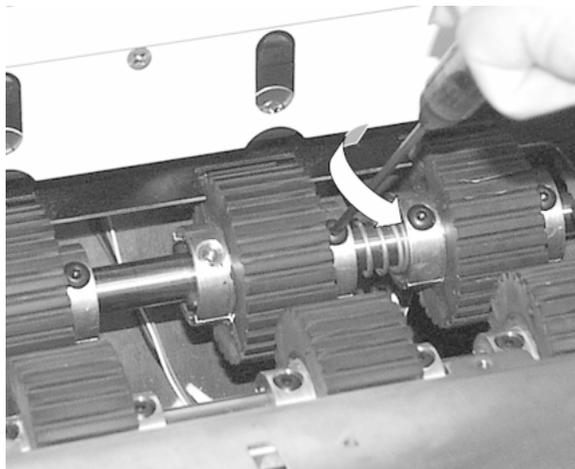3. Remove the feed roller access plate. See below.

Replacing the Feed Rollers (continued)

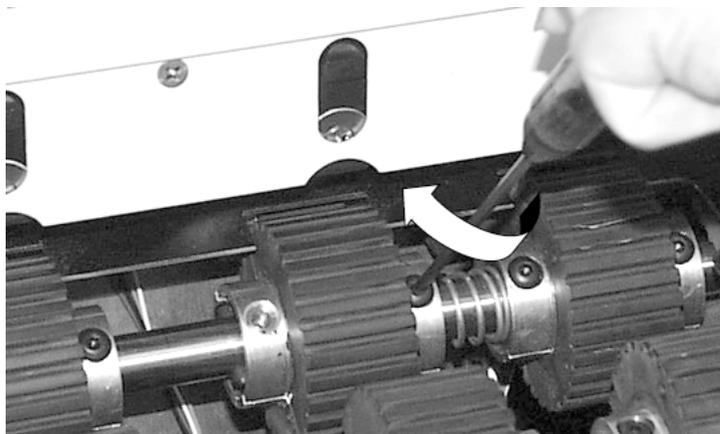4. Rotate the feed roller shaft so the screws face up. See below.

5. Use a 3/32" Allen wrench to remove the two 8/32 x 1/4" buttonhead cap screws. See below.

7 - Maintenance

Replacing the Feed Rollers (continued)

6. Remove the half feed roller. See the picture below.

7. Rotate the shaft so the screws on the other half of the roller face up. Remove both screws. Remove the half feed roller.

8. Place the new half-feed roller on the shaft and secure with both buttonhead cap screws.

9. Rotate the shaft and replace the feed roller on the other side with buttonhead screws. See below.
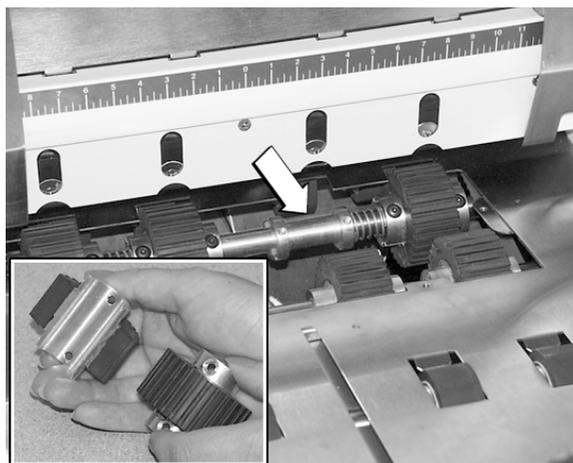
10. Replace the feed roller access plate and fasten with the four screws.

8

Troubleshooting

Getting Help

There may be times when you need help to solve a problem, or you may want more information about how your printer works. Pitney Bowes provides several information resources.

Phone Support
Technical support is available from the Pitney Bowes National Diagnostic Center.

Before You Call
Please read the troubleshooting information in this chapter. In many cases, this information will help you resolve the problem. Note that you can often restore normal operation by turning the printer off and then on.

If you can't fix the problem, call our National Diagnostic Center at 1-800-253-6565. Please have the following information at hand:

- Product name: DA900 AddressRight inkjet printer.

- Serial number: See the right side of the printer.

- Nature of problem: What happens and when does it happen? Did the printer display an error message?

- 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.pitneybowes.com

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

Power Problems

Nothing happens when power is turned on. No LCD display.

- Check that power cord is plugged in.

- Reconnect or reseat the cable from PC to printer. Make sure clips are hooked, printer and screws are seated, and computer is connected properly.

- Turn printer OFF and then ON.

- Plug a different device into the outlet you are using. If the outlet does not work, plug the printer into a different outlet.

General

- Static electricity is interfering with operation. Turn the printer OFF and ON.

Feeding Problems

Intermittent feeds

- Be sure to use the feed ramp. (See *Chapter 3-Meet the DA900*.) The paper support adds a gentle slope to the stack and helps feeding.

- Check that the side guides are not too tight or too far from media.

- The feed rollers may be dirty. Clean the feed rollers with water or alcohol wipes. DO NOT use any other solvents or detergents. They could damage the feed rollers.

- Paper dust may be blocking the feed sensor. Clean the sensor with compressed air.

- The feed gap may be too tight or too loose. Adjust the separator to the thickness of the material.

- Your media may be too thin or too thick. Minimum thickness is 0.004"; maximum is 0.375."

8 - Troubleshooting

Feeding Problems (continued)

Multiple feeds

- The feed gap may be too tight or too loose. Adjust the separator to the thickness of the material.

- Paper dust may be blocking the feed sensor. Clean the sensor with compressed air.

- Paper stuck together. Separate paper before feeding.

- Side guides too far from media. Set side guides to width of media plus 1/16".

Paper Jams in Printer

- Clear jam and remove pieces remaining under printhead.

- Check for the following:

    1. Paper not loaded correctly. Set side guides to width of media plus 1/16".

    2. Separators improperly adjusted. Adjust separators to thickness of material.

    3. Media is curled or bent. Uncurl media.

    4. Media is too thin. Media must be at least 0.004".

    5. Dirty sensor. Clean sensor.

    6. Worn separator tip. Replace separator tip.

Printing Problems

Printer does not respond to software

- Check connection between printer and computer. If you have a good parallel port connection, the "on-line" LED on the printer control panel will be lit.

Printing Problems

No print on media

- Purge ink cartridge (see *Chapter 6—Maintenance*).

- Clean cartridge inkjets with tissue or soft cotton cloth and water.

- Tape on printhead or print nozzle. Remove tape.

- Cartridge not properly inserted. Remove and reinsert the cartridge into the cartridge holder.

- Clean sensor.

- The job has been started from the printer. Restart. Run print job from Envelope Designer Plus.

- Bad connection.

    1. If this port can communicate with printer using another parallel cable, replace cable.

    2. If the port cannot communicate using another parallel cable, check printer.

    3. If the port cannot communicate using another parallel cable and the printer is okay, check parallel port on the computer.

- The cartridge may be empty, faulty or dried out. Install a new print cartridge. When storing cartridges outside of the printer overnight, place them in the docking station. For prolonged storage, place them in a covered Tupperware-type container with a damp sponge or towel to maintain humidity.

- You may have positioned your address so far left or right that it is printing off the envelope. Adjust the print band vertically, adjust the side guides on the printer, or check that you have selected the correct envelope size from the drop-down box on the menu bar.

8 - Troubleshooting

Printing Problems (continued)

Print slanted/skewed

- Check the separator gap and adjust as required.

- Margins set to less than 1/4". Reset the margins to 1/4" or more.

- Note that the maximum allowable skew is +/-2.5° relative to bottom edge of material. A minimal skew is allowed.

Space between lines not uniform

- Printheads not aligned properly. Align printheads.

- You have fields which have a value in some records and none in other records.

Poor Print Quality

Blurry print

- Printhead too high. Lower printheads.

- Too much dust in printer. Clean rollers and printheads.

- Printheads were scratched when cleaned. Replace print cartridge. When cleaning, use proper wipe in correct direction.

- Media is glossy, recycled, too porous or too absorbent. Use appropriate paper.

Print too light

- At the start of a run or if printing is paused for more than about four minutes, the user must purge and test until print quality is acceptable.

- Print speed set too fast. Reset to slower speed.

- Printhead clogged or dirty. Purge and clean printheads.

- Print resolution set too low. Select higher resolution.

Poor Print Quality (continued)

- Running low on ink. Replace cartridge.

Print streaking/smearing on material

- Envelope thickness adjustment too low. Raise printheads.

- Exit roller dirty. Clean exit roller with water.

- Printhead dirty. Clean printheads.

- Ink is not being absorbed because paper is coated or plastic. Use fast-dry ink.

- You are printing in high resolution mode on glossy media. Change print quality, or use W853 dryer, or use fast-dry ink.

- High humidity is slowing down drying time. Use fast-dry ink.

White lines/streaks in a line of print or in graphics

- Cartridge not properly inserted. Remove and reinsert the cartridge into the carriage holder.

- Ink cartridge nozzle crusted over. Clean with lint-free, dampened cloth.

- Cartridge was hit, shaken or dropped. Replace cartridge.

- Tap water was used to clean cartridge and mineral deposits have blocked the ink chamber. Replace the cartridge and use only distilled water to clean printheads.

- Wrongly directed or forceful wipes have driven particles into nozzles. Replace the cartridge. Clean printheads as directed in *Chapter 6—Maintenance.*

- Addresses not positioned properly; too close to center of media.

8 – Troubleshooting

Poor Print Quality (continued)

- Chosen envelope size is too small. Select correct envelope size from drop-down box on menu bar.

- If your graphic has a white line through it, the printheads may need to be banded together.

Prints garbage

- Poor cable connections. Check parallel cable. Make sure cable is connected securely at both ends. Does cable exceed maximum 6' length? Replace cable with a good cable.

- Interface problem. Check printer setup at computer.

- Ink supply low. Replace cartridge.

- Turn the printer off and on. Restart job.

No barcode

- Wrong font selected. Choose USPS barcode font.

- No ZIP Code. Check ZIP Code.

- Barcode not enabled. Enable bar code.

Prints wrong/ incomplete information

Not all addresses on the list have printed

- You have selected only some addresses to print. Select **Print** from the **File** menu and select All Addresses.

- You have added or removed records from a mail list and then printed without first exiting the application used to modify the list. Correct by reattaching the layout to the modified list.

Extra lines on media, losing data

- Buffer overflow. Check the data in your database. Close the print job screen. Power down printer for a few seconds, then restart print job.

Prints wrong/ incomplete information (continued)

The colors on the envelope are not the colors you want

- You have assigned the wrong colors to the printheads. Return to Print Head Properties screens and recheck the assignment of colors to heads.

- Check that the physical location of the printheads in their mounting brackets matches the template setup.

Addresses nearly off media

- Chosen envelope size is too small. Select correct envelope size from drop-down box on menu bar.

Address too high or too low

- Check image on layout screen. You may have input the wrong positioning.

- Adjust side guides or printheads on their mounting brackets to set how far from the bottom edge of a piece the fields are printed.

- Center media in input area. (Use "0" reference on ruler.)

Address prints upside down on media

- Stock direction set wrong. Change from **Forward** to **Reverse** or **Reverse** to **Forward** where you want to insert the field.

8 - Troubleshooting

Printer Errors

Out of Paper

The paper sensor did not detect paper within one second of starting the feeder. Check if input bin is empty. Refill paper.

OR

Dirty sensor not seeing media. Clean sensor.

OR

Jam blocking path. Clear jam.

OR

Separator out of adjustment. Adjust separator.

Paper Jam

Remove jam and feed media again.

9
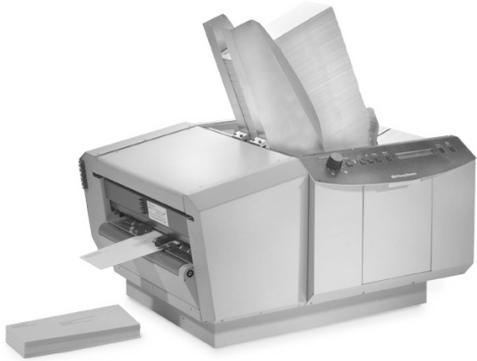
Supplies and Options

Supplies and Accessories

Supply	Order Number
Ink Cartridge, Black	660-1
Ink Cartridge, Fast Drying Black	660-6
Ink Cartridge, Black Bulk Ink Kit	635-4
Ink Cartridge, Blue	635-1
Ink Cartridge, Red	635-3
Ink Cartridge, Fast Drying Black, 6 pack	674-5
Ink Cartridge, Black 6 pack	674-4
Separator Tips Kit	633-8
Feed Rollers Kit	633-0
Cleaning Kit	902-1

> **IMPORTANT:** Do not use the alcohol contained in Cleaning Kit 902-1 on printer rollers as it may damage them.

The following table summarizes available ink types to help you choose the right ink for your application.

	Regular Ink	Fast Dry Ink
Cost	Lower	Higher
Media Type	Absorbent	Glossy
Stacking	Conveyer	Bin
Print Quality	Best	Good

How to Order	Ordering Online

To order supplies, access *www.pitneybowes.com/supplies*

 You'll find a complete, easy-to-navigate online store that offers a wide assortment of Pitney Bowes supplies at attractive prices. Be sure to take advantage of special quantity pricing and online discounts.

Ordering by Phone

Call **1-800-243-7824.** Our representatives will be happy to answer your questions and take your order.

Requesting a PB Supply Catalog

Call the number above or e-mail us at supplies@pb.com.

Options   Pitney Bowes offers an optional power stacker used to stack output from your printer.

9 - Supplies/Options

Notes
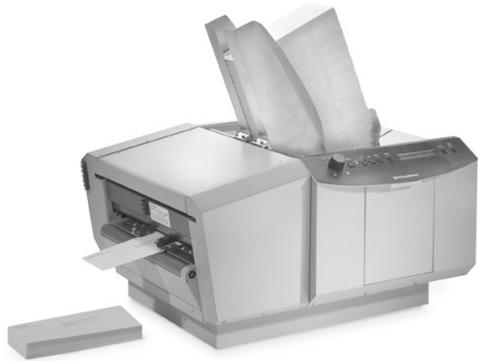
Appendix A
Glossary

[**+**] key on the printer control panel which advances one menu item when in Setup and Service modes.

[**-**] key on the printer control panel which backs up one menu item when in Setup and Service modes.

2 of 5 Barcode — a barcode describing a series of digits (0-9) in which each digit is represented by five elements. An element is either a space or a bar, two of which are thick. This is a non-USPS barcode for special applications not related to mailing, such as parcel tracking, inventory management, etc.

128 Barcode — a barcode used when label length is a consideration because it is very compact and results in a dense symbol. This is a non-USPS barcode for special applications not related to mailing, such as parcel tracking, inventory management, etc.

Accessories — a tab on the Property Sheet (File/Printer Setup) which allows you set package, tray and feeder breaks.

Alignment Tool - a moveable, vertical line used to align the left edge of fields on the template in Envelope Designer Plus. This line initially appears to the immediate right of the template.

Align Heads — a tab on the Property Sheet (File/Printer Setup) which allows you realign the software printhead settings if they do not accurately reflect the position as shown on the Head Info tab.

Belt Speed — the actual speed at which the printer transports your media. Note that the resolution available is dependent on the belt speed you have set. The slower the belt speed, the better the resolution.

Auto-Detection — a software feature that analyzes the first record to determine the number of lines per record if you enter "0" in the "lines per record" box in the Database Attributes box.

Barcodes - a way of encoding numbers and letters into an ID by using a combination of bars and spaces of varying widths. The barcode is read by a scanner attached to a computer to look up all specific information associated with that ID. In the case of postal barcodes, specifications are issued by the USPS regarding the location of the barcode on the printed piece. These specifications should be consulted to ensure compliance with postal regulations.

Belt Speed — the speed at which the printer moves the media past the printhead area.

Bitmap — a graphical object made up of a series of dots, some of which are black (or another color), some a contrasting color, which make up the art.

Bitmap Editor — allows you to launch a bitmap editor program from within Envelope Designer Plus to edit bitmap art. Select Tools/Bitmap Editor. NOTE: A bitmap editor program must be associated with this file format on your PC for this to work. Typically, Microsoft Paint will be assigned as the default bitmap editor.

Blotter — an area near the bottom right corner of the piece outline onto which all new fields are dropped. You can move them from there to a spot on one of the print heads by clicking and holding the mouse button down and dragging.

Control Panel — the panel on the front of the printer with an LCD display, control buttons, and the media thickness knob.

.CSV file - Comma Separated Variable, a type of database with variable length fields. This type of variable is usually associated with spreadsheet applications.

DBase II, IV, V — a type of database associated with Microsoft FoxPro.

Database — a list of records of identical structure (although the content of each record varies). Each record contains one or more pre-defined fields.

Database Mode — the mode which displays the database addresses that will print with the template displayed.

Database Step Direction — a menu choice from Edit which allows you to change the direction in which the database is printed.

Delimiter — a symbol used to separate database fields (delimiters can be tabs, spaces, commas, quotation marks, or carriage returns).

Design Mode — the mode which displays the fields that you have selected for the template addresses.

Destination Address — a menu selection which brings you to the destination address text block editor to choose information to be printed in the destination address on your media and information to be taken from the database field, if any.

DPI — Dots Per Inch. A measurement of print resolution. The higher the number, the better the print quality.

Driver — the software driver for the printer.

Enter Key — the key on the printer control panel which engages the feeder.

Envelope Designer™ Plus - the software you use to design an envelope template, attach a mailing list, and print.

Envelope Size Window — a screen used to set the exact size of the piece being printed so that it appears correctly in the layout screen.

Error — a light on the printer which indicates a problem such as a jam or no media loaded.

Feed Deck — the center plate on which media to be fed into printer is placed.

Feeder — the area of the printer where the media enters.

Feed Ramp — the sliding support which tilts the mail on the feed deck.

Feed Rollers — the rollers in the feeder section of the printer which push the paper through the feeder. You can order a kit to replace the rollers when they wear.

Feed Roller Access Plate — the plate in the feed deck which must be removed in order to change the feed rollers.

Field Type — a printable address, barcode or logo.

Files of Type — a drop-down menu listing all the database files you have added to the database folder.

Fixed Text — text which you can place on the media, but that is not dependent on the records in the database.

Graphic Block Properties — (Edit /Add Graphic) a window which allows you to select and enable logos or other art.

Head Dividers — in the View Menu, toggles on and off the grey lines used to mark the boundary of a print head area.

Head Info — a tab and screen on the Property Sheet (File/Printer Setup) which lists printhead details.

Human Readable — the alphanumeric portion of a barcode that does not require use of a decoding device for a human to interpret.

Image Area — the printable area of the envelope: 3 inches x 17 inches.

Indent Tiles — the printhead indent tiles at the right of the template show the printheads being used for each text block and are numbered blue to indicate reverse direction or red for forward direction.

Indexing — a process of storing how many lines or fields are in each record when accessing a .txt or .csv database. The indexing process is done only once for each database when Envelope Designer Plus first accesses a database.

Ink Cartridges — a consumable supply item which provides the ink for printing. You install them in the inkjet cartridge holders.

Job — part of or all of a database that will be printed. It specifies the name of the database, which records are to be printed, and which label format will be used.

Jobs Folder — a folder which shows information about the job such as total number of records, template used to layout the job, resolution, and last record processed. Job files have a .AJPJT extension and are stored in the Projects folder.

Layout Screen — the desktop area on which the fields and printheads are arranged in Envelope Designer Plus.

Locking Knob — the four knobs which loosed then tighten the printhead cartridge holders into position.

Logo — a symbol used to represent a company, department, institution, etc.. The printer software can add up to eight different bitmap logos or graphics to the printed piece.

Logo Folder — a folder used to store any logos and graphics in Windows.

Media — envelopes, flats, postcards, catalog envelopes, tri-folds, etc., which are being fed into the printer. See Chapter 2, Specifications, for material sizes.

Media Sensor — a sensor that identifies the leading edge of the media and communicates this to the software. It is located behind the front feed plate just before the printhead carriage.

Media Thickness Adjustment — a knob on the printer control panel that adjusts for media thickness; counterclockwise for thin media, clockwise for thick media.

Menu — a key on the printer control panel which displays the current state of operation. You also hold this key down to access setup mode.

Online — a light on the printer control panel indicating that the motor of the printer is running and is ready to feed mailing pieces.

Paper Support — a guide which moves forward and backward to support the media at the correct angle for feeding.

Parallel Port — a port on the rear of the printer where the cable to your computer is connected.

Pause Job Button — a button that, when pressed, stops the printer and ends the transmission of data to it.

Planet Barcode — a machine-readable barcode that is used *in addition to* the USPS Postnet barcode when you want to track the progress of outgoing mail and/or incoming business reply mail as it is being processed by the USPS.

Postnet USPS Barcode — the machine-readable USPS barcode used to receive postal discounts when sending mail domestically. There are Postnet codes for addresses with a Zip Code®, a Zip+4® and Zip+4+2®.

Power Cord Receptacle — an outlet for the printer power cable.

Power Switch — a switch on the right side of the printer which turns the printer ON and OFF.

Printer Setup — (in the File menu) opens the Property Sheet which allows you to set and view details on print head information, set tray and package breaks and other functions that are available in Envelope Designer Plus.

Printing Bands — a menu item under Tools which allows you to group printheads together in Envelope Designer Plus as they are on the printer. Printing bands also allow graphics that are larger than a single printhead area to be printed across several printhead areas.

Printheads — the part of the print cartridge which prints on your media. The DA900 has six printheads.

Print Order — the order in which records will be printed. You can print the lowest numbered records first or the highest first. (See *Database Direction.)*

Print Speed — the speed at which the media is printed.

Project Folder — a folder which stores all the information necessary for the software to format and run the job.

Property Sheet — a screen selected under File/Printer Setup which allows you to set and view details on printhead information, set tray and package breaks and other functions that are available in Envelope Designer Plus.

Properties — a tab on the Property Sheet (File/Printer Setup) which allows you to enable or cache pre-rendered fonts.

Purge — a printer menu option that cleans the inkjets.

Record — a unique set of data in the database subdivided into fields. For example, an individual's name and address would be a record, while the name, first line of address or postal code would be examples of fields.

Record Size — the number of lines of data in a record, including blank lines used to delineate the end of a record.

Reset — a key on the printer control panel which clears the printer's memory.

Resolution — the quality of the image, measured by number of ink drops per inch (dpi). Note that the resolution available is dependent on the belt speed you have set. The slower the belt speed, the better the resolution.

Return Address — a menu selection which brings you to the return address text block editor to choose information to be printed in the return address on your media.

Return/Form Feed Delimited Files — types of files generally stored as .txt files, delimited by the return character with the end of record a form feed symbol, formerly used on adhesive label printers.

Run Indicator — a line indicating that printing is in progress.

Save Template As... — a function (in the File Menu) which saves an untitled template file (an .ajpjt file) as a copy of the file being worked on under a different file name.

Segmented Rollers — replaceable rollers which feed the media into the print area.

Separators — part of the printer which separates the media as they are printed**.**

Separator Gap — the adjustable gap between the separators and the feed deck.

Separator Locking Lever — a lever on the left side of the feeder used to lock the separators in place.

Separator Tips — user-replaceable tips which help separate the media when feeding.

Side Guides — guides which move in and out to secure media feed position.

Stock Direction — the direction that pieces can be printed; either forward or reverse. In forward direction, the left edge of the piece goes under the printheads first. In reverse direction, the right edge of the piece goes under the printheads first.

Template — a screen representation of what a mailpiece or packaging piece will look like when it is printed. It specifies which heads will be used, the printing direction, and the location and content of the addressing or barcode information.

Test Print — a key on the printer control panel used to place the printer in test mode. This enables you to test the printer without the software. Also, a light on the printer which indicates that it is powered up and initialized.

Text Block Properties — a display which allows you to enable text blocks and to set font, type size and type style.

Text Fields — (Edit /Destination Address or Return Address) a series of lines on which you can position several fields from the database as well as fixed text and other values.

Text Field Buttons — buttons on the Envelope Designer Plus tool bar which allow you to add return, destination, and fixed text blocks to the template.

Text Block Editor — allows you to specify where fields in the database will appear on the template. When the job is printed, Envelope Designer Plus replaces the field name with the corresponding text or value in the database record.

Tilde — (~) a symbol used to mark the beginning and the end of a field.

Tray and Package Breaks — properties which allow you to stop the printer in order to separate media according to USPS regulations.

USPS — United States Postal Service.

USPS Postnet Bar Code — a machine-readable barcode employed by the USPS for the sorting and directing of mail. There are Postnet codes for addresses with a Zip Code®, a Zip+4® and Zip+4+2®.

USPS Postnet Bar Code icon — (on the Tool Bar) adds USPS Postnet Bar Code to media.
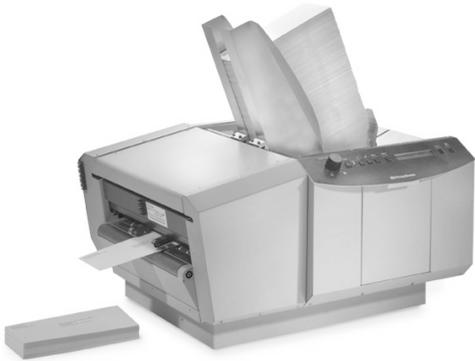
Appendix B
Application Notes

Fixed-Head Versus Shuttle Head Printers

Fixed-head printers differ from shuttle-head printers in a few very important ways. The DA900 is a *fixed-head* printer with six print heads that operate on four bands. Each print head is able to print 1/2 inch of your layout. Therefore, the DA900 is able to print a total of three inches of text and/or graphics.

This differs from shuttle-head printers, which are able to print your entire envelope layout. The trade-off in print area is improved speed. By fixing the location of the print heads, printing can occur at a high speed as media is moved under the heads.

Printheads and Bands

Designing an envelope layout for the DA900 also imposes different requirements than those associated with a typical shuttle-head printer. With the three-inch printable area spread across six heads, it is critical that you think about what information must be placed where on the mailpiece. In this regard, Envelope Designer™ Plus, which is furnished with the printer, is an excellent tool that can help you layout the mailpiece within the limitations imposed by a fixed-head printer.

By default, heads 4 and 5 are permanently attached to each another, as are heads 2 and 3. Heads 1 and 6 are independent, with independent bands. Thus, the six heads print the information contained in four "bands". In this configuration, the DA900 has two 1-inch bands, and two 1/2 inch bands.

The envelope layout editor in Envelope Designer™ Plus attempts to duplicate the physical layout and limitations of the DA900 printer. For example, while you may overlay bands 1 and 2 (since they are on separate rails on the printers), you cannot overlay or place band 1 "under" band 4—since heads 1 and 6 are on the same rail.
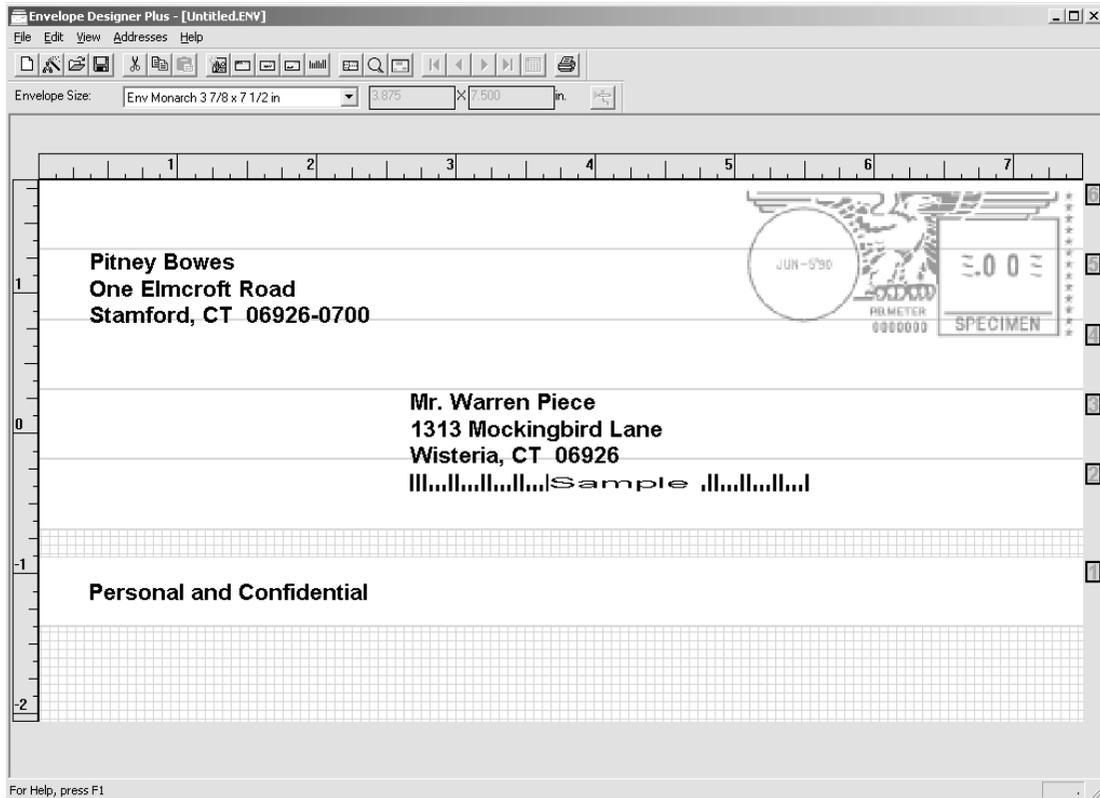
A typical envelope layout as it appears in Envelope Designer Plus. It shows the location of printheads 1 through 6 on the right side. The six printhead bands are shown as clear areas; non-printing areas are crosshatched. In the example above, the destination address is printed by printheads 2 and 3 and the message line by printhead 1. You can physically position the printheads by relating the bands to the ruler on the left.

Printheads and Bands (continued)

The concept of bands is important when designing and laying out your envelope, since certain rules apply to what you can and cannot do within a band. Only items that are within a band are printed. Text or graphics that fall outside of a band are *not* printed.

It is possible to "gang" head 6 to heads 4-5, and gang head 1 to head 2-3, resulting in two 1.5-inch bands. This is useful should you need the extra inch for a large

Printheads and Bands (continued)

graphic or text message. Be aware that dragging bands on the envelope layout and placing them next to each other does not result in larger print areas. You must enter the Fixed Head tab and select Attach to expand the printable area.

Color

While color is supported in the DA900, note that its use is different than with other Pitney Bowes AddressRight shuttle-head printers. The DA900 employs "spot color," meaning that each of the six print heads uses a single-color ink cartridge. Thus, if a red ink cartridge is placed in head 1, everything in that band will print in red.

By overlaying bands 1 and 2 (head 6 with heads 5-4) or band 3 with 4 (heads 3-2 with head 1), you can design a layout with up to two colors on a single line of text. For example, by placing the first half of a text message on head 6 with a red ink cartridge, and the second half on head 5 with a blue ink cartridge, you can set up your layout such that the text message has the first part of the text in red and the rest in blue. Graphics, however, will always be of one color.

Unprintable Areas

One important physical limitation that is not represented in Envelope Designer™ Plus is the unprintable area that exists when you try to place heads 1 and 6 next to each other.

If you place heads 1 and 6 next to each other on the printer, there will be approximately 1.7 inches of unprintable space between them due to the ink storage portion of each ink cartridge. Thus, while it may appear in your Envelope Designer layout that you can place these two bands next to each other, you must remember that it may not physically possible to set the bands in these positions. The same limitation applies to heads 5-4 and 3-2.

Dual Purpose Ruler

Another difference between a fixed-head printer and shuttle-head printer is the use of the ruler. In a shuttle-head printer, the left ruler is zeroed at the upper left corner of the envelope. In the fixed-head printer, this ruler is zeroed in the middle of your envelope. Envelope Designer Plus reflects this approach.

Envelope Designer's ruler displays the true size of your envelope in inches or millimeters. With the scale set to inches, the left ruler also provides you with an indication of where to position the heads on the DA900. There is a corresponding ruler on the DA900, with zero in the middle of the printer. Use the left ruler in Envelope Designer Plus—using the inch (not millimeter) scale—to determine where to set your print heads.

Other Printer Characteristics

It is important to be aware of other DA900-unique characteristics:

- The printer does not support rotation of text and graphics.

- Text that overflows a printable area will not be printed. The warning message, "Items outside printable area" appears. When a block of text is completely on a non-printable area, the text is grayed out.

- If a graphic is larger than the size of the band into which it is placed, the graphic will be automatically resized to fit within the band. The part of the graphic that falls outside the printable area will be clipped.

- Envelope designs created in Envelope Designer Pro are automatically converted to Envelope Designer Plus.

Compatibility Issues

The DA900 will work with most text editors, word processing and mail list programs. We do not however, recommend using Windows Notepad.

Index

Index

Index

Index

:::PitneyBowes

One Elmcroft Road
Stamford, Connecticut 06926-0700
www.pitneybowes.com

Printed on recycled paper

PB Form SV60970-OG Rev. A   9/02   © 2002 Pitney Bowes Inc.   All rights reserved. Printed in USA.