

USER MANUAL



Contents

1 <u>Introduction</u>	1.1
Supplies and Accessories	1.2
BJ Cartridges	1.2
Canon Specialty Papers	1.4
Getting Help From Canon	1.5
Servicing the Printer	1.6
2 <u>Using the Printer With Windows®</u>	2.1
Installing the Printer Driver	2.1
Printing a Document	2.2
Printer Setup Within Windows 95	2.3
Opening the Printer Properties Dialog Box in Windows 95	2.3
Using the Printer Driver in Windows 95	2.3
Printer Setup Within Windows 3.1	2.4
Accessing The Printer Options	2.4
The Windows Tabs	2.5
Specifying Your Printer Options	2.8
Recommended Graphics Settings	2.8
Using the Setup Analyzer	2.9
Using Cartridge Detection	2.10
Printing Speed Verses Color	2.11
For Quick Color Printing	2.11
For High Quality Color Printing	2.11
For Monochrome Printing	2.11
Other Ways to Improve Print Speed in Windows	2.12
3 <u>Paper Handling</u>	3.1
Selecting Paper Types	3.2
Paper Guidelines	3.4
Setting the Paper Thickness Lever	3.5
Printer Settings for Various Print Media	3.6
Loading Paper	3.7
Automatically Feeding Paper	3.7
Manually Feeding Paper	3.12
Printing Envelopes	3.14
Using Canon's Specialty Papers	3.17
Specialty Paper Guidlines	3.17
High Resolution Paper HR-101	3.19

Fabric Sheets FS-101	3.21
Printing on Banner Paper	3.23
4 <u>Maintaining the Printer</u>	4.1
Printer Guidelines	4.2
Cleaning the Printer	4.3
Printing the Test Pages	4.4
Printing the Test Page from Windows	4.5
Printing the Test Pages Using the Operator Panel	4.6
Cleaning the Print Head	4.6
Cleaning the Print Head from Windows	4.6
Cleaning the Print Head Using the Operators Panel	4.7
BJ Cartridge Guidelines	4.8
BJ Cartridge Maintenance	4.9
Replacing the BJ Cartridge	4.10
Storing a BJ Cartridge	4.15
Transporting the Printer	4.17
5 <u>Troubleshooting</u>	5.1
Identifying Your Printer Problem	5.1
General Problems	5.2
Clearing Paper Jams	5.3
Technical Notes	5.4
Appendix A Specifications	A-1
Glossary	G-1
Index	I-1
FCC Regulations	FCC-1

Introduction

...........

Congratulations on your purchase of the Canon BJC-250 Series Color Bubble Jet™ Printer. We appreciate your choosing this printer to meet your printing needs.

The BJC-250 Series printers offer excellent print quality and fast print speed using both color and black inks. We are certain you will be satisfied with this advanced Bubble Jet technology.



This Chapter:

Lists the supplies and accessories you can purchase for the printer

Describes Canon's customer support services

Supplies and Accessories

Your BJC-250 Series printer supports excellent and unique print media options that will allow you to produce dazzling, professional, and fun presentations. All of these print media are specially designed and manufactured to work with your Canon color printer so you can produce the finest output possible.



Canon has an extensive dealer network equipped to offer you supplies as you need them. to find a dealer near you, call the Canon Referral Service at 1-800-848-4123.

If supplies are not available from your local dealer, you can order directly from Canon by calling 1-800-671-1090

BJ Cartridges

You can use the following Canon BJ cartridges with the BJC-250 Series printers:

- □ BC-05 Color BJ Cartridge
- □ BC-02 Black BJ Cartridge
- □ BC-06 Photo BJ Cartridge
- □ BC-09F Neon BJ Cartridge

Note that all these BJ cartridges contain both the Bubble Jet print head unit and ink.

Canon has more engineers dedicated to creating quality ink for providing the best results for output on Bubble Jet printers than any other organization. Canon does not prohibit the use of third-party inks and the use of thirdparty inks does not invalidate the product's limited warranty. However, Canon cannot guarantee the quality or performance of your printer when you are using inks from other suppliers.

Canon's limited warranty does not cover damage caused to Canon's Bubble Jet products that is attributable to the use of third party parts or supplies, including inks. The limited warranty remains in effect for its life once that particular damage has been properly repaired.

For optimum printing results, Canon recommend that you use only Canon BJ cartridges

You can also purchase the optional Canon Photo Kit BC-06, which includes everything you need to produce photo-realistic images:

- □ BC-06 Photo BJ Cartridge
- □ SB-05 Ink Cartridge Storage Box
- □ Canon High Resolution Paper HR-101 (60 sheets)

See Chapter 4, Maintaining the Printer, for details on the BJ cartridges.

Canon Specialty Papers

Canon manufactures numerous specialty papers, including:

- □ Glossy Photo Paper GP-201
- □ Banner Paper
- □ High Resolution Paper HR-101
- □ T-Shirt Transfers TR-101
- □ Greeting Cards GC-101
- □ Bubble Jet Paper LC-301 (water resistant)
- □ Fabric Sheets FS-101
- □ CF-102 Transparencies
- □ Back Print Film BF-102
- □ High Gloss Film HG-101

See Chapter 3, Paper Handling, for details on Canon's Specialty Papers.

Getting Help From Canon

Canon Computer Systems, Inc. offers a full range of customer technical support options including*:

- □ 24-hour, 7-day-a-week, toll free automated support for troubleshooting issues on most current products (1-800-423-2366)
- □ Speak to a technician free of service charge (currently Monday through Friday, 8:00 a.m. to 10:00 p.m. EST and Saturday, 12:00 p.m. to 6:00 p.m. EST, excluding holidays)for products still under warranty** (1-757-413-2848)
- □ Speak to a technician (currently \$24.99) during holidays and days/hours not listed above regarding urgent product questions or for products no longer under warranty (1-800-423-2366)
- □ E-mail support via the Canon Computer Systems, Inc. Web site (www.ccsi.canon.com)
- □ 24-hour, toll-free Fax Retrieval System (1-800-526-4345)
- □ 24-hour Bulletin Board Service (1-757-420-2000)

*Support program specifies subject to change without notice. **Refer to individual product information for warranty details.



Canon Canada

Customer support for Canadian residents is available 24 hours a day (seven days a week) at 1-800-263-1121

In other countries contact your Canon Dealer.

Servicing the Printer

The Canon BJC-250 Series Color Bubble Jet Printers are designed with the latest technology to provide trouble-free operation. The warranty card that comes with the printer describes Canon's one year limited warranty for your Bubble Jet printer. Be sure to read the warranty information to find out about the different service options available to you.



If you feel your BJC-250 Series Color Bubble Jet Printer needs servicing, you can contact Canon on the World Wide Web to locate the Canon Authorized Service facility (ASF) nearest you. If you do not have access to the Web, you can call Canon (see page 1-5)

Using the Printer With Windows

This Chapter describes how to use the printer with your windows applications. It includes:

- □ Installing a printer driver
- □ Printing a document
- □ Printer setup within Windows 95
- □ Printer setup within Windows 3.1
- □ The Windows tabs
- □ Printing speed versus color

Installing a Printer Driver

Before you can use any type of printer with your computer, you must install a printer driver. The printer driver tells the computer what kind of printer you are using. The printer driver also controls the various settings, such as print quality and paper type. You define these settings within the printer driver, and the printer driver then communicates the settings to both the computer and the printer.



You must install the BJC-250 Printer Driver for windows before you can use the printer with your computer. See your *Quick Start Guide* for instructions.

Printing a Document

This product describes the general steps required for printing from various Windows applications. The exact steps for printing a document may vary depending on the application program you are using. Refer to your software application's documentation for the exact printing procedure.



Click on the **Setup** button if you want to make any adjustments as appropriate for printing your document. (See *Print Setup Within Windows 95* or *Printer Setup Within Windows 3.1* for details.)

Select **OK** to close the Print Setup dialog box.

3

Choose Print from the File menu.

• After making any necessary changes to the printing parameters, select **OK** to start the print job.

Printer Setup Within Windows 95

You can use the printer with all your Windows 95 applications

Opening the Printer Properties Dialog Box in Windows 95

You can open the Properties dialog box in one of the following ways:

- From within any Windows application, you can select the Print or Print Setup command.
- From the Printers folder, you can select the printer and then select the Properties command from the File menu.
- From the Printers folder, you can select the printer, click the right mouse button, and then select Properties from the drop down list.

Using the Printer Driver in Windows 95

The printing options are displayed on the following Windows 95 tabs: General, Details, Paper, Graphics, Setting, and Control. See The Windows Tabs section (page 2-5) for details.



Printer Setup Within Windows 3.1

You can use your printer with all your Windows 3.1 applications.

Accessing the Printer Options

You can access the printing options from the Printers dialog box in the Control Panel, or you can select the Print Setup option available from the File menu of most applications that run in Windows.



If the Print Setup option does not appear in the file menu for your application, refer to the user's manual supplied with the application. It should provide information about changing the printer setup parameters.

In Windows 3.1, the printing options are displayed on these tabs: Paper, Graphics, Setting, and Control. See the next section, *The Windows Tabs*, for details.

The Windows Tabs

The BJ Series Printer Driver for Windows has several tabs from which you select you printing options and learn about your printer drivers well as your printer.

○ General (Windows 95 only)

This tab allows you to add comments regarding the printer driver and print test page or a separator page. (You see this tab when you open the Properties dialog box from the Printers folder, but not from within a Windows application.



• Details (Windows 95 only)

This tab allows you to specify printer port settings, spool settings, and time-out settings. (You see this tab when you open the properties dialog box from the Printers folder, but not from within a Windows application.)



This tab allows you to specify page orientation, paper size, and type of print media. (The printing options on this tab are the same for both Windows 95 and Windows 3.1.)



\bigcirc Graphics

This tab allows you to specify print quality, color model, and print model. (The printing options on this tab are the same for both Windows 95 and Windows 3.1. However, the Image Color Matching feature is available in Windows 95 only.)



○ Setting

This tab allows you to turn on or off the Setup Analyzer and Cartridge Detection. It also allows you to save up to four custom print settings.(The printing options on this tab are the same for both Windows 95 and Windows 3.1.)



\bigcirc Control

This tab allows you to print test pages, turn off the printer, enable or disable the auto power on feature, and clean the print head. It also allows you to turn off the printer after a certain period of inactivity. (The printing options on this tab are the same for both Windows 95 and Windows 3.1.)



Specifying Your Printer Options

Be sure to use your on-line help to find out about the settings available for each printing options.

- \bigcirc To move between the Windows tabs, click on any of the tabs.
- \bigcirc To save the settings and exit, click the **OK** button.
- \odot To cancel your settings selections on a tab, click the **Cancel** button.
- To save your settings without exiting, Click the **Apply** button.
- To access the Help file, click on the **Help** button.
- When you move the mouse cursor over one of the printing options, a help message appears at the bottom of the tab.

Recommended Graphics Settings

You can select the following printing options from the graphics tab to achieve the specified results.



Driver settings

To achieve	Print Quality	Color Model	Results	
Fastest B&W output possible	Draft 180 × 180 dpi	Monochrome	Uses less ink. Output quality is draft.	
Fast letter quality output	Standard 360 × 360 dpi	Monochrome	Slightly slower than draft. Quality is standard.	
Fast B&W photograph and graphic output	Standard and Smoothing 360 × 360 dpi	Monochrome	Slower than B&W but better grayscale quality.	
High quality photograph and graphic output	High and Smoothing 720 × 360 dpi	Monochrome	Slower than Standard but optimizes B&W grayscale quality. (Requires BC-02 Black BJ Cartridge.)	
Fast color output	Draft 180 × 180 dpi	Color	Uses less ink. Output quality is draft.	
Color output	Standard 360 × 360 dpi	Color	Fast color printing but quality is not optimized.	
High quality color output	High 360 × 360 dpi	Color	Optimizes color print quality but the print speed is slower.	
Photo-realistic color printing	 360 × 360 dpi	Photo Color	Produces unsurpassed photo-realistic color printing. (Requires BC-06 Photo BJ Cartridge and High Resolution Paper HR-101 or Glossy Photo Paper GP-201.)	

Using the Setup Analyzer

The Setup Analyzer allows the printer driver to evaluate your choice of choice of printing settings. On the Setting tab, click on the green check to enable the Setup Analyzer. Click on the red Ø symbol to disable it.



When you exit the printer driver and accept your printing settings by clicking the **OK** button, the Setup Analyzer (if enabled) checks to see if any of your settings are contrary to the recommended settings.

If there are no inconsistencies, a dialog box similar to this appears.

The inconsistencies appear with check boxes. You can use the dialog box buttons to select or deselect the inconsistencies, and/or fix or ignore the inconsistencies.

Paint Set up Analyzes	7 2
This inforcing incomsiderates have been towed. Torget the perturb such y high mends on fixed.	inset 44
	Devolect dil
High Blert Film is so with Standard Film was Ethnigh Poor Guide, to high would	
High Dinus File is ser with Asia Shore File and Thorge Placer Read to Manual Field read	unta de
High Stans Riter and Artes (38 2 min Jonnyr Frielig Friedlin mode	
The Ps and gino (Sing)	act. Li Set-Lo
lave -	Rafe

Using Cartridge Detection

Use Cartridge Detection if you want the driver to alert you when the installed BJ cartridge is not the correct choice to use with your Color Model setting. To enable Cartridge Detection, which is located on the Setting tab, click the green check. Click on the red \emptyset symbol to disable it.



If cartridge Detection cannot detect the cartridge type, it advises you to check that you printer is on-line and that the cables are secure.

If you choose the monochrome Color Model and you have a BC-05 Color BJ Cartridge installed, you'll see:

Performance Tip!

You now have a color cartridge installed in your printer. For faster printing speed, change the color cartridge to the monochrome cartridge.

Printing Speed Versus Color

The BJC-250 Printer Driver for Windows can interpret and translate the full spectrum of colors, up to 16.7 million colors. When printing in color, there is a significant increase in the amount of information that the driver has to interpret and translate. When printing with black ink only, the driver has only one color to interpret. By decreasing the amount of colors that the printer driver has to interpret, you can significantly decrease the time needed to translate the information. This will speed up the overall printing process.

For Quick Color Printing

In the BJC-250 Printer Driver for Windows, choose the following settings. These selections allow the printer driver to interpret and translate 256 colors, which will increase your printing speed. However, your print quality will not be optimized.

- O Media type---Plain Paper
- Print Quality---Standard
- Color Model---Color
- Print Model---Custom
- \bigcirc Color Selection---Fast Color

For High Quality Color Printing

Select the settings shown below to allow the printer driver to interpret and translate up to 16.7 million colors. Keep in mind that your print speed will be slower than with other setting combinations

- Print Quality---High
- Color Model---Color
- Print Model---Automatic

For Monochrome Printing

Use the optional BC-02 Black BJ Cartridge to optimize the printer's performance when you are printing black text and graphics only.

In the BJC-250 Printer Driver for Windows, choose the following settings to tell your printer to print using black ink only.

- O Media Type---Plain Paper
- Print Quality--- Standard; Smoothing is off
- Color Model---Monochrome
- Print Model---Automatic

Other Ways to Improve Print Speed in Windows

To improve print speed, you can try the following:

• Turn off the Print Manager in the Windows Control Panel (Windows 3.1 only).

This avoids the extra step of sending the print file to the Print Manager and may increase your printing speed by as much as 25%, depending on the computer you are using.

• Add a permanent swap file in Windows 3.1.

Under the 386 Enhanced icon in the Windows Control Panel, add or create a permanent swap file that is from 4 MB to 9 MB. The computer will be able to prepare the print file faster. See your Windows documentation for instructions.

• Avoid diffusion halftones.

In the Custom Settings dialog box, choose Diffusion only when printing final output or photographic images. Choosing a Halftone setting of Fine allows the documents to print as much as 20% faster because the computer does not need to compute to "best possible position" for each dot.

\bigcirc Avoid screen matched color.

In the Custom Settings dialog box, avoid Match as the Color Adjustment setting. The screen matching feature takes longer to process in the computer because it requires special information.

• Avoid automatic settings.

Although the automatic settings are easy to use, the computer must interpret the printed page. This takes more time than if you select each setting.

• Free up your memory.

Use only one software program at a time and unload any screen saving utilities or programs stored in Windows background; this frees up more memory for Windows processing.

○ Use Monochrome when possible.

If you will be printing text in black only, choose a Color Selection of Black and White rather than Grayscale. Print draft documents in Monochrome rather than Color, or use Draft print quality when printing in color.

• Limit the number of colors on each page.

The computer will need to calculate and transmit fewer dots. Too many colors can make the image confusing and less effective as well as cause the print speed to slow down.

• Use primary colors when printing presentation graphics.

Use Black, cyan, yellow, magenta, blue, green, and red when possible. The computer will need to calculate and transfer less dot information.

\bigcirc Use the Draft print quality.

The printer will need to image fewer dots.

○ Use Plain Paper as Media Type.

The print head will make only on pass for each printed line.

• Use smaller graphics and more white space in your documents.

The computer will be able to prepare the print file faster.

• Add RAM to your computer.

The computer will be able to prepare the print file faster.

\bigcirc Use a computer with a faster processor.

The computer will be able to prepare the print file faster.

Paper Handling

This chapter describes how to use the printer for all your printing operations. It includes:

- \bigcirc Selecting paper types
- \bigcirc Setting the paper thickness lever
- \bigcirc Summary of printer settings for various print media
- Automatically loading paper
- \bigcirc Manually feeding paper
- \bigcirc Printing on envelopes
- Using Canon's Specialty Papers

To ensure the best performance of your printer, you'll want to select the best paper and load it correctly. You can stack paper in the sheet feeder to load it automatically, or you can manually feed one sheet at a time.

Selecting Paper Types

One of the most important things you can do to assure the best possible performance of your Bubble Jet printer is to select the correct paper. Your printer produces letter quality print on most plain paper bond papers, including cotton bond and photocopying papers; it does not require special ink jet papers. However, the print quality varies with different paper types. Be sure to test a type of paper before you purchase a large quantity.



Plain Paper

The printer supports paper sizes of letter, legal, and A4 in portrait orientation. You can use regular copier paper, cotton bond papers, and typical letterhead. Always use paper without curls, folds, staples, or damaged edges.

Glossy Photo Paper

Canon Glossy Photo Paper GP-201 is a high gloss, thicker paper that produces the look and feel of a photograph and provides excellent color print quality. Use this paper with the BC-06 Photo BJ Cartridge to produce photo-realistic prints from your printer. Be sure to print on the glossy side. (In your print driver, select Glossy Paper when you have Glossy Photo Paper loaded.)

250 Chapter 3 Page 2

Banner Paper

Canon's Banner Paper is specifically designed for printing one continuous sheet in a banner format. The connected sheets are divided by perforation. you can print from two to six sheets at one time.

High Resolution Paper

The Canon High Resolution Paper HR-101 is designed to produce photo-realistic quality output with sharp and vivid graphics. For best results, use the optional BC-06 Photo BJ Cartridge to produce images comparable to your favorite photographs.

T-Shirt Transfers

Use Canon's popular T-Shirt Transfers TR-101 to create and personalize T-shirts,

Use Canon's popular T-Shirt Transfers TR-101 to create and personalize T-shirts, sweatshirts, aprons, tablecloths, napkins, tote bags, and anything else your imagination allows! Use on any cotton or cotton/ poly blend fabric. Your image is printed in mirror image (when you use T-Shirt Transfer mode through the BJC-250 Printer Driver for Windows) so when you iron it onto the t-shirt the image is viewed correctly.

Greeting Cards

Get the most out of your Canon Creative or other card making software with Canon Greeting Cards GC-101. These cards give your unique, personalized cards the look and feel of professional cards. You can create cards, invitations, announcements, and more.

Bubble Jet Paper (water resistant)

The Canon Bubble Jet Paper LC-301 has been developed for high quality printing with minimal or no smearing or running when in contact with water or damp surfaces, making a good choice for damp or rainy environments. The paper is specially created and printable on both sides. (In your printer driver, select Plain Paper when you load this paper.)

Fabric Sheets

Use Fabric Sheets FS-101 for Canon Bubble Jet printers to print banners, pillow covers, scarves, flags, and other textile items. Use these sheets for appliqués and other craft and sewing projects. Fabric sheets are 9.5" x 14".

Transparencies

CF-102 Transparencies from Canon are recommended. These transparencies produce excellent contrast, sharpness, and color.

Back Print Film

Canon Back Print Film BF-102 has been specially developed for Canon Color Bubble Jet printers. The film is designed to deliver brilliant, high-intensity color images suitable for business presentations, design work, or professional reports. Back Print Film is printed on the back (non-glossy) side of the film in mirror image and then viewed from the front or glossy side using a backlighting device. For more details, ask a Canon Authorized Dealer for information or refer to the manual supplied with the film.

High Gloss Film

The Canon High Gloss Film HG-101 features a bright white finish that lends striking visual power to charts, graphs, and photographic images. Use this film to make your presentation materials and graphics look professional.



If you are printing in an application outside Windows, your software application or printer driver must support mirror image printing in order to use Back Print Film or T-Shirt Transfers

Paper Guidelines

When selecting or loading paper, please remember the following:

- Attempting to print on damp, curled, wrinkled, or torn paper can cause paper jams and poor print quality.
- \bigcirc Use cut-sheet paper only. You can use multipart paper.
- When using graph paper, the lines may not match because the 1/6 inch line spacing of the printer is slightly less than that of graph paper.
- If the print density of your page is very high , light paper stock may curl slightly due to the large amount if ink. If you need to print dense graphics, try printing on heavier stock.
- Do not use thicker paper than meets the specifications for this printer. Printing with a paper that is thick enough to come in contact with the print head nozzles may damage the BJ Cartridge.

Setting the Paper Thickness Lever

To ensure trouble-free paper handling, you'll want to set the paper thickness lever before loading paper.



Set the lever according to the thickness of the paper you are using:



Note envelopes.

Printer Setting for Various Print Media

Paper	Paper feed	Paper feed	
lever	Method	Limit (Sheets)	
Left	Auto	Approx. 100 (0.4" stack)	
Right	Auto or Manual	1	
Right	Auto	1	
Left	Auto	Approx. 80 (0.4" stack)	
Right	Auto or Manual	1	
Right	Manual	1	
Left	Auto	Approx. 100 (0.4" stack)	
Right	Auto or Manual	1	
Left	Auto	50	
Left	Auto	10	
Left	Manual	1	
Right	Manual	1	
Right Right	Manual Auto	1 15	
	thickness lever Left Right Left Right Left Right Left Left Left Left Left Left Right	thíckness leverMethodLeftAutoRightAuto or ManualRightAutoLeftAutoRightAuto or ManualRightManualLeftAuto or ManualRightAuto or ManualLeftAutoRightManualLeftAutoRightAuto or ManualLeftAutoLeftAutoLeftManualLeftManualRightManualRightManual	

Loading Paper

You can stack paper in the sheet feeder to load it automatically, or you can manually feed one sheet at a time through the manual feed slot.

You place approximately 100 sheets of plain paper (20 lb. or 75 g/m²) in the sheet feeder at a time.

You can stack approximately 50 sheets of Transparencies or 10 sheets of back print film in the sheet feeder. However, these special media may not advance correctly under unusual environmental conditions (such as extreme temperatures or humidity). If you have trouble with special papers becoming skewed or feeding multiple sheets, do not stack them in the sheet feeder. Load them on sheet at a time.

Automatically Feeding Paper





Fan the paper	 For best results, fan the paper before loading it. Always fan a stack of paper along the edge that will



Manually Feeding Paper

You use the manual feed function when printing on heavier-weight print media (17 lb to 28 lb or 64 g/m² to 105 g/m²).





After printing on thick paper or envelopes, set the paper thickness lever (inside the printer) back to the left position before printing on other paper types.

Printing on Envelopes

You can stack up to 15 envelopes in the sheet feeder or you can manually feed envelopes one at a time.

U.S. Commercial number 10 (COM10) envelopes and European DL envelopes are recommended. You may be able to stack envelopes of other sizes in the sheet feeder; however, Canon cannot guarantee consistent performance on envelope sizes other COM10 and DL.

The following envelopes are not recommended because they may cause jams or smears, or may damage your printer.

- Envelopes with windows, holes, perforations, cutouts, and double flaps.
- Envelopes made with special coated paper or deeply embossed paper.
- \bigcirc Envelopes using peel-off sealing strips.
- \bigcirc Envelopes in which letters have been enclosed.

When you are ready to print on envelopes, follow these steps to stack envelopes in the sheet feeder. (you can also manually feed envelopes one at a time.)






Using Canon's Specialty Papers

This section provides guidelines for printing on Canon's Specialty Papers and describes special procedures for High Resolution Paper, Fabric Sheets, and Banner Paper.

Specialty Paper Guidelines



Be sure to read any instructions that come with your Canon Specialty Paper. These instructions provide important information regarding how to achieve the highest print quality with these papers.

For transparency film, back print film, high gloss film, and glossy film, and glossy photo paper, follow these guidelines:

- When automatically feeding transparencies or back print film, remove each sheet after its delivered. Do not allow film sheets to stack up.
- \odot Let the printed sheets of film or paper dry completely before storing them.

Paper type	Drying time
Canon Glossy Photo Paper GP-210	10 minutes
Canon Fabric Sheet FS-101	1 Hour
Canon CF-102 Transparencies	15 minutes
Canon Back Print Film BF-102	15 minutes



Uncurling Back Print Film

If Back Print Film becomes curled, follow these steps to uncurl it:





Keep the film	
rolled up for	
five minutes.	60

High Resolution Paper HR-101

Canon's High Resolution Paper HR-101 is designed for high quality printing. This paper is specially coated to produce delicate color output. After using a package of High Resolution Paper (200 sheets), you need to use the cleaning sheet enclosed with the paper to remove paper dust from the printer's rollers; this will help prevent paper feed problems.

Using the Cleaning Sheet



2			
2			

Insert the cleaning sheet.	 Remove the two pieces of tape from the sheet. Insert the sheet with the sticky side out (toward you) and down (going into the sheet feeder). Adjust the paper guide to the edge of the cleaning sheet. 	
----------------------------------	--	--

3

Press the RESUME button.

- \bigcirc Make sure the printer is on.
- \bigcirc Press **Resume** to advance the cleaning sheet into the printer.
- \odot $\,$ Press RESUME again to start cleaning.
- \bigcirc The printer feeds the sheet and then ejects it.
- \bigcirc Use a cleaning sheet once only.

Printing on a Fabric Sheet

1 Make sure the paper thickness lever is to the right position. Make sure the paper support is extended. Setup \bigcirc the printer. \bigcirc

<u> </u>	-	

Insert the fabric sheet.	 Insert the sheet with the cloth side out (toward you) and open end up (away from the sheet feeder) Adjust the paper guide to the edge of the Fabric Sheet. Do not attempt to load more than one sheet at a time. 	
--------------------------------	--	--

3 Setup the BJC-250 Printer Driver for Windows. 0 In the graphics tab, select High for the Print Quality. 0 Start the print operation from your Windows application.

4

Dry and then wash the fabric

Printing on Banner Paper

For best results, use Canon Banner Paper.

To set up a print job on banner paper, you must decide on the number of sheets you need. You can print banner from 2 to 6 sheets in length.



The shaded portions of the drawing below illustrate the maximum recommended printing area of Banner Paper.









Cut the Banner at the crease according to the length you need.	 The maximum length you can use is six sheets (66 inches) or 1676 mm). Always leave an extra sheet at the end of the banner-just incase the type runs over. 	
---	---	--

Align the first sheet Insert the \bigcirc of paper with the banner paper. right edge of the sheet feeder and slide it into the printer until it stops. **AE** Then adjust the paper \bigcirc guide to the edge of the paper. Do not allow the \bigcirc paper to hang over the edge of the desk or work table. \bigcirc Do not extend the paper support for banner paper.

3







Setup your printer driver. Ο

Open the Windows applications you are going to use to print. From the File Menu, select **Print**. Then select your print options using the BJC-250 Printer Driver for Windows.

- For the Paper Feed Method, select Automatic Feed.
- For the Media Type, select **Banner**.
- See your application software instructions for other options.

7

 Start

 Click OK or Print to start the print job.
 Do not allow the paper to hang over the edge of the desk or work table directly.
 Clear enough desk space in front of the printer for at least one sheet of paper to rest after printing.

Maintaining the Printer

This chapter covers the care required for your printer. It includes:

- \bigcirc Printer guidelines
- \bigcirc Cleaning the printer
- \bigcirc Printing the test pages
- \bigcirc Cleaning the print head
- \bigcirc BJ cartridge guidelines
- \bigcirc Replacing the BJ cartridge
- Storing a BJ cartridge
- \bigcirc Transporting the printer

Printer Guidelines

Follow these guidelines to avoid damage to your printer and harm to you or others:

- Set the printer on a stable surface. Do not use an angled printer stand. Avoid setting the printer in direct sunlight.
- \odot Keep the front cover closed when printing.
- \bigcirc Do not set anything on top of the printer
- Make sure the power is off any time you connect or disconnect the AC adapter or interface cable.
- \bigcirc Do not unplug the AC adapter unnecessarily.
- Do not unplug the printer or turn off a power strip to which the printer is attached when the printer's power is turned on. This may prevent the print head unit from returning to the *home position* on the right and being capped, which may cause the print head to dry out. This is critical. If left uncapped, the print head unit may clog and may need to be replaced.
- Do not move the mechanism that holds the BJ cartridge. Attempting to move the BJ cartridge holder may damage delicate mechanical parts.



Cleaning the Printer

Your Printer requires little routine maintenance. Perform the following maintenance, as necessary, to keep your printer in good operating condition.

Caution	 Make sure the printer is turned off before cleaning it. It is a good idea to unplug the AC adapter also. Do not clean the exterior of the printer with volatile liquids such as thinners, benzine, or any spray-type or chemical cleaners; doing so will damage the surface of the printer. When cleaning the printer, avoid the area near the print head on the BJ cartridge. Do not touch the print head. Ink may leak out and cause stains.
---------	--

Clean the printer regularly to avoid printing problems. Remove any ink mist or paper debris from the interior of the printer using a soft cloth moistened with water. Clean especially well around the platen area. If the rollers become dirty, you can clean them using a small soft brush.



Clean the exterior of the printer with a soft cloth moistened with water. Clean away smudges and dust.



Printing the Test Pages

You can print these test pages to check the operation of your printer and your print quality.

Test A

This test prints a repeating pattern of characters.



Demonstration

This test prints a sample page describing the printer's features.

BJC-250 Color Bubble Jet Printer	Canon
	<u>.Vibrant color standard:</u> The BJC-250 prints amazin color for everything you do.
	High performance monochrome; Quick, crisp black printing at 3.4 ppm and 720 x 360 dpl(with smoothing) quality.
	Photo-realistic printing: The photo inks produce unsurpassed color printing that's equivalent to a ph
	and the second
The second se	Excellent media versatility: The BJC-250 prints brilliant colors on a variety of media including plain high resolution, and banner papers; envelopes, T-shirt transfers, transparencies, high gloss film, back print film, photo paper glossy, and even Canon's exclusive fabric sheets.
	 Excellent software compatibility: Fully compatible with Microsoft® Windows® 95, Windows® 3.1, and DOS.
	<u>New Image Optimizer</u> : New driver technology optimizes from scanners, digital cameras, and the Internet to produce smooth output without jagged edges.
	-famon is a registered trademark and BJC is a trademark of Canon inc. -Kirronaft and Windows are registered trademarks of Kierosoft Corporation is the United States and / or is other countries. -All other brand and product names are registered trademarks or trademarks of their transmissive country.

Nozzle Test

Use this test print to check that each print head nozzle is operating properly.

When the BC-05 Color BJ cartridge is installed, the pattern includes the three colors: yellow, magenta, and cyan. In the color pattern, you'll notice that lines are missing between the colors. This is normal.



The following sample shows the nozzle test when the optional BC-02 Black BJ cartridge is installed.

Printing the Test Page From Windows

You use the Test option on the Control tab in your BJC-250 Printer Driver for Windows to print a self test, demonstration page, or a nozzle test pattern.



Before selecting a Tests option, make sure paper is properly loaded in the sheet feeder (see *Automatically Feeding Paper* starting on page 3-7).

Click on the Tests option and then click on the **Print** button.

Printing the Test Pages Using the Operator Panel

To print a test page, make sure the printer is turned off and paper is loaded.

• Press and hold the **POWER** button until you hear the number of beeps that correspond to the test page you want to print.

Test page	Number of beeps
Demonstration	1
Status Information	2
Test A	3
Nozzle Test	4

 \bigcirc When you release the **POWER** button, the test page starts to print.

Cleaning the Print Head

Your printer is equipped with a print head cleaning function to ensure constant high quality printing.

Cleaning the Print Head From Windows

If you are using Windows, you can execute print head cleaning from the Control sheet in the printer driver. Simply click on **Clean Ink Head**.



Cleaning the Print Head Using the Operator Panel

If you want to clean the print head from the operator panel, follow these steps:



BJ Cartridge Guidelines

You can use these cartridges with the printer.

- BC-05 Color BJ Cartridge Use this cartridge for all your color printing needs.
- BC-02 Black BJ Cartridge
 Use this cartridge for high-speed, black ink only printing.
- BC-06 Photo BJ Cartridge
 Use this cartridge for photo-realistic color printing.
- **BC-09F Non BJ Cartridge** Use this cartridge to add bright, florescent colors to your images.

Each of these BJ cartridges contains the print head and ink. (The color cartridges have three ink chambers: cyan, magenta, and yellow.) When you run out of ink, simply replace the entire BJ cartridge.

The actual amount of ink that you use will vary depending on the print density of a page. If the majority of your output is graphics, you may need to change cartridges more often than when you are printing text only. See Appendix A, *Specifications*, For details on the life expectancy of the BJ cartridges.

You may need to replace the BJ cartridge when any of the following conditions exist:

- \bigcirc You have been using the cartridge for over one year.
- Your printed output is not crisp and clear, and there are gaps in the characters (missing dots) even after you have cleaned the print head at least five times.
- \bigcirc Your output has no ink on it.

Note	Canon has more engineers dedicated to creating quality ink for providing the best results for output on Bubble Jet printers than any other organization. Canon does not prohibit the use of third-party inks and the use of third-party inks does not invalidate the product's limited warranty. However, Canon cannot guarantee the quality or performance of your printer when you are using inks from other suppliers.
	Canon's limited warranty does not cover damage caused to Canon's Bubble Jet products that is attributable to the use of third-party parts or supplies, including inks. The limited warranty remains in effect for its life once that particular damage has been properly repaired.
	For optimum printing results, Canon recommends that you use only Canon BJ cartridges.

BJ Cartridge Maintenance

The most important thing you can do to extend the life of your printer and to ensure optimum print quality is to take care of the BJ cartridges.



- If you are using the BC-05 Color BJ Cartridge and any of the other BJ cartridges, make sure you store the cartridge not being used in the Ink Cartridge Storage Box.
- Keep BJ cartridges in their sealed containers until you are ready to use them.
- If spilled, the ink is difficult to remove. Therefore, it's a good idea to keep the BJ cartridge out of reach of children.
- $^{\bigcirc}\,$ Do not touch the print head area on the BJ cartridge. Ink may leak out and cause stains.

Replacing the BJ Cartridge

The following procedure describes how to replace the bc-05 Color BJ cartridge with the BC-02 Black BJ Cartridge. Follow the instructions in this section to replace an old BJ cartridge or to change BJ cartridges when you are switching between the BC-05 and any of the other BJ cartridges.

1	





Remove the BJ	 Lift the green lock lever on the cartridge holder, and slide the BJ cartridge
Cartridge.	out of the holder.

Store or dispose of the BJ cartridge.	 If you are replacing an old BJ cartridge, dispose of the old cartridge properly. If you are switching cartridges, you must store the cartridge you are removing in the Ink Cartridge Storage Box. 	
---	--	--



Take the new BJ cartridge out of its protective packaging.	\bigcirc Peel off the protective foil.	
---	--	--

5		
S		

Remove the protective material from the BJ cartridge.	 Slide off the cap from the print head, and then remove the tape. 	CAP TAPE
---	--	-------------

6 -

Fit the BJ cartridge over the yellow mounting base with the print head facing down.

- Avoid touching the yellow mounting base on which you place the cartridge--especially the circuit board on the side of the mounting base and the film cable that extends from the BJ cartridge holder.
 Make sure the BI cartridge is
 - Make sure the BJ cartridge is pressed against the back of the holder



Press the lock lever down completely; do not use excessive force.

- Make sure the cartridge is secure, and the lever locks into place.
- Make sure there is no resistance when you press on the lock lever; it should lock easily into place.
- If you hear any snapping noises or feel any resistance as you press on the lever, remove the BJ cartridge and try again.







If you installed a new BJ cartridge, the printer automatically cleans the print head. If you need to initiate the print head cleaning, see page 4-6.

Storing a BJ Cartridge

Whenever you unwrap a BJ cartridge, you must either install it in the printer or store it in the Ink Cartridge Storage Box to prevent the print head from drying and clogging.



Cartridge Storage Box.	release tab that locks the cover in place.

2			
2			

Carefully set the cartridge in the storage	 You must insert the cartridge correctly or the storage box will not close. The protective cap must be removed from the cartridge before you set it in the storage box.
box.	



If you have more than one Ink Cartridge Storage Box, you can hook them together. Simply connect them by the slides and grooves on the sides of the boxes.



Transporting the Printer

While the printer is small and compact, it is not a portable printer and need to take care when transporting it. The printers' components, such as the sheet feeder, may Note become damaged if subjected to severe vibration during transportation. Also, your print head may dry out during travel (and become unusable) if it is not capped and taped correctly.

If you plan to move the printer from one location to another, or if you want to store it, follow the steps below.



Turn off the	\circ Make sure the print head is in the home position.
printers	\circ Remove any paper from the sheet feeder.
	• Detach the interface cable and the AC adapter.
power.	

2	
2	

Open the front cover.	$^{\bigcirc}$ Tape the BJ cartridge to the side of the printer.
	TAPE





Repack the printer in its original packing materials.	• Do not remove the BJ cartridge from the printer or ship a BJ cartridge from which you have removed the protective cap. An opened BJ cartridge that is not installed in the printer may leak, and the print head may dry out. Also, if you do not tape the BJ cartridge to the side of the printer, ink may spill into the printer.
---	--

Troubleshooting

Due to today's rapidly changing personal computer environment, we have placed troubleshooting information in a variety of places to ensure that the most accurate information possible is available. The best place to find current information is through our on-line support services and through our Fax Retrieval System. On-line services include the World Wide Web and our BBS.

This chapter contains very basic information to help you solve printer problems. It covers a few basic problems and describes how to clear a paper jam. For complete problem solving information, be sure to use our other support services.

See *Getting Help From Canon* in Chapter 1 (page 1-5) for details on Canon's customer technical support options.

Identifying Your Printer Problem

Before contacting Canon, identify your printer problem and make sure you have the following information.

- Product Name
- Serial Number
- \bigcirc Place of Purchase
- \bigcirc Nature of Problem
- \bigcirc Steps you have taken to solve the problem and the results

The serial number is located on the label on the back of the printer:

CANON INC.(DA1) RS5-8658 MADE IN JAPAN NO. X X X X X X X X X SERIAL NUMBER



Attempting to repair the printer yourself may void the limited warranty as to that repair. See the limited warranty information that came with your printer for details.

General Problems

The most basic problems you may encounter are "the printer does not print" and " your print quality is not satisfactory"

- \bigcirc If the printer does not print
 - Check all your cable connections
 - Check your printer driver setup
 - Check your computer configuration
 - Check your BJ cartridge
- If your print quality is not satisfactory
 - Check your printer driver settings
 - Clean the print head
 - Clean the print head five times
 - Replace the BJ cartridge
 - Check the type of paper you are using
- \bigcirc If colors are missing
 - Perform a Nozzle Test (see page 4-5)
 - Clean the print head (see page 4-6)
 - If necessary, replace the BJ cartridge (see page 4-10)
- If you want to print from an MS-DOS application that does not have a selection for your printer
 - Select the Epson LQ-2550 or the IBM Proprinter X24E

Clearing Paper Jams

When a paper jam occurs, the POWER light turns orange and the printer goes off-line.

Turn off the \bigcirc Press the **POWER** button printer. 2 Remove the Ο Gently pull the paper out with one hand while jammed holding down the printer paper. with the other hand. If the paper tears off inside Ο the printer, open the front cover and remove the paper left inside the printer. 3 Turn the Ο Press the **POWER** button to turn the printer back on. \bigcirc The POWER light comes on and the print head moves to the home position. printer on. 0 The printer is now ready for printing. If you are printing high density graphics when a paper jam occurs, feed at least two sheets of paper through the printer to clean the rollers. Note

Technical Notes

Compaq Presario 7170/7180

Problem

A [k prints at the top of the page when printing from Windows 95 on a Compaq Presario 7170/7180

Cause

Configuration of parallel port in CMOS

Solution

Change CMOS on Compaq Presario 7170/7180 to enable bi-directional capability

- Reboot computer, press "delete" to go into CMOS setup
- At setup menu, cursor to "Advanced System Setup" and "Enter" to select
- From Advanced System Setup menu, select "Integrated Peripherals"
- From the Integrated Peripherals Menu, Cursor to 'LPT Extended Mode" (Note: This is different than LPT1 mode)
- The LPT Extended Mode will probably show "Standard"- USe the "Page Down" key to cycle to "ECP Mode"
- Press "ESC" key to back to Advanced SYStem Setup Menu
- \bigcirc Press "ESC" key to go back to main setup menu
- Press "F10" to save new configuration, and confirm save by answering "Yes" to final question

Toshiba Laptop

Problem

A[K prints at the top of the page and/or partial printout when printing on a Toshiba laptop.

Cause

Configuration of parallel port in CMOS and LPT.VXD file.

Case #1 Partial printout may occur with the following settings: CMOS value for LPT1 is ECP LPT.VXD v4.00.950 file size 35,479

Case #2 [K is printed at top and the rest of the page is correct with the following settings: CMOS value for LPT1 is Standard Bi-Directional LPT.VXD v4.00.950 file size 35,487.

Solution

This corrected configuration should provide correct output. CMOS value for LPT1 is Standard Bi-directional LPT.VXD v4.00.503 file size 35,487.

The LPT.VXD file is located in the Windows/System directory. The LPT.VXD file will be available from the Microsoft Web page.

To change the CMOS settings:

- From Windows 95, click on Start
- Go to Programs
- Select Toshiba Utilities

You will have either TSETUP or HARDWARE SETUP UTILITY

For TSETUP Select Hardware Options

- Select Parallel/ Printer
- Select Standard bi-directional
- Click OK
- \bigcirc The computer will ask if you want to reboot-Select Yes

On both utilities you will have to save and reboot the system.

Note taht selecting standard Bi-directional changes the CMOS setting to bi-directional.

Compaq Presario

Problem

A Compaq Presario running windows 95 will print only 3/4 page out of any Windows application.

Cause

This occurs with Windows 95, Windows 3.1, and Win95 minidrivers.

Solution

Change the Resource Setting of LPT1.

- Right Click on My Computer
- Select Properties
- Select Device Manager Tab
- Double-click Ports (COM & LPT)
- Double-click LPT1
- \bigcirc Select Resources Tab
- De-Select Automatic Settings
- \bigcirc Change Basic Config from 0000 (0) to 0003 (3)
 - This step may require setting to 0002 (2) first, and then reboot in order to see 0003 (3)
 - New systems may go up to 9; use the setting for IRQ7 no DMA
- Select OK

The above solution has found to be successful on some machines. If unsuccessful, then try the following procedure forwarded from Compaq Tech Support.

- \bigcirc Go to Control Panel
- System
- Device Manager
- Click "+" in Front of Port
- Highlight ECP Printer Port
- \bigcirc Properties
- Driver
- Change Driver....
- \bigcirc Show all Devices
- Printer Port
- O Click OK
- O Click OK
- Close
- \bigcirc Reboot

If these suggestions do not solve the problem, you need to call Canon (see page 1-5 for details).

Specifications

0000000000000

Printing Method	
Paper Handling	

BubbleJet ink on-demand Automatic Feed Manual Feed

Sheet Feeder Capacity - Auto Feed Only

Maximum thickness of stacked paper: 0.4 inches (10mm) Plain Paper (20 lb or 75 g/m²) Approx. 100 sheets (0.4" stack) Approx. 100 sheets (0.4" stack) **BubbleJet Paper High Resolution Paper** Approx. 80 sheets (0.4" stack) **Transparencies** 50 sheets Back print film 10 sheets Glossy photo paper 1 sheet Fabric sheets 1 sheet **T-shirt transfers** 1 sheet **Banner paper** 1 sheet (two to six connected sheets) 15 Envelopes (U.S. Commercial number 10 or **Envelopes European DL**) **Paper Size** Letter 8.5" x 11" Legal 8.5" x 14" A4 210 mm x 297 mm A5 148 x 210 mm **B5** 182 x 257 mm $8 \frac{1}{2} \times 11$ in sheets; maximum length 66 in (1676) Banner mm) U.S. Commercial Number 10 Envelope 9.5" x 4.1" **European DL Envelope** 220 mm x 110 mm **Paper Type** Recommended **Bubble Jet paper** Canon Bubble Jet Paper (water resistant) LC-301 Canon High Resolution Paper (HR-101) **High Resolution Paper Transparencies** Canon Transparency Film (CF-102) **Back Print Film** Canon Back Print Film (BF-102) **High Gloss Film** Canon High Gloss Film (HG-101) Canon Glossy Photo Paper (GP-201)

Glossy Photo Paper Fabric Sheets

T-Shirt Transfer Paper

Greeting Cards Banner Paper

Envelopes

Paper Weight

Recommended

Canon Banner Paper

Fabric Sheets (FS-101) for Canon Bubble Jet Printers

Canon T-Shirt Transfers (TR-101)

Commercial Number 10 European DL

Canon Greeting Cards (GC-101)

Automatic Feed	17 to 24 lb. (64 to 90 g/m²)
Manual Feed	17 to 28 lb. (64 to 105 g/m ²)
Print Speed	
BC-05	Standard Mode - 0.52 ppm
	High Quality Mode- 0.46 ppm
	Fine Mode - 0.23 ppm
	(Print speed depends on content of print data)
BC-02	Standard Mode - 3.1 ppm (204 cps)
	Draft Mode - 3.4 ppm (248 cps)
Print Width	
Maximum	8 inches (203 mm)
Line Feed Speed	Approximately 100 ms/line at 1/6-inch line feeds
Printing Direction	Bi- Directional in text
	Unidirectional in graphics
Resolution	
720 x 360 dpi w/smoothing	with BC-02 Black BJ Cartridge
360 x 360 dpi	with BC-05, BC-06, BC-09F

Printable Area - Papers

The shaded portion the following figure shows the printing area for papers.



Letter size		Legal size		A4 size		A5 size	
a	8.5 in	a	8.5 in	а	210 mm	a	105 mm
b	0.25 in	b	0.25 in	b	3.4 mm	Ь	3.4 mm
с	0.25 in	с	0.25 in	с	3.4 mm	с	3.4 mm
d	11.0 in	d	14.0 in	d	297 mm	d	148.5 mm
e	0.12 in	e	0.12 in	e	3.0 mm	e	3.0 mm
f	0.28 in	f	0.28 in	f	7.0 mm	f	7.0 mm

Printable Areas - Envelopes

The shaded portion in the following figure shows the printing area for an envelope.



U.S. Commercial number 10		European DL		
a	9.5 in	а	220 mm	
ь	0.25 in	b	6.4 mm	
c	1.2 in	с	10.4 mm	
d	4.1 in	d	110 mm	
e	0.12 in	e	3.0 mm	
f	0.28 in	f	7.0 mm	

	BJ Cartridges			
BC-05 Color BJ Cartridge				
Print head	16 nozzles for each color (cyan, magenta, yellow)			
Life Expectancy	Approx 300 pages at 15% coverage			
BC - 02 Black BJ Cartridge (optional)				
Print Head	64 Nozzles			
Ink Color	Black			
Life Expectancy	Approximately 500 Pages in high Quality mode (5% coverage)			
BC-06 Photo BJ Cartridge (optional)				
Print Head	16 nozzles for each color (cyan, magenta, yellow)			
Life Expectancy	Approximately 90 pages at 15 % coverage			
General				
Interface	IEEE-1284 compatible parallel interface			
Acoustic Noise Level	Approx. 43db (A) Per ISO 9296			
Operating Environment				
Temperature	41°F to 95°F (0°C to 35°C)			
Humidity	10% to 90% RH (no condensation)			
Storing Environment				
Temperature	32°F to 95°F (0°C to 35°C)			
Humidity	5% to 95 % RH (no condensation)			
Power Source				
USA/Canada	AC 120V 60 Hz 0.5A			
Power Consumption	20 watts printing			
	5 watts idle			
Dimensions (paper support n	ot extended) 14.2" (361mm)W x 8.5" (215mm) D x 6.8" (171m H	ım)		
Weight	Approx. 5.5 lb (2.5 kg)			