BJ-200e

USER MANUAL

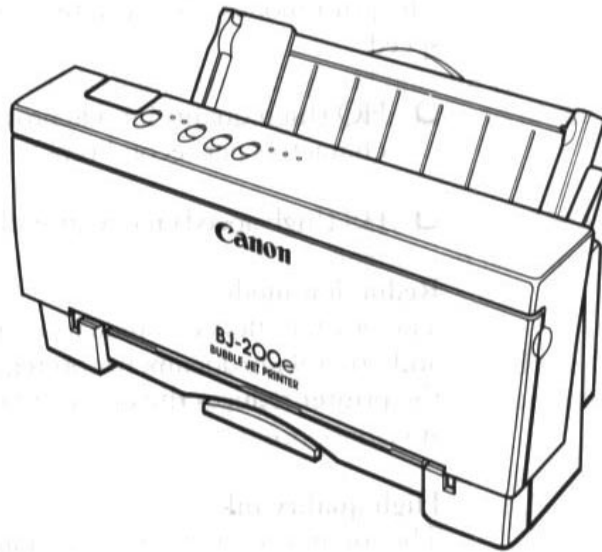**Canon**

Contents

Chapter 1
Introduction

Congratulations on your purchase of the Canon Bubble Jet Printer BJ-200e. We appreciate your choosing this printer to meet your printing needs. It offers exceptional print quality, fast printing speeds, and trouble-free operation with the convenience of compact size and low cost.

This chapter introduces you to the features of your new printer and describes how to use this User's Manual.

Features and Benefits

The Bubble Jet Printer BJ-200e produces high-quality printing by incorporating many useful features.

Excellent print quality
The printer's high-performance print head offers 360 x 360 dots per inch (dpi) for high resolution graphics. The printer also produces excellent gray-scale quality when using Microsoft® Windows™ graphics applications through the BJ-200e Windows printer driver.

Convenient paper handling
An automatic sheet feeder holds up to 100 sheets of paper or 15 envelopes.

Software compatibility
Two resident printer control modes allow you to use the printer with a

wide variety of applications:

- BJ-10 mode emulates the IBM Proprinter X24E printer
- Epson LQ mode emulates the Epson LQ-510 printer

Two print modes/speeds
The print modes allow you to choose between print quality and speed:

- HQ (high quality) mode provides high quality at 173 characters per second (cps)
- HS (high speed) mode provides draft quality at 248 cps

Reduction mode
The printer offers two reduction modes for printing spreadsheets and other wide documents on regular paper. In reduction mode, the printer reduces the output to two-thirds or one-half of its full size.

High quality ink
The ink in the BC-02 ink cartridge is not easily affected by light, dries quickly, and is smudge-resistant.

Quiet printing
The non-impact printing method offers quiet operation.

Automatic capping system
To ensure trouble-free operation, the printer automatically moves the print head to the home position and caps the print head whenever the printer is inactive or set off-line.

Simple maintenance
The replaceable ink cartridge contains both the ink and the print head; when it runs out of ink, you simply replace it.

Compact desktop design
The printer is lightweight (6.6 lb/3 kg) and occupies a minimum amount of desk space.

On-line documentation
A detailed On-Line Guide makes learning about the printer easy and fast on your computer screen.

TrueType Fonts
The Canon TrueType Font Pack enhances your font capability and improves your print quality.

Using This Manual

You can use this manual to set up and operate your printer. It provides detailed information on all the features of the Bubble Jet Printer BJ-200e.

If you set up the printer using the Quick Start Guide, you can read this manual for more detailed information on how to operate the printer.

Once you are familiar with the printer, you'll find the On-Line Guide helpful for finding quick answers to any questions you may have about basic operational functions.

The rest of this section describes the contents and conventions of this manual.

Contents

This manual includes all the information you need to set up and operate your printer in several easy-to-read chapters.

Chapter 1, Introduction
Introduces you to the features of the printer, and describes how this manual is organized.

Chapter 2, Setting Up the Printer
Describes how to select a location for your printer, and how to unpack and assemble it.

Chapter 3, Loading Paper
Describes how to select paper and how to load it into the printer. It also shows you how to print on envelopes and thick paper.

Chapter 4, Using the Operator Panel
Explains how to control your printer using the buttons on the operator panel.

Chapter 5, Using the Printer With Your Software
Describes how to use the printer with Windows. It also describes how to install a printer driver and select a printer driver and select a printer control mode.

Chapter 6, Maintaining the Printer
Describes how to clean the printer and replace the ink cartridge.

Chapter 7, Troubleshooting
Provides procedures to help you solve problems that may occur with the printer.

Chapter 8, Customizing the Printer
Describes the printer's DIP switches and explains how you can customize the factory default settings of the printer by changing these DIP switches.

The appendix lists printer specifications. At the back of the book, you'll find a glossary and an index.

The Canon Bubble Jet Printer BJ-200e Programmer's Manual is available for software designers, advanced programmers, and users interested in using a programming language to send commands to the printer. To order a copy of this manual, call the Canon help desk at 1-800-423-2366.

Conventions

This User's Manual uses the following conventions to help you operate the printer correctly and safely:

NOTE: Notes provide advice or suggestions regarding the use of the printer.

CAUTION: Cautions alert you to operations that could cause damage to your hardware or software.

In this manual, distinctive typefaces identify the printer buttons you press, the lights on the operator panel, and any commands you enter at your computer.

The Buttons you press appear in this typeface: **POWER**

The names of the lights you see appear in this typeface: HQ.

When you type something on your computer, it appears in this typeface:
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DIR /P
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NOTE: Although your printer supports some European paper and envelope sizes, this manual refers to standard U.S. sizes only. If you use European size paper, see Appendix A, Printer Specifications, for a list of the paper sizes supported by the printer as well as printing area specifications.

Customer Support

Help desk
Canon provides customer support and service for all Canon printer products. If you have any questions regarding your new printer, call the Canon Computer Systems help desk at 1-800-423-2366. Help is available Monday through Thursday from 9 A.M. to 8 P.M. and Friday 9

A.M. to 5 P.M. Eastern Standard Time (EST), except on holidays.

If you seem to have an operational problem, try to solve it by referring to the information in Chapter 7, Troubleshooting. If you cannot quickly resume normal operation, contact Canon's experienced support personnel at the help desk.

Fax number
You can also send comments, suggestions, and technical questions to Canon via facsimile. The number for this service is 1-714-438-3317, which accesses a G3 fax machine. Be sure to state your question and provide a phone number or fax number for a response.

Fax retrieval system
Canon is proud to announce a 24-hour, toll-free fax retrieval system. You can use this service to get helpful documents faxed directly to your fax machine. These documents contain useful information to assist you in the operation of your Canon printer. To access this service, call 1-800-423-2366.

Bulletin board services
Canon also provides a bulletin board service (BBS), which is useful for obtaining newly developed third-party drivers. Call 1-714-438-3325. The protocol for the BBS is up to 14,400 bps, eight data bits, one stop bit, and no parity.

If you use CompuServe®, you can access the Canon Peripherals Forum. This allows you to talk with other users or send a message to Canon. Just type GO CANON at any CompuServe prompt.

Canada
Customer support for Canadian residents is available at 1-905-795-2083 from 9 A.M. to 7 P.M. EST (except holidays).

In other countries, please contact your Canon dealer.

Supplies
To order supplies, call 1-800-423-2366

Servicing the Printer

The Canon Bubble Jet Printer BJ-200e is designed with the latest technology to provide trouble-free operation. The warranty card that limited two-year warranty for its Bubble Jet printers. Be sure to read the came with your printer describes Canon's warranty information and Printer BJ-200e needs servicing, call the Canon referral save the card. If you feel your Bubble Jet service at 1-800-848-4123 to locate the Canon Authorized Service Facility (ASF) nearest you.

At the time of this manual's writing, Canon does not offer an extended

warranty program beyond the two-year warranty; however, some authorized Canon dealers may offer such programs for a fee. If you are interested in an extended warranty, contact your Canon Authorized Service Facility to see if it offers such a service.

Chapter 2
Setting Up the Printer

This chapter describes the steps you follow to unpack and set up your printer. It offers guidelines for finding a suitable location for the printer, explains how to install the ink cartridge, and describes how to connect the power cord and the interface cable.

If you have already set up your printer using the Quick Start Guide, you may want to scan this chapter for the additional information it supplies.

Unpacking the Printer

Carefully remove all items from the box.
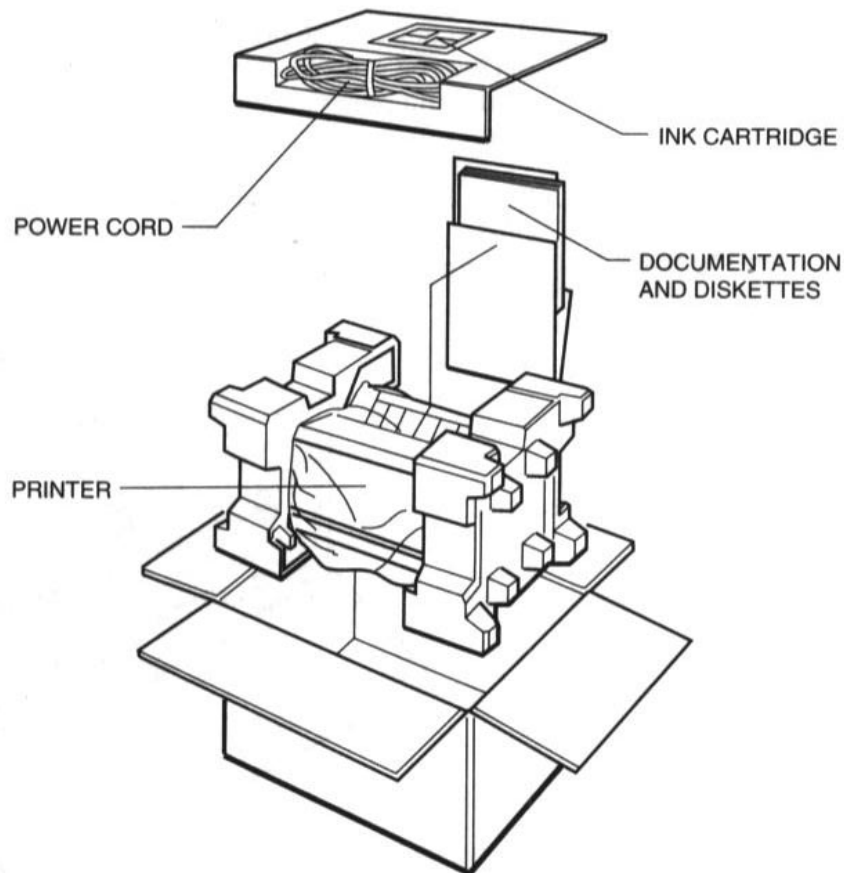
In addition to this User's Manual, you will find these items in the box:

- Canon Bubble Jet Printer BJ-200e
- WordPerfect™ drivers diskette (in envelope)
- BC-02 ink cartridge
- TrueType Font Pack diskette
- AC power cord
- Product Warranty card (U.S.A. and Canada)
- Quick Start Guide
- Registration Card
- Windows Driver and On-Line Guide diskettes (in envelope)

If your printer was damaged in shipping, or if any items are missing, notify your dealer immediately.


NOTE: In addition to the items shipped with your printer, you need a Centronic®-compatible, parallel interface cable, which you can purchase from your dealer.

As you unpack the printer, save the carton and packing materials in case you want to move or ship the printer in the future. Remove all the shipping tape and any Styrofoam packing material used to protect the printer during shipping.

Open the front cover and remove the tape that secures the ink cartridge holder. Make sure the paper thickness lever is to the left for printing on normal paper.
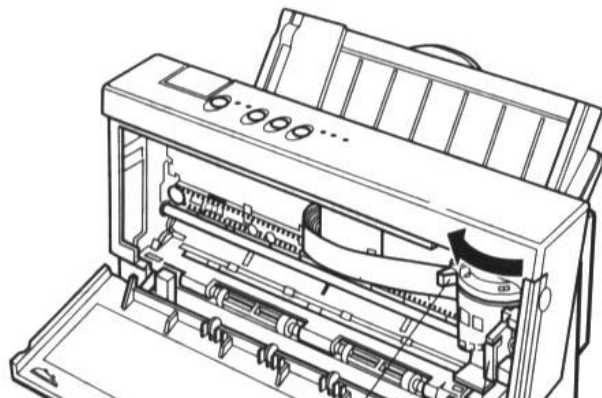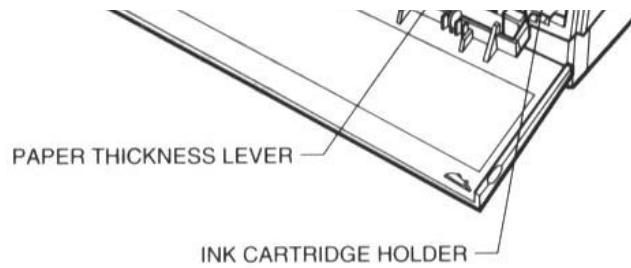
PAPER THICKNESS LEVER

INK CARTRIDGE HOLDER

Choosing a Location for Your Printer

Whether at home or in the office, you need to find a comfortable and convenient location for the printer. Follow the guidelines in this section to make sure the location is right for your printer.

- Place the printer in a cool, dry, clean, well ventilated area. Avoid placing it in direct sunlight.
- Set the printer on a sturdy, level surface. Do not set the printer on an angled printer stand.
- Place the printer where the temperature is stable and set for human comfort.
- Locate the printer near an electrical wall outlet that accepts a three-prong, grounded plug.

- Keep the printer and your computer away from potential sources of electromagnetic interference such as loudspeakers or the base units of cordless telephones.
- Make sure there is enough room around the printer for storing and feeding paper.
- Keep the paper exit area clear from objects that may block paper from exiting the printer.
- Make sure there is enough room to fully extend the paper rest and use the paper exit support. The printer requires this much space:
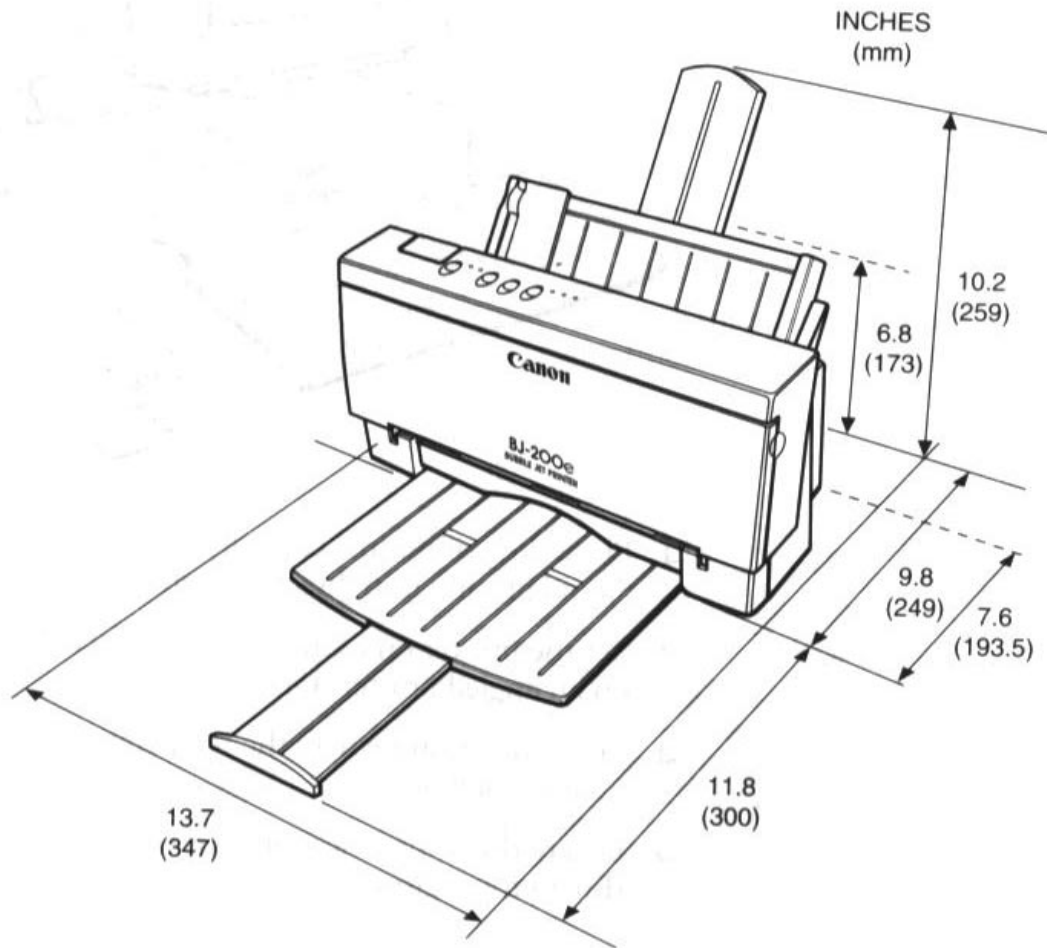
INCHES
(mm)
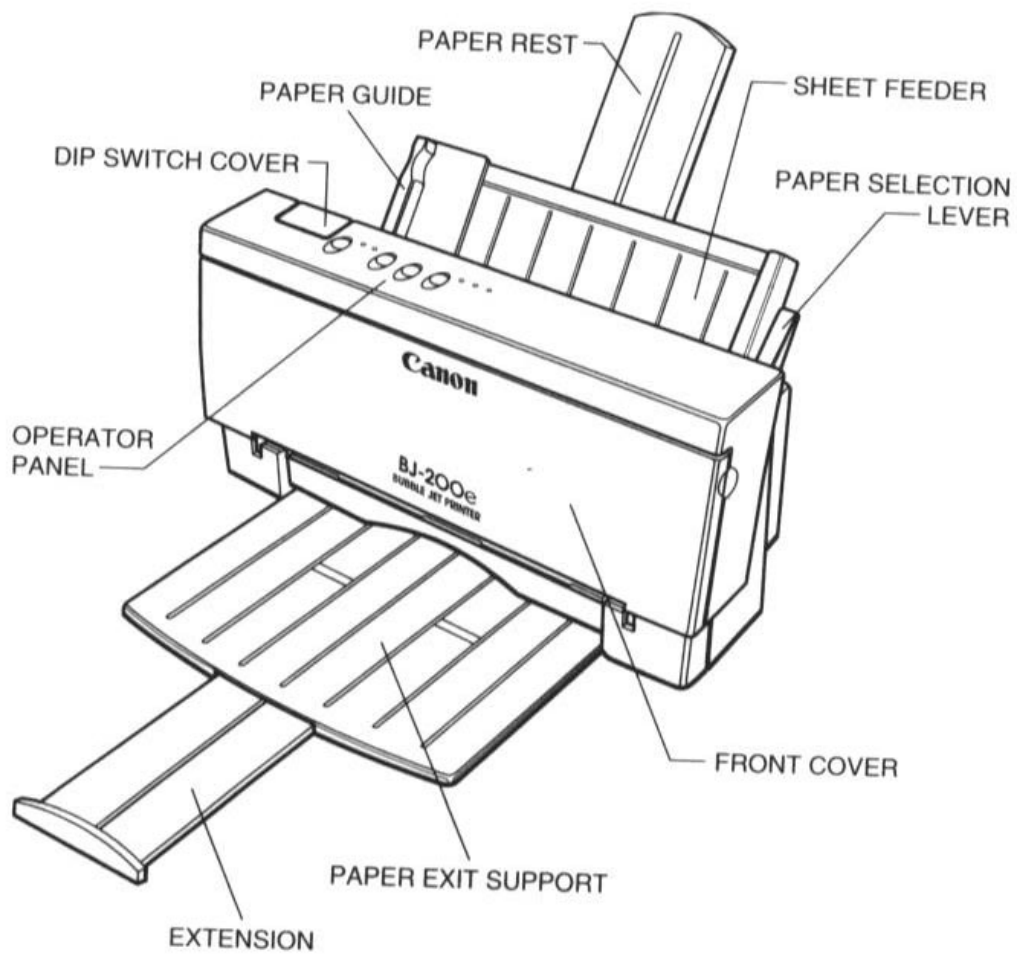
10.2
(259)

6.8
(173)

9.8
(249)

7.6
(193.5)

11.8
(300)

13.7
(347)

Examining the Printer

Before setting up your printer, you should become familiar with its components and understand their functions.

From the Front

Paper guide

Aligns paper in the sheet feeder. You can adjust the guide for paper widths of up to 9 1/2 inches (240 mm).

Paper rest
Keeps the paper straight in the sheet feeder and helps prevent misfeeds. Extend this support before loading a stack of paper in the sheet feeder.

Sheet feeder
Stacks up to 100 sheets of paper for automatic feeding. You can also manually feed a single sheet, such as a transparency or card stock.

Paper selection lever
Selects the appropriate paper setting. For loading multiple sheets of normal-weight paper, set this lever to the back position. For envelopes or thick paper, set this lever to the front position. (Leave this lever in the back position when loading stacks of normal paper.)

Front cover
Allows access to the inside of the printer when you are installing the ink cartridge or adjusting the paper thickness lever.

Paper exit support
Provides support when outputting letter-size sheets of paper. Pull out the extension before printing.

Operator panel
Controls the printer and defines basic printer operations. The various lights on the operator panel indicate the status of the printer, and identify the print mode you've selected. See Chapter 4, Using the Operator Panel, for complete information on these buttons and lights.

DIP switch cover
Protects the DIP switches. You use these switches to change the printer's factory default settings. For information about changing the default settings, see Chapter 8, Customizing the Printer.

From the Back

AC POWER RECEPTACLE
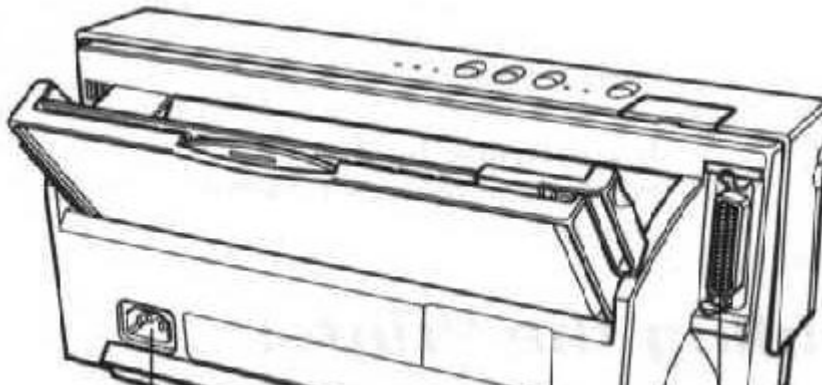
PARALLEL PORT

AC power receptacle
Allows you to attach the printer's power cord.

Parallel interface port
Allows you to attach the printer's interface cable.

Inside the Printer

PAPER THICKNESS LEVER

INK CARTRIDGE HOLDER
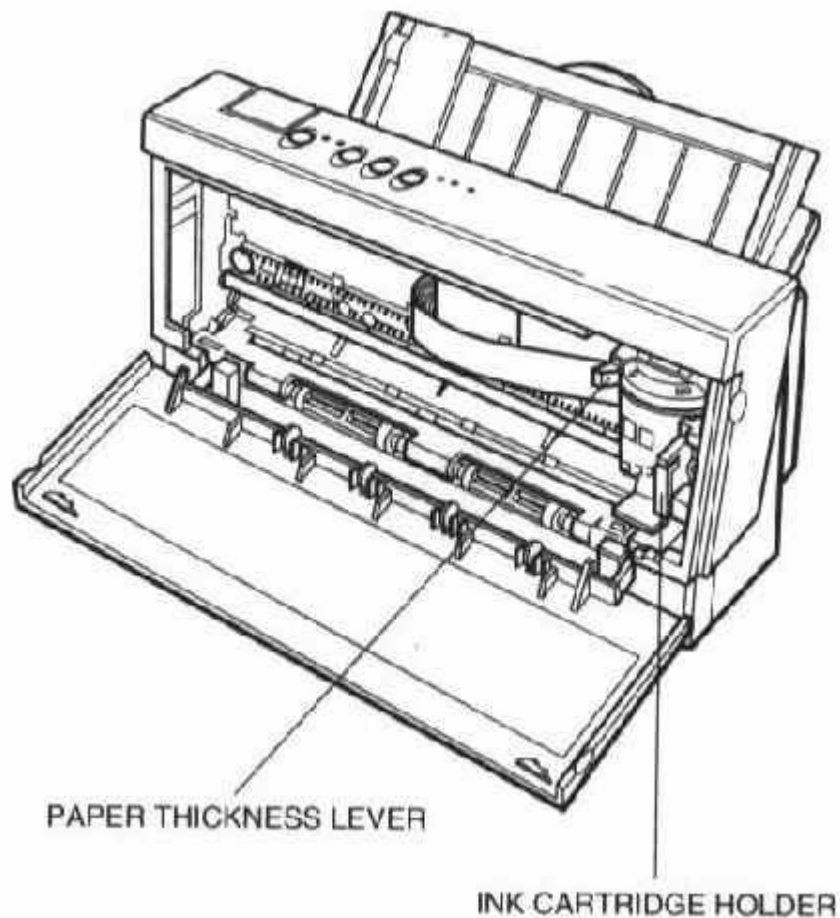
Paper thickness lever
Identifies the thickness of your paper. The setting you choose adjusts the distance between the print head and the paper. There are two settings: left for normal paper and right for thick paper or envelopes. Make sure the lever is set to the left for printing on normal paper.

Ink cartridge holder
Allows you to install the ink cartridge (as described later in this chapter).

Assembling the Printer

Now that you are familiar with the components of your printer, you are ready to install the printer and connect it to your computer. The first step is to install the ink cartridge.

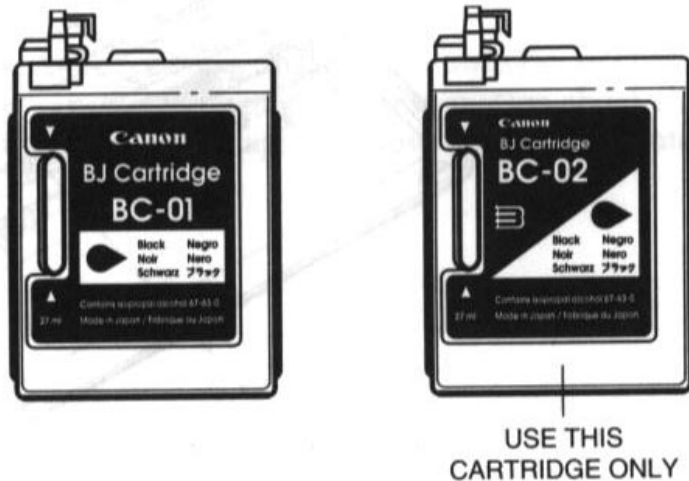## Installing the Ink Cartridge

You use the BC-02 ink cartridge with this printer. Each ink cartridge can print about 400 to 500 letter-size pages (700,000 characters) in HQ mode and 800 to 1000 pages (1,400,000 characters) in HS mode. The actual amount varies according to the print density of a page. If you print a lot of graphics, you may need to change cartridges more often

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NOTE: Canon makes numerous ink cartridges; the BC-02 is designed specifically for the Bubble Jet Printer BJ-200e and is the only one you should use. Using the BC-01 cartridge will result in decreased print quality.

USE THIS
CARTRIDGE ONLY

To avoid spilling ink, follow these precautions:

- Do not touch the print head on the ink cartridge or the sharp edges around it.
- Do not hold the ink cartridge, or place it on your table, with the print head facing down, except when you are installing it.
- Do not attempt to disassemble the cartridge.
- Do not vigorously shake the ink cartridge while handling it.

To install the ink cartridge, follow these steps:

1. Grasp the sides of the front cover and open it so you can access the cartridge holder.

2. Take the ink cartridge out of its protective packaging.

NOTE: Install the ink cartridge immediately after removing it from its protective packaging.

3. Slide off the orange protective cap from the print head and remove the orange tape.

CAP
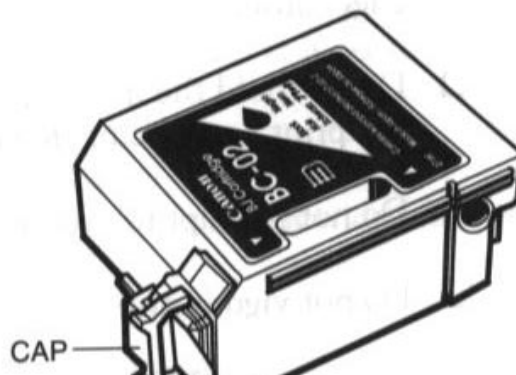
TAPE

4. Locate the cartridge holder on the right side of the printer.

CIRCUIT BOARD
(DO NOT TOUCH)

MOUNTING BASE

CABLE
(DO NOT TOUCH)
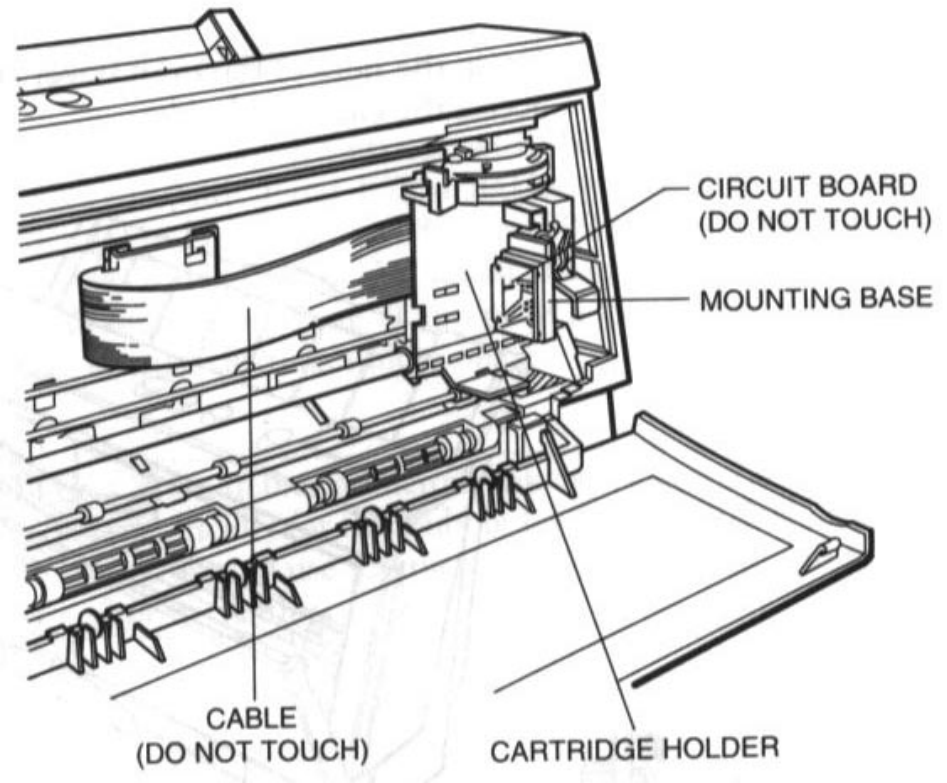
CARTRIDGE HOLDER

CAUTION: 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 cartridge holder.

5. Lift the green lock lever on the cartridge holder.
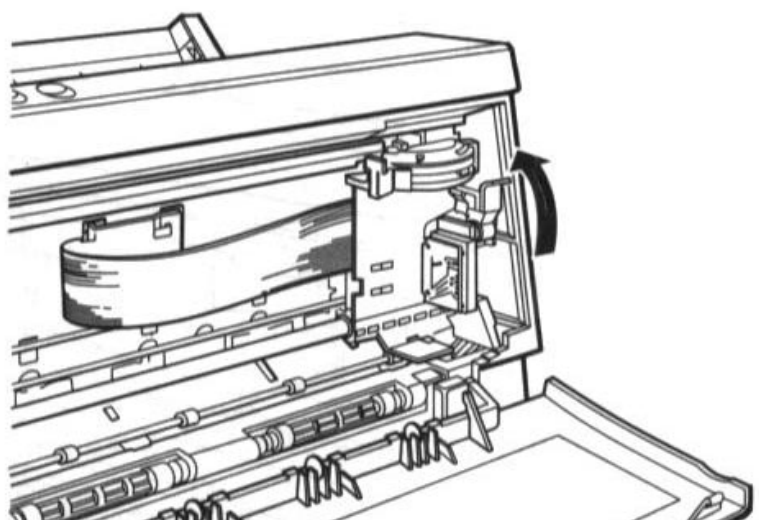
6. Fit the ink cartridge over the yellow mounting base with the print head facing down. (When installed correctly, the label on the cartridge will appear upside down.)
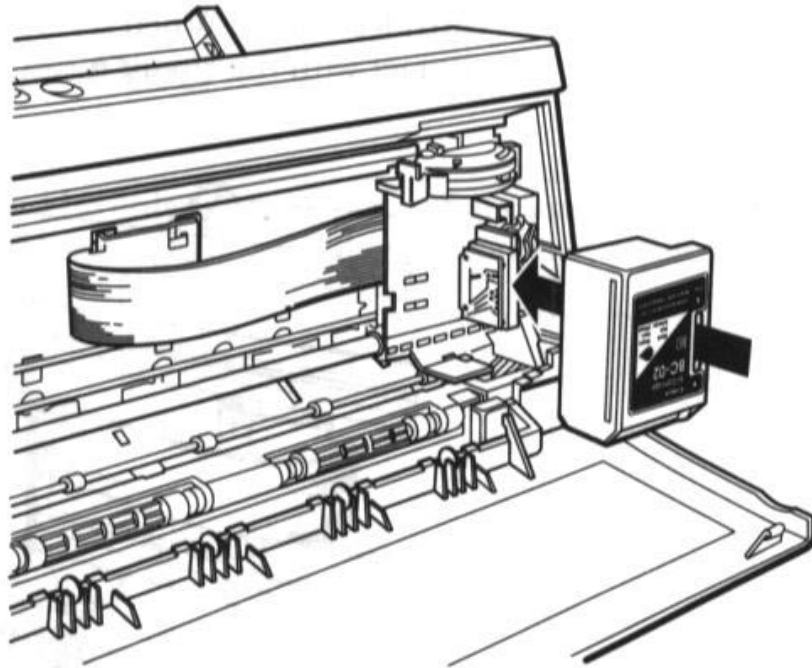
7. Push the lock lever down until it snaps into place.
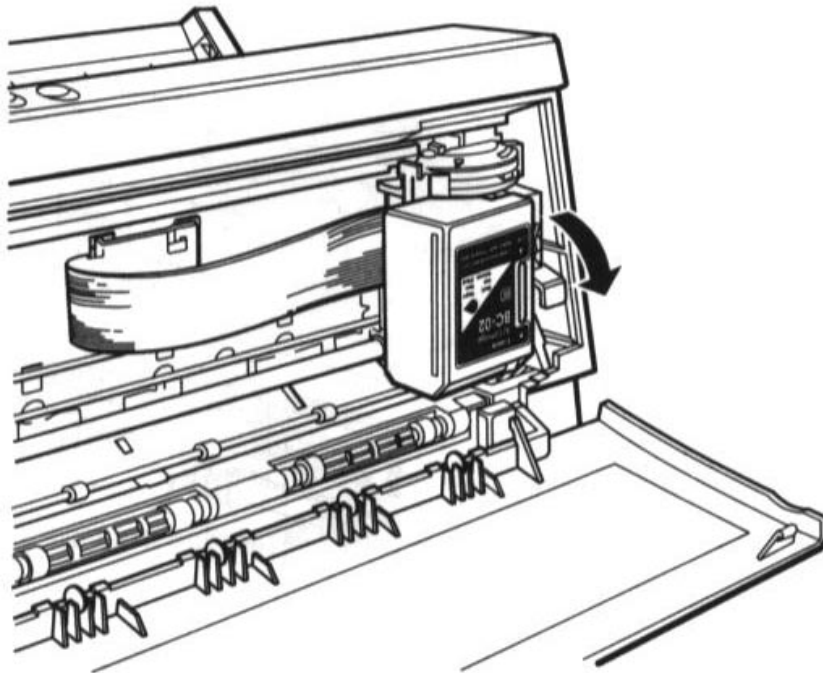
Make sure there is no resistance when you press on the lock lever, and be sure no gap exists between the ink cartridge and cartridge holder.

Chapter 3
Loading Paper

This chapter describes how to load paper, envelopes, thick paper, and transparencies in the printer. To ensure the best performance of your printer, you 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. The path that the paper travels through the printer is the same for automatic and manual feeding.

Automatically Feeding Paper

Your printer produces letter-quality print on most plain bond papers, including cotton bond papers and photocopying papers. This printer does not require special ink-jet papers. However, the print quality varies with different paper types.

Purchase a small amount of paper and test it to see if it meets your printing requirements before committing to a specific paper type.

NOTE: Attempting to print on damp, curled, wrinkled, or torn paper can cause paper jams and poor print quality.

You can automatically feed single sheets of plain papers:

Size:	Letter 8 1/2 x 11 inches
	Legal 8 1//2 x 14 inches
Thickness:	Less than 0.008 inches (0.2 mm)
Weight:	17 to 24 lbs (64 to 90 g/m²)

You can stack up to 100 sheets of plain paper (20 lb or 75 g/m²) in the sheet feeder.

When you are ready to load plain paper, follow the steps in this section.

1. Extend the paper rest and the paper exit support.
2. Set the paper selection lever to the back position.
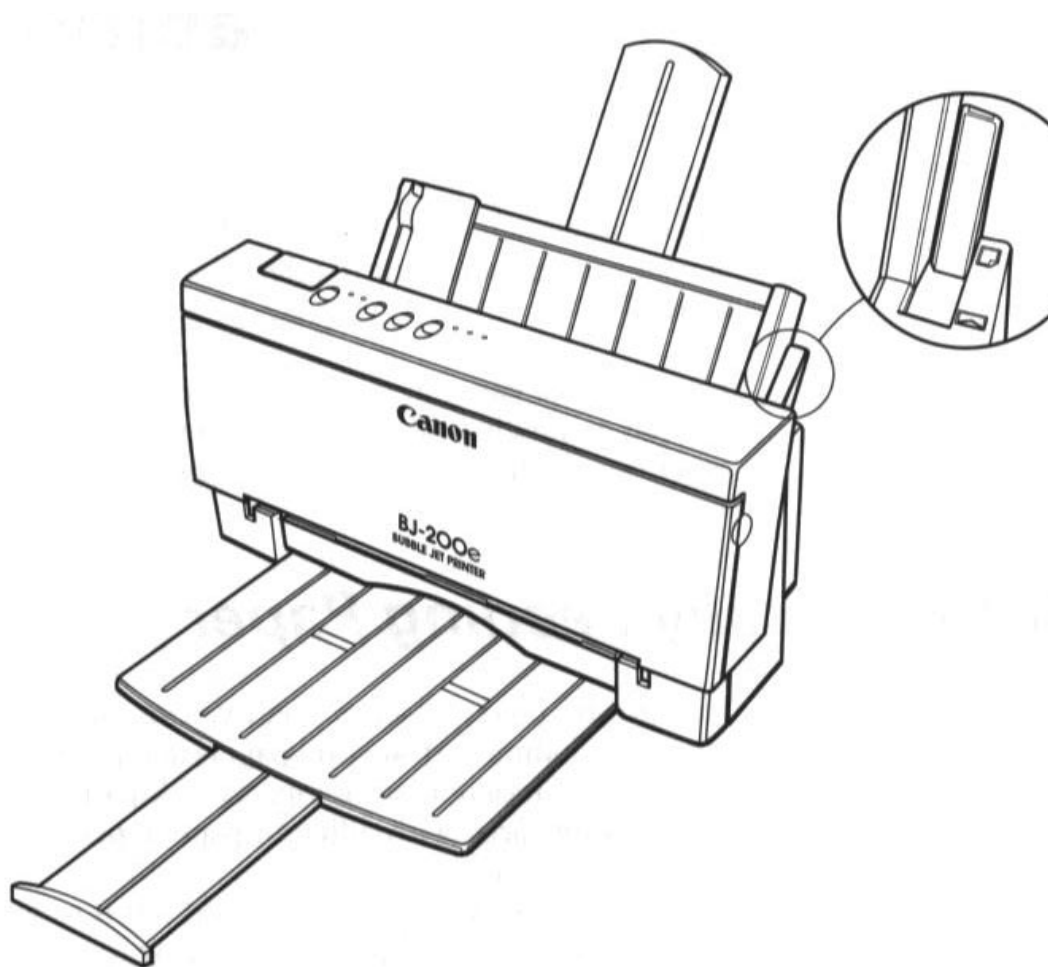
NOTE: Set the paper selection lever to the front position only when loading envelopes or manually feeding paper. If it is set to the front position when you are automatically feeding stacks of normal paper, the printer may feed multiple sheets or jam.

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3. Fan the paper before stacking it in the sheet feeder. Always fan a stack of paper along the edge that will feed into the printer first.
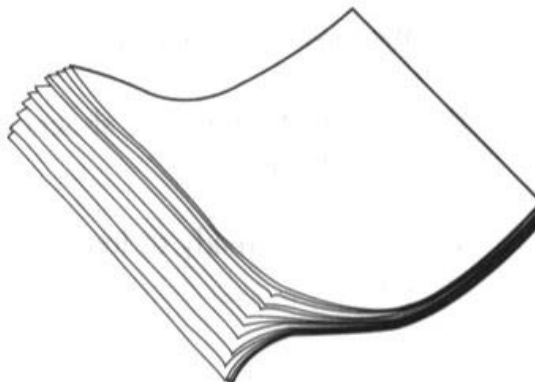
4. Align the stack of paper with the right edge of the sheet feeder and slide in the stack until it stops. Do not force the paper into the printer. Make sure the stack of paper does not exceed the paper limit mark or the tab on the right side of the sheet feeder.
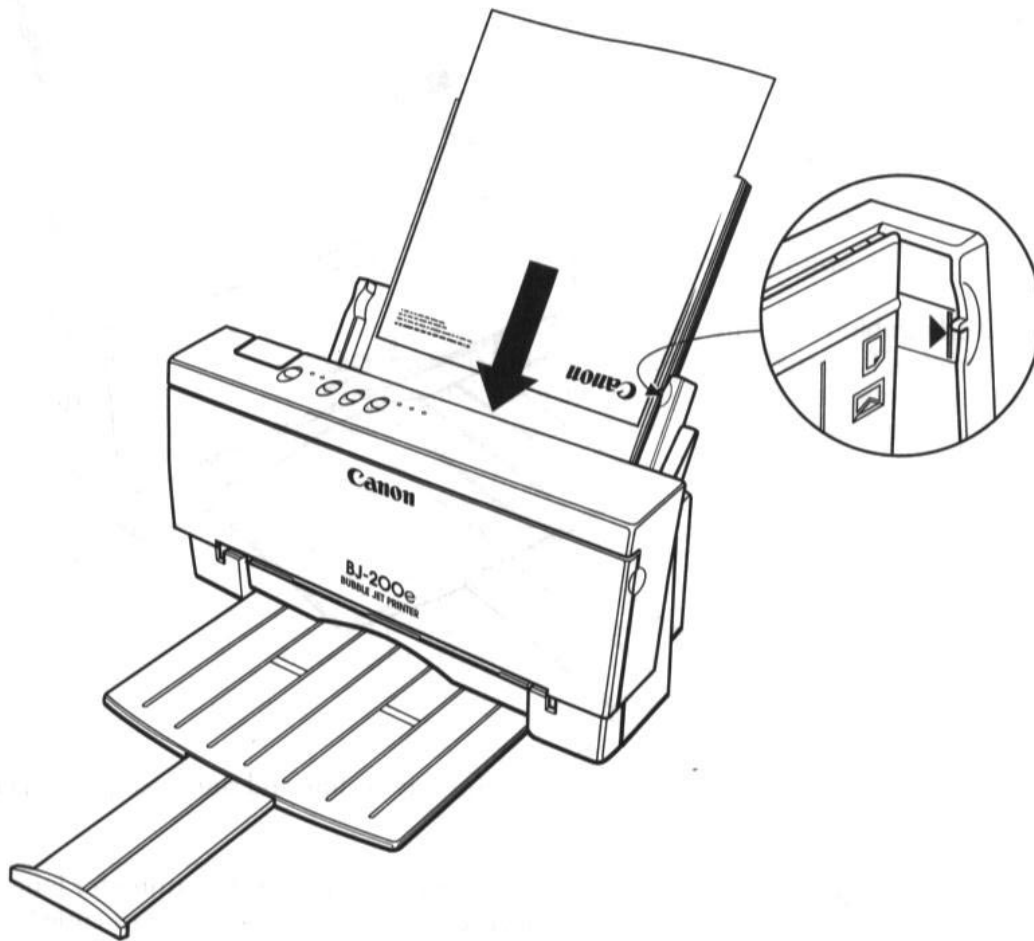
5. Insert the paper so that the side you want to print on is facing you. If you are using a preprinted stock, such as letterhead, insert the top of the paper into the sheet feeder first.

6. Adjust the paper guide to the stack of paper.
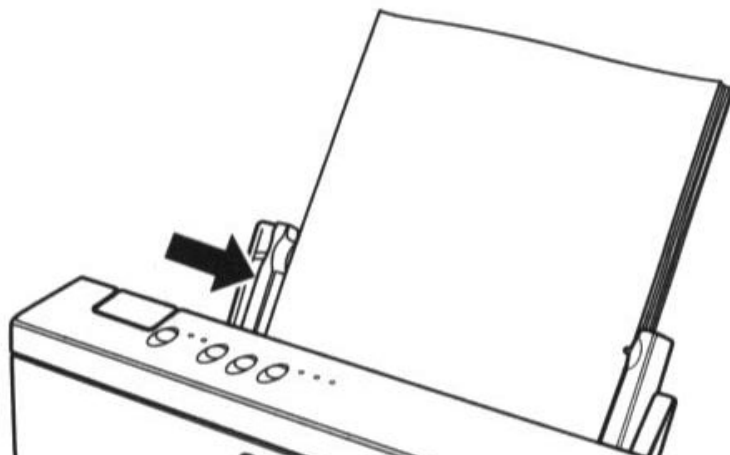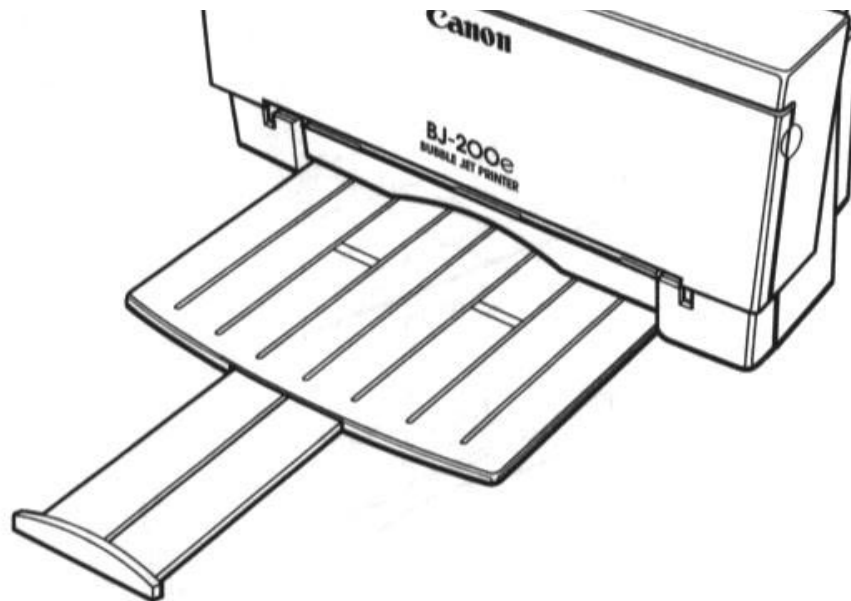
7. Make sure the printer is on-line and start your print operation.

NOTE: Do not leave paper stacked in the printer for long periods of time; longer sheets of paper may become bent or curled over time. This may cause the paper to misfeed or jam.

Printing On Envelopes

You can stack up to 15 envelopes in the sheet feeder. Before printing on envelopes, you need to turn on the envelope mode.

Use only Commercial number 10 envelopes, which are 9 1/2 x 4 1/8 inches.

CAUTION: Some envelopes are not recommended because they may cause jams or smears or may damage your printer:

- Envelopes with windows, metal clasps, holes, perforations, cutouts, double flaps, or peel-off sealing strips.
- Envelopes that are specially or deeply embossed.
- Envelopes with letters enclosed.

When you are ready to load envelopes, follow these steps:

1. Make sure the printer is turned on and on-line.
2. Turn on the envelope mode by pressing and holding the **LF/FF** button, and then pressing the **ON LINE** button. The beeper sounds once and the indicator light for the current print mode blinks quickly. Press **ON LINE** to set the printer back on-line.

NOTE: Selecting envelope mode cancels reduction mode (if set).

3. Set the green paper thickness lever on the inside of the printer to the right. Then close the front cover.
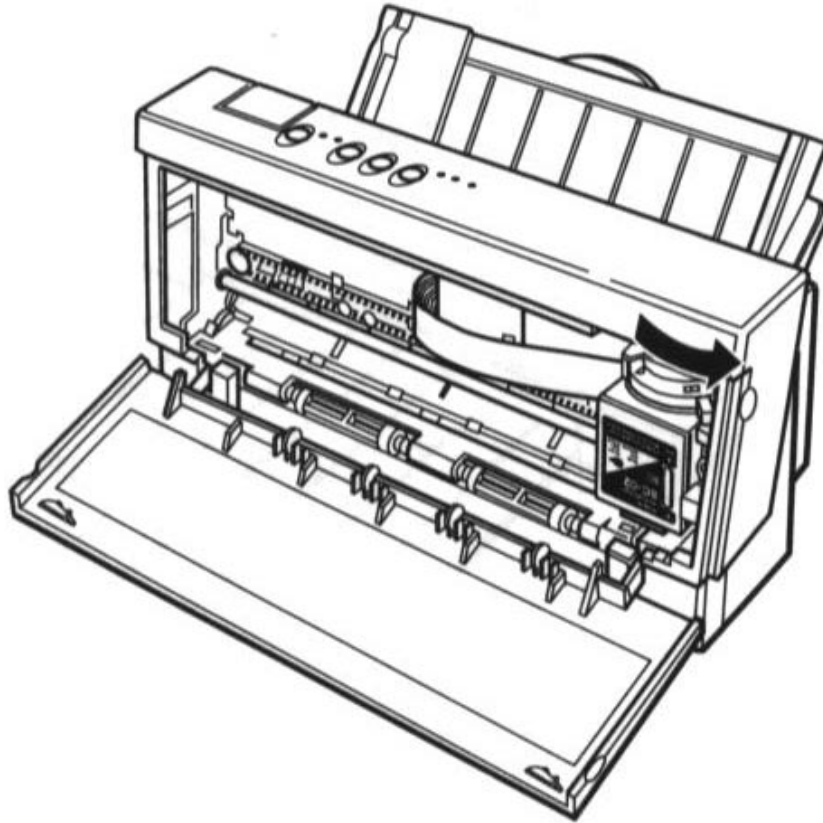
4. Set the paper selection lever to the forward position, and move the paper guide to the left to match the width of the envelopes.
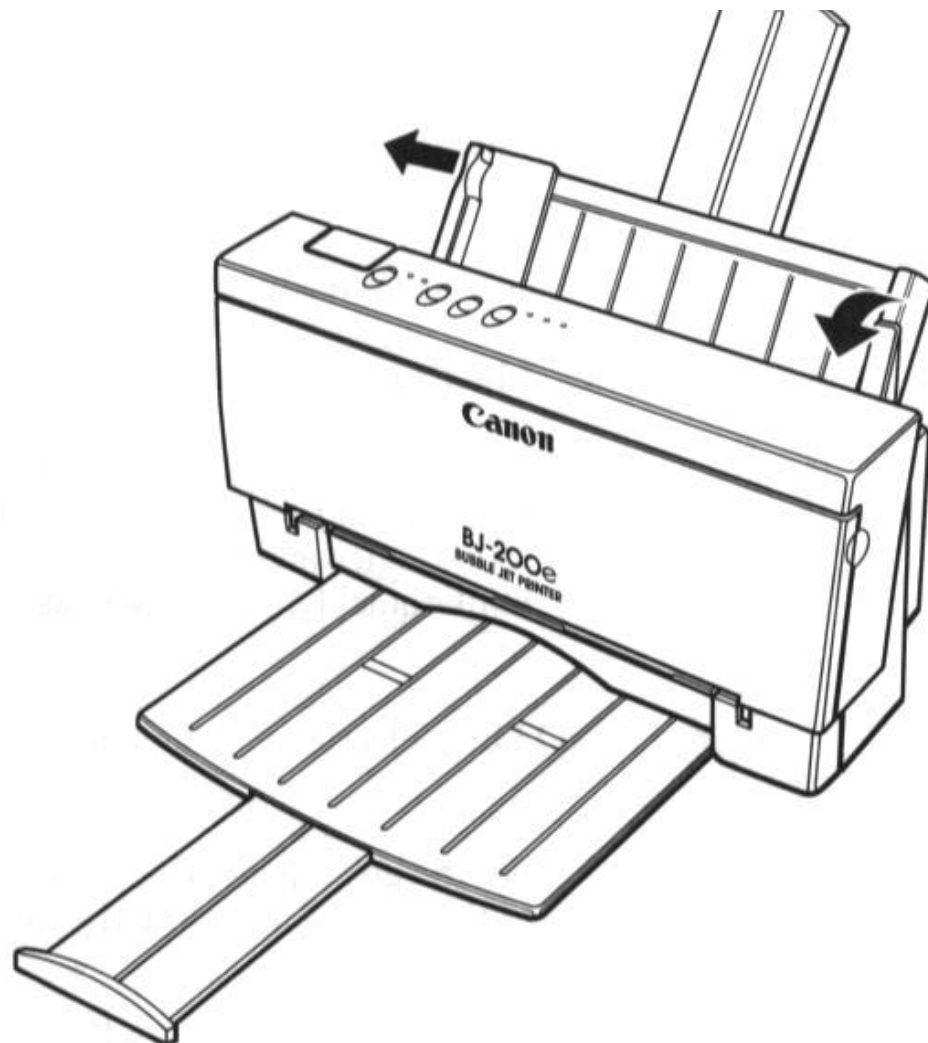
5. Arrange the stack of envelopes on a firm surface and press down firmly on the edges to make the folds crisp. Press all the way around the envelopes to remove any curls and expel air from inside the envelopes. Also, press firmly on the area that corresponds to the edges of the flap.
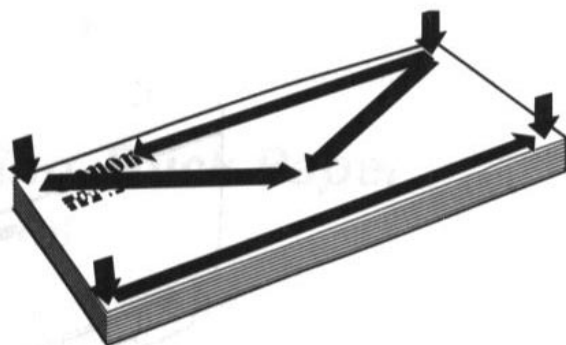
6. Align the stack of envelopes with the right edge of the sheet feeder and slide in the stack until it stops.
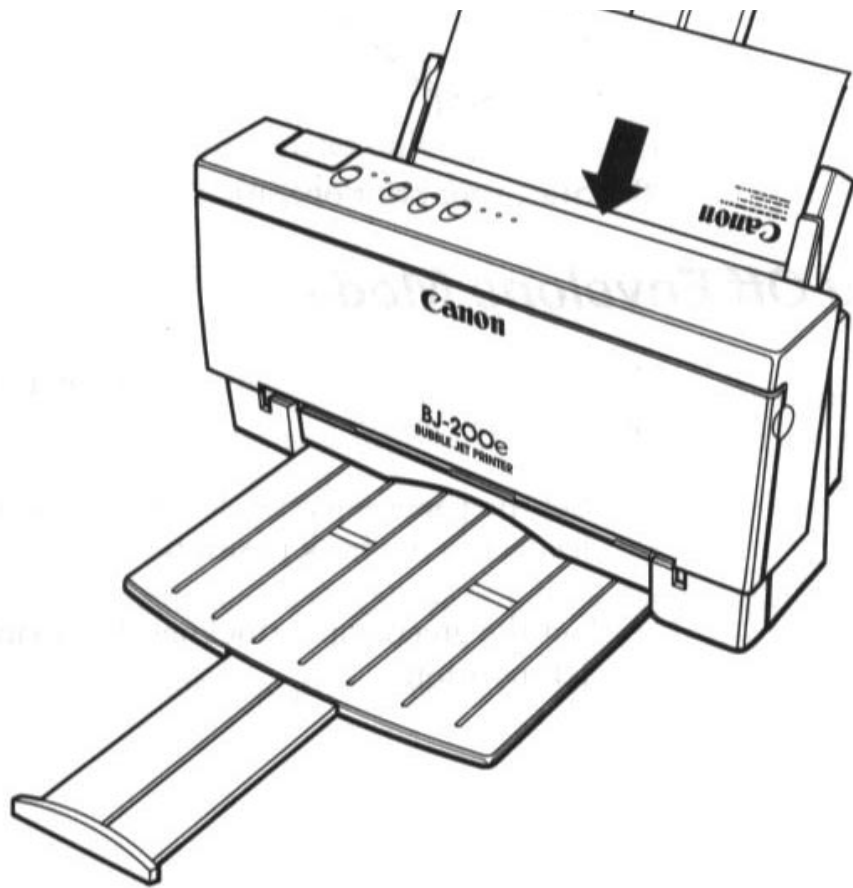
7. Adjust the paper guide to the stack of envelopes.
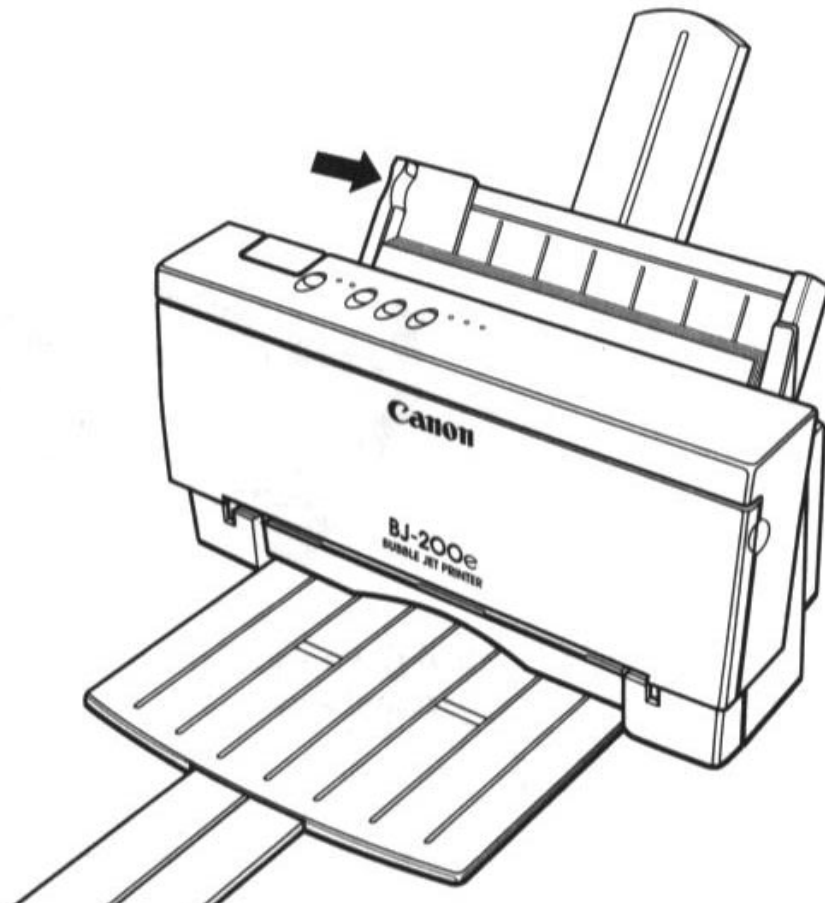
8. Start your print operation.

Turning Off Envelope Mode

After printing on envelopes, follow these steps before printing on normal paper again:

1. Set the paper selection lever (on the right side of the sheet feeder) to the back position.
2. Set the green paper thickness lever (inside the printer) to the left position.
3. Disable the envelope mode: make sure the printer is on-line; then press and hold the **LF/FF** button and press the **ON LINE** button.
4. Press **ON LINE** again to set the printer on-line.

Use the envelope mode only when you are loading envelopes; do not use this mode when loading regular or thick paper.

Manually Feeding Thick Paper or Transparencies

You use the manual feed feature when printing on paper that is a heavier weight (up to 28lb or 105 g/m²) or a transparency stock.

Use transparencies that are intended for use with ink jet printers. For best results, use Canon's BJ transparency film #Q07-0001-M1. You can also use 3M's CG3480 transparency film.

CAUTION:

- Always feed transparencies manually.
- Use transparencies only in a normal operating environment. High temperatures may damage a transparency.
- After printing on transparencies, feed at least two sheets of paper through the printer to clean the rollers.
- Do not use Canon's CF-101 or CF-102 transparency film with this printer; these transparencies are designed for use with our color printers only.

To manually feed a single sheet, follow these steps:

1. Make sure the printer is turned on and on-line.
2. Set the paper selection lever (on the right side of the sheet feeder) to the for ward position.
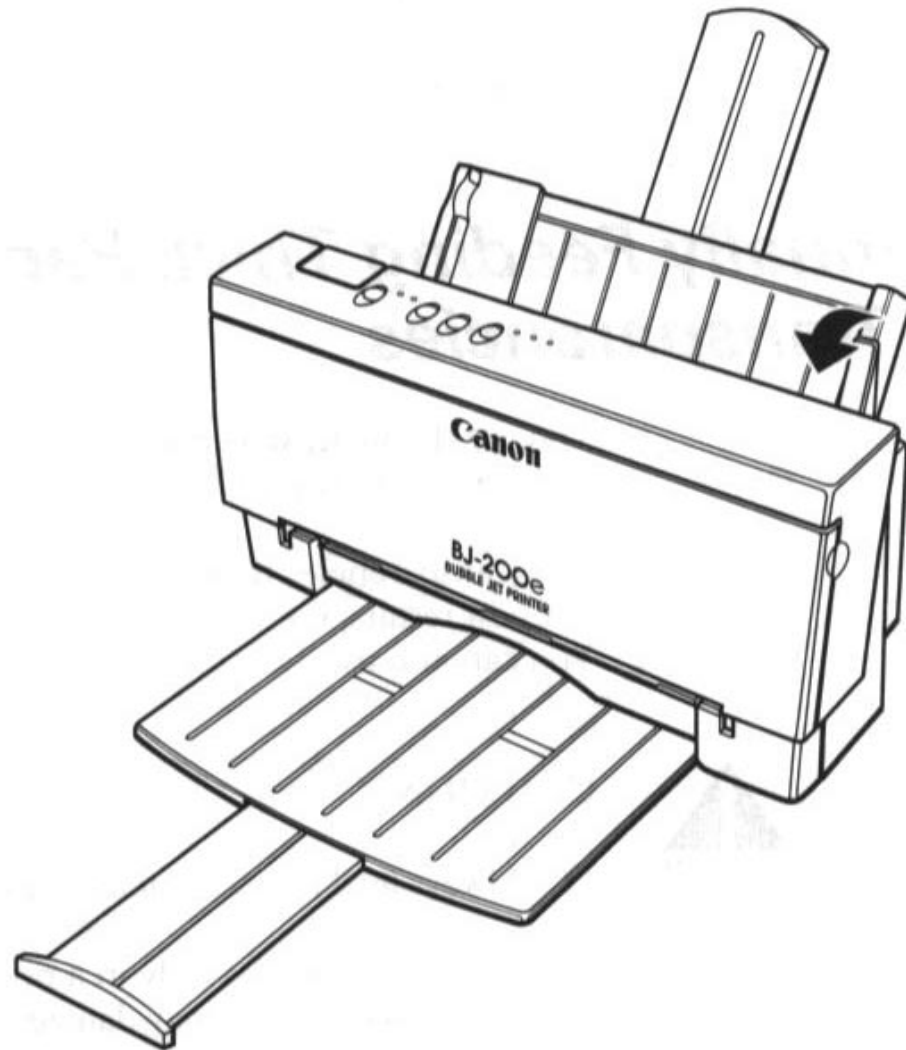
3. If you are printing on thick paper, open the front cover and make sure the green paper thickness lever (inside the printer) is set to the right.
4. Align the sheet of paper or transparency with the right edge of the sheet feeder, and adjust the paper guide to the sheet.
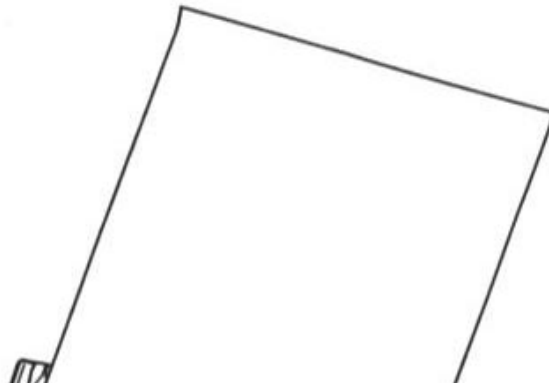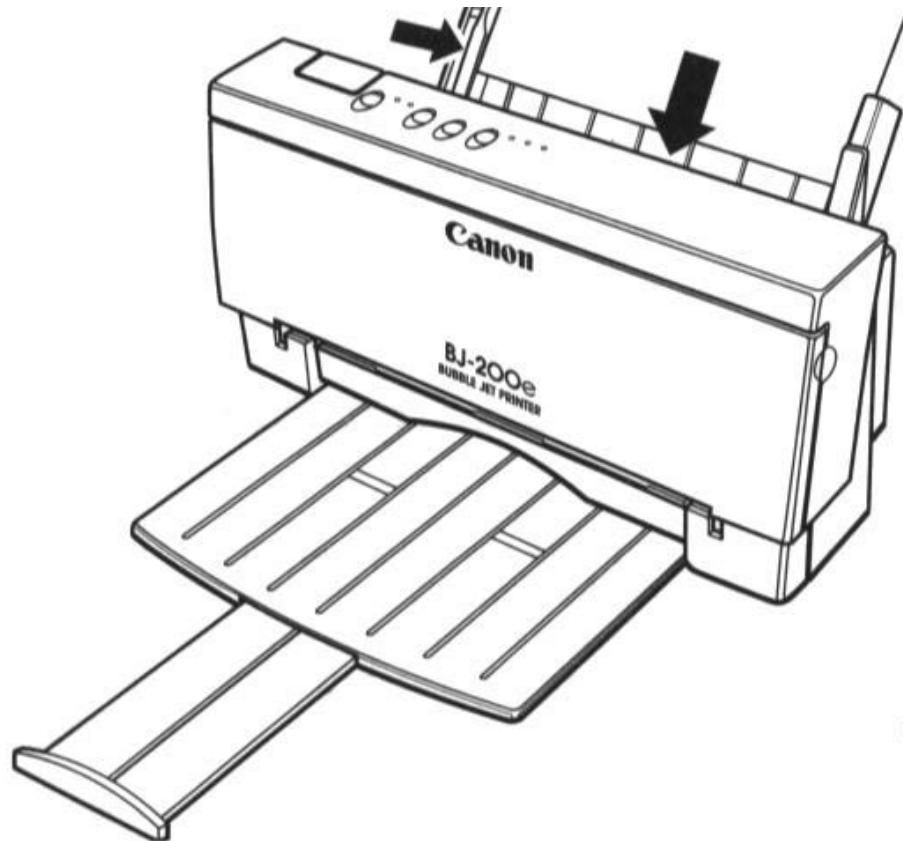
NOTE: When printing on a transparency, insert the sheet so the transparency side is facing you and the backing is toward the sheet feeder. Insert the top of the transparency (where it is attached to its backing) into the sheet feeder first.

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5. Slide in the sheet until it stops, and hold it for about two seconds. The printer will automatically load the paper into position.
6. Start your print operation.

NOTE: After printing on thick paper or envelopes, set the paper thickness lever (inside the printer) back to the left position before printing on normal paper. Also, set the paper selection lever to the back position.

Chapter 4
Using the Operator Panel

You can control basic printer operations through the operator panel.
The indicator lights reflect the current status and modes of the printer.
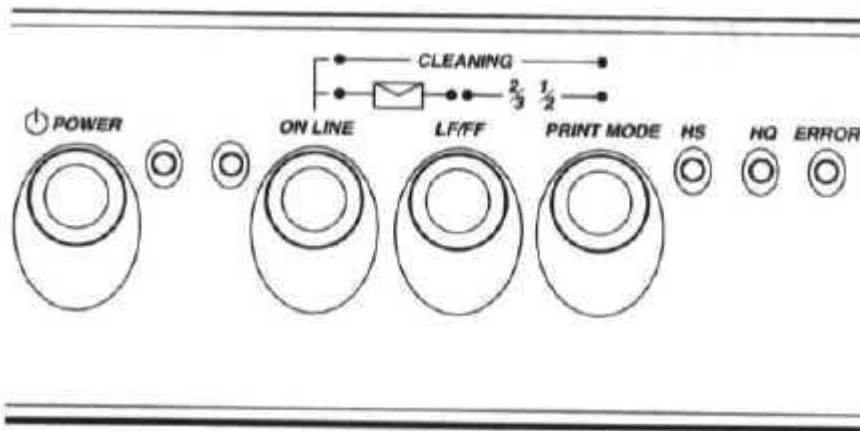
Most software applications, such as word processing programs,
spreadsheets, and databases, automatically handle the printer control
operations. For example, your word processing program tells the printer
what typeface to use and when to perform a line feed or form feed.

If, for some reason, your application program does not perform these
basic functions, you can control them using the operator panel. You can
also select printer-specific functions, such as the print mode, and you
can print the self tests.

The following sections of this chapter describe how you use these
buttons to select printer functions.

Turning On the Printer

Press the **POWER** button to turn on the printer. The POWER light will
come on. When the printer is ready to print, the ON LINE light will
come on.

Pausing a Print Operation

When the ON LINE light is on, the printer is on-line and ready to

receive data from your computer. At this time, you can send print data from your computer to the printer.

If you want to pause a print operation, press the **ON LINE** button again to set the printer off-line. The ON LINE light will go off and the printer will stop. To start printing again, press the **ON LINE** button.

Feeding Paper

When the printer is off-line, you can use the **LF/FF** button to advance the paper in the printer. You can perform a line feed or a form feed, or you can eject a sheet of paper.

Form feeding
If you are loading paper, make sure the printer is off-line. Press the **LF/FF** button to load the first sheet of paper to its top of form. (If you are running a software application, you don't need to perform this step. The application will tell the printer when to load paper.)

Line feeding
When a sheet of paper is loaded and the printer is off-line, press the **LF/FF** button to advance the paper one line. Press the button repeatedly to feed many lines.

Ejecting paper
To eject a sheet of paper, make sure the printer is off-line, then press and hold the **LF/FF** button for more than one second. The printer will eject the current sheet of paper.

Selecting a Print Mode

Your printer incorporates two print modes that allow you to choose between print speed and print quality:

Print Mode	Function	Speed at 10 cpi
HS	High speed and draft quality printing	248 cps
HQ	High quality printing	173 cps

You use the **PRINT MODE** button to select the current print mode when the printer is off-line. The default selection is HQ mode. Pressing the **PRINT MODE** button toggles from HQ to HS mode. The HS and HQ lights indicate which mode is selected.

Select your print mode as follows:

- Use HQ mode for most of your printing needs. The printer automatically prints in HQ mode unless you change the mode with the **PRINT MODE** button.
- Use the HS mode when you are printing draft documents. Your document will print faster but the print density will be less than in HQ mode. HS mode uses half the amount of ink as HQ mode.

NOTE: Normally, the default print mode is HQ. If you are in Epson LQ mode (DIP switch 11 is ON), and you select the Draft typeface with DIP switches 8, 9, and 10, the default print mode will be HS mode. (You can learn about DIP switches in Chapter 8, Customizing the Printer.)

Using the Reduction Modes

The printer supports two reduction modes for printing spreadsheets and other wide documents on regular paper. In reduction mode, the printer reduces the out put to two-thirds or one-half of its full size.

Two-thirds Reduction Mode

In two-thirds reduction mode, the printer automatically sets the print dimensions as follows:

Top margin:	0.32 inch
Left margin:	0.35 inch
Print width (max.):	7.8 inch
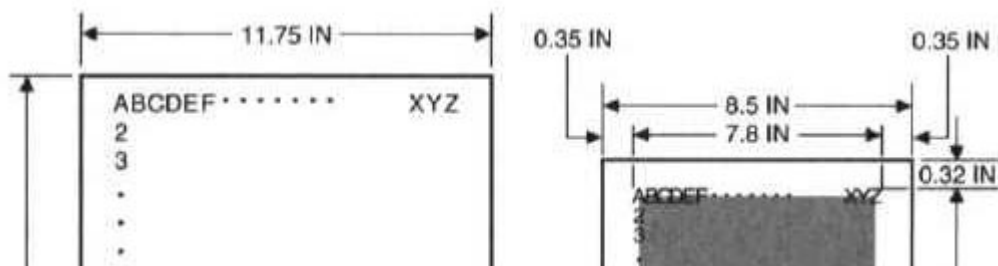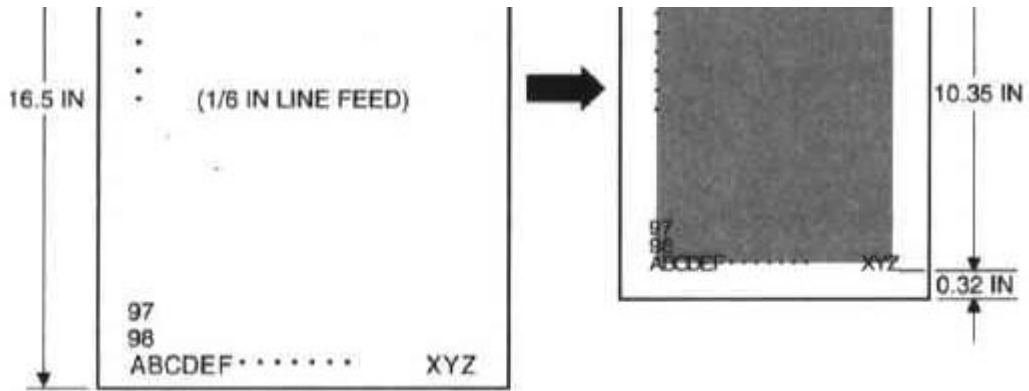
When using reduction mode, you must select the correct paper size within your application. In the example above, you would specify a paper size of 11.75 x 16.5 inches in your application. Be sure to account for your margins.

One-half Reduction Mode

In one-half reduction mode, the printer automatically sets the print dimensions as follows:

Top margin:	0.12 inch
Left margin:	0.85 inch
Print width (max.):	6.8 inch
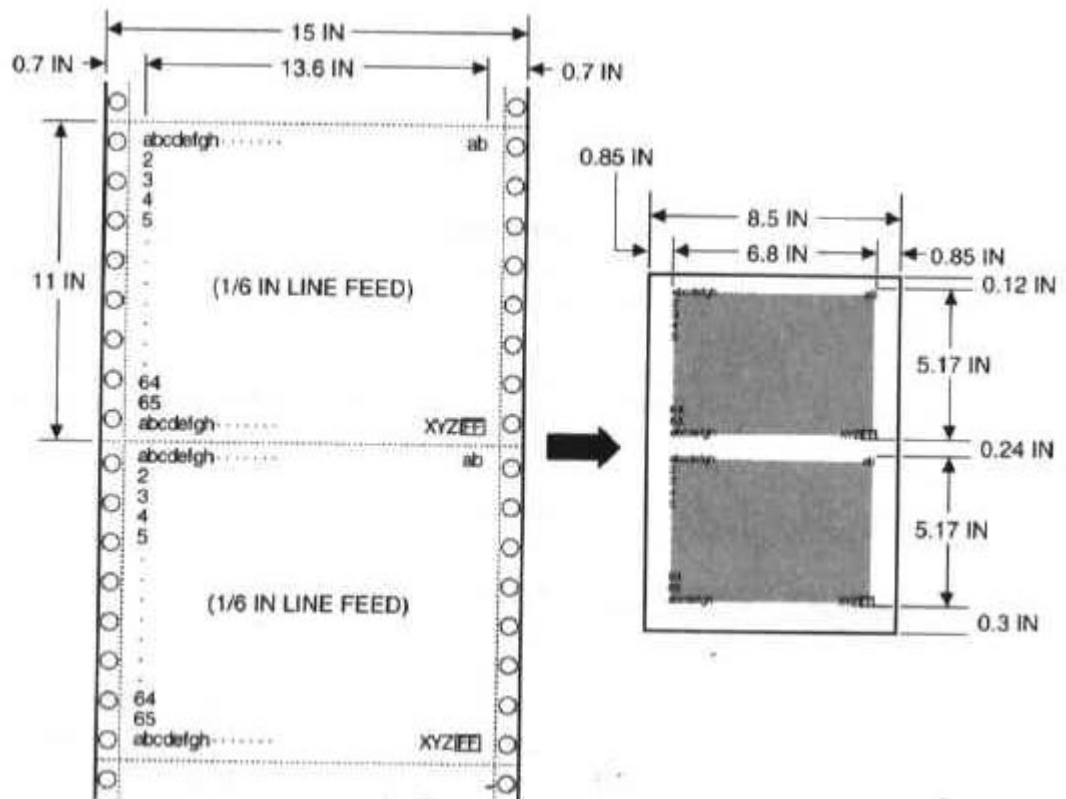
When using reduction mode, you must select the correct paper size within your application. In the example above, you would specify a paper size of 15 x 11 inches in your application. Be sure to account for your margins.

Selecting the Reduction Mode

We recommend that you use reduction mode with MS-DOS applications only (not Windows applications). Windows applications have a fit-to-page feature that is not compatible with reduction mode.

Before using reduction mode, make sure you set DIP switch 2 to ON to enable the text scale mode.

To select the reduction mode, follow these steps:

1. Make sure the printer is on-line.
2. Press and hold the **LF/FF** button.
3. Press the **PRINT MODE** button. The printer beeps twice and the indicator for the current print mode blinks to indicate the printer is in 2/3 reduction mode.

   To set the printer in 1/2 reduction mode, press and hold the **LF/FF** button and press the **PRINT MODE** button again. The printer beeps three times.
4. Load paper and begin your print operation.

NOTE: This mode may be overridden by your software.

To disable reduction mode, press and hold the **LF/FF** button and press the **PRINT MODE** button (a third time). The printer beeps once. When the indicator for the current print mode (either HQ or HS) is on and not blinking, reduction mode is cancelled. You can also turn off the printer.

NOTE: Selecting reduction mode cancels envelope mode (if set), and selecting envelope mode cancels reduction mode (if set).

Printing the Test Prints

The printer includes three test prints: the self test, the font list, and the demo print. Use these test prints to check the operation of the printer.

To print the test prints, you must be automatically feeding a stack of paper. The test prints are not available when you are manually feeding paper.

Self Test

You can print the self test in both printer control modes: BJ-10 mode or Epson LQ mode. The printer prints a repeating pattern of characters in the default print mode and pitch.

In BJ-10 mode, the pattern is printed in Courier typeface at 10 cpi; the print mode is HQ. In Epson LQ mode, the pattern is printed in Roman typeface at 10 cpi; the print mode is HQ.

Starting

To start the self test, follow these steps:

1. Press the **POWER** button to turn off the printer
2. Press and hold the **ON LINE** and **PRINT MODE** buttons, and press the **POWER** button until the beeper sounds once. The printer starts to print the self test.

Stopping

To stop the self test, press and hold the **ON LINE** and **PRINT MODE** buttons for one second. The printer stops printing, ejects the current sheet of paper, and goes back on-line.

In BJ-10 mode, the self test looks like this:

```
23456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxyz{|}~Çüé
3456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxyz{|}~Çüéáä
456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxyz{|}~Çüéáäà
56789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxyz{|}~Çüéáäàå
6789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxyz{|}~Çüéáäàå
789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxyz{|}~Çüéáäàåç
89:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxyz{|}~Çüéáäàåçê
9:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxyz{|}~Çüéáäàåçéê
:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxyz{|}~Çüéáäàåçêéè
;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxyz{|}~Çüéáäàåçêëèï
<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxyz{|}~Çüéáäàåçêëèï
=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxyz{|}~Çüéáäàåçêëèïî
>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxyz{|}~Çüéáäàåçêëèïîì
?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxyz{|}~ÇüéáäàåçêëèïîìÄÅ
```

In Epson LQ mode, the self test looks like this:


```
LQ Mode    Ver X.XX

    CG Ver X.XX

DIP SW1-12 000000000010 ≒≡≣╫≣

 !"#$%&'()*+,-./0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmno
!"#$%&'()*+,-./0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnop
"#$%&'()*+,-./0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopq
#$%&'()*+,-./0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqr
$%&'()*+,-./0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrs
%&'()*+,-./0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrst
&'()*+,-./0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstu
'()*+,-./0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuv
()*+,-./0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvw
)*+,-./0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwx
*+,-./0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxy
+,-./0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxyz
,-./0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxyz{
-./0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxyz{|
./0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxyz{|}
/0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxyz{|}~
0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxyz{|}~Ç
123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxyz{|}~Çü
23456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxyz{|}~Çüé
3456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxyz{|}~Çüéá
456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxyz{|}~Çüéáä
56789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxyz{|}~Çüéáä
6789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxyz{|}~Çüéáäà
789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxyz{|}~Çüéáäàç
89:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxyz{|}~Çüéáäàçå
9:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxyz{|}~Çüéáäàçéé
:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxyz{|}~Çüéáäàçéêë
;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxyz{|}~Çüéáäàçéêëï
```

Font List

You can print this sample in both printer control modes: BJ-10 mode or
Epson LQ mode. The printer prints all characters in the available print
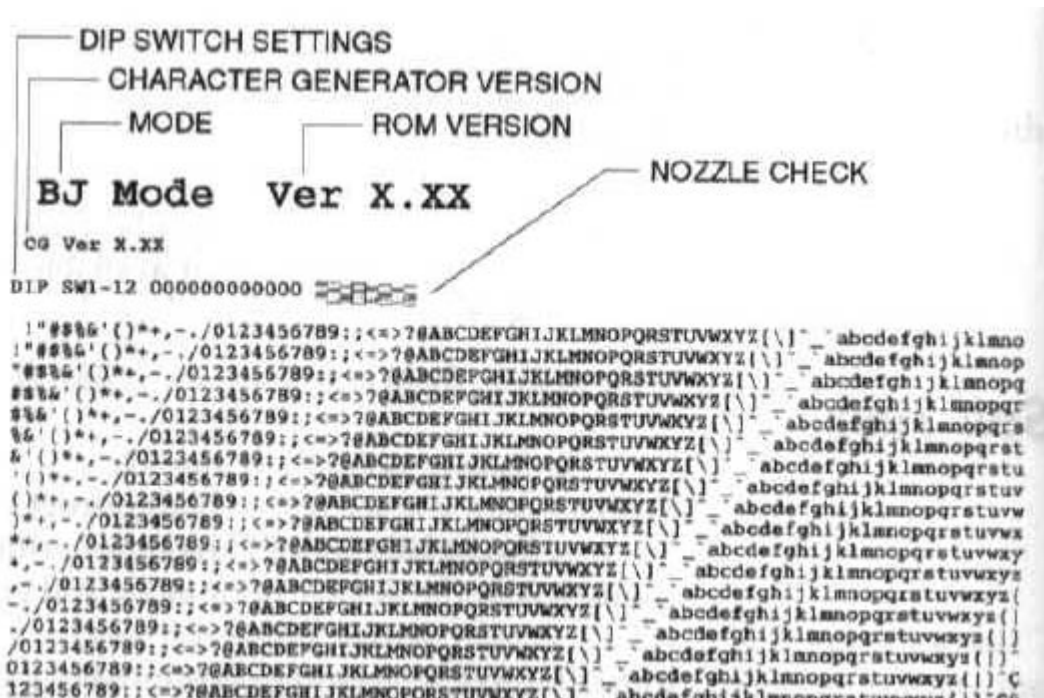styles and pitches.

Starting

To start the font list, follow these steps:

1. Press the **POWER** button to turn off the printer.
2. Press and hold the **ON LINE** button, and press the **POWER**
   button until the beeper sounds once. The printer starts to print the
   font list.

Stopping

To stop printing the font list, press and hold the **ON LINE** button for one second. The printer stops printing, ejects the current sheet of paper, and goes back on-line.
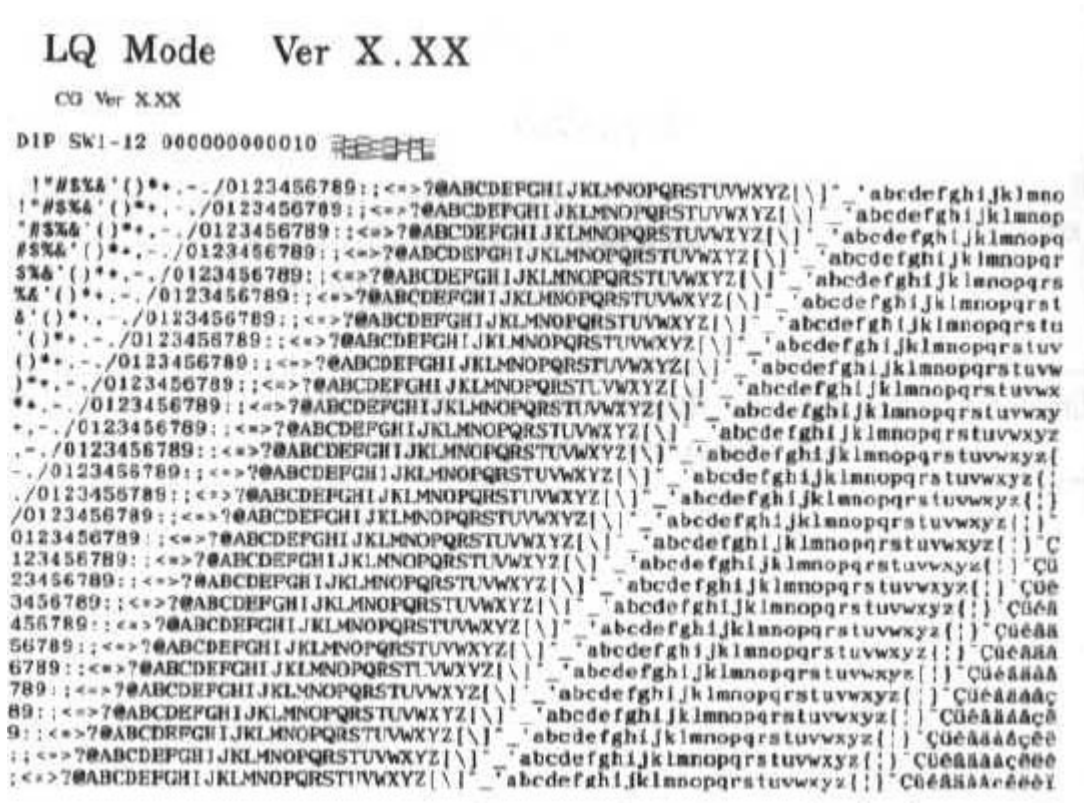
In BJ-10 mode, the font list looks like this:

In Epson LQ mode, the pattern looks like this:

Demo Print

You can print this sample in both printer control modes: BJ-10 mode or Epson LQ mode. The demo print describes a few of the printer's features in different languages.

Starting

To start the demo print, follow these steps:

1. Press the **POWER** button to turn off the printer.
2. Press and hold the **ON LINE** button, and press the **POWER** button until the beeper sounds twice. The printer starts to print the demo print.

Stopping

To stop printing the demo print, press and hold the **ON LINE** button for one second. The printer stops printing, ejects the current sheet of paper, and goes back on-line.

The demo print looks like this:

Performing Automatic Line Feeds

You can set the printer so that it performs an automatic line feed each time it receives a carriage return. Then, when the printer receives a carriage return code from the computer, it moves to the beginning of the next line.

You only need to set this function if you are using an application program that does not include a carriage return with a line feed.

To set the automatic line feed function, follow these steps:

1. Make sure the printer is turned off.
2. Press and hold the **ON LINE, LF/FF,** and **PRINT MODE** buttons, and then press the **POWER** button until the beeper sounds.

If you notice an extra blank line between each line printed, be sure to cancel this function.

To cancel the automatic line feed function, turn off the printer.

CHAPTER 5
USING THE PRINTER
WITH YOUR SOFTWARE

Your printer will work with a variety of applications, such as spreadsheet, word processing, and graphics programs. This chapter describes how to set up your software application for your printer.

Application programs include a group of programs, called printer drivers, that help the application communicate correctly with specific printers. Before using the printer with your application program, you need to tell the application what type of printer you are using by selecting the printer driver that corresponds to your printer.

Canon provides three BJ-200e printer drivers: one for Microsoft Windows, one for WordPerfect version 5.1, and one for WordPerfect version 6.0.

The easiest way to use your printer is to install the Windows driver and perform your print operations through the Windows environment. The next section, Installing the Windows Printer Driver, describes how to install the driver.

If you have already installed this driver (as described in the Quick Start Guide), see the section Printer Setup Within Windows (later in this chapter) for information on the options you can select within the printer driver.

If you use WordPerfect 5.1 or 6.0, see the section Setting Up WordPerfect for Your Printer (later in this chapter) for information on how to set up WordPerfect %.1 or 6.0 for your printer.

If you are not using Windows or WordPerfect, see the section Setting Up Other Software Applications (later in this chapter) for information on how to install another printer driver.

Installing the Windows Printer Driver

This section describes how to install the Windows printer driver for the BJ-200e. The Windows Driver and On-Line Guide diskettes contain a setup program called SETUP.EXE. This program automatically installs both the Windows driver and the On-Line Guide. You can choose to install either the driver or the guide or both. Follow these steps:

1. Turn on your computer.
2. Make backup copies of the Windows Driver and On-Line Guide diskettes.
3. If you are not already in Windows, start Windows by typing WIN and pressing **Enter.**

NOTE: Make sure the Windows Control Panel is closed.

---

4. Insert the first diskette (Disk 1 of 2) of the Windows Driver and On-Line Guide into disk drive A (or your desired drive).
5. From the Program Manager, select the File menu and then choose the Run option.
6. In response to the Command Line prompt, enter the path name that identifies the SETUP.EXE file on the Windows Driver and On-Line Guide diskette and then click on OK. For example:

         A:\SETUP.EXE

7. Now follow the instructions on the screen to install the Windows driver and/or the On-Line Guide.

The SETUP program installs the Windows driver in the directory you specify. If you choose to install the On-Line Guide, the SETUP program creates an icon in the Program Manager. Whenever you need information about the BJ-200e, you can open the icon and look up the desired information.

NOTE: For faster printing operations in Windows, do not use the Windows Print Manager.

Printer Setup Within Windows

After you install the Canon BJ-200e printer driver, you can run the Setup program. This is located in the Printers Control Panel.

If you are using Windows 3.1, select the Setup button from the Printers dialog box. If you are using Windows 3.0, select the Configure button and then the Setup button..

When you start the Setup program, Windows displays the Canon BJ-200e Setup dialog box:
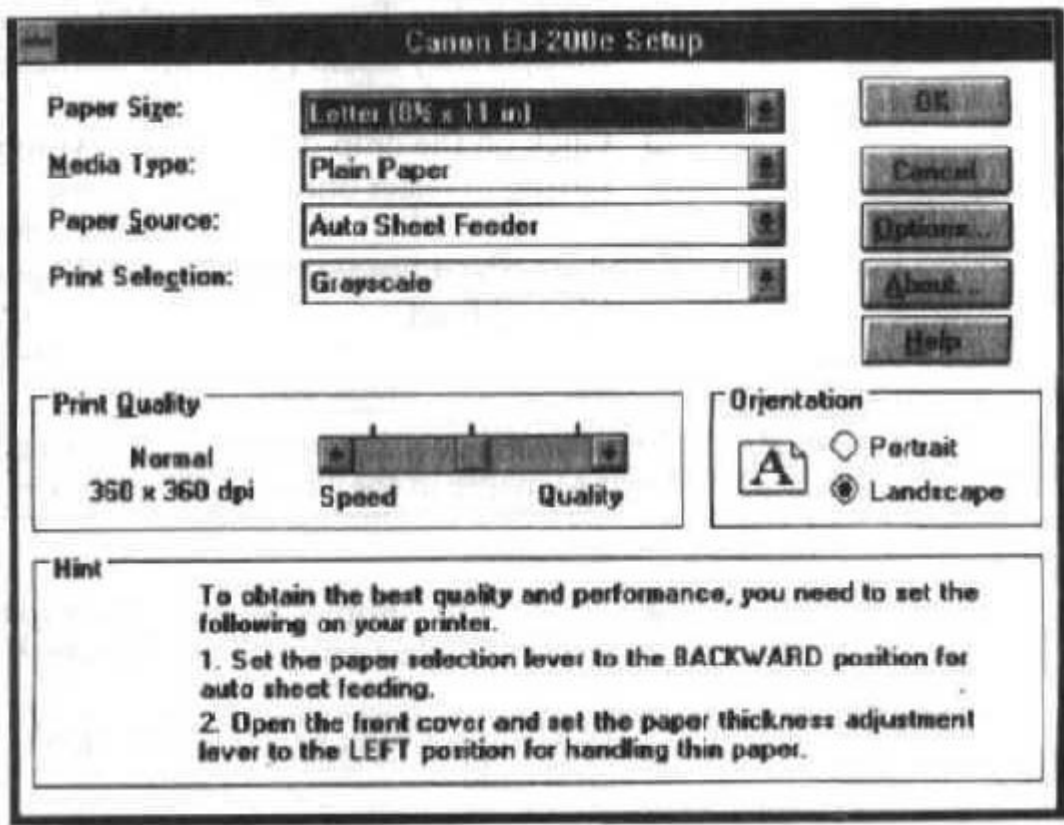
From this screen, you can select the paper size, media type, paper source, print selection, print quality, and orientation.

- Click on the drop-down arrow next to the **Paper Size** setting to select one of the following:

  Letter (8 1/2 x 11 in), which is the default
  Legal (8 1/2 x 14 in)
  A4 (210 x 297 mm)
  B5 (182 x 257 mm)
  #10 Envelope (9.5 x 4.1 in)
  DL Envelope (220 x 110 mm)
  User Defined Size...

  If you select User Defined Size, you see a dialog box that allows you to set the paper size. First select the unit of measurement you are using (inches or millimeters) and then the width and length of the paper.

- Click on the drop-down arrow next to **Media Type** to select one of the following:

  Plain Paper, which is the default
  Transparency

Select Plain Paper when you are printing on ordinary bond paper. Select Transparency when you are printing on transparency stock. (You must manually feed transparencies.)

- Click on the drop-down arrow next to the **Paper Source** setting to select one of the following:

  Auto Sheet Feeder, which is the default
  Manual Feed

NOTE: When using manual feed, it is a good idea to turn off the Print Manager in the Printers dialog box.

- Click on the drop-down arrow next to the **Print Selection** setting to select one of the following:

  Black and White, which is the default
  Grayscale

  Select Black and White when printing text files that have no graphic images. Select Grayscale when you want to produce graphic images in shades of gray.

- Click on the **Print Quality** scroll bar to select one of the following:

  Speed---prints at 180 dots per inch (dpi) in high speed (HS) mode.
  Middle--prints at 360 dpi at normal speed; this is HQ mode.
  Quality--prints at 360 dpi in HQ mode, but makes multiple passes as it prints; this produces very high quality print or are having trouble with banding, try this selection.

- Click on the **Orientation box** setting to select one of the following:

  Portrait, which is the default
  Landscape

- Click on **Options** to display the Options dialog box, which is described in the next section.
- Click on **About** to display copyright information regarding the Canon BJ-200e driver and its version number.
- Click on **Help** to enter the BJ-200e Help program, which displays information that will help you specify your printer settings.

Options

As part of your printer setup, you can specify certain options that
control the half-toning and intensity of your printed graphics and text.
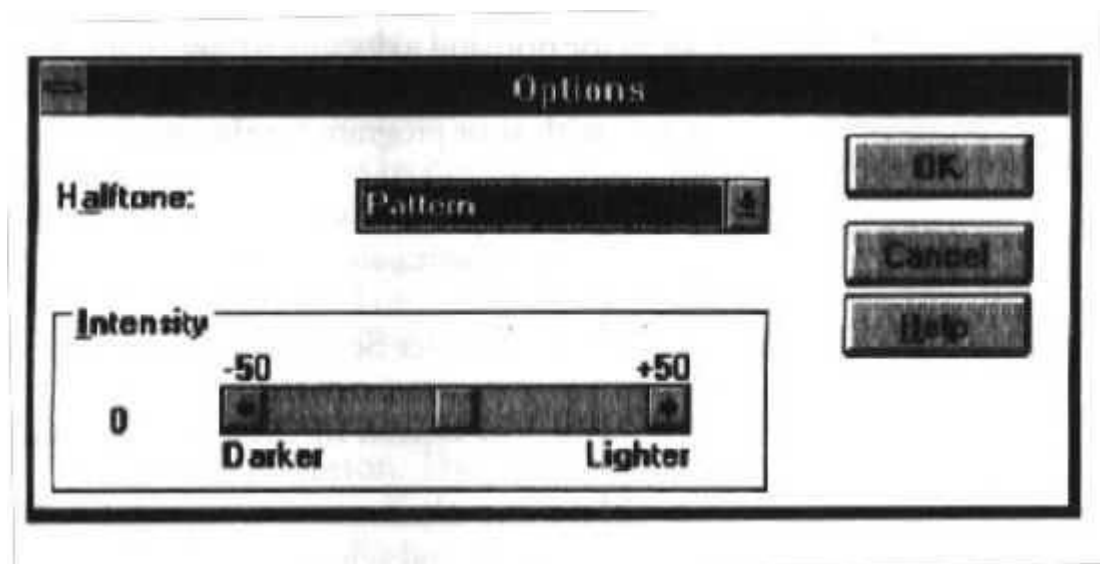
From this screen you can select Halftone options and an Intensity level:

- Click on the drop-down arrow next to the **Halftone** setting to
  select one of the following:

  Pattern, which is the default
  Diffusion

  Pattern is available for Print Selections of Black and White and
  Grayscale. Diffusion is available for Grayscale only.

  Pattern uniformly aligns individual dots to produce shades of gray;
  this method offers fast printing speed. Diffusion randomly places
  individual dots; this method produces subtle gradations and is best
  suited for printing documents that contain finely detailed graphics
  or photographic images. (The Diffusion setting may help eliminate
  banding problems when printing grays or all black images.)

- You can control the intensity with which text and graphics are
  printed using the **Intensity** setting. This controls the threshold at
  which a pixel value is turned on or off. Setting the scroll bar to the
  left results in darker print and setting it to the right results in
  lighter print. The default is the value represented at the center of
  the scroll bar. (In some applications, setting the scroll bar all the
  way to the right causes nothing to print.)

Printing a Document

This procedure provides general steps for printing from the various applications you may run in the Windows environment. The exact steps for printing a document may vary depending on the application program you are using. Refer to the user's manual that came with your program for the exact printing procedure.

1. Start the program you used to create the document, and open the document you want to print.
2. Choose Printer Setup from the File menu.
3. Select the Canon BJ-200e as your printer, and select Setup.
4. Make any adjustments as appropriate for printing your document, and select OK.
5. Select OK to close the Printer Setup window.
6. Choose Print from the File menu.
7. After making any necessary changes to the printing parameters, select OK to start the print job.

NOTE: Turn off the Print Manager if you are feeding paper manually. To do so, clear the Use Print Manager check box in the Printers dialog box within the Control Panel.

Installing the Canon TrueType Fonts for Microsoft Windows 3.1

1. Make sure your computer is turned on.
2. Start Windows 3.1 by typing WIN and pressing **Enter** at the DOS prompt.
3. Choose the Control Panel from the Main Icon Group window in the Program Manager.
4. Open the Fonts Icon. The Fonts dialog box will appear.
5. Choose the Add button to display the Add Fonts dialog box.
6. Insert the diskette containing the Canon TrueType Fonts into the disk drive.
7. In the Drives scroll menu, select the appropriate drive where the disk is located. The fonts will appear in the List of Fonts box.
8. Select the fonts by clicking on the fonts you want to add. To select all the fonts, click the Select All button.
9. Click on OK. The Fonts dialog box will reappear with the installed fonts listed in the Installed Fonts menu.
10. To ensure the fonts appear in your application, click the TrueType button. The TrueType dialog box will appear.
11. Make sure an X appears in the Enable TrueType Fonts box. Click

on OK to exit the TrueType dialog box.

12. Click on Close to exit the Fonts dialog box.

Your installation is now complete.

If you would like to remove the installed fonts, please refer to the
instructions that came with your TrueType Fonts.

Setting Up WordPerfect for Your Printer

This section contains the procedures you perform to install the Bubble
Jet Printer BJ-200e driver for WordPerfect, version 5.1 or 6.0, for MS-
DOS. These instructions assume you have installed WordPerfect and are
familiar with using it.

1. Make sure your computer is turned on.
2. Make a backup copy of the diskette containing the Canon BJ-
   200e printer drivers for WordPerfect (if you have not already
   done so).
3. At the MS-DOS prompt, copy the WordPerfect driver, either
   WP51BJ2E.ALL or WP60BJ2E.ALL, to your WordPerfect
   directory. For example, if you are using WordPerfect 5.1 and your
   directory is WP51, you insert the diskette with the drivers into
   drive A and type this command:

   ```
   COPY A:WP51BJ2E.ALL C:\WP51
   ```

   If you are using WordPerfect 6.0 and your directory is
   wp60, insert the driver diskette into Drive A and type:

   ```
   COPY A:QP60BJ2E.ALL C:\WP60
   ```

4. Change to the WordPerfect directory and start WordPerfect by
   typing WP and pressing **Enter.**
5. At the document screen, press **Shift + F7**.
6. At the Print Options menu, type S to select printer.
7. At the Select Printer menu, type 2.
8. At the additional Printers menu, highlight the BJ-200e driver and
   press **Enter.**

NOTE: If you select the BJ-200e LQ driver, make sure you set DIP
switch 11 to ON for Epson LQ mode. See Chapter 8, Customizing the
Printer, for details.

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9. When the printer file name appears at the bottom of the screen,

press **Enter.**

10. At the printer Helps and Hints menu, press **F7.**
11. At the printer Edit menu, press **F7.**
12. At the Select Printer menu, the BJ-200e driver is highlighted; type 1 to select the driver.
13. Choose 7 to initialize the printer.
14. At the Print Option menu, make sure the selected printer is BJ-200e. Then press **F7** to save all selections.

Setting Up Other Software Applications

If you are not using Windows, follow the guidelines in this section for setting up our applications for use with the Bubble Jet Printer BJ-200e. If you installed the Canon BJ-200e Windows printer driver as described in the previous section and will be printing only under Windows, you can ignore this information.

Software applications are designed to work with specific hardware setups. Most Application programs include an installation program or routine that you run to identify the type of hardware you are using, such as your computer and printer. When you tell your application program what printer you are using, it installs a program, called a printer driver, that supports your printer.

Selecting a Printer Driver

The installation programs for most applications offer a list of printer drivers form which to choose. If you find Canon BJ-200e, BJ-200, BJ-10e, or BJ-10ex on the list, select it. This will give you the fullest range of features.

If you do not find one of these printers on the list, you can select a printer that will have nearly the same operating capabilities as the Bubble Jet Printer BJ-200e.

NOTE: Software developers continuously create printer drivers. If your application software doesn't not list a Canon BJ-200e driver, call your software application's technical support line and ask if a BJ-200e driver is available. If they are unable to assist you, call the Canon help desk to see if a driver is available.

To use the printer in BJ-10 mode, select one of the following printers (they are listed in order of preference):

Canon BJ-200e
Canon BJ-200
Canon BJ-230
Canon BJ-10e/BJ-10ex/BJ-20
IBM Proprinter X24E/XL24
IBM Proprinter X24/XL24E
Canon BJ-130e
IBM Proprinter

To use the printer in Epson LQ mode, select one of the following printers (they are listed in order of preference):

Canon BJ-200e
Canon BJ-200
Canon BJ-230
Canon BJ-20 (LQ)
Canon BJ-10e/BJ-10ex (LQ)
Epson LQ-510
Epson LQ-850
Epson LQ-500
Epson LQ-1050
Epson LQ printer

After selecting a printer, you can use software commands for all the standard printer functions through the application program. This includes bold or double-strike printing, underlining, subscripts, margin control, line-spacing control, and graphics.

Selecting a Printer Control Mode

Your printer has two resident printer control modes: BJ-10 mode and Epson LQ mode. BJ-10 mode is the default.

If you were able to select a Canon BJ printer or the IBM Proprinter X24E through your application program, you will want to use the printer in BJ-10 mode. This mode gives you the fullest range of features.

If your application program does not support the Canon BJ or the IBM Proprinter X24E printers, but does not support an Epson LQ printer, you can use the printer in LQ mode.

You can also select a printer control mode based on specific text features you want to use in your document. If you will be printing only text (no graphics) or printing italic characters, select LQ mode if Epson drivers are available. If you plan to print both text and graphics, select BJ-10 mode.

NOTE: If you will be printing in Windows, use the BJ-200e printer driver for all your printing operations (text and graphics). The BJ-200e Window driver prints all text graphically.

The following table lists the fonts and pitches that are available in each printer control mode.

	Printer Control Mode	
Font design/typeface	**BJ-10**	**Epson LQ**
Prestige	12 characters per inch (cpi) in HQ mode only	10 cpi, 12 cpi, 15 cpi, 17 cpi, 20 cpi, PS
Courier	10 cpi, 12 cpi*, 17 cpi, proportional spacing (PS) **	10 cpi, 12 cpi, 15 cpi, 17 cpi, 20 cpi, PS
Sans Serif	Not available	10 cpi, 12 cpi, 15 cpi, 17 cpi, 20 cpi, PS
Draft (available in HS mode only)	Not available	10 cpi, 12 cpi, 15 cpi, 17 cpi, 20 cpi, PS
Roman	Not available	10 cpi, 12 cpi, 15 cpi, 17 cpi, 20 cpi, PS
Script	Not available	10 cpi, 12 cpi, 15 cpi, 17 cpi, 20 cpi, PS
Orator	Not available	10 cpi, 12 cpi, 15 cpi, 17 cpi, 20 cpi, PS
Orator-S	Not available	10 cpi, 12 cpi, 15 cpi, 17 cpi, 20 cpi, PS

* In BJ-10 mode, Courier 12 cpi is available in HS mode only.
** In BJ-10 mode, proportional spacing is not available in HS mode.

The following table lists the print styles that are available in each printer control mode.

Printer Control Mode

Print Style	BJ-10	Epson LQ
Italic	No	Yes
Emphasized	Yes (via ESC E sequence)	Yes (via ESC E sequence)
Double-high	Yes (via ESC [@ sequence)	Yes (via ESC w sequence)
Double-wide	Yes (via ESC W sequence)	Yes (via ESC W sequence)
Slashed zero	Yes (via ESC [K sequence)	No

You use DIP switch 11 to select the printer control mode. When DIP switch 11 is OFF, which is the default, the printer uses BJ-10 mode. Set DIP switch 11 to ON to select LQ mode. See Chapter 8, Customizing the Printer, for more information on DIP switches.

Software and Printer Compatibility

You use software to send information and instructions to the printer over the cable that connects the printer to the computer. In addition to data, the instructions you send may include special command sequences known as control codes and ESCape sequences. These command sequences tell the printer such things as how many lines to skip and where to start printing.

Some control codes are standard throughout the microcomputer industry and are recognized by all printers. Two examples of these are form feed (FF) and line feed (LF).

ESCape sequences are unique to each printer emulation. ESCape sequences begin with the ESCape character (ESC) followed by one or more other characters.

The ESCape character tells the printer not to print the next character (s), but to use the information to perform a printing control task, such as printing in bold or underlining.

If you would like to receive a list of the control codes and ESCape sequences the printer recognizes, you can use Canon's toll-free fax retrieval system. Call the Canon help desk at 1-800-423-2366 and ask for the fax retrieval system. Then request the BJ-200e Printer Command Summary.

How you enter the control codes and ESCape sequences depends on your application software. Also, your application software may require you to enter the codes and sequences in a specific format, such as decimal rather than hexadecimal. For example, you can use only decimal format with MultiMate Advantage II™, Professional Write™, and PFS: First Choice™.

CHAPTER 6
MAINTAINING THE PRINTER

This chapter covers the care and maintenance of your Canon Bubble Jet Printer BJ-200e. This includes guidelines, cleaning the printer, replacing the ink cartridge, and 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.
- Keep the front cover closed when printing.
- Do not set anything on top of the printer.
- Always use a three-wire, grounded power receptacle (electrical wall outlet with three holes) for your printer's power cord. Do not modify the cord to remove the ground pin.
- Make sure the power is off any time you connect or disconnect the power cord or interface cable.
- Do not move the mechanism that holds the ink cartridge. You may damage delicate mechanical parts.
- Do not touch the print head area on the ink cartridge. Ink may leak out and cause stains.

Cleaning the Printer

To achieve the maximum performance from your printer, clean it regularly.

CAUTION:

- Make sure the printer is turned off before cleaning it, and unplug the power cord.
- When cleaning inside the printer, avoid the area near the print head on the ink cartridge. Do not touch the print head. Ink may leak out and cause stains.
- Do not use any oil or cleanser inside the the printer.
- Use a soft cloth to clean the printer; do not use paper towels or tissues.

- Do not clean the exterior of the printer with volatile liquids, such as thinners or benzine, or any other spray spray-type or chemical cleaners. Chemicals may damage the surface of the printer.
- Do not submerge the printer in water.

Be very careful when cleaning the printer. Follow these steps:

1. Clean the inside of the printer using compressed air pressure or a soft cloth to remove any ink mist or paper debris. Clean especially well around the platen area.

PLATEN AREA
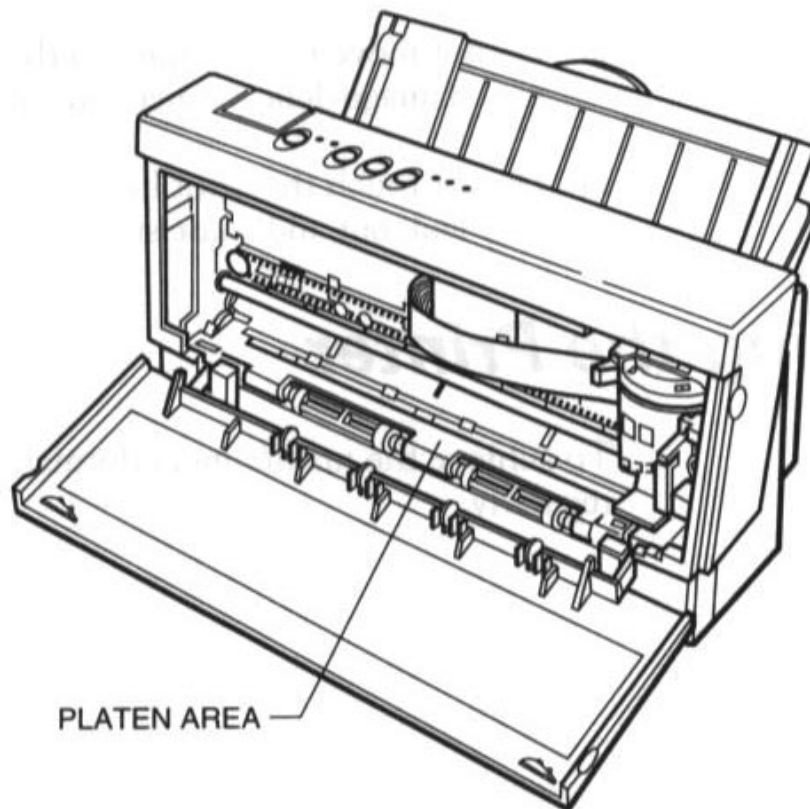
2. Clean the exterior of the printer with a soft cloth moistened with water. Clean any smudges or dust.

Replacing the Ink Cartridge

You use the BC-02 ink cartridge with this printer. Each ink cartridge can print about 200 to 500 letter-size pages (700,000 characters) in HQ mode and 800 to 1000 pages (1,400,000 characters) in HS mode. The actual amount varies according to the print density of a page. If you print a lot of graphics, you may to need to change cartridges more often.

You may need to replace the ink cartridge when the following condition exist:

- You have been using the cartridge for using the cartridge for over one year.
- Your printed output is not crisp and clear, or there are gaps in the characters (missing dots).
- Your output has no ink on it.

If your print quality is not crisp and clear, see Chapter 7, Troubleshooting, for possible solutions. If the problem seems to be your ink cartridge, be sure to clean the print head before determining that you need to replace the cartridge, be sure to clean the print head before determining that you need to replace the cartridge. If you clean the print head several times and your print quality does not improve, you need to replace the cartridge. (The print head cleaning procedure is described in Chapter 2, Setting Up the Printer, and later in this chapter.)

NOTE: Print head cleaning is not a routine maintenance procedure. Only clean the print head if your print quality is inadequate.

CAUTION: The Bubble Jet Printer BJ-200e was designed to be used exclusively with Canon ink cartridges. Other inks may damage the print head capping and cleaning devices in the printer. If you have problems that are caused by using third-party ink or ink cartridges, your warranty will be void.

Installing the Ink Cartridge

CAUTION: Canon makes numerous ink cartridges; the BC-02 is designed specifically for the Bubble Jet Printer BJ-200e and is the only one you should use. Using the BC-01 cartridge will result in decreased print quality.
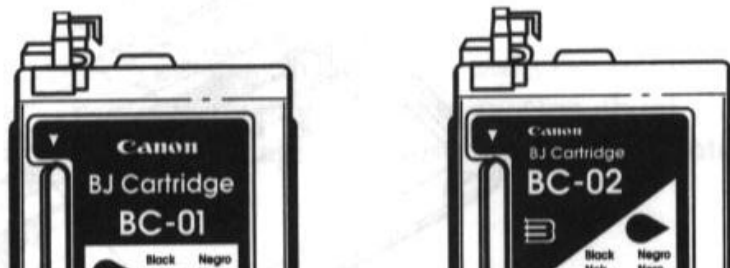
To avoid spilling ink, follow these precautions:

- Do not touch the print head on the ink cartridge or the sharp edges around it.
- Do not hold the ink cartridge, or place it on a table, with the print head facing down, except when you are installing it.
- Do not attempt to disassemble the cartridge.
- Do not vigorously shake the cartridge while handling it.
- Remove the ink cartridge from the printer only when necessary.

CAUTION: Keep the ink cartridge out of children's reach; the ink contains isopropyl alcohol 67-63-0.

To install a new ink cartridge, follow these steps:

1. Make sure the printer is turned off.
2. Open the front cover.
3. Lift the green lock lever on the cartridge holder. Slide the old ink cartridge out of the holder and dispose of it properly.

4. Take the new ink cartridge out of its protective packaging. Slide off the orange protective cap from the print head and then remove the orange tape.

NOTE: Install the ink cartridge immediately after removing it from its protective packaging.

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5. Fit the ink cartridge over the yellow mounting base with the print head facing down. (When installed correctly, the label on the cartridge will be upside down.)
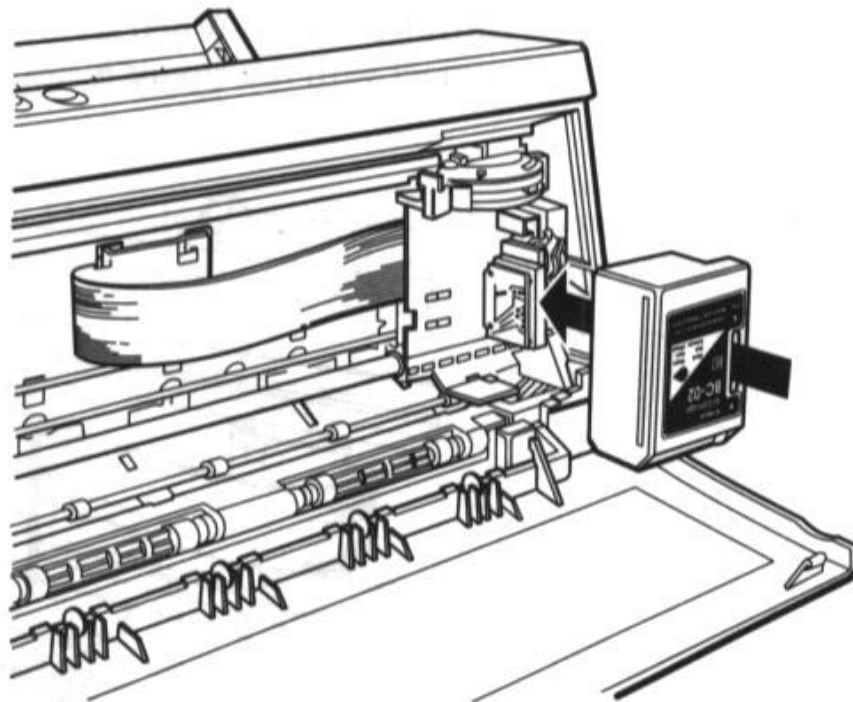
6. Push the lock lever down until it snaps into place.

Make sure there is no resistance when you press on the lock lever, and be sure no gap exists between the ink cartridge and cartridge holder. When secure, the ink cartridge makes contact with the circuit board inside the cartridge holder.

NO GAP HERE

NO GAP HERE

CAUTION: Do not move the ink cartridge after installing it. Moving the ink cartridge to the left and leaving it there may uncap the print head and cause it to dry out.

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7. Close the front cover.

When you are not using the printer, make sure the ink cartridge is in its home position, which is on the right side of the printer.

NOTE: Always use the **POWER** button to turn off the printer. This ensures that the printer moves the print head to the home position and caps it.

Cleaning the Print Head

The print head on a new ink cartridge needs to be cleaned to ensure the best possible print quality. The printer automatically cleans the print head when you follow these steps:

1. Make sure the printer is turned on and on-line.
2. Press the **ON LINE** and **PRINT MODE** buttons at the same time.

The ON LINE indicator will blink for about 12 seconds while the printer cleans the print head. When complete, the ON LINE indicator stops blinking and goes off. Press **ON LINE** to resume printing.

NOTE: Cleaning the print head consumes a small amount of ink. Repeating this procedure unnecessarily reduces the life of the cartridge.

Storing Ink Cartridges

Follow these guidelines when storing your ink cartridges:

- Keep a new ink cartridge in its sealed container until you are ready to use it.
- Store the ink cartridge at room temperature.
- Install the ink cartridge in the printer immediately after you open the sealed container.
- After installing the ink cartridge, perform the print head cleaning procedure.

Transporting the Printer

NOTE: While the Bubble Jet Printer BJ-200e is small and compact, it is not a portable printer and you need to take care when transporting it. The printer's components, such as the sheet feeder, may become damaged if subjected to severe vibration during transportation. Also, your print head may dry out during travel (and become unusable) it it is not capped correctly.

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

1. Press the **POWER** button to turn off the printer. This moves the print head to the home position.
2. Remove any paper from the sheet feeder.
3. Detach the interface cable and the power cord.
4. Open the front cover and tape the ink cartridge to the side of the printer.

TAPE
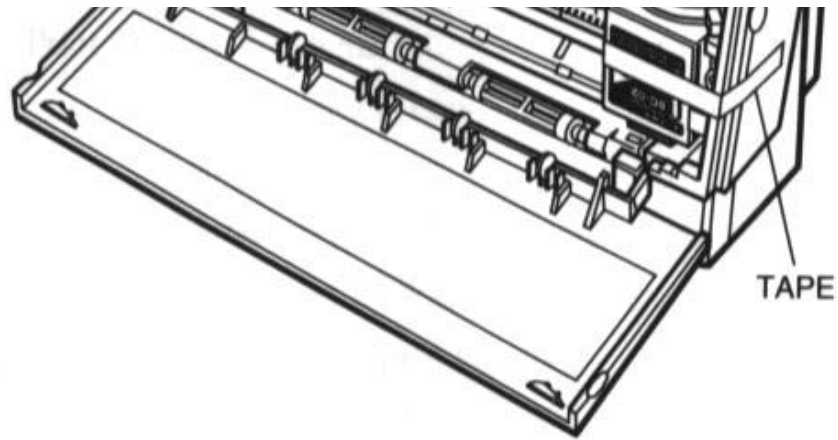
5. Close the front cover.
6. Return the paper rest and paper exit support to their original positions.
7. Repack the printer in its original packing materials.

NOTE: Do not remove the ink cartridge from the printer or ship an ink cartridge from which you have removed the protective cap. An opened ink cartridge that is not installed in the printer may leak, and the print head may dry out. Also, if you do not tape the ink cartridge to the side of the printer, ink may spill into the printer.

CHAPTER 7
TROUBLESHOOTING

This chapter contains information to help you solve printer problems. A problem may have one or a combination of causes, including a malfunction in your computer, software, the printer cable, or the printer. Many printing problems are related to how your software interacts with the printer.

If your printer is not operating properly, try the suggestions in this chapter. The following list shows the problems covered here.

If you have a problem with your printer and you cannot resolve it by referring to the information in this chapter, contact the Canon help desk at 1-800-423-2366 (U.S.A.) or 1-905-795-2083 (Canada). The staff at the help desk is trained in the technical support of Canon's products and should be able to help you with your problem. If your printer requires service, the staff at the help desk can provide you with the telephone number of your local Canon Authorized Service Facility (ASF).

Before contacting your Canon authorized service representative, make sure you know the following information:

- Product name
- Serial number
- Place of purchase
- Nature of problem
- 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:
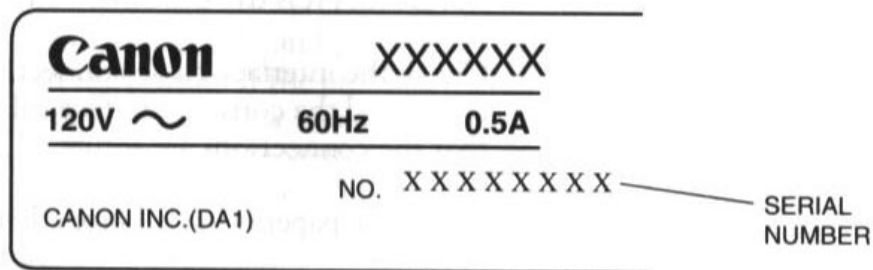
![Note icon] **NOTE:** Attempting to repair the printer yourself may void the warranty.

Operational Problems

This section contains problems and solutions related to the operation of your hardware. Try the solutions in the order listed.

The Printer Does Not Turn On

If you turn on the printer and the indicator lights do not come on, the printer is probably not getting power. Turn off the printer and follow these steps:

1. Make sure the power cord is plugged securely into the AC power receptacle on the back of the printer.
2. Make sure the power cord is plugged securely into the wall outlet. If the power cord is connected to a power strip, make sure the power strip is connected to the outlet and turned on.
3. Turn on the printer. When the printer is connected properly, the **POWER, ON LINE,** and **HQ** (or **HS**) indicators light, and the print head is in the home position. If nothing happens, call the Canon help desk.

Indicators Light, Printer Does Not Print

If the printer is getting power, but still does not print, there may be a problem with the printer or its communication with your computer. Follow these steps to determine the problem:

1. Make sure the printer is on-line. If the ON LINE indicator is not green, press the **ON LINE** button. Then try printing.
2. Check the interface cable connection. Make sure you have connected the correct interface cable to your computer and that the connections are secure.
3. Make sure paper is loaded properly in the sheet feeder.
4. Run one of the test prints described in Chapter 4, Using the Operator Panel. If this prints, the problem is in the communication between the printer and your computer.
5. Make sure the computer is set up correctly for your printer.
6. Print a screen dump from your computer. If it still does not print, there is a problem with your software or your interface port. Call the Canon help desk.

Print Head Moves, Ink Does Not Appear

If the print head is moving, but no ink comes out, the ink cartridge may not be installed properly.

1. Remove the ink cartridge and check that the film is removed from the cap.
2. Reinstall the ink cartridge checking that it is securely latched in place. Make sure there is no gap between the ink cartridge and the holder.
3. Perform the print head cleaning procedure described later in this chapter. (See the Print Head Needs Cleaning section.)

If cleaning the print head does not resolve the problem, your ink cartridge may be out of ink. Replace the ink cartridge and try printing again.

ON LINE, HS, and HQ Indicators Are Blinking

If you turn on the printer and the ON LINE, HS, and HQ indicators are blinking, a RAM/ROM error has probably occurred. Try these steps to clear the problem:

1. Press the **POWER** button to turn off the printer.
2. Wait 15 seconds, and press the **POWER** button again to turn on the printer. If the problem is cleared, the ON LINE indicator will blink for a few seconds and then light steadily, and the print head will move to the home position. If the HS and HQ indicators continue to blink, call the Canon help desk.

ERROR Light Is On

If the ERROR indicator lights, follow these steps:

1. Check the sheet feeder. If the printer is out of paper, load paper into the sheet feeder and press ON LINE to continue printing.
2. Check the printer for a paper jam. If a paper jam has occurred, clear is as described later in this chapter. (See the Paper Jams Occur section.)

Paper Loading Problems

This section contains problems and solutions related to loading paper and envelopes into your printer. Locate the problem you are having, and follow the steps in the order listed.

Paper Does Not Load Into Printer

1. Make sure the paper selection lever (on the right side of the sheet feeder) is set to the correct position:

   - For normal weight paper, set it to the back position.
   - For envelopes or thick paper, set it to the front position.
   - For manually feeding paper, set it to the front position.

2. When manually feeding paper, make sure the printer is on-line. Then insert the single sheet of paper all the way into the sheet feeder and hold it for one second. If the paper is not inserted far enough, the printer cannot load it.
3. Make sure the paper rest is extended and the paper is not curled.

Multiple Sheets Load Into Printer

1. Make sure the paper is not sticking together. Fan the stack of paper before placing in in the sheet feeder. Always fan a stack of paper along the edge that will feed into the printer first.
2. Check that the paper rest is extended and the paper selection lever is in the back position for automatic loading of paper.

NOTE: The paper selection lever must be in the back position before you stack paper in the sheet feeder.

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3. Do not stack too many sheets of paper in the sheet feeder. Try removing a few sheets of paper from the sheet feeder.
4. If the sheet feeder contains different types of paper, load just one type of paper.
5. Do not use curled or bent paper, which may fall into the manual feed slot and cause the paper to misfeed.

Paper Is Loaded Skewed (Printing Is Skewed)

1. Check that the paper rest is extended and the paper selection lever is back.
2. Make sure the stack of paper is straight in the sheet feeder.
3. Check that the right side of the stack of paper is aligned against the right side of the sheet feeder and the left side is aligned against the paper guide.
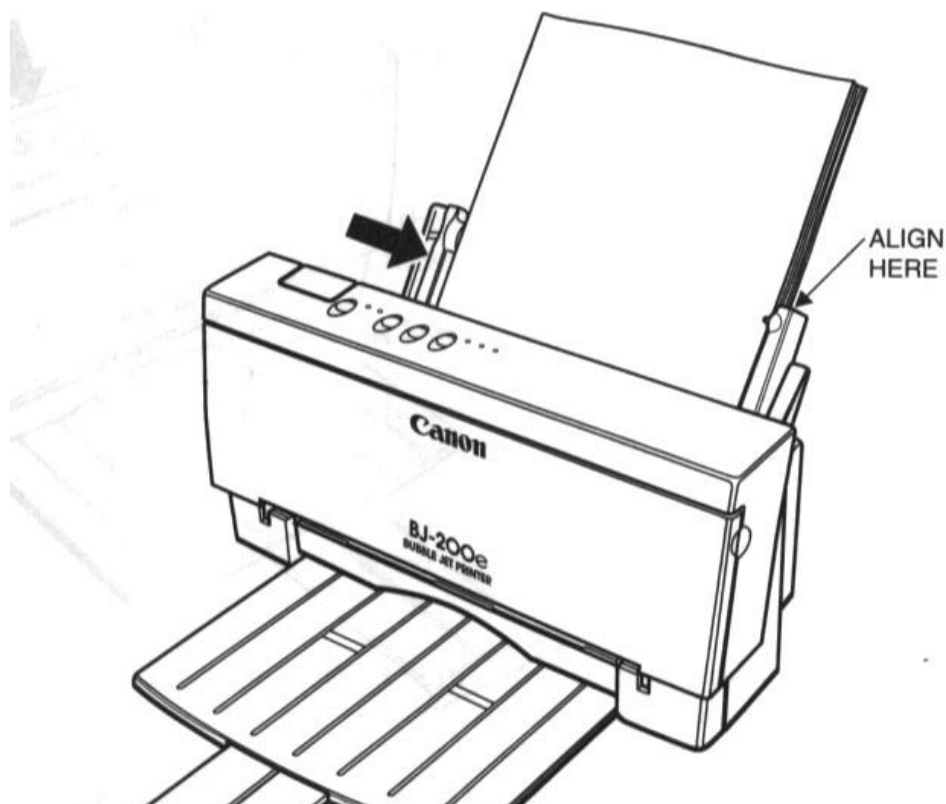
Envelopes Do Not Load

1. Set the paper selection lever to the front position.
2. Make sure the envelope is loaded properly:
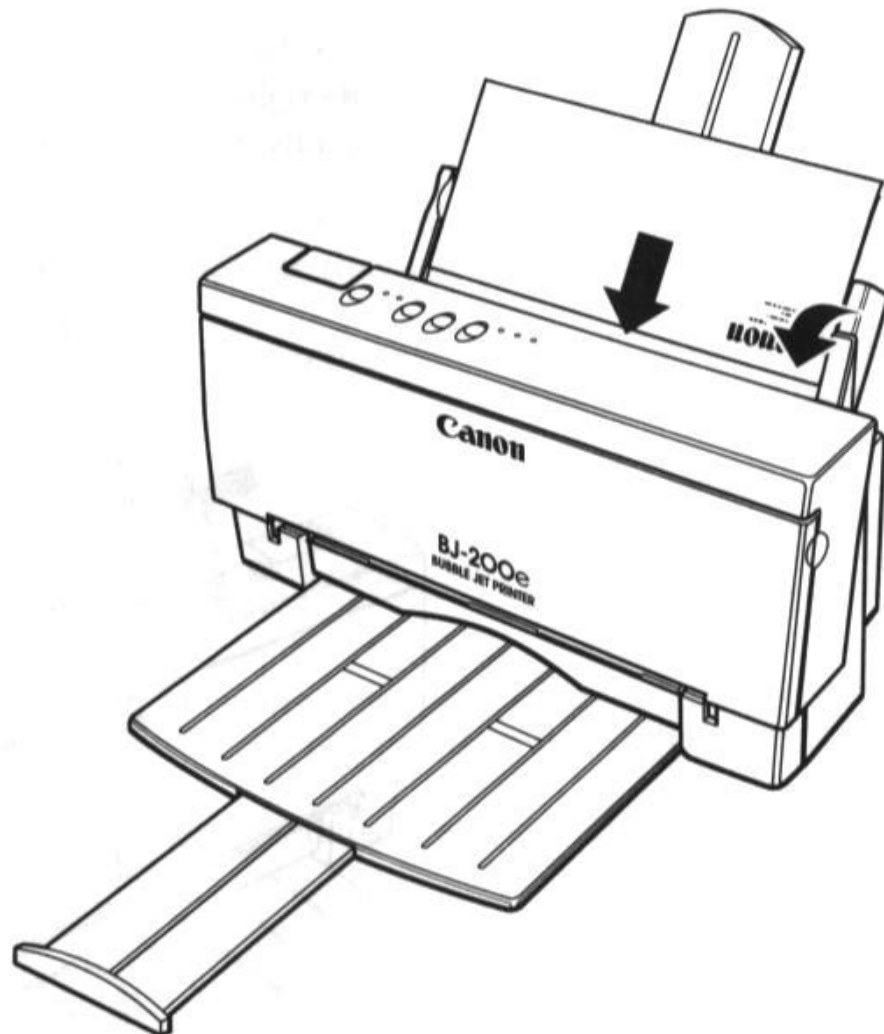
- The flap is toward the sheet feeder.
- The right side of the envelope is aligned against the right side of the sheet feeder.
- The left side is aligned against the paper guide.

3. For manual loading, insert the envelope all the way into the sheet feeder.

Paper Does Not Eject After Printing

Most software applications tell the printer to eject the paper after printing, however, some do not. If the printer does not automatically eject a sheet of paper after printing, follow these steps:

1. Press the **ON LINE** button to set the printer off-line.
2. Press and hold the **LF/FF** button for one second to eject the paper.
3. To resume printing, press the **ON LINE** button.

Paper Jams Occur

If a paper jam occurs, the ERROR indicator lights and the printer goes off-line. Follow these steps to clear the paper jam:

1. Press the **POWER** button to turn off the printer.
2. Gently pull out the sheet of paper with one hand while holding down the printer body with your other hand.
3. If the paper tears leaving part of the sheet inside the printer, open the front cover and remove the paper from inside the printer.
4. Press the **POWER** button to turn on the printer. the POWER, ON LINE, and HQ (or HS) indicators light and the print head moves to the home position. The printer is now ready for printing.

If you are having repeated paper jams, it may be due to the paper you are using:

- Fan the paper before stacking it in the sheet feeder. This keeps the sheet of paper from sticking together.
- Check that the paper you are using and your printing environment are within the specifications of the printer. See Appendix A, Printer Specifications, for details.

Print Quality Problems

If your print quality is not what you expect it to be, check the following list for your problem and a possible remedy, or try the suggestions in the sections below.

Print Results	Most Probable Cause	Remedy
Smudged	Paper type	Try a different paper type
Blurred	Paper type	Try printing on the other side of the paper or try a different paper type; make sure you are using a BC-02 ink cartridge
Fading	Print head is clogged or out of ink	Clean the print head or replace the ink cartridge
White streaks	Print head is clogged	Clean the print head
Dots missing	Print head is clogged	Clean the print head
Irregular dots	Print head is clogged	Clean the print head

Print Density is Low

The print density in HQ mode is higher than HS mode. If you are using HS mode and not getting satisfactory darkness, try HQ mode.

Print Is Not Clear

1. Paper has a right side for printing. If the print quality is not as clear as you would like it to be, try turning the paper over and printing on the other side.
2. Make sure the paper thickness lever (inside the printer) is set for your paper type.
3. Make sure you are using a BC-02 ink cartridge. If not, replace the ink cartridge with a BC-02.

Smudges on Back of Printed Page

If ink happens to get on the printer's platen, the back side of the printed page will have smudge marks. If this occurs, clean the platen by feeding a few sheets of paper through the printer.

Characters Appear Jagged

Check your software application to see what resolution is selected. Printing at 180 dpi will give a jagged look to output. Changing the resolution to 360 dpi should correct this.

Irregular Print Quality

If white streaks appear on the printed page or dots are missing in the

printed output, clean the print head as described in the next section.

Print Head Needs Cleaning

Paper dust or ink may get clogged in an ink nozzle in the ink cartridge. Performing the print head cleaning procedure should clear up this problem.

The printer will automatically clean the print head when you follow these steps:

1. Make sure the printer is turned on and on-line.
2. Press the **ON LINE** and **PRINT MODE** buttons at the same time.

The ON LINE indicator will blink for about 12 seconds while the printer cleans the print head. When complete, the ON LINE indicator stops blinking and goes off. Press **ON LINE** to resume printing.

You can print one of the test prints to check the print quality. See Chapter 4, Using the Operator Panel, for instructions on printing the test prints.

If the print quality is still not crisp and clear after cleaning the print head, try the head cleaning procedure again. If your output is not satisfactory after cleaning the print head several consecutive times, replace the ink cartridge.

Ink Cartridges Continually Run Out of Ink

If your ink cartridge seem to run out of ink before you think they should, follow these steps:

1. Make sure you turn off the printer only when the ink cartridge is in the home position.
2. Only transport the printer when the ink cartridge is in the home position. This caps the ink cartridge and prevents it from damage or drying out. Be sure to tape the ink cartridge in place.

NOTE: This is not a portable printer. Take care when transporting it.

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3. Install an ink cartridge immediately after opening its protective packaging.
4. Only clean the print head when you are having print quality problems.
5. Never unplug the printer or use a power strip to turn off the printer when the printer's power is turned on.

Printing Problems

This section contains problems and solutions related to your printer or the software you are using.

Printout is Wrong

If strange characters appear in your output, there may be a communications problem between the printer and your computer.

If your printed output does not appear as you expect, follow these steps:

1. Make sure your cable connections are secure.
2. Check that the printer control mode (BJ-10 or Epson LQ) matches the printer driver you selected. See Chapter 5, Using the Printer With Your Software, for details on selecting a printer driver and a printer control mode.

NOTE: Make sure your interface cable is no longer that 6.6 feet. Avoid using A/B switch boxes or switch boxes that have a total cable length of more than 6.6 feet.

Characters on Screen Do Not Match Printed Characters

Many graphics characters and special symbols are produced by different ASCII codes on each make of computer and printer. Set the correct character table and printer control mode with the DIP switches.

If you would like to receive a printout for the character sets available in BJ-10 mode and Epson LQ mode, you can use Canon's toll-free fax retrieval system. Call the Canon help desk at 1-800-423-2366 and ask for the fax retrieval system. Then request the BJ-200e Printer Command Summary. This document includes samples of each available character set.

Printing Beyond Edge of Page

If the printer is printing only part of each line, follow these steps:

1. Make sure the paper is aligned correctly in the sheet feeder.
2. Check the software setting for the correct margins.
3. Check the setting of DIP switch 1. This DIP switch controls the horizontal print position:

   ■ For letter-size paper, set it to OFF.

- For envelopes, set it to OFF.
- For A4-size paper, set it to ON

Printout Does Not Match Paper Size

1. Make sure the paper size you select within your printer driver matches the paper loaded in the printer.
2. Make sure the width of the paper on which you are printing matches the width defined by your software so there is always paper between the print head and the platen. The print head may be damaged if it prints directly on the platen.

If the print head does print on the platen, feed a few sheets of paper through the printer to clean the ink off the platen.

Printing Incorrect Number of Lines on Page

If the printer is not printing the number of lines you expect on a page, follow these steps.

1. Check the setting of DIP switch 3. This DIP switch determines the page length:

   - For letter-size paper, set it to OFF
   - For envelopes, set it to OFF.
   - For A4-size paper, set it to ON.

2. Check the top and bottom margin settings of your software.
3. Make sure your paper is loaded correctly.

NOTE: If you need to print 66 lines per page, set DIP switch 2 to the ON position.

Printer Is Not Using Font You Selected With DIP Switches

Your software is overriding the DIP switch settings. Change the initialization or setup string that your software sends. You may need to do this using a menu or screen provided by your application software. See your application user's manual for information about how your software works with your printer.

Computer Indicates a Device Time-out

A device time-out occurs when your computer sends data to the printer but the printer does not respond. The printer may be off, off-line, or not connected to the computer.

CHAPTER 8
CUSTOMIZING THE PRINTER

This chapter describes the factory default settings of the printer and the steps you follow to customize these settings for your particular printing needs.

You will find that the factory default settings provide features to meet most of your printing needs. With these settings, your printer emulates any Canon BJ printer and the IBM Proprinter X24E. This means you can use the printer with any software application that supports these printers.

Make sure the printer's settings match the requirements of your software application. If you have a unique printing requirement, you can customize the printer by changing the DIP switch settings as described in this chapter.

Your printer defaults to BJ-10 mode and provides numerous printing features in this mode. If your software application is designed to print only on an Epson LQ printer, you can use the DIP switches to change the printer control mode to Epson LQ.

You can also enable automatic emulation switching, which allows the printer to switch between BJ-10 mode and Epson LQ mode.

Factory Default Settings

The following table shows the factory default settings of the printer:

Function	Setting
Character Pitch	10 characters per inch (cpi)
Line spacing	6 lines per inch (lpi)
Print quality	High quality (HQ) mode
Beeper	Enabled
Automatic carriage return (CR)	Disabled (no CR with line feed)
Slashed zero	Disabled (zero not slashed)
Vertical tab stops	No vertical tabs set
Horizontal tab stops	Column 9 then every 8th column
Vertical margins	Top margin = first print line Bottom margin = page length

Horizontal margins	Left margin = 0
	Right margin = maximum print width
Print direction (text)	Bi-directional
Font typeface	Courier
Horizontal print position	Letter
Text scale mode	Disabled
Envelope mode	Disabled
Reduction mode	Disabled
Page length	11 inches
Character set	Character Set 1
Automatic line feed (LF)	Disabled (no automatic LF after CR)
Alternate Graphics Mode	Disabled
Code page	437 (IBM USA)
Buffer	Input = Approx. 50.4 KB
	Download = 0 KB
Printer control mode	BJ-10
Automatic emulation switching mode	Disabled

NOTE: This printer has two printer control modes: BJ-10 mode, which emulates the IBM Proprinter X24E, and Epson LQ mode, which emulates the Epson LQ-510. The default setting is BJ-10 mode. If you change this to Epson LQ mode, the default settings also change.

DIP Switch Settings

The DIP switch settings control various printer functions, such as the page length and character set you want to use. The printer functions defined by the DIP switches are determined by the printer control mode. DIP switch 11 selects the printer control mode. When DIP switch 11 is OFF, the printer is in BJ-10 mode. When DIP switch 11 is ON, the printer is in Epson LQ mode.

BJ-10 Mode

When the printer is in BJ-10 mode (DIP switch 11 is OFF), you can set the DIP switches to control the following functions:

DIP switch	Function	OFF	ON
1	Horizontal print position	Letter size or COM 10 envelope	A4 size or DL size envelope
2	Text scale mode	Disabled	Enabled
3	Page length	11 inches	12 inches
4	Character set	Set 1	Set 2
5, 6, 7	Code page	See following descriptions	
8	Automatic carriage return (CR)	Normal line feed (LF)	LF with CR
9	Alternate Graphics Mode (AGM)	Disabled	Enabled
10	Buffer size	Input: 50.4 KB Download: 0 KB	Input: 9.4 KB Download: 41 KB
11	Printer control mode	BJ-10 mode	Epson LQ mode
12	Automatic emulation switching mode	Disabled	Enabled

DIP Switch Functions

DIP switch 1
Use this switch to change the horizontal print position according to the size of your paper. If you are using letter-size paper or COM 10 envelopes, set this switch OFF; the left margin will be 0.25 inch (6.4). If you are using A4-size paper or DL-size envelopes, set this switch ON; the left margin will be 0.13 inch (3.4 mm).

DIP switch 2
If you are using a software application that assumes 66 lines will fit on each page, set this switch to ON. The printer will reduce the line spacing by a factor of 14/15, which is from 62 lines per page to 66 lines per page if line spacing is set to 6 lines per inch (lpi).

DIP switch 3
If you are using letter-size paper, set this switch OFF; this sets the page length to 11 inches. If you are using A4-size paper, set this switch ON; this sets the page length to 12 inches.

DIP switch 4
When this switch is OFF, the printer uses Character Set 1. When this

switch is ON; the printer uses Character Set 2.

DIP switches 5, 6, 7
These switches allow you to select the following code page tables.

	DIP switches		
Code page	**5**	**6**	**7**
437	OFF	OFF	OFF
850	OFF	OFF	ON
850	OFF	ON	OFF
850	ON	OFF	ON
850	ON	ON	OFF
860	ON	ON	ON
863	OFF	ON	ON
865	ON	OFF	OFF

To see the samples of the character sets available with each code page table, use Canon's toll-free fax retrieval system. Call the Canon help desk and request the fax retrieval system; then request the BJ-200e Printer Command Summary.

DIP switch 8
When this switch is OFF, the printer performs a normal line feed. Set this to ON if you want the printer to perform a carriage return after each line feed.

DIP switch 9
Set this switch ON to enable Alternate Graphics Mode (AGM). In this mode, the printer accepts high-resolution, 24-dot, all-points-addressable (APA) graphics commands similar to those used with conventional 24-pin printers.

DIP switch 10
When this switch is OFF, the printer allocates the entire buffer space (50.4 KB) to the input buffer. When you are using downloaded fonts, change this switch to ON; the printer will allocate 41 KB of buffer space for downloaded fonts.

DIP switch 11
When this switch is OFF, the printer is in BJ-10 mode. When this switch is ON, the printer is in Epson LQ mode.

DIP switch 12
Set this switch ON to enable automatic emulation switching mode. In this mode, the printer detects whether the codes being sent are BJ-10 mode or Epson LQ mode. It then selects the printer control mode to match the printer driver selected in the MS-DOS application.

When DIP switch 12 is OFF, the printer control mode is set by DIP switch 11 (OFF selects BJ-10 mode, ON selects Epson LQ mode).

Automatic emulation mode is applicable for MS-DOS applications only. When you are using Windows, the BJ-200e printer driver for Windows selects the appropriate control mode regardless of the settings of DIP switches 11 and 12.

Setting DIP switch 12 ON reduces the input buffer by 9.4 KB.

When using Windows, set DIP switches 10, 11 and 12 OFF to maximize the size of your input buffer (50.4 KB).

NOTE:

- If the printer does not seem to be switching between BJ-10 and Epson LQ mode, disable this function and set DIP switch 11 to match your application's printer driver.
- If you are using a printer switching device, you must allow at least ten seconds for the printer to recognize an emulation change. If your printer switching device switched data in less than ten seconds, automatic emulation switching will not function properly.

Epson LQ Mode

When the printer is in Epson LQ mode (DIP switch 11 is ON), you can set the DIP switches to control the following functions:

DIP switch	Function	OFF	ON
1	Horizontal print position	Letter size or COM 10 envelope	A4 size or DL size envelope
2	Text scale mode	Disabled	Enabled
3	Page length	11 inches	12 inches
4	Character set	Italics	Graphics
5, 6, 7	International Character Set	See following descriptions	
8, 9, 10	Typeface	See below	

| 11 | Printer control mode | BJ-10 mode | Epson LQ mode |
| 12 | Automatic emulation switching mode | Disabled | Enabled |

DIP switch 1

Use this switch to change the horizontal print position according to the size of your paper. If you are using letter-size paper or COM 10 envelopes, set this switch OFF; the left margin will be 0.25 inch (6.4 mm). If you are using A4-size paper or DL-size envelopes, set this switch ON; the left margin will be 0.13 inch (3.4 mm).

DIP switch 2

If you are using a software application that assumes 66 lines will fit on each page, set this switch to ON. The printer will reduce the line spacing by a factor of 14/15, which is from 62 lines per page to 66 lines per page if line spacing is set to 6 lines per inch (lpi).

DIP switch 3

If you are using letter-size paper, set this switch OFF; this sets the page length to 11 inches. If you are using A4-size paper, set this switch ON; this sets the page length to 12 inches.

NOTE: In Epson LQ mode, you use this DIP switch with one-half reduction mode only.

DIP switch 4

When this switch is OFF, the printer uses the Epson Italics character set, which includes italic characters. When this switch is ON, the printer uses the Epson Graphics character set, which is the same as the MS-DOS code page 437 (this character set includes symbols, lines, corners, and European characters).

To see samples of the character sets available in Epson LQ mode, use Canon's toll-free fax retrieval system. Call the Canon help desk and request the fax retrieval system; then request the BJ-200e Printer Command Summary.

DIP switches 5, 6, 7

These switches allow you to select one of eight international character sets. These character sets provide you with the characters and symbols used in other languages.

DIP switches

Character set	5	6	7
USA	OFF	OFF	OFF
United Kingdom	OFF	OFF	ON
Germany	OFF	ON	OFF
France	OFF	ON	ON
Denmark	ON	OFF	OFF
Sweden	ON	OFF	ON
Italy	ON	ON	OFF
Spain	ON	ON	ON

DIP switches 8, 9, 10
These switches allow you to select one of eight font typefaces.

DIP switches

Typeface	8	9	10
Roman	OFF	OFF	OFF
Sans serif	OFF	OFF	ON
Draft	OFF	ON	OFF
Courier	OFF	ON	ON
Prestige	ON	OFF	OFF
Script	ON	OFF	ON
Orator	ON	ON	OFF
Orator-S	ON	ON	ON

DIP switch 11
When this switch is OFF, the printer is in BJ-10 mode. When this switch is ON, the printer is in Epson LQ mode.

DIP switch 12
This switch enables or disables automatic emulation switching mode.
(See page 97 for a description.)

Changing a DIP Switch Setting

The Dip switches are located to the left of the operator panel under a small cover.
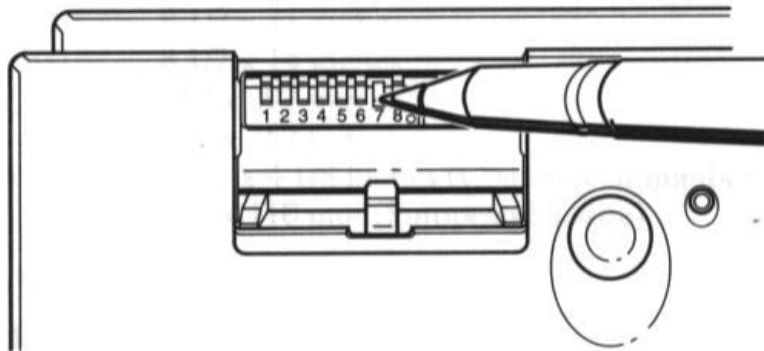
A DIP switch is OFF when it is up, and ON when it is down. The factory default setting for each DIP switch is OFF.

To change a DIP switch setting, follow these steps:

1. Make sure the printer is turned off.
2. Open the DIP switch cover on the top of the printer. Pull the cover toward you lifting from the notch at the top of the cover. You may need to use a thin object, such as a coin, to release the cover. The cover slides down into the printer.
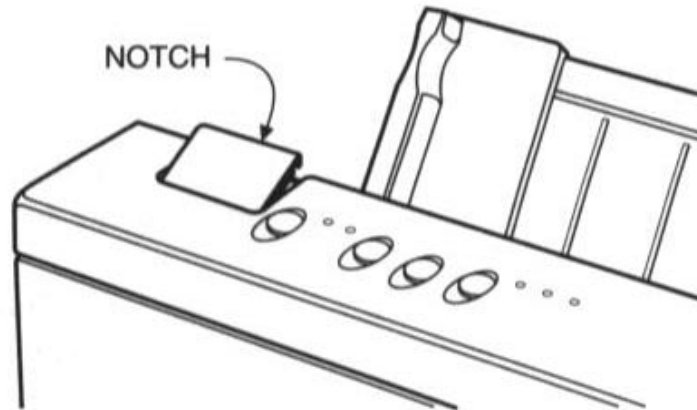
3. Use a pointed object, such as a ballpoint pen, to change the DIP switch settings. A DIP switch is OFF when it is up, and ON when it down.

4. Close the DIP switch cover after making your selections.

The new DIP switch settings take effect when you turn on the printer.

If you turn off or reset the printer, or if the printer receives the Set Initial Conditions command from a software program, the printer resets its functions to the settings defined by the DIP switches.

Appendix A
Printer Specifications

This appendix lists the specifications of your printer.

Printing Method
Bubble jet ink on-demand

Paper Handling
Automatic feed
Manual feed

Sheet Feeder Capacity

Plain Paper:	Maximum 100 sheets of letter, legal, A4, or B5 (20 lb or 75 g/m^2); maximum thickness of stacked paper = 0.39 inch (10 mm)
Envelope:	15 envelopes (U.S. Commercial number 10 or European DL-size)

Paper Size

Letter:	8 1/2 x 11 inches
Legal:	8 1/2 x 14 inches
A4:	210 x 297 mm
B5:	182 x 257 mm
Envelope:	9 1/2 x 4 1/8 inches (Commercial number 10) 220 x 110 mm (European DL-size)

Paper Type
Plain paper
Envelopes (Commercial number 10 or European DL-size)
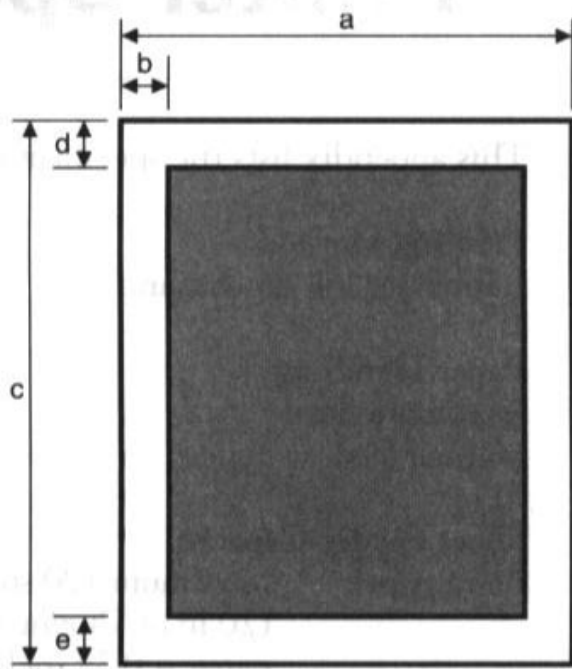Transparency film (Canon #Q07-0001-M1 or 3M CG-3480) available with manual feed

Paper Weight
17 to 24 lb (64 to 90 g/m^2) with automatic feed
17 to 28 lb (64 to 105 g/m^2) with manual feed

Printing Area
Paper:

Horizontal

a 8.3 to 8.5 inches (210 to 216 mm)

b 0.25 inch (6.4 mm) -- Letter-size paper
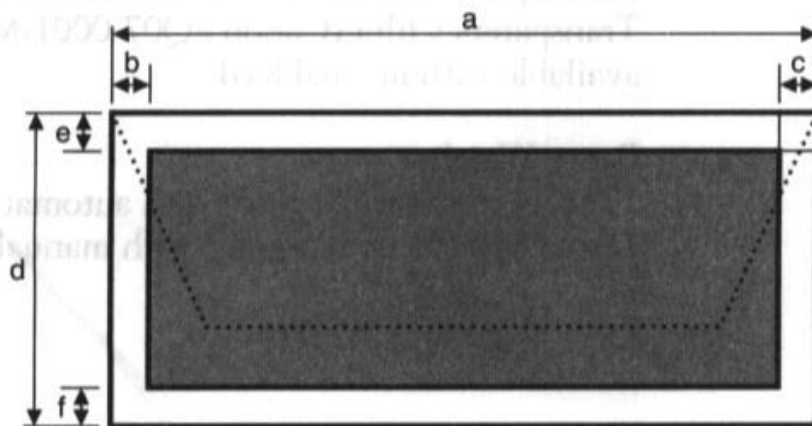   3.4 mm (0.13 mm) -- A4-size paper

Vertical

c 11 to 14 inches (279 to 356 mm)
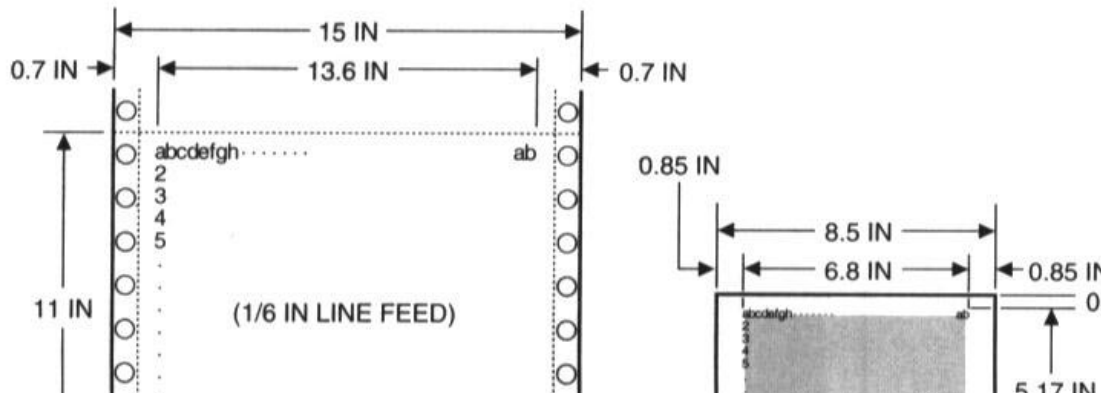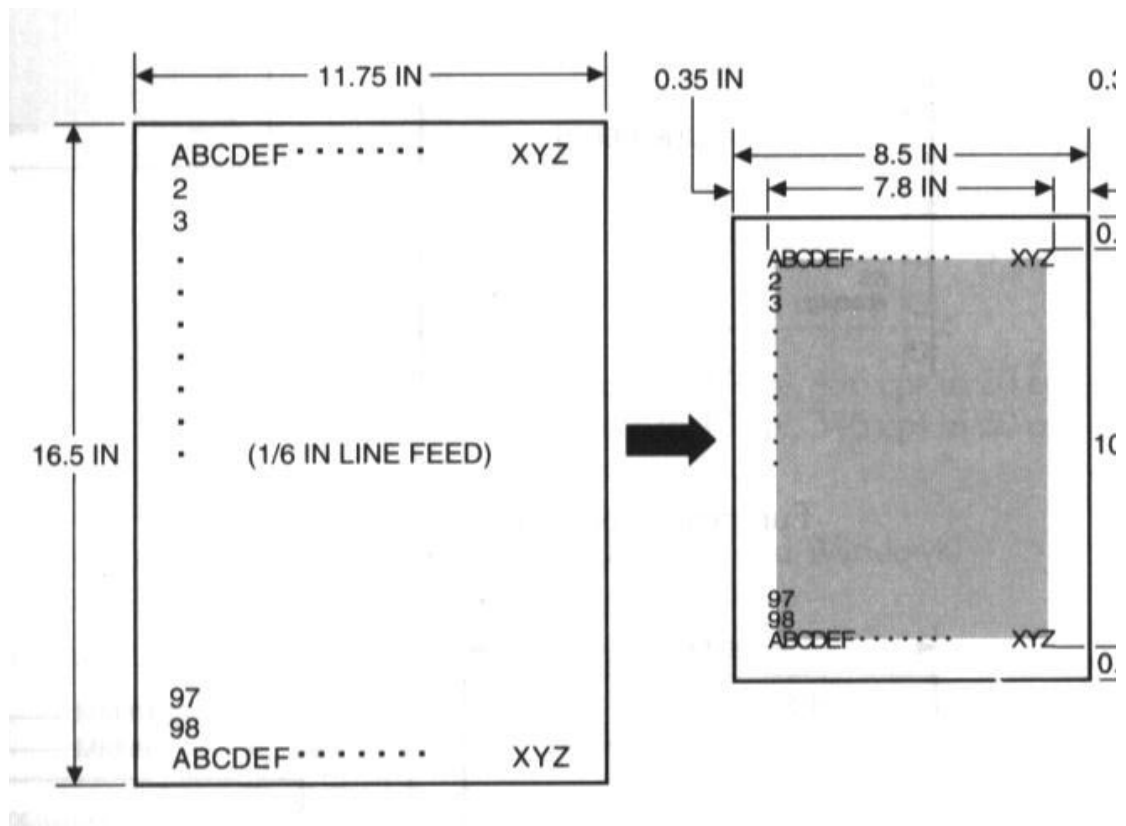
d 0.125 inch (3.18 mm)

e 0.3 inch (7.6 mm)

Envelopes:

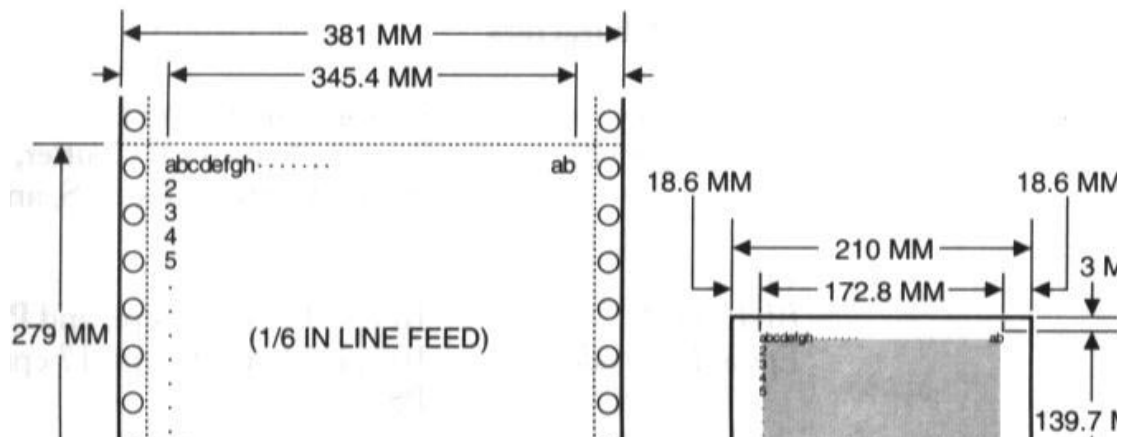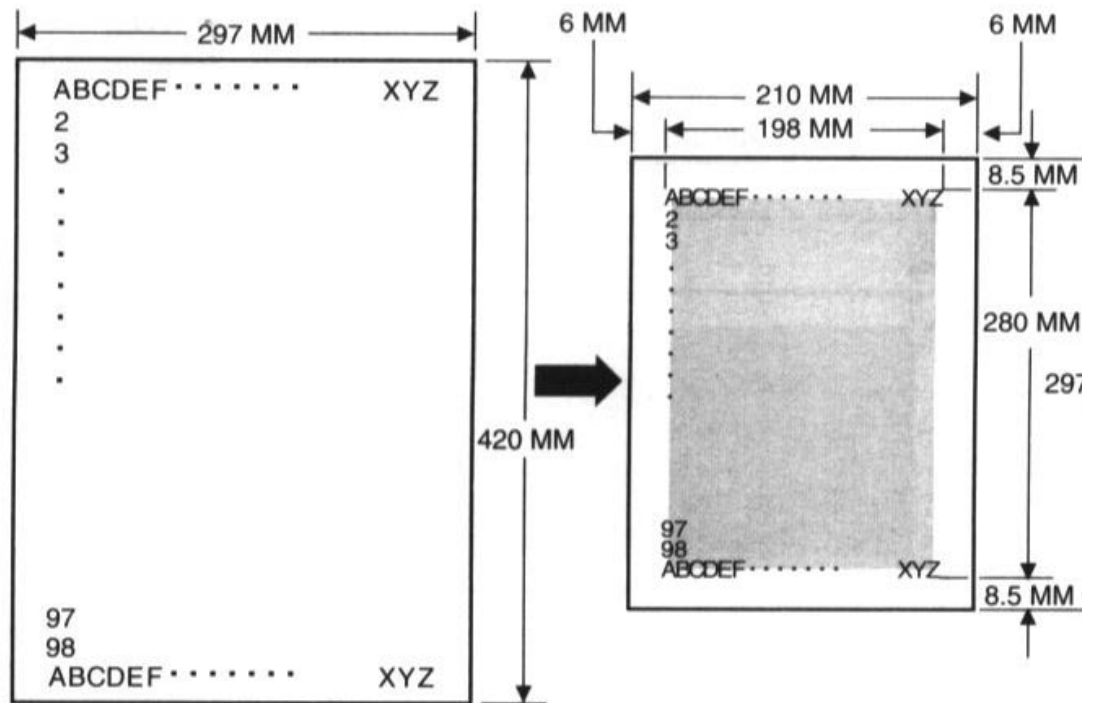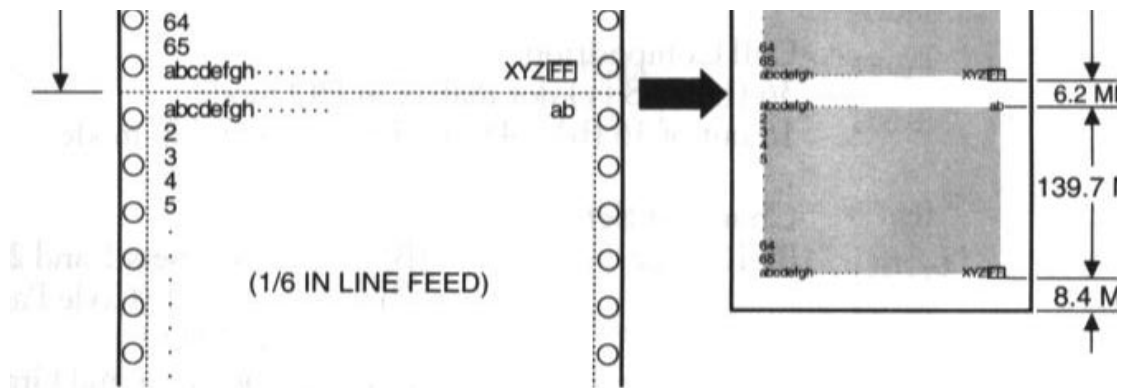|	Commercial number 10	DL-size
Horizontal		
a	9.5 inches	220 mm
b	0.25 inch	6.4 mm
c	1.2 inches	10.4 mm
Vertical		
d	4.1 inches	110 mm
e	0.67 inch	17.0 mm
f	1.0 inch	25.4 mm

Reduction Mode

U.S. Paper sizes:
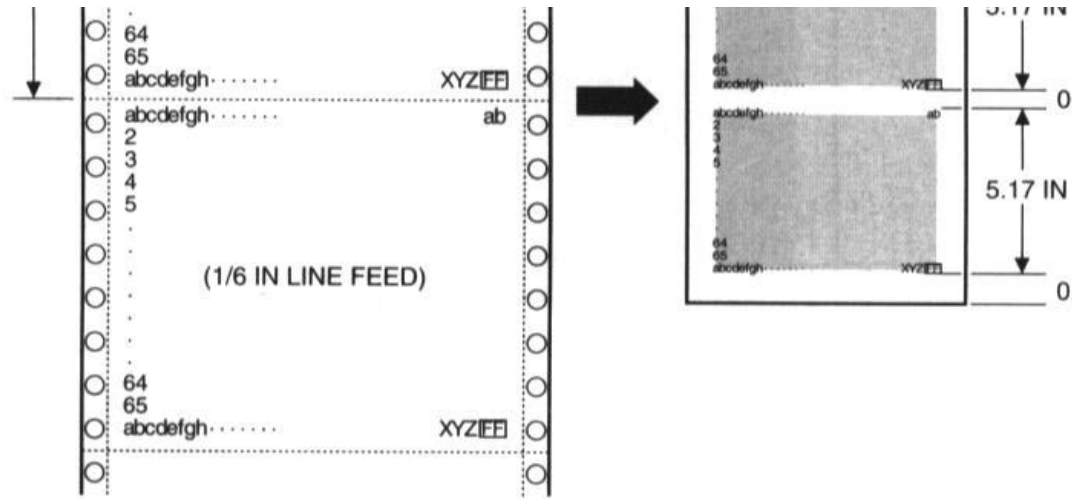
European paper sizes:

Printing Speed

HS mode: 248 cps in 10 cpi, 496 cps in 20 cpi

HQ mode: 173 cps in 10 cpi, 346 cps in 20 cpi

Printing Direction

Bi-directional in text (both in MS-DOS and Windows)
Unidirectional in graphics

Printing Width

Maximum 8 inches (200 mm)

Line Feed Speed

100 ms/line at 1/6-inch line

Resident Printer Control Modes

BJ-10 mode: IBM Proprinter X24E emulation

Epson LQ mode: Epson LQ-510 emulation

Line Feed Pitch

BJ-10 mode: 1/6, 1/8, n/60, n/72, n/180, n/216, and n/360 inches (n: programmable)

Epson LQ mode: 1/6, 1/8, n/180, and n/360 inches (n: programmable)

Printing Characters

Typeface:

BJ-10 mode   Prestige and Courier

Epson LQ mode   Roman, Sans serif, Courier, Prestige, Script, Orator, Orator-S, and Draft

Pitch:

BJ-10 mode   10 cpi, 12 cpi, 17 cpi, and PS

Epson LQ mode   10 cpi, 12 cpi, 15 cpi, 17 cpi, 20 cpi, and PS

Cell Composition:

36 (h) x 48 (v) dot matrix in HQ mode
18 out of 36 (h) x 48 (v) dot matrix in HS mode

Character Set:

BJ-10 mode	IBM Character Sets 1 and 2 and All Characters Chart (Code Page 437, 850, 860, 863, and 865)
Epson LQ mode	Italics character set and Graphics character set

Maximum Number of Characters per Line
BJ-10 mode

Mode	Pitch	Characters per line
10 cpi	10 cpi	80 cpl
10 cpi double-wide	5 cpi	40 cpl
10 cpi condensed	17 cpi	136 cpl
10 cpi condensed, double-wide	8 1/2 cpi	68 cpl
12 cpi	12 cpi	96 cpl
12 cpi double-wide	6 cpi	48 cpl
Proportional spacing	PS	Varies

Epson LQ mode

Mode	Pitch	Characters per line
10 cpi	10 cpi	80 cpl
10 cpi double-wide	5 cpi	40 cpl
10 cpi condensed	17 cpi	136 cpl
10 cpi condensed, double-wide	8 1/2 cpi	68 cpl
12 cpi	12 cpi	96 cpl
12 cpi double-wide	6 cpi	48 cpl
12 cpi condensed	20 cpi	160 cpl
12 cpi condensed, double-wide	10 cpi	80 cpl
15 cpi	15 cpi	120 cpl
15 cpi double-wide	7 1/2 cpi	60 cpl
Proportional spacing	PS	Varies

Graphic Image Print

Data format: Vertical 8, 24, and/or 48-dot format

Resolution: Horizontal 60, 120, 180, 240, or 360 dpi

Buffer

BJ-10 mode

Input buffer:	50.4 KB (or 9.4 KB)
Download buffer:	0 KB (or 41 KB)

Epson LQ mode

Input buffer:	11 KB
Download buffer:	39.4 KB

Automatic emulation mode

Input buffer:	9.4 KB
Download buffer:	41 KB (BJ-10 mode, DIP switch 10 ON)
	0 KB (BJ-10 mode, DIP switch 10 OFF)
	39.4 KB (Epson LQ mode)

Interface

8-bit parallel	To receive information regarding the interface specifications, use Canon's toll-free fax retrieval system. Call the Canon help desk at 1-800-423-2366 and ask for the fax retrieval system. Then request the BJ-200e Interface Specifications.

Ink Cartridge

Type:	BC-02 (single cartridge ink supply)
Print head:	64 bubble jet nozzles
Ink color:	Black
Number of characters printed:	Approx. 700,000 characters/cartridge in HQ mode Approx. 1,400,000 characters/cartridge in HS mode
Ink amount:	Approx. 0.9 oz (28g)

Acoustic Noise Level Per ISO 7779

Approx. 42 dB(A)

Operating Environment

Temperature: 41º F to 95º F (5º C to 35º C)

Humidity: 10% to 90% RH (no condensation)

Storing Environment

Temperature: 32º F to 95º F (5º C to 35º C)

Humidity: 5% to 95% RH (no condensation)

Power Source
USA/Canada AC 120V, 60Hz
UK/Australia AC 240V, 50Hz
Europe AC 230V, 50Hz

Power Consumption
7 watts maximum nonprinting
23 watts average printing
30 watts maximum printing

Dimensions

Width: 13.7 inches (347 mm)

Depth: 7.6 inches (193.5 mm)

Height: 6.8 inches (173 mm)

Weight
Approx. 6.6 lbs (3.0 kg)