

At your side.
brother®

USER'S GUIDE

DCP-110C

DCP-310CN



At your side.
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Version C

If you need to call Customer Service

Please complete the following information for future reference:

Model Number: DCP-110C and DCP-310CN
(Circle your model number)

Serial Number:* _____

Date of Purchase: _____

Place of Purchase: _____

*** The serial number is on the back of the unit. Retain this User's Guide with your sales receipt as a permanent record of your purchase, in the event of theft, fire or warranty service.**

Register your product on-line at

<http://www.brother.com/registration>

By registering your product with Brother, you will be recorded as the original owner of the product.

Compilation and Publication Notice

Under the supervision of Brother Industries Ltd., this manual has been compiled and published, covering the latest product descriptions and specifications.

The contents of this manual and the specifications of this product are subject to change without notice.

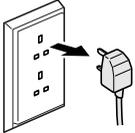
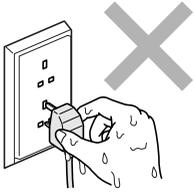
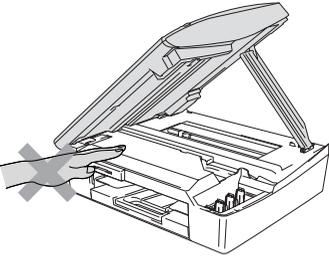
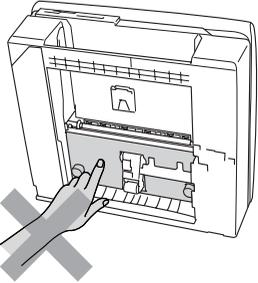
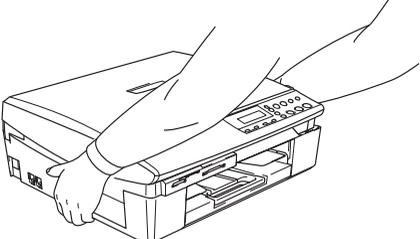
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Safety precautions

To use the DCP safely

Please refer to these instructions for later reference and before attempting any maintenance.

WARNING

	<p>There are high voltage electrodes inside the DCP. Before you clean the DCP, make sure you have unplugged the power cord from the electrical socket.</p> 		<p>Do not handle the plug with wet hands. Doing this might cause an electrical shock.</p> 
	<p>To prevent injuries, be careful not to put your hands on the edge of the DCP under the scanner cover.</p> 		<p>To prevent injuries, be careful not to touch the area shaded in the illustration.</p> 
	<p>When you move the DCP, place a hand at each side of the unit so you are supporting the base when you lift it. (See the illustration on the right.) Do not carry the DCP by holding the scanner cover.</p> 		

 **WARNING**

This product must be installed near an electrical socket that is easily accessible. In case of emergencies, you must disconnect the power cord from the electrical socket in order to shut off power completely.

 **Caution**

To maintain the best print quality, we recommend that you use the On/Off key to turn off your DCP. Do not unplug the power cord from the electrical socket, unless moving the machine or performing maintenance. If you need to disconnect your machine from the power, you will need to set the date and time again. (See Quick Setup Guide.)

Choosing a location

Place your DCP on a flat, stable surface that is free of vibration and shocks, such as a desk. Put the DCP near a standard, grounded electrical socket. Choose a location where the temperature remains between 10° and 35°C.

! Caution

- Avoid placing your DCP in a high-traffic area.
- Avoid placing your DCP on the carpet.
- Do not place near heaters, air conditioners, water, chemicals, or refrigerators.
- Do not expose the DCP to direct sunlight, excessive heat, moisture, or dust.
- Do not connect your DCP to electrical sockets controlled by wall switches or automatic timers.
- Disruption of power can wipe out information in the DCP's memory.
- Do not connect your DCP to electrical sockets on the same circuit as large appliances or other equipment that might disrupt the power supply.

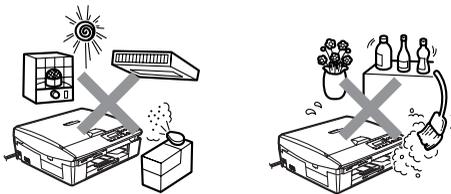


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1 Introduction

Using this Guide

Thank you for buying a Brother Digital Copier/Printer (DCP). Your DCP is simple to use, with LCD screen instructions to guide you through programming it. You can make the most of your DCP by reading through this Guide.

Finding information

All the chapter headings and subheadings are listed in the Table of Contents. You will be able to find information about a specific feature or operation by checking the Index at the back of this Guide.

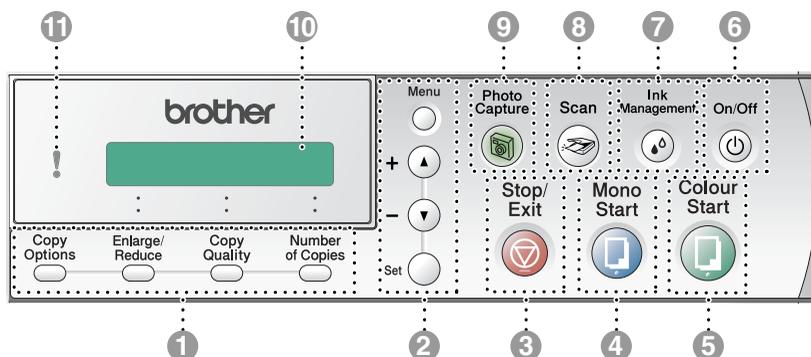
Symbols used in this Guide

Throughout this Guide you will see special symbols alerting you to important warnings, notes and actions. To make things clearer and to help you press the correct keys, we used special fonts and added some of the messages that will appear in the LCD.

- Bold** Bold typeface identifies specific keys on the DCP control panel.
- Italics* Italicized typeface emphasizes an important point or refers you to a related topic.
- Courier New Courier New type face identifies the messages on the LCD of the DCP.

-  Warnings inform you what to do to avoid possible personal injury.
-  Cautions specify procedures you must follow or avoid to prevent possible damage to the DCP.
-  Notes tell you how you should respond to a situation that may arise or give tips about how the current operation works with other features.
-  Improper Setup alerts you to devices and operations that are not compatible with the DCP.

Control panel overview



1 Copy keys

(Temporary settings):

Copy Options

You can quickly and easily select temporary settings for copying.

Enlarge/Reduce

Lets you enlarge or reduce copies depending on the ratio you select.

Copy Quality

Use this key to temporarily change the quality for copying.

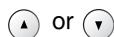
Number of Copies

Use this key to make multiple copies.

2 Menu Mode:

Menu

Lets you access the Menu to program.



Press to scroll through the menus and options.

Also you can use these keys to enter the number.

Set

Lets you store your settings in the DCP.

3 **Stop/Exit**



Stops an operation or exits from the menu.

4 **Mono Start**



Lets you start making copies in black and white.

Also, let you start a scanning operation (in colour or black, depending on the scanning setting on your PC).

5 **Colour Start**



Lets you start making copies in full colour.

Also, let you start a scanning operation (in colour or black, depending on the scanning setting on your PC).

6 **On/Off**



You can turn the DCP on or off. Even if you turned the DCP off, it will periodically clean the print head to preserve print quality.

7 **Ink Management**



Lets you clean the print head, check the print quality and the available ink volume.

8 **Scan**



Lets you access Scan mode.

9 **PhotoCapture**



Lets you access the PhotoCapture Center™.

10 **Liquid Crystal Display (LCD)**

Displays messages on the screen to help you set up and use your DCP.

The LCD examples in this guide are for models with a one-line display.

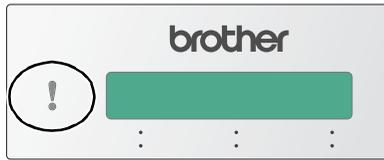
There may be slight differences between the examples provided and models with a two-line display.

11 **Light-Emitting Diode (LED)**

The LED will show the DCP status.

Status LED indications

The status LED (Light Emitting Diode) is a light that shows the DCP status.



LED	DCP status	Description
 Off	Ready	The DCP is ready for use.
 Red	Cover open	The cover is open. Close the cover. (See <i>Error messages</i> on page 5-1.)
	Ink empty	Replace the Ink cartridge with a new one. (See <i>Replacing the ink cartridges</i> on page 5-20.)
	Paper error	Put paper in the tray or clear the paper jam. Check the LCD message. (See <i>Troubleshooting and routine maintenance</i> on page 5-1.)
	Out of memory	Memory is full. (See <i>Error messages</i> on page 5-1.)
	Others	Check the LCD message. (See <i>Troubleshooting and routine maintenance</i> on page 5-1.)

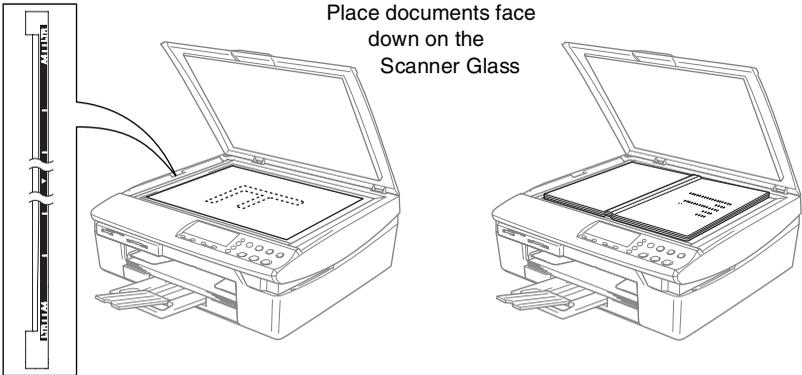
Load documents

You can copy and scan from the scanner glass.

Using the scanner glass

You can use the scanner glass to copy or scan pages of a book or one page at a time. Documents can be up to A4 size (21.6 to 29.7 cm).

- 1 Lift the document cover.



- 2 Using the document guidelines on the left, center the document face down on the scanner glass.
 - 3 Close the document cover.
- ! If the document is a book or is thick, do not slam the cover or press on it.

About paper

The print quality can be affected by the type of paper you use in the DCP.

To get the best print quality for the settings you've chosen, always set the Paper Type to match the type of paper you load.

You can use plain paper, inkjet paper (coated paper), glossy paper, transparencies and envelopes.

We recommend testing various paper types before purchasing large quantities.

For best results, use the recommended paper.



- When you print on inkjet paper (coated paper), transparencies and glossy paper, be sure to select the proper media in the “Basic” tab of the printer driver or in the Paper Type setting of the menu.
- When you print on Brother glossy paper, load the instruction sheet included with the glossy paper in the paper tray first, and then place the glossy paper on the instruction sheet.
- When you use transparencies or glossy paper, remove each sheet immediately to prevent smudging or paper jams.
- Avoid touching the printed surface of the paper immediately after printing, the surface may not be completely dry and may stain your fingers.

Recommended Paper

To get the best print quality, we suggest using Brother paper. (See table below.)

If Brother paper is not available in your country, we recommend testing various papers before purchasing large quantities.

We recommend using “3M Transparency Film” when you print on transparencies.

Brother Paper

Paper Type	Item
A4 Plain	BP60PA
A4 Glossy	BP60GLA
A4 Inkjet (Photo Matte)	BP60MA

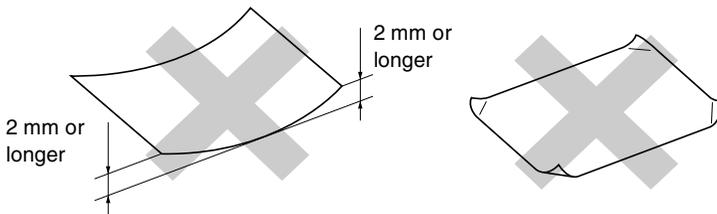
Handling and using special paper

- Store paper in its original packaging, and keep it sealed. Keep the paper flat and away from moisture, direct sunlight and heat.
- The coated side of glossy paper is shiny. Avoid touching the shiny (coated) side. Load glossy paper with the shiny side facing down.
- Avoid touching either side of transparencies, because they absorb water and perspiration easily, and this may cause decreased output quality. Transparencies designed for laser printers/copiers may stain your next document. Use only transparencies recommended for inkjet printing.



Do not use paper:

- that are damaged, curled, wrinkled, or irregularly shaped



- that are extremely shiny or highly textured
- that were previously printed by a printer
- that cannot be arranged uniformly when stacked
- that are made with a short grain

Paper type and size for each operation

Paper Type	Paper Size	Usage		
		Copy	PhotoCapture	Printer
Cut Paper	Letter	216 x 279 mm (8 1/2" x 11")	Yes	Yes
	A4	210 x 297 mm (8.3" x 11.7")	Yes	Yes
	Legal	216 x 356 mm (8 1/2" x 14")	—	Yes
	Executive	184 x 267 mm (7 1/4" x 10 1/2")	—	Yes
	JIS B5	182 x 257 mm (7.2" x 10.1")	—	Yes
	A5	148 x 210 mm (5.8" x 8.3")	—	Yes
	A6	105 x 148 mm (4.1" x 5.8")	—	Yes
	Photo	102 x 152 mm (4" x 6")	Yes	Yes
Cards	Photo L	89 x 127 mm (3 1/2" x 5")	—	Yes
	Photo 2L	127 x 178 mm (5" x 7")	Yes	Yes
	Index Card	127 x 203 mm (5" x 8")	—	Yes
	Post Card 1	100 x 148 mm (3.9" x 5.8")	—	Yes
	Post Card 2 (Double)	148 x 200 mm (5.8" x 7.9")	—	Yes
	C5 Envelope	162 x 229 mm (6.4" x 9")	—	Yes
	DL Envelope	110 x 220 mm (4.3" x 8.7")	—	Yes
	COM-10	105 x 241 mm (4 1/8" x 9 1/2")	—	Yes
Envelopes	Monarch	98 x 191 mm (3 7/8" x 7 1/2")	—	Yes
	JE4 Envelope	105 x 235 mm (4.1" x 9.3")	—	Yes
	Letter	216 x 279 mm (8 1/2" x 11")	Yes	Yes
	A4	210 x 297 mm (8.3" x 11.7")	Yes	Yes
Transparencies	Letter	216 x 279 mm (8 1/2" x 11")	Yes	Yes
	A4	210 x 297 mm (8.3" x 11.7")	Yes	Yes

Paper weight, thickness and capacity

Paper Type		Weight	Thickness	No. of sheets
Cut Paper	Plain Paper	64 to 120 g/m ² (17 to 32 lb)	0.08 to 0.15 mm (0.003" to 0.006")	100*
	Inkjet Paper	64 to 200 g/m ² (17 to 53 lb)	0.08 to 0.25 mm (0.003" to 0.01")	20
	Glossy Paper	Up to 220 g/m ² (Up to 58 lb)	Up to 0.25 mm (Up to 0.01")	20
Cards	Photo Card	Up to 240 g/m ² (Up to 64 lb)	Up to 0.28 mm (Up to 0.01")	20
	Index Card	Up to 120 g/m ² (Up to 32 lb)	Up to 0.15 mm (Up to 0.006")	30
	Post Card	Up to 200 g/m ² (Up to 53 lb)	Up to 0.23 mm (Up to 0.01")	30
Envelopes		75 to 95 g/m ² (20 to 25 lb)	Up to 0.52 mm (Up to 0.02")	10
Transparencies		—	—	10

* Up to 50 sheets for Legal size paper (80 g/m²).

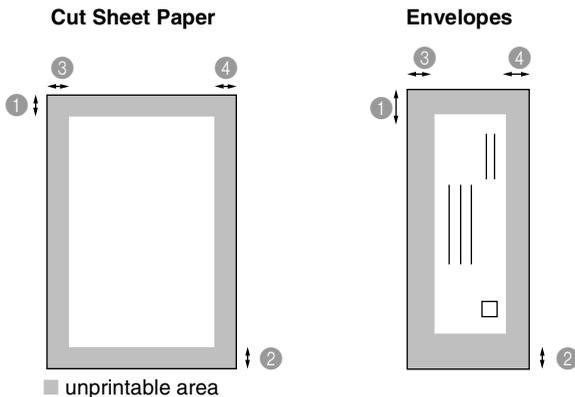
* Up to 100 sheets of 80 g/m².

Paper capacity of the output paper tray

Output Paper Tray	<p>Up to 25 sheets of 80 g/m² (A4)</p> <ul style="list-style-type: none"> ■ Transparencies or glossy paper must be picked up from the output paper tray one page at a time to avoid smudging. ■ Legal paper cannot be stacked on the output paper tray.
-------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Printable area

The figures below show the unprintable areas on cut sheet paper and envelopes.



	① Top	② Bottom	③ Left	④ Right
Cut Sheet	3 mm (0 mm)*1	3 mm (0 mm)*1	3 mm (0 mm)*1	3 mm (0 mm)*1
Envelopes	12 mm	24 mm	3 mm	3 mm

*1 When you set the Borderless feature to On.

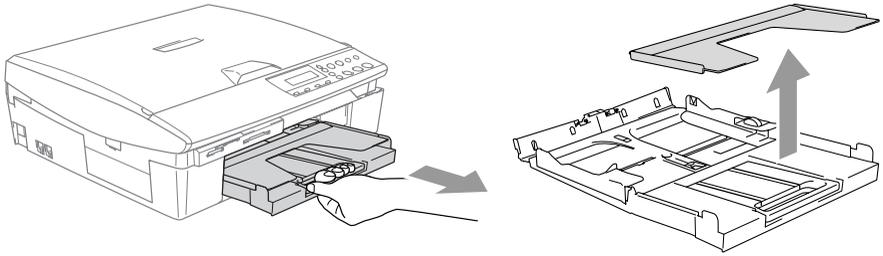


- Printable area depends on the Printer driver settings.
- The figures above are approximate and the printable area may vary depending on the type of cut sheet paper you are using.

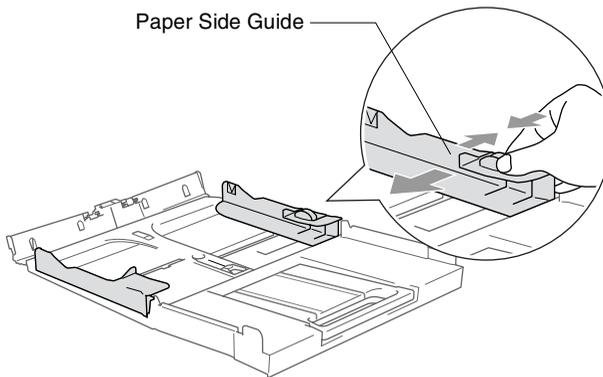
How to load paper, envelopes and post cards

To load paper or other media

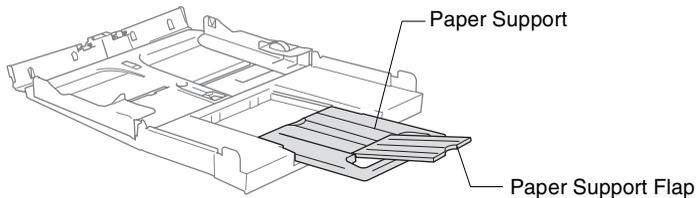
- 1 Pull the paper tray completely out of the DCP and remove the output paper tray.



- 2 Press and slide the paper side guide to fit the paper width.

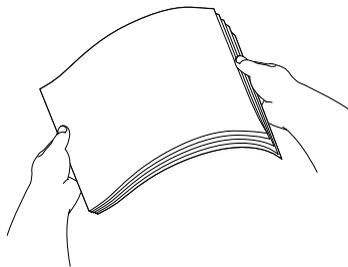


- 3 Pull out the paper support and unfold the paper support flap.



 Use the paper support flap for Letter, Legal and A4.

- 4** Fan the stack of paper well to avoid paper jams and mis-feeds.



- 5** Gently insert the paper into the paper tray print side down and the leading edge (top of the paper) in first.

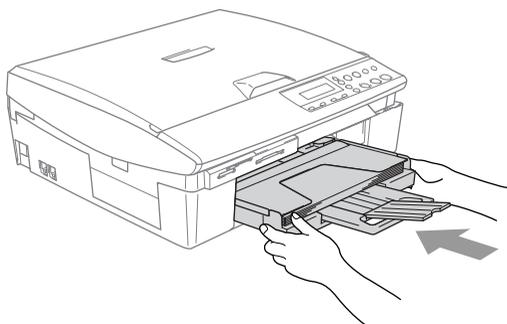
Check that the paper is flat in the tray and below the maximum paper mark.



- Make sure the paper side guides touch the sides of the paper.

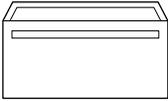
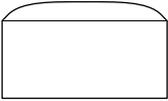
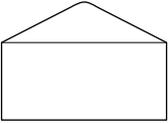
- Be careful that you do not push the paper in too far; it may lift at the back of the tray and cause feed problems.

- 6** Put the output paper tray back on and push the paper tray firmly back into the DCP.



To load envelopes

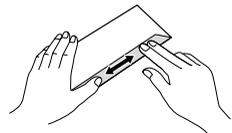
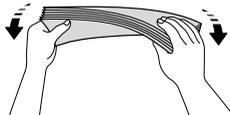
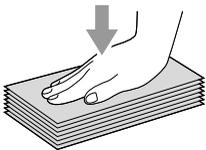
- Use envelopes that weigh from 75-95 g/m².
- Some envelopes require margin settings in the application. Make sure you do a test print first.
- ⊘ To prevent possible damage to the feeding mechanism, do not use the types of envelopes shown below.

DO NOT USE ENVELOPES:			
<ul style="list-style-type: none">■ that are of a baggy construction■ that are embossed (have raised writing on them)■ that have clasps on them■ that are not sharply creased■ that are preprinted on the inside			
■ Glue	■ Rounded flap	■ Double flap	■ Triangular flap
			

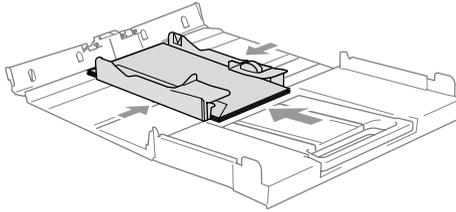
How to load envelopes

- 1** Before loading, press the corners and sides of the envelopes to make them as flat as possible.

 If the envelopes are 'double-feeding', put one envelope in the paper tray at a time.

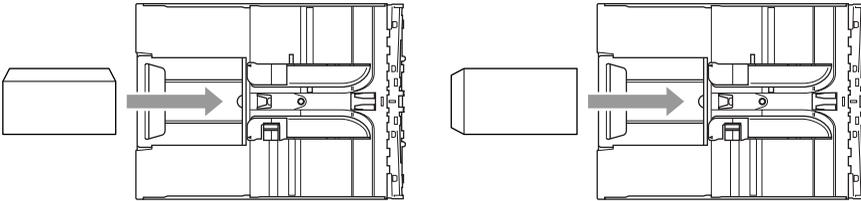


- 2 Insert the envelopes into the paper tray with the address side down and the leading edge (top of the envelopes) in first. Slide the paper side guide to fit the width of the envelopes.



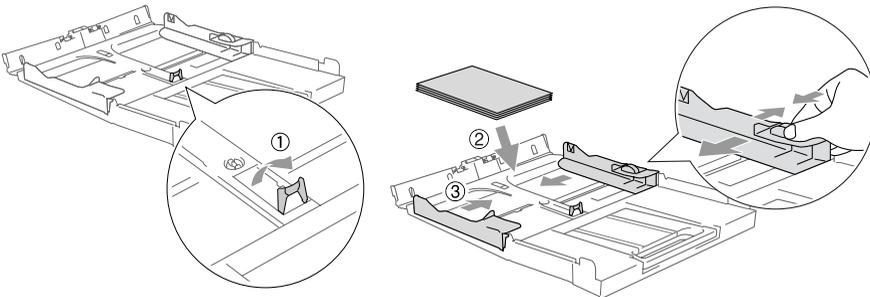
If you have problems when printing on envelopes, try the following suggestions:

- 1 Open the envelope flap.
- 2 Make sure the open flap is either to the side of the envelope or to the back edge of the envelope when printing.
- 3 Adjust the size and margin in your application.



To load post cards

- 1 Raise the paper stop and insert the post cards into the paper tray. Slide the paper side guide to fit the width of the post cards.



2 Making copies

Using the DCP as a copier

You can use your DCP as a copier, making up to 99 copies at a time.

Making a single copy

- 1 Load your document.
- 2 Press **Mono Start** or **Colour Start**.

 To stop copying, press **Stop/Exit**.

Making multiple copies

- 1 Load your document.
- 2 Press **Number of Copies** repeatedly until the number of copies you want appear (up to 99).

—OR—

Press  to increase the number of copies.

Press  to decrease the number of copies.

 The number of copies can also be increased/decreased by holding down  or .

- 3 Press **Mono Start** or **Colour Start**.

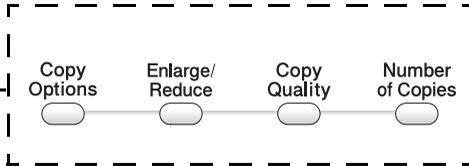
Stop copying

To stop copying, press **Stop/Exit**.

Using the Copy keys (Temporary settings)

When you want to quickly change the copy settings temporarily for the next copy, use the temporary Copy keys. You can use different combinations.

Temporary Copy keys



These settings are temporary, the DCP returns to its default settings 60 seconds after it finishes copying.



You can save the copy settings you use most often by setting them as default. (See *Changing the default copy settings* on page 2-12.)

Increasing copy speed or quality

You can select the copy quality. The default setting is *Normal*.

<p>Press Copy Quality</p> 	<i>Normal</i>	Recommended mode for ordinary printouts. Good copy quality with adequate copy speed.
	<i>Fast</i>	Fast copy speed and lowest ink consumption. Use FAST to save time (document to be proof-read, large documents or many copies).
	<i>Best</i>	Use this mode to copy precise images such as photographs. BEST uses the highest resolution and slowest speed.

- 1** Load your document.
- 2** Press **Copy Quality** repeatedly to choose the copy quality (*Fast*, *Normal* or *Best*).
- 3** Press **Mono Start** or **Colour Start**.
—OR—
Press other temporary copy keys for more settings.

Enlarging or reducing the image copied

You can select the following enlargement or reduction ratios.

Custom (25-400%) allows you to enter a ratio from 25% to 400%.

Press Enlarge/Reduce	Custom (25-400%)
	200%
	198% 10x15cm→A4
	186% 10x15cm→LTR
	142% A5→A4
	104% EXE→LTR
	100%
	97% LTR→A4
	93% A4→LTR
	83%
	78%
	69% A4→A5
	50%



1 Load your document.

2 Press **Enlarge/Reduce**.

3 Press  or  to select the enlargement or reduction ratio you want.

Press **Set**.

—OR—

You can select *Custom* (25-400%) and press **Set**.

Press  or  to enter an enlargement or reduction ratio from 25% to 400%.

Press **Set**.

 Enlargement or reduction ratio can also be increased/decreased by holding down  or .

4 Press **Mono Start** or **Colour Start**.

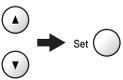
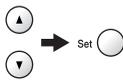
—OR—

Press other temporary copy keys for more settings.

 Special Copy Options (2 in 1 (P), 2 in 1 (L), 4 in 1 (P), 4 in 1 (L) or Poster) are not available with **Enlarge/Reduce**.

Changing the temporary copy settings

Use the **Copy Options** key to quickly set the following copy settings temporarily for the next copy.

Press Copy Options 	Menu Selections  Select & Set	Options  Select & Set	Factory Setting	Page
	Paper Type	Plain/ Inkjet/ Glossy/ Transparency	Plain	2-7
	Paper Size	Letter/ Legal/ A4/ A5/ 10 (W) x 15 (H) cm	A4	2-7
	Brightness	- ■■■■ +	- ■■■■ +	2-8
	Page Layout	Off (1 in 1)/ 2 in 1 (P)/ 2 in 1 (L)/ 4 in 1 (P)/ 4 in 1 (L)/ Poster (3 x 3)	Off (1 in 1)	2-9

After you choose your settings by pressing **Set**, the LCD shows *Set temporarily* and then returns to **Menu selections**.

Press **Mono Start** or **Colour Start** if you're finished choosing settings.

—OR—

Press  or  to select more settings.

Setting paper type

If copying on paper other than plain paper, select the type of paper that you are using to get the best print quality.

- 1 Load your document.
- 2 Press **Copy Options** and  or  to select **Paper Type**.
Press **Set**.
- 3 Press  or  to select the type of paper you are using (Plain, Inkjet, Glossy or Transparency).
Press **Set**.
- 4 Press **Mono Start** or **Colour Start**.
—OR—
Press  or  for more settings.

Setting paper size

If copying on paper other than A4 sizes, you will need to change the paper size setting.



You can copy on Letter, Legal, A4, A5 or Photo Card (10(W) cm x 15(H) cm) paper.

- 1 Load your document.
- 2 Press **Copy Options** and  or  to select **Paper Size**.
Press **Set**.
- 3 Press  or  to select the size of paper you are using (Letter, Legal, A4, A5 or 10 (W) x 15 (H) cm).
Press **Set**.
- 4 Press **Mono Start** or **Colour Start**.
—OR—
Press  or  for more settings.

Adjusting brightness

You can adjust the copy brightness to make copies darker or lighter.

1 Load your document.

2 Press **Copy Options** and  or  to select **Brightness**.
Press **Set**.



3 Press  to make a lighter copy.

—OR—

Press  to make a darker copy.

Press **Set**.

4 Press **Mono Start** or **Colour Start**.

—OR—

Press  or  for more settings.

Making N in 1 copies or a poster (Page Layout)

You can reduce the amount of copies by using the N in 1 copy feature. This allows you to copy two or four pages onto one page, allowing you to save paper. It is also possible to create a poster. When you use the Poster feature your DCP divides your document into sections, then enlarges the sections so you can assemble them into a poster.



- Please make sure Paper Size is set to A4 or Letter.
- You can use the N in 1 copy feature with 100% copy size only.
- (P) means Portrait and (L) means Landscape.

- 1 Load your document.
- 2 Press **Copy Options** and  or  to select Page Layout. Press **Set**.
- 3 Press  or  to select 2 in 1 (P), 2 in 1 (L), 4 in 1 (P), 4 in 1 (L), Poster (3 x 3) or Off (1 in 1). Press **Set**.
- 4 Press **Mono Start** or **Colour Start** to scan the document.
- 5 If you are making a poster, the DCP scans the document and starts printing.

—OR—

If you selected the 2 in 1 or the 4 in 1 option, the DCP scans the page and then the LCD shows:

Next Page?

 Yes  No

- 6 Press  to scan next page.
- 7 Put the next document on the scanner glass. Press **Set**.

Set Next Page

Then Press Set

- 8 Repeat Steps 6 and 7 for each page of the layout.
- 9 After all the pages of the document have been scanned, press  to end.

 If **Glossy** has been selected in the Paper Type setting for N in 1 copies, the DCP will print the images as if Normal paper had been selected.

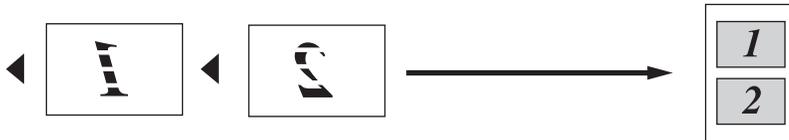
-  ■ If you are producing multiple colour copies, N in 1 copies are not available.
- N in 1 colour copies are not available for DCP-110C.
- For Poster copies, you cannot make more than one copy.

Place the document face down in the direction shown below.

2 in 1 (P)



2 in 1 (L)



4 in 1 (P)

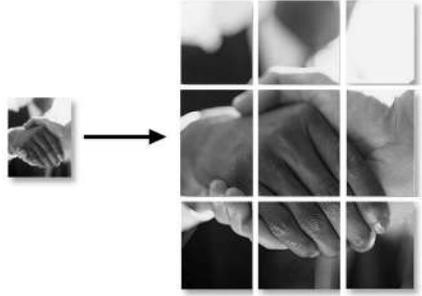


4 in 1 (L)



Poster (3x3)

You can make a poster size copy of a photograph.



 For Poster copies, you cannot make more than one copy.

Changing the default copy settings

You can save the copy settings you use most often by setting them as default. These settings will remain until you change them again.

Setting Paper Type

To get the best print quality, set the DCP for the type of paper you are using.

- 1** Press **Menu**.
- 2** Press  or  to select 1 . Copy.
Press **Set**.
- 3** Press  or  to select 1 . Paper Type.
Press **Set**.
- 4** Press  or  to select Plain, Inkjet, Glossy or Transparency.
Press **Set**.
- 5** Press **Stop/Exit**.



The DCP ejects paper with printed surfaces face up onto the paper tray in the front of the machine. When you use transparencies or glossy paper, remove each sheet immediately to prevent smudging or paper jams.

Setting Paper Size

You can use five sizes of paper for printing your copies: Letter, Legal, A4, A5 and Photo Card (10x15cm). When you change the type of paper you load in the DCP, you will need to change the setting for Paper Size at the same time so your DCP can fit the copy on the page.

- 1 Press **Menu**.
- 2 Press  or  to select 1.Copy.
Press **Set**.
- 3 Press  or  to select 2.Paper Size.
Press **Set**.
- 4 Press  or  to select Letter, Legal, A4, A5 or 10x15cm.
Press **Set**.
- 5 Press **Stop/Exit**.

Increasing copy speed or quality

- 1 Press **Menu**.
- 2 Press  or  to select 1.Copy.
Press **Set**.
- 3 Press  or  to select 3.Quality.
Press **Set**.
- 4 Press  or  to select Fast, Normal or Best.
Press **Set**.
- 5 Press **Stop/Exit**.

Adjusting brightness

- 1 Press **Menu**.
- 2 Press  or  to select 1.Copy.
Press **Set**.
- 3 Press  or  to select 4.Brightness.
Press **Set**.
- 4 Press  to make a lighter copy.
—OR—
Press  to make a darker copy.
Press **Set**.
- 5 Press **Stop/Exit**.

Adjusting contrast

You can change the contrast to help an image look sharper and more vivid.

- 1 Press **Menu**.
- 2 Press  or  to select 1.Copy.
Press **Set**.
- 3 Press  or  to select 5.Contrast.
Press **Set**.
- 4 Press  to increase the contrast.
—OR—
Press  to decrease the contrast.
Press **Set**.
- 5 Press **Stop/Exit**.

Adjusting Colour saturation

- 1** Press **Menu**.
- 2** Press  or  to select **1 .Copy**.
Press **Set**.
- 3** Press  or  to select **6 .Color Adjust**.
Press **Set**.
- 4** Press  or  to select **Red, Green or Blue**.
Press **Set**.
- 5** Press  to increase the colour saturation.
—OR—
Press  to decrease the colour saturation.
Press **Set**.
- 6** Return to Step 4 to select the next colour.
—OR—
Press **Stop/Exit**.

Legal limitations

Colour reproductions of certain documents are illegal and may result in either criminal or civil liability. This memorandum is intended to be a guide rather than a complete listing of every possible prohibition. In case of doubt, we suggest that you check with relevant authorities as to any particular questionable documents.

The following are examples of documents which should not be copied:

- Money
- Bonds or other certificates of indebtedness
- Certificates of Deposit
- Armed Forces Service or Draft papers.
- Passports
- Postage Stamps (cancelled or uncanceled)
- Immigration Papers
- Welfare documents
- Cheques or Drafts drawn by Governmental Agencies
- Identification Documents, badges or insignias
- Licences and Certificates of Title to motor vehicles

Copyrighted works cannot be copied. Sections of a copyrighted work can be copied for 'fair use.' Multiple copies would indicate improper use.

Works of art should be considered the equivalent of copyrighted works.

3

Walk-Up PhotoCapture Center™

Introduction

Even if your DCP is not connected to your computer, you can print photos directly from the digital camera media. Your Brother DCP includes five media drives (slots) for use with popular digital camera media: CompactFlash®, SmartMedia®, Memory Stick®, SecureDigital™ (SD Card) and xD-Picture Card™.



CompactFlash®
(Type I only)



SmartMedia®



Memory Stick®



SecureDigital™



xD-Picture Card™

The PhotoCapture Center™ feature lets you print digital photos from your digital camera at high resolution to get photo quality printing.



- miniSD™ can be used with miniSD™ adapter.
- Memory Stick Duo™ can be used with Memory Stick Duo™ adapter.
- Adapters are not included with the DCP. Contact a third party supplier for adapters.

PhotoCapture Center™ requirements

To avoid error conditions, please remember:

- The DPOF file on the media card must be in a valid format. (See *DPOF printing* on page 3-8.)
- The image file extension must be .JPG (Other image file extensions .JPEG, .TIF, .GIF and so on will not be recognized).
- Walk-up PhotoCapture Center™ printing must be performed separately from PhotoCapture Center™ operations using the PC. (Simultaneous operation is not available.)
- IBM Microdrive™ is not compatible with the DCP.
- The DCP can read up to 999 files in a media card.
- Use only Smart media cards with a 3.3v voltage rating.
- CompactFlash® Type II is not supported.



When printing the INDEX or IMAGE, the PhotoCapture Center™ will print all the valid images, even if one or more images have been corrupted. A portion of the corrupted image may be printed.

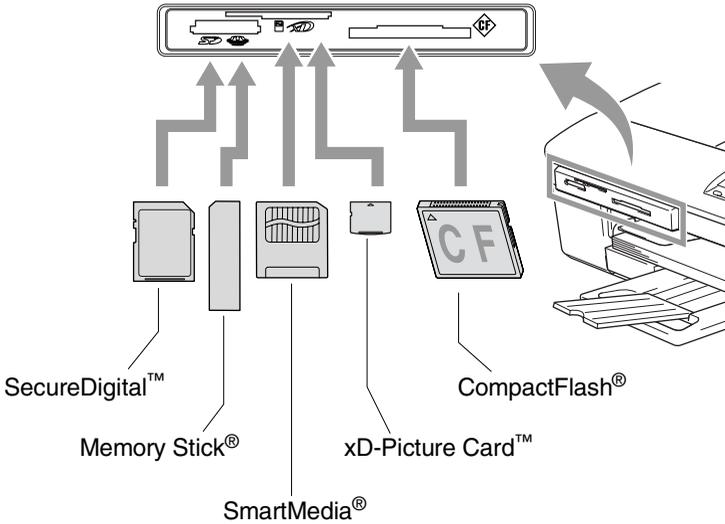


Your DCP is designed to read media cards that have been formatted by a digital camera.

When a digital camera formats a media card it creates a special folder into which it copies image data. If you need to modify the image data stored on a media card with your PC, we recommend that you do not modify the folder structure created by the digital camera. When saving new or modified image files to the media card we also recommend you use the same folder your digital camera uses. If the data is not saved to the same folder the DCP may not be able to read the file or print the image.

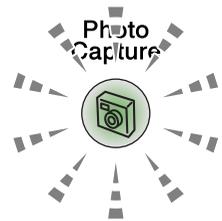
Getting started

Firmly insert the card into the appropriate slot.



PhotoCapture key indications:

- **PhotoCapture** light is ON, the media card is inserted properly.
- **PhotoCapture** light is OFF, the media card is not properly inserted.
- **PhotoCapture** light is BLINKING, the media card is being read or written to.



⚠ Do NOT unplug the power cord or remove the media card from the media drive (slot) while the DCP is reading or writing to the card (the **PhotoCapture** key is blinking). **You will lose your data or damage the card.**

The DCP can only read one media card at a time so do not insert more than one card.

The steps below give a brief outline of the Direct Printing feature. Please see the remaining pages of this chapter for more detailed instructions.

- 1** Insert the media card firmly into the media drive (slot).

When you insert your media card into the proper slot, the LCD shows:

C.Flash Active

Press PhotoCapture key...



The media active message will be shown for 60 seconds and then disappear. Even in that case, you can enter the PhotoCapture mode by pressing **PhotoCapture**.

- 2** Press **PhotoCapture**.

If your digital camera supports DPOF printing, see *DPOF printing* on page 3-8.

- 3** Print the index that shows thumbnail views of the photos stored on your media card. Your DCP will assign an image number to each thumbnail.

Press  or  to select `Print Index` and then press **Set**.

Press **Colour Start** to start printing index sheet.

(See *Printing the Index (Thumbnails)* on page 3-5.)

- 4** To print the images, press  or  to select `Print Images` and then press **Set**.

Enter image number and press **Set**.

Press **Colour Start** to start printing.

(See *Printing images* on page 3-6.)



You can change the settings for printing images, such as the Paper Type & Paper Size, Print Size and Number of Copies. (See *Printing images* on page 3-6.)

Printing the Index (Thumbnails)

The PhotoCapture Center™ assigns numbers for images (such as No.1, No.2, No.3, and so on).



▶ No. 1 01.01.2003
DEI.JPG 100KB

It does not recognize any other numbers or file names that your digital camera or PC have used to identify the pictures. You can print a thumbnail page (Index page with 6 or 5 images per line). This will show all the pictures on the media card.

1 Make sure you have inserted the media card.

Press **PhotoCapture**. (See page 3-3.)

2 Press ▲ or ▼ to select
Print Index.

Print Index ▾

Press **Set**.

3 Press ▲ or ▼ to select
6 Images/Line or
5 Images/Line.

6 Images/Line ▾

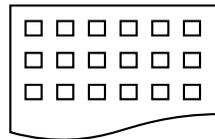
Press **Set**.

Index



5 Images/Line

Index



6 Images/Line

4 Press **Colour Start** to start printing.

 Print time for 5 Images/Line will be slower than 6 Images/Line, but the quality is better. To print an image, see *Printing images* on page 3-6.

Printing images

Before you can print an individual image, you have to know the image number.



Print the Index first.

(See *Printing the Index (Thumbnails)* on page 3-5.)

1 Make sure you have inserted the media card.

Press **PhotoCapture**. (See page 3-3.)

2 Press  or  to choose

Print Images.

Print Images 

Press **Set**.



If your media card contains valid DPOF information, the LCD shows **DPOF Print:Yes**, please go to *DPOF printing* on page 3-8.

3 Press  repeatedly to enter the image number that you want to print from the Index page (Thumbnails).

No. : 1, 3, 6

Press **Set**.

Repeat this step until you have entered all the image numbers that you want to print.



■ Press  to decrease the image number.

■ You can enter all the numbers at one time by using the

Copy Options key for hyphen.

(For example, Enter **1, Copy Options, 5** to print images No.1 to No.5).

4 After you have selected all the image numbers, press **Set** again, and go to Step 5.

—OR—

If you have finished choosing settings, press **Colour Start**.

Paper Type & Paper Size

- 5** Press  or  to select the type of paper you are using (Letter Glossy, 10x15cm Glossy, 13x18cm Glossy, A4 Glossy, Letter Plain, A4 Plain, Letter Inkjet, A4 Inkjet or 10x15cm Inkjet).

Press **Set**.

If you selected **A4** or **Letter**, go to Step 6.

If you selected another size, go to Step 7.

—OR—

If you have finished choosing settings, press **Colour Start**.

Print Size

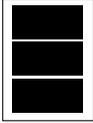
- 6** If you selected **A4** or **Letter**, press  or  to select the print size (10 x 8cm, 13 x 9cm, 15 x 10cm, 18 x 13cm, 20 x 15cm or Max. Size).

Press **Set**, and go to Step 7.

—OR—

If you have finished choosing settings, press **Colour Start**.

Printed Position for A4

① 10 x 8cm	② 13 x 9cm	③ 15 x 10cm	④ 18 x 13cm	⑤ 20 x 15cm	⑥ Max. Size
					

Number of Copies

- 7** Press  to enter the number of copies you want.

Press **Set**.

 Press  to decrease the number of copies.

- 8** Press **Colour Start** to print.

 Your temporary settings will be kept until you take out the media card from the drive (slot), print images or press **Stop/Exit**.

DPOF printing

DPOF stands for Digital Print Order Format.

Major Digital Camera manufacturers (Canon Inc., Eastman Kodak Company, Fuji Photo Film Co. Ltd., Matsushita Electric Industrial Co. Ltd. and Sony Corporation.) created this standard to make it easier to print images from a digital camera.

If your digital camera supports DPOF printing, you will be able to select on the Digital Camera display the images and number of copies you want to print.

When the memory card (CompactFlash®, SmartMedia®, Memory Stick®, SecureDigital™ and xD-Picture Card™) containing DPOF information is put into your DCP, you can print the selected image easily.

- 1 Insert your media card into the proper drive (slot).

C.Flash Active



The media active message will be shown for 60 seconds and then disappear. Even in that case, you can enter the PhotoCapture mode by pressing **PhotoCapture**.

- 2 Press **PhotoCapture**.

- 3 Press  or  to select `Print Images`. Press **Set**.

- 4 If there is a DPOF file on the card, the LCD shows:

DPOF Print:Yes 

- 5 Press  or  to select `DPOF Print:Yes`. Press **Set**.



If you want to print an Index (thumbnails) or choose the images and their print options now, select `DPOF Print:No`.

- 6 Press **Colour Start** to print.

Changing the default settings

You can save the PhotoCapture Center™ settings you use most often by setting them as default. These settings will remain until you change them again.

Increasing print speed or quality

- 1** Press **Menu**.
- 2** Press **▲** or **▼** to select **2 .PhotoCapture**.
Press **Set**.
- 3** Press **▲** or **▼** to select **1.Print Quality**.
Press **Set**.
- 4** Press **▲** or **▼** to select **Normal** or **Photo**.
Press **Set**.
- 5** Press **Stop/Exit**.

Setting paper and size

- 1** Press **Menu**.
- 2** Press **▲** or **▼** to select **2 .PhotoCapture**.
Press **Set**.
- 3** Press **▲** or **▼** to select **2.Paper & Size**.
Press **Set**.
- 4** Press **▲** or **▼** to select **Letter Glossy, 10x15cm Glossy, 13x18cm Glossy, A4 Glossy, Letter Plain, A4 Plain, Letter Inkjet, A4 Inkjet** or **10x15cm Inkjet**.
Press **Set**.
- 5** If you selected **A4** or **Letter**, press **▲** or **▼** to select the print size (**10 x 8cm, 13 x 9cm, 15 x 10cm, 18 x 13cm, 20 x 15cm** or **Max. Size**).
Press **Set**.
- 6** Press **Stop/Exit**.

Adjusting brightness

- 1 Press **Menu**.
- 2 Press  or  to select 2.PhotoCapture.
Press **Set**.
- 3 Press  or  to select 3.Brightness.
Press **Set**.
- 4 Press  to make a lighter print.
—OR—
Press  to make a darker print.
Press **Set**.
- 5 Press **Stop/Exit**.

Adjusting contrast

You can choose the contrast setting. More contrast will make an image look sharper and more vivid.

- 1 Press **Menu**.
- 2 Press  or  to select 2.PhotoCapture.
Press **Set**.
- 3 Press  or  to select 4.Contrast.
Press **Set**.
- 4 Press  to increase the contrast.
—OR—
Press  to decrease the contrast.
Press **Set**.
- 5 Press **Stop/Exit**.

Colour enhancement

You can turn on the colour enhancement feature to print more vivid images. Printing time will be slower.

- 1** Press **Menu**.
- 2** Press  or  to select **2 .PhotoCapture**.
Press **Set**.
- 3** Press  or  to select **5 .Color Enhance**.
Press **Set**.
- 4** Press  or  to select **On**.
Press **Set**.

—OR—

Select **Off** and press **Set**, then go to Step 7.



If you select **On**, you can customize the **White Balance**, **Sharpness** or **Colour Density**.

- 5** Press  or  to select **White Balance**, **Sharpness** or **Color Density**.
Press **Set**.
- 6** Press  or  to adjust the degree of setting.
Press **Set**.
- 7** Press **Stop/Exit**.

■ **White Balance**

This setting adjusts the hue of the white areas of an image. Lighting, camera settings and other influences will effect the appearance of white. The white areas of a picture may be slightly pink, yellow or some other colour. By using this adjustment you can correct this effect and bring the white areas back to pure white.

■ **Sharpness**

This setting enhances the detail of an image. It is similar to adjusting the fine focus on a camera. If the image is not in true focus and you cannot see the fine details of the picture, then adjust the sharpness.

■ **Colour Density**

This setting adjusts the total amount of colour in the image. You can increase or decrease the amount of colour in an image to improve a washed out or weak picture.

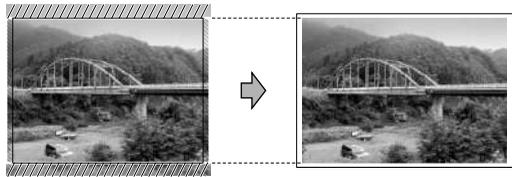
Cropping

If your photo is too long or wide to fit the available space on your selected layout, part of the image will be automatically cropped.

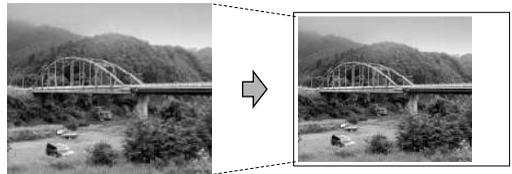
The default setting is *On*. If you want to print the whole image, turn this setting to *Off*.

- 1 Press **Menu**.
- 2 Press  or  to select 2 .PhotoCapture.
Press **Set**.
- 3 Press  or  to select 6 .Cropping.
Press **Set**.
- 4 Press  or  to select *Off* (or *On*).
Press **Set**.
- 5 Press **Stop/Exit**.

Cropping: *On*



Cropping: *Off*



Borderless

This feature expands the printable area to fit the edges of the paper. Printing time will be slightly slower.

- 1 Press **Menu**.
- 2 Press  or  to select 2.PhotoCapture.
Press **Set**.
- 3 Press  or  to select 7.Borderless.
Press **Set**.
- 4 Press  or  to select Off (or On).
Press **Set**.
- 5 Press **Stop/Exit**.

Understanding the Error Messages

Once you are familiar with the types of errors that can occur while you're using the PhotoCapture Center™, you can easily identify and troubleshoot any difficulties.

When an error message appears on the LCD, the DCP will beep to get your attention.

Media Error—This message will appear if you insert a media card that is either bad or not formatted, or when there is a problem with the media drive. To clear this error, take out the media card.

No File—This message will appear if you try to access a media card in the drive (slot) that does not contain a .JPG file.

Out of Memory—This message will appear if you are working with images that are too large for the DCP's memory.

Using PhotoCapture Center™ from your PC

You can access the media card that is in the media drive (slot) of the DCP from your PC.

(See *Using the PhotoCapture Center™ from your PC* on page 6-1 in Software User's Guide on the CD-ROM or *Using the PhotoCapture Center™ from a Macintosh®* (not available for MFC-3240C and MFC-5440CN) on page 8-47 in the Software User's Guide on the CD-ROM.)

Using PhotoCapture Center™ for scanning documents

You can scan documents and save them onto an media card to quickly and easily make documents portable. (See *Scan to Card* (not available for MFC-3240C, MFC-210C and MFC-5440CN) on page 2-23 in Software User's Guide on the CD-ROM.)

4 Important information

For your safety

To ensure safe operation the supplied three-pin plug supplied must be inserted only into a standard three-pin electrical socket that is effectively grounded through the normal household wiring.

The fact that the equipment operates satisfactorily does not imply that the power is grounded and that the installation is completely safe. For your safety, if in any doubt about the effective grounding of the power, consult a qualified electrician.

IT power system (Norway only)

This product is also designed for IT power system with phase to phase voltage 230V.

LAN connection (DCP-310CN only)

Caution

Do not connect this product to a LAN connection that is subject to over-voltages.

International ENERGY STAR® Compliance Statement

The purpose of the International ENERGY STAR® Program is to promote the development and popularization of energy-efficient office equipment.

As an ENERGY STAR® Partner, Brother Industries, Ltd. has determined that this product meets the ENERGY STAR® guidelines for energy efficiency.



Important safety instructions

- 1** Read all of these instructions.
- 2** Save them for later reference.
- 3** Follow all warnings and instructions marked on the product.
- 4** Unplug this product from the wall socket before cleaning. Do not use liquid or aerosol cleaners. Use a damp cloth for cleaning.
- 5** Do not use this product near water.
- 6** Do not place this product on an unstable cart, stand, or table. The product may fall, causing serious damage to the product.
- 7** Slots and openings in the cabinet and the back or bottom are provided for ventilation; to ensure reliable operation of the product and to protect it from overheating, these openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. This product should never be placed near or over a radiator or heater. This product should never be placed in a built-in installation unless proper ventilation is provided.
- 8** This product should be operated from the type of power source indicated on the label. If you are not sure of the type of power available, call your dealer or local power company.
Use only the power cord supplied with this DCP.
- 9** This product is equipped with a 3-wire grounded plug, a plug having a third (grounded) pin. This plug will only fit into a grounded power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, call your electrician to replace your obsolete outlet. Do not defeat the purpose of the grounded plug.
- 10** Do not allow anything to rest on the power cord. Do not place this product where people can walk on the cord.

- 11** Do not place anything in front of the DCP that will block printing. Do not place anything in the path of printing.
- 12** Wait until pages have exited the DCP before picking them up.
- 13** Unplug this product from the power socket and refer servicing to Authorized Service Personnel under the following conditions:
- When the power cord is damaged or frayed.
 - If liquid has been spilled into the product.
 - If the product has been exposed to rain or water.
 - If the product does not operate normally when the operating instructions are followed. Adjust only those controls that are covered by the operating instructions. Improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to normal operation.
 - If the product has been dropped or the cabinet has been damaged.
 - If the product exhibits a distinct change in performance, indicating a need for service.
- 14** To protect your product against power surges, we recommend the use of a power protection device (Surge Protector).

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5 Troubleshooting and routine maintenance

Troubleshooting

Error messages

As with any sophisticated office product, errors may occur. If this happens, your DCP identifies the problem and displays an error message. The most common error messages are shown below.

You can correct most problems by yourself. If you need additional help, the Brother Solutions Center offers latest FAQs and troubleshooting tips.

Visit us at <http://solutions.brother.com>.

ERROR MESSAGES		
ERROR MESSAGE	CAUSE	ACTION
Cover is Open	The scanner cover is not closed completely.	Lift the scanner cover and then close it again.
Data Remaining	Print data remains in the DCP's memory.	Re-start printing from your computer.
	Print data remains in the DCP's memory. The USB cable was unplugged while the computer was sending the data to the DCP.	Press Stop/Exit . The DCP will cancel the job and eject the page that is being printed.
High Temperature	The print head is too warm.	Allow the DCP to cool down.
Ink Empty	One or more of the ink cartridges is empty. The DCP will stop all print operations.	Replace the ink cartridges. (See <i>Replacing the ink cartridges</i> on page 5-20.)
Low Temperature	The print head is too cold.	Allow the DCP to warm up.
Media Error	The media card is either corrupted, improperly formatted, or there is a problem with the media drive.	Re-insert the card firmly into the slot to make sure it is in the proper position. If the error remains, check the media drive by inserting another media card that you know is working.

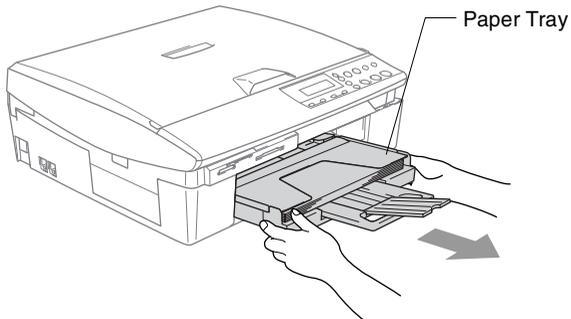
ERROR MESSAGES		
ERROR MESSAGE	CAUSE	ACTION
Near Empty	One or more of the ink cartridges are running out of ink.	Order a new ink cartridge.
No Cartridge	An ink cartridge is not properly installed.	Take out the ink cartridge and put it in again seating it properly. (See <i>Replacing the ink cartridges</i> on page 5-20.)
No File	The media card in the media drive does not contain a .JPG file.	Reinsert the correct media card.
No Paper Fed	The DCP is out of paper.	Add paper, and then press Mono Start or Colour Start .
	The paper is jammed in the DCP.	See <i>Printer jam or paper jam</i> on page 5-3.
Out of Memory	DCP's memory is full.	(Copy operation in process) Press Stop/Exit and wait until the other operations in progress finish and then try again.
Paper Jam	Paper is jammed in the DCP.	See <i>Printer jam or paper jam</i> on page 5-3.
Unable to Change Unable to Clean Unable to Init. Unable to Print Unable to Scan	The DCP has a mechanical problem. —OR— A foreign obstacle such as a clip or ripped paper is in the DCP.	Open the scanner cover and remove any foreign obstacles inside the DCP. If the error message continues, disconnect the DCP from the power source for several minutes then reconnect it.

Printer jam or paper jam

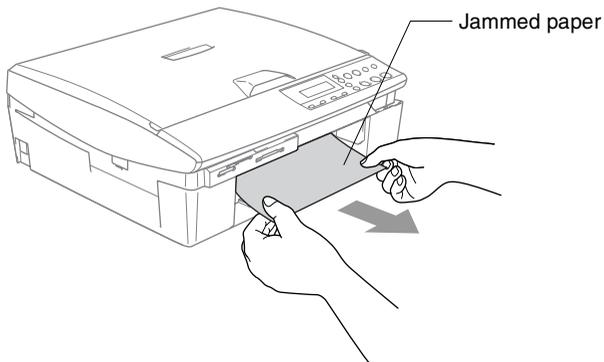
Remove the jammed paper depending on where it is jammed in the DCP.

Paper is jammed inside the paper tray

- 1 Pull the paper tray out of the DCP.

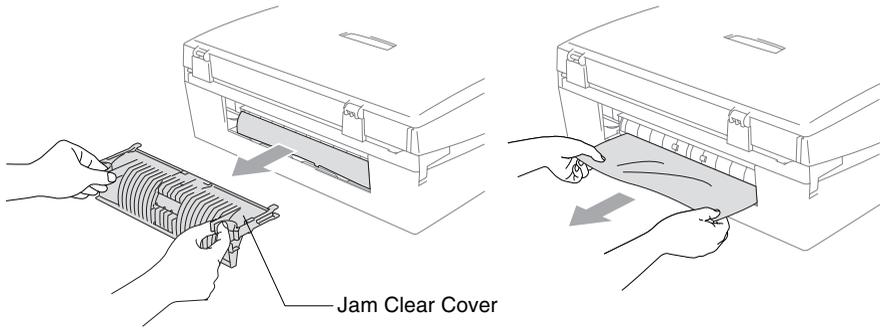


- 2 Pull up the jammed paper to remove it.

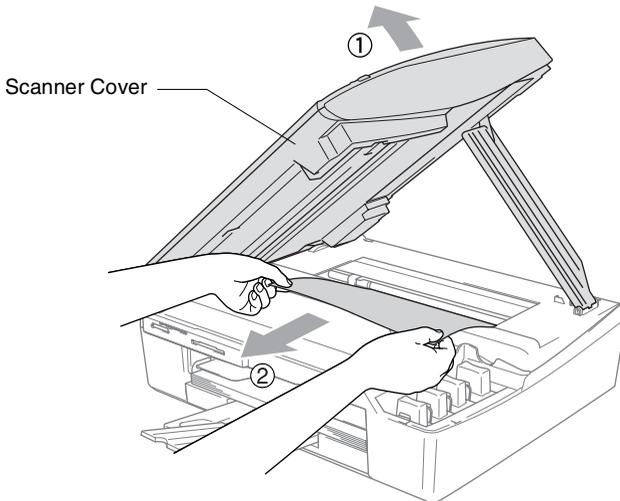


Paper is jammed inside the DCP

- 1 Remove the Jam Clear Cover. Pull the jammed paper out of the DCP.

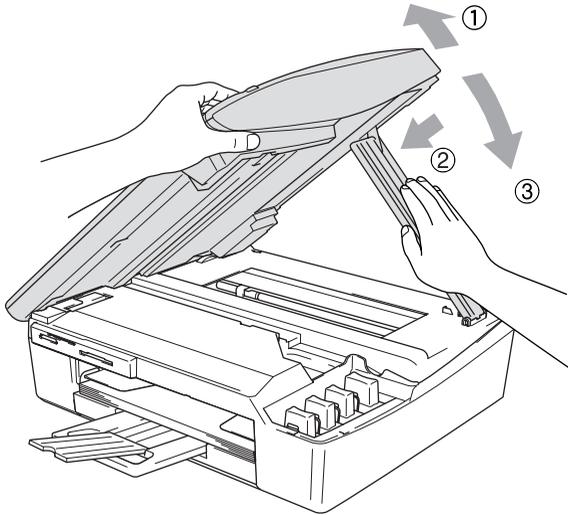


- 2 Re-insert the Jam Clear Cover.
- 3 If you can not pull out the jammed paper, lift the scanner cover from the right-hand side of the DCP until it locks securely into the open position.
- 4 Remove the jammed paper.



-  If the paper is jammed underneath the print head, disconnect the DCP from the power source so you can move the print head and take out the paper.

- 5** Lift the scanner cover to release the lock. Gently push the scanner cover support and close the scanner cover.



If you are having difficulty with your DCP

If you think there is a problem with your DCP, check the chart below and follow the troubleshooting tips.

The Brother Solutions Center offers latest FAQs and troubleshooting tips.

Visit us at <http://solutions.brother.com>.

DIFFICULTY	SUGGESTIONS
Printing Difficulties	
No printout	Check the interface cable connection on both the DCP and your computer.
	One or more ink cartridges are empty. (See <i>Replacing the ink cartridges</i> on page 5-20.)
	Check to see if the LCD is showing an error message. (See <i>Error messages</i> on page 5-1.)
Poor quality print.	Check the print quality. (See <i>Checking the print quality</i> on page 5-11.)
	Make sure the Printer Driver or Paper Type setting in the menu matches the type of paper you are using. (See <i>Media Type</i> on page 1-8 in Software User's Guide on the CD-ROM and <i>Setting Paper Type</i> on page 2-12.)
	Make sure your ink cartridges are fresh. Cartridges remain fresh for up to two years if kept in their original packaging, after that the ink may become clogged. Cartridge expiration dates are printed on the package.
	Try using the recommended types of paper. (See <i>About paper</i> on page 1-6.)
	The recommended environment for your DCP is between 20°C to 33°C.
White horizontal lines appear in text or graphics.	Clean the print head. (See <i>Cleaning the print head</i> on page 5-10.)
	Try using the recommended types of paper. (See <i>About paper</i> on page 1-6.)
	If horizontal bands appear when using plain paper, use the 'Enhanced Normal Printing' mode to help avoid banding on some types of plain paper. In the printer driver 'Basic' tab, click 'Settings', and check 'Enhanced Normal Printing'. If you continue to have horizontal bands, change the Media Type selection to 'Slow Drying Paper' in the printer driver 'Basic' tab to help enhance the print quality.
The DCP prints blank pages.	Clean the print head. (See <i>Cleaning the print head</i> on page 5-10.)
Characters and lines are stacked.	Check the printing alignment. (See <i>Checking the printing alignment</i> on page 5-13.)
Printed text or images are skewed.	Make sure the paper is loaded properly in the paper tray and the paper side guide is adjusted correctly. (See <i>How to load paper, envelopes and post cards</i> on page 1-11.)

DIFFICULTY	SUGGESTIONS
Smudged stain at the top center of the printed page.	Make sure the paper is not too thick or not curled. (See <i>About paper</i> on page 1-6.)
Printing appears dirty or ink seems to run.	Make sure you are using the proper types of paper. (See <i>About paper</i> on page 1-6.) Don't handle the paper until the ink is dry.
Stains appear on the reverse side or at the bottom of the page.	Make sure the Printer Platen is not dirty with ink. (See <i>Cleaning the DCP printer platen</i> on page 5-19.)
	Make sure you are using the paper support flap. (See <i>How to load paper, envelopes and post cards</i> on page 1-11.)
There are some dense lines.	Check 'Reverse Order' in the Basic tab of the printer driver.
The printouts are wrinkled.	In the printer driver 'Basic' tab, click the 'Settings', and uncheck the 'Bi-Directional Printing'.
Cannot perform '2 in 1 or 4 in 1' printing.	Check that the paper size setting in the application and in the printer driver are the same.
Print speed is too slow.	Changing the printer driver setting may improve the print speed. Highest resolution needs longer data processing, transfer and printing time. Try the other settings of quality in the printer driver 'Basic' tab. Also, click the 'Settings' tab, and make sure you uncheck the Colour Enhancement.
	Borderless printing is slower than normal printing. If you want to print more quickly, set the Borderless feature off. (See <i>Borderless</i> on page 3-14.)
Colour Enhancement is not working properly.	If the image data is not full colour in your application (Such as 256 colour), Colour Enhancement will not work. Please use at least 24 bit colour data with the Colour Enhancement feature.
DCP feeds multiple pages	Make sure the paper is loaded properly in the paper tray. (See <i>How to load paper, envelopes and post cards</i> on page 1-11.)
	Check that more than two types of paper are not loaded in the paper tray at any one time.
Printed pages are not stacked neatly.	Make sure you are using the paper support flap. (See <i>How to load paper, envelopes and post cards</i> on page 1-11.)
DCP does not print from Paint Brush.	Try setting the Display setting to '256 colours.'
DCP does not print from Adobe Illustrator.	Try to reduce the print resolution.
Copying Difficulties	
Vertical streaks appear in copies.	Sometimes you may see vertical streaks on copies. Clean the scanner. (See <i>Cleaning the scanner</i> on page 5-18.)
Scanning Difficulties	
TWAIN/WIA errors appear while scanning.	Make sure the Brother TWAIN/WIA driver is selected as the primary source. In PaperPort®, click Scan in the File menu and select the Brother TWAIN/WIA driver.

DIFFICULTY	SUGGESTIONS
Software Difficulties	
Cannot install software or print	Run the Repair MFL-Pro Suite program on the CD-ROM. This program will repair and reinstall the software.
'Device Busy'	Make sure the DCP is not showing an error message on the LCD.
PhotoCapture Center™ Difficulties	
Removable Disk does not work properly.	<p>a) Have you installed the Windows® 2000 update? If not, do the following:</p> <ol style="list-style-type: none"> 1. Disconnect the USB cable. 2. Install the Windows® 2000 update. Please see the Quick Setup Guide. After the installation the PC will be automatically restarted. 3. Wait about 1 minute after you reboot the PC, and then connect the USB cable. <p>b) Take out the media card and put it back in again.</p> <p>c) If you have tried "Eject" from within Windows®, you must take out the media card before you continue.</p> <p>d) If an error message appears when you try to eject the media card, it means the card is being accessed. Wait a while and then try again.</p> <p>e) If all of the above do not work, please turn off your PC and DCP, and then turn them on again. (You will have to unplug the power cord of the DCP to turn it off.)</p>
Cannot access Removable Disk from Desktop icon.	Make sure you have inserted the media card into the media slot.
Network Difficulties (DCP-310CN only)	
I cannot print over the network	Make sure that your DCP is powered on and is On Line and in Ready mode. Print Network Configuration list. (See <i>Printing reports</i> on page A-1.) Then the current settings of the network are printed. Reconnect the LAN cable to the hub to verify that the cabling and network connections are good. If possible, try connecting the DCP to a different port on your hub using a different cable. If you have good connections, the machine will show LAN Active for 2 seconds.
Other Difficulties	
Incorrect LCD language	See <i>How to change LCD language</i> on page 5-9.

How to change LCD language

You can change the LCD language.

- 1 Press **Menu**.
- 2 Press \blacktriangle or \blacktriangledown to select 0.Initial Setup.
Press **Set**.
- 3 Press \blacktriangle or \blacktriangledown to select 0.Local Language.
Press **Set**.
- 4 Press \blacktriangle or \blacktriangledown to select your language.
Press **Set**.
- 5 Press **Stop/Exit**.

How to improve the LCD viewing

You can adjust the LCD contrast for a sharper and more vivid display. If you are having difficulty seeing the LCD from your position, try to change the contrast settings for improved viewing.

- 1 Press **Menu**.
- 2 Press \blacktriangle or \blacktriangledown to select 0.Initial Setup.
Press **Set**.
- 3 Press \blacktriangle or \blacktriangledown to select 2.LCD Contrast.
Press **Set**.
- 4 Press \blacktriangle or \blacktriangledown to select Dark (or Light).
Press **Set**.
- 5 Press **Stop/Exit**.

How to improve print quality

Cleaning the print head

To ensure good print quality, the DCP will regularly clean the print head. You can start the cleaning process manually if needed.

Clean the print head and ink cartridges if you get a horizontal line in the text or graphics on your printed pages. You can clean Black only or three colours at a time (Cyan/Yellow/Magenta), or all four colours at once.

Cleaning the print head consumes ink. Cleaning too often uses ink unnecessarily.

Caution

Do NOT touch the print head. Touching the print head may cause permanent damage and may void the print head's warranty.

1 Press **Ink Management**.

2 Press  or  to select **Cleaning**.

Press **Set**.

3 Press  or  to select **Black, Color or All**.

Press **Set**.

The DCP will clean the print head. When cleaning is finished, the DCP will go back to standby mode automatically.

 If you clean the print head at least five times and the print has not improved, call your Brother dealer for service.

Checking the print quality

If faded or streaked colours and text appears on your output, some of the nozzles may be clogged. You can check this by printing the Print Quality Check Sheet and looking at the nozzle check pattern.

- 1 Press **Ink Management**.
- 2 Press \blacktriangle or \blacktriangledown to select `Test Print`.
Press **Set**.
- 3 Press \blacktriangle or \blacktriangledown to select `Print Quality`.
Press **Set**.
- 4 Press **Colour Start**.
The DCP begins printing the Print Quality Check Sheet.
- 5 Follow the instructions given on the sheet to see if the quality is OK.

Colour block quality check

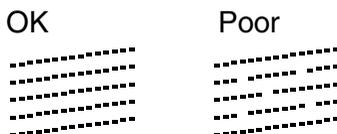
The LCD shows:



- 6 Check the quality of the four colour blocks on the sheet.
- 7 If all lines are clear and visible, press \blacktriangle (Yes) and go to Step 10.

—OR—

If you can see missing short lines as shown below, press \blacktriangledown (No).

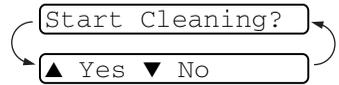


The LCD will ask you if the print quality is OK for black and three colours.



- 8 Press **▼** (No) for black or three colours with a problem.

The LCD shows:



Press **▲** (Yes). The DCP will start cleaning the print head.

- 9 After cleaning is finished, press **Colour Start**. The DCP will start printing the Print Quality Check Sheet again and then return to Step 5.

- 10 Press **Stop/Exit**.

If you still see missing ink in this Print Quality Check Sheet, repeat the cleaning and test print procedures at least five times. If ink is still missing after the fifth cleaning and test print, replace the ink cartridge for the clogged colour. (Perhaps the ink cartridge was in your DCP over six months or the expiration date written on the cartridge package has passed. Or, the ink may not have been stored properly before use.)

After replacing the ink cartridge, check it by printing another Print Quality Check Sheet. If the problem still exists, repeat the cleaning and test print procedures at least five times for the new ink cartridge. If ink is still missing, call your Brother dealer for service.

Caution

Do NOT touch the print head. Touching the print head may cause permanent damage and may void the print head's warranty.



When a print head nozzle is clogged the printed sample looks like this.



When the print head nozzle is cleaned, the horizontal lines are gone.

Checking the printing alignment

You should rarely need to adjust the printing alignment however, if after transporting the machine your printed text becomes blurred or images become faded then adjustment may need to be made.

1 Press **Ink Management**.

2 Press \blacktriangle or \blacktriangledown to select `Test Print`.

Press **Set**.

3 Press \blacktriangle or \blacktriangledown to select `Alignment`.

Press **Set**.

4 Press **Mono Start** or **Colour Start**.

The DCP begins printing the Alignment Check Sheet.

The LCD shows:



5 Check the 600 dpi and 1200 dpi test prints to see if number 5 most closely matches number 0. If the number 5 sample of both the 600 dpi and 1200 dpi are the best matches, press \blacktriangle (Yes) to finish Alignment Check and go to Step 8.

—OR—

If another test print number is a better match for either 600 dpi or 1200 dpi, press \blacktriangledown (No) to select it.

6 For 600 dpi, press \blacktriangle or \blacktriangledown to select the number of the test print that most closely matches the number 0 sample (1-8).

`600dpi Adjust`

`Select Best #5`

Press **Set**.

7 For 1200 dpi, press \blacktriangle or \blacktriangledown to select the number of the test print that most closely matches the number 0 sample (1-8).

`1200dpi Adjust`

`Select Best #5`

Press **Set**.

8 Press **Stop/Exit**.

Checking the ink volume

You can check the ink that is left in the cartridge.

1 Press **Ink Management**.

2 Press  or  to select Ink Volume.

Ink Volume 

Press **Set**.

3 Press  or  to select the colour you want to check.

The LCD shows the ink volume.

Bk: -□□□■□□□+ 

4 Press **Stop/Exit**.

Packing and shipping the DCP

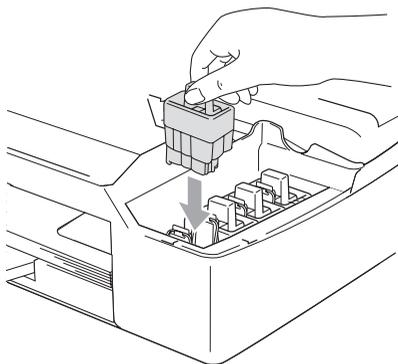
Whenever you transport the DCP, use the packing materials that came with your DCP. If you do not pack the DCP properly, you could void your warranty.

! Caution

It is important to allow the DCP to 'park' the print head after a print job. Listen carefully to the DCP before disconnecting it from the power source to ensure that all mechanical noise has stopped. Not allowing the DCP to complete this parking process may lead to print problems and possible damage to the print head.

- 1 Lift the scanner cover from the right-hand side of the DCP until it locks securely into the open position.
- 2 Remove all the ink cartridges and attach the protective parts. (See *Replacing the ink cartridges* on page 5-20.)

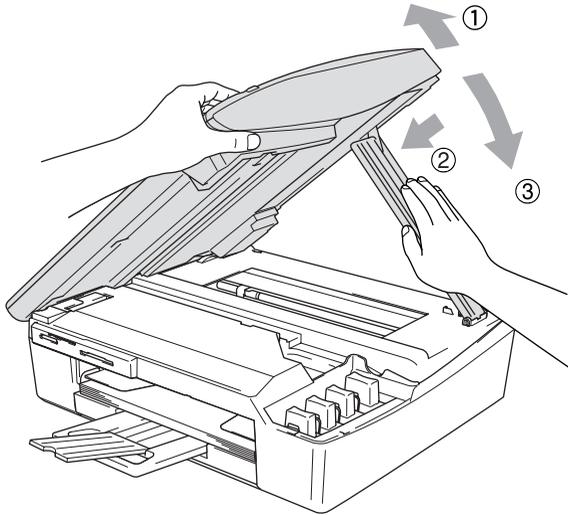
When attaching the protective parts, make sure it clips into place as shown in the diagram.



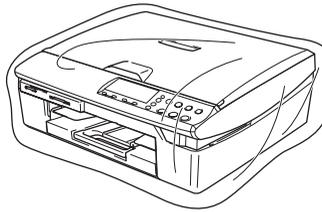
! Caution

If you are not able to find the protective parts, do NOT remove the ink cartridges before shipping. It is essential that the DCP be shipped with either the protective parts or the ink cartridges in position. Shipping without them will cause damage to your DCP and may void your warranty.

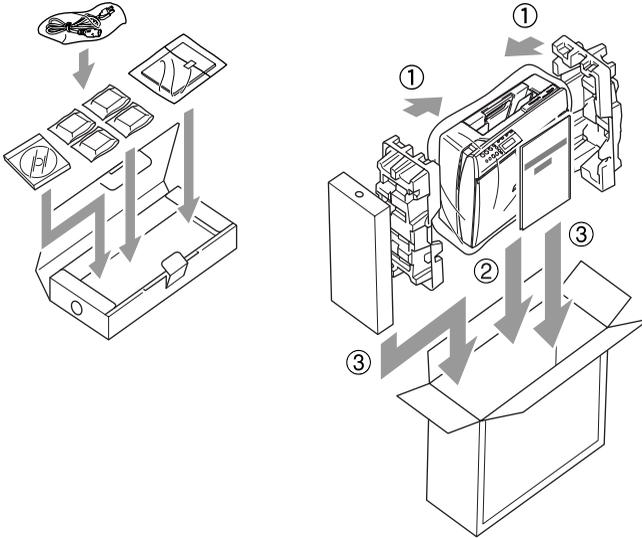
- 3** Lift the scanner cover to release the lock. Gently push the scanner cover support down and close the scanner cover.



- 4** Unplug the DCP from the electrical socket.
- 5** Unplug the USB cable or LAN cable from the DCP, if it is connected.
- 6** Wrap the DCP in the bag and place it in the original carton with the original packing material.



- 7** Pack the printed materials in the original carton as shown below. Do not pack the used ink cartridges in the carton.

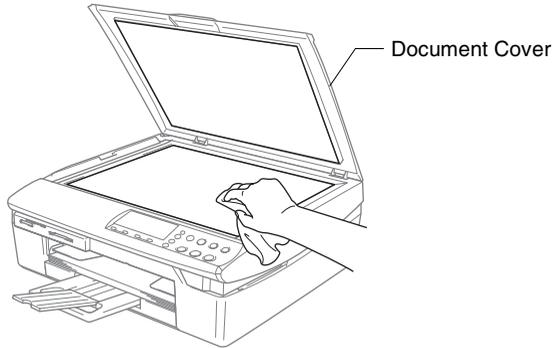


- 8** Close the carton.

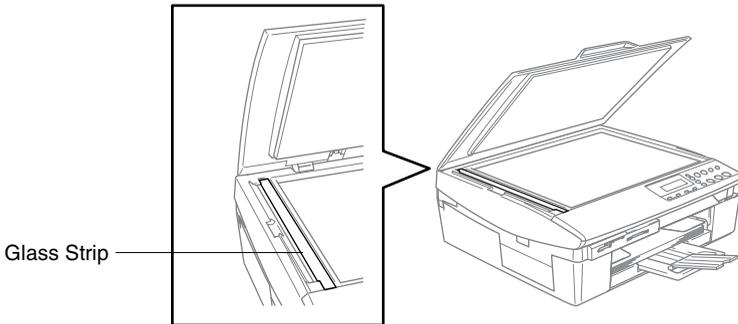
Routine maintenance

Cleaning the scanner

Lift the document cover. Clean the scanner glass with isopropyl alcohol on a soft lint-free cloth.

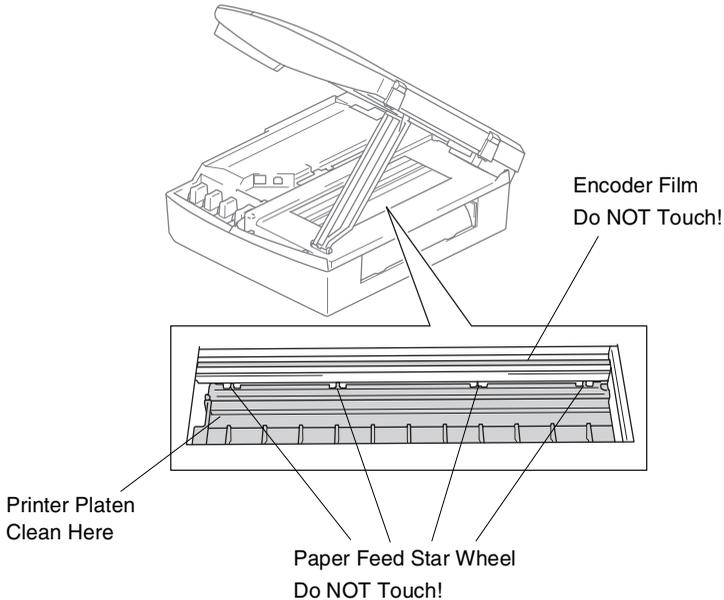


Clean the glass strip under the film with isopropyl alcohol on a lint-free cloth.



Cleaning the DCP printer platen

- Be careful not to touch the paper feed star wheels or encoder film.
- Be sure to unplug the DCP from the electrical socket before cleaning the printer platen.
- If ink is scattered on or around the printer platen be sure to wipe it off with a soft, dry, lint-free cloth.



Replacing the ink cartridges

Your DCP is equipped with an ink dot counter. The ink dot counter automatically monitors the level of ink in each of the four cartridges. When the DCP detects an ink cartridge is running out of ink, the DCP will notify you with a message on the LCD.

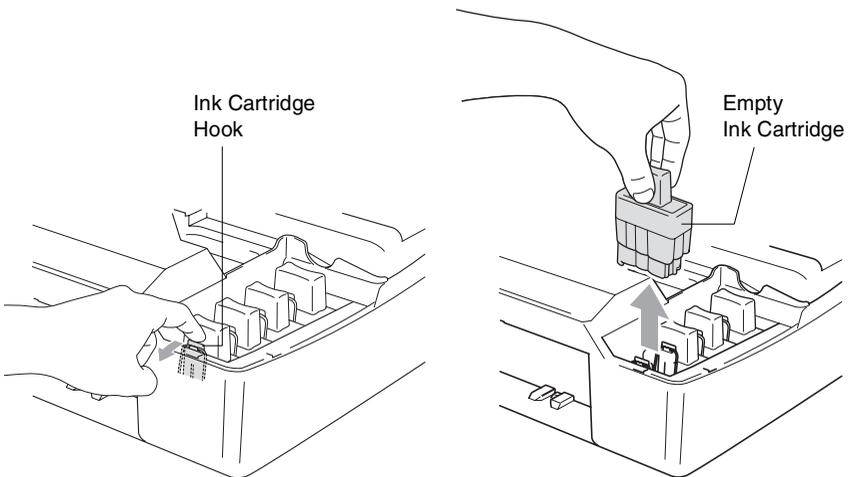
The LCD will inform you which ink cartridge is low or needs replacing. Be sure to follow the LCD prompts to replace the ink cartridges in the correct order.

Even though the DCP informs you that an ink cartridge is empty, there will be a small amount of ink remaining in the ink cartridge. It is necessary to keep some ink in the ink cartridge to prevent air from drying out and damaging the print head assembly.

- 1** Lift the scanner cover from the right-hand side of the DCP until it locks securely into the open position.

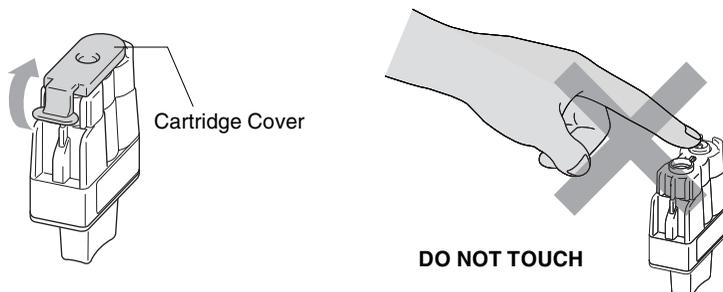
If one or more ink cartridges are empty, for example Black, the LCD shows `Ink Empty Black and Cover is Open`.

- 2** Pull the ink cartridge hook toward you and remove the ink cartridge for the colour shown on the LCD.



- 3** Open the new ink cartridge bag for the colour shown on the LCD, and then take out the ink cartridge.

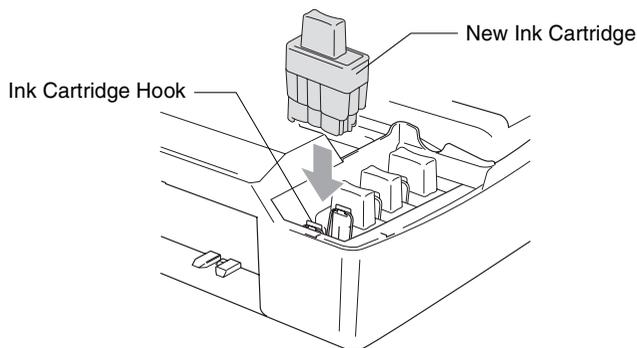
4 Remove the cartridge covers.



⊘ Do not touch the area shown in the illustration above.

 If the cartridge cover comes off when you open the bag the cartridge will not be damaged.

5 Each colour has its own correct position. Keep the ink cartridge in an upright position when you insert it into slot. Press down on the ink cartridge until the hook snaps over it.



6 Lift the scanner cover to release the lock. Gently push the scanner cover support down and close the scanner cover.

7 If you replaced an ink cartridge while `Near Empty` was displayed on the LCD, the LCD may ask you to verify that it was a brand new one. Example: `Did You Change Blck?` ▲ Yes ▼ No. For each *new* cartridge you installed, press ⬆ (Yes) to automatically reset the ink dot counter for that colour. If the ink cartridge you installed is not a brand new one, please be sure to select ⬇ (No).

 If you wait until `Ink Empty` message is displayed on the LCD, the DCP will automatically reset the ink dot counter.

 If the `Install` message is on the display after you have installed ink cartridges, check that the ink cartridges are installed properly.

 **WARNING**

If ink gets in your eyes, irrigate them with water immediately and call a doctor if you are concerned.

 **Caution**

- Do not remove ink cartridges if you do not need to replace them. If you do so, it may reduce the ink quantity and the DCP will not know the quantity of ink left in the cartridge.
- Do not touch the cartridge insertion slots. If you do so, the ink may stain your skin.
- If ink stains your skin or clothing, wash with soap or detergent immediately.
- If you install an ink cartridge in the wrong colour position, you must clean the print head several times before you start printing (after correcting the cartridge installation) because the colours were mixed.
- Once you open an ink cartridge, install it in the DCP and use it up within six months of installation. Use unopened ink cartridges by the expiration date written on the cartridge package.
- Do not dismantle or tamper with the ink cartridge, this can cause the ink to leak out of the cartridge.
- Brother multifunction machines are designed to work with ink of a particular specification and work to a level of optimum performance when used with genuine Brother ink cartridges. Brother cannot guarantee this optimum performance if ink or ink cartridges of other specifications are used. Brother does not therefore recommend the use of cartridges other than genuine Brother cartridges with this machine or the refilling of empty cartridges with ink from other sources. If damage is caused to the print head or other parts of this machine as a result of the use of ink or ink cartridges other than genuine Brother products due to the incompatibility or lack of suitability of those products with this machine, any repairs required as a result will not be covered by the warranty.

A Appendix

On-screen programming

Your DCP is designed to be easy to use with LCD on-screen programming. User-friendly programming helps you take full advantage of all the menu selections your DCP has to offer.

Since your programming is done on the LCD, we have created step-by-step on-screen instructions to help you program your DCP. All you need to do is follow the instructions as they guide you through the menu selections and programming options.

Menu table

You can probably program your DCP without the User's Guide if you use the Menu table that begins on page A-3. These pages will help you understand the menu selections and options that are found in the DCP's programs.

Printing reports

The following reports are available.

- | | |
|--------------------------------------|----------------------------------------------------------------------------------|
| 1.Help List | Prints the Help List so you can see at-a-glance how to quickly program your DCP. |
| 2.User Settings | Lists your settings. |
| 3.Network Config
(DCP-310CN only) | Lists your Network settings. |

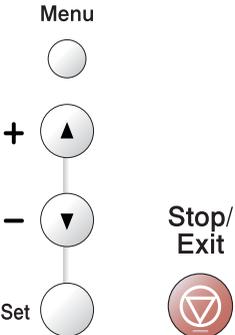
1 Press **Menu**.

2 Press **▲** or **▼** to select `Print Reports`.
Press **Set**.

3 Press **▲** or **▼** to select the report you want.
Press **Set**.

4 Press **Mono Start**.

Menu Mode

		Access the menu
	 	Scroll through the current menu level
		Accept an option Go to the next menu level
		Exit the menu

You can access the menu mode by pressing **Menu**.

When you enter the menu, the LCD scrolls.

1.Copy

2.PhotoCapture

⋮

0.Initial Setup

You can scroll more quickly through each menu level by pressing the arrow for the direction you want:  or .

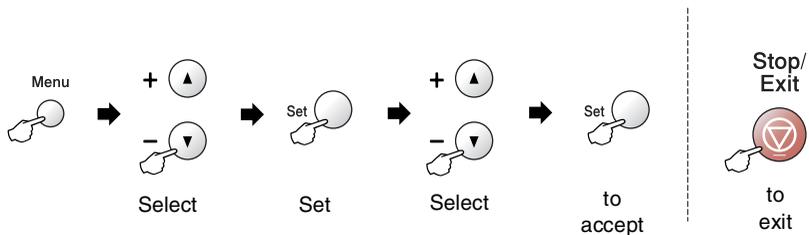
Select an option by pressing **Set** when that option appears on the LCD.

The LCD will then show the next menu level.

Press  or  to scroll to your next menu selection.

Press **Set**.

When you finish setting an option, the LCD shows *Accepted*.



Main Menu	Submenu	Menu Selections	Options	Descriptions	Page
1.Copy	1.Paper Type	—	Plain Inkjet Glossy Transprncy	Sets the type of paper in the paper tray.	2-12
	2.Paper Size	—	Letter Legal A4 A5 10x15cm	Sets the size of the paper in the paper tray.	2-13
	3.Quality	—	Best Normal Fast	Selects the Copy resolution for your type of document.	2-13
	4.Brightness	—	- □□□■ + - □□□■ + - □□□□ + - □□□□ + - ■□□□ +	Adjusts the brightness.	2-14
	5.Contrast	—	- □□□■ + - □□□■ + - □□□□ + - □□□□ + - ■□□□ +	Adjusts the contrast for copies.	2-14



The factory settings are shown in Bold.

Main Menu	Submenu	Menu Selections	Options	Descriptions	Page
1.Copy (Continued)	6.Color Adjust	1.Red	R:- 0000■ + R:- 0000■ + R:- 0000■ + R:- 0■000 + R:- ■0000 +	Adjusts the amount of Red in copies.	2-15
		2.Green	G:- 0000■ + G:- 0000■ + G:- 0000■ + G:- 0■000 + G:- ■0000 +	Adjusts the amount of Green in copies.	
		3.Blue	B:- 0000■ + B:- 0000■ + B:- 0000■ + B:- 0■000 + B:- ■0000 +	Adjusts the amount of Blue in copies.	
2.PhotoCapture	1.Print Quality	—	Normal Photo	Selects the print quality.	3-9
	2.Paper & Size	—	Letter Glossy 10x15cm Glossy 13x18cm Glossy A4 Glossy Letter Plain A4 Plain Letter Inkjet A4 Inkjet 10x15cm Inkjet	Selects the paper and print size.	3-9
	3.Brightness	—	- 0000■ + - 0000■ + - 0000■ + - 0■000 + - ■0000 +	Adjusts the brightness.	3-10
	4.Contrast	—	- 0000■ + - 0000■ + - 0000■ + - 0■000 + - ■0000 +	Adjusts the contrast.	3-10



The factory settings are shown in Bold.

Main Menu	Submenu	Menu Selections	Options	Descriptions	Page
2.PhotoCapture (Continued)	5.Color Enhance	Enhance:On Enhance:Off	1.White Balance - 0000 ■ + - 000 ■ 0 + - 00 ■ 0 0 + - 0 ■ 0 0 0 + - ■ 0 0 0 0 +	Adjusts the hue of the white areas.	3-11
			2.Sharpness - 0000 ■ + - 000 ■ 0 + - 00 ■ 0 0 + - 0 ■ 0 0 0 + - ■ 0 0 0 0 +	Enhances the detail of the image.	
			3.Color Density - 0000 ■ + - 000 ■ 0 + - 00 ■ 0 0 + - 0 ■ 0 0 0 + - ■ 0 0 0 0 +	Adjusts the total amount of colour in the image.	
	6.Cropping	—	On Off	Crops the image around the margin to fit the paper size or print size. Turn this feature Off if you want to print whole images or prevent unwanted cropping.	3-13
7.Borderless	—	On Off	Expands the printable area to fit the edges of the paper.	3-14	
8.Scan to Card	1.Quality	B/W 200x100 dpi B/W 200 dpi Color 150 dpi Color 300 dpi Color 600 dpi	Selects the Scan resolution for your type of document.	2-25*1	
	2.B/W File Type	TIFF PDF	Selects the default file format for black and white scanning.		
	3.ColorFile Type	PDF JPEG	Selects the default file format for colour scanning.		



The factory settings are shown in Bold.

*1 See the complete Software User's Guide on the CD-ROM.

Main Menu	Submenu	Menu Selections	Options	Descriptions	Page
3.LAN (DCP-310CN only)	1.Setup TCP/IP	1.BOOT Method	Auto Static RARP BOOTP DHCP	You can choose the BOOT method that best suits you needs.	See Network User's Guide on the CD-ROM
		2.IP Address	[000-255]. [000-255]. [000-255]. [000-255]	Enter the IP address.	
		3.Subnet Mask	[000-255]. [000-255]. [000-255]. [000-255]	Enter the Subnet mask.	
		4.Gateway	[000-255]. [000-255]. [000-255]. [000-255]	Enter the Gateway address.	
		5.Host Name	BRN_XXXXXX	You can confirm the Host name.	
		6.WINS Config	Auto Static	You can choose the WINS configuration mode.	
		7.WINS Server	(Primary) 000.000.000.000	Specifies the IP address of the primary or secondary server.	
		8.DNS Server	(Primary) 000.000.000.000	Specifies the IP address of the primary or secondary server.	
		9.APIPA	On Off	Automatically allocates the IP address from the link-local address range.	
	2.Setup Misc.	1.Ethernet	Auto 100B-FD 100B-HD 10B-FD 10B-HD	Selects Ethernet link mode.	
		2.Time Zone	GMT-XX:XX	Sets the time zone for your country.	
0.Factory Reset	—	—	Restore all network settings to factory default.		



The factory settings are shown in Bold.

Main Menu	Submenu	Menu Selections	Options	Descriptions	Page
3.Print Reports (DCP-110C only) 4.Print Reports (DCP-310CN only)	1.Help List	—	—	You can print these lists and reports.	A-1
	2.User Settings	—	—		
	3.Network Config (DCP-310CN only)	—	—		
0.Initial Setup	1.Date/Time	—	—	Puts the date and time in your DCP.	See Quick Setup Guide
	2.LCD Contrast	—	Light Dark	Adjusts the contrast of the LCD.	5-9
	0.Local Language (For UK , Ireland, Germany, Austria, Belgium, France, Holland and Switzerland)	—	English French German Dutch Italian	Allows you to change the LCD Language for your country.	5-9
	0.Local Language (For Italy, Spain and Portugal)	—	Italian Spanish Portug. English		
	0.Local Language (For Norway, Sweden, Denmark and Finland)	—	Norweg. Swedish Danish Finnish English		
	0.Local Language (For Czech Republic and Hungary)	—	English Czech Hungar.		



The factory settings are shown in Bold.

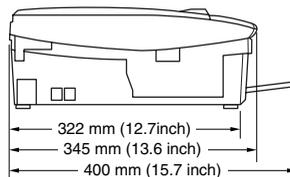
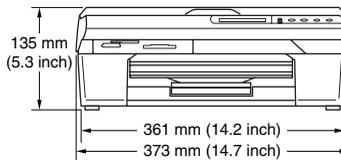
S Specifications

Product description

General

Memory Capacity	8 MB (DCP-110C) 16 MB (DCP-310CN)
Paper Tray	100 Sheets (80 g/m ²)
Printer Type	Ink Jet
Print Method	Piezo with 74 x 5 nozzles
LCD (Liquid Crystal Display)	16 characters x 1 line (DCP-110C) 16 characters x 2 lines (DCP-310CN)
Power Source	220 - 240V 50/60Hz
Power Consumption	(DCP-110C) Power Save Mode: Under 3 watts Standby: 6.5 Wh or less (25°C) Operating: 18 Wh or less (DCP-310CN) Power Save Mode: Under 4 watts Standby: 9.5 Wh or less (25°C) Operating: 19 Wh or less

Dimensions



Weight	5.0 kg
Noise	Operating: 42.5 to 51 dB* * It depends on printing conditions
Temperature	Operating: 10 - 35°C Best Print Quality: 20 - 33°C
Humidity	Operating: 20 to 80% (without condensation) Best Print Quality: 20 to 80% (without condensation)

Print media

Paper Input

Paper Tray

- Paper type:
Plain paper, inkjet paper (coated paper), glossy paper*², transparencies*^{1*2} and envelopes
- Paper size:
Letter, Legal*³, Executive, A4, A5, A6, JIS_B5, envelopes (commercial No.10, DL, C5, Monarch, JE4), Photo card, Index card, Post Card.
For more details, see *Paper type and size for each operation* on page 1-8.
- Maximum paper tray capacity: Approx. 100 sheets of 80 g/m² plain paper

Paper Output

Up to 25 sheets of A4 plain paper (Face up print delivery to the output paper tray)*²

*¹ Use only transparencies recommended for inkjet printing.

*² For glossy paper and transparencies, we recommend removing printed pages from the output paper tray immediately after they exit the machine to avoid smudging.

*³ Legal paper cannot be stacked on the output paper tray.

Copy

Colour/Black

Colour/Black

Copy Speed

Black

Up to 17 pages/minute (A4 paper)*

Colour

Up to 11 pages/minute (A4 paper)*

* Does not include the time it takes to feed the paper.

Based on Brother standard pattern. (Fast mode)

Copy speeds vary with the complexity of the document.

Multiple Copies

Up to 99 pages

Enlarge/Reduce

25% to 400% (in increments of 1%)

Resolution

Up to 600 x 1200 dpi copy resolution for plain, inkjet or glossy paper and up to 1200 x 1200 dpi for OHP/transparency

Document Size

Scanner Glass Width: Max. 216 mm

Scanner Glass Height: Max. 297 mm

Scanning Width

210 mm

PhotoCapture Center™

Available Media

CompactFlash®

(Type I only)

(Microdrive™ is not compatible)

(Compact I/O card such as Compact LAN card and Compact Modem card are not supported.)

SmartMedia® (3.3V)

(Not available for use with ID)

Memory Stick®

(Not available for music data with MagicGate™)

SecureDigital™

xD-Picture Card™

File Extension

(Media Format)

(Image Format)

DPOF, EXIF, DCF

Photo Print: JPEG*

Scan to Card: JPEG, PDF (Colour)

TIFF, PDF (Black)

* Progressive JPEG format is not supported.

Number of Files

Up to 999 files in the media card

Folder

Files must be in the 3rd folder level of the media card.

Borderless

A4, Letter, Photo Card

Scanner

Colour/Black	Colour/Black
TWAIN Compliant	Yes (Windows® 98/98SE/Me/2000 Professional/XP) Mac OS® 8.6-9.2/Mac OS® X 10.2.4 or greater
WIA Compliant	Yes (Windows® XP)
Colour Depth	36 bit colour processing (Input) 24 bit colour processing (Output)
Resolution	Up to 19200 × 19200 dpi (interpolated)* Up to 600 × 2400 dpi (optical) <small>* Maximum 1200 x 1200 dpi scanning with Windows® XP (resolution up to 19,200, x 19,200 dpi can be selected by using the Brother scanner utility)</small>
Scanning Speed	Colour: up to 5.93 sec. Black: up to 3.76 sec. (A4 size in 100 × 100 dpi)
Document Size	Scanner Glass Width: Max. 216 mm Scanner Glass Height: Max. 297 mm
Scanning Width	210 mm
Gray Scale	256 levels



Mac OS® X scanning is supported in Mac OS® X 10.2.4 or greater.

Printer

Printer Driver

Windows® 98/98SE/Me/2000 Professional and XP driver supporting Brother Native Compression mode and bi-directional capability

Apple® Macintosh® QuickDraw® Driver
For Mac OS® 8.6-9.2/Mac OS® X 10.2.4 or greater

Resolution

Up to 1200 x 6000 dots per inch (dpi)*

1200 x 1200 dots per inch (dpi)

600 x 600 dots per inch (dpi)

600 x 150 dots per inch (dpi)

* Output image quality varies based upon many factors including but not limited to input image resolution and quality and print media.

Print Speed

up to 20 pages/minute (Black)*

up to 15 pages/minute (Colour)*

* Based on Brother standard pattern.

A4 size in draft mode.

Does not include the time it takes to feed the paper.

Printing Width

204 mm(216mm)*

* When you set the Borderless feature to On.

Disk-Based Fonts

35 TrueType

Borderless

Letter, A4, A6, Photo Card, Index Card, Post Card

Interfaces

USB

A full-Speed USB 2.0 cable that is no longer than 2.0 m.*

LAN Cable (DCP-310CN only)

Ethernet UTP cable category 5 or greater

* Your DCP has a Full-Speed USB 2.0 interface. This interface is compatible with Hi-Speed USB 2.0; however, the maximum data transfer rate will be 12 Mbits/s. The DCP can also be connected to a computer that has a USB 1.1 interface.

Computer requirements

Minimum System Requirements						
Computer Platform & Operating System Version		Processor Minimum Speed	Minimum RAM	Recommended RAM	Available Hard Disk Space	
					for Drivers	for Applications
Windows® *1 Operating System	98, 98SE	Pentium II or equivalent	32 MB	64 MB	90 MB	130 MB
	Me		64 MB	128 MB		
	2000 Professional		128 MB	256 MB	150 MB	220 MB
	XP*2					
Apple® Macintosh® Operating System	Mac OS® 8.6 (Printing Only)	All base models meet minimum Requirements		64 MB	80 MB	200 MB
	Mac OS® 9.X (Printing, Scanning*3 and PhotoCapture Center™ Only)					
	Mac OS® X 10.2.4 or greater		128 MB	160 MB		
NOTE: All registered trademarks referenced herein are the property of their respective companies.						
For the latest drivers, go to the Brother Solutions Center at http://solutions.brother.com/						

*1 Microsoft® Internet Explorer 5 or greater.

*2 Maximum 1200 x 1200 dpi scanning with Windows® XP. (Resolutions up to 19200 x 19200 dpi can be selected using the Brother Utility.)

*3 Dedicated "Scan" key and direct Network Scanning (DCP-310CN only) supported in Mac® Operating Systems Mac OS® X 10.2.4 or greater.

Consumable items

Ink

The DCP uses individual Black, Yellow, Cyan and Magenta ink cartridges that are separate from the print head assembly.

Service Life of Ink Cartridge

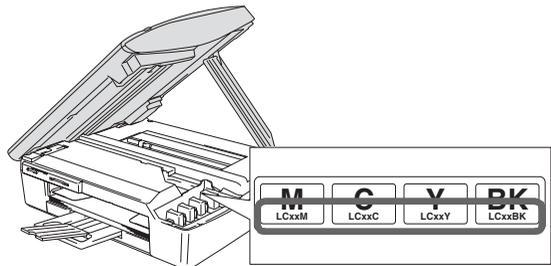
Black - Approximately 500 pages at 5% coverage
Yellow, Cyan and Magenta - Approximately 400 pages at 5% coverage

The above figures are based upon the following assumptions:

- Continuous printing at a resolution of 600 x 600 dpi in normal mode after installing new ink cartridge;
- The printing frequency;
- The number of pages printed;
- Periodic, automatic, print head assembly cleaning (Your DCP will clean the print head assembly periodically. This process will use a small amount of ink); and,
- Ink remaining in cartridge identified as “empty” (It is necessary to leave a small amount of ink in the ink cartridge to prevent air from drying out and damaging the print head assembly).

Replacement Consumables

The ink cartridge part numbers are located on a coloured label above the ink cartridge slots, as shown in the illustration below.



Network (LAN) (DCP-310CN only)

LAN You can connect your machine to a network for Network Printing, Network Scanning. Also included is Brother BRAdmin Professional Network Management software.

Support for: Windows® 98/98SE/Me/2000/XP
Mac OS® 8.6-9.2, Mac OS® X 10.2.4 or greater*
Ethernet 10/100 BASE-TX Auto Negotiation

Protocols TCP/IP
RARP, BOOTP, DHCP, APIPA, NetBIOS, WINS
LPR/LPD, Port9100, mDNS, FTP

- * Network Printing is available for Mac OS® 8.6-9.2, Mac OS® 10.2.4 or greater.
- * Mac OS® 8.6-9.2 (Quick Draw over TCP/IP)
- * Mac OS® X 10.2.4 or greater (mDNS)
- * Network Scanning is available for Mac OS® X 10.2.4 or greater.
- * Media drive is not available for Mac OS® 8.6.

Included Utilities:

BRAdmin Professional (Windows®)



BRAdmin Professional is not supported in Mac OS®.

Optional External Wireless Print/Scan Server (NC-2200w)

NC-2200w External Wireless Print/Scan Server (Optional) Connecting the optional External Wireless Print/Scan Server (NC-2200w) to your DCP will allow you to print and scan over a wireless network.

Network types IEEE 802.11b wireless LAN

Support for Windows® 98/98SE/Me/2000/XP
Mac OS® X 10.2.4 or greater

Protocols TCP/IP
ARP, RARP, BOOTP, DHCP, APIPA (Auto IP),
WINS/NetBIOS, DNS, LPR/LPD, Port9100,
SMB Print, IPP, RawPort, mDNS, TELNET,
SNMP, HTTP



You can assign the scan key to one networked computer only.

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