C5650n/C5650dn

OKI
PRINTING SOLUTIONS

User's Guide

59309101

Document Information _____

C5650n/C5650dn User's Guide

P/N 59309101, Revision 1.1

May, 2008

Disclaimer_____

Every effort has been made to ensure that the information in this document is complete, accurate, and up-to-date. The manufacturer assumes no responsibility for the results of errors beyond its control. The manufacturer also cannot guarantee that changes in software and equipment made by other manufacturers and referred to in this guide will not affect the applicability of the information in it. Mention of software products manufactured by other companies does not necessarily constitute endorsement by the manufacturer .

While all reasonable efforts have been made to make this document as accurate and helpful as possible, we make no warranty of any kind, expressed or implied, as to the accuracy or completeness of the information contained herein.

The most up-to-date drivers and manuals are available from the web site:

http://www.okiprintingsolutions.com

Trademark Information _____

Oki and Microline are registered trademarks of Oki Electric Industry Company Ltd.

Apple, Macintosh, EtherTalk, LaserWriter, Mac, and Mac OS are registered trademarks of Apple Computers Inc.

Hewlett-Packard, HP, and LaserJet are registered trademarks of Hewlett-Packard Company.

Microsoft, Windows, Windows Vista, Internet Explorer are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.

Netscape, Netscape Navigator U.S. ™, Netscape Communications Corporation.

Adobe, Acrobat, Acrobat Reader, PostScript ™ Adobe Systems. Inc.

Ethernet® Digital Equipment Corp.

Other product names and brand names are registered trademarks or trademarks of their proprietors.

Contents

Notes, Cautions, etc.

> **NOTE**
>
> A note appears like this. A note provides additional information to supplement the main text which helps you to use and understand the product.

> **Important!**
>
> An important message appears like this. An important message provides supplemental information which can prevent potential problems.

> **CAUTION!**
>
> **A caution appears like this. A caution provides additional information which, if ignored, may result in equipment malfunction or damage.**

> *WARNING!*
>
> **A warning appears like this. A warning provides additional information which, if ignored, may result in a risk of personal injury.**

Introduction

Your new printer is designed with advanced features to give you clear, vibrant color printing and crisp black and white pages at high speed on a range of print media.

Features _____

- Up to 22 pages per minute full color.
- Up to 26 pages per minute in black and white.
- 600 x 1200 dpi (dots per inch) print resolution.
- Single Pass Color Digital LED technology.
- Hiper-C emulation.
- 10 Base-T and 100 Base-TX network connection.
- Duplex Unit (C5650dn)

  for automatic two-sided printing

Options _____

- Additional Memory: see page 104

  64 MB or 256 MB
- Second Paper Tray: see page 105.

  capacity 530 sheets 20-lb. paper
- Duplex Unit (C5650n model) see page 43

Parts of the Printer

Front_____

1. **Output Stacker, face down**
    Standard printed copy delivery point.

    Holds up to 250 sheets of 20-lb. (75 g/m²) paper.

2. **Operator Panel**
    Menu driven operator controls and LCD display panel

3. **Paper Tray**
    Standard paper tray.

    Holds up to 300 sheets of 20-lb. (75 g/m²) paper.

4. **Multi-Purpose Tray**
    Used for feeding transparencies, heavier paper stocks, envelopes and other special media.

    Also for manual feeding of single sheets when required.

Rear
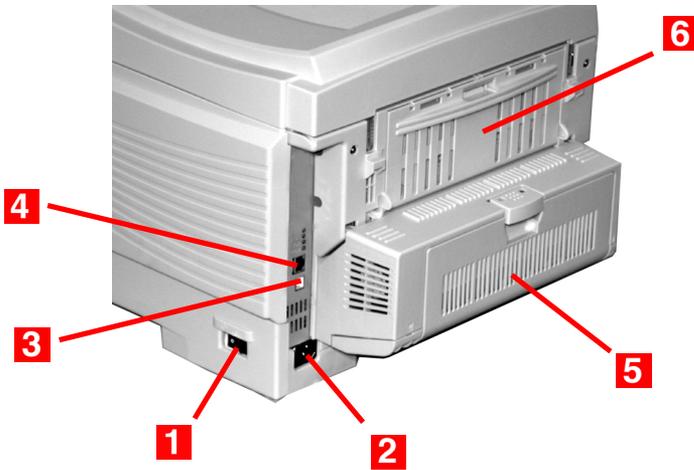
1. On/Off Switch
2. Socket for Power Cord
3. USB Interface
4. Network Interface
5. Duplex Unit (C5650dn)
6. Rear Stacker (face up)
    Capacity 100 sheets

    When the rear paper stacker is folded down, paper exits the printer through the rear of the printer and is stacked face up.

    This is used for labels, heavy print media, envelopes and custom paper sizes.

    When used with the Multi-Purpose Tray, the paper path through the printer is essentially straight. This avoids bending the print media around curves in the paper path and makes paper feeding more reliable.

Paper (Print Media)

General Information

<div style="border: 2px solid purple;">

CAUTION!

Print media must be able to withstand 446°F (230°C) for 0.2 second.

</div>

You need to know three characteristics about any paper (print media) you want to use with your printer:

- Type
- Weight
- Size

The type, weight, and size of the paper (print media) determine:

- which paper feed tray can be used

    Choices are multipurpose tray (MP Tray/manual feed) or Trays 1 - 2

- which paper exit path can be used

    Choices are face-down or face-up (straight-through)

- whether you can use double sided (duplex) printing

For type, see

- Paper: US Bond (Metric): see page 16
- Paper: Index: see page 18
- Letterhead: see page 20
- Envelopes: see page 24
- Transparencies: see page 29
- Labels: see page 26

For weight, refer to the correct paper type. Each paper type has a table (matrix) of paper size, paper weight, paper feed, paper exit, simplex/duplex correlations.

For general information on paper sizes, see "Paper Size, Feed, and Exit" on page 35.

Paper Weights _____

General Information

Designation	Weight	Feed Tray	Duplexer?	Exit Tray
Light	16-19 lb. US Bond (60-71 g/m²)	Tray 1 Tray 2	No	Top[a] Rear[b]
Medium	20-27 lb. US Bond (75-101 g/m²)	Tray 1 Tray 2 MP Tray	Yes	Top Rear
Heavy	28-32 lb. US Bond (105-120 g/m²)	Tray 1 Tray 2 MP Tray	Yes (restricted to 28 lb. maximum)	Rear Only
Ultra Heavy	33-54 lb. US Bond (124-203 g/m²)	Tray 2[c] MP Tray	No	Rear Only

a. Face Down Stacker
b. Face Up Stacker
c. 47 lb. (177 g/m²) maximum for Tray 2

Windows

1. Open the file you want to print.
2. Click File → Print.
3. In the Print dialog box, select your printer.
4. Next:
   Windows Vista/XP: click Properties.

   Windows 2000: go to the next step.
5. On the Setup tab, under Weights, make your selection.

Macintosh

OS 10.3 and later

1. Open the file you want to print.
2. Click File → Print.
3. Open the drop-down list below Presets. Select Printer Option.

4. At Media Weight, make your selection.

> ## Important!
>
> If you are printing on a thick media such as card stock, be sure to select one of the thicker settings to get proper fusion of the toner to the page and to prevent possible damage to the printer.

Select the thickness/type of media on which you are printing a particular job, to produce optimum print results. This setting overrides the setting in the printer menu. The default printer menu setting is Medium.

Light

16-19 lb. US Bond (60-71 g/m^2)

Medium

20-27 lb. US Bond (75-101 g/m^2)

Heavy

28-32 lb. US Bond

58-67 lb. Index (105-120 g/m^2)

Ultra Heavy

33-54 lb. US Bond

68-113 lb. Index (124-203 g/m^2)

5. Change any other settings as desired.
6. Click Print.

Paper, US Bond_____

Paper Feed, Exit Path, and Duplex

General Information

<div style="border: 3px solid green; padding: 1em;">

NOTE

To determine if a paper weight is US Bond or Index, check the metric equivalent.

    35 lb US Bond = 132 g/m^2

    35 lb Index = 64 g/m^2

For more information, go to www.paper-paper.com/weight.html

</div>

The size, weight, and type of the paper (print media) determine:

- which paper feed tray can be used
- which paper exit path can be used
- whether you can use double sided (duplex) printing

Single sided printing is also known as simplex printing.

These settings can be made in the printer menu or in the printer driver.

Application settings override driver settings.

Driver settings override printer menu settings.

The best performance is obtained when using paper designed for use in copiers and laser printers. Suitable types include:

- Hammermill® Laser Printer Radiant White, 24 lb. US Bond (90 g/m²)

- Xerox® 4024, 20 lb.US Bond (75 g/m²)

- Oki® 52206101 Bright White Proofing Paper, 32 lb. US Bond (120 g/m²)

Recommendations

- Check www.okiprintingsolutions.com for the latest information on recommended papers for your printer.

- Paper should be stored flat, away from moisture, direct sunlight and heat sources.

- **The use of heavily laid or textured paper will seriously affect the life of the image drum and give poor print quality.** Print quality can be improved by changing the media setting to 'Ultra Heavy.' However, this will reduce the output speed and prevent the use of the duplex option.

- *Avoid*:
  - Damp, damaged or curled paper.
  - Very smooth, shiny or glossy paper.
  - Heavily embossed letterhead paper, very rough paper or paper that has a large grain difference between the two sides.
  - Paper with perforations, cut-outs or ragged edges.
  - Carbon paper, recycled paper, NCR paper, photosensitive paper, pressure sensitive paper or thermal transfer paper.

Paper, Index_____

General Information

> **NOTE**
>
> To determine if a paper weight is US Bond or Index, check the metric equivalent.
> - 35 lb US Bond = 132 g/m^2
> - 35 lb Index = 64 g/m^2
>
> For more information, go to www.paper-paper.com/weight.html

The size, weight, and type of the paper (print media) determine:

- which paper feed tray can be used
- which paper exit path can be used
- whether you can use double sided (duplex) printing

Single sided printing is also known as simplex printing.

These settings can be made in the printer menu or in the printer driver.

Application settings override driver settings.

Driver settings override printer menu settings.

The best performance is obtained when using paper designed for use in copiers and laser printers. Suitable types include:

- Hammermill® Laser Printer Radiant White, 24 lb. US Bond (90 g/m²)

- Xerox® 4024, 20 lb.US Bond (75 g/m²)

- Oki® 52206101 Bright White Proofing Paper, 32 lb. US Bond (120 g/m²)

Recommendations

- Check www.okiprintingsolutions.com for the latest information on recommended papers for your printer.

- Paper should be stored flat, away from moisture, direct sunlight and heat sources.

- **The use of heavily laid or textured paper will seriously affect the life of the image drum and give poor print quality.** Print quality can be improved by changing the media setting to 'Ultra Heavy.' However, this will reduce the output speed and prevent the use of the duplex option.

- *Avoid*:
  - Damp, damaged or curled paper.
  - Very smooth, shiny or glossy paper.
  - Heavily embossed letterhead paper, very rough paper or paper that has a large grain difference between the two sides.
  - Paper with perforations, cut-outs or ragged edges.
  - Carbon paper, recycled paper, NCR paper, photosensitive paper, pressure sensitive paper or thermal transfer paper.

Letterhead _____

General Information

The size, weight, and type of the paper (print media) determine:

- which paper feed tray can be used
- which paper exit path can be used
- whether you can use double sided (duplex) printing

Single sided printing is also known as simplex printing.

These settings can be made in the printer menu or in the printer driver.

Application settings override driver settings.

Driver settings override printer menu settings.

When using heavily laid or textured paper

- the life of the image drum is seriously shortened
- print quality may deteriorate
- change the media setting to 'Ultra Heavy'.

  This will improve print quality.

  When using 'Ultra Heavy':

  - print speed slows
  - duplexing *cannot* be used.

Recommendations

> ## CAUTION
>
> **Print media must be able to withstand 446°F (230°C) for 0.2 second.**

Only use letterhead designed for color laser printers and photocopiers.

Don't use very smooth, shiny or glossy paper.

Don't use heavily embossed headed paper, very rough paper or paper that has a large grain difference between the two sides.

- Check www.okiprintingsolutions.com for the latest information on recommended papers for your printer.

- Paper should be stored flat, away from moisture, direct sunlight and heat sources.

- **The use of heavily laid or textured paper will seriously affect the life of the image drum and give poor print quality.** Print quality can be improved by changing the media setting to 'Ultra Heavy.' However, this will reduce the output speed and prevent the use of the duplex option.

- *Avoid*:
  - Damp, damaged or curled paper.
  - Very smooth, shiny or glossy paper.
  - Heavily embossed letterhead paper, very rough paper or paper that has a large grain difference between the two sides.
  - Paper with perforations, cut-outs or ragged edges.
  - Carbon paper, recycled paper, NCR paper, photosensitive paper, pressure sensitive paper or thermal transfer paper.

Loading

Trays 1 and 2

Long edge feed

Face down, top toward the back of the printer.
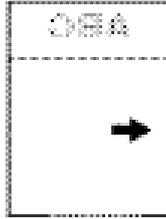
Short edge feed

face down, top to the right
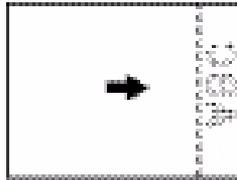
Loading

Manual Feed (MP Tray)

Long edge feed

Face up, top to the back of the printer
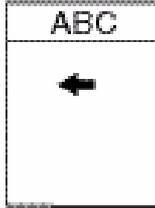
Short edge feed

Face up, top to the left
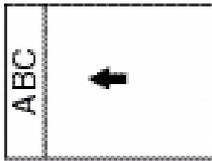
Envelopes _____

General Information

Envelopes can *only* be fed from the multi-purpose (MP / manual feed) tray.

Envelopes can *only* exit the printer *face-up*.

Recommendations

> ### CAUTION
>
> **Print media must be able to withstand 446°F (230°C) for 0.2 second.**
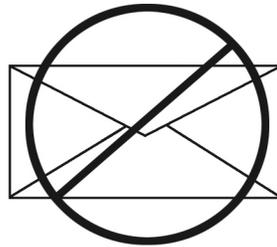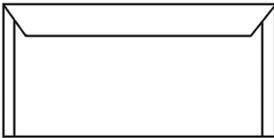
1. Use only recommended envelopes.
   Oki 52206301 and 52206302

   For more information, see "Print Media" in your *Handy Reference Guide* or www.okiprintingsolutions.com.

2. Store envelopes flat and away from
   - moisture
   - direct sunlight
   - heat sources

3. Don't use envelopes with
   - windows
   - metal clasps
   - self-sealing flaps
   - damp, damaged or curled paper envelopes

Loading

Trays 1 - 2

Envelopes *cannot* be fed from paper trays 1 - 2.

Multi-purpose Tray

Face up (flap side *down*), top to the left (into the printer)
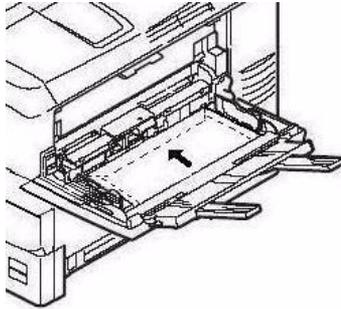
Labels _____

General Information

Labels can *only* be fed from the multi-purpose (MP / manual feed) tray.

Labels can *only* exit the printer *face-up*.

Avery 5161 White Laser Labels (letter size) work well with your printer.

Check www.okiprintingsolutions.com for the latest information on media for your printer.

Recommendations

> ### CAUTION
> **Print media must be able to withstand 446°F (230°C) for 0.2 second.**

- Only use labels designed for color laser printers and photocopiers.
- Labels must cover the entire carrier sheet.
- The carrier sheet or adhesive must not be exposed to any part of the printer.

Loading

Trays 1 - 2

Labels *cannot* be fed from paper trays 1 - 2.

Manual Feed (MP Tray)

Face up (print side *up*)

Default = long edge feed.
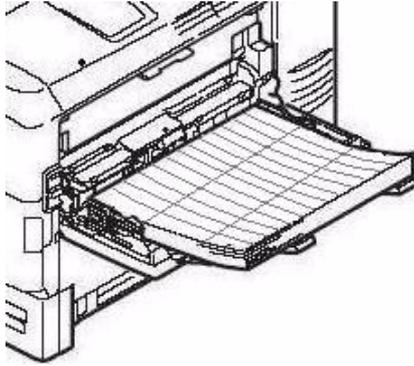
Windows

> **NOTE**
>
> Recommended labels for best print results:
> Avery 5161 White Laser Label (Letter size);
> Avery 7162, 7664, 7666 White Laser Labels
> (size A4).

Macintosh

OS 10.3 and later

> **NOTE**
>
> Recommended labels for best print results:
> Avery 5161 White Laser Label (Letter size);
> Avery 7162, 7664, 7666 White Laser Labels
> (size A4).

1. Open the file you want to print.

2. Click File → Print.

3. Open the drop-down list below Presets. Select Printer Option.

4. At Media Weight, make your selection.
Labels1: For labels 0.1 to 0.169 mm thick.

Labels2: For labels 0.17 to 0.2 mm thick.

5. Change any other settings as desired.

6. Click Print.

Transparencies _____

General Information
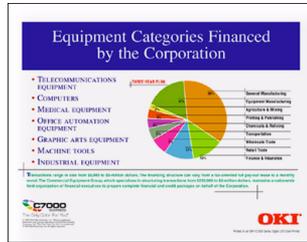
Transparencies can *only* be fed from the multi-purpose (MP / manual feed) tray.

Transparencies can *only* exit the printer *face-up*.

Recommendations

CAUTION

Print media must be able to withstand 446°F (230°C) for 0.2 second.

---

1. Only use transparencies designed for color laser printers and photocopiers.
2. Only use recommended transparencies
   Oki 52205701

   3M CG3720
3. Avoid office transparencies designed for use by hand with marker pens.
   These will melt in the fuser and cause damage.

Loading

Trays 1 - 2

Transparencies *cannot* be fed from paper trays 1 - 5.

Manual Feed (MP Tray)
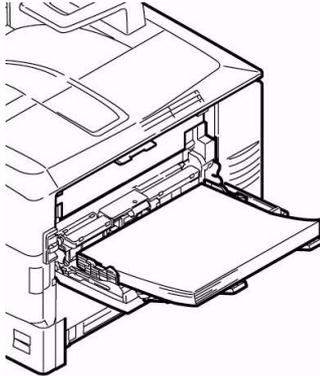
Face up (print side *up*)

Default = long edge feed.

Windows

1. Open the file you want to print.
2. Click File → Print.
3. In the Print dialog box, select your printer.
4. Next:

   Windows Vista/XP: click Properties.

   Windows 2000: go to the next step.

5. On the Setup tab, under Weight, select Transparencies.

Macintosh

OS 10.3 and later

NOTE

Use only recommended transparencies (3M CG3720, Oki 52205701).

1. Open the file you want to print.
2. Click File → Print.
3. Open the drop-down list below Presets. Select Printer Option.

4. At Media Weight, select Transparency.
5. Change any other settings as desired.
6. Click Print.

Paper Trays

Windows_____

1. Open the file you want to print.
2. Click File → Print.
3. In the Print dialog box, select your printer.
4. Next:

   Windows Vista/XP: click Properties.

   Windows 2000: go to the next step.
5. On the Setup tab, under Source, make your selection:

   Automatically select

   > The printer automatically selects the paper tray.

   Multi Purpose Tray / Tray1 / Tray 2

   > Tray 2 appears only if an optional tray is installed.

   > Select a specific paper tray.

   > For example:

   > You are printing a job on special media (letterhead).

   > Place the media in the Multi Purpose Tray.

   > Select the Multi Purpose Tray here (in the driver) when printing the job.

Macintosh _____

OS 10.3 and later

1. Open the file you want to print.
2. Click File → Print.
3. Open the drop-down list below Presets. Select Paper Source.
4. Make your selection.

   Auto

   > The printer automatically selects the paper tray.

   Multi Purpose Tray / Tray1 / Tray 2

   > Tray 2 appears only if an optional tray is installed.

   > Select a specific paper tray.

   > For example:

You are printing a job on special media (letterhead).

Place the media in the Multi Purpose Tray.

Select the Multi Purpose Tray here (in the driver) when printing the job.

5. Change any other settings as desired.
6. Click Print.

Paper Size Check _____

General Information

If Paper Size Check is turned on (enabled), the printer checks whether the size paper loaded in the selected tray matches that required for the document being printed.

Windows

1. Open the file you want to print.
2. Click File → Print.
3. In the Print dialog box, select your printer.
4. Next:
    Windows Vista/XP: click Properties.

    Windows 2000: go to the next step.

5. On the Setup tab, click Paper feed options.
6. Select Media Check.

Macintosh

OS 10.3 and later

1. Open the file you want to print.
2. Click File → Print.
3. Open the drop-down list below Presets. Select Printer Option.
4. Make your selection for Paper size check.
    If the box has a check mark, the feature is ON.

    If the box is empty, the feature is OFF.

5. Change any other settings as desired.
6. Click Print.

Paper Size, Feed, and Exit

Tray 1 and Optional Tray 2 _____

Paper size	Feed		Exit	
	Tray 1	Tray 2	Top[a]	Rear[b]
Letter (8½ x 11")	S, D[c]	S, D	S, D	S, D
Legal-14 (8½ x 14")	S, D	S, D	S, D	S, D
Legal-13.5 (8½ x 13.5")	S, D	S, D	S, D	S, D
Legal-13 (8½ x 13")	S, D	S, D	S, D	S, D
Executive (7¼ x 10½")	S, D	S, D	S, D	S, D
A4 (210 x 297 mm)	S, D	S, D	S, D	S, D
A5 (145 x 210 mm)	S, D	S, D	S, D	S, D
A6 (105 x 148 mm)	S	Not Usable	Not Usable	S
B5 (182 x 257 mm)	S, D	S, D	S, D	S, D
Custom	S: *min*. 3.94 x 5.83" [100 x 148 mm], D: *min*. 5.8 x 8.25" [148 x 210 mm] S, D: *max*. 8.5 x 14" [215.9 x 355.6 mm]	S: *min*. 3.94 x 5.83" [100 x 148 mm], D: *min*. 5.8 x 8.25" [148 x 210 mm] S, D: *max*. 8.5 x 14" [215.9 x 355.6 mm]	S, D	Not Usable.

a. Use the Top Exit (Face Down Stacker) only for paper up to 47 lb. US Bond (98 lb. Index, 177 g/m^2).
b. Switch to the Rear Exit (Face Up Stacker) when you are printing paper heavier than 47 lb. US Bond (98 lb. Index, 177 g/m^2).
c. S = Simplex; D = Duplex (printing on both sides)

Auto Switching _____

General Information

If a paper tray (Tray 1) runs out of paper, your printer can automatically switch to another paper tray (MP Tray, optional Tray 2) loaded with the same type of paper. This is called Auto Switching.

This feature is enabled either through the printer menu or the printer driver.

Application settings override driver settings.

Driver settings override printer menu settings.

Printer Menu

This function is enabled in the Print Menu.

The factory default is ON.

To change the setting:
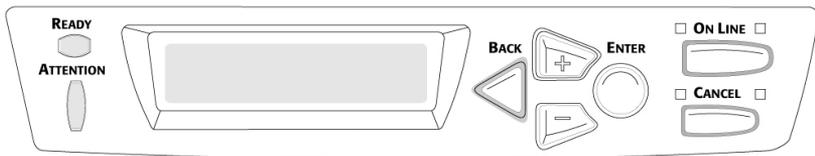
1. Press MENU + repeatedly until you see

PRINT MENU

2. Press ENTER.
3. Press MENU + repeatedly until you see

AUTO TRAY SWITCH

4. Press ENTER.
5. Press MENU + and/or MENU – repeatedly until you see the desired setting (ON or OFF).
6. Press ENTER to select the new setting.
7. Press ON LINE to exit the menu and return the printer to standby.

Macintosh

1. Open the file you want to print.
2. Click File → Print.
3. Open the drop-down list below Presets. Select Printer Option.
4. At Auto tray switch, make your selection.
   If the box has a check mark, the feature is ON.

   If the box is empty, the feature is OFF.

5. Change any other settings as desired.
6. Click Print.

Multi-Purpose Tray (MP Tray) [Manual Feed] _____

General Information

This tray is also called the manual feed tray.

Use the Multi-Purpose Tray (MP Tray) for printing card stock, labels, envelopes and transparencies.

If a paper tray (Tray 1) runs out of paper, your printer can automatically switch to another paper tray (MP Tray, optional Tray 2) loaded with the same type of paper. This is called Auto Switching. See "Auto Switching" on page 36

- Capacity

    stack of media about 3/8'' (10 mm) high

    about 10 envelopes

    50 transparencies

- Loading

    print side *up*, top edge facing into the printer.

- Exit path

    rear exit (Face Up Stacker), best for general use

    top exit (Face Down Stacker), with restrictions

        See "Paper Sizes and Exit Paths" on page 40

    duplex (printing on both sides), with restrictions

        See "Duplexing Restrictions" on page 39

Duplexing Restrictions

Important!

You can duplex

- paper
- paper weights up to

    28 lb. US Bond

    58 lb. Index

    105 g/m^2 metric

You *cannot* duplex

- labels
- envelopes
- transparencies
- paper weights above

    28 lb. US Bond

    58 lb. Index

    105 g/m^2 metric

Paper Sizes and Exit Paths

Paper size	Feed MP Tray	Exit Rear[a]	Exit Top[b]
Letter 8½ x 11"	Yes	Yes	Yes
Legal-14 8½ x 14"	Yes	Yes	Yes
Legal-13.5 8½ x 13.5"	Yes	Yes	Yes
Legal-13 8½ x 13"	Yes	Yes	Yes
Executive 7¼ x 10½"	Yes	Yes	Yes
A4 210 x 297 mm	Yes	Yes	Yes
A5 145 x 210 mm	Yes	Yes	Yes
B5 182 x 257 mm	Yes	Yes	Yes
Envelopes COM-10	Yes	Yes	No

Custom
   Minimum
      3.94 to 5.83"
      100 x 148 mm
   Maximum
      8½ x 14"
      216 x 356 mm
   Banner[c]
	Yes	Yes	No

a. Use the Rear Exit (Face Up Stacker) for heavy paper, transparencies, envelopes, and labels.

b. Use the Top Exit (Face Down Stacker) only for paper up to 47 lb. US Bond (98 lb. Index, 177 g/m^2).

c. Banner specifications:
– Length: up to 47" (1.2 m)
– Width Range = 8¼ to 8½" (210 to 215.9 mm)
– Weight Range = 28 to 34 lb. US Bond (105 to 128 g/m2)
– Path = Rear Exit (Face Up Stacker) only
– Feed one sheet at a time.

Paper Exit Paths

Face Down (Top Exit) _____

- Capacity

  up to 250 sheets of standard paper

  - 20-lb. US Bond

  - 42 lb. Index, 75 g/m² metric

- Paper Weights

  up to 47 lb. US Bond

  98 lb. Index, 176 g/m² metric

- Print Sequence

  Pages are printed in reading order

  Page 1 first; last page on top, facing down

Face Up (Rear Exit) _____

Open the face up stacker at the rear of the printer and pull out the tray extension.

When the face up stacker is open, paper exits via this path, regardless of driver settings.

- Capacity

  up to 100 sheets of standard paper

  - 20 lb. US Bond

42 lb. Index, 75 g/m²

● Paper Weights up to

NOTE

Always use this stacker and the Multi-Purpose Tray for paper stocks heavier than 47 lb. US Bond (98 lb. Index, 176 g/m² metric).

---

54 lb. US Bond

113 lb. Index

203 g/m² metric

● Print Sequence

Papers are printed face up.

For multi-page documents,

Select "Reverse order printing" in your application Print dialog box (Click File → Print).

This puts the printed stack in the correct order.

Duplex Unit_____

General Information

The Duplex Unit (optional on the C5650n) enables your printer to print on both sides of the page.

See "Duplex Printing" on page 197.

Paper Types

Paper *only*

Cannot duplex

labels

envelopes

transparencies

Paper Sizes

Size	Inches	Millimeters
Letter	8½ x 11	215.9 x 279.4
Legal-14	8½ x 14	215.9 x 355.6
Legal-13.5	8½ x 13.5	215.9 x 342.9
Legal-13	8½ x 13	215.9 x 330.2
Executive	7¼ x 10½	184.15 x
A4	8.27 x 11.69	210 x 297
A5	5.71 x 8.27	145 x 210
B5	7.17 x 10.12	182 x 257

Custom	Minimum
	    5.8 x 8.25
	
	Maximum
	    8.5 x 14
		Minimum
		    148 x 210
		
		Maximum
		    215.9 x 355.6

Paper Weights

20 to 28-lb. US Bond

42 to 58 lb. Index

75 to 105 g/m² metric

Duplexing Restrictions

Important!

You can duplex

- paper
- paper weights up to

    28 lb. US Bond
    58 lb. Index
    105 g/m^2 metric

You *cannot* duplex

- labels
- envelopes
- transparencies
- paper weights above

    28 lb. US Bond
    58 lb. Index
    105 g/m^2 metric

Loading Paper

Trays 1 and 2 _____

1. Remove the paper tray from the printer.

2. Fan the paper to be loaded at the edges (**1**) and in the middle (**2**). Then tap the edges of the stack on a flat surface to make it flush again (**3**).

1   **2**   **3**
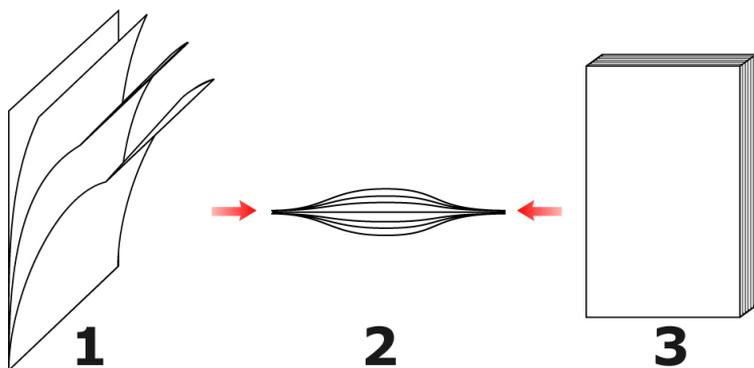
3. Load paper print side down. Make sure the rear stopper (**1**) and paper guides (**2**) are snug against the paper.
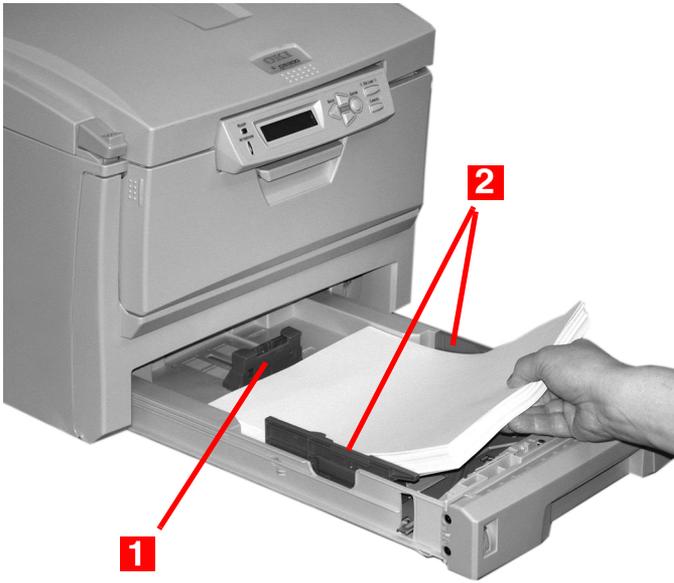
NOTE

Load letterhead paper face *down*. The top edge is aimed towards the front of the printer.

---
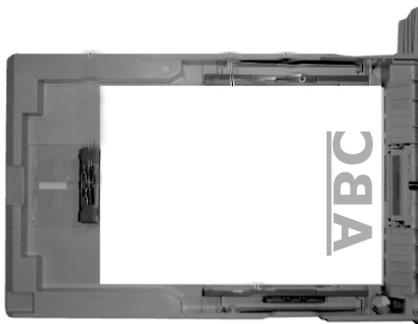
4. Gently close the paper tray.

NOTE

To prevent paper jams:
- Do not leave space between the paper and the guides and rear stopper.
- Do not overfill the paper tray. Capacity depends on the type of paper stock.
- Do not load damaged paper.
- Do not load paper of different sizes or types at the same time.
- Do not pull the paper tray out during printing (except as described above for the 2nd tray).

Multi-Purpose (MP) Tray _____

NOTE

The MP Tray will take

- a stack of media about 3/8'' (10 mm) high
- about 10 envelopes
- about 50 transparencies.

Do not exceed the 3/8'' (10 mm) media stack height.

---

1. Open the MP Tray.
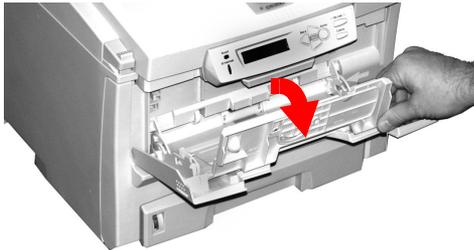
2. Press down on the loading platform.
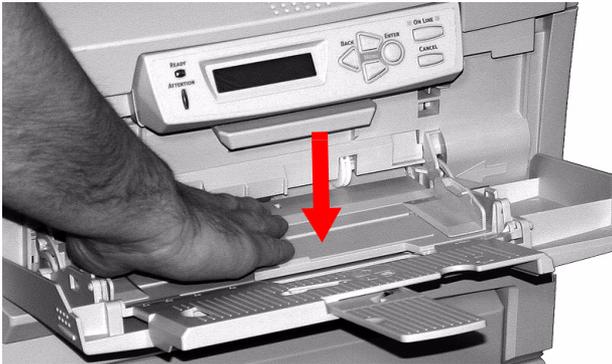
3. Load the print media. Adjust the guides (**1**) to the size media being used.
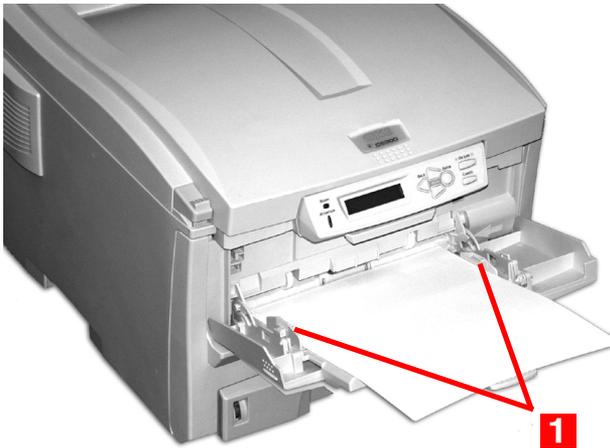
Letterhead:

Single-sided printing

load with pre-printed side *up* and the top edge *into* the printer.

Double-sided printing (duplex)

load with pre-printed side *down* and top edge *away from* the printer. (Optional duplex unit must be installed.)

Envelopes

Load print side up (flap down) with top edge to the left and short edge into the printer.

You cannot duplex envelopes.

4. Press the blue tray latch (**1**) toward the paper stack to lift the paper platform into the feed position.

Consumables

Life Expectancy

See "Specifications" on page 106

Part Numbers

Toner

Type C8		
Black, High Capacity	43324404	
Cyan, High Capacity	43324403	
Magenta, High Capacity	43324402	
Yellow, High Capacity	43324401	
Black, standard	43381904	
Cyan, standard	43381903	
Magenta, standard	43381902	
Yellow, standard	43381901	

Image Drum

Type C8	
Black	43381704
Cyan	43381703
Magenta	43381702
Yellow	43381701

Fuser*

120 V	43363201
230V	43363202

Belt*

Belt   43363401

Second Tray

Second Tray   43347601

Duplex Unit

Duplex Unit   43347501

REPLACING CONSUMABLES AND MAINTENANCE ITEMS
*Fusers and transfer belts are replaceable maintenance items. They are warranted against defects for 90 days. When the printer display indicates that they are near end of life, a replacement must be purchased.

Replace a Toner Cartridge _____

REPLACE TONER
nnn: zzzz TONER EMPTY

nnn: ZZZZ =

   410: YELLOW

   411: MAGENTA

   412: CYAN

   413: BLACK

1. Press the cover release. Open the printer's top cover fully.

WARNING!

If the printer has been powered on, the *fuser is HOT*. This area is clearly labelled. Do not touch it.

---

2. Note the positions of the four cartridges: Cyan (**1**), Magenta (**2**), Yellow (**3**), Black (**4**).
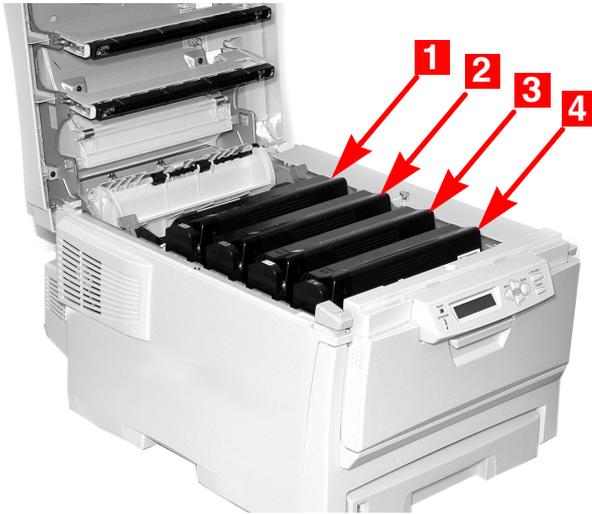
3. Pull the colored toner release lever on the cartridge to be replaced towards the front of the printer.
Shown: replacement of the black toner cartridge
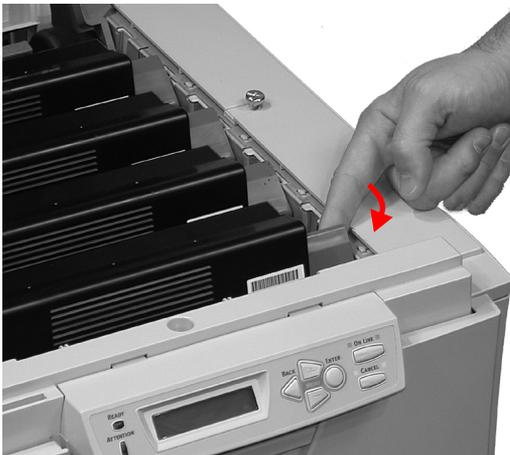
4. Lift the right-hand end of the cartridge. Then, pull the cartridge to the right to release the left-hand end. Remove the toner cartridge. Discard it in accordance with your local regulations.
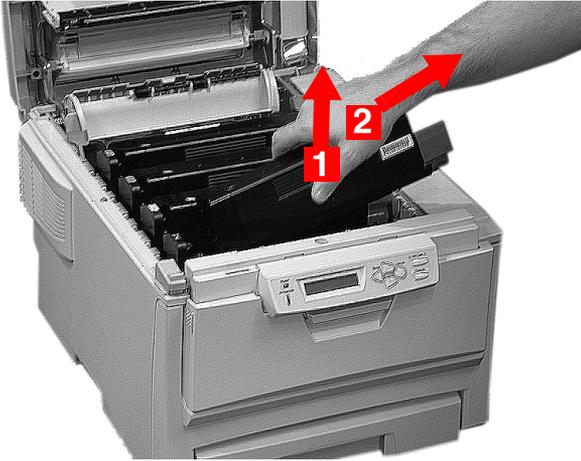
Install a Toner Cartridge

5. Unpack the new toner cartridge. Gently shake it *from side to side* to loosen and distribute the toner evenly inside the cartridge.

6. Remove the adhesive tape from the underside of the cartridge.

CAUTION!

Do not touch the toner release lever until the toner cartridge is installed in the image drum. If you do, it will open the toner release slot and spill toner.

---

7. Hold the cartridge by its top center with the colored release lever to the right. Insert the left end of the

cartridge into the top of the image drum. Push it firmly against the spring on the drum unit.
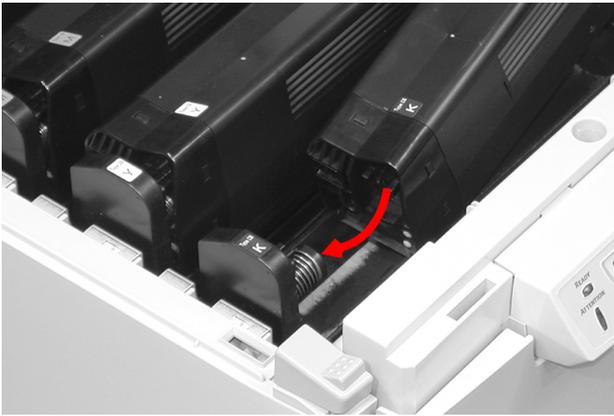
8. Lower the right end of the cartridge into the image drum unit. Press it firmly down in place. Then, push the colored lock lever back to open the toner slot and lock it in place.
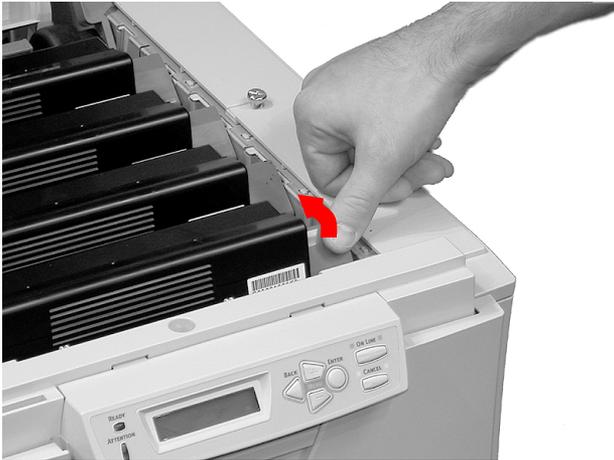
IMPORTANT!

The lever should move easily.

If it does not, *STOP!*

Push down on the toner cartridge to be sure that it is properly seated in the image drum. Press back on the lever again.

To avoid toner spillage, DO NOT open the toner release lever until the toner cartridge is firmly seated in the image drum.

9. Use the provided LED lens cleaner. Gently wipe the LED.

10. Close and latch the top cover.

Replace an Image Drum _____

REPLACE IMAGE DRUM
nnn: ZZZZ DRUM LIFE

nnn: ZZZZ =

   350: YELLOW

   351: MAGENTA

   352: CYAN

   353: BLACK

Important!

You must replace the toner cartridge when you replace the image drum. The life expectancy of the cartridge will be reduced as the toner charges the new drum.

1. Press the cover release and open the top cover fully.

WARNING!

If the printer has been powered on, the *fuser is HOT*. This area is clearly labelled. Do not touch it.

2. Note the positions of the four image drums: Cyan (**1**), Magenta (**2**), Yellow (**3**), Black (**4**).
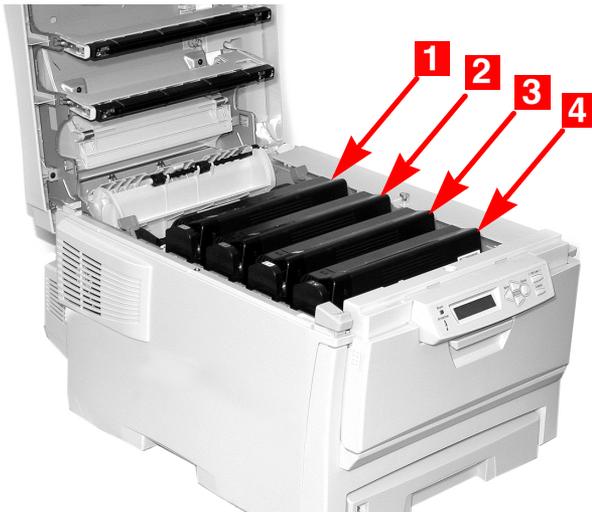
3. Lift the image drum, complete with its toner cartridge, out of the printer. Discard it in accordance with your local regulations.

4. Unpack the new image drum.

CAUTION!

Image drum handling

The image drum contains toner. To avoid spilling toner, be careful to *keep it upright*.

CAUTION!

The green surface at the base of each image drum is very delicate and light sensitive.

- **Do not touch the green surface.**
- **Never expose the drum to direct sunlight or to very bright room lighting.**
- **Do not expose it to normal room light for more than 5 minutes.**
- **If the image drum must be out of the printer for longer than 5 minutes, place the image drum inside a black plastic bag or carefully place it in a drawer or cabinet to keep it away from light.**

5. Grasp the white tape tab and peel the tape off the drum.

6. Remove the paper sheet. Then, remove the clear plastic film.
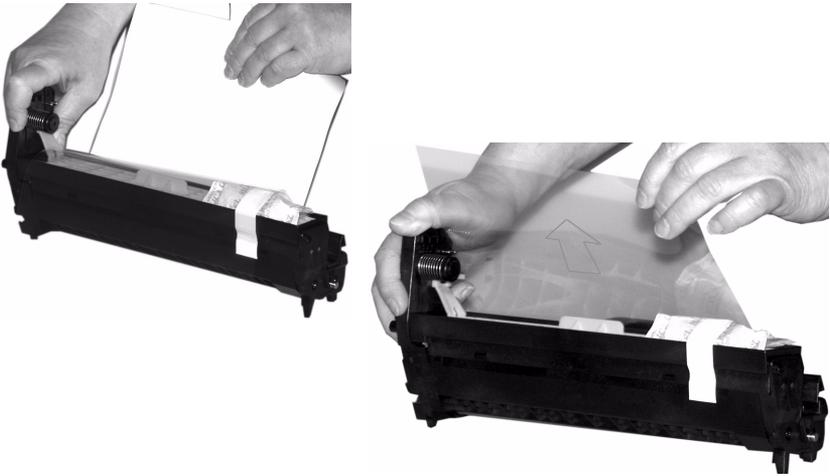
7. If present, remove the silica gel pack.
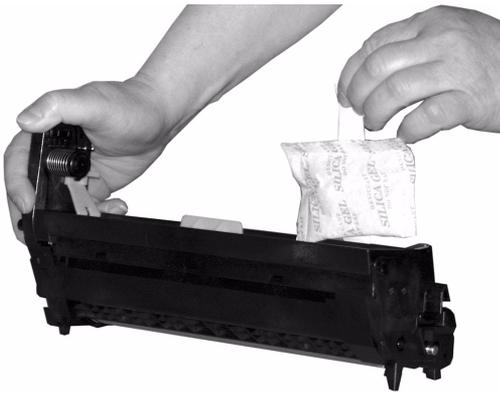
8. Place the image drum in the printer.
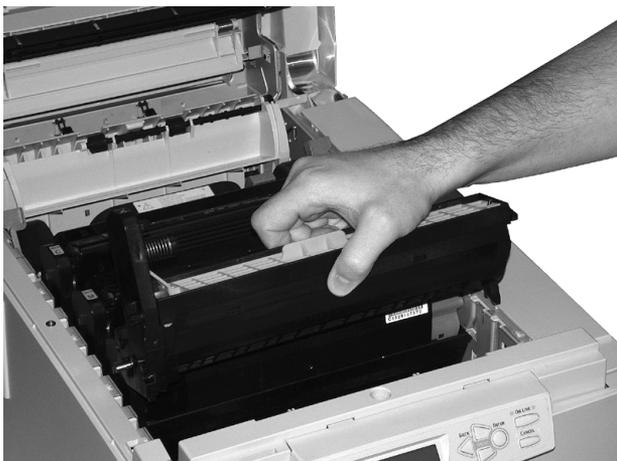
9. Remove the orange drum seal.

10. Install the new toner cartridge in the image drum. See "Install a Toner Cartridge" on page 57.
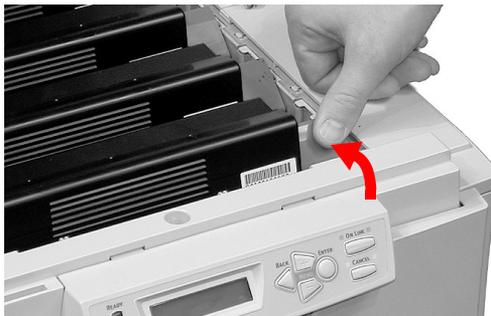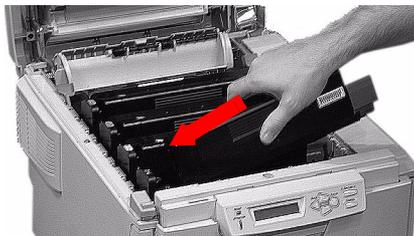
11. Use the provided LED lens cleaner. Gently wipe the LED.

12. Close and latch the top cover.

Replace the Fuser _____

REPLACE FUSER
354: FUSER LIFE

WARNING!

If the printer has been powered on, the *fuser is HOT*. This area is clearly labelled. Do not touch it.

Handle the fuser with extreme care. Hold it only by its handle, which is only mildly warm to the touch.

If in doubt, switch the printer off. Wait at least 10 minutes for the fuser to cool before opening the printer cover.

1. Press the cover release. Fully open the printer's top cover.

2. Pull the two blue fuser lock levers (**1**) towards the front of the printer.
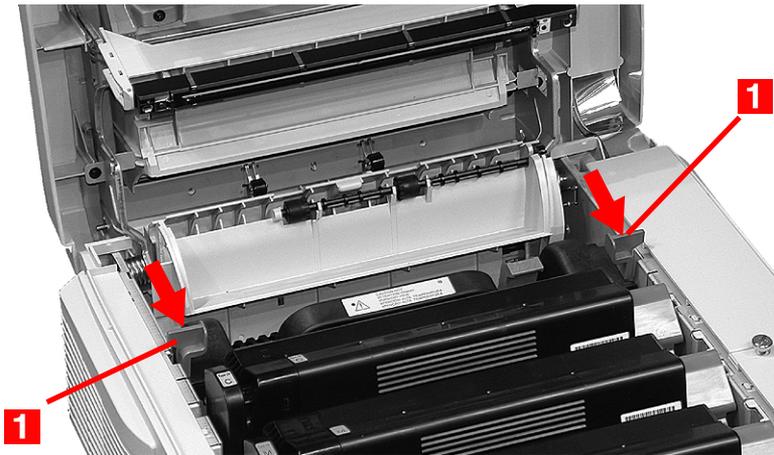
3. Hold the fuser *by its handle*. Lift the fuser out of the printer. *If the fuser is still warm, place it on a flat surface which will not be damaged by heat*. After letting the fuser cool down, discard it.

4. Remove the new fuser from its packaging. Remove any packing tape.
5. Push the orange transport lock to the left to release it. You'll hear it snap. Remove it.

6. Hold the new fuser by the handle. The fuser pressure release lever (**1**) should be on the right. Lower the fuser into the printer.
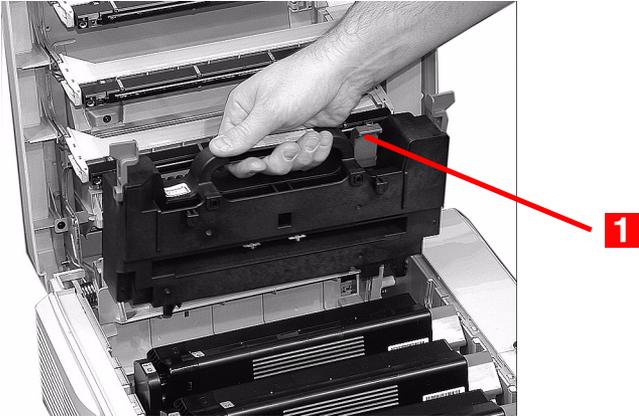
7. Push the two blue retaining levers (**1**) toward the rear of the printer to lock the fuser in place.
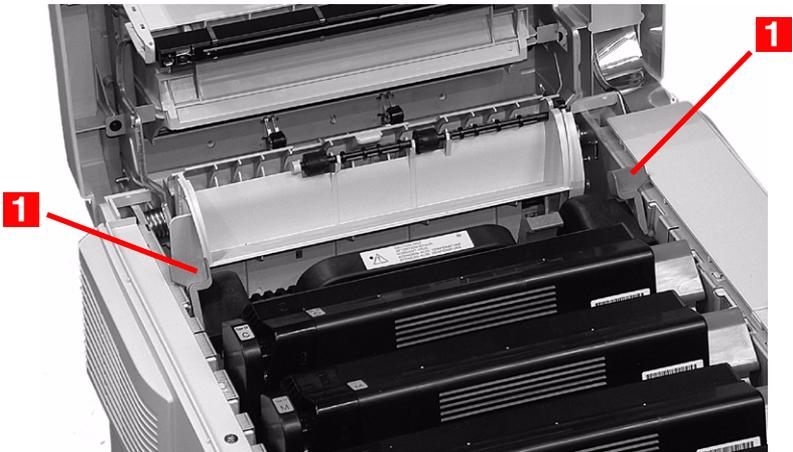
8. Close and latch the top cover.

Replace the Belt Unit _____

REPLACE BELT
355: BELT LIFE

The belt unit is located under the four image drums.

1. Press the cover release and open the top cover fully.

WARNING!

If the printer has been powered on, the *fuser is HOT*. This area is clearly labelled. Do not touch it.

2. Note the positions of the four image drums: Cyan (**1**), Magenta (**2**), Yellow (**3**), Black (**4**). *It is essential that they go back in the correct order!*
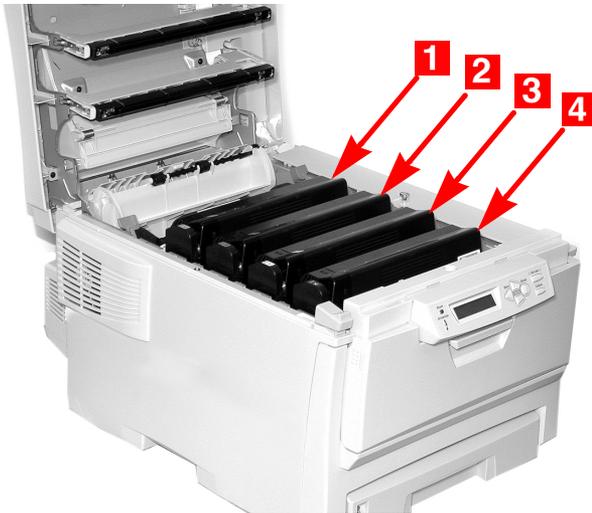
3. Lift each of the image drum units out of the printer. Place them on a *flat* surface in a safe place away from direct sources of heat and light.

<div style="border: 2px solid purple;">

CAUTION!

The green surface at the base of each image drum is very delicate and light sensitive.

- **Do not touch the green surface.**
- **Never expose the drum to direct sunlight or to very bright room lighting.**
- **Do not expose it to normal room light for more than 5 minutes.**
- **If the image drum must be out of the printer for longer than 5 minutes, place the image drum inside a black plastic bag or carefully place it in a drawer or cabinet to keep it away from light.**

</div>

4. Locate the two blue locks (**1**) and the handle (**2**).
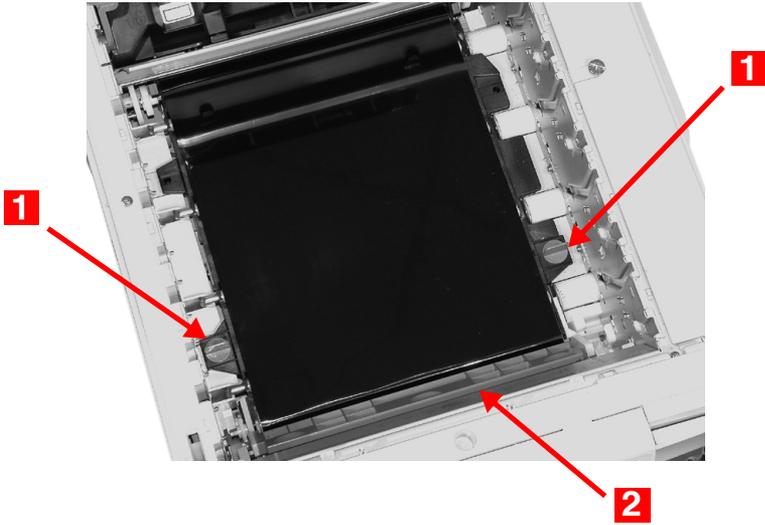
5. Turn the two locks about 45° *counter*clockwise to release the belt.
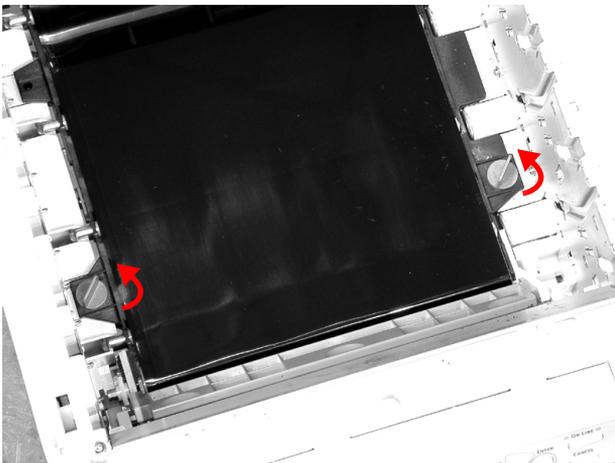
6. Pull up the handle and lift the belt unit out of the printer.
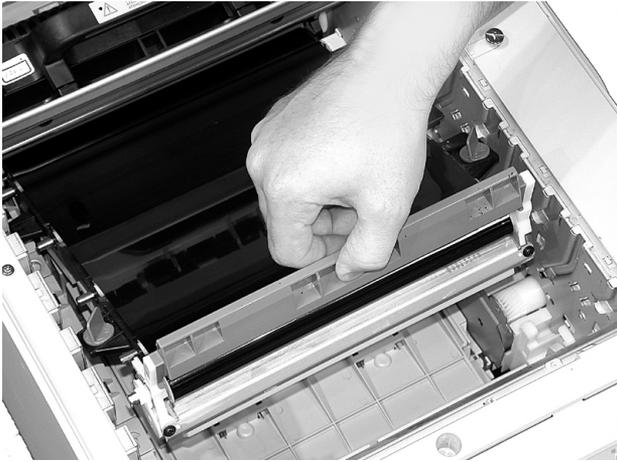
7. Unpack the new belt unit. Hold it with the blue handle toward the front of the printer.
8. Place the drive gear at the back of the belt unit in the gear at the left rear corner of the printer. Lower the belt unit into the printer.
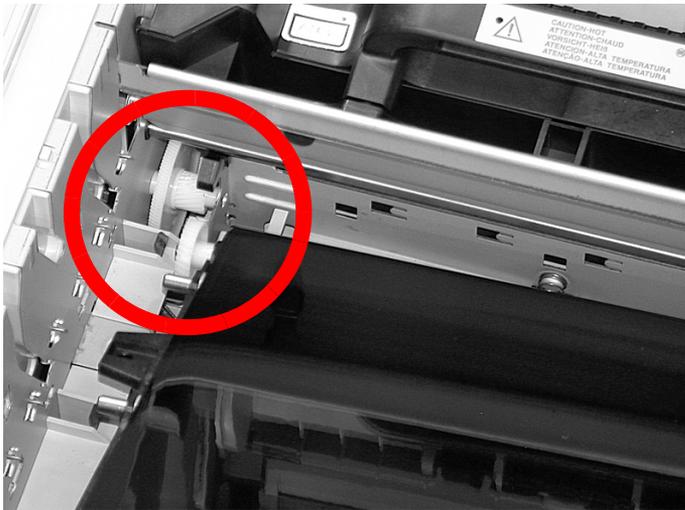
9. Turn the two belt locks about 45° clockwise to secure the belt unit in place.
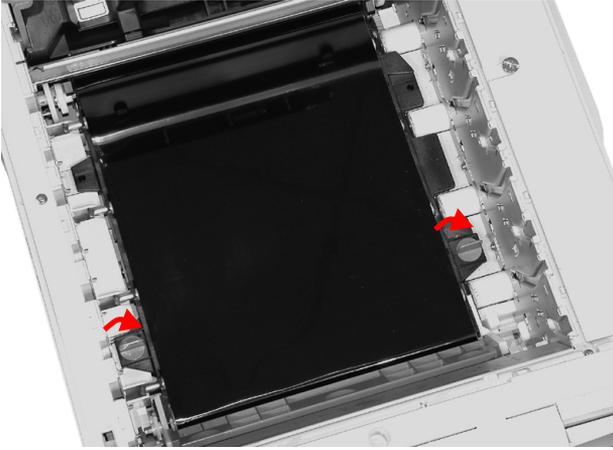
10. Place the four image drums/toner cartridges back in the printer (**1** = Cyan, **2** = Magenta, **3** = Yellow, **4** = Black). *It is essential that they go back in the correct order!*
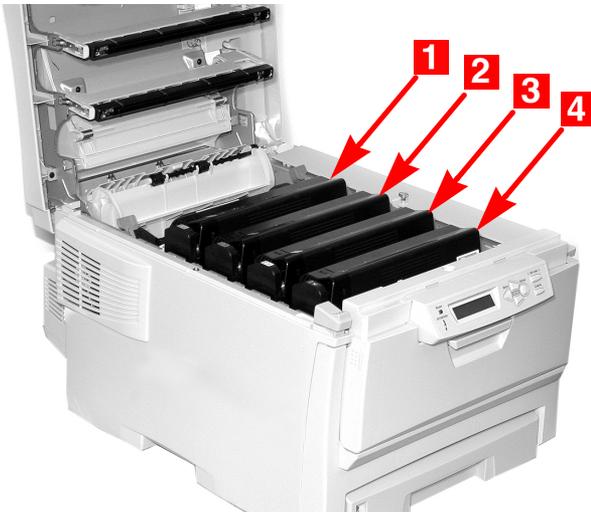
11. Close and latch the top cover.

Printer Settings (Menu Settings)

This section lists the menus accessed via the controls on the printer's operator panel and displayed in the LCD window.

Many of these settings can be overridden by settings in the printer driver. However, several of the driver settings can be left at "Printer Setting," which will then default to the settings entered in these printer menus

Print a list of the current settings _____

Menu Map

> **NOTE**
>
> ... = keep pressing the button repeatedly until you see the display indicated.

To print a list of the current menu settings:

1. Press + **...**

INFORMATION MENU

---

2. Press ENTER **...**

PRINT MENU MAP
Execute

---

3. Press ENTER.
4. The Menu Map prints. The printer goes back on line.

Changing Settings _____
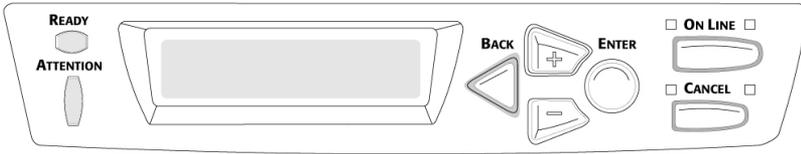
1. Press + to enter the menu mode.
2. Press +/ – to scan through the available menus until the menu you wish to enter appears on the display.

NOTE

The menus and their various listings vary depending on which options you have installed on your printer.

---

3. Press ENTER to enter the menu.
4. Use +/ – to move up and down through the items in the selected menu. When the item you want to change is displayed, press ENTER to edit that item.
5. Use +/ – to move up and down through the available settings for this item.
6. When the setting you wish to use appears on the display, press ENTER.
   An asterisk (*) appears next to the setting. The setting flashes.

7. To finish:
   a. If you are through making settings in the menu, press ON LINE to engage the setting and exit the menu.
   b. If you wish to make additional changes in the menu, press BACK to engage the setting.
      –To change another setting in the same menu, use +/ – to move through the list of menu items to the one you wish to change, then follow steps 5 though 7.
      –To change the setting for an item in a different menu, press BACK again, then follow steps 2 through 7.

Example: Power Save Time

To change the time interval for the printer to wait before going into Power Save mode (default setting is 60 MIN):

1. Press + to enter the menu mode.
2. Press + and/or – repeatedly until you see

    SYS CONFIG MENU

3. Press ENTER to go into the Sys Config Menu.

    POW SAVE TIME
    60 MIN   *

4. Press ENTER to select the Power Save Time item.
    The value on the second line of the display begins flashing.

    POW SAVE TIME
    60 MIN   *

5. Press + repeatedly until the interval (e.g., 240 MIN) you wish to select appears on the second line.

    POW SAVE TIME
    240 MIN

6. Press ENTER to select the new setting:
    An asterisk appears on the second line of the display.

    POW SAVE TIME
    240 MIN   *

7. Press ON LINE to engage the new setting and to exit the menu.
    The printer returns to standby mode.

Reset to Factory Defaults _____

```
                          NOTE
   ... = keep pressing the button repeatedly until
   you see the display indicated.
```

To reset the printer menu to its original default settings:

1. Press + to enter the Menu mode.

2. Press + **...**

MAINTENANCE MENU

3. Press ENTER.

MENU RESET Execute

4. Press ENTER.

5. The printer resets and returns to the on-line state.

Lists of Available Settings by Menu _____

Information Menu

Item	Action	Explanation
PRINT MENU MAP	EXECUTE	Prints the MenuMap (menu listing) with current settings shown. Information about your printer is also shown at the top of each MenuMap page.
DEMO1	EXECUTE	Prints the built-in Demo page.
NETWORK	EXECUTE	Prints Network Information.
SHUTDOWN	EXECUTE	Initiates the power-off process which protects any data saved in the printer from being lost when the printer is turned off.

Print Menu

Notes:

Factory default settings are shown in **bold**.

Settings with a dagger (†) only appear when the appropriate option is installed.

Item	Settings	Explanation
COPIES	**1** to 999	Enter the number of copies of a document to be printed.
PAPER FEED	**TRAY1** TRAY2† MP TRAY	Selects the default tray for paper feed.
AUTO TRAY SWITCH	**ON** OFF	If two trays contain identical print media, the printer can switch to an alternate tray when the current tray runs out in the middle of a print job.
TRAY SEQUENCE	**DOWN** UP PAPER FEED TRAY	Sets the sequence in which the printer will seek an alternate tray with the same media size should the currently selected tray run out of media while printing a job.
MP TRAY USAGE	**DO NOT USE** WHEN MISMATCHXXX	If a document to be printed demands a paper size not installed in the selected tray, the printer can automatically feed from the Multi-Purpose Tray instead. If this function is not enabled, the printer will stop and request that the correct size be loaded.
MEDIA CHECK	**ENABLE** DISABLE	Set to DISABLE if you do not wish the printer to check to see if the size paper loaded in the selected tray matches that required for the document being printed.

Item	Settings	Explanation
MONO-PRINT SPEED	**AUTO SPEED** NORMAL SPEED COLOR SPEED	Sets the print engine speed. If you are printing only color documents, switch to COLOR SPEED. If you are printing only monochrome documents, switch to MONO 24PPM. AUTO SPEED sets the speed of printing based on whether the first page is color or monochrome. If you are printing a document with a color cover followed by mostly monochrome pages, use MIXED SPEED.

Media Menu

This item appears if enabled by a System Administrator.

Notes:

- Factory default settings are shown in **bold**.

- Items with a dagger (†) only appear when the appropriate option is installed.

Item	Settings	Explanation
TRAY1 PAPERSIZE	A4, A5, A6, B5, LEGAL14, LEGAL13.5, LEGAL13, **LETTER,** EXECUTIVE, CUSTOM	Defines the size of paper loaded in Tray 1.
TRAY1 MEDIATYPE	**PLAIN** LETTERHEAD BOND RECYCLED ROUGH	Defines the type of media loaded in Tray 1. This will help the printer to adjust its internal operating parameters, such as engine speed and fusing temperature.
TRAY1 MEDIAWEIGHT	LIGHT, **MEDIUM,** HEAVY	Adjusts the printer for the weight of paper stock loaded in the tray. See "Paper Weights" on page 14.
TRAY2 PAPERSIZE†	A4, A5, B5, LEGAL14, LEGAL13.5, LEGAL13, **LETTER**, EXECUTIVE, CUSTOM	Defines the size of paper loaded in optional Tray 2.
TRAY2 MEDIATYPE†	**PLAIN,** LETTERHEAD, BOND, RECYCLED, ROUGH	Defines the type of media loaded in optional Tray 2.

Item	Settings	Explanation
TRAY2 MEDIAWEIGHT†	LIGHT, **MEDIUM,** HEAVY	Adjusts the printer for the weight of paper stock loaded in optional Tray 2.
MPT PAPERSIZE	**LETTER,** EXECUTIVE, LEGAL14, LEGAL13.5, LEGAL13, A4, A5, A6, B5, CUSTOM, COM-9 ENVELOPE, COM-10 ENVELOPE, MONARCH ENV, DL ENVELOPE, C5 ENVELOPE	Defines the size of paper to be fed from the Multi-Purpose Tray.
MPT PAPERTYPE	**PLAIN,** LETTERHEAD, TRANSPARENCY, LABELS, BOND, RECYCLED, CARD STOCK, ROUGH	Defines the type of media to be fed from the Multi-Purpose Tray so that the printer can adjust its internal parameters for the media.
MPT MEDIAWEIGHT	**MEDIUM,** HEAVY, ULTRA HEAVY	Defines the media weight to be fed from the Multi-Purpose Tray.
UNIT OF MEASURE	MILLIMETER **INCH**	Defines the unit of measure for the next two items.
X-DIMENSION	3 to 8.5 INCH Default = **8.5 INCH**	Defines the width of paper defined by the "CUSTOM" settings.
Y-DIMENSION	5 to 35.5 INCH Default = **11 INCH**	Defines the length of paper defined by the "Custom" settings. Note that media of up to 47'' (1.2 m) in length can be fed one sheet at a time from the Multi-Purpose Tray- for banner printing.

Color Menu

Note: Factory default settings are shown in **bold**.

The printer automatically adjusts color balance and density at appropriate intervals, optimizing the printed output for bright white paper viewed in natural daylight conditions.

The items on this menu provide a means of changing the default settings for special or particularly difficult print jobs. Settings revert to their default values when the next print job is complete.

Item	Settings	Explanation
DENSITY CONTROL	**AUTO** MANUAL	AUTO = image density is automatically adjusted: • at power on • when a new image drum or toner cartridge is installed • at intervals of 100, 300 and 500 drum counts Auto adjustment takes up to 55 seconds. Switch to manual only if you wish to initiate Density Control manually using the printer menu.
ADJUST DENSITY	[EXECUTE]	Selecting this will perform the auto density set up.
AJST REGISTRATION	[EXECUTE]	Performs automatic color registration adjustment. Normally this is done at power on and when the top cover is opened and then closed. This process accurately aligns the cyan, magenta and yellow images to the black image.
C REG FINE ADJUST M REG FINE ADJUST Y REG FINE ADJUST	-3 to + 3 in increments of 1 Default = **0**	Performs fine adjustment of image timing in relation to the black image component. A positive setting will darken the color; a negative setting will lighten the color.

System Configuration Menu

Note: Factory default settings are shown in **bold**.

Items	Settings	Explanation
POW SAVE TIME	5 15 30 **60** 240	Adjusts the time before the printer automatically switches into power saving mode. In this mode power consumption is reduced, but when a job is sent the printer will require a warm-up time of up to 1 minute before printing can begin.
CLEARABLE WARNING	**ON** JOB	When ON, non-critical warnings, such as requests for a different paper size, can be cleared by pressing the ON LINE button. When set to JOB, they are only cleared when the print job resumes.
MANUAL TIMEOUT	OFF 30 **60**	Specifies how many seconds the printer will wait for paper to be fed before cancelling the job.
WAIT TIMEOUT	5 to 300 SEC Default = **90** seconds	Specifies how many seconds the printer will wait when received data pauses before forcing a page eject.
LOW TONER	**CONTINUE** STOP	Specifies whether the printer should continue printing after a low toner condition is detected. If you change this to STOP, when low toner is detected, the printer goes off line.
JAM RECOVERY	**ON** OFF	Specifies whether the printer should perform jam recovery after a paper jam has occurred. If ON, the printer will attempt to print again any pages lost due to a paper jam once the jam has been cleared.
ERROR REPORT	ON **OFF**	Change this to ON if you wish the printer to print the error details when an error occurs.

USB Menu

Note: Factory default settings are shown in **bold**.

Item	Settings	Explanation
SOFT RESET	ENABLE **DISABLE**	Enables or disables the SOFT RESET command.
SPEED	**480Mbps** 12Mbps	Sets the maximum transfer speed for the USB interface.
SERIAL NUMBER	**ENABLE** DISABLE	ENABLE allows your computer to identify the printer by its USB interface serial number.

Network Menu

Note: Factory default settings are shown in **bold**.

Item	Settings	Explanation
TCP/IP	**ENABLE** DISABLE	Enables or disables this network protocol.
NETBEUI	ENABLE **DISABLE**	Enables or disables this network protocol.
IP ADDRESS SET	**AUTO** MANUAL	Change this to Manual to specify the IP address through the front panel (see next entry). Required for non-DHCP networks.
IP ADDRESS	xxx.xxx.xxx.xxx Default = 198.168.100.100	Current assigned IP address. To change: • Press ENTER. • Use **+/−** keys to increment first octet. • Press ENTER to move on to the next octet. • Use **+/−** keys to increment second octet. • Press ENTER to move on to the next octet. • Use **+/−** keys to increment third octet. • Press ENTER to move on to the last octet. • Use **+/−** keys to increment 1st octet. • Press ENTER to register the new address.
SUBNET MASK	xxx.xxx.xxx.xxx Default = 255.255.255.000	Current assigned subnet mask. To change, proceed as above.
GATEWAY ADDRESS	xxx.xxx.xxx.xxx Default = 192.168.100.254	Current assigned gateway address. To change, proceed as above.
FACTORY DEFAULTS	[EXECUTE]	Specifies whether or not to initialize the network menu.
WEB/IPP	**ENABLE** DISABLE	Enables or disables Web config. facility and Internet Printing Protocol. This item will not appear in the menu if TCP/IP is set to DISABLE.

Item	Settings	Explanation
TELNET	**ENABLE** DISABLE	Enables or disables Telnet config. facility. This item will not appear in the menu if TCP/IP is set to DISABLE.
FTP	**ENABLE** DISABLE	Enables or disables communication via FTP. This item will not appear in the menu if TCP/IP is set to DISABLE.
SNMP	**ENABLE** DISABLE	Enables or disables SNMP protocol.
NETWORK SCALE	**NORMAL** SMALL	Normal = Global network Small = Local network
HUB LINK SETTING	**AUTO NEGOTIATE** 100BASE-TX FUL 100BASE-TX HALF 10BASE-T FULL 10BASE-T HALF	Sets full or half duplex for communication via a network hub.

Memory Menu

This item appears if enabled by a System Administrator.

Note: Factory default settings are shown in **bold**.

Item	Settings	Explanation
RECEIVE BUF SIZE	AUTO 0.5MB 1MB 2MB 4MB 8MB 16MB	Sets the size of the receive buffer.
FLASH INITIALIZE	[EXECUTE]	Initializes Resident Flash memory. When ENTER is pressed, the following message displays. ARE YOU SURE? YES=ENTER/NO=CANCEL Press ENTER. The following message displays: EXECUTE NOW? YES=ENTER/NO=CANCEL Press ENTER, then turn the printer off. The request to execute FLASH initialization is put into the memory and initialization is executed when the power is turned back on.

System Adjust Menu

This item appears if enabled by a System Administrator.

Notes:

- Factory default settings are shown in **bold**.

Item	Settings	Explanation
X ADJUST	-2.00MILLIMETER TO +2.00MILLIMETER Default = **0.00**	Adjusts overall print position horizontally in 0.25 increments.
Y ADJUST	-2.00MILLIMETER TO +2.00MILLIMETER Default = **0.00**	Adjusts overall print position vertically in 0.25 increments.
DUPLEX X ADJUST	-2.00MILLIMETER TO +2.00MILLIMETER Default = **0.00**	Adjusts overall print position of print face horizontally in 0.25 increments.
DUPLEX Y ADJUST	-2.00MILLIMETER TO +2.00MILLIMETER Default = **0.00**	Adjusts overall print position of print face vertically in 0.25 increments.
DRUM CLEANING	**OFF** ON	If you are experiencing horizontal white lines on your printed pages, enter the menu and temporarily change this setting to ON, then send a one page print job. This will cause an extra blank sheet to print, cleaning the drum prior to printing. ***Careful!*** Leaving this set to ON will reduce the image drum life.

Maintenance Menu

Note: Factory default settings are shown in **bold**.

Item	Settings	Explanation
MENU RESET	[EXECUTE]	Resets menus to the default settings.
SAVE MENU	[EXECUTE]	Saves current menu settings as default values. At confirmation prompt, press ENTER to confirm save, or CANCEL.
POWER SAVE	**ENABLE** DISABLE	Change this setting to Disable if you do not want the printer to enter the power save mode after the specified time.
PAPER BLACK SETTING	−2 to +2 in increments of 1 Default = **0**	Used for small adjustment when you experiencse faded print or light specks / streaking in monochrome printing on white paper. Select a higher value to reduce fading, or a lower value to reduce specks or streaking in high density print areas.
PAPER COLOR SETTING	−2 to +2 in increments of 1 Default = **0**	As above, but for color printing.
TRANSPR BLACK SETTING	−2 to +2 in increments of 1 Default = **0**	As above, but for mono printing on transparencies.
TRANSPR COLOR SETTING	−2 to +2 in increments of 1 Default = **0**	As above, but for color printing on transparencies.

Usage Menu

This menu is for information only. It provides an indication of total usage of the printer and the expected life left in its consumable items. This is particularly useful if you do not have a full set of replacement consumables on hand and you need to know how soon you will need them.

- Items with a dagger (†) only appear when the appropriate option is installed.

Item	Explanation
TOTAL PAGE COUNT	The total number of pages printed.
TRAY1 PAGE COUNT	The total number of pages fed from Tray 1.
TRAY2 PAGE COUNT†	The total number of pages fed from optional Tray 2. Appears only if the optional Second Paper Tray is installed. See "Second Paper Tray", on page 105.
MPT PAGE COUNT	The total number of pages fed from the Multi-Purpose Tray.
COLOR PAGE COUNT	The total number of pages printed in color.
MONO PAGE COUNT	The total number of pages printed in monochrome.
K DRUM LIFE C DRUM LIFE M DRUM LIFE Y DRUM LIFE	Percentage of life remaining in these consumable items is indicated as nn%.
BELT LIFE	Percentage of life remaining in these Maintenance items is indicated as nn%.
FUSER LIFE	Percentage of life remaining in these Maintenance items is indicated as nn%.
K TONER C TONER M TONER Y TONER	Current remaining toner is indicated as nn%. 2k= standard cartridge 5K= high-capacity cartridge

Menu Defaults

Information, Print, and Media Menus

Note: Menus/Items with a dagger (†) only appear when the appropriate option is installed.

Menu	Item	Default Setting
INFORMATION MENU	PRINT MENU MAP	[EXECUTE]
	NETWORK	[EXECUTE]
	DEMO1	[EXECUTE]
SHUTDOWN MENU	SHUTDOWN START	[EXECUTE]
PRINT MENU	COPIES	1
	DUPLEX	OFF
	PAPER FEED	TRAY1
	AUTO TRAY SWITCH	ON
	TRAY SEQUENCE	DOWN
	MP TRAY USAGE	DO NOT USE
	MEDIA CHECK	ENABLE
	MONO-PRINT SPEED	AUTO SPEED
MEDIA MENU	TRAY1 PAPERSIZE	LETTER
	TRAY1 MEDIATYPE	PLAIN
	TRAY1 MEDIAWEIGHT	MEDIUM
	TRAY2 PAPERSIZE†	LETTER
	TRAY2 MEDIATYPE†	PLAIN
	TRAY2 MEDIAWEIGHT†	MEDIUM
	MPT PAPERSIZE	LETTER
	MPT MEDIATYPE	PLAIN
	MPT MEDIAWEIGHT	MEDIUM
	UNIT OF MEASURE	INCH
	X DIMENSION	8.5 INCH
	Y DIMENSION	11.0 INCH

Color, System Configuration, and USB Menus

Note: Menus/Items with a dagger (†) only appear when the appropriate option is installed.

Menu	Item	Default Setting
COLOR MENU	DENSITY CONTROL	AUTO
	ADJUST DENSITY	[EXECUTE]
	AJST REGSTRATION	[EXECUTE]
	C REG FINE AJST	0
	M REG FINE AJST	0
	Y REG FINE AJST	0
SYS CONFIG MENU	POW SAVE TIME	60 MIN
	CLRABLE WARNING	ON
	MANUAL TIMEOUT	60 SEC
	WAIT TIMEOUT	90 SEC
	LOW TONER	CONTINUE
	JAM RECOVERY	ON
	ERROR REPORT	OFF
	LANGUAGE	ENGLISH
USB MENU	SOFT RESET	DISABLE
	SPEED	480Mbps

Network and Memory Menus

Note: Menus/Items with a dagger (†) only appear when the appropriate option is installed.

Menu	Item	Default Setting
NETWORK MENU	TCP/IP	ENABLE
	NETBEUI	DISABLE
	IP ADDRESS SET	AUTO
	IP ADDRESS	192.168.100.100
	SUBNET MASK	255.255.255.000
	GATEWAY ADDRESS	192.168.100.254
	FACTORY DEFAULTS	[EXECUTE]
	WEB/IPP	ENABLE
	TELNET	ENABLE
	FTP	ENABLE
	NETWORK SCALE	NORMAL
	SNMP	ENABLE
	LAN	NORMAL
	HUB LINK SETTING	AUTO NEGOTIATE
MEMORY MENU†	RECEIVE BUF SIZE	AUTO

System Adjust and Maintenance Menus

Note: Menus/Items with a dagger (†) only appear when the appropriate option is installed.

Menu	Item	Default Setting
SYS ADJUST MENU	X ADJUST	0.00 MILLIMETER
	Y ADJUST	0.00 MILLIMETER
	DUPLEX X ADJUST	0.00 MILLIMETER
	DUPLEX Y ADJUST	0.00 MILLIMETER
	DRUM CLEANING	OFF
MAINTENANCE MENU	MENU RESET	[EXECUTE]
	SAVE MENU	[EXECUTE]
	POWER SAVE	ENABLE
	PAPER BLACK SET	0
	PAPER COLOR SET	0
	TRNSPR BLACK SET	0
	TRANSPR COLOR SET	0

Usage Menu

Menu	Item	Default Setting
USAGE MENU	TOTAL PAGE COUNT	nnnn
	TRAY1 PAGE COUNT	nnnn
	TRAY2 PAGE COUNT†	nnnn
	MPT PAGE COUNT	nnnn
	COLOR PAGE COUNT	nnnn
	MONO PAGE COUNT	nnnn
	K DRUM LIFE	REMAINING nn%
	C DRUM LIFE	REMAINING nn%
	M DRUM LIFE	REMAINING nn%
	Y DRUM LIFE	REMAINING nn%
	BELT LIFE	REMAINING nn%
	FUSER LIFE	REMAINING nn%
	K TONER	REMAINING nn%
	C TONER	REMAINING nn%
	M TONER	REMAINING nn%
	Y TONER	REMAINING nn%

Options

The following options are available for your printer:

- Additional RAM memory (see below)
- Second Paper Tray (see page 105)

Instructions for installing these options are found in the packaging with the option.

RAM Memory

Oki 70042801, 70042901
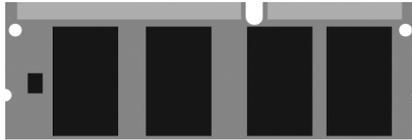
The basic printer comes equipped with 64 MB of main memory. This can be upgraded with an additional memory board containing

- 64 MB (Oki 70042801), increasing the memory to 128 MB

  or

- 256 MB (Oki 70042901), increasing the memory to 320 MB.

Second Paper Tray _____

Oki 43347601
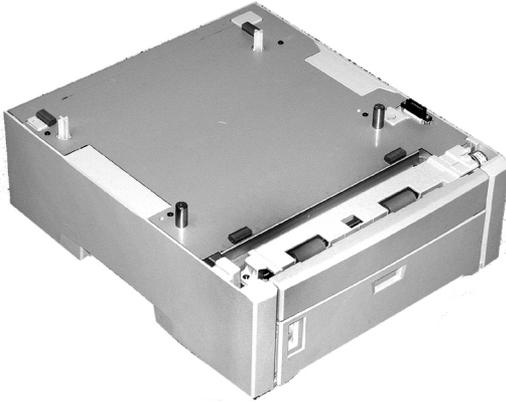
The second paper tray takes:

- Up to 530 sheets of 20-lb. paper.

- All the same size media as Tray 1 except A6.

- Paper weight range 16 to 57 lbs. (60 to 203 g/m^2).

Specifications

Item	Specification
Dimensions	16.61'' W x 22.09'' D x 13.58'' H (422 mm W x 561 mm D x 345 mm H)
Net Weight	57.3 lbs. (26 Kg)
Print speeds	• 22 pages per minute (ppm) color • 26 ppm monochrome
Resolution	600 dpi or 600 x 1200 dpi
Emulation	Hiper-C
Environmental	*Temperature* • Operating: 50 to 90°F (10 to 32°C) • Storage (packed up): -14 to 110°F (-10 to 43 °C) • Power Off: 32 to 110°F (0 to 43°C) • *Relative Humidity* • Operating: 20 to 80% RH • Storage (packed up): 10 to 90% RH • Power Off: 10 to 90% RH
Electrical	110-127 volts, 60 Hz (±2 Hz) 220-240 volts, 50 Hz (±2 Hz) *Power Consumption:* • Operating, Typical: 420 watts • Max.: 950 watts • Power Save Mode: 20 watts
Auto Features	Auto registration Auto density adjustment Auto consumable counter reset
Memory	64 MB standard, upgradable with 64MB and 256MB options (see "RAM Memory", on page 104)
Paper capacity (20-lb. [75 g/m²] paper)	*Tray 1*: 300 sheets *Optional Tray 2*: 530 sheets *Multi-Purpose Tray*: 100 sheets
Paper weight Range	*Tray 1*: 17 to 32 lb. (64 to120 g/m²) *Optional Tray 2*: 17 to 47 lb. (64 to 177 g/m²) *Multi-Purpose Tray*: 20 to 54 lb. (75 to 203 g/m²)
Paper output	*Top Exit* (Face Down Stacker): 250 sheets 20-lb. 75 g/m² paper *Rear Exit* (Face Up Stacker): 100 sheets 20-lb. 75 g/m²
Printer life	420,000 pages or 5 years, whichever comes first

Item	Specification
Duty cycle	*Maximum*: 50,000 pages per month at 5% duty cycle (equivalent to an average business letter) *Average*: 4,000 pages per month
Toner life	*Standard cartridge*: approximately 2,000 pages at 5% coverage *High-capacity cartridge*: approximately 5,000 pages at 5% coverage
Image drum life	20,000 pages at 3 pages per job
Belt life	60,000 letter-size pages
Fuser life	60,000 letter-size pages

Troubleshooting

General Information_____

This section provides information to help you deal with problems that may arise when using the printer.

Troubleshooting is divided into the following sections:

- "Display Panel Messages" see page 109
- "Paper Jams" see page 117
- "Print Quality Problems" see page 113
- "USB Problems" see page 139
- "Application error" see page 141
- "General Protection Fault" see page 141
- "Paper Size Change Request" see page 142
- "Printer does not go online" see page 142
- "Printer makes a strange noise" see page 142
- "Printer takes a long time to start printing" see page 143
- "Printing cancels" see page 143
- "Printing does not start" see page 144
- "Printing is slow" see page 144
- "Cleaning" see page 145

Display Panel Messages _____

Message	Meaning	What to Do
* TONER SENSOR ERROR	Flashes across the second line of the display: the indicated color toner (*) is missing from the printer.	Open the top cover and make sure the indicated toner is there and properly seated in the printer: C = Cyan, Y = Yellow, M = Magenta, K = Black.
ADD MORE MEMORY 420: MEMORY OVERFLOW	The document size is too large for the printer's memory.	Reduce the size of the document. If this happens frequently, install additional memory (see "RAM Memory", on page 104).
CANCELLING JOB (JAM)	The setting for Jam Recovery in the menu has been changed to off and a paper jam has occurred. Any unprinted data is being deleted.	Clear the jam and resend the missing pages of the print job.
CHECK BELT 330: BELT MISSING	The belt unit is not properly installed.	Open the top cover and lift out the black (K) and Yellow (Y) image drums, placing them on a *flat* surface. Check to be sure that the belt unit latches are fully in the latched position: then reinstall the image drums.

Message	Meaning	What to Do
CHECK FUSER 320: FUSER MISSING	The fuser unit is not properly installed.	Open the top cover and check to be sure that the fuser unit is properly seated in the printer and that the lock levers are pushed all the way toward the back of the printer:
CHECK MP TRAY 390: PAPER JAM	Paper has jammed while exiting the MP Tray.	Clear the jam. See "Jam 390", on page 135.
CLOSE COVER 316: DUPLEX COVER OPEN	The duplex cover is open or not properly latched.	Close the duplex cover:
CLOSE COVER nnn: COVER OPEN	Either the top cover or the front cover is open.	Be sure both the top cover and the front cover are firmly closed.
INSTALL PAPER CASSETTE 430: TRAY 1 MISSING	Tray 1 is not installed in the printer.	Install the missing tray.
INSTALL PAPER CASSETTE 440: TRAY 1 OPEN	Tray 1 is not properly installed in the printer.	Make sure the tray is pushed fully into the printer.
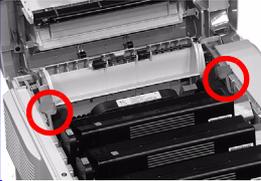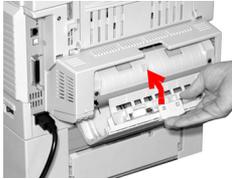
Message	Meaning	What to Do
LOAD mmm AND PRESS ONLINE SWITCH 490: MP TRAY EMPTY	Print job from MP Tray has been received and the MP Tray is empty.	Load the requested media (mmm) in the MP Tray and press ON-LINE.
LOAD mmm nnn: tttt EMPTY	A print job has been received and the indicated paper tray is empty.	Load mmm media in the indicated (tttt) tray.
LOAD mmm/ppp AND PRESS ONLINE SWITCH nnn: tttt MEDIA MISMATCH	The media type in the indicated tray (tttt) does not match that specified in the print job being processed.	Load the appropriate media in the tray and press ON-LINE.
LOAD mmm/ppp AND PRESS ONLINE SWITCH nnn: tttt SIZE MISMATCH	The media size (mmm) and/or type (ppp) loaded in the indicated tray (tttt) does not match that specified in the print job being processed.	Load the appropriate media in the tray and press ON-LINE.
OPEN DUPLEX COVER nnn: PAPER JAM	Paper has jammed entering or exiting the duplexer.	Clear the jam. See page 119 and page 121.
OPEN FRONT COVER nnn: PAPER JAM	Paper jam.	Clear the jam. See page 124 and page 137
OPEN TOP COVER nnn: PAPER JAM	Paper jam.	Clear the jam. See page 131 and page 126.
ORDER xxx	Appears on the second line of the display to indicate that consumable xxx (e.g., belt, fuser, toner, image drum) is nearing end of life.	Make sure you have a replacement unit on hand.
POWER ON/OFF 300: NETWORK ERROR	An error has occurred involving the network.	Shut the printer off, then turn it back on. If the message still appears, check with your network administrator.

Message	Meaning	What to Do
PRESS ONLINE SW INVALID DATA	The printer has received invalid data.	Press ON-LINE. Reprocess and resend the print job.
REPLACE TONER nnn: * TONER EMPTY	The indicated toner needs replacement.	Replace the indicated toner: 410: Y = Yellow 411 M = Magenta 412: C = Cyan 413: K = Black
REPLACE yyyy nnn: yyyy LIFE	The indicated component is nearing end of life and should be replaced.	Replace the indicated component: YYYY = Fuser, Belt, C Drum, Y Drum, M Drum, K Drum.
tttt EMPTY	Appears on the second line of the display to indicate that ttt tray has run out of media.	Load media in tray tttt.
xxx LIFE	Appears on the second line of the display to indicate that consumable xxx (e.g., belt, fuser, image drum) will need to be replaced soon.	Replace the indicated item.
YYYY nnn: FATAL ERROR	An error has occurred which requires service. YYYY = the general cause. nnn = error number.	Try turning off the printer then turning it back on. If this does not remedy the problem, write down the message including the error number "nnn," then call your authorized Oki Data Service Dealer for service. **Note**: If you see a series of octets containing letters and numbers scrolling across the display, be sure to write these down also and report them to the Service Dealer.

Print Quality Problems _____

Blurred print (letter edges)

Possible cause	Remedy
LED is dirty.	Clean LED with lens cleaner or soft tissue.
Cannot print desired color because toner is low.	Replace toner cartridge. See "Replace a Toner Cartridge" on page 54.

Blurred print (one side of page)

Possible cause	Remedy
Top cover is not properly closed.	Press the cover release latch and open, then close, the cover.
One or more of the toner cartridges is not seated properly.	Open the top cover and check to be sure that each toner cartridge is fully seated and that each toner cartridge lock lever is pushed all the way back.

Fading, in patches

Possible cause	Remedy
The paper is moist.	Store paper within specified temperature and humidity levels. See "Specifications" on page 106.

Fading, Vertically

Possible cause	Remedy
LED head is dirty.	Clean LED head with lens cleaner or soft tissue.
Toner is low.	Change toner cartridge.
Paper is unsuitable for printer.	Use recommended paper.

Light Print

Possible cause	Remedy
The toner cartridge is incorrectly installed.	Reinstall the toner cartridge. See "Replace a Toner Cartridge" on page 54.
Toner is low.	Change toner cartridge. See "Replace a Toner Cartridge" on page 54.
The paper is moist.	Store paper within specified temperature and humidity levels. See "Specifications" on page 106.
Paper is unsuitable for printer.	Use recommended paper. See "Paper (Print Media)" on page 13.

Lines, Black (Vertical)

Possible cause	Remedy
Image drum is damaged.	Replace image drum. See "Replace an Image Drum" on page 62.
Toner is low.	Change toner cartridge. See "Replace a Toner Cartridge" on page 54.
Periodic black lateral lines or spots.	If the lines or spots occur at intervals of approximately **44 to 94 mm** The green surface of the image drum is damaged or dirty. If damaged, replace the image drum cartridge. See "Replace an Image Drum" on page 62. If dirty, wipe the image drum gently with soft tissue. If this does not work, replace the image drum. See "Replace an Image Drum" on page 62. **113 mm** The fuser roller is damaged. Change the fuser. See "Replace the Fuser" on page 71.
The image drum has been exposed to light.	Remove the image drum from the printer and store it in a dark place for several hours. If this does not work, replace the image drum. See "Replace an Image Drum" on page 62.

Lines, White (Vertical)

Remedy
Clean LED head with lens cleaner or soft tissue.
Change toner cartridge.
Change image drum.

Shading on unprinted sections

Possible cause	Remedy
Paper has been affected by static electricity.	Store paper within specified temperature and humidity levels. See "Specifications" on page 106.
Paper is too thick.	Use recommended paper. See "Paper Weights" on page 14.
Toner is low.	Replace toner cartridge. See "Replace a Toner Cartridge" on page 54.

Toner rubs off when you rub the printed surface.

Possible cause	Remedy
Media Weight and Media Type settings may not be appropriate.	Set the value of media weight in the menu to the next heaviest one (MEDIA MENU → YYY MEDIA WEIGHT).
Packing materials were left on the fuser when it was installed.	**Careful!** Fuser my be ***HOT***! Open the top cover and check to be sure that all the packing materials were removed from the fuser. See "Replace the Fuser" on page 71.

Paper Jams _____

General Information

Jams can occur due to paper misfeeding from a paper tray or at any point along the paper path.

When a jam occurs, the printer immediately stops. The control panel displays an error message. This message tells you where the first sheet is jammed.

All jammed sheets must be removed in order to restore the printer to normal operation.

Once you clear a jam and close the cover, you may see a new jam message indicating another jammed sheet which must be cleared. This is especially likely if you are printing a multi-page document or multiple copies of a single document.

Once all jams have been cleared, the printer should automatically try to reprint any pages lost due to paper jams. If it doesn't, check the Jam Recovery setting in the System Configuration Menu. It must be set to ON. See "Changing Settings" on page 83.

If paper jams are frequent

- More than one sheet feeds at a time.

- Paper curls.

- Paper feeds at an angle.

Possible cause	Remedy
The printer is not horizontal.	Place the printer on a stable, level surface.
The paper is too thin.	Use the correct type of paper. See "Paper Weights" on page 14.
The paper is moist or affected by static.	Store paper within specified temperature and humidity levels. See "Specifications" on page 106.
The paper is creased or wrinkled.	Remove the creased/wrinkled paper from the feed tray.
The paper is not aligned correctly.	Adjust tray or manual feed guides.
Paper doesn't feed.	Correct paper feed selection in the Properties Setup tab in the printer driver.

Jam is cleared, but printer does not print.

Possible cause	Remedy
The top cover has not remained open until all paper jams have been cleared.	Removing a paper jam is not sufficient: Raise and *gently* lower the top cover, especially if the paper jam has been removed from behind the front cover.

Jam 370, 373 and 383

OPEN DUPLEX COVER
nnn: PAPER JAM

nnn = 370, 373, 383

1. Press the duplex cover release. Open the duplexer cover.
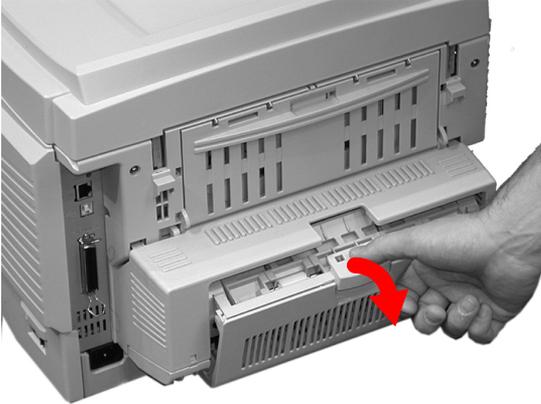
2. Remove any jammed sheets.
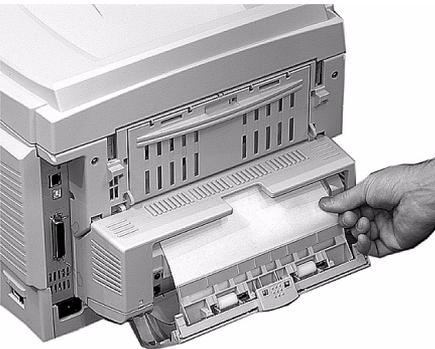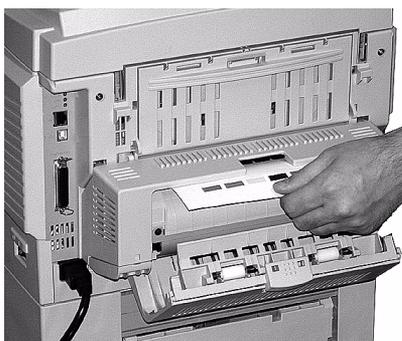
3. Close the duplex unit cover.
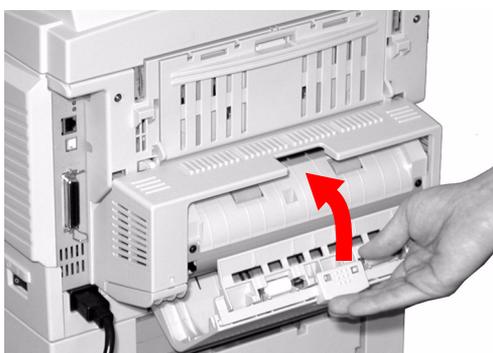
Jam 371

OPEN DUPLEX COVER
371: Paper Jam

1. Turn off the printer.
2. Pull out the duplexer.
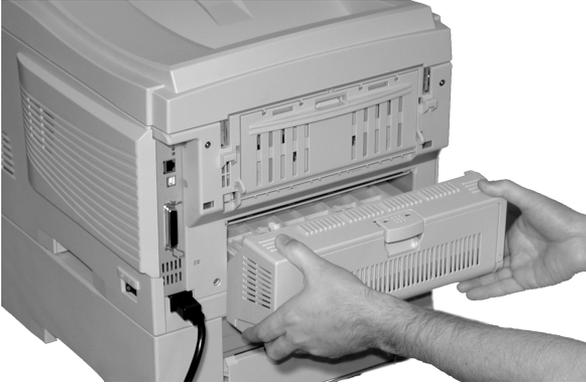
3. Pull the duplexer lid to unlock it.
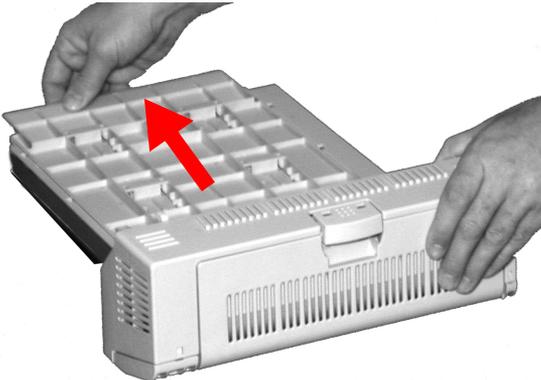
4. Open the lid. Remove the jammed sheet.

5. Close the lid. Push it back to lock it in place.
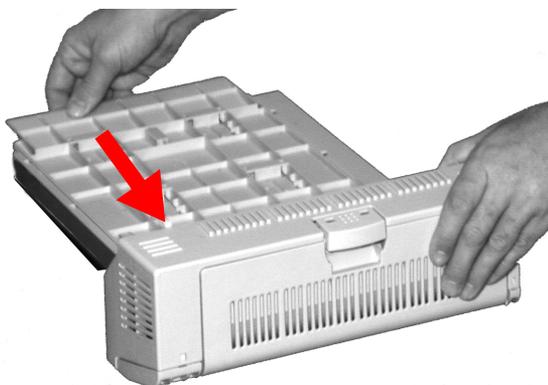
6. Push the duplexer back into the printer.
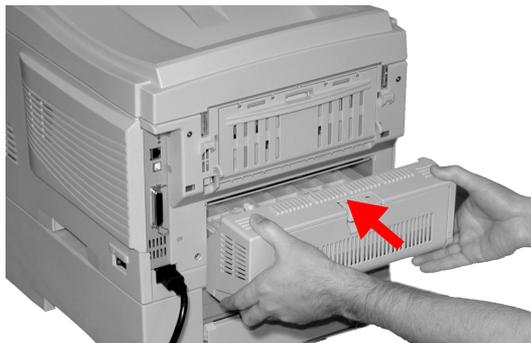
7. Turn on the printer.

Jam 372 and 380

OPEN FRONT COVER
nnn: PAPER JAM

nnn = 372 or 380.

1. Lift the front cover release. Pull open the front cover.

2. Remove any jammed sheets.

3. Close the front cover.

Jam 381

OPEN TOP COVER
381: Paper Jam

1. Press the cover release. Fully open the printer's top cover.

2. Note the positions of the four image drums: Cyan (**1**), Magenta (**2**), Yellow (**3**), Black (**4**). *It is essential that they go back in the correct order!*

<div style="border: 2px solid red;">
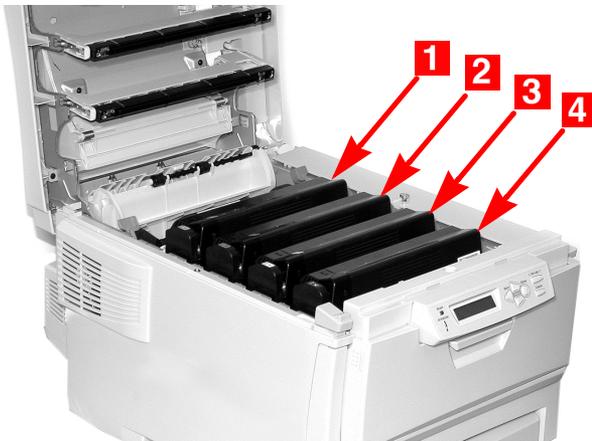
WARNING!

If the printer has been powered on, the fuser is hot. This area is clearly labelled. Do not touch it.

</div>

3. Lift each of the image drum/toner cartridge units out of the printer. Place them on a *flat* surface in a safe place *away from direct sources of heat and light*.

CAUTION!

The green surface at the base of each image drum is very delicate and light sensitive.

- **Do not touch the green surface.**
- **Never expose the drum to direct sunlight or to very bright room lighting.**
- **Do not expose it to normal room light for more than 5 minutes.**
- **If the image drum must be out of the printer for longer than 5 minutes, place the image drum inside a black plastic bag or carefully place it in a drawer or cabinet to keep it away from light.**

4. Remove any sheets of paper on the belt unit.

CAUTION!

Do not use any sharp or abrasive objects to separate sheets from the belt. This may damage the belt surface.

NOTE

Warning! If the printer has been printing, the fuser will be *HOT*!

If the sheet is well advanced into the fuser (only a short length is still visible), do not attempt to pull it back. See step 4 under "Jam 382" .

To remove a sheet trapped in the fuser:
1. Grasp the edge of the sheet.
2. Push the fuser pressure release lever (1) towards the front and down.
3. Lift out the sheet.
4. Let go of the fuser pressure release lever.
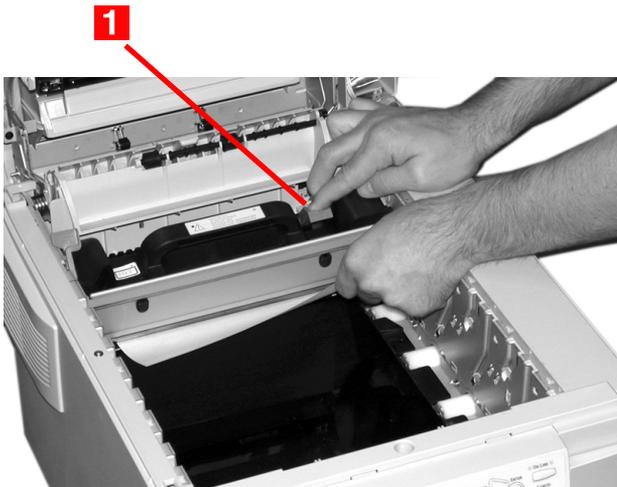
5. Place the four image drums/toner cartridges back in the printer. Be sure to place them in the proper sequence (**1**=Cyan, **2** = Magenta, **3** = Yellow, **4** = Black).
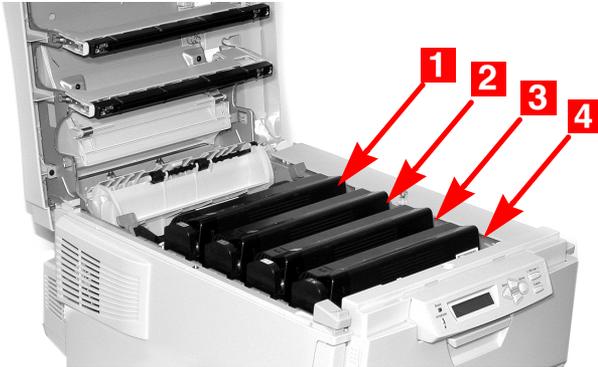
6. Close the top cover.

Jam 382

OPEN TOP COVER
382: Paper Jam

1. Open the top cover.
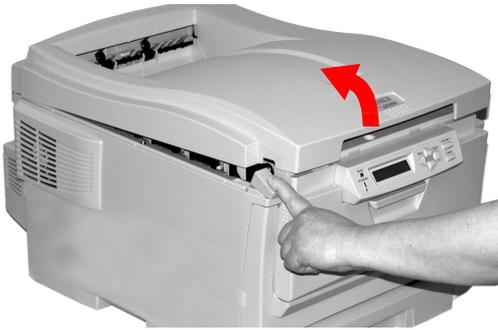
2. Gently pull the sheet out.
- If the sheet does *not* come out easily, go to the next step.
- If the sheet does come out, close the cover.

3. Lower the rear exit tray.
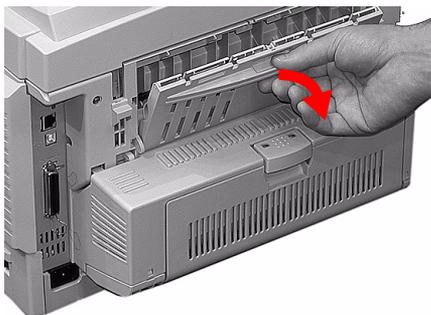
4. Pull out the jammed sheet.
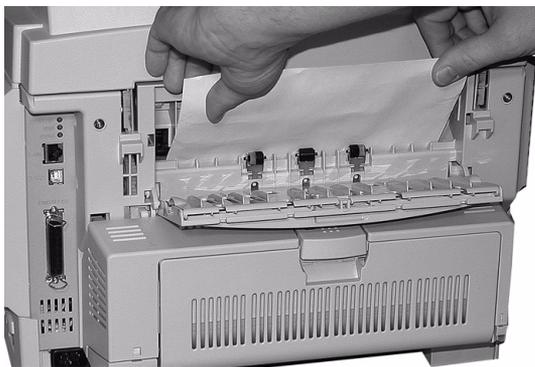
Important!

WARNING! The fuser may be HOT!

If the sheet is difficult to remove, it is partially jammed in the fuser. To get it out, reach around the top cover and press down on the fuser pressure release lever (**1**) before pulling the sheet out. Then let go of the fuser pressure release lever.
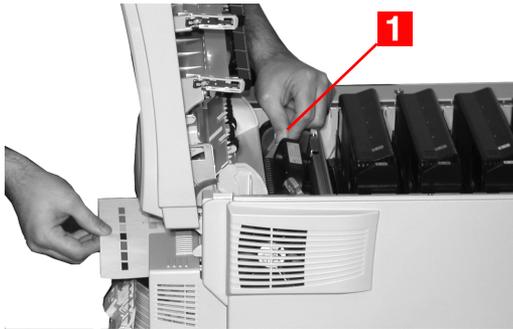
5. Close the rear exit.
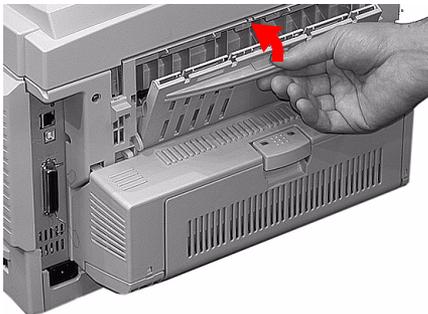
6. Close the top cover.

Jam 390

CHECK MP TRAY
390: Paper Jam

Sheet has just entered the printer

1. Gently pull the sheet out of the printer.
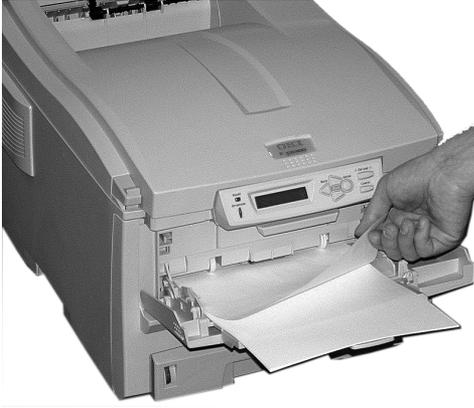
Sheet can't easily be pulled out from the front

1. Lift the front cover release. Pull open the front cover.
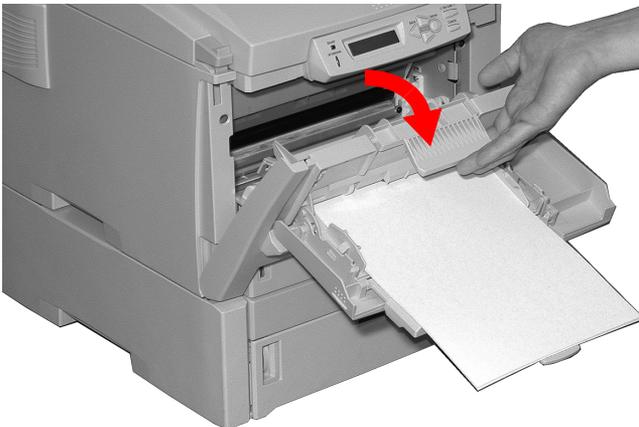
2. Remove any jammed sheets.
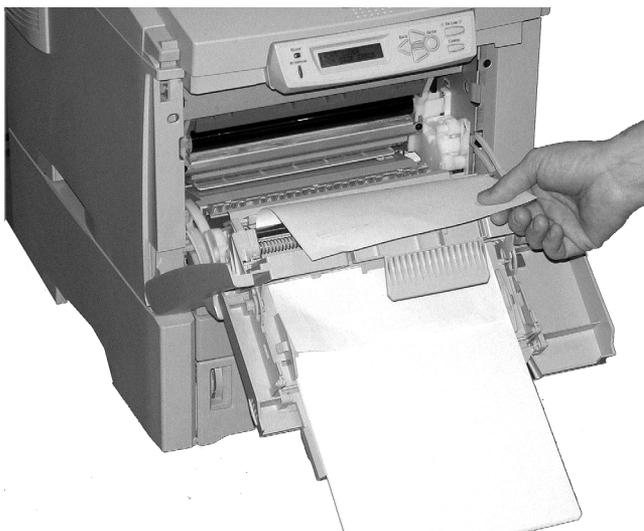
3. Close the front cover.

Jam 391 and 392

OPEN FRONT COVER
nnn: PAPER JAM

nnn = 391 or 392

1. Pull out the appropriate tray.
   391 = Tray 1

   392 = Optional Tray 2.

2. Remove any sheet jammed as it exited the tray.

391   **392**

3. Open the front cover.

4. Remove any jammed sheets.

5. Close the front cover.

USB Problems _____

Cannot configure for USB connection

Possible cause	Remedy
USB cable does not meet specifications.	Use USB cable to specification Ver.2.0.
Interface is disabled.	Check that USB interface is set to Enable in the menu (USB MENU → USB → ENABLE).
Configuration procedure was not correctly followed or cancelled.	Configure again from the beginning.
USB cable is disconnected or faulty.	Reconnect or try another cable.
A USB hub is being used.	The printer cannot be used with a USB hub. Connect the printer and computer directly.
The USB cable is installed in the Ethernet port.	Make sure the USB cable is plugged into the black USB port (1) on the printer:

Cannot print

- PRNUSBx write error is displayed.

Possible cause	Remedy
Interface is disabled.	In the printer menu settings, enable the USB interface (USB MENU → USB → ENABLE).
Printer is switched OFF.	Turn on the printer.
Printer interface cable is disconnected.	Reconnect the printer interface cable.
A converter, buffer, extension cable or USB hub is being used.	Test by connecting the printer and computer directly.
Printer driver output port is incorrect.	Set correct output port to which the printer interface cable is connected.
Printer is not selected in the printer driver.	Select the printer or set to default printer.
Incorrect printer driver is being used.	Delete this printer driver and install correct printer driver from the CD supplied with your printer.

Application error_____

or

General Protection Fault_____

Possible cause	Remedy
Application is not suitable for the operating system.	Upgrade the application.
Memory is insufficient for number of applications running.	Close all other applications.
Print file is corrupted.	Correct or recreate the file.
Memory is insufficient for application.	Increase computer's memory.
Printer driver is incorrectly configured.	Correctly configure printer driver.

Paper Size Change Request _____

Possible cause	Remedy
Paper loaded in tray is different size from that formatted in software application.	Either change paper in tray to match size formatted in application and press ON-LINE to continue, or continue printing on existing paper by pressing ON-LINE.

Printer does not go online _____

Possible cause	Remedy
Bad connection	Switch off the printer and disconnect the power cable. Reconnect the power cable and switch the printer on. If this does not clear the fault, call for service.

Printer makes a strange noise _____

Possible cause	Remedy
The printer is not horizontal.	Place the printer on a stable, level surface.
There are scraps of paper or other foreign matter inside the printer.	Check the inside of the printer and remove any such objects.
The top cover is not firmly shut.	Press the left and right sides of the top cover.

Printer takes a long time to start printing

Possible cause	Remedy
The printer has to warm up returning from power save mode.	In the printer menu settings, set power save to a higher value to increase the length of time before entering power save mode (SYS CONFIG MENU → POW SAVE TIME).
The image drum carries out a cleaning process to ensure print quality, which takes time.	Wait until this process has been completed.
The fuser unit adjusts temperature, which takes time.	Wait until this process has been completed.
The printer is processing data from another interface.	Wait until this data is processed.

Printing cancels _____

Possible cause	Remedy
The printer interface cable is faulty.	Replace the printer interface cable.
The time out setting is too short.	Reset time out in the menu to a higher value (SYS CONFIG MENU → WAIT TIMEOUT).

Printing does not start _____

Possible cause	Remedy
Printer error	Check the control panel. If an error message is displayed, correct the problem.

Printing is slow_____

Possible cause	Remedy
Print processing is carried out by the computer.	Use a computer with a faster processor.
Print resolution is set high.	Set lower print resolution in the printer driver Job Options tab.
Data is too complex.	Simplify data.

Cleaning _____

Cleaning Page

Macintosh

OS 10.3 and later

Use this to generate a cleaning page which runs through the printer before the job is printed. This should eliminate any fading, streaking or erratic marks from the printed pages.

1. Open the file you want to print.
2. Click File → Print.
3. Open the drop-down list below Presets. Select Printer Option.
4. Select "Run maintenance cycle before printing".
    If the box has a check mark, the feature is ON.

    If the box is empty, the feature is OFF.

5. Change any other settings as desired.
6. Click Print.

Printer Drivers

General Information_____

<table>
<tr><td>

NOTE

Most applications allow the printer properties to be accessed from within the document print dialog box.
Application settings override driver settings.
Driver settings override printer menu settings.

</td></tr>
</table>

See your printed Setup Guide for information on installing the driver supplied with your printer.

You can also go to http://my.okidata.com to see/download a copy of the Setup Guide or for the latest information on printer drivers.

For more information about working with your printer driver, refer to the appropriate operating system.

- "Macintosh" see page 147

    Summary

    Presets

    Scheduler

    Paper Handling

Macintosh _____

General Information

Summary

> Macintosh OS 10.3 and later

> The "Summary" lists all the printer settings currently made for your print job. See "Summary" on page 148.

Presets

> Macintosh OS 10.3 and later

> "Presets" allow you to save a group of settings which you use for many documents, or to change the settings designated as the Standard Preset. See "Presets" on page 148.

Scheduler

> "Scheduler" allows you to schedule when your job will print and its priority relative to other jobs in the print queue. See "Scheduler" on page 149.

Paper Handling

> "Paper Handling" allows you to determine how the pages in your print job will print. Choices are: Reverse page order, All Pages, Odd numbered pages, or Even numbered pages.

>> Select "Reverse page order" to print the last page of the document first. This is useful when you are printing to the straight-through, rear (face up) exit required for heavy paper, labels, envelopes and transparencies.

>> See "Paper Handling" on page 150.

Summary

Macintosh OS 10.3 and later

The "Summary" lists all the printer settings currently made for your print job.

1. Open the file you want to print.
2. Click File → Print.
3. Open the drop-down list below Presets. Select Summary.

Presets

Macintosh OS 10.3 and later

Use/Save Presets

Presets allow you to save a group of settings which you use for many documents, or to change the settings designated as the Standard Preset.

For example, if you are using Job Accounting, you can enter your User Name and Job Account ID on the Job Accounting screen, then save the setting as part of the Standard Preset.

Create a New Preset

1. Make all the printer settings you wish to save as a Preset.
2. Select Summary. Review the settings to make sure you have all the settings you want to save.
3. Open the Presets drop-down list. Select Save As ….
4. Type in a name under which to save your settings. Click OK.
5. The new Preset appears in the drop-down list.

Change an Existing Preset

1. Make sure the Preset you wish to change is selected in the Preset box.
2. Make any needed changes in the printer settings.
3. Review the Summary screen to confirm that the settings are what you want.
4. Open the drop-down list. Select Save.
    The revised settings are saved under that Preset.

Delete a Preset

> ### CAUTION!
> **When you click Delete, the Preset is instantly deleted *without* prompting you to confirm the deletion.**

1. Make sure the Preset you wish to change is selected in the Preset box.
2. Open the drop-down list. Select Delete.
   The Preset is deleted from the list.

Scheduler

1. Open the file you want to print.
2. Click File → Print.
3. Open the drop-down list below Presets. Select Scheduler.
4. At Print Document, set the schedule for when your job prints.

   Now (the default).

   At [a specific time you specify in one minute increments]

   On Hold [until you come back and select Now]

5. At Priority, select the urgency of your print job.
   If your job competes with other documents in the print queue, this setting determines the printing priority of your job.

Paper Handling

1. Open the file you want to print.
2. Click File → Print.
3. Open the drop-down list below Presets. Select Paper Handling.
    Reverse page order

    > Select this to print the last page of the document first. This is useful when you are printing to the straight-through, rear (face up) exit required for heavy paper, labels, envelopes and transparencies.

    Print

    > All Pages

    > Odd numbered pages

    > Even numbered pages

    > Use this to print only the odd or only the even pages in your document.

Printer Features

Overview _____

Banners: see page 152

Black Printing: see page 154

Booklets: see page 159

Collating: see page 162

Color Matching: see page 165

Custom Page Size: see page 194

Duplex Printing: see page 197

Grayscale: see page 203

N Up (multiple pages on one sheet): see page 204

Photographs: see page 207

Posters: see page 210

Print Resolution: see page 211

Save as File: see page 215

Toner Saving: see page 216

Watermarks: see page 220

Banners _____

General Information

A banner is a document printed on an exta-long sheet of paper.

To print a banner, you must:

- use an application that supports banners

  Notes:

  Word does not support banners. Word limits page length to 22 inches (558.8 mm).

  Power Point does support banners.

- define a custom page size for your banner

  See "Custom Page Sizes" on page 194.

- use the Multi Purpose Tray and the Face Up (Rear) Exit

  See

  Multi-Purpose Tray (MP Tray) [Manual Feed], on page 38

  Face Up (Rear Exit), on page 41

Specifications

- Length: up to 47'' (1.2 m)
- Width Range = 8¼ to 8½'' (210 to 215.9 mm)
- Weight Range = 28 to 34 lb. US Bond (105 to 128 g/m2)
- Path = Rear Exit (Face Up Stacker) only
- Feed one sheet at a time.

Windows

For important information about printing banners, see General Information, on page 152.

Macintosh

OS 10.3 and later

For important information about printing banners, see General Information, on page 152.

Before you print a banner, you must set Multi Purpose Tray is Manual feed to ON in the printer driver. The default is OFF.

The printer operator panel will prompt you to load the media before the job prints.

1. Open the file you want to print.
2. Click File $\rightarrow$ Print.
3. Open the drop-down list below Presets. Select Printer Option.
4. Select "Multi Purpose Tray is Manual feed".
   If the box has a check mark, the feature is ON.

   If the box is empty, the feature is OFF.

5. Change any other settings as desired.
6. Click Print.

Black Printing _____

General Information

Your printer prints the color black in one of two ways:

- Composite Black
- True Black

Composite Black

The cyan, magenta, yellow, and black toners are *combined* to create composite black.

Use composite black when printing photographs.

Composite Black can appear as a brownish-black.

True Black

Only black toner is used to print true black.

Use True Black when printing a combination of text and graphics.

If you use True Black to print photographs, dark sections of the photos may appear black.

Windows

True Black

Normally, the printer prints black using all four toner colors (Composite Black).

If you do a lot of black-only printing, set the printer to use only black toner (True Black).

Individual Print Jobs

1. When you print a job, click on the driver's Color tab
2. Click in the box next to Grayscale.
   If the box has a check mark, the feature is ON.

   If the box is empty, the feature is OFF.

All Print Jobs (Default)

1. Click Start → Settings → Printers [Printers and Faxes in Windows XP].
2. Right-click the printer name.
   Windows Vista/2000/XP: select Properties. Click Printing Preferences.
3. On the Color tab, click Grayscale.
   If the box has a check mark, the feature is ON.

   If the box is empty, the feature is OFF.

4. Click OK twice.

NOTE

Once Grayscale is set as the default, you must select either Auto Color or Manual Color on the Color tab when you print color documents.
See "List of Color Matching Methods" on page 182.

Windows

Black Finish

Individual Print Jobs

NOTE

The driver's color options are only designed to work with RGB data.

---

1. Open the file you want to print.
2. Click File → Print.
3. Click on the Color tab.
4. At Advanced Color, make your selection.
   If the box has a check mark, the feature is ON.

   If the box is empty, the feature is OFF.

5. Below Black Finish, make your selection.
   Choices are Auto, Gloss, and Matte.

   Gloss

   This option produces printing with a more glossy finish.

   Matte

   This option uses more Black and less CMYK while producing a flatter black.

6. Change any other settings as desired.
7. Click Print.
8. The document prints.

All Print Jobs (Default)

1. Click Start → Settings → Printers [Printers and Faxes in Windows XP].
2. Right-click the printer name.
3. Next
   Windows 2000/XP: Select Properties. Click Printing Preferences.

4. Click on the Color tab.
5. At Advanced Color, make your selection.
   If the box has a check mark, the feature is ON.

   If the box is empty, the feature is OFF.

6. Below Black Finish, make your selection.
   Choices are Auto, Gloss, and Matte.

   Gloss

   This option produces printing with a more glossy finish.

   Matte

   This option uses more Black and less CMYK while producing a flatter black.

7. Change any other settings as desired.
8. Click Print.
9. The document prints.

Macintosh

OS 10.3 and later

True Black

1. Open the file you want to print.
2. Click File → Print.
3. Open the drop-down list below Presets. Select Printer Option.
4. At "Always create 100% Black(K) Toner", make your selection.
   If the box has a check mark, the feature is ON.

   If the box is empty, the feature is OFF.

5. Change any other settings as desired.
6. Click Print.

Macintosh

OS 10.3 and later

Black Finish

1. Open the file you want to print.
2. Click File → Print.
3. Open the drop-down list below Presets. Select Color.
4. Under Color Mode, select Advanced Color.
5. Choose the type of black finish.

   Gloss

   This option produces printing with a more glossy finish.

   Matte

   This option uses more Black and less CMYK while producing a flatter black.

6. Change any other settings as desired.
7. Click Print.

Booklets (Binding Print) _____

General Information
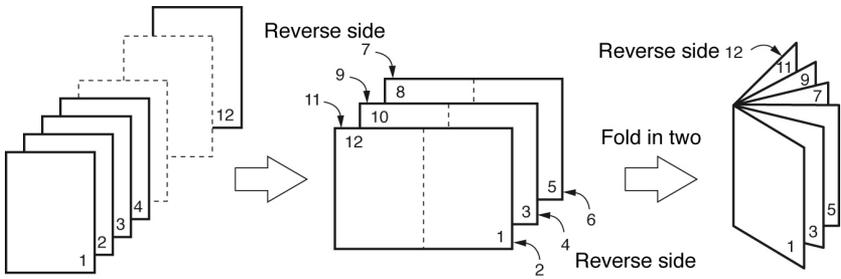
Booklet printing allows you to print a document like a brochure or greeting card.

Both the duplex unit and additional memory must be installed and enabled in the driver *before* using booklet printing.

Some applications do not support booklet printing.

Please read the Notes (below).

NOTES

Both the duplex unit and additional memory must be installed and enabled in the driver *before* using booklet printing.

Not available on some network connections: see the Help file.

Some software applications may not support booklet printing.

The right-to-left setting allows a booklet to be printed for right to left reading, which is used in some languages.

Booklet printing is restricted to four (4) pages per sheet [two (2) pages per side].

Examples:

• print a 5½ x 8½ inch booklet on 8½ x 11 inch paper

• print an 8½ x 11 inch booklet on 11 x 17 inch paper

Most applications allow the printer properties to be accessed from within the document print dialog box.

Application settings override driver settings.

Driver settings override printer menu settings.

Windows

> ### NOTES
> You must have the duplex unit enabled in order to print booklets.
>
> Not available on some network connections: see the Help file.
>
> Some software applications may not support booklet printing.
>
> The right-to-left setting allows a booklet to be printed for right to left reading, which is used in some languages.
>
> Most applications allow the printer properties to be accessed from within the document print dialog box.
>
> Application settings override driver settings.
>
> Driver settings override printer menu settings.

1. Open the file you want to print.
2. Click File → Print.
3. In the Print dialog box, select your printer.
4. Next:
    Windows Vista/XP: click Properties.

    Windows 2000: go to the next step.

5. On the Setup tab, under Finishing Mode, in the drop-down list, select Booklets.
6. Click Options. Enter your settings. Click OK.
7. Next:
    Windows Vista/XP: click OK.

    Windows 2000: go to the next step.

8. Next:
    Windows Vista/XP: click Print.

    Windows 2000: click Print.

Collating _____

General Information

> ### Important
> If your software application has a collate option, use it instead of the collate option in the printer driver.
>
> This prevents any conflicts between the software application and the printer driver.

> ### NOTE
> Most applications allow the printer properties to be accessed from within the document print dialog box.
> Application settings override driver settings.
> Driver settings override printer menu settings.
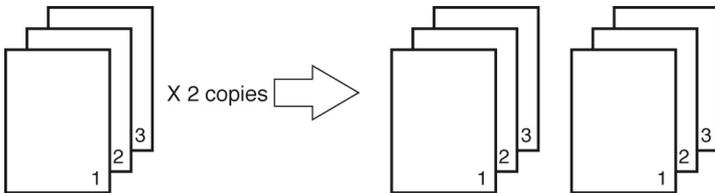
Collating is printing multiple copies of a multi-page job where each copy has the pages arranged in the correct order.

If you print multiple copies of a multi-page job and DO NOT specify collating, all of the copies of the first page print before the copies of the subsequent page(s) print.

Windows

> ### Important
>
> If your software application has a collate option, use it instead of the collate option in the printer driver.
>
> This prevents any conflicts between the software application and the printer driver.

> ### NOTE
>
> Most applications allow the printer properties to be accessed from within the document print dialog box. Application settings override driver settings.
> Driver settings override printer menu settings.

1. Open the file you want to print.
2. Click File → Print.
3. In the Print dialog box, select your printer.
4. Next:
    Windows XP: click Properties.

    Windows 2000: go to the next step.

5. On the Job Options tab, under Job Type, enter the number of copies required. Select Collate.
6. Next:
    Windows Vista/XP: click OK.

    Windows 2000: go to the next step.

7. Next:
    Windows XP/2000: click Print.

Macintosh

OS 10.3 and later

1. Open the file you want to print.
2. Click File → Print.
3. Open the drop-down list below Presets. Select Copies & Pages.
4. At Collated, make your selection.
   If the box has a check mark, the feature is ON.

   If the box is empty, the feature is OFF.

5. Change any other settings as desired.
6. Click Print

Color Matching _____

Overview

> **NOTE**
>
> Most applications allow the printer properties to be accessed from within the document print dialog box. Application settings override driver settings.
> Driver settings override printer menu settings.

Color reproduction is a complex topic.

This topic is divided into two sections:

- background information

  The background information explains the factors that affect color matching.

  See page 166.

- how-to information

  The how-to information explains how to perform color matching with your printer.

  See page 182.

Color Matching _____

Background Information

> **NOTE**
>
> Most applications allow the printer properties to be accessed from within the document print dialog box. Application settings override driver settings.
> Driver settings override printer menu settings.

Color reproduction is a complex topic.

This background information explains the factors that affect color matching.

Background information is divided into these sections:

1. Factors that Affect Color Printing: see page 167
2. Choosing a Color Matching Method: see page 173
3. Printing Vivid Colors: see page 178
4. Color Settings: see page 179
5. Hue, Brightness, and Saturation: see page 180

Color Matching

Factors that Affect Color Printing

There are many factors that affect color printing.

Some of the most important factors are:

- the differences between the range of colors a monitor can reproduce versus the range of colors that a printer can reproduce. See page 168.
- monitor settings. See page 169.
- color settings in your software application. See page 170.
- how your software application displays colo.r See page 170.
- color settings in your printer driver. See page 171.
- viewing (lighting) conditions. See page 172.
- paper type. See page 172.

Color Matching

Factors that Affect Color Printing

Monitor Colors vs. Printer Colors

**(Differences between the range of colors
 a monitor or printer can reproduce)**

Neither a printer nor a monitor can reproduce the full range of colors seen by the human eye.

Each device is limited to a certain range of colors.

- A printer cannot reproduce all of the colors displayed on a monitor.
- A monitor cannot reproduce all of the colors printed by a printer.

Both devices use very different technologies to represent color.

- A monitor uses Red, Green and Blue (RGB) phosphors (or LCDs).
- A printer uses Cyan, Yellow, Magenta and Black (CMYK) toner or ink.

Very vivid colors (such as intense reds and blues) can be displayed on a monitor. These same colors cannot be easily produced on *any* printer using toner or ink.

There are certain colors (for example, some yellows), that can be printed, but cannot be displayed accurately on a monitor.

These differences between monitor colors and printer colors are the main reasons why printed colors do not always match the colors displayed on screen.

Color Matching

Factors that Affect Color Printing

Monitor Settings

The brightness and contrast controls on your monitor can change how your document looks on-screen.

Your monitor color temperature also influences how "warm" or "cool" the colors look.

> **NOTE**
>
> Several of the Color Matching options make reference to your monitor's Color Temperature.
> Many monitors allow you to adjust the color temperature through their control panels.

There are several settings found on a typical monitor:

5000k * or D50

Warmest; yellowish lighting.

Typically used in graphics arts environments.

6500k * or D65

Cooler

Approximates daylight conditions.

9300k *

Cool

The default setting for many monitors and television sets.

*k = degrees Kelvin, a measurement of temperature

Macintosh

You can calibrate your monitor's color regimen in System Preferences → Displays → Color.

Color Matching

Factors that Affect Color Printing

Software Settings

Many software applications have their own color settings.

The application settings may override the settings in the printer driver.

Please refer to the documentation for your software application for details on how that particular program's color management functions.

How the application displays color

Some graphics applications such as CorelDRAW®, Adobe® Photoshop®, or Macromedia Freehand® may display color differently from "office" applications such as Microsoft® Word.

For more information, please see your application's online help or user manual.

Color Matching

Factors that Affect Color Printing

Printer Driver Settings

The color settings in your printer driver can change the appearance of a document.

There are several options available to help match the printed colors with those displayed on screen.

See "How To" on page 182.

For Windows

The printer drivers supplied with your printer provide several controls for changing the color output.

The default driver settings produce good results for most documents.

For Macintosh

The install utility provides

- a color matching profile for your printer

  and

- a Color Option utility in the print driver.

The **Auto** settings produce good results for most documents.

See "Auto Color" on page 183.

Color Matching

Factors that Affect Color Printing

Lighting (Viewing) Conditions

A document can look very different under various lighting conditions.

For example, the colors may look different when viewed standing next to a sunlit window compared to how they look under standard office fluorescent lighting.

Paper Type

The type of paper used can also significantly affect the printed color.

For example, a printout on recycled paper can look duller than one on specially formulated glossy paper.

Color Matching

Choosing a Color Matching Method

General Information

> **NOTE**
> These suggestions are for guidance only.
> Your results may vary depending on the application from which you are printing.
> Some applications override, without warning, any color matching settings in the printer driver.

There is no one way to achieve a good match between the document displayed on your monitor, and its printed equivalent.

There are many factors involved in achieving accurate and reproducible color.

However, the following guidelines may help in achieving good color output from your printer.

There are several suggested methods. The method you choose is determined by the type of document you are printing.

- most common [RGB]. See page 175.
- professional desktop publishing and graphics [CMYK]. See page 175.
- photographic images. See page 176.
- specific colors (i.e., a company logo). See page 177.
- printing vivid colors. See page 178.

Color Matching

Choosing a Color Matching Method

Your choices are:

Auto Color

Advanced Color

Grayscale

Auto Color

Your printer automatically uses the best method to match color, depending on the type of document you are printing.

See "Auto Color" on page 183.

Advanced Color

Advanced Color allows you to customize the color matching settings you use.

Color matching is a complex topic. Use Advanced Color only if you are comfortable with color matching concepts!

See "Advanced Color" on page 185.

Grayscale

This option prints all documents as monochrome.

No color prints.

The printer interprets all colors as a variation of grays.

See "Grayscale" on page 187.

Color Matching

Choosing a Color Matching Method

RGB or CMYK?

The guidelines for choosing a color matching method make distinctions between RGB and CMYK.

> RGB = Red, Green, Blue
>
> and
>
> CMYK = Cyan, Magenta, Yellow, Black.

Most documents you print are in RGB format. This is the most common method. If you do not know your document's color mode, assume that it is RGB.

CMYK documents are typically only supported in professional Desktop Publishing and Graphics applications.

Windows and Macintosh 10.3 and later

> The driver and Color Swatch Utility supplied with your printer support only RBG. If you wish to use CMYK, you might be able to use the software application's Soft Proofing feature.

Color Matching

Choosing a Color Matching Method

Matching Photographs

RGB only

Select a matching method appropriate to your monitor.

Windows

Natural is generally a good choice. Select a matching method appropriate to your monitor.

See "Color Settings" on page 179.

Macintosh

OS 10.3 and later

Natural is a generally a good choice. Select a matching method appropriate to your monitor.

See "Color Settings" on page 179.

RGB or CMYK

If you are printing photographic images from a graphics application such as Adobe Photoshop, you may be able to use Soft-Proofing to simulate the printed image on your monitor.

Color Matching

Choosing a Color Matching Method

Matching Specific Colors

(Example: Company logo)

RGB only

Windows

● Color Swatch Utility

Use the Color Swatch Utility to print out a chart of RGB swatches. Select your desired RGB values from the swatches. Enter the values in your application's color picker

Macintosh

OS 10.3 and later

● Color Swatch Utility

Use the Color Swatch Utility to print out a chart of RGB swatches. Select your desired RGB values from the swatches. Enter the values in your application's color picker

RGB or CMYK

If you are printing from a graphics application such as Adobe Photoshop, you may be able to use Soft-Proofing to simulate the printed image on your monitor.

Color Matching

Choosing a Color Matching Method

Printing Vivid Colors

RGB only

Choices are

- Monitor 6500k Vivid
- sRGB
- Digital Camera settings.

Windows

See "Color Settings" on page 179.

Macintosh

OS 10.3 and later

See "Color Settings" on page 179.

RGB or CMYK

Windows

Auto is a generally a good choice.

See "Auto Color" on page 183.

Macintosh

OS 10.3 and later

Auto is a generally a good choice.

See "Auto Color" on page 183.

Color Settings

This is a list of all possible options.

The list you see varies according to your computer platform, operating system, color production method, and printer driver type.

You can modify these settings by selecting Advanced Color, then Natural. See "Advanced Color" on page 185.

Monitor (6500k) Auto

The default setting (in Macintosh) that selects the best options for your printer. This selection works best for office situations.

Optimized for printing general documents when using a monitor with a color temperature of 6500K.

Monitor (6500k) Perceptual

This is best choice for printing photographic images.

Optimized for printing photographs when using a monitor with a color temperature of 6500K.

Monitor (6500k) Vivid

Ideal for office graphics and text.

Optimized for printing bright colors when using a monitor with a color temperature of 6500K. Vivid or Digital Camera settings produce brightest colors.

Monitor (9300k)

Optimized for printing photographs when using a monitor with a color temperature of 9300K.

Digital Camera

Optimized for printing photographs taken with a digital camera. This tends to produce prints with lighter and brighter colors.

For some photographs, other settings may be better depending on the subjects and the conditions under which they were taken. Vivid or Digital Camera settings produce brightest colors.

sRGB

This option attempts to simulate RGB color.

Optimized for matching specific colors, such as a company logo color. The colors within the printer's color gamut are printed without any modification. Only colors that fall outside the printable colors are modified.

Hue, Brightness, and Saturation

There are three main components to color: Hue, Brightness, and Saturation.

Hue

The component that determines the frequency of light or the position in the spectrum or the relative amounts of red, green and blue. Hue corresponds to the common definition of color, e.g. "red", "orange", "violet" etc.

Brightness

The component that determines the total amount of light (white) in the color. Zero brightness is black. 100% Brightness is white. Intermediate values are "light" or "dark" colors.

Windows and Macintosh 10.3

Brightness can be adjusted when using the Advanced Color or Gray Scale color modes (color matching methods).

Advanced Color: see page 185

Gray Scale: see page 187

Saturation

The degree of saturation of a color is its relative purity, or freedom from, mixture with white.

Windows and Macintosh 10.3

Saturation can be adjusted when using the Advanced Color or Gray Scale color modes (color matching methods).

Advanced Color: see page 185

Gray Scale: see page 187

Color Matching _____

How To

<div>

NOTE
Most applications allow the printer properties to be accessed from within the document print dialog box. Application settings override driver settings. Driver settings override printer menu settings.

</div>

Color reproduction is a complex topic.

This how-to information explains how to perform color matching with your printer.

List of Color Matching Methods

This is a list of all possible options.

The list you see varies according to your computer platform, operating system, color production method, and printer driver type.

To change these settings in your printer driver, refer to the appropriate section.

- Auto Color: see page 183
- Advanced Color: see page 185
- Grayscale: see page 187

Auto Color

Your printer automatically uses the best method to match color, depending on the type of document you are printing.

Windows

Individual Print Jobs

> **NOTE**
> The driver's color options are only designed to work with RGB data.

1. Open the file you want to print.
2. Click File → Print.
3. Click on the Color tab.
4. At Auto Color, make your selection.
   If the box has a check mark, the feature is ON.

   If the box is empty, the feature is OFF.

5. Click OK until you return to the Print dialog box.
6. Print the document.

All Print Jobs (Default)

1. Click Start → Settings → Printers [Printers and Faxes in Windows XP].
2. Right-click the printer name.
3. Next
   Windows Vista/2000/XP: select Properties. Click Printing Preferences.

4. Click on the Color tab.
5. At Auto Color, make your selection.
   If the box has a check mark, the feature is ON.

   If the box is empty, the feature is OFF.

6. Click OK until you return to the Print dialog box.
7. Print the document.

Macintosh

OS 10.3 and later

1. Open the file you want to print.
2. Click File → Print.
3. Open the drop-down list below Presets. Select Color.
4. Below Color Mode, at Auto Color, make your selection. If the box has a check mark, the feature is ON.

   If the box is empty, the feature is OFF.

5. Click Print.
6. The document prints.

Advanced Color

Advanced Color allows you to customize the color matching settings you use.

Color matching is a complex topic. Use Advanced Color only if you are comfortable with color matching concepts!

Windows

Individual Print Jobs

NOTE

The driver's color options are only designed to work with RGB data.

---

1. Open the file you want to print.
2. Click File → Print.
3. Click on the Color tab.
4. At Advanced Color, make your selection.
   If the box has a check mark, the feature is ON.

   If the box is empty, the feature is OFF.

5. Change any other settings as desired.
6. Click Print.
7. The document prints.

All Print Jobs (Default)

1. Click Start → Settings → Printers [Printers and Faxes in Windows XP].
2. Right-click the printer name.
3. Next
   Windows Vista/2000/XP: select Properties. Click Printing Preferences.
4. Click on the Color tab.
5. At Advanced Color, make your selection.
   If the box has a check mark, the feature is ON.

   If the box is empty, the feature is OFF.

6. Change any other settings as desired.

7. Click Print.

8. The document prints.

Macintosh

OS 10.3 and later

1. Open the file you want to print.

2. Click File → Print.

3. Open the drop-down list below Presets. Select Color.

4. Below Color Mode, at Advanced Color, make your selection.
If the box has a check mark, the feature is ON.

If the box is empty, the feature is OFF.

5. Change any other settings as desired.

6. Click Print.

7. The document prints.

Grayscale

This option prints all documents as monochrome.

No color prints.

The printer interprets all colors as a variation of grays.

Windows

Individual Print Jobs

> **NOTE**
> The driver's color options are only designed to work with RGB data.

1. Open the file you want to print.
2. Click File → Print.
3. Click on the Color tab.
4. At Grayscale, make your selection.
   If the box has a check mark, the feature is ON.

   If the box is empty, the feature is OFF.

5. Change any other settings as desired.
6. Click Print.
7. The document prints.

All Print Jobs (Default)

1. Click Start → Settings → Printers [Printers and Faxes in Windows XP].
2. Right-click the printer name.
3. Next
   Windows 2000/XP: select Properties. Click Printing Preferences.
4. Click on the Color tab.
5. At Grayscale, make your selection.
   If the box has a check mark, the feature is ON.

   If the box is empty, the feature is OFF.

6. Change any other settings as desired.

7. Click Print.

8. The document prints.

NOTE

Once Grayscale is set as the default, you must select either Auto Color or Manual Color on the Color tab when you print color documents.
See "List of Color Matching Methods" on page 182.

Macintosh

OS 10.3 and later

1. Open the file you want to print.

2. Click File → Print.

3. Open the drop-down list below Presets. Select Color.

4. Below Color Mode, at Gray Scale, make your selection. If the box has a check mark, the feature is ON.

   If the box is empty, the feature is OFF.

5. Change any other settings as desired.

6. Click Print.

Color Matching _____

Color Synch

Macintosh OS 10.3

1. To access the print features, open your print driver from within an application by selecting File → Print.
2. Open the drop-down list below Presets. Select Color Synch.
3. At Color Conversion, select Standard.
4. At Quartz Filter, make your selection.
   Choices are:

   None, Black & White, Blue Tone, Gray Tone, Lightness Decrease, Lightness Increase, Reduce File Size, Sepia Tone, and Add Filters.

   The following section has examples and explanations of each filter.

NOTE

To see the affect of any of these filters on your document, select Add Filters. Click the filter in the list. Click Apply.

Color Matching _____

Color Synch

Macintosh OS 10.3

Filters

None

The default. No filters are applied to the document.

Black & White

Converts the document to black and white, with no gray shades.

Blue Tone

Converts the document to shades of blue.

Gray Tone

Converts the document to shades of gray.

Lightness Decrease (A)/Lightness Increase (B)

Darkens or lightens the document. The middle picture below is with no filters applied.

A   B

Reduce File Size

This filters the document to reduce its file size.

Sepia Tone

Converts the document to shades of brown.

Add Filters

Clicking this brings up a Preview screen.

Here you can see the effect produced by selecting any of the standard filters.

To do this, click the name in the Filters box. Then, click Apply.

You can also

- add New filters of your choice

- Delete filters you have added to the list

- set color conversion options such as Rendering Intent (Automatic, Perceptual, Relative, Saturation, Absolute), etc.

Custom Page Sizes _____

General Information

Using the Printer Driver

> **NOTE**
>
> Most applications allow the printer properties to be accessed from within the document print dialog box.
>
> Application settings override driver settings.
> Driver settings override printer menu settings.

Custom page sizes can be printed from Tray 1, Tray 2 or the Multi-Purpose (MP) Tray, one-sided printing only, rear exit only.

Tray 1 and Tray 2 Custom Size Range

● minimum 3.94'' x 5.83'' [100 x 148 mm]

● maximum 8½'' x 14'' [215.9 x 355.6 mm].

MP Tray Custom Size Range

● minimum 3.94'' to 5.83'' [100 x 148 mm]

● maximum 8½'' x 14'' [216 x 356 mm]

● banners from 8¼'' to 8½'' (210 to 215.9 mm) wide by up to 47¼'' (1.2 m) long. Banners must be fed one sheet at a time.

Windows

Printing

<div style="border:2px solid green;">

NOTE

Up to 32 custom page sizes can be defined.

</div>

1. Make sure the rear exit path is open:

2. Load the custom size paper in the tray of your choice.
1. Open the file you want to print.
2. Click File → Print.
3. In the Print dialog box, select your printer.
4. Next:
Windows XP/Vista: click Properties.

Windows 2000: go to the next step.

5. On the Setup tab, under Media, in the Size drop-down list, select
User Defined Size from the bottom

or select a custom size you have already defined

See "Creating and Saving Custom Page Sizes" on page 196.

Define the custom size in the dialog box which appears. Click OK

NOTE

You may see a Warning dialog box indicating a conflict. If you do, click OK and the driver will automatically make the needed changes to correct for the conflict.

---

6. Under Media, in the Source drop-down list, select the tray you will be using. Click OK.

7. Next:
Windows Vista/XP/2000: click Print.

Windows

Creating and Saving Custom Page Sizes

1. Click Start → Settings → Printers [Printers and Faxes for XP].

2. Right click the printer icon.

3. Next:
Windows Vista/XP/2000: select Properties.

4. Click Printing Preferences.

5. On the Setup tab, click Paper Feed Options.

6. Click Custom Size.

7. For each size, enter a name, width and height. Click Add.

8. When done, click OK.

9. Click OK three more times.

Duplex Printing_____

(Printing on Both Sides of the Paper)
General Information

> **NOTE**
>
> The duplex unit must be enabled in the driver before duplex printing can be carried out.

> **NOTE**
>
> Most applications allow the printer properties to be accessed from within the document print dialog box.
> Application settings override driver settings.
> Driver settings override printer menu settings.

- Paper must be loaded print side *up*.
- Any tray (Tray 1, optional Tray 2, MP tray) can be used for duplex printing.

Paper Types

Paper *only*

Cannot duplex

labels

envelopes

transparencies

Paper Sizes

Size	Inches	Millimeters
Letter	8½ x 11	215.9 x 279.4
Legal-14	8½ x 14	215.9 x 355.6
Legal-13.5	8½ x 13.5	215.9 x 342.9
Legal-13	8½ x 13	215.9 x 330.2
Executive	7¼ x 10½	184.15 x
A4	8.27 x 11.69	210 x 297
A5	5.71 x 8.27	145 x 210
B5	7.17 x 10.12	182 x 257
Custom	Minimum 5.8 x 8.25 Maximum 8.5 x 14	Minimum 148 x 210 Maximum 215.9 x 355.6

Paper Weights

20 to 28-lb. US Bond

42 to 58 lb. Index

75 to 105 g/m² metric

Duplexing Restrictions

<div style="border: 2px solid blue;">

Important!

You can duplex
- paper
- paper weights up to

  28 lb. US Bond
  58 lb. Index
  105 g/m^2 metric

You *cannot* duplex
- labels
- envelopes
- transparencies
- paper weights above

  28 lb. US Bond
  58 lb. Index
  105 g/m^2 metric

</div>

Long Edge vs. Short Edge

Long Edge	Short Edge
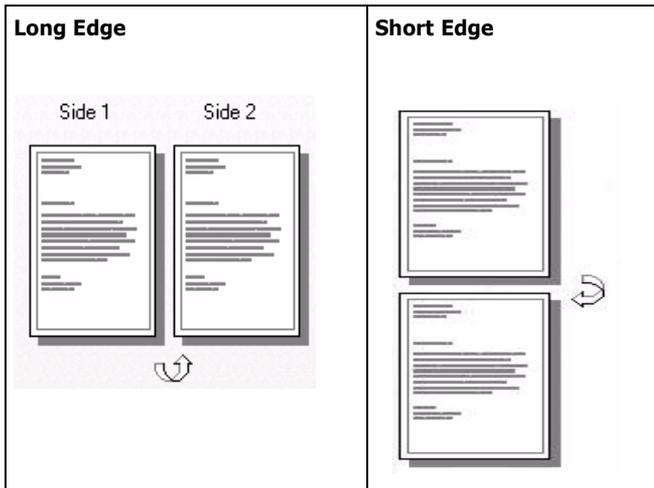
Windows

Individual Print Jobs

Please review General Information, on page 197, for important information about duplex printing.

1. Open the file you want to print.
2. Click File → Print.
3. In the Print dialog box, select your printer.
4. Windows Vista/XP/2000: click Properties.
5. On the Setup tab, under 2-Sided Printing, make your selection.
   Choices are Long Edge or Short Edge.
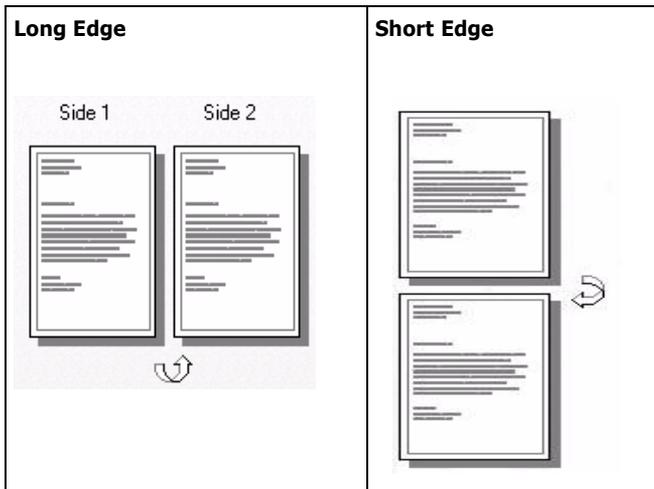
6. ~~Next:~~
   Windows Vista/XP: Click OK.

   Windows 2000: go to the next step.

7. Next:
   Windows XP/2000: click Print.

Windows

All Print Jobs (Default)

1. Click Start → Settings → Printers [Printers and Faxes for XP].
2. Right click the printer icon.
3. Windows Vista/XP/2000: select Properties.
4. Click Printing Preferences.
5. Follow steps below. Note that the screen for setting defaults will have more tabs.
6. On the Setup tab, under 2-Sided Printing, make your selection.
    Choices are Long Edge or Short Edge.

Long Edge	Short Edge
Side 1 Side 2	
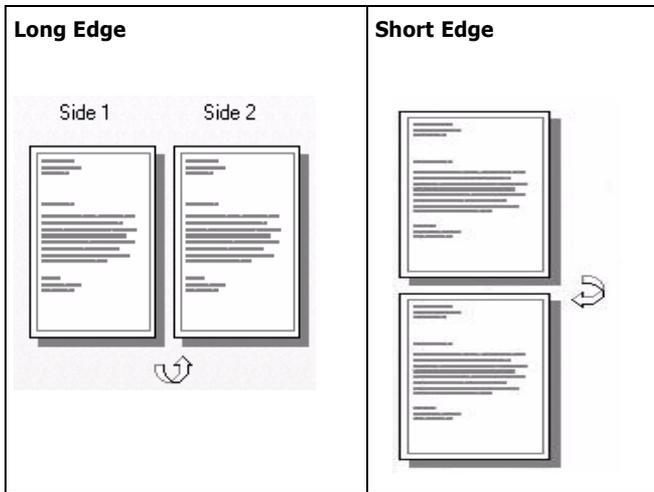
7. Next:
    Windows Vista/XP/2000: Click OK twice.

Macintosh

OS 10.3 and later

1. Open the file you want to print.
2. Click File → Print.
3. Open the drop-down list below Presets. Select Duplex.
4. At Duplex, make your selection.
   Choices are: Off, Long-Edge Binding, and Short-Edge Binding.

Long Edge Binding	Short Edge Binding
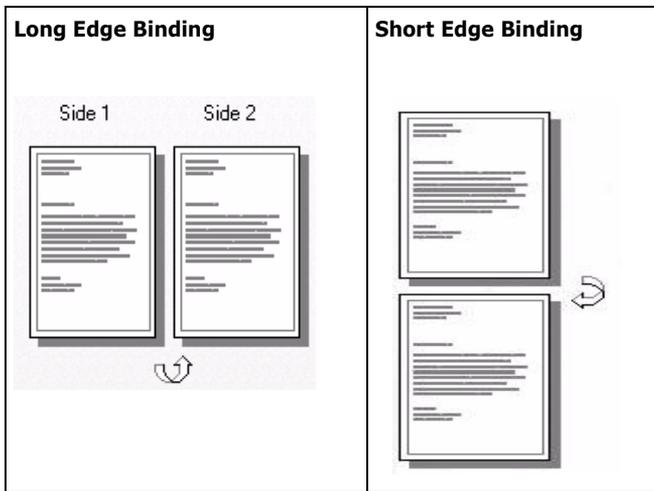
5. Change any other settings as desired.
6. Click Print.

Grayscale _____

This feature is described in the Color Matching section.

See "Grayscale" on page 187.

N-Up Printing _____

Printing Multiple Pages on One Sheet

General Information

N-Up printing allows you to reduce several full-size pages and print them on a single sheet.
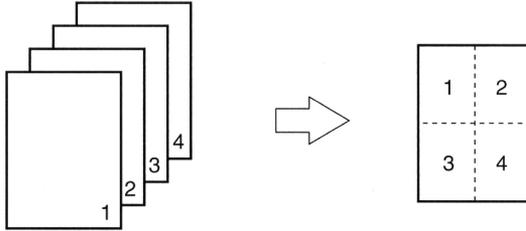
Windows

> **NOTE**
>
> Most applications allow the printer properties to be accessed from within the document print dialog box.
> Application settings override driver settings.
> Driver settings override printer menu settings.

1. Open the file you want to print.
2. Click File → Print.
3. In the Print dialog box, select your printer.
4. Next:

   Windows Vista/XP: click Properties.

   Windows 2000: go to the next step.

5. On the Setup tab, under Finishing Mode (**1**), select the required number of pages per sheet in the drop-down list.

6. To change additional settings, click Options (**2**). Settings are:

Pages per Sheet

Use this to print up to 16 pages on one sheet.

Layout Direction

Use this to set the orientation in which multiple pages are printed on the sheet.

Border

When printing multiple pages on one sheet, use this to print a border between the sheets, if desired.

7. Make your selections. Click OK.

8. Next:
Windows Vista/XP: Click OK.

Windows 2000: go to the next step.

9. Next:
Windows 2000: click Print.

Macintosh

OS 10.3 and later

1. Open the file you want to print.
2. Click File → Print.
3. Open the drop-down list below Presets. Select Layout.
4. Make your selections.

   Pages per Sheet

   Use this to print up to 16 pages on one sheet.

   Layout Direction

   Use this to set the orientation in which multiple pages are printed on the sheet.

   Border

   When printing multiple pages on one sheet, use this to print a border between the sheets, if desired.

5. Change any other settings as desired.
6. Click Print.

Photographs _____

For the best quality when printing photographs, select Photo Enhance in the driver.

Windows

All Print Jobs (Default)

1. Click Start → Settings → Printers [Printers and Faxes in Windows XP].
2. Right-click the printer name.
3. Next
   Windows XP/2000: select Properties.

4. Click Printing Preferences.
5. Follow the steps below. Note that the screen for setting defaults will have more tabs.
6. On the Job Options tab, select Photo Enhance.
7. Change any other settings as desired.
8. Next:
   Vista⁄XP: click OK

   Windows 2000: go to the next step.

9. Next:
   Windows XP/2000: click Print.

Windows

Individual Print Jobs

1. Open the file you want to print.
2. Click File → Print.
3. In the Print dialog box, select your printer.
4. Next:
   Windows XP: click Properties.

   Windows 2000: go to the next step.

5. On the Job Options tab, select Photo Enhance.
6. Change any other settings as desired.
7. Next:
   Vista/XP: click OK

   Windows 2000: go to the next step.

8. Next:
   Windows XP/2000: click Print.

Macintosh

OS 10.3 and later

1. Open the file you want to print.
2. Click File → Print.
3. Open the drop-down list below Presets. Select Print Quality.
4. Select Photo Enhance
5. Change any other settings as desired.
6. Click Print.

Posters _____

General Information

This option allows you to print posters by dividing a single document page into multiple pieces. Each piece prints, enlarged, on a separate sheet. Then, you combine the separate sheets to create a poster.

Windows

1. Open the file you want to print.

2. Click File → Print.

3. In the Print dialog box, select your printer.

4. Next:
Windows Vista/XP: click Properties.

Windows 2000: go to the next step.

5. On the Setup tab, under Finishing Mode, select PosterPrint.

6. Click Options... and enter the configuration details.
Note: an overlap of at least 0.2 mm must be specified.

7. Click OK.

8. Next:
Vista/XP: click OK.

Windows 2000: go to the next step.

9. Next:
Windows XP/2000: click Print.

Print Resolution _____

General Information

Adjusting the resolution for a print job allows you to control the print speed and print quality of a job. Adjusting the resolution also allows you to improve your toner mileage.

When printing proofs or drafts, you usually don't need the best possible print quality. You usually do need the fastest possible print speed. Using a lower print resolution can accomplish these goals.

Lowering the print resolution can reduce the need for toner and the wear on the image drum. This increases the mileage of your toner and drum.

Raising the print resolution can maximize the image quality of a print job. You usually do this for final versions of documents or when printing images (photographs).

Windows

All Print Jobs (Default)

1. Click Start → Settings → Printers [Printers and Faxes for XP].
2. Right click the printer icon.
3. Next:
   Windows Vista/XP/2000: select Properties. Click Printing Preferences.
4. Follow the steps below. Note that the screen for setting defaults will have more tabs.
5. On the Job Options tab, under Quality, make your selection.
   High Quality

   The best quality image the printer provides.

   Choose this for optimum results when printing graphics.

   Fine/Detail (600 x 1200)

   high resolution printing

   Normal

   standard resolution. The default.
6. Change any other settings as desired.

7. Next:
Vista/XP: click OK.

Windows 2000: go to the next step.

8. Next:
Windows XP/2000: click Print.

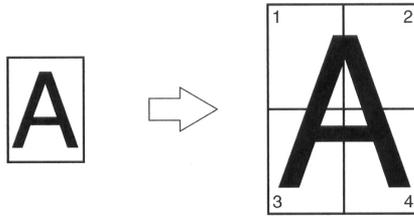## Windows

Individual Print Jobs

1. Open the file you want to print.
2. Select File → Print.
3. In the Print dialog box, select your printer.
4. Next:
   Windows XP: click Properties.

   Windows 2000: go to the next step.

5. On the Job Options tab, under Quality, make your selection.
   High Quality

   The best quality image the printer provides.

   Choose this for optimum results when printing graphics.

   Fine/Detail (600 x 1200)

   high resolution printing

   Normal

   standard resolution. The default.

6. Change any other settings as desired.
7. Next:
   ~~Vista~~XP: click OK.

   Windows 2000: go to the next step.

8. Next:
   Windows XP/2000: click Print.

Macintosh

OS 10.3 and later

1. Open the file you want to print.
2. Click File → Print.
3. Open the drop-down list below Presets. Select Print Quality.
4. Make your selection.
   High Quality

   > The best quality image the printer provides.

   > Choose this for optimum results when printing graphics.

   Fine/Detail (600 x 1200)

   > high resolution printing

   Normal

   > standard resolution. The default.

5. Change any other settings as desired.
6. Click Print.

Save as File_____

General Information

Use Save as File to save print data to a file, without actually printing a hardcopy.

Save as File captures either a PDF or a PostScript file.

Windows

This feature is not available in this operating system.

Macintosh

OS 10.3 and later

1. Open the file you want to print.
2. Click File → Print.
3. Open the drop-down list below Presets. Select Output Options.
4. At Save as File, make your selection.
    If the box has a check mark, the feature is ON.

    If the box is empty, the feature is OFF.

5. At Format, make your selection.
    Choices are:

    Adobe® Acrobat® PDF

    PostScript®

6. Change any other settings as desired.
7. Click Print.

Toner Saving_____

General Information

Use Toner Save to maximize the life of your toner cartridges.

Toner Save uses less toner to create the printed images. Toner Save adjusts the darkness of the color halftones. Images may appear lighter than normal.

NOTES

Toner Save does not work if you are printing 100 per cent black.

Toner Save does not work if Gray Scale is the selected print mode.

Toner Save does not work with applications and operating systems that create print data in CIE color space.

Windows

Individual Print Jobs

Please review General Information, on page 216, for important information about toner saving.

1. Open the file you want to print.
2. Click File → Print.
3. In the Print dialog box, select your printer.
4. Next:
   Windows Vista/XP: click Properties.

   Windows 2000: go to the next step.

5. Click on the Job Options tab.
6. At Toner Saving, make your selection.
   Checking this will enable toner saving, but reduce print quality.

   If the box has a check mark, the feature is ON.

   If the box is empty, the feature is OFF.

7. Change any other settings as desired
8. Next:
   Vista/XP: click OK.

   Windows 2000: go to the next step.

9. Next:
   Windows XP/2000: click Print.

Windows

All Print Jobs (Default)

Please review General Information, on page 216, for important information about toner saving.

1. Click Start → Settings → Printers [Printers and Faxes for XP].
2. Right click the printer icon.
3. Next:
    Windows XP/2000: select Properties. Click Printing Preferences.
4. Click on the Job Options tab.
5. Follow the steps below. Note that the screen for setting defaults will have more tabs.
6. At Toner Saving, make your selection.
    Checking this will enable toner saving, but reduce print quality.

    If the box has a check mark, the feature is ON.

    If the box is empty, the feature is OFF.

7. Change any other settings as desired
8. Next:
    Vista/XP: click OK.

    Windows 2000: go to the next step.

9. Next:
    Windows XP/2000: click Print.

Macintosh

OS 10.3 and later

1. Open the file you want to print.
2. Click File → Print.
3. Open the drop-down list below Presets. Select Print Quality.
4. At Toner saving, make your selection.
   Checking this will enable toner saving, but reduce print quality.

   If the box has a check mark, the feature is ON.

   If the box is empty, the feature is OFF.

5. Change any other settings as desired.
6. Click Print.

Watermarks _____

General Information
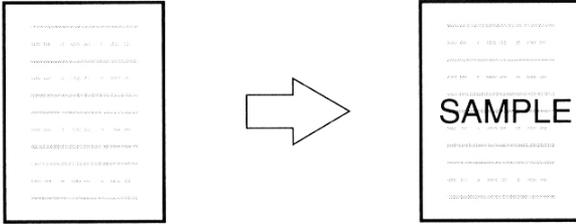
Traditionally, a watermark is a mark which is made on some types of paper during its production which can only be seen if it is held against the light.

Your printer can print an element that performs as a watermark. This element is separate from the actual contents of a document. Examples are printing SAMPLE or INTERNAL USE ONLY on copies of document.

There are three steps in working with Watermarks:

1.   Create the watermark.
2.   Edit an existing watermark.
3.   Print, using a watermark

Windows

Create a Watermark

1. Open the file you want to print.
2. Click File → Print.
3. In the Print dialog box, select your printer.
4. Next:

   Windows Vista/XP: click Properties.

   Windows 2000: go to the next step.

5. Click on the Job Options tab.
6. Click Watermark.
7. Click New.
8. Enter the text for your watermark.
9. Select the attributes (font, size, angle, etc.) for your watermark.
10. Click OK.

    The new watermark appears in the Watermark list.

11. Change any other settings as desired
12. Click OK.
13. Next:

    Vista/XP: click OK.

    Windows 2000: go to the next step.

14. Next:

    Windows XP/2000: click Print.

Windows

Edit a Watermark

1. Open the file you want to print.
2. Click File → Print.
3. In the Print dialog box, select your printer.
4. Next:

   Windows Vista/XP: click Properties.

   Windows 2000: go to the next step.

5. Click on the Job Options tab.
6. Click Watermark.
7. Select a name from the Watermark list.
8. Click Edit.
9. Modify the text for your watermark.
10. Modify the attributes (font, size, angle) for your watermark.
11. Click OK.
12. Adjust where and how the watermark prints, if necessary.

    Choices are: On first page only, In background, As outline only

13. Change any other settings as desired
14. Click OK.
15. Next:

    Windows Vista/XP: click OK.

    Windows 2000: go to the next step.

16. Next:

    Windows XP/2000: click Print.

Windows

Print, using a Watermark

1.   Open the file you want to print.
2.   Click File → Print.
3.   In the Print dialog box, select your printer.
4.   Next:
     Windows Vista/XP: click Properties.

5.   Click on Preferences.
     Windows 2000: go to the next step.

6.   Click on the Job Options tab.
7.   Click Watermark.
8.   Select a name from the Watermark list
9.   Adjust where and how the watermark prints, if necessary.
     Choices are: On first page only, In background, As outline only

10. Change any other settings as desired
11. Click OK.
12. Next:
     Windows Vista/XP: click OK.

     Windows 2000: go to the next step.

13. Next:
     Windows XP/2000: click Print.

Utilities

Summary of Utilities Provided _____

Utilities on the CD

For more information, click "Tell me more" on the Optional Utilities screen.

Windows

- **Admin Manager**
  For quick discovery and setup of the Oki network card in your printer. Runs directly off the CD.
- **Direct Network Printing Utility (LPR)**
  For printing on an Ethernet network without the need for a print server.
- **Network Extension**
  For use when your printer is connected over a TCP/IP network. Check the printer status and configuration from the Printer)Properties tab in the printer driver.
- **Color Swatch Utility**
  Print a color swatch and use the indicated RGB values to set up the color(s) of your choice in your graphics/design software application.
- **Display Language Utility**
  Use to change the language of the printer's display.

Macintosh

- **Color Correct Utility**
  Fine tune the printer's color settings (pallet color. gamma value/hue) and save them for future use.
- **Op Panel Language Utility**
  Use to change the language of the printer's display.
- **Profile Assistant**
  Helps you to load and manage color profiles.
- **NIC Setup Utility**
  Use to set up the [printer network card.
- **Swatch Utility**
  Print a color swatch and use the indicated RGB values to set up the color(s) of your choice in your graphics/design software application.

- **Job Accounting**
  Use to control printer access and to monitor consumables usage.

Utilities on the Web (Windows Only)

Here is a list of the utilities provided via a download from the internet, accessed through the Menu Installer on the CD. For more information, click "Tell me more" on the Internet Options screen in the CD installer.

- **PrintSuperVision**
  View the real-time status of printers, monitor and report printer usage, manage consumables, check on the status of printers in the same department, the same building, the same country or on the other side of the world.
- **Color Correct Utility**
  Helps adjust how RGB colors are printed: office palette tuning, hue/saturation/gamma tuning.
- **Job Accounting Utility**
  Use to control printer access and to monitor consumables usage.

Installing the Utilities _____

Utilities on the CD
Load the utilities from the Menu Installer located on the CD supplied with your printer.

Download Utilities (Windows only)
Download the utilities from the internet, accessed through the Menu Installer on the CD.