

## Settings and Printing

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## About Media

### For Media Tray

Media	Description
Laser paper*1	B&W: 60 to 105 g/m <sup>2</sup> (16 to 28 lbs.) Color: 75 to 105 g/m <sup>2</sup> (20 to 28 lbs.)
Transparency	3M CG3710

To print a document on a transparency using the Transparency tray, see [“Printing on Transparency \(using Transparency Tray\)” on page 49.](#)

\*1Recommended paper is as follows:

**Letter/Legal:** Hammermill LASERPRINT 90 g/m<sup>2</sup> (24 lbs.)

**A4:** 4CC 80 g/m<sup>2</sup>

### For Multi-purpose Tray

Media	Description
Laser paper	Single-sided printing: 75 to 165 g/m <sup>2</sup> (20 to 44 lbs.) Manual duplex printing*1: 75 to 165 g/m <sup>2</sup> (20 to 44 lbs.)
Transparency*2	3M CG3710
Labels	Avery 5163-5165, L7163, L7165-L7169
Envelope	#10 [Black text only]
Cardstock	Up to 165 g/m <sup>2</sup>

To print a document on a transparency, label or envelope using the multi-purpose tray, see [“Printing on Transparency, Label or Envelope \(using Multi-purpose Tray\)” on page 52.](#)

\*1When you perform the duplex printing, you should not expect the same print quality and reliability that you get with single-sided printing. See the [Specifications](#).

\*2The print quality may not be stable. Use the media tray for best reliability.

For the notes and detailed media specification, refer to [Specifications](#).

## Loading Media

### Using the Media Tray

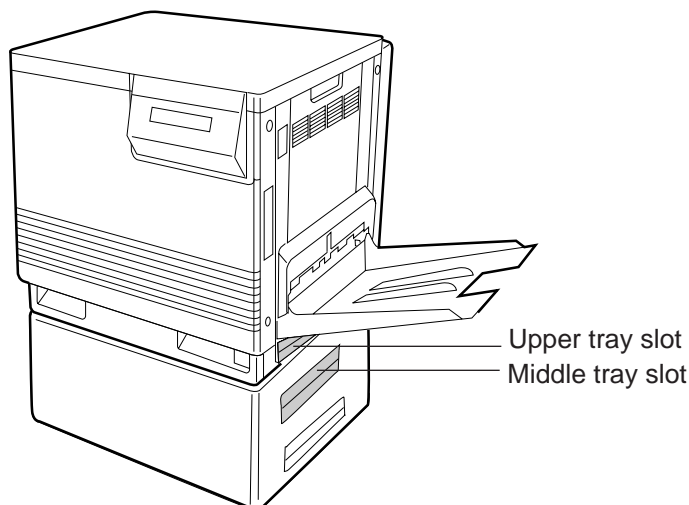
The printer is shipped with a media tray (Letter paper or A4 paper) installed. Besides them, the following media can be used with five different trays.

Each tray is designed and labeled for only paper or transparency. If you load the incorrect media type in a tray, it may cause a jam.

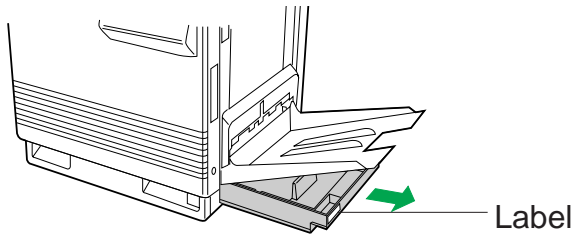
Tray	Size
A4 Paper	210 mm x 297 mm (8.3" x 11.7")
A4 Transparency	210 mm x 297 mm (8.3" x 11.7")
Letter Paper	216 mm x 279 mm (8.5" x 11")
Letter Transparency	216 mm x 279 mm (8.5" x 11")
Legal Paper	216 mm x 356 mm (8.5" x 14")

### NOTE

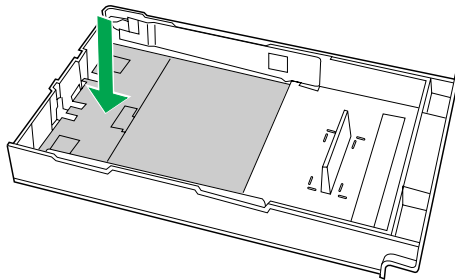
- If you have the 2nd Cassette Feeder installed:
  - If you wish to use the automatic cassette-switching feature (a large print job, for example), make sure that all trays in the printer are the **same** media type and size.
  - The transparency tray should only be inserted in the upper or middle tray slots.



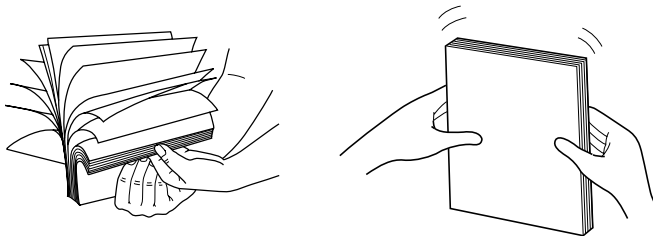
- 1 Pull the media tray out of the printer.  
To use an appropriate media tray, always check the label indication on the tray.



- 2 Push down on the metal plate until it clicks, locking it in place.



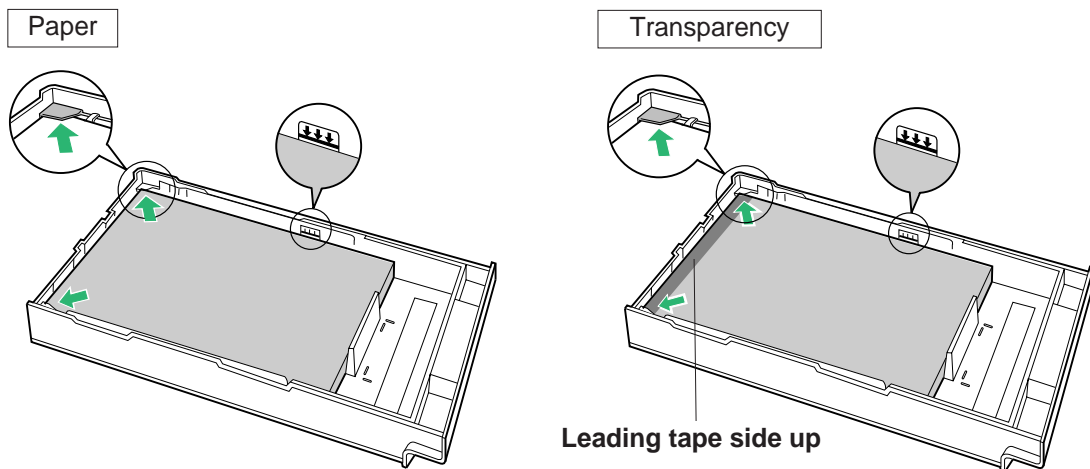
- 3 Fan the media (paper/transparencies), then tap it on a level surface to avoid media jams or skewed printing.



## NOTES

- Be careful not to leave fingerprints on the media, which can result in a smudged print.
- Reusing media that has been fed through the printer once (for example, after jams) can reduce the life of the consumables and paper path components.

- 4** Place the media with the **print side down** under the hooks in the tray. The height of media should not exceed the limit mark on the tray, or it may cause a jam.



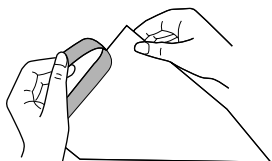
## NOTES

- Most media has instructions recommending the side to be printed first.
- Do not mix different types or thicknesses of media in the media tray at one time; this may cause a jam.
- **When using transparency (3M CG3710)**, be sure to use the transparency tray and load it with the **leading tape side facing up** (3M CG3710) and the taped end under the hooks.

- 5** Slide the media tray completely into the slot.

## NOTE

- When using transparency with leading tape, remove the tape after printing.



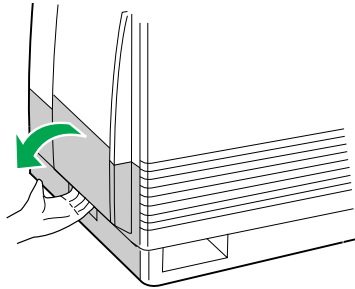
## Using the Multi-purpose Tray

The multi-purpose tray (MPT) serves as an additional tray for loading any type of media that ranges in size from 91 mm x 254 mm to 216 mm x 356 mm (3.6" x 10" to 8.5" x 14").

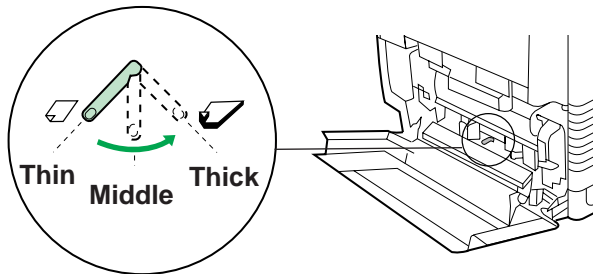
### ■ Setting media thickness switch:

Because of the most reliable paper-picking for various media weights, media thickness can be manually selected.

- 1 Open the left side door.



- 2 Move the media thickness switch to the desired setting.



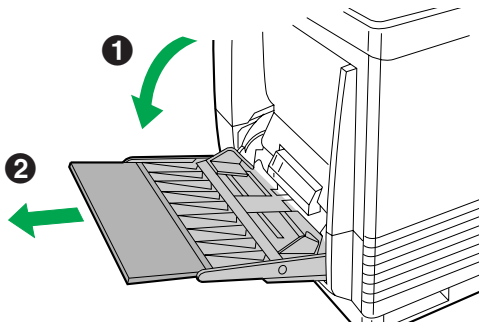
Switch setting	Media
Thin (Default)	Laser paper 75 to 90 g/m <sup>2</sup> (20 to 24 lbs.)
Middle	Laser paper 91 to 123 g/m <sup>2</sup> (25 to 32 lbs.) Transparency, Coated paper, Label
Thick	Laser paper 124 to 165 g/m <sup>2</sup> (33 to 44 lbs.) Envelope #10 Card stock up to 165 g/m <sup>2</sup>

- 3 Close the left side door.

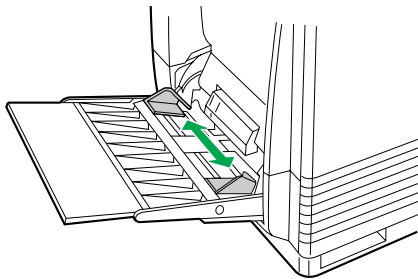
## ■ Loading Media:

**1** Set the media thickness switch.

**2** ① Open the multi-purpose tray.  
② Extend the media support.



**3** Separate the media guides to the approximate width of the media.



**4** Fan the media, and then tap it on a level surface to avoid media jams or skewed printing.



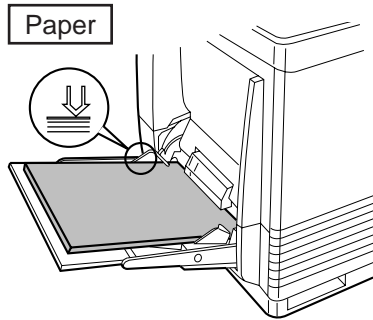
## NOTES

- Reusing media that has been fed through the printer once (for example, after jams) can reduce the life of the consumables and paper path components.
- When printing legal size using the multi-purpose tray, backside marking may occur. If this occurs, use the legal paper tray.

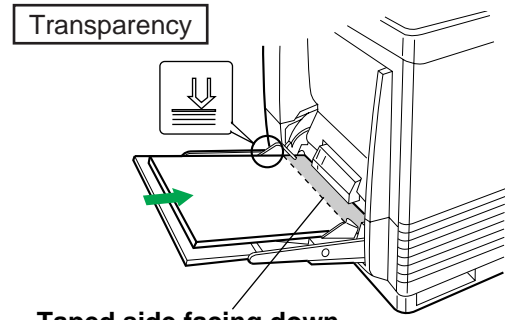


## 5 Insert the media with the **printing side up** into the multi-purpose tray.

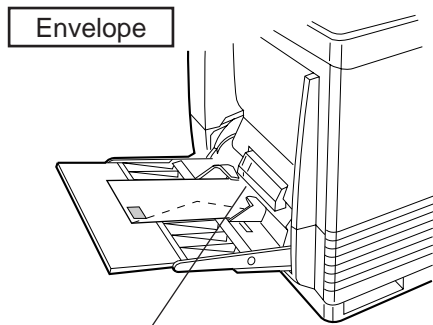
The height of media should not exceed the limit mark on the left guide, or it may cause a media jam.



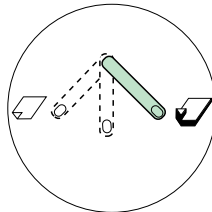
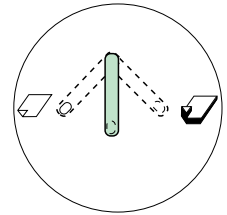
Confirm the setting of the media thickness switch.



**Taped side facing down**  
(3M CG3710)

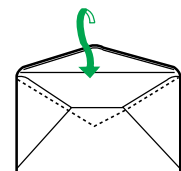


Short-end



## NOTES

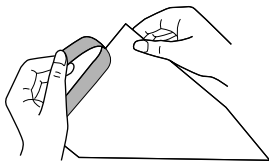
- Place only one envelope in the multi-purpose tray at a time.
- When a wrinkle occurs, try printing with the flap inserted inside the envelope as shown in figure.



- 6 Adjust the media guides to the media size.
- 7 Use the printer driver to select the multi-purpose tray and media type.  
(Refer to “Paper Tab” on page 34).

### NOTE

- When using transparency with leading tape, remove the tape after printing.



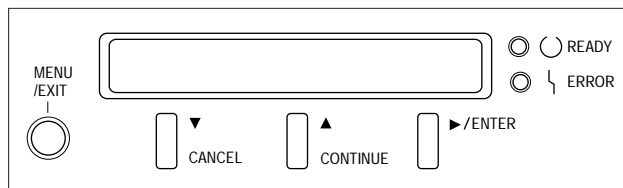
## Margins and Print Area

The image (print area) is printed a bit smaller than the media size. You may need to adjust the page margins in the application software to match the print area.

For detailed information, refer to [Specifications](#).

## Using the Printer Panel (Menu Mode)

### Printer Panel



The Menu mode includes a Main menu, Item menu, Selection 1 menu and Selection 2 menu which can be changed from the printer panel.

#### **Button Operation:**

When Ready is displayed in the upper line of the LCD, pressing the **MENU/EXIT** button will allow you to enter the Menu mode.

Once in the Menu mode, you can set the printer using the following buttons:

Button	Operation
▲/CONTINUE	Display the next menu or item
	Increase the numerical value of the selection by 1 or display the next selection
▼/CANCEL	Display the previous menu or item
	Decrease the numerical value of the selection by 1 or display the previous selection
▶/ENTER	Enter a sub-menu
	Activate a selection

**LED indication**

Indicator	LED	Status
READY	On	The printer is ready for operation.
	Blinking	The printer is warming up, printing or in the Menu mode.
ERROR	On	An internal error (Call for Service Error) has occurred.
	Blinking	User correctable error, such as media jam, open door, or a missing replaceable component (e.g. toner cartridge) has occurred.

**Menu Table**

Before you attempt to change any settings, check the factory default settings in the following table. For details on changing the settings, refer to Outline for Operation (see [page 18](#)).

Once you have changed the printer panel settings, they are automatically saved as user default settings even if the power is turned off.

Main Menu	Item Menu	Selection 1 Menu	Selection 2 Menu
Test Page	Menu Map		
	Configuration Page		
	Test Print		
Bias Adjustment	Calibration Offset	0* (-5 to 5)	
	CYAN	0* (-10 to 10)	
	MAGENTA	0* (-10 to 10)	
	YELLOW	0* (-10 to 10)	
	BLACK	0* (-10 to 10)	
	Calibration Test Print		
	Reset Calibration	No*	
	Yes		

\* denotes the default setting. It is also shown on the LCD panel.

(continued)

## Using the Printer Panel (Menu Mode)

Main Menu	Item Menu	Selection 1 Menu	Selection 2 Menu
Maintenance	Page Count	Color Page	Sheet: #####
		Monochrome Page	Sheet: #####
	Toner Cartridge	CYAN: ###% remaining	
		MAGENTA: ###% remaining	
		YELLOW: ###% remaining	
		BLACK: ###% remaining	
	Imaging Unit	###% remaining	
	Charge Unit	###% remaining	
	Transfer Unit	###% remaining	
	Fuser Unit	###% remaining	
	Oil Roll	###% remaining	
	Cleaning Pad	###% remaining	
	Counter Reset	New Transfer Unit?	No*
			Yes
New Cleaning Pad?		No*	
		Yes	
Image Area	Last	CYAN: ###%	
		MAGENTA: ###%	
		YELLOW: ###%	
		BLACK: ###%	
	Average	CYAN: ###%	
		MAGENTA: ###%	
		YELLOW: ###%	
		BLACK: ###%	

\* denotes the default setting. It is also shown on the LCD panel.

(continued)

## Using the Printer Panel (Menu Mode)

Main Menu	Item Menu	Selection 1 Menu	Selection 2 Menu
Power Saver	On*		
	Off		
Network Protocol Setup* <sup>1</sup>	DHCP	Enable*	
		Disable	
	Ethernet IP Address* <sup>2</sup>	127.0.0.1*	
	Ethernet Subnet Mask* <sup>2</sup>	255.255.255.0*	
	Gateway Address* <sup>2</sup>	255.255.255.0*	
Adjustment to Media	Plain Paper	0* (-5 to 5)	
	Transparency	0* (-5 to 5)	
	Label	0* (-5 to 5)	
	Coated Paper	0* (-5 to 5)	
	Envelope	0* (-5 to 5)	
	Card	0* (-5 to 5)	
Language	English		
	Français		
	Deutsch		
	Español		
	Italiano		
	Japanese		

\* denotes the default setting. It is also shown on the LCD panel.

\*<sup>1</sup> Network Protocol Setup will not appear if the network card option is not installed in the printer.

\*<sup>2</sup> If the DHCP is enabled, these menus will not appear.

## Outline for Menus

### Test Page

Prints the Menu Map, Configuration Page and Test Print.

- **Menu Map**

Prints selectable menus.

- **Configuration Page**

Prints general information on printer settings and configuration.

- **Test Print**

Prints each color (CYAN, MAGENTA, YELLOW and BLACK) halftone to check for print quality.

### Bias Adjustment

Adjusts the toner density for each color independently or all the colors.

- **Calibration Offset**

Adjusts the density for all colors (CYAN, MAGENTA, YELLOW and BLACK). Setting a higher number provides darker colors and setting a lower number provides lighter colors.

- **CYAN / MAGENTA / YELLOW / BLACK**

Adjusts the density for each color independently. Setting a higher number provides darker color and setting a lower number provides lighter color.

- **Calibration Test Print**

Prints a Color Calibration Page with the current density settings.

- **Reset Calibration**

Setting Yes resets the current settings back to the default settings.

### NOTE

- The color density setting affects the average life of toner.

## Maintenance

This menu shows what percentage of each consumable's life remains to be used. Please note that the values shown on the LCD panel are just the approximate values and are not always correct. So a consumable indicating warning message might appear regardless of the displayed values.

For the life of supplies, see **Maintenance**. When a supply is replaced with a new one, the printer will automatically reset the page counter for that supply (except transfer unit and cleaning pad) to 0. When the transfer unit or cleaning pad is replaced, the counter must be reset by using the Counter Reset menu (see below).

### ■ Page Count

It shows the total number of color and monochrome pages your printer has printed since your purchase of the printer.

### ■ Toner Cartridge

It shows the remaining percentage of CYAN, MAGENTA, YELLOW and BLACK toner cartridges.

## NOTE

- If you replace a toner cartridge before LOW <Color> Toner is displayed, the remaining percentage value of that toner cartridge will be incorrect.
- Imaging Unit/Charge Unit/Transfer Unit/Fuser Unit/Oil Roll/Cleaning Pad  
###% remaining shows the remaining percentage of the life of the item.

### ■ Counter Reset

- New Transfer Unit?  
You must select **Yes** when you have just replaced the transfer unit. The life of the unit will be reset to 100% remaining.
- New Cleaning Pad?  
You must select **Yes** when you have just replaced the cleaning pad. The life of the pad will be reset to 100% remaining.

## Image Area

### ■ Last

It shows the percentage of the whole printable area covered by each toner (CYAN, MAGENTA, YELLOW and BLACK) in the most recently printed page. This menu cannot show the value correctly just after the printer is turned on.

### ■ Average

It shows the average percentage of the printable area of all pages printed covered by each toner (CYAN, MAGENTA, YELLOW and BLACK).



## Power Saver

To conserve energy and operating cost, this printer is provided with a programmable power save feature. The printer is factory set with the power save feature turned on to comply with ENERGY STAR® requirement. If power saver is enabled, the printer enters the Power Saver mode when the printer is idle for 30 minutes.

If the power save feature is turned off, the temperature of the fuser unit in the printer is decreased to save the power consumption when the printer is idle for 1 hour.

## Network Protocol Setup

Selects DHCP or sets the addresses used by the TCP/IP protocol.

### ■ DHCP

DHCP automatically requests an IP address for the printer from a DHCP server.

### ■ Ethernet IP Address/Ethernet Subnet Mask/Gateway Address

If the DHCP is enabled, these menus will not appear. During setting, use the ▼/**CANCEL**, ▲/**CONTINUE** and ►/**ENTER** buttons.

▼/**CANCEL** button: decreases the numerical value

▲/**CONTINUE** button: increases the numerical value

►/**ENTER** button: moves the cursor to right

## Adjustment to Media

If the print quality deteriorates when you print on other than recommended media (see [Specifications](#)), the print quality may be improved by changing the setting of Adjustment to Media. The settings you have changed will remain effective even if the power is turned off. Reset the settings again if any changes in media or deterioration in print quality occurs. To reset the settings, refer to [Setting the "Adjustment to Media"](#) for instructions.

### ■ Plain Paper / Transparency / Label / Coated Paper / Envelope / Card

It enables you to change the setting of the selected media in the menu.

You can select a value from 11 different levels (-5 to 5).

## Language

Specifies the language of the LCD text and the language used in the Configuration Page.

## Outline for Operation

- 1 Press the **MENU/EXIT** button to enter the Menu mode.
- 2 Press the **▲/CONTINUE** or **▼/CANCEL** button until the desired menu is displayed.
- 3 Press the **▶/ENTER** button to enter the item menu.
- 4 Press the **▲/CONTINUE** or **▼/CANCEL** button until the desired item is displayed.
- 5 Press the **▶/ENTER** button.
- 6 Perform one or more of the following procedures (A, B, C) to configure your printer.

**A** When the menu does not have any lower-level menu (Test Page/Power Saver/  
Language):

The printer starts printing a page or your selected menu is activated, then the printer exits the Menu mode and **Ready** is displayed.

**B** When the menu has lower-level menu:

Select your desired lower-level menu using the **▲/CONTINUE** or **▼/CANCEL** button, and **▶/ENTER** button.

- If you have entered the selection 2 menu, then perform the above procedure once again.

**C** When the numerical value needs to be entered (Bias Adjustment / Adjustment to Media):

Select your desired value using **▲/CONTINUE** (increase) or **▼/CANCEL** (decrease) button, then press **▶/ENTER** button to activate your selection.

**NOTE**

- For details on the Network Protocol Setup, refer to the documentation of the optional Network Card.

**7**

To exit the Menu mode, press the **MENU/EXIT** button.

**NOTES**

- To exit the Menu mode at any stage, press the **MENU/EXIT** button.
- To change the setting of an item of a different menu, first you exit the Menu mode, then repeat steps 1 to 6 above.

## Adjusting the Color Density (Bias Adjustment)

The printer panel provides an interface to adjust the density of the toner applied to the media. This feature compensates for the changes in density that can occur as environmental conditions change, toner cartridges or the color imaging unit age.

Perform the following steps to adjust the color density:

1. Print a color calibration page to confirm the current density (Bias Adjustment) and compare the color calibration page with the provided color calibration card (see below).
2. If you wish to adjust the density for all colors simultaneously, proceed to “Adjusting the Density for All Colors Simultaneously” (see [page 23](#)).

— OR —

If you wish to adjust the density for each color independently, proceed to “Adjusting the Density for Each Color Independently” (see [pages 24, 25](#)).

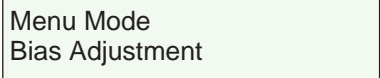
### Printing a Color Calibration Page

- 1 Press the **MENU/EXIT** button on the printer panel.




Menu Mode  
Test Page

- 2 Press the **▲/CONTINUE** button.



Menu Mode  
Bias Adjustment

- 3 Press the **▶/ENTER** button.



Bias Adjustment  
Calibration Offset

- 4 Press the **▲/CONTINUE** button 5 times and the following is displayed.



Bias Adjustment  
Calibration Test Print

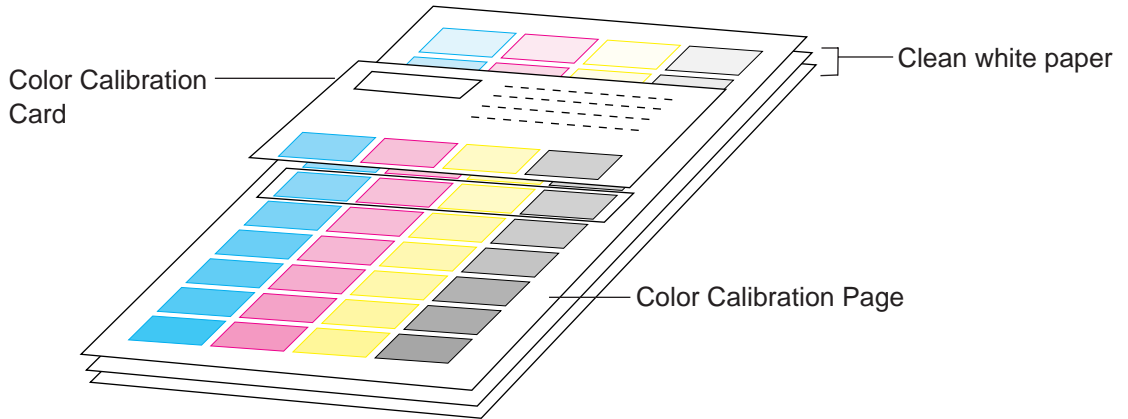
- 5 Press the **▶/ENTER** button.

A Color Calibration Page will be printed.



- 6 Compare the current color density settings on the Color Calibration Page with the color density samples on the Color Calibration Card to see if they match.

Place the Color Calibration Page on at least 2 sheets of clean white paper in a well-lighted area.



- If they match, then you do not need to adjust the color density and you may proceed with any operation you wish to perform.
- If they do not match, go to the next step.

- 7 Determine which block on the Color Calibration Page most closely matches the density of the cyan sample on the Color Calibration Card.

- Repeat this step for each color.

- 8 Proceed to **“Adjusting the Density for All Colors Simultaneously”** or **“Adjusting the Density for Each Color Independently”**.

## Adjusting the Density for All Colors Simultaneously

- 1 Repeat steps 1 through 3 on [page 20](#).

Bias Adjustment  
Calibration Offset

- 2 Press the ►/ENTER button.

Calibration Offset  
0\* (-5 to 5)

- 3 Press the ▲/CONTINUE or ▼/CANCEL button to darken/lighten all the colors.

To make the color density setting of the Color Calibration Page darker or lighter by 1 level, increase or decrease a value of the Calibration Offset by 2 by pressing the ▲/CONTINUE or ▼/CANCEL button.

For example, when Calibration Offset is 0:

- If you wish to make the density setting darker by 1 level:
  - Select 2 by pressing the ▲/CONTINUE button 2 times.
- If you wish to make the density setting lighter by 1 level:
  - Select -2 by pressing the ▼/CANCEL button 2 times.

- 4 Press the ►/ENTER button.

Bias Adjustment  
CYAN

- 5 Press the ▲/CONTINUE button 4 times and the following is displayed.

Bias Adjustment  
Calibration Test Print

- 6 Press the ►/ENTER button to reprint the Color Calibration Page.

- The line enclosure reflects the changes made to the settings.
- If you are not satisfied with the current color density settings, repeat the steps above.

## Adjusting the Density for Each Color Independently

**1** Repeat steps 1 through 3 on [page 20](#).

**2** Press the **▲/CONTINUE** button.

Bias Adjustment  
CYAN

**3** Press the **▶/ENTER** button.

CYAN  
0\* (-10 to 10)

**4** Press the **▲/CONTINUE** or **▼/CANCEL** button to darken/lighten the cyan color.

To make the color density setting of the Color Calibration Page darker or lighter by 1 level, increase or decrease a value of the CYAN density by 2 by pressing the **▲/CONTINUE** or **▼/CANCEL** button.

For example, when the CYAN density is 0:

- If you wish to make the density setting darker by 1 level:
  - Select 2 by pressing the **▲/CONTINUE** button 2 times.
- If you wish to make the density setting lighter by 1 level:
  - Select -2 by pressing the **▼/CANCEL** button 2 times.

**5** Press the **▶/ENTER** button.

Bias Adjustment  
MAGENTA



- 6** Repeat steps 3 through 5 for each color (MAGENTA, YELLOW, BLACK).
- To skip a color, press the ▲/**CONTINUE** button.
  - To return to a previous color, press the ▼/**CANCEL** button.
  - Before going to step 7, make sure the following is displayed.

Bias Adjustment Calibration Test Print
---

- 7** Press the ►/**ENTER** button to reprint the Color Calibration Page.
- The line enclosure reflects the changes made to the settings.
  - If you are not satisfied with the current color density settings, repeat the steps above.

## NOTES

- Changes made using Bias Adjustment are retained until the printer is recalibrated.
- The color density setting affects the average life of toner.
- Save the Color Calibration Card for future calibrations.

## Setting the “Adjustment to Media”

If the print quality deteriorates when you print on other than recommended ones, change the Adjustment to Media settings (see [page 27](#)). You can examine the print quality by printing out the test pattern.

To print the test pattern,

- 1 Click **Start** , move the pointer to **Programs, Panasonic** and **Panasonic KX-P8415**, then click **Print media test pattern**.

The Print media test pattern window is displayed.

- 2 Select the KX-P8415 printer which prints the test pattern.

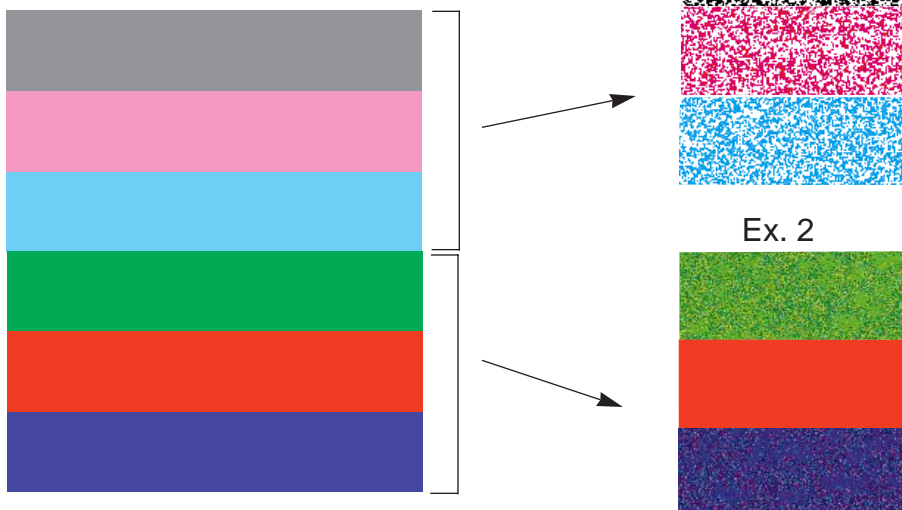
- 3 Click on **Letter** or **A4** for Media size which the test pattern is printed.

- 4 Click on the Media Type check button corresponding to the media loaded in the media tray or multi-purpose tray.

- When the MPT Envelope is selected, it is not needed to set the Media size.

- 5 Click **Print** .

The test pattern is printed.



## Setting the “Adjustment to Media”

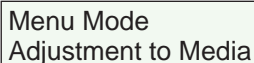
To set the Adjustment to Media,

- 1 Press the **MENU/EXIT** button on the printer panel.



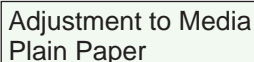
Menu Mode  
Test Page

- 2 Press the **▲/CONTINUE** button until **Adjustment to Media** menu appears.



Menu Mode  
Adjustment to Media

- 3 Press the **▶/ENTER** button.



Adjustment to Media  
Plain Paper

- 4 Press the **▲/CONTINUE** or **▼/CANCEL** button to select your desired media: Plain Paper, Transparency, Label, Coated Paper, Envelope or Card.

- 5 Press the **▶/ENTER** button.

- 6
  - 1 When solid color print for blue, red and green are not printed out evenly in the Adjustment to Media test pattern (see Ex. 2 on page 26): Select +1 value by pressing the **▲/CONTINUE** button and press **▶/ENTER** button.
  - 2 Print out the test pattern corresponding to the media size and examine the print quality.  
If the print quality does not improve, repeat steps 1 to 6 above to select a suitable value by increasing + values.

— OR —

- 6
  - 1 When black, magenta and cyan half tone have weak color areas (see Ex. 1 on page 26): Select -1 by pressing the **▼/CANCEL** button and press **▶/ENTER** button.
  - 2 Print out the test pattern corresponding to the media size and examine the print quality.  
If the print quality does not improve, repeat steps 1 to 6 above to select a suitable value by increasing -values.

## Setting the Printer Driver

### Displaying the Panasonic KX-P8415 Properties Window

It is possible to set the printer by using the Panasonic KX-P8415 Properties window. The Panasonic KX-P8415 Properties window can be displayed from **Windows®**\*1 (see below) or from **an application** (see [page 30](#)).

When setting the printer by using Panasonic KX-P8415 Properties window under **Windows (Start - Settings - Printers)**, the setting is retained even if Windows is shutdown and restarted. However, when setting the printer by using the Panasonic KX-P8415 Properties window from an **application**, the setting is returned to the default setting if the application is closed.

#### **A** Choosing Printer Properties Under Windows:

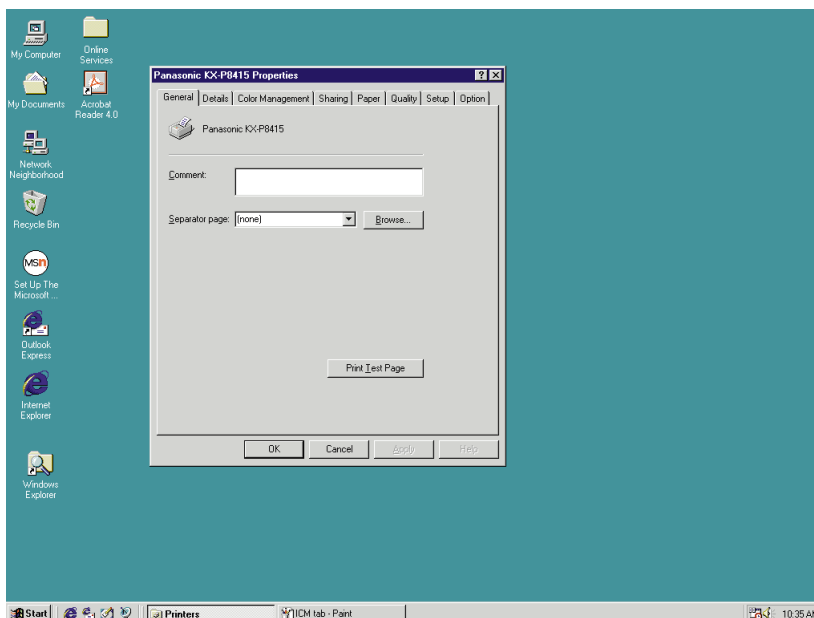
- 1** Click **Start**, select **Settings**, then click **Printers**.  
The **Printers** window is displayed.
- 2** Click the **Panasonic KX-P8415** icon.

\*1 Microsoft® Windows® operating system (hereafter Windows)

- 3** Click the **File** menu, then click **Properties** (Windows 95\*1/Windows 98\*2), **Document Default...**(Windows NT® 4.0\*3) or **Printing Preferences...** (Windows 2000\*4).

The **Panasonic KX-P8415 Properties** window is displayed.

- Tabs are different in Windows NT 4.0 / Windows 2000.  
For Windows NT 4.0 / Windows 2000, it enables you to set another items by selecting Properties of the File menu (see [page 43](#)).



- 4** Click a tab to view the features.

<b>Details Tab</b>	(see <a href="#">page 31</a> ) [For Windows 95, Windows 98]
<b>Color Management Tab</b>	(see <a href="#">page 32</a> ) [For Windows 98]
<b>Sharing Tab</b>	(see <a href="#">page 33</a> ) [For Windows 95, Windows 98]
<b>Paper Tab</b>	(see <a href="#">page 34</a> )
<b>Quality Tab</b>	(see <a href="#">page 37</a> )
<b>Setup Tab</b>	(see <a href="#">page 40</a> )
<b>Option Tab</b>	(see <a href="#">page 42</a> )

\*1 Microsoft® Windows® 95 operating system (hereafter Windows 95)

\*2 Microsoft® Windows® 98 operating system (hereafter Windows 98)

\*3 Microsoft® Windows NT® Workstation operating system, and Microsoft® Windows NT® Server network operating system Version 4.0 (hereafter Windows NT 4.0)

\*4 Microsoft® Windows® 2000 operating system (hereafter Windows 2000)

## **B** From an application

For example, to print a document created in Microsoft WordPad in Windows 95, perform the following steps.

**1** Click **Start**, select **Programs**, select **Accessories**, then click **WordPad**.  
The **WordPad** window is displayed.

**2** Click the **File** menu, then click **Print...**.  
The **Print** window is displayed.

**3** Select **Panasonic KX-P8415** in the Name : box.

**4** Click **Properties**.  
The **Panasonic KX-P8415 Properties** window is displayed.

**5** Click a tab to view the features.

**Paper** Tab (see [page 34](#))

**Quality** Tab (see [page 37](#))

**Setup** Tab (see [page 40](#))

**Option** Tab (see [page 42](#))

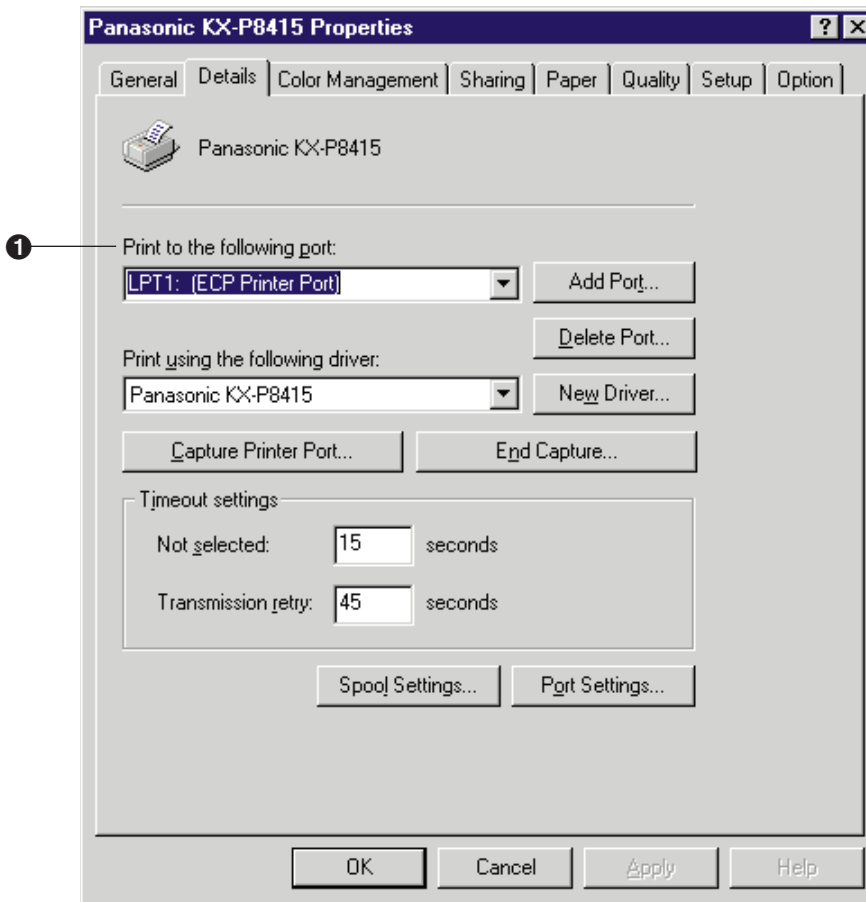
### **NOTE**

- The print options in the File menu depend on the Windows application. Refer to the application manual.

## Details Tab (Windows 95 / Windows 98)

### NOTE

- This option is available only in Windows 95 and Windows 98.

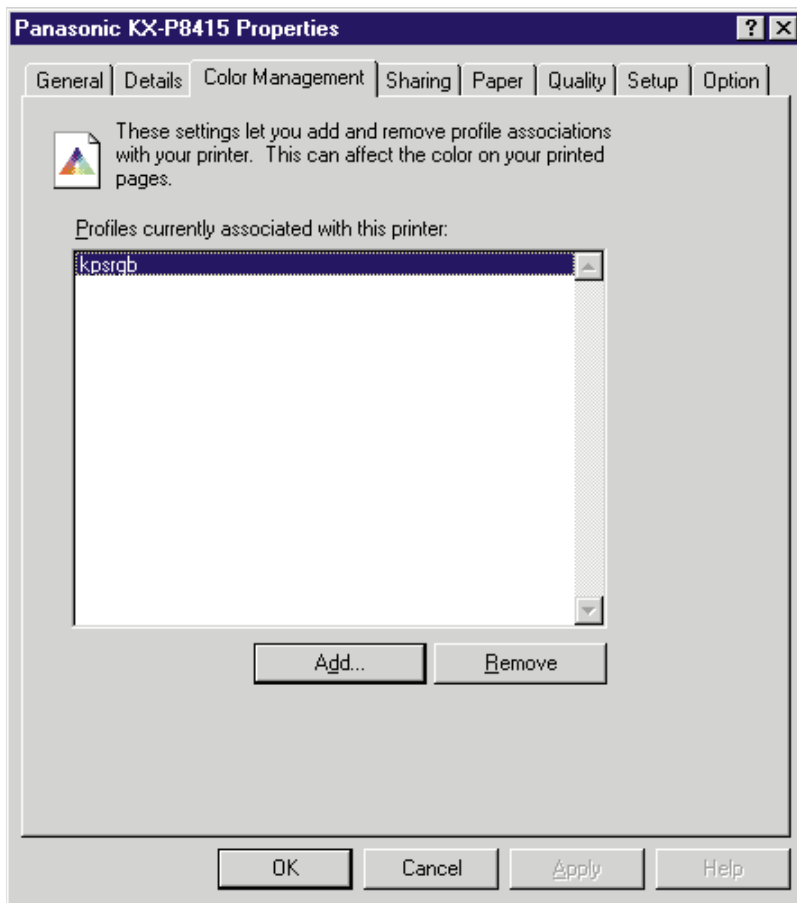


### 1 Print to the following port

Select the port where the parallel interface cable is connected.

For the functions of other buttons, refer to the Help menu in the Windows.

## Color Management Tab (Windows 98)

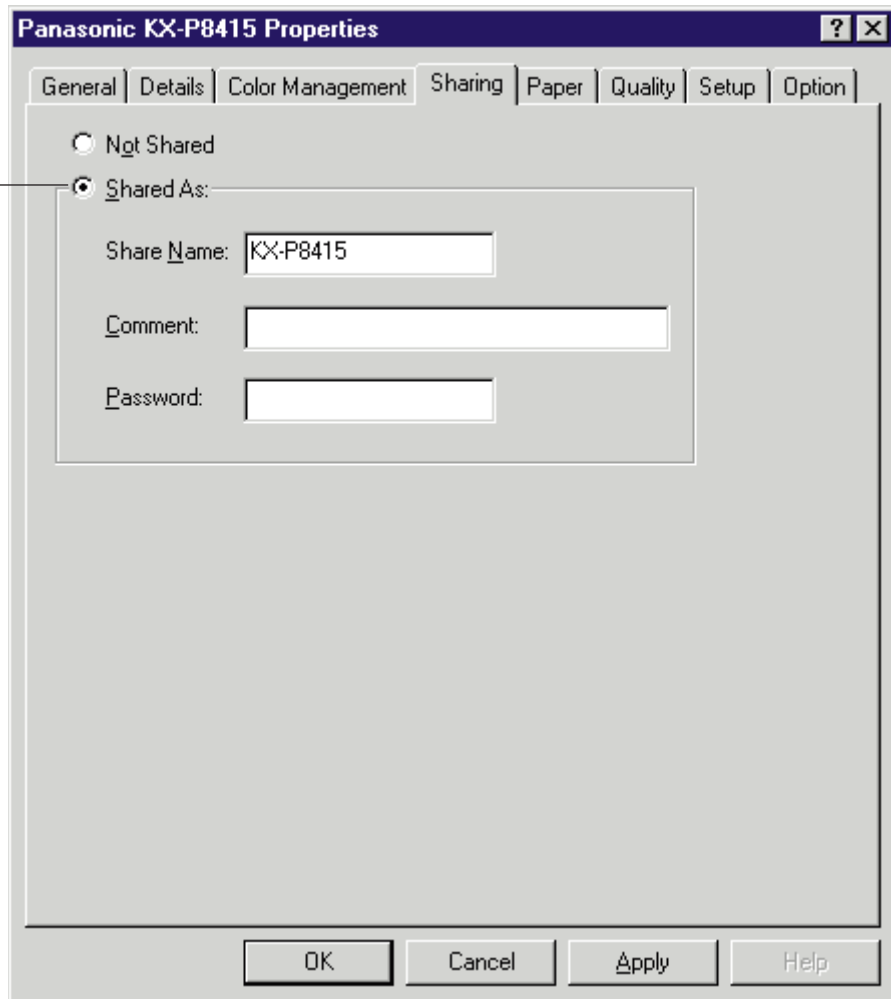


The ICC Profile name of the KX-P8415 printer is kpsrgb.icm. To use ICM, it must be displayed in the [Profiles currently associated with this printer:] box as shown in the window above. If it is not displayed, perform the following steps in the “Color Management” tab.

1. Click **Add...** .  
The “Add Profile Association” window is displayed.
2. Select “Windows\System\Color” or “Windows\System” directory, then select “kpsrgb”.
3. Click **Add** .
4. Click **OK** .



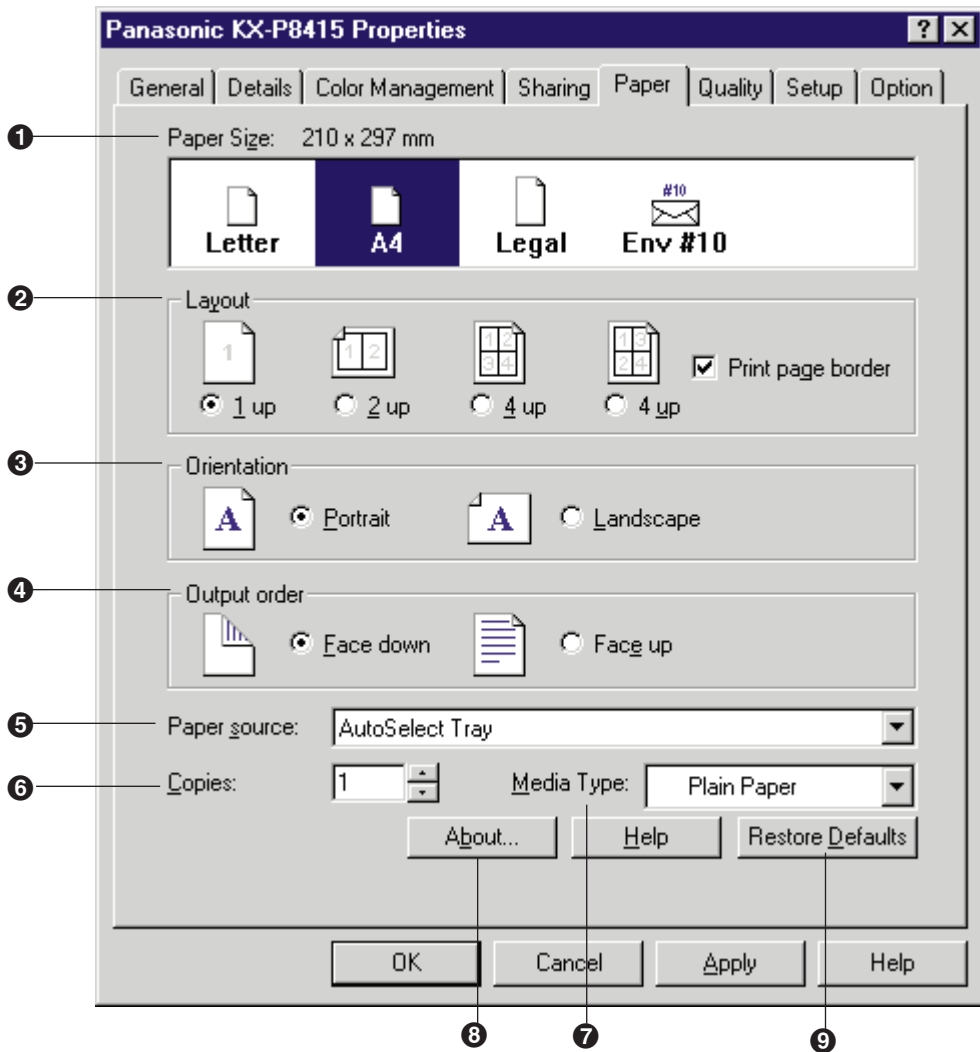
## Sharing Tab (Windows 95 / Windows 98)

**1 Shared As**

It enables you to share the printer over the network.

For the detailed information, refer to the Help menu in the Windows.

## Paper Tab

**1 Paper Size**

Selects a different paper size.

Letter, A4, Legal or Env #10 (Envelope #10) can be selected.

**2 Layout**

Specifies how many pages of your document to print on one piece of paper. The page border will be printed by clicking on the **Print page border** check box.

### 3 Orientation

Selects **Portrait** (vertical) or **Landscape** (horizontal).

Portrait

Landscape



### 4 Output order

Specifies whether the document prints face up or face down in the output tray. This selection is not effective, and **Face up** is automatically selected in the following cases.

- when **Printing on both sides (duplex printing)** in the Setup tab (see [page 40](#)) is effective.
- when **Multi-Purpose Tray** is selected in the **Paper source** (see below).
- when **Transparency** is selected in the **Media Type** (see [page 36](#)).

### 5 Paper source

Selects media tray, multi-purpose tray or optional 2nd cassette feeder.

- **AutoSelect Tray:**

Prints on media loaded in a media tray. The printer picks media from the tray loaded with the media that is selected in the **Paper Size** and **Media Type**. When the tray is empty, the printer automatically picks media from another tray in the order of **Upper**, **Middle** and **Lower**.

- **Multi-Purpose Tray:**

Prints on paper, transparency or label, etc. loaded in the multi-purpose tray.

This selection is not displayed when Printing on both sides (duplex printing) in the Setup tab (see [page 40](#)) is effective.

- **Upper\* :**

Prints on media loaded in the standard tray of the printer.

This selection is not displayed when the auto duplex printing unit has been installed.

- **Middle\* :**

Prints on media loaded in the upper tray of the optional 2nd cassette feeder.

- **Lower\* :**

Prints on media loaded in the lower tray of the optional 2nd cassette feeder.

The printer will print on the selected media with optimal quality.

\* If the optional 2nd cassette feeder has not been installed, these selections are not displayed.

## NOTE

- Whatever you set the Paper Source to under Printer Properties, this will be overruled by the Setting in the application, under File - Page Setup - Paper Source. For example if you use Microsoft Word\*1 and set the paper source to "Upper" - this will override the Multi-Purpose Tray's paper source setting under Printer Properties.

\*1 Microsoft® Word word processor (hereafter Microsoft Word)

## 6 Copies

Determines how many copies of the document will be printed.

### NOTE

- The number of copies can also be determined using some application software. However, it is recommended to set the number of copies using one method, either from this driver or from an application software to avoid having a printing problem.

## 7 Media Type

Selects the type of media loaded in the media tray or multi-purpose tray. Label, Coated Paper, Envelope, Card and Paper 2nd Side are available only when the Multi-Purpose Tray is selected in the Paper source.

Transparency is not available for duplex printing, face down printing and 3 color (CMY) printing.

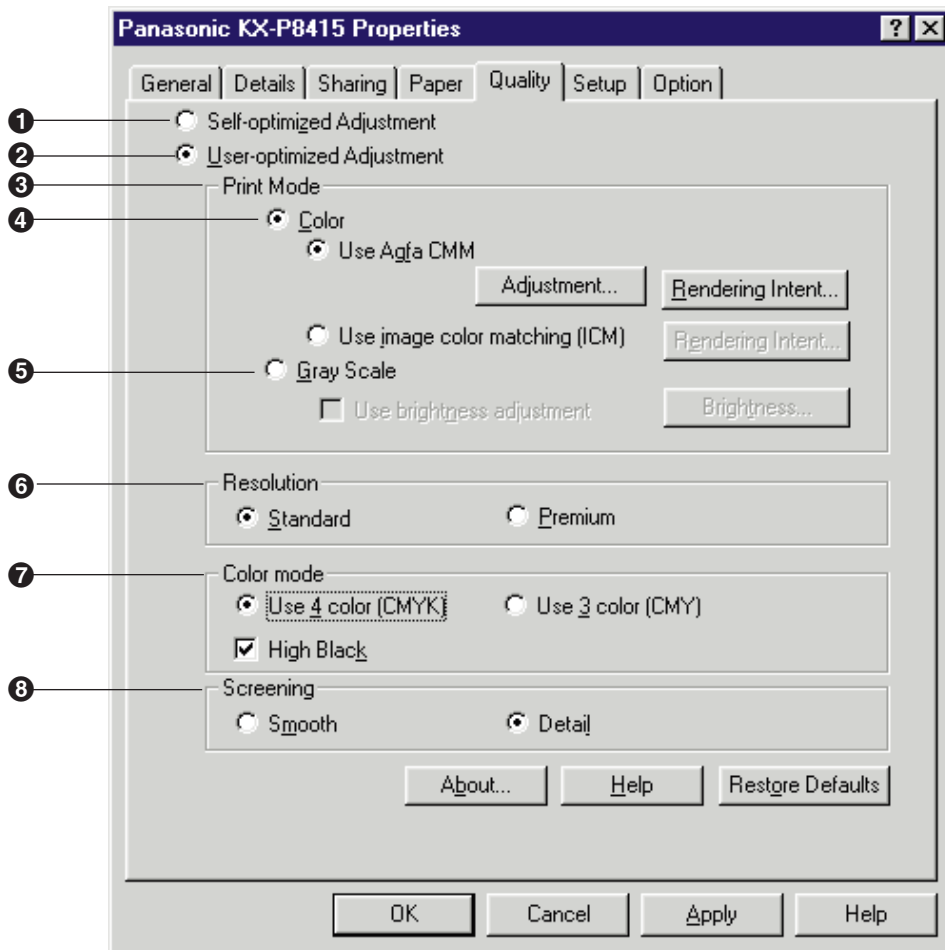
## 8 About... button

Displays the window which contains the program version and copyright information.

## 9 Restore Defaults button

Resets the Paper tab's settings to the default settings.

## Quality Tab

**1 Self-optimized Adjustment** (default setting)

Prints a document in the default setting. Select this mode because usually it is not needed to change the color setting.

**2 User-optimized Adjustment**

If you want to adjust the color, click on this button.

**3 Print Mode**

Select a mode to print the document either in color or gray scale (monochrome).

Clicking on Color enables you to use color management feature. Clicking on Gray Scale enables you to adjust the density of gray scale.

#### 4 Color

This feature provides two-color adjustment functions as described below.

##### ■ Use Agfa CMM

Adjusts the brightness, contrast, saturation, or red, green, blue strength of the image. For the adjustment, refer to “Using the Agfa CMM” (see page 59).

To have the best color assigned accurately by using Agfa CMM, click on this button, then click the **Rendering Intent...** Select your desired selection (see below) in the Rendering Intent window. It determines how the printer assigns the color.

##### ■ Use image color matching (ICM) \*1

The printer assigns the best color possible to represent the original color accurately by selecting different rendering intents. Click on this button, then click the **Rendering Intent...** The Rendering Intent window appears. Select the desired rendering intent, which determines how the printer assigns the color.

- **Saturation:** matching is best for graphs and pie charts, in which vividness is more important than actual color.
- **Perceptual:** matching is best for photographic images.
- **Relative Colorimetric:** matching is best for logo images, in which a few colors must be matched exactly.
- **Absolute Colorimetric:** matching is used for mapping to a device-independent color space.

\*1This option is available only when an application software has ICM feature and working on Windows 95, Windows 98 and Windows 2000.

#### 5 Gray Scale

Adjusts the brightness of the gray scale image.

#### 6 Resolution

Selects a resolution. **Standard** (600 dpi) or **Premium** (1200 dpi) can be selected. A higher resolution provides better print quality. However, the throughput speed is diminished.

## 7 Color mode

### ■ Use 4 color (CMYK)

Four colors (Cyan, Magenta, Yellow and Black) will be used to print the document.

#### ● High Black: ON

Prints the black portion of color graphics using only black toner. Black becomes pure black.

This setting is effective only when printing a line art graphic and has no effect for photo images.

#### ● High Black: OFF

Prints the black portion of color graphics using C (CYAN), M (MAGENTA), Y (YELLOW) toners.

### ■ Use 3 color (CMY)

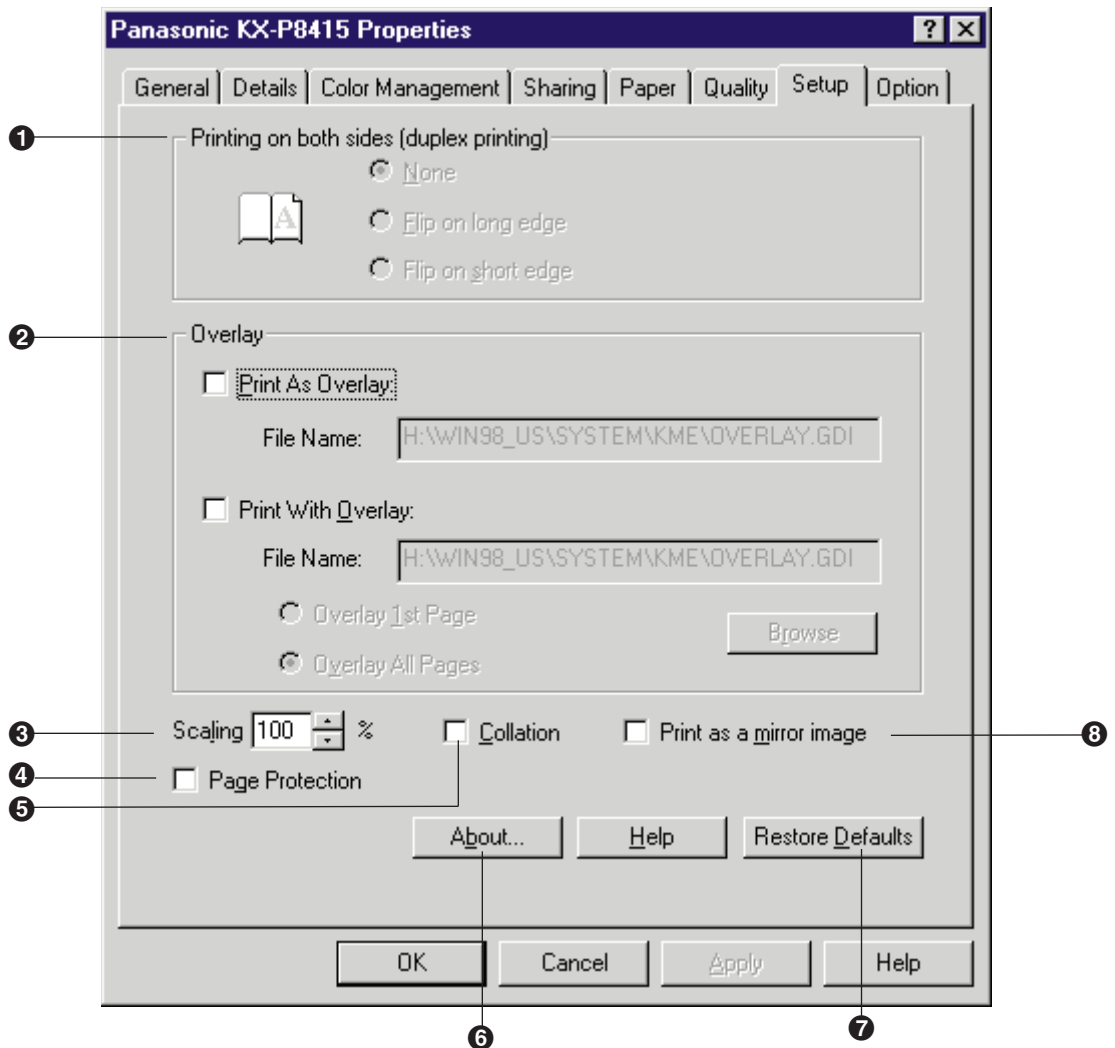
Three colors (Cyan, Magenta and Yellow) will be used to print the document.

This selection is useful to print drafts because it can print faster than when using four colors (Cyan, Magenta Yellow and Black).

## 8 Screening

Selects **Smooth** or **Detail** setting. Smooth is suitable for graphics and photographs because this setting provides smooth graduation. Detail is suitable for detail-oriented photographs because this setting provides high resolution.

## Setup Tab

**1 Printing on both sides (duplex printing)**

Select either **Flip on long edge** or **Flip on short edge** when you want to print on both sides. Before using this feature, make sure that optional auto duplex printing unit has been installed and the **Duplex Unit** has been added to the **Installed Options** box in the **Option** tab (see [page 42](#)).



## 2 Overlay

Overlay feature enables you to overlay an image over a document. See “**Overlay Printing**” on [page 64](#) .

### ■ Print As Overlay

It enables you to save a graphic file as a GDI file that you wish to overlay on a document.

### ■ Print With Overlay

It enables you to select a GDI file that you wish to overlay on a document when it is printed. The following are examples to use overlay feature:

- To incorporate your letterhead on the first page of a business letter (**Overlay 1st page**).
- To overlay the word “Confidential” on every page of an important document (**Overlay All Pages**).

## NOTE

- When a document is printed overlaying a graphic, the resolution (**Standard** or **Premium**) in the **Quality** tab must be the **same** with one of the graphic file.

## 3 Scaling

It enables you to reduce or enlarge a document to be printed between from 25% and 400%.

## 4 Page Protection

Additionally reserves memory to process the entire page (in memory) composed with very dense or complex graphics and text before printing out the page.

When overrun error has occurred, check on this check box to print completely .

## 5 Collation

Clicking on this check box prints the copies of the entire document a number of times, from 1st page to the last page. If you print 3 copies of a 5 pages document, printer prints page 1 through page 5 three times.

Clicking off this check box prints the copies of the 1st page, then the copies of the next page and so on.

## 6 About button

Displays the window that contains the program version and copyright information.

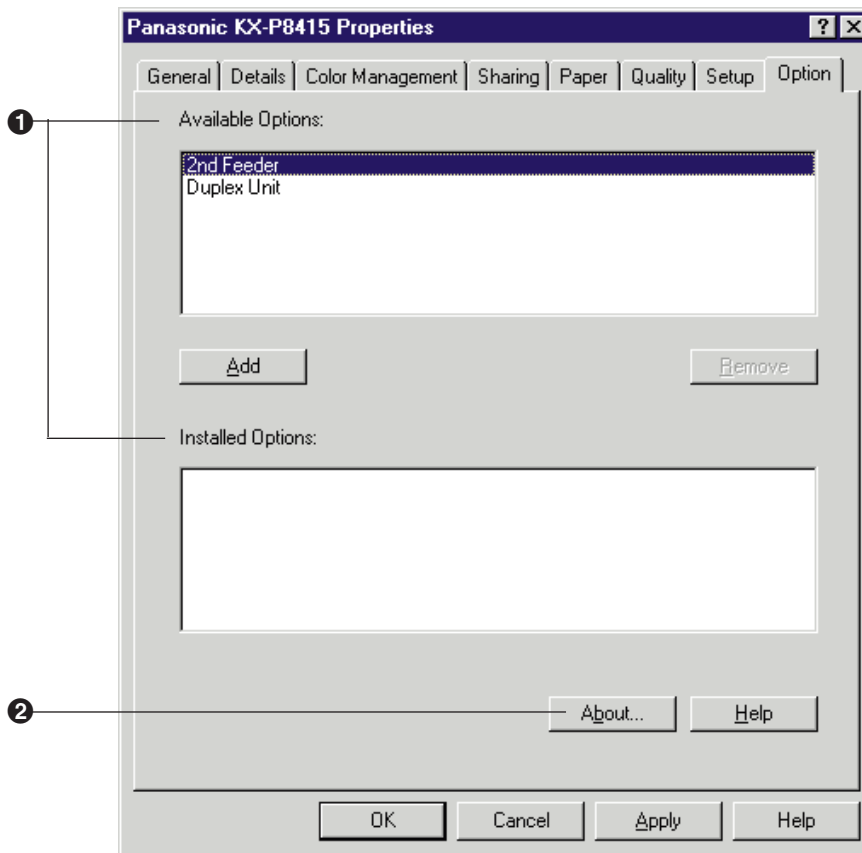
## 7 Restore Defaults button

Resets the **Setup** tab’s settings to the default settings.

## 8 Print as a mirror image

Clicking on this check box allows you to print a mirror image of the document.

## Option Tab



### 1 Available Options / Installed Options

This tab defines whether an option is installed or not. The printer driver installed on the computer cannot automatically detect that an option has been installed in the printer. After installing an option in the printer, you must define it using this tab. It is recommended to change the Option's setting by using the Panasonic KX-P8415 Properties window under **Windows** to retain the setting ( see [page 28](#)).

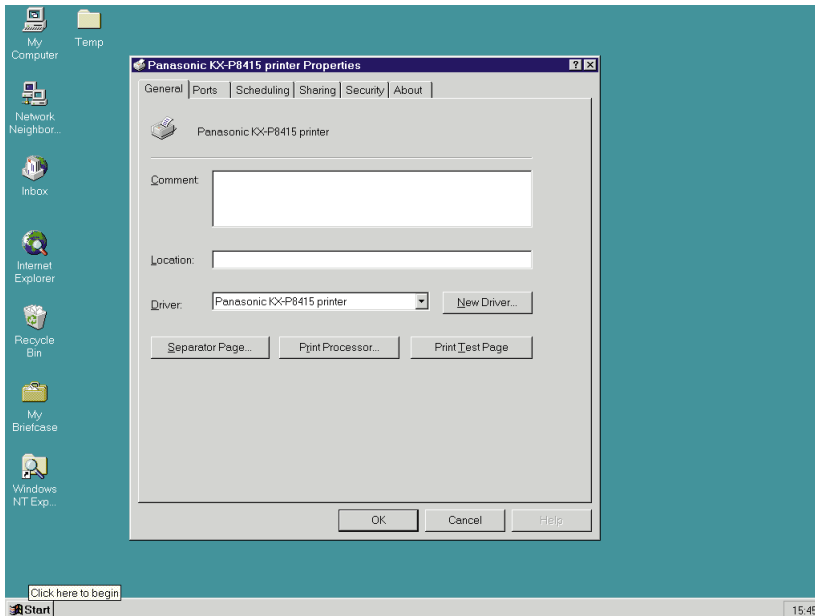
To define an installed option, click that option in the **Available Options** box and then click **Add** button. The option is moved from Available Options box to the Installed Options box. If an option in the Installed Options box is needed to be removed, click it and then click the **Remove** button.

### 2 About button

Displays the window that contains the program version and copyright information.

## Displaying the Panasonic KX-P8415 printer Properties Window (Windows NT 4.0 / Windows 2000)

- 1 Click **Start**, select **Settings**, then click **Printers**.  
The **Printers** window is displayed.
- 2 Click the **Panasonic KX-P8415** printer icon.
- 3 Click the **File** menu, then click **Properties**.  
The **Panasonic KX-P8415 printer Properties** window is displayed.
  - Tabs are different in Windows 2000.



(tab in Windows NT 4.0)

- 4 Click a tab to view the features.
  - Printer's Printing Preferences window appears by clicking **Printing Preferences...** in Windows 2000.

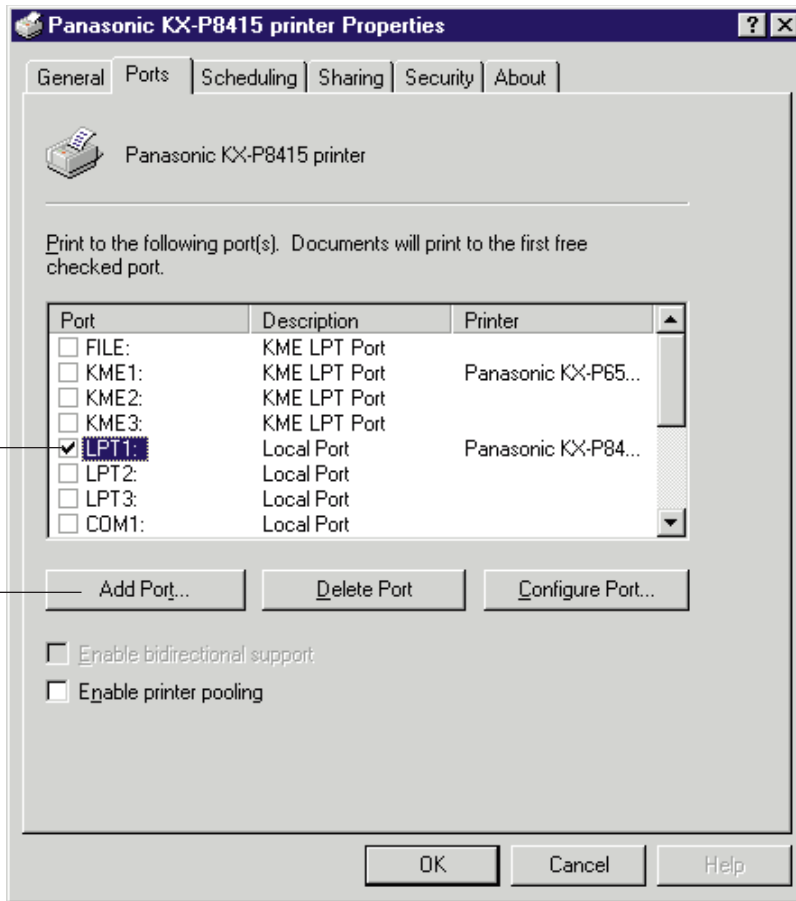
**Ports** Tab (see [page 44](#))  
**Sharing** Tab (see [page 45](#))  
**Color Management** Tab (see [page 48](#)) [For Windows 2000]

For the features of the other tabs, refer to the Help menu in the Windows NT 4.0 / Windows 2000.

## Ports Tab (Windows NT 4.0 / Windows 2000)

### NOTE

- This option is available only for Windows NT 4.0 / Windows 2000.



(tab in Windows NT 4.0)

### 1 Checked port

Documents will be printed to the checked port.

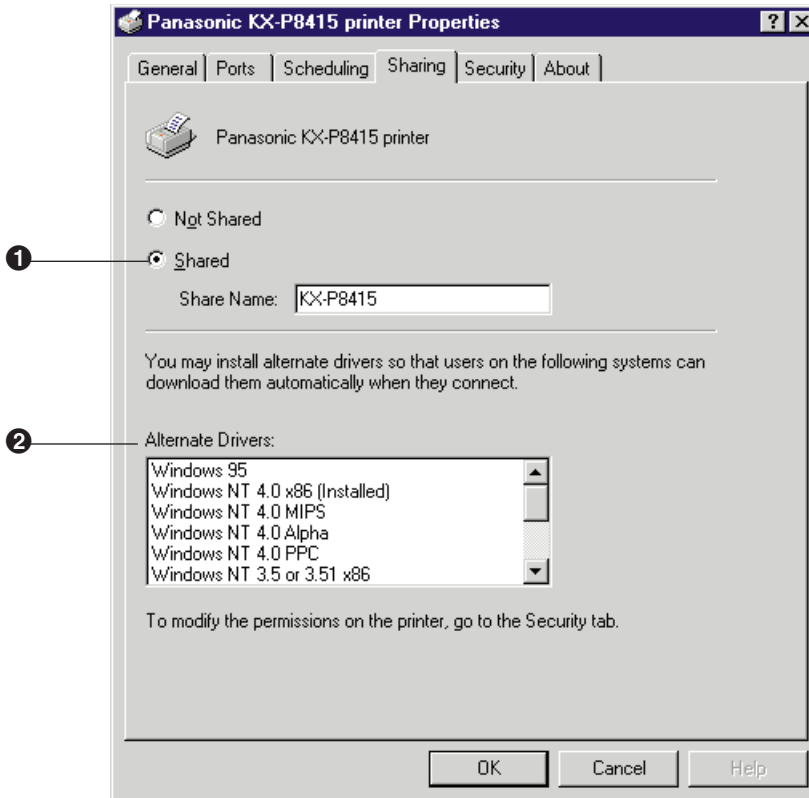
### 2 Add Port... button

Adds a new port.

## Sharing Tab (Windows NT 4.0 / Windows 2000)

### NOTE

- This option is available only for Windows NT 4.0 / Windows 2000.



(tab in Windows NT 4.0)

### 1 Shared

It enables you to share the printer over the network.

For the setup operation, refer to **Sharing the printer with a client computer** (see [page 46](#)).

### 2 Alternate Drivers (Windows NT 4.0) / Additional Drivers... (Windows 2000)

It enables you to install an alternate driver.

For the installation, refer to **Installing an alternate driver** (see [page 46](#)).

## ■ Sharing the printer with a client computer:

- 1 Click **Shared**.
- 2 Type the printer name (for example: KX-P8415).

### NOTE

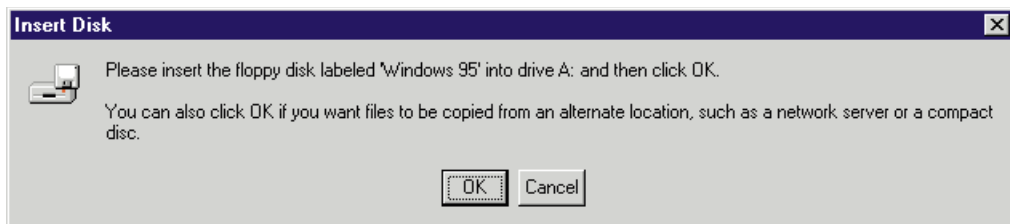
- If the shared printer is used through Windows 95 or Windows 98, the printer name must not exceed 12 characters.

- 3 Click **OK**.

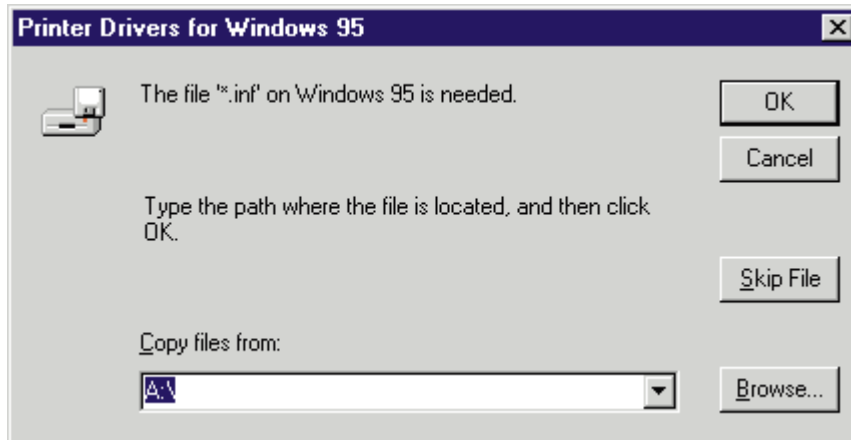
## ■ Installing an alternate driver (for example: Windows 95 in Windows NT 4.0):

To install the additional drivers in Windows 2000, click **Additional Drivers...**.

- 1 Select **Windows 95**, then click **OK**.  
The **Insert Disk** window is displayed.

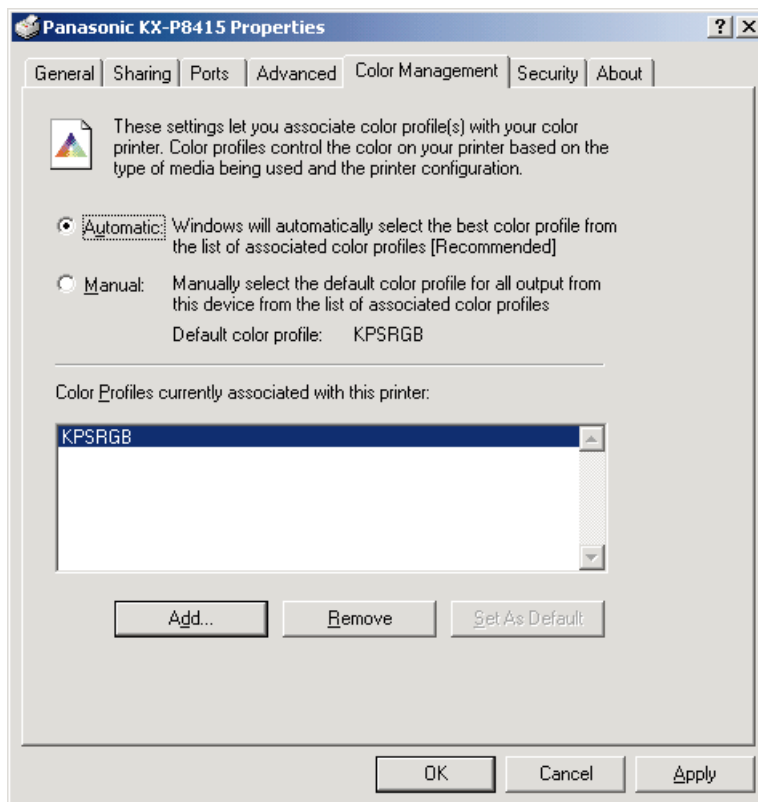


- 2 Click **OK** .  
The **Printer Drivers for Windows 95** window is displayed.



- 3 Click **Browse...** .
- 4 Click **Cancel** .  
The **Locate File** window is displayed.
- 5 Insert the supplied **KX-P8415 CD-ROM** into the CD-ROM drive.
- 6 Select CD-ROM drive.
- 7 Open **Win9x**, then select **Kx-p8415** file. Click **Open** .  
The **Printer Drivers for Window 95** window is displayed.
- 8 Click **OK** .

## Color Management Tab (Windows 2000)



The ICC Profile name of the KX-P8415 printer is kpsrgb.icm. To use ICM, it must be displayed in the [Color Profiles currently associated with this printer:] box as shown in the window above. If it is not displayed, perform the following steps in the “Color Management” tab.

1. Click **Add...** .

The “Add Profile Association” window is displayed.

2. Select “WINNT\system32\spool\drivers\color” directory, then select “KPSRGB”.

3. Click **Add...** .

4. Click **OK** .



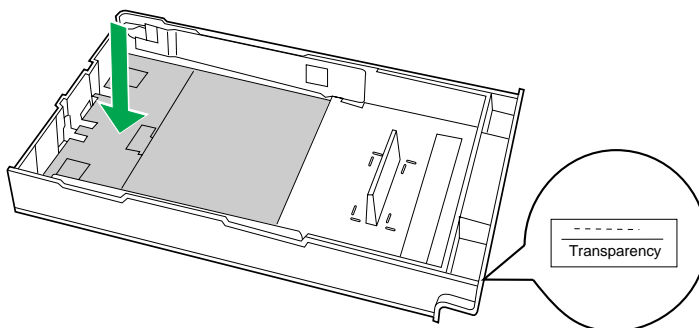
## Printing on Transparency (using Optional Transparency Tray)

To print on transparency, you can use either the optional transparency tray or the multi-purpose tray. Using any other tray except the transparency tray may result in media jams.

When using the Multi-purpose tray, see [“Printing on Transparency, Label or Envelope \(using Multi-purpose tray\)”](#) on page 52.

**Available transparency:** 3M CG3710

- 1 Push down on the metal plate until it clicks, locking it in place. To use a transparency tray, always check the label indication on the tray.



- 2 Fan the transparencies, then tap them on a level surface to avoid media jams or skewed printing.

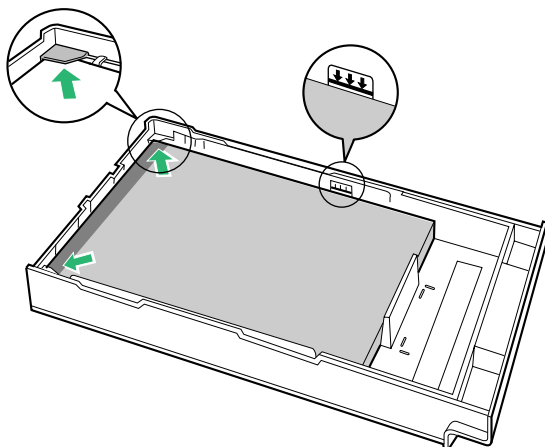


### NOTES

- Be careful not to leave fingerprints on the media, which can result in a smudged print.
- Reusing media that has been fed through the printer once (for example, after jams) can reduce the life of the consumables and paper path components.

**3** Place the transparencies (3M CG3710) with the **print side down** under the hooks in the tray.

- When using **3M CG3710**, load them with the **leading tape side facing up**.
- The height of media should not exceed the limit mark on the tray, or it may cause a jam.



### NOTE

- Do not mix different types of transparencies in the transparency tray at one time; this may cause a jam.

**4** Slide the transparency tray completely into the slot.

**5** Display the print window in the application software.

**6** Select **Panasonic KX-P8415** printer and click **Properties** .

The **Panasonic KX-P8415 Properties** window is displayed.

- The operation for displaying the Panasonic KX-P8415 Properties window may be different depending on the application software.

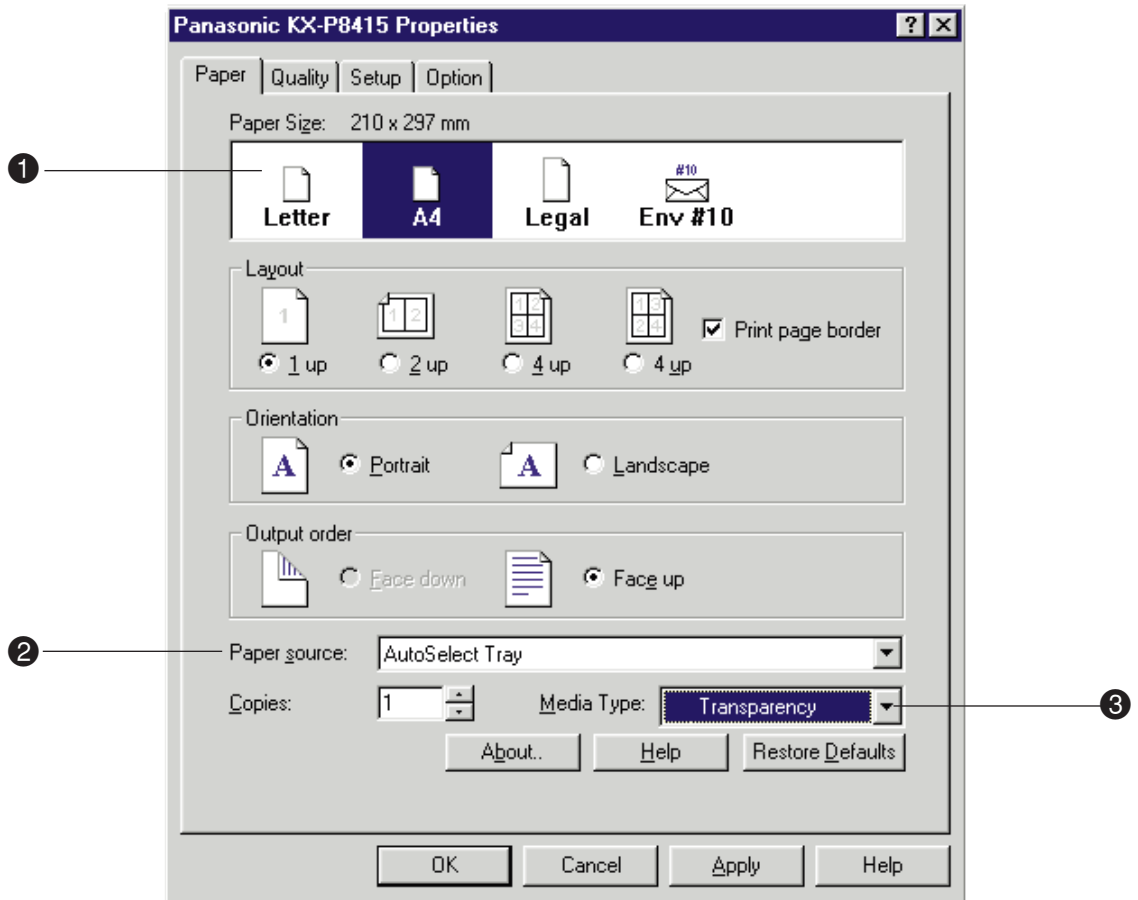
**7** Click the **Paper** tab.

8 Select paper size (1), paper source (2) and media type (3).

1 **Paper Size:** select the size matched with the transparency tray

2 **Paper source:** select **AutoSelect Tray**

3 **Media Type:** select **Transparency**



9 Click **OK** and print the document.

## Printing on Transparency, Label or Envelope (using Multi-purpose Tray)

### 1 Set the media thickness switch.

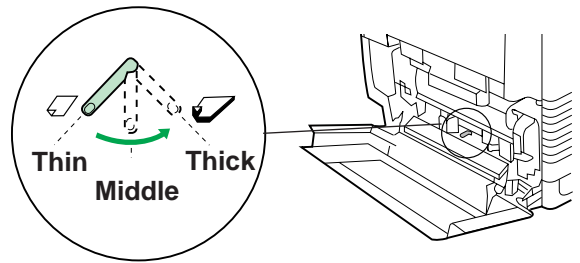
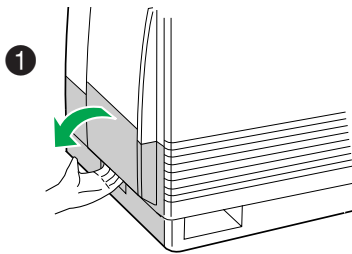
- ① Open the left side door (❶).

The green **media thickness switch** is located on the paper feeder.

- ② Set the **media thickness switch** depending on media as follows:

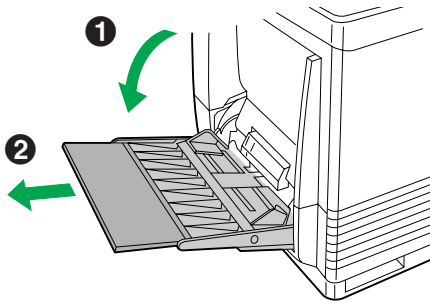
**Transparency, Label** : set to **Middle**

**Envelope**: set to **Thick**

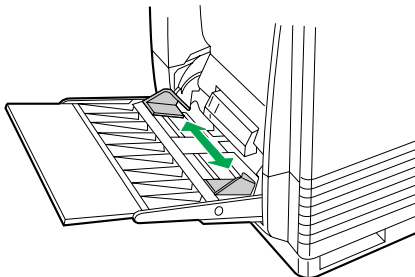


### 2 ❶ Open the multi-purpose tray.

- ② Extend the media support.

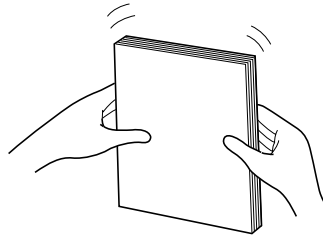


### 3 Separate the media guides to the approximate width of the media.



## Printing on Transparency, Label or Envelope

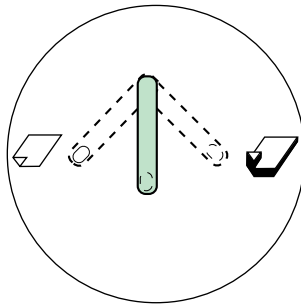
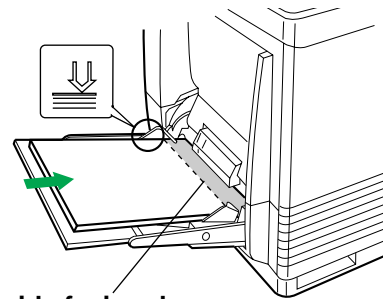
- 4** Fan the media, and then tap it on a level surface to avoid media jams or skewed printing.

**NOTE**

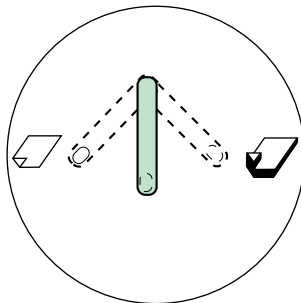
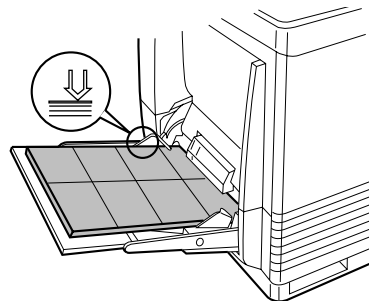
- Reusing media that has been fed through the printer once (for example, after jams) can reduce the life of the consumables and paper path components.

- 5** Insert the media with the **printing side up** into the multi-purpose tray.

The height of media should not exceed the limit mark on the left guide, or it may cause a media jam.

**Media thickness switch position****Transparency**

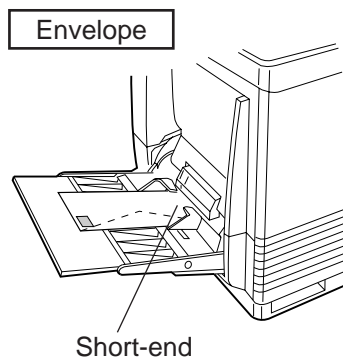
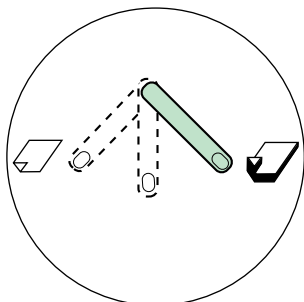
**Taped side facing down**  
(3M CG3710)

**Label**

Continued

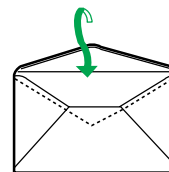
## Printing on Transparency, Label or Envelope

## Media thickness switch position



## NOTES

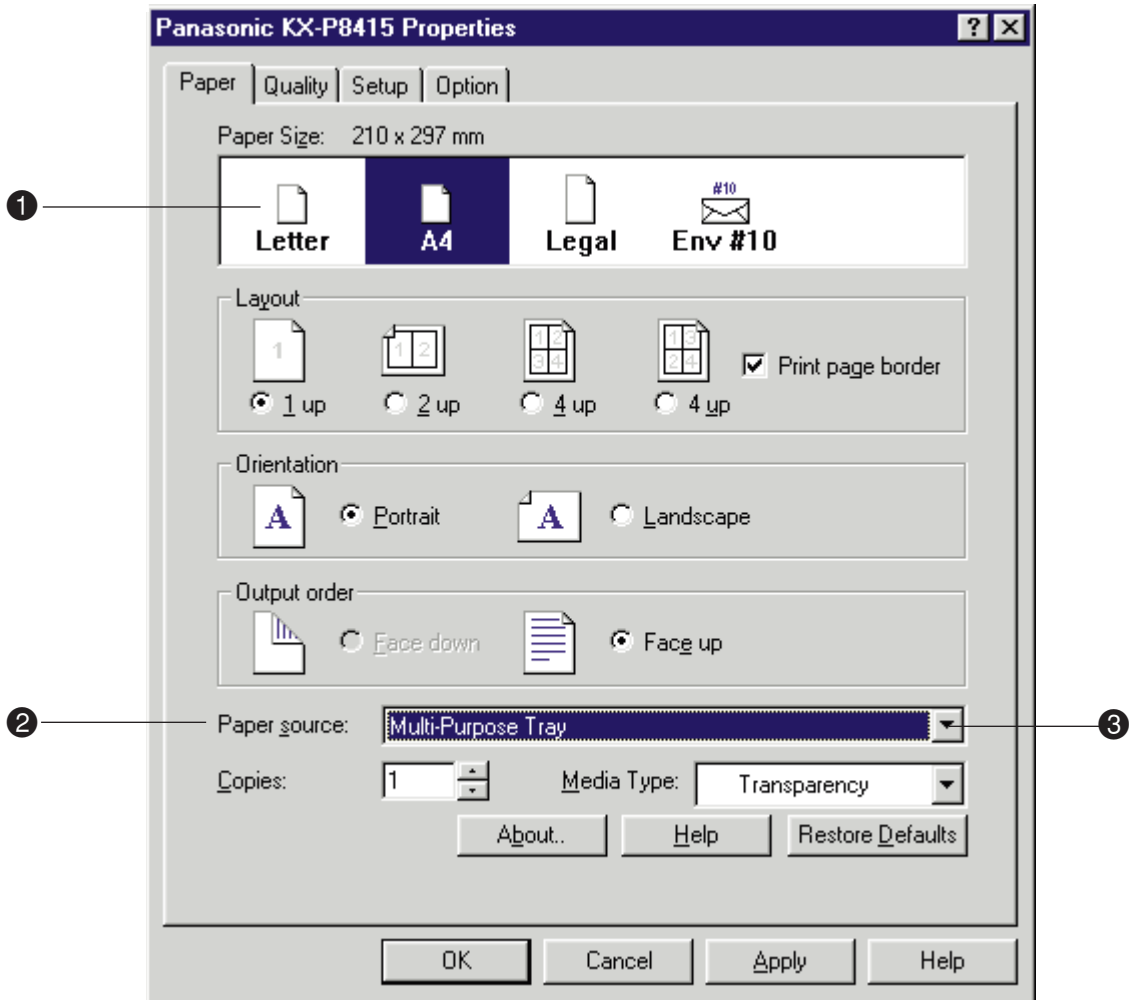
- Place only one envelope in the multi-purpose tray at a time.
- When a wrinkle occurs, try printing with the flap inserted inside the envelope as shown in figure.



- 6 Adjust the media guides to the media size.
- 7 Display the print window in the application software.
- 8 Select **Panasonic KX-P8415** printer and click **Properties**.  
The **Panasonic KX-P8415 Properties** window is displayed.
  - The operation for displaying the Panasonic KX-P8415 Properties window may be different depending on the application software.
- 9 Click the **Paper** tab.

**10** Select paper size (❶), paper source (❷) and media type (❸).

- ❶ **Paper Size:** select the media size
- ❷ **Paper source:** select **Multi-Purpose Tray**
- ❸ **Media Type:** select the loaded media (**Transparency, Label or Envelope**)



**11** Click **OK** and print the document.

## Schema for Color Printing

### The Concept of “color”

All colors can be defined in terms of three concepts: hue, saturation, and brightness.

#### Hue

The qualitative aspect of color we generally perceive, such as “red” or “blue”.

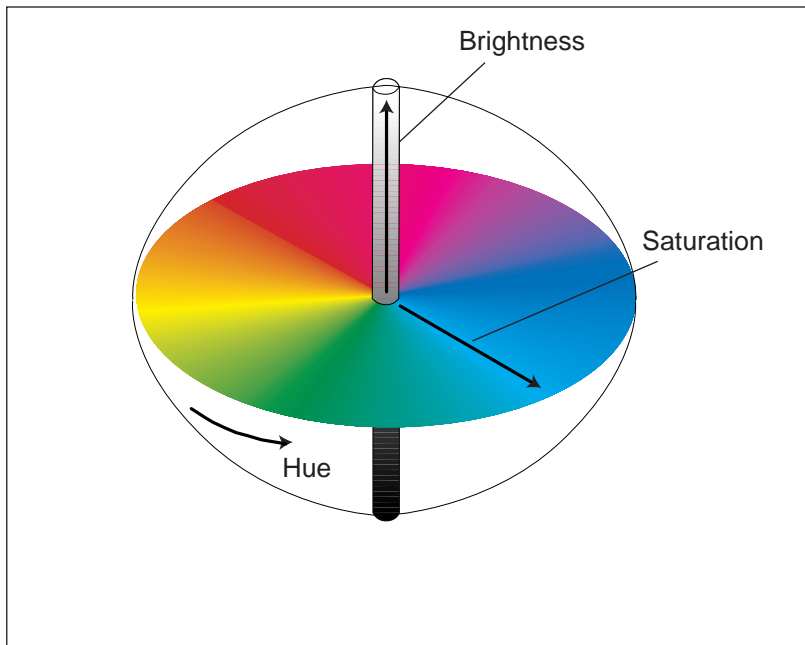
#### Saturation

The vividness of the color.

#### Brightness

The brightness of the color. A higher brightness provides a lighter image and a lower brightness provides a darker image.

The following illustration provides a graphical representation of these three concepts. Moving along the circumference and radius shows the change in hue and saturation respectively and the height shows the brightness of the color.



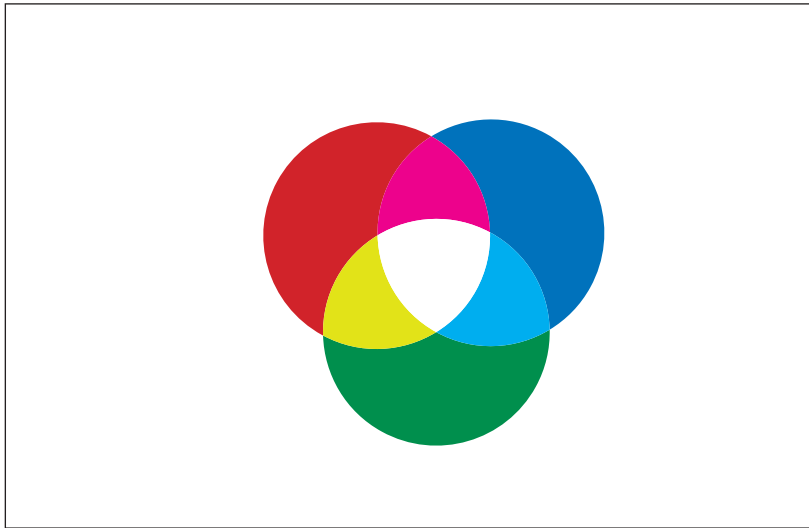


## Methods for Creating Colors

There are two methods of creating a range of colors. Those are called “additive color system” and “subtractive color system”.

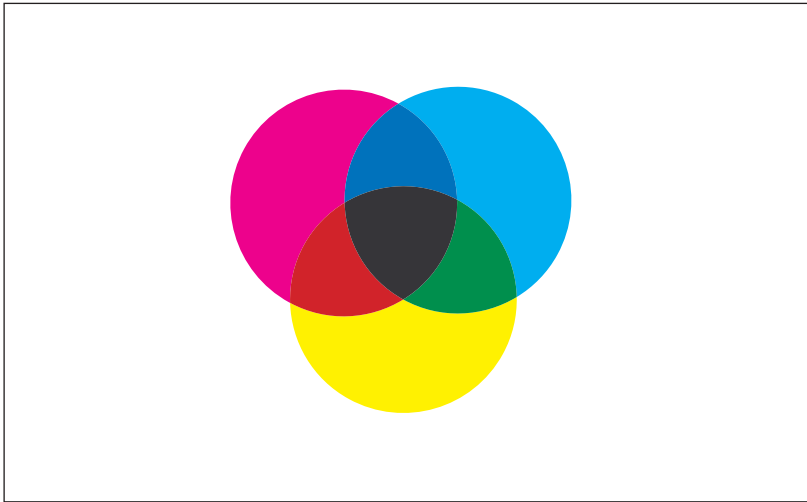
**Additive color system** (This system is used by computer monitors.)

This system creates a range of colors by combining varying amounts of **R**ed, **G**reen, and **B**lue (RGB) light, which is generally used in the color monitor. Adding the maximum amount of red, green, and blue light available creates white, on the contrary, black occurs where all these three colors are absent. Other colors can be created by combining varying amounts of these additive primaries (RGB).



**Subtractive color system** (This system is used by color printers.)

This system produces color by combining colorants such as inks, toners or paint on media, which is generally used in color printing. The printers create the colors by combining the subtractive primaries: Cyan, Magenta, and Yellow. White occurs where no colorant is applied, on the contrary, combining all these three color in theory yields black. However, to produce more solid black, black colorant is added, and consequently color printing uses four process colors: **C**yan, **M**agenta, **Y**ellow, and black **K** (CMYK).

**Color capabilities of the color reproduction devices**

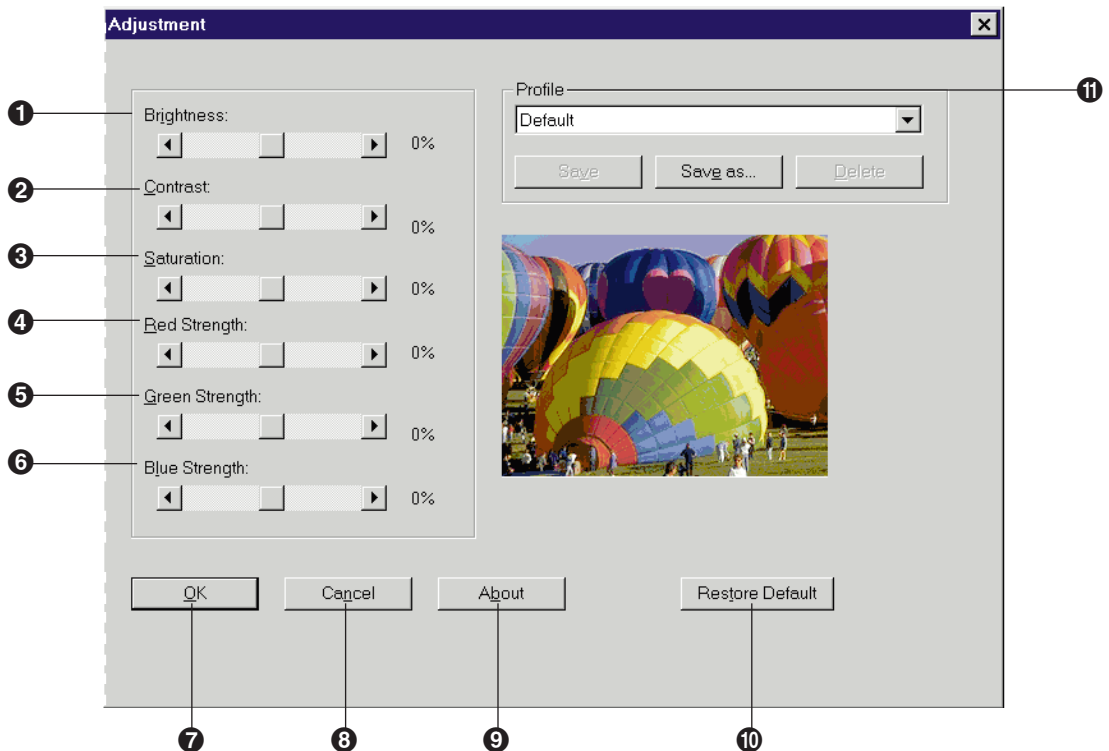
Color monitors use the additive color system (RGB), and color printers use the subtractive color system (CMYK) to create a range of colors. Because these color reproduction devices use different color systems, some colors that can be displayed on a color monitor cannot be reproduced exactly by the print device. However, using the Image Color Matching (ICM) system enables more accurate representation of the original color by assigning the best color possible.

## Using the Agfa CMM

You can adjust the color of your output using the **Agfa CMM (Color Management Module)**.

### Displaying the Adjustment Window

- 1 Click on the **User-optimized Adjustment** button, then click on the **Color** button in the **Quality** tab (see [page 37](#)).
- 2 Click on the **Use Agfa CMM** button, then click **Adjustment...** .  
The **Adjustment** window is displayed.



**1 Brightness**

Changes the brightness of an image. A higher brightness setting (increasing %) provides a lighter image and a lower brightness setting (decreasing %) provides a darker image.

**2 Contrast**

Adjusts the range between the darkest and the lightest shades in the image.

**3 Saturation**

Changes the brightness and vividness of color. Lower saturation settings (decreasing %) provide dull and dark images, and higher saturation settings (increasing %) provide bright and vivid images.

**4 Red Strength**

Lightens or darkens red. A darker level (decreasing %) setting provides a stronger cyan.

**5 Green Strength**

Lightens or darkens green. A darker level (decreasing %) setting provides a stronger magenta.

**6 Blue Strength**

Lightens or darkens blue. A darker level (decreasing %) setting provides a stronger yellow.

The range of each option (**1** to **6**) is from -50% to 50%.

**7 OK button**

Makes a selection effective and closes the window.

**8 Cancel button**

Cancels a selection and closes the window.

**9 About button**

Displays the window that contains the program version and copyright information.

**10 Restore Default button**

Resets the current setting(s) made in this window to the default setting(s).

## 11 Profile

Allows you to select, save or delete a color adjustment setting.

### ■ Save

Saves a color adjustment setting.

### ■ Save as...

Saves a new color adjustment setting under a new name.

To save a setting:

1. Adjust the color and click **Save as** button.
2. Enter a new setting name and click **OK**.

### ■ Delete

Deletes an existing color adjustment setting.

To delete a setting:

1. Click the right mark ▼ to display the pull down list.
2. Click the setting to be deleted.
3. Click the **Delete** button, then click **OK**.

## Adjust the color by performing the following steps.

# 1

Drag each slider left or right or click ◀ or ▶.

- You can see the result of the adjustment in the **Preview** box.

# 2

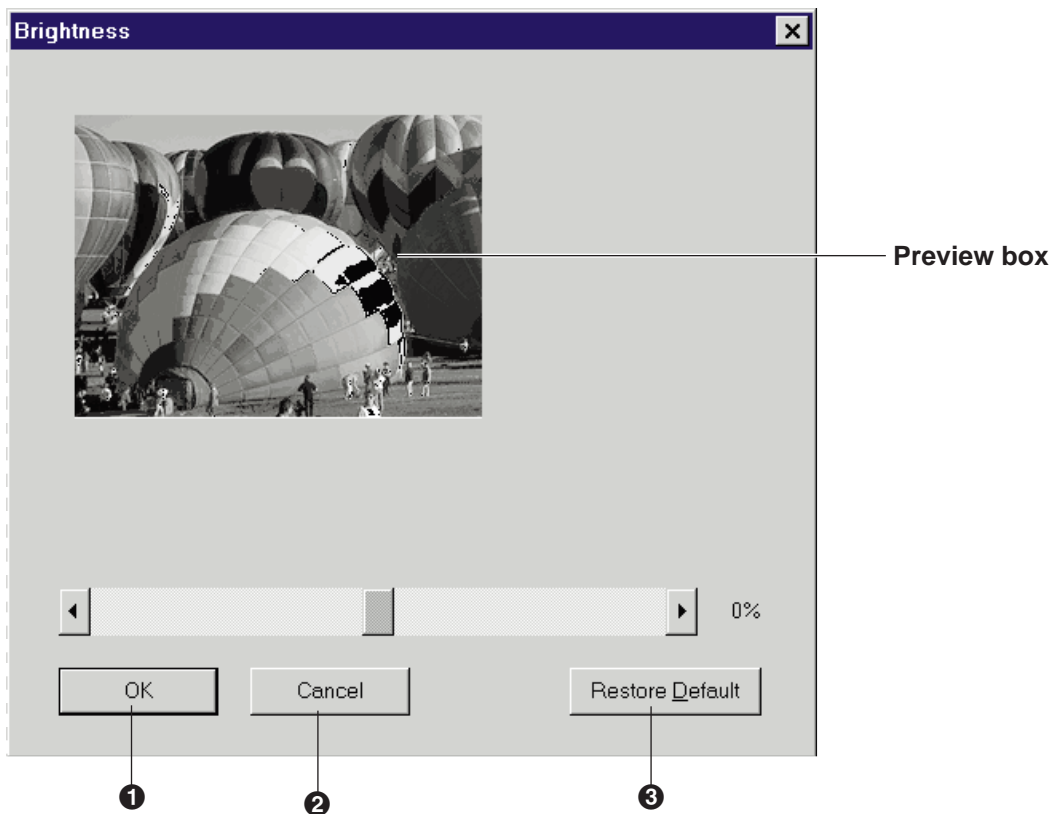
Click  to make the setting(s) effective.

## Using the Brightness Adjustment

You can adjust the grayscale density of your output using the **Brightness** window.

### Displaying the Adjustment Window

- 1 Click on the **User-optimized Adjustment** button, then click on the **Gray Scale** button in the **Quality** tab (see [page 37](#)).
- 2 Click on the **Use brightness adjustment** check box, then Click **Brightness...** .  
The **Brightness** window is displayed.



- ❶ **OK** button  
Makes the adjustment effective and closes the window.
- ❷ **Cancel** button  
Cancels the adjustment and closes the window.
- ❸ **Restore Default** button  
Restores the default image.

**Adjust the gray scale by performing the following steps.**

- 1 Drag the slider left or right, or click ◀ or ▶.



Darker ←————→ Lighter

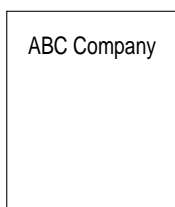
- You can see the result of the adjustment in the **Preview box**.

- 2 Click **OK** to make the adjustment effective.

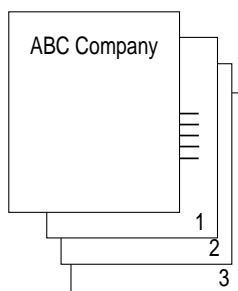
## Overlay Printing

### Main Steps for Overlaying

1. Create a graphic file and store as a GDI file.
2. Select overlay option. The printer provides the overlaid pages of your document.
3. Print a document on which you want to overlay a graphic file.

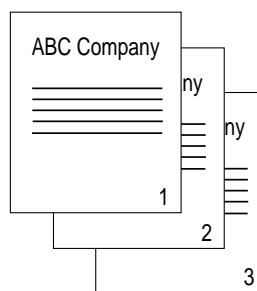


Graphic file



Overlay 1st Page

or



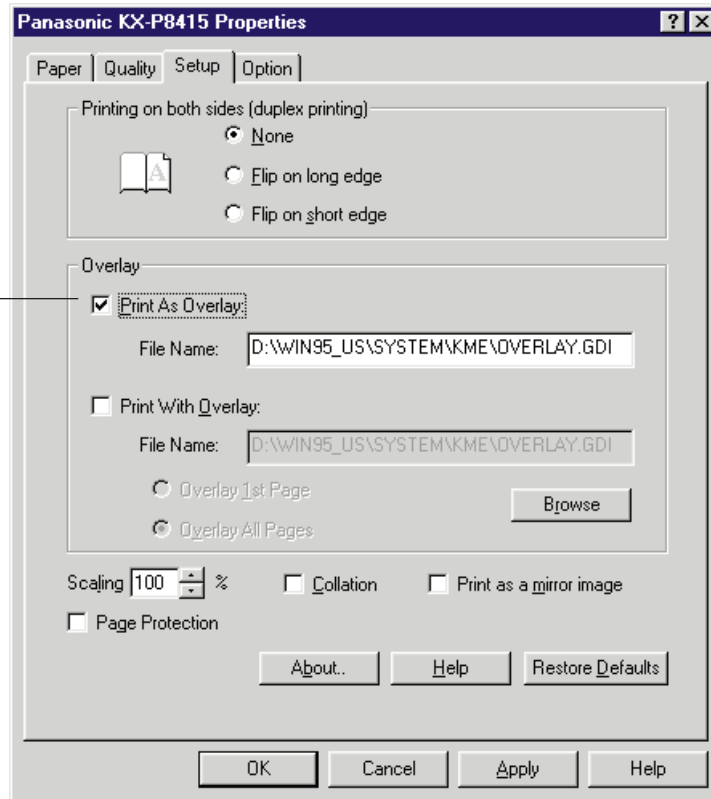
Overlay All Pages

- 1 Using an application such as Paintbrush or CorelDRAW, create and save the graphic file that you want to overlay on a document.
- 2 Verify the graphic by printing it.
- 3 Display the print window and click **Properties** to display the Panasonic KX-P8415 Properties window.



- 4 Click on the check box of **Print As Overlay** in the **Setup** tab.

check box of **Print As Overlay**



- 5 Enter a new file name or the same file name with GDI extension (ex. OVERLAY.GDI) in your desired directory as used in step 1 in the File Name box.

You can select the desired directory by clicking **Browse** .

If you are working under Windows NT 4.0, the directory in which you want to save the file can not be changed.

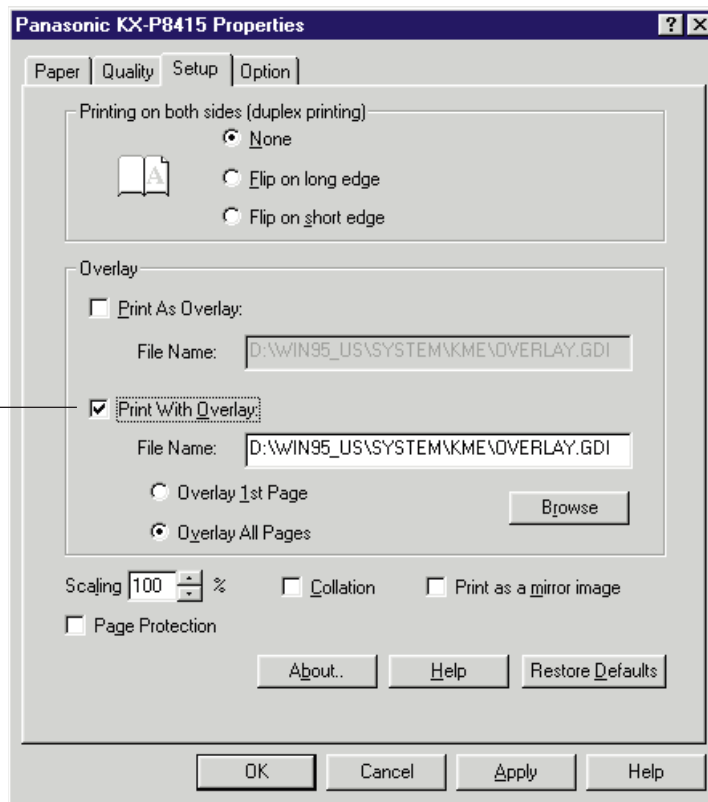
- 6 Click **OK**.

- 7 Print the graphic to the KX-P8415 printer.

Actually you will be printing to a file, so no print-out will come from the printer. Your created file will be stored as a GDI file.

- 8 Minimize or close this application.
- 9 Open a document to print with the graphic and display the print window.
- 10 Click **Properties** to display the **Panasonic KX-P8415 Properties** window.
- 11 Click on the check box of **Print With Overlay** in the **Setup** tab.

check box of **Print With Overlay**



- 12 Click on the **Overlay 1st Page** or **Overlay All Pages** button.  
**Overlay 1st Page:** The graphic is overlaid only on the first page of a document.  
**Overlay All Pages:** The graphic is overlaid on all the pages of a document.

- 13** Click **Browse** and select the directory in which you saved your graphic file (GDI file), then select the graphic. Click **OK**.

The selected file will appear in the File Name box.

- 14** Click **OK**.

- 15** Print the desired document with the graphic overlaid.

- The resolution (Standard or Premium) in the Quality tab must be the same with one of the GDI file stored at step7.

## Duplex Printing

### Automatic Duplex Printing (with Auto duplex printing unit)

If you manually perform the duplex printing, first odd pages are printed and then even pages (see [page 70](#)).

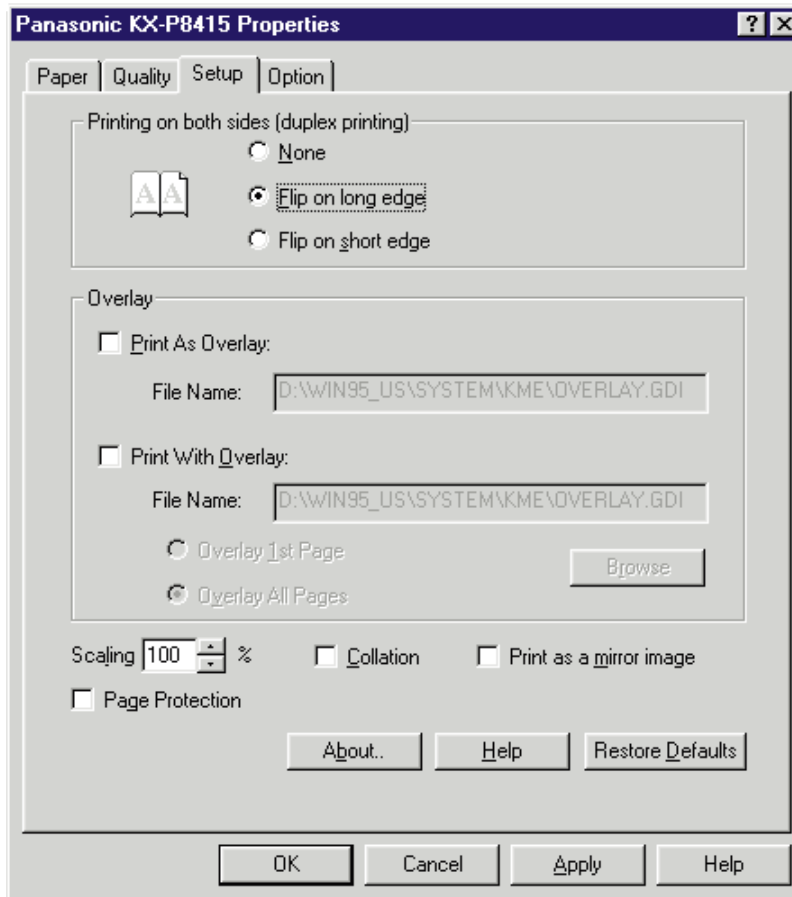
By installing the optional 2nd cassette feeder with ADU (Auto duplex printing unit) in your printer, it can automatically perform the duplex printing. See “[Specifications](#)” for the notes when performing automatic duplex printing.

Auto duplex printing unit should be used only for automatic duplex printing. Do not load any media in this unit, otherwise jam will occur.

**Specified media for duplex printing:** Laser paper 75-90 g/m<sup>2</sup> (20-24 lbs.)

- 1** Make sure the Auto duplex printing unit is installed in the Upper tray slot.
- 2** Load paper [laser paper 75-90 g/m<sup>2</sup> (20-24 lbs.)] into the Middle or Lower tray (upper or lower tray of the 2nd cassette feeder).
  - Automatic duplex printing cannot be performed by feeding paper from the multi-purpose tray.
- 3** Display the print window in your application.
- 4** Select **Panasonic KX-P8415** printer and click **Properties**.  
The **Panasonic KX-P8415 Properties** window is displayed.
  - The operation for displaying the Panasonic KX-P8415 Properties window may be different depending on the application software.

- 5 Click the **Setup** tab in the Printer Properties window and select either **Flip on long edge** or **Flip on short edge**.



- 6 Click **OK**, then print.

## Manual Duplex Printing (Using Microsoft Word for Windows 95)

Single sided documents can be printed on both sides of the paper using an application software, such as Microsoft® Word for Windows 95. The instructions described here are only for Microsoft Word for Windows 95. See “[Specifications](#)” for the notes when performing manual duplex printing.

**NOTE** when making a few copies of the document that the last page is odd page using the collation feature:

- When printing the even pages of the document after printing the odd pages, the last page of the next copy will be printed on the back side of the last page. To avoid this,
  - Print the document one by one. (Do not use the collation feature).
  - Remove the last page of the copies after the odd pages are printed, then print the even pages.

**Specified media for duplex printing:** Laser paper 75-165 g/m<sup>2</sup> (20-44 lbs.)

- 1** Set the media thickness switch to **Middle** or **Thick** depending on the paper used (see “[Using the Multi-purpose Tray](#)”).
- 2** Load paper [75-165 g/m<sup>2</sup> (20-44 lbs.)] in the **multi-purpose tray**.
- 3** Open a document in Microsoft Word for Windows 95.
- 4** From the **File** menu, click **Print...** .  
The **Print** window is displayed.
- 5** Make sure that **Panasonic KX-P8415** is selected in the **Printer** box, then click **Properties** .  
The **Panasonic KX-P8415 Properties** window is displayed.

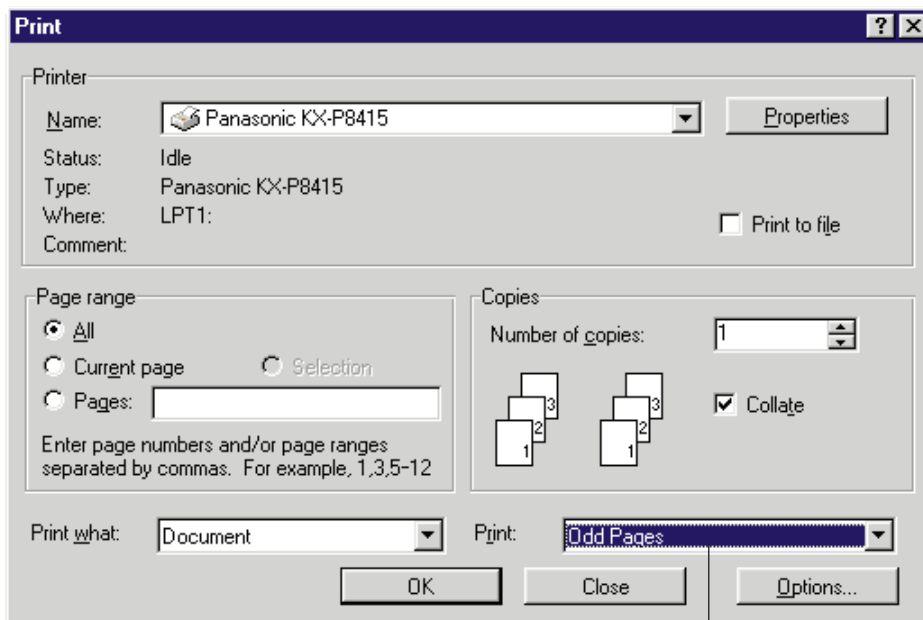
- 6 Select **Multi-purpose Tray** from the **Paper source**, then select **Plain Paper** from the **Media Type** pull down menu in the **Paper** tab. Click **OK** .

The **Panasonic KX-P8415** window is closed.

### NOTE

- Whatever you set the Paper Source to under Printer Properties, this will be overruled by the Setting in the application, under File - Page Setup - Paper Source. For example if you use Microsoft Word and set the paper source to "Upper" - this will override the Multi-Purpose Tray's paper source setting under Printer Properties.

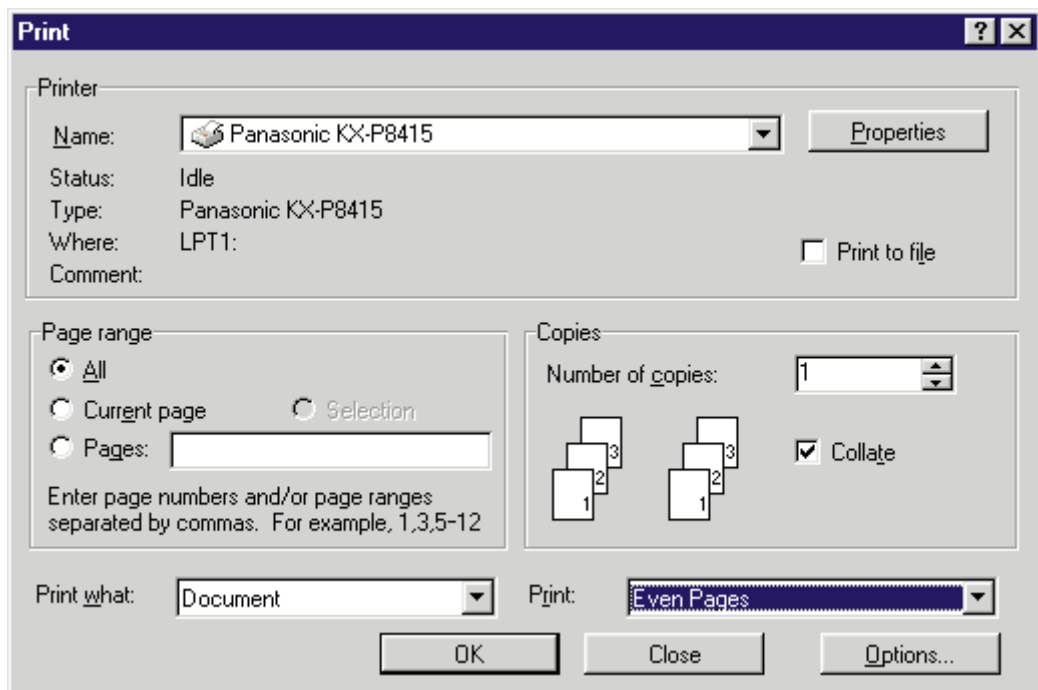
- 7 Select **Odd Pages** from the **Print** menu box, then click **OK** .  
The **Print** window is closed and odd pages will be printed face up.



Print menu box

- 8 Place the printed pages in the multi-purpose tray with the pages face down and top first.

- 9 From the **File** menu, click **Print...** .  
The **Print** window is displayed.
- 10 Click **Properties** .  
The **Panasonic KX-P8415 Properties** window is displayed.
- 11 Select **Multi-Purpose Tray** from the **Paper source** pull down menu, then select **Paper 2nd Side** from the **Media Type** pull down menu in the **Paper** tab.  
Click **OK** .  
The **Panasonic KX-P8415 Properties** window is closed.
- 12 Select **Even Pages** from the **Print** menu box, then click **OK** .  
The **Print** window is closed and even pages will be printed on the back side of the paper.





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