

OKI C7200/C7400



User's Guide

Preface

Every effort has been made to ensure that the information in this document is complete, accurate, and up-to-date. Oki assumes no responsibility for the results of errors beyond its control. Oki 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 Oki.

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.

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CAUTION

This product complies with EN55022 Class B however, when fitted with either the optional 2nd and/or 3rd paper tray compliance to EN55022 is Class A. In a domestic environment this product configuration may cause radio interference in which case the user may be required to take adequate measures.

EEC compatibility



This product complies with the requirements of the Council Directives 89/336/EEC (EMC) and 73/23/EEC (LVD), as amended where applicable, on the approximation of the laws of the member states relating to Electromagnetic Compatibility and Low Voltage.

Energy Star



As an Energy Star Program Participant, Oki has determined that this product meets the Energy Star guidelines for energy efficiency.

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Safety instructions

This printer has been carefully designed to give years of safe, reliable performance. As with all electrical equipment, however, there are a few basic precautions that should be taken to avoid personal injury or damaging the printer:

- Read this setup guide carefully and save it for future reference.
- Read and follow all warning and instruction labels on the printer itself.
- Disconnect the printer before cleaning. Use only a damp cloth. Do not use liquid or aerosol cleaners to clean the printer.
- Place the printer on a firm, solid surface. If the printer is placed on something unsteady, it may fall and become damaged or injure someone. If the printer is placed on a soft surface, such as a rug, sofa, or bed, the vents may become blocked causing the printer to overheat.
- Do not put the printer on or near a heat source, such as a radiator or heat register. Keep it out of direct sunlight. Allow enough room around the printer for adequate ventilation and easy access.
- Do not use the printer near water, or spill liquid of any kind into it.
- Make sure that the power source matches the rating listed on the back of the printer. If you are not sure, check with your dealer or with your local power company.
- This printer has an earthed plug as a safety feature and will only connect to an earthed outlet. If this plug cannot be connected to a power outlet, then it is possible that the power outlet is of the older, non-earthed type. Contact an electrician to have the power outlet replaced. Do not use an adapter to defeat the earthing.
- To avoid damaging the power cable, do not put anything on it or place it where it will be walked on. If the cable becomes damaged or frayed, replace it immediately.
- If an extension cable or power strip is being used with the printer, make sure that the total of the amperage rating required by all the equipment is less than the rating of the extension cable or power strip. The total ratings of all equipment plugged into the outlet should not exceed 13 amperes.

- The power outlet into which the printer is connected must remain accessible at all times.
- Opening any cover may expose hot surfaces. These are clearly labelled. Do NOT touch them.
- Do not insert anything into the ventilation slots on the printer; you could get a shock or cause a fire.
- Aside from the routine maintenance described in this user's guide, do not try to service the printer yourself. Opening a cover may expose you to shocks or other hazards.
- Do not make any adjustments other than those outlined in this users guide as damaged may be caused to the printer.

If anything happens that indicates that the printer is not working properly or has been damaged, disconnect the printer from the power source and contact your dealer. These are some of the things to look for:

- The power cable or plug is frayed or damaged.
- Liquid has been spilled into the printer, or it has been exposed to water.
- The printer has been dropped, or the cabinet is damaged.

- The printer does not function normally when following the operating instructions.

Toner cartridge and image drum handling

- Leave unused toner cartridges and image drum units in their packages until needed. When replacing a toner cartridge or image unit, reuse the packaging to dispose of the old toner cartridge or image drum unit.
- Do not expose the toner cartridges and image drum units to light for more than five minutes. Never expose the green drum (inside the image drum unit) to direct sunlight.
- Always hold the image drum unit by the ends - never by the middle. Never touch the green drum inside the image drum unit.
- To avoid damage to the image drum unit, always use original toner cartridges.
- Exercise care when removing the toner cartridge. Do not let it touch your clothing or porous materials. The toner powder causes permanent stains.

- Small amounts of toner spilled on skin or clothing can be readily removed with soap and cold water. Using heated water will make removing the stain much more difficult.

Emergency first aid

- **IF TONER IS SWALLOWED:** Induce vomiting and seek medical attention. Never attempt to induce vomiting or give anything by mouth to a person who is unconscious.
- **IF TONER IS INHALED:** Take the person to an open area for fresh air. Seek medical attention.
- **IF TONER GETS IN THE EYES:** Flush eyes with large quantities of cold water for a minimum of 15 minutes keeping eyelids open with fingers. Seek medical attention.

Notes, cautions and warnings

Note: *A note appears in this manual like this. A note provides additional information to supplement the main text which may help you to use and understand the product.*

CAUTION:

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

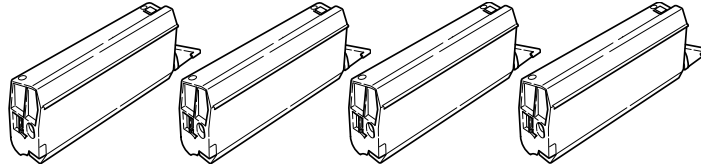
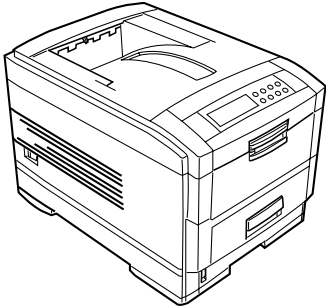
WARNING

A WARNING APPEARS IN THIS MANUAL LIKE THIS. A WARNING PROVIDES ADDITIONAL INFORMATION WHICH, IF IGNORED, MAY RESULT IN A RISK OF PERSONAL INJURY.

Chapter 1 - Printer Setup

Features

- High speed printing: 12 page per minute LED colour printer and 20 page per minute LED monochrome printer.
- Single pass digital technology for stunning quality, speed and reliability.
- Four different models to choose from: C7200, C7200n, C7200dn and the flagship C7400.
- True 1200 dpi resolution (C7400) or 600 x 1200 dpi resolution for very high quality output.
- Duplex printing for fast reliable two sided output (optional on C7200 and C7200n).
- High speed, bi-directional parallel interface (IEEE-1284) and USB interface
- Industry standard network connectivity via internal network interface card (optional on C7200)
- Automatic interface switching between USB, parallel and network interfaces.
- Spacious 5 Gb hard disk drive (HDD) standard on C7200dn and C7400, optional on other models.
- PCL5c emulation and genuine Adobe PostScript 3 with automatic switching.
- Versatile paper handling with standard 530 sheet paper tray and 100 sheet multi purpose tray, up to a maximum of 1690 sheets capacity with the optional second and third paper trays.
- Paper weight capacity of 60 g/m² to 200 g/m².
- Standard multi purpose tray for card stock, envelopes etc.
- 500 sheet output tray (face down) and 100 sheet face up tray for continuous smooth running output.
- The C7000 series is designed for a duty cycle of up to 50,000 prints per month.
- Environmentally friendly: OKI's advanced power save mode minimises power consumption and the separate toner and drum design cuts down on waste.



Unpacking

After unpacking the printer and choosing a suitable place to put it, check that all the necessary parts are available to continue:

WARNING

THIS PRINTER HAS A WEIGHT OF 48 KG. DO NOT ATTEMPT TO LIFT IT ALONE.

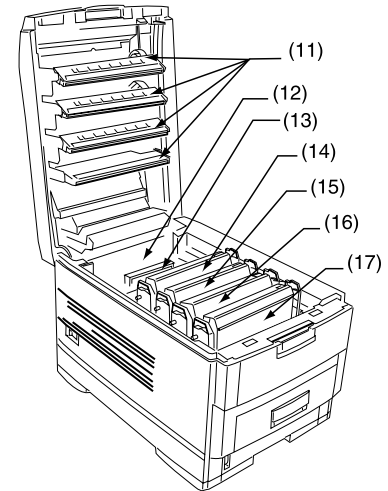
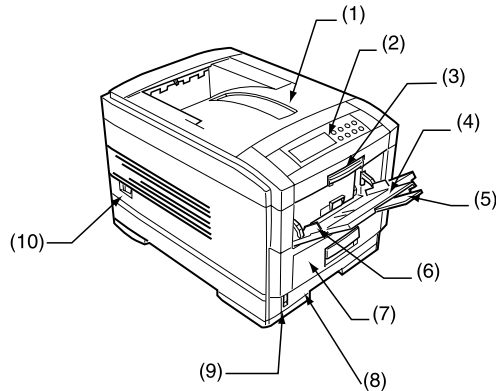
1. The printer.
2. Four toner cartridges (cyan, magenta, yellow and black).

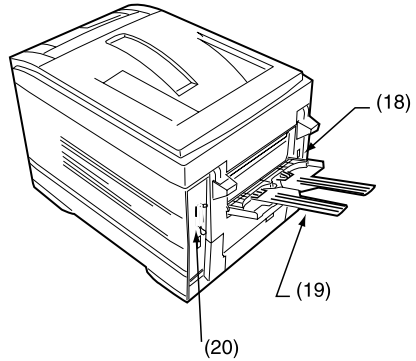
3. CD-ROM disk containing printer drivers and documentation (not illustrated).
4. LED lens cleaner (not illustrated).
5. Light proof plastic bags (4) (not illustrated).
6. Power cable (not illustrated).
7. Startup guide (not illustrated).

Note: *Do not discard the printer box, transport locks, packaging and light proof plastic bags as they are used when transporting the printer.*

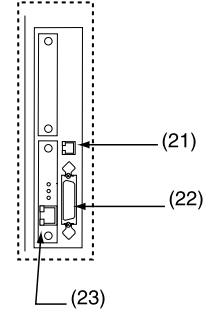
Printer components

1. Top cover
2. Control panel
3. Top cover release catch.
4. Multi purpose tray (manual feed).
5. Paper support extension.
6. Paper guides.
7. Front cover.
8. Paper tray.
9. Paper level indicator.
10. Power switch.
11. LED heads (4 off).
12. Discharge roller.
13. Fuser unit.
14. Image drum (cyan).
15. Image drum (magenta).
16. Image drum (yellow).
17. Image drum (black).





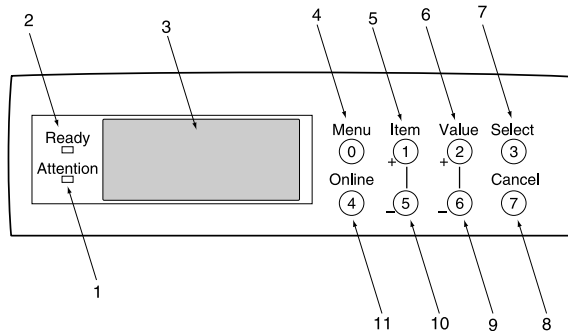
- 18. Power connector.
- 19. Rear exit paper tray.
- 20. Interfaces and option card slot.



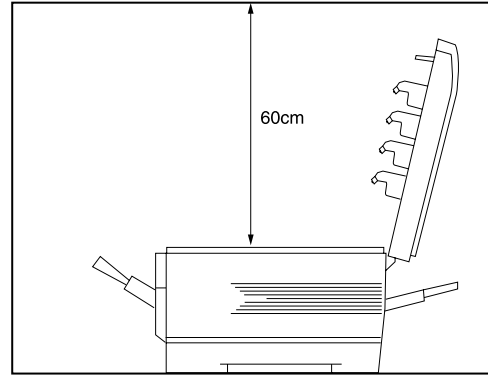
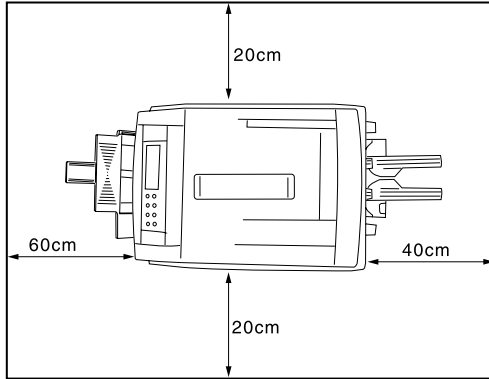
- 21. USB interface connector.
- 22. Parallel interface connector.
- 23. Optional network interface card.

Control panel

1. Attention indicator (red). On indicates there is an error, but printing will continue. Flashing indicates there is an error, but printing will stop.
2. Ready indicator (green). On - ready to receive data. Flashing - processing data or error.
3. Liquid crystal display (LCD) panel. Two rows of up to 24 alphanumeric digits displaying print status, menu items in menu mode and error messages.
4. Menu button (0). Press briefly to enter Menu mode. Press briefly again to select the next menu. Press for more than 2 seconds to scroll through the different menus.



5. Item + button (1). Press briefly to scroll forward to the next menu item.
6. Value + button (2). Press briefly to scroll forward to the next value setting for each menu item.
7. Select button (3). Press briefly to select the menu, item or value indicated on the LCD.
8. Cancel button (7). Press to cancel a print job.
9. Value – button (6). Press briefly to scroll backward to the next value setting for each menu item.
10. Item – button (5). Press briefly to scroll backward to the next menu item.
11. Online button (4). Switches between online and offline status. When pressed in Menu mode, returns printer to online status. When pressed with DATA PRESENT displayed forces the printer to print out the remaining data in the printer. Also when there is an error indicating wrong paper size, pressing the online button forces the printer to print.



Printer location

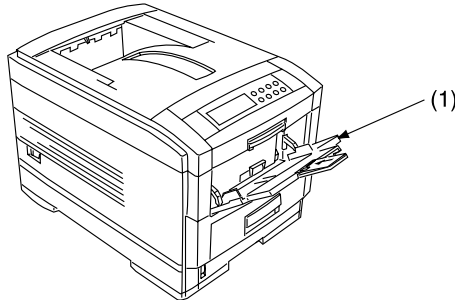
Place the printer on a flat surface large enough and strong enough to accept the size and weight of the printer. The printer has an approximate weight of 48 kg. There must be sufficient space around the printer to allow for access and printer maintenance.

Setting up

Before connecting this printer to a computer and power supply, the toner cartridge must be installed and paper inserted in the paper tray.

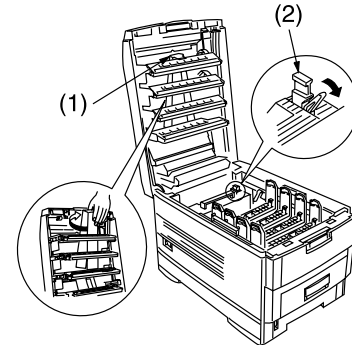
Packaging and protective sheet removal

1. Remove any adhesive tape and packaging from the printer.
2. Open the multi purpose tray (1) and remove the protective sheet of paper.



3. Open the top cover.

4. Remove the LED head restrainer (1) from behind the LED heads in the top cover.

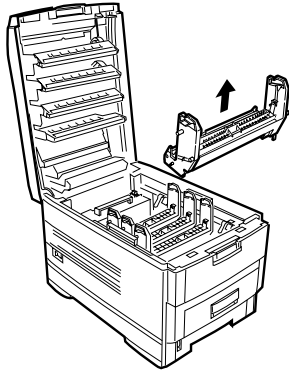


5. Remove the orange transport lock (2) from behind the coloured lever on top of the fuser unit.

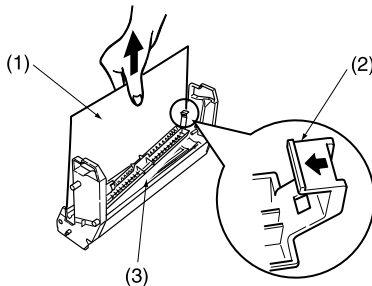
Note: To ease removal of the transport lock, it may be necessary to move the coloured lever slightly. The coloured lever will return to its original position under spring loading after it has been released.

CAUTION:

Never expose image drums to light for more than 5 minutes. Never expose image drums to direct sunlight. Always hold image drums by the ends. Never touch the surface of the green drum inside the image drum.



6. Remove the four image drums and place them on a level surface.
7. Remove the protective sheets (1) from each of the four image drums.



8. Push the tab (2) inwards and remove the blanking plate (3) from each of the image drums.
9. Replace the four image drums into the printer making sure each image drum is installed in its correct colour location.

WARNING

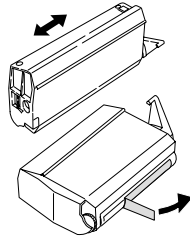
BE CAREFUL WHEN HANDLING THE TONER CARTRIDGE. DO NOT LET TONER SPILL ON YOUR CLOTHING OR OTHER POROUS MATERIALS.

CAUTION:

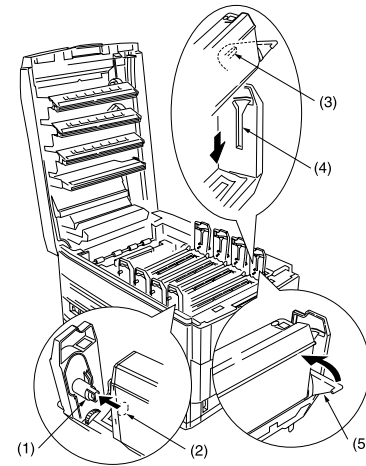
Do not use excessive force when installing the toner cartridge.

Toner cartridge installation

1. Remove the four colour toner cartridges from their packages.
2. Shake the toner cartridges back and forth several times.
3. To prevent any accidental spillage of toner, hold the toner cartridge horizontally and remove the tape carefully and slowly.

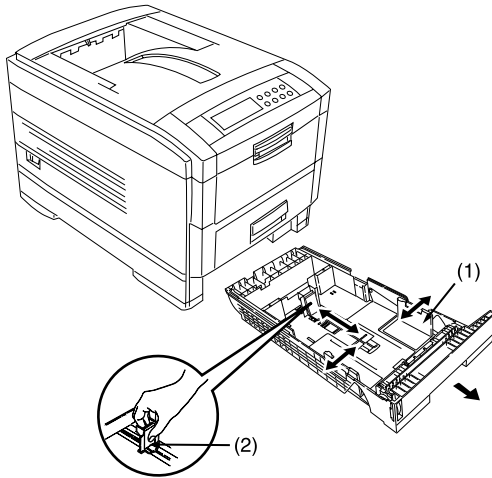


4. Make sure the colours of the toner cartridge and image drum correspond.
5. Insert the toner cartridge into the image drum, left side first, engaging the drum spigot (1) in the hole (2) in the toner cartridge.
6. Gently push the toner cartridge down engaging the locking pin (3) into the groove (4) on the image drum.
7. Gently push the coloured lever (5) backward until it stops to release the toner into the image drum.



Note: *When the printer is switched on after setting up the printer, the message TONER LOW or CHANGE TONER maybe displayed. This message should disappear after the printer has completed its initialisation sequence. However, this message sometimes does not disappear until printing has been carried out. If it still does not disappear after printing, reinstall the toner cartridge.*

Loading paper



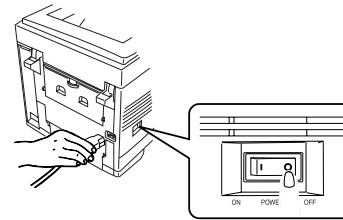
1. Remove the paper tray from the printer.
2. Adjust the paper guides (1) and rear paper stopper (2) for the size of paper being used.
3. Insert the paper keeping the level of the paper in the tray below the guide marks.

Note: Do not exceed the maximum capacity of the paper tray, which is approximately 530 sheets depending on paper weight.

4. Replace the tray in the printer. The paper level indicator provides a visual indication of how much paper is left in the tray.

Power cable

1. Connect the power cable into the power socket on the printer, then into a grounded power supply outlet.



2. Switch the printer on using the main power switch.
3. The printer goes through its initialisation and warm up sequence. When the printer is ready, the READY indicator comes on and stays on (green) and the LCD indicates the following:

ONLINE

AUTO
TRAY1

Switching off

Note 1: *Never turn the printer off while it is printing.*

Note 2: *If the optional hard disk has been fitted, The following procedure MUST BE followed before turning off to protect any data that is stored on the hard disk.*

Note 3: *It is recommended to follow this shutdown procedure each time the printer is switched off for any reason.*

Note 4: *After switching the printer off, wait at least 10 seconds before switching it on again, to allow the internal power levels to drop. Switching on too soon could cause the printer to malfunction.*

1. Press **Menu (0)** button until the SHUTDOWN MENU is displayed, then press **Select (3)** button.
2. Press **Select (3)** button again to EXECUTE the shutdown sequence.
3. When PLEASE POWER OFF SHUTDOWN COMPLETED is displayed on the LCD, turn the printer off using the power switch.

Menu settings

Changing display language

Carry out the following to change the language that is displayed on the printer's LCD.

1. Press **Menu (0)** button until SYSTEM CONFIG MENU is displayed, then press **Select (3)** button.
2. Press **Item (1)** until LANGUAGE is displayed.
3. Press **Value (2)** until the required language is displayed.
4. Press **Select (3)** button. An asterisk (*) appears next to the selected language.
5. Press **Online (4)** button when finished setting the display language.

Printing

Print a list of menu settings to confirm that the printer is correctly configured.

1. Press **Menu (0)** button until the INFORMATION MENU is displayed, then press **Select (3)** button.
2. Confirm PRINT MENU MAP is displayed on the LCD.
3. Press **Select (3)** button to print the menu map.

Chapter 2 - Windows Setup

Installation method

The installation of the Windows printer driver and its associated software depends upon the interface connection and the Windows operating system.

Note 1: *Windows NT 4.0 drivers cannot be installed using Windows Plug & Play.*

Note 2: *Please refer to the readme file on the software installation disk that came with the printer for the latest information on the installation of the printer driver and its associated software.*

Printer driver types

This printer can be operated using a PostScript printer driver or a PCL printer driver. Both types of printer drivers have been supplied on the CD-ROM that came with the printer.

Which printer driver is installed does depend on how the printer is to be used. For example, if encapsulated postscript (EPS) files are going to be printed, then it is recommended to use a PostScript printer driver.

Parallel interface

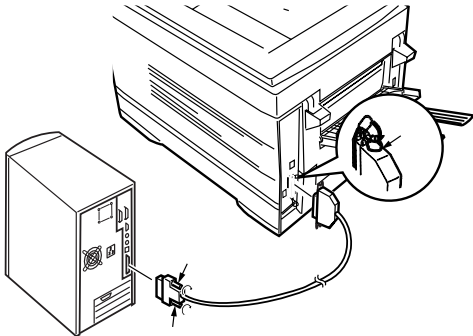
Note 1: *Printer drivers are not supplied for MS-DOS or Windows NT 3.51 operating systems.*

Note 2: *Printer drivers are not provided for Windows NT4.0 operating system installed on a computer with an ARC compatible RISC based processor (MIPS R series, Alpha, Power PC etc.).*

Note 3: *Parallel interface cable is not included. The parallel interface cable must be bi-directional and to standard IEEE 1284-1994.*

Connection

1. Switch off the power to the printer and computer.

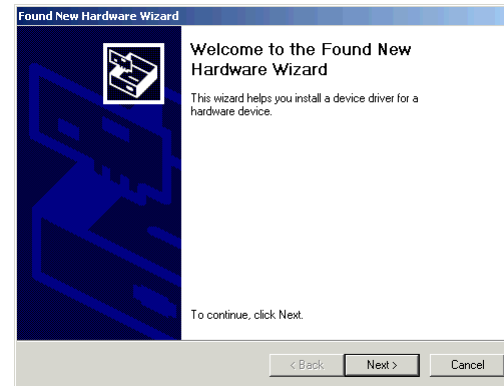


2. Connect the parallel interface cable to the printer parallel interface connector and secure with spring clips.
3. Connect the parallel interface cable to the parallel port on the computer and secure with screws.
4. Switch on the printer and then switch on the computer.

Plug and play configuration

Windows 2000

Note: *Administrator's authority is required when installing under Windows 2000.*



1. When the [Found New Hardware Wizard] appears, click on [Next].

Note: *If the system has already been configured once, the printer driver configures automatically and the Found New Hardware Wizard is not displayed. Please proceed to Step 9.*

2. Select [Search for the best driver for my device (Recommended)] and click on [Next].

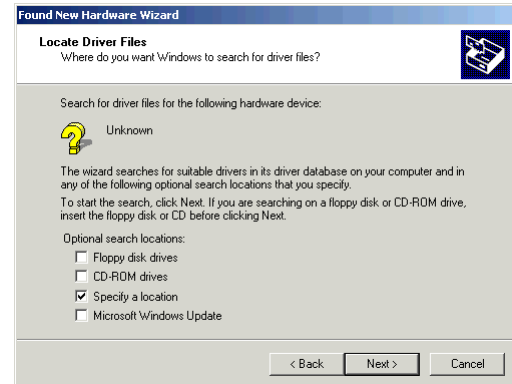


3. Choose [Specify a location] and click on [Next].
4. Insert the printer software CD-ROM into the CD-ROM drive.

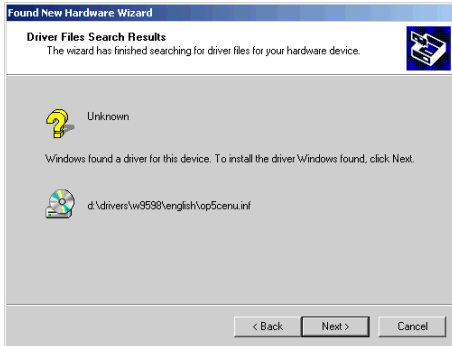
5. Uncheck [Floppy disk drive] and check [CD-ROM drive], then click on [Next] to install by default the PCL printer driver.

OR

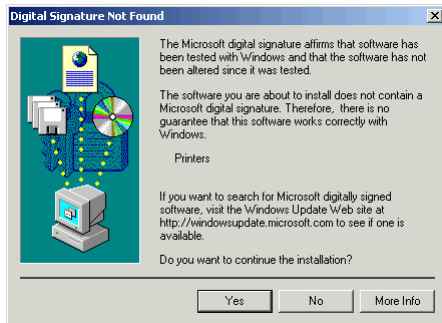
To install another printer driver, uncheck both [Floppy disk drive] and [CD-ROM drive] and check [Specify a location]. Enter D:\DRIVERS\WIN2000\Language (where D:\ is the drive letter of the CD-ROM), then click on [Next] selecting the required printer driver.



6. Confirm that the printer driver is ready to be installed and click on [Next].



7. Specify if a test page is to be printed or not, then click on [Next] and click on [Finish].
8. In the [Digital Signature Not Found] window, click on [Yes]. File copying starts.



9. Choose [Start]-[Settings]-[Printers], then right click the printer icon and select [Set as Default Printer].

Note: *If the printer icon is not displayed, configure using the **Add Printer Wizard**.*

Windows 98 or Windows Me

1. When the [Add New Hardware Wizard] appears, click on [Next].



Note 1: *If the [Insert Disk] window is displayed, go to Step 8.*

Note 2: *If the [Add New Hardware Wizard] does not appear, go to Add Printer Function.*

- Choose [Search for the best driver for your device (Recommended)] and click on [Next].



- Insert the printer software CD-ROM into the CD-ROM drive.
- Uncheck [Floppy disk drive] and check [CD-ROM drive], then click on [Next] to install by default the PCL printer driver.

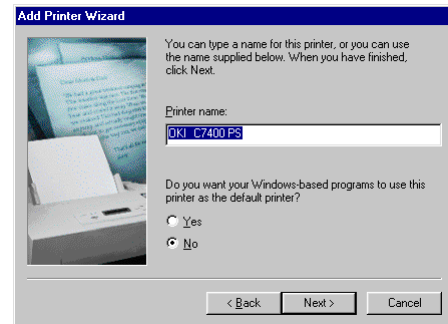
OR

For Windows 98 - To install another printer driver, uncheck both [Floppy disk drive] and [CD-ROM drive] and check [Specify a location]. Enter D:\DRIVERS\W9598\Language (where D:\ is the drive letter of the CD-ROM), then click on [Next] selecting the required printer driver.

OR

For Windows Me - Select the required driver from the displayed list in order to install the language required.

- Confirm the printer name and specify if the printer is to be the default printer or not, then click on [Next].



- Specify if a test page is to be printed or not, then click on [Finish].
- When the printer icon appears in the Printer folder, configuration is complete.
- If the [Insert Disk] window is displayed:
 - Insert the printer software CD-ROM into the CD-ROM drive and click on [OK].

- (b) In the [Copy files from] field, enter D:\DRIVERS\W9598\Language for PostScript or PCL drivers (where D:\ is the drive letter of the CD-ROM) and click on [OK]. File copying starts.
- (c) When the printer icon is displayed in the Printer folder, configuration is complete.

Add printer configuration

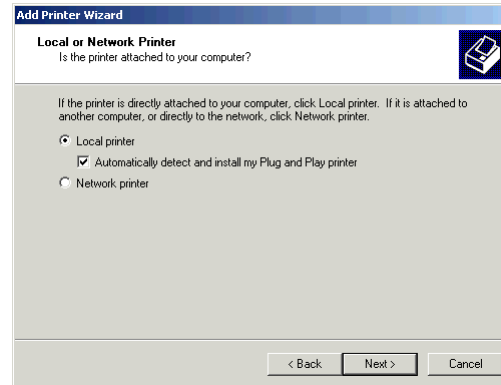
Windows 2000

Note: Administrator's authority is required when installing under Windows 2000.

1. Click on [Start]-[Settings]-[Printers].
2. Double-click on [Add Printer].

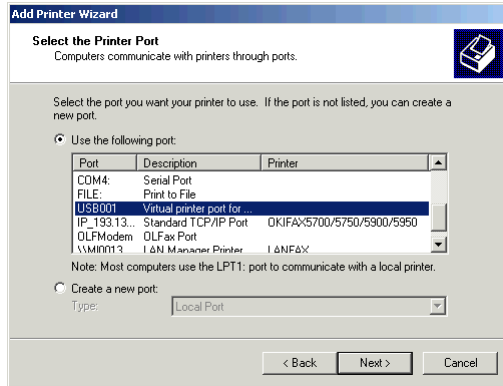


3. When [Add Printer Wizard] appears, click on [Next].
4. Select [Local Printer], remove the check mark on [Automatically detect and install my Plug and Play printer] and click on [Next].

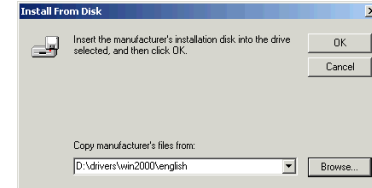
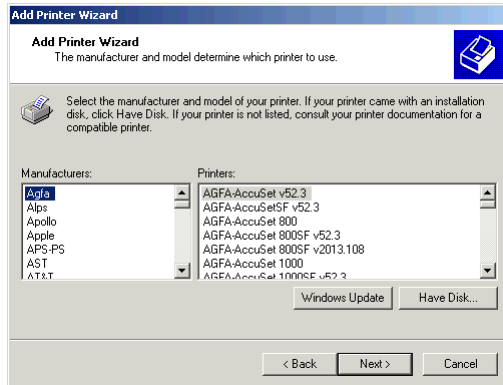


5. Select [Use the following port] and specify [LPT1: Printer Port], then click on [Next].

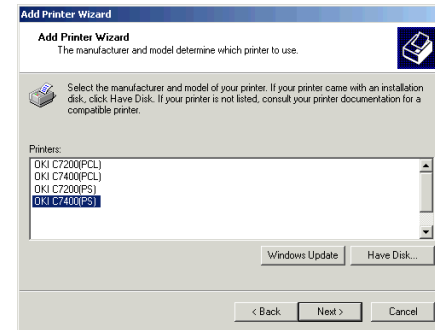
- After the [Install from Disk] window appears, insert the Printer Software CD-ROM disk into the CD-ROM drive.



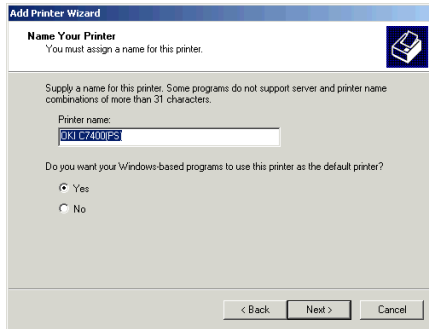
- Click on [Have Disk...].



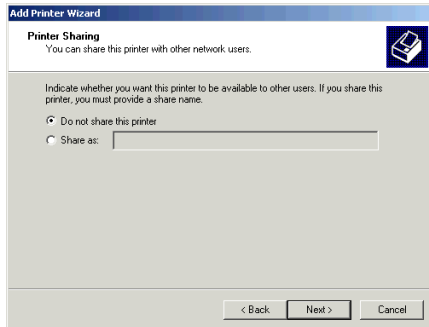
- In the [Copy manufacturer's files from] field, enter D:\DRIVERS\WIN2000\Language for PostScript or PCL drivers (where D:\ is the drive letter of the CD-ROM) and click on [OK].
- Choose the printer model and driver required and click on [Next].



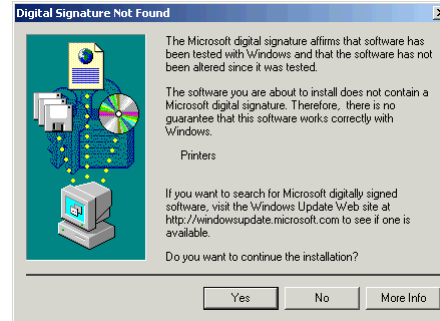
10. Confirm printer name and specify if the printer is to be used as default printer or not, then click on [Next].



11. Specify if the printer is to be shared or not, then click on [Next].



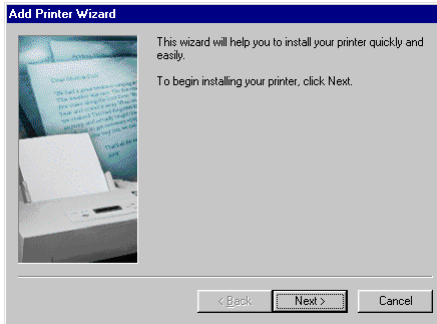
12. Specify if a test page is to be printed or not, then click on [Next] and click on [Finish].
13. In the [Digital Signature Not Found] window, click on [Yes]. File copying starts.



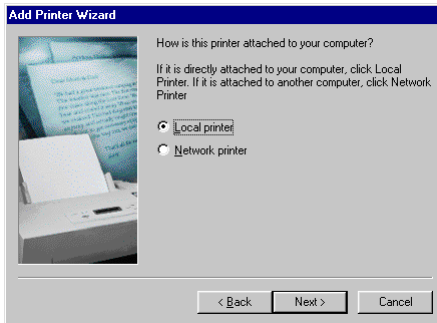
14. When the printer icon is displayed in the Printer folder, configuration is complete.

Windows 98 or Windows Me

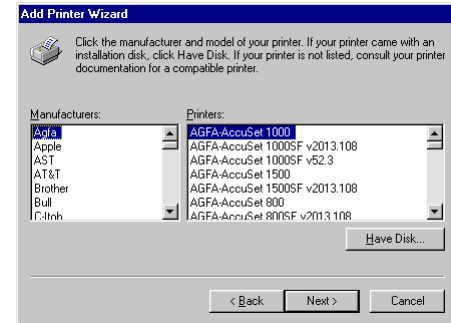
1. Click on [Start]-[Settings]-[Printers].
2. Double-click on [Add Printer].
3. When the displayed [Add Printer Wizard], click on [Next].



4. Select [Local Printer] and click on [Next].



5. Click on [Have Disk...].

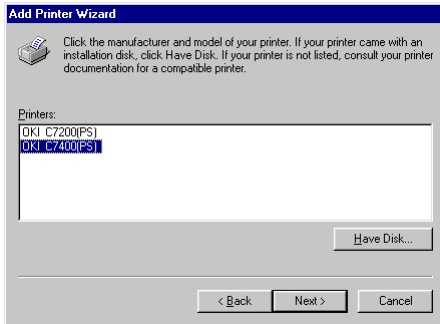


6. After the [Install from Disk] window appears, insert the Printer Software CD-ROM disk into the CD-ROM drive.

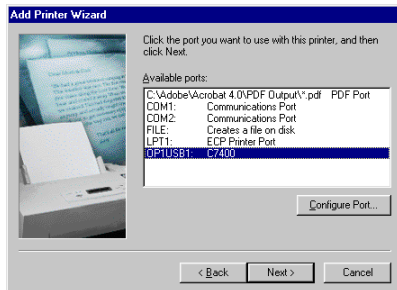


7. In the [Copy files from] field, enter D:\DRIVERS\W9598\Language for PostScript or PCL drivers (where D:\ is the drive letter of the CD-ROM) and click on [OK].

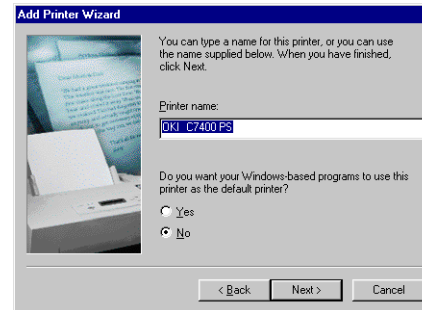
- Choose the printer model and driver required and click on [Next].



- Among [Available Ports], select [LPT1:ECP Printer Port] and click on [Next].



- Confirm printer name and specify if the printer is to be used as default printer or not, then click on [Next].

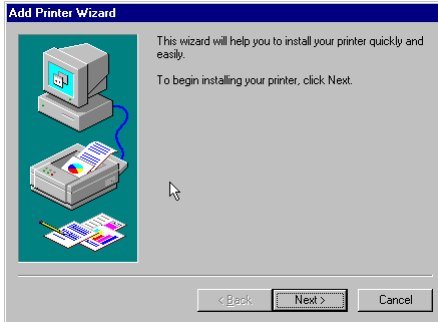


- Specify if a test page is to be printed or not, then click on [Finish].
- When the printer icon appears in the Printer folder, configuration is complete.

Windows 95

- Click on [Start]-[Settings]-[Printers].
- Double-click on [Add Printer].

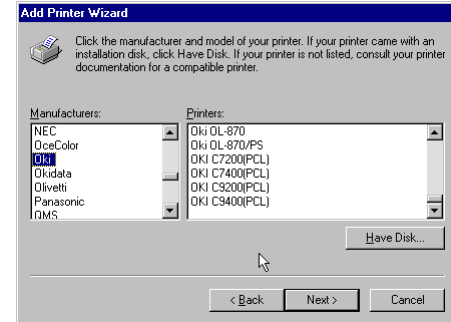
- When the [Add Printer Wizard] appears, click on [Next].



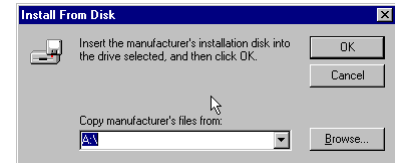
- Select [Local Printer] and click on [Next].



- Click on [Have Disk...].

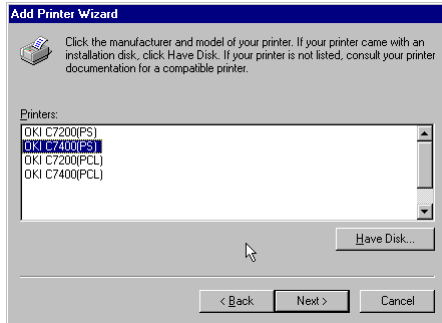


- After the [Install from Disk] window appears, insert the Printer Software CD-ROM disk into the CD-ROM drive.

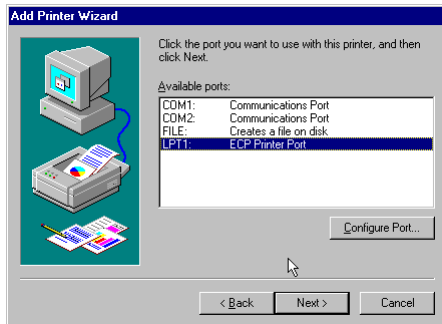


- In the [Copy files from] field, enter D:\DRIVERS\W9598\Language for PostScript or PCL drivers (where D:\ is the drive letter of the CD-ROM) and click on [OK].

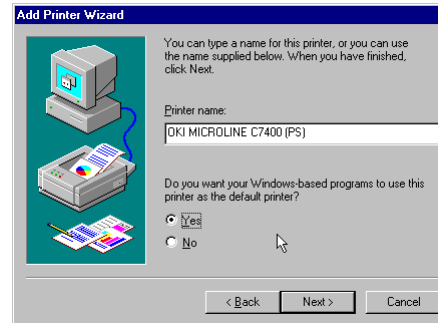
8. Choose the printer model and driver required and click on [Next].



9. Among [Available Ports], select [LPT1:ECP Printer Port] and click on [Next].



10. Confirm printer name and specify if the printer is to be used as default printer or not, then click on [Next].



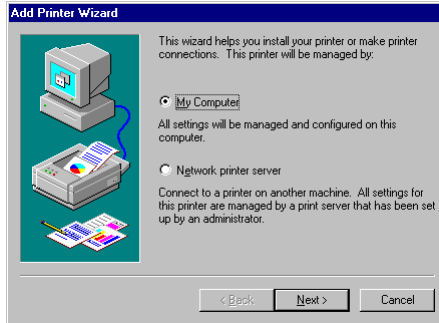
11. Specify if a test page is to be printed or not, then click on [Finish].
12. When the printer icon appears in the Printer folder, configuration is complete.

Windows NT 4.0

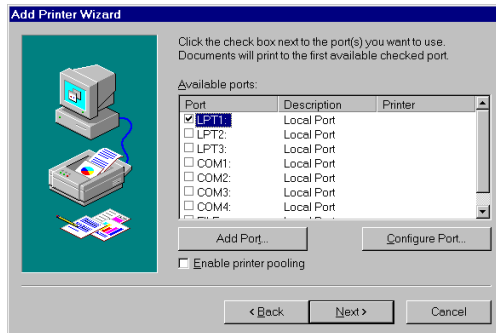
Note: *Administrator's authority is required when installing under Windows NT 4.0.*

1. Click on [Start]-[Settings]-[Printers].
2. Double-click on [Add Printer].

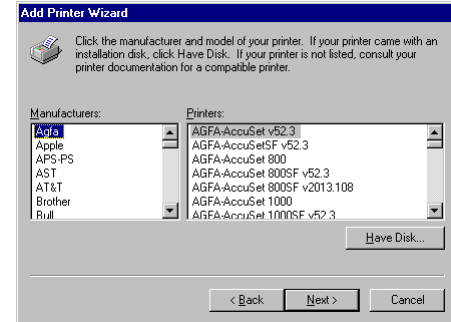
3. When the [Add PrinterWizard] appears, select [My computer] and click on [Next].



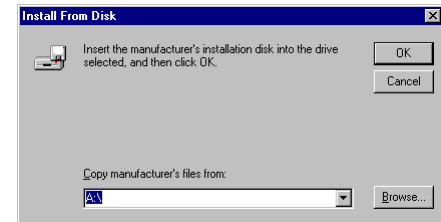
4. Among [Available Ports], select [LPT1:ECP Printer Port] and click on [Next].



5. Click on [Have Disk...].

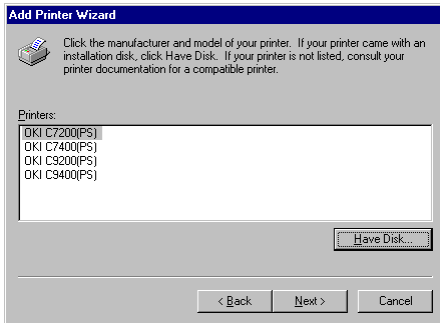


6. After the [Install from Disk] window appears, insert the Printer Software CD-ROM disk into the CD-ROM drive.

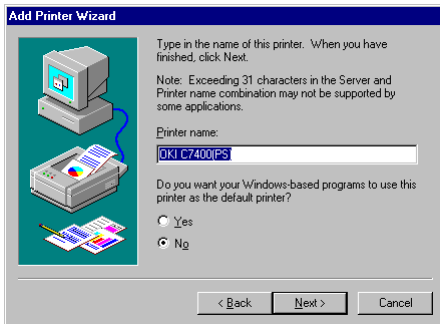


7. In the [Copy manufacturer's files from] field, enter D:\DRIVERS\NT40\Language for PostScript or PCL drivers (where D:\ is the drive letter of the CD-ROM) and click on [OK].

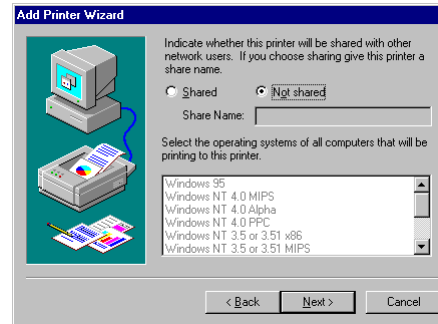
8. Choose the printer and click on [Next].



9. Confirm printer name and specify if the printer is to be used as default printer or not, then click on [Next].



10. Specify if the printer is to be shared or not, then click on [Next].



11. Specify if a test page is to be printed or not, then click on [Next], then click on [Finish].
12. When the printer icon appears in the Printer folder, configuration is complete.

USB interface

Note: *No USB interface cable is supplied with the printer. Please use a USB interface cable that is compatible with USB specification 1.1.*

General

A USB interface has the following restrictions:

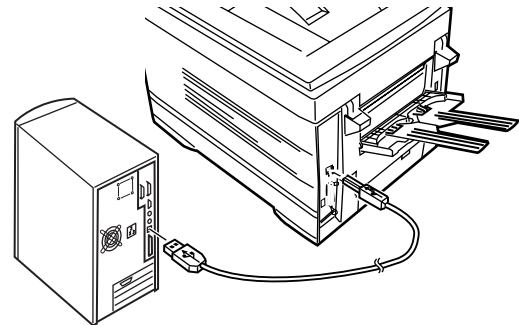
- Will not operate using a MS-DOS or Windows 95/3.1/NT 4.0/NT 3.51 operating system.
- Will not operate using a Windows 98 operating system that has been upgraded from a Windows 95/3.1 operating system.
- Do not disconnect the USB interface cable during printing.
- Do not immediately disconnect and connect the USB cable or vice versa. Wait at least 5 seconds before re-connecting or disconnecting the cable.
- The operation of a printer is not assured if a USB compatible device is connected concurrently with other USB-compatible machines.
- When connecting multiple printers of the same type, they appear in the print folder as ***** (copy2), ***** (copy3), etc. These

numbers depend on the order of connecting or turning on each printer.

- If a USB hub is used, it is necessary to connect the USB hub directly to the computer.

Connection

1. Make sure the printer and computer are turned off.
2. Connect the USB interface cable into the USB port on the computer.
3. Connect the other end of the USB interface cable to the USB connector on the printer.
4. Turn the printer on, then turn the computer on.



USB driver

Note: *Installation of USB driver is only required for Windows 98/Me.*

1. After the [Add New Hardware Wizard] window appears, click on [Next].



2. Select [Search for the best driver for my device (Recommended)] and click on [Next].
3. Insert the printer software CD-ROM disk into the CD-ROM drive.
4. Make sure CD-ROM drive is checked and click on [Next].
5. After Windows finds the USB driver, click on [Next].



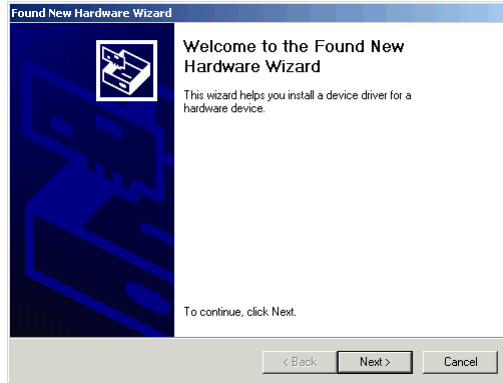
6. After files have finished copying, click on [Finish].
7. If the [Add New Hardware Wizard] window appears again, click on [Cancel] and restart the computer.

Plug and play configuration

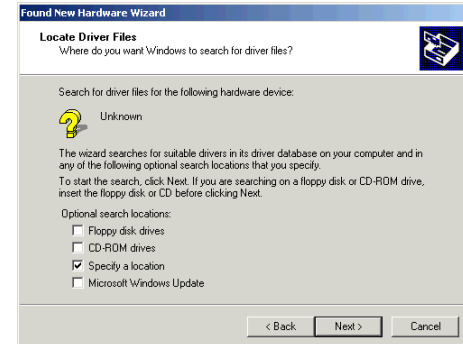
Windows 2000

Note: *Administrator's authority is required when installing under Windows 2000.*

1. When the [Found New Hardware Wizard] appears, click on [Next].



2. Select [Search for the best driver for my device (Recommended)] and click on [Next].
3. Choose [Specify a location] and click on [Next].
4. Insert the printer software CD-ROM disk into the CD-ROM drive.

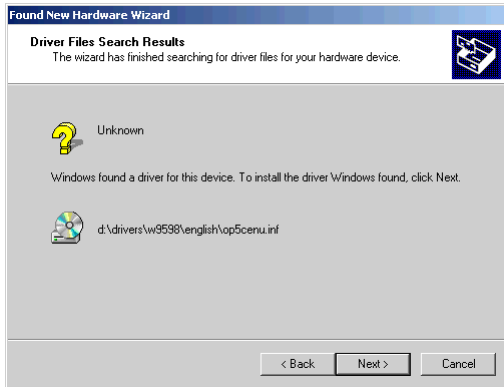


5. Uncheck [Floppy disk drive] and check [CD-ROM drive], then click on [Next] to install by default the PCL printer driver.

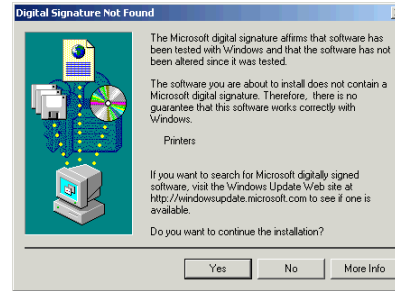
OR

To install another printer driver, uncheck both [Floppy disk drive] and [CD-ROM drive] and check [Specify a location]. Enter D:\DRIVERS\WIN2000\Language (where D:\ is the drive letter of the CD-ROM), then click on [Next] selecting the required printer driver.

6. Confirm that the printer driver is ready to be installed and click on [Next].



7. Specify if a test page is to be printed or not, then click on [Next] and click on [Finish].
8. In the [Digital Signature Not Found] window, click on [Yes]. File copying starts.



9. Choose [Start]-[Settings]-[Printers], then right click the printer icon and select [Set as Default Printer].

Windows 98 or Windows Me

1. After the [Add New Hardware Wizard] window appears, click on [Next].



- Choose [Search for the best driver for your device (Recommended)] and click on [Next].



- Insert the Printer Software CD-ROM disk into the CD-ROM drive.
- Uncheck [Floppy disk drive] and check [CD-ROM drive], then click on [Next] to install by default the PCL printer driver.

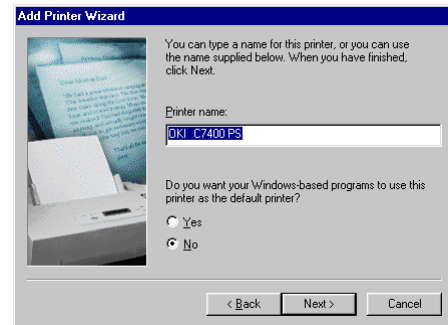
OR

For Windows 98 - To install another printer driver, uncheck both [Floppy disk drive] and [CD-ROM drive] and check [Specify a location]. Enter D:\DRIVERS\W9598\Language (where D:\ is the drive letter of the CD-ROM), then click on [Next] selecting the required printer driver.

OR

For Windows Me - Select the required driver from the displayed list in order to install the language required.

- After Windows finds the printer driver, click on [Next].
- Confirm the printer name and specify if the printer is to be the default printer or not, then click on [Next].



- Specify if a test page is to be printed or not, then click on [Finish].
- When the printer icon appears in the Printer folder, configuration is complete.

Add printer configuration

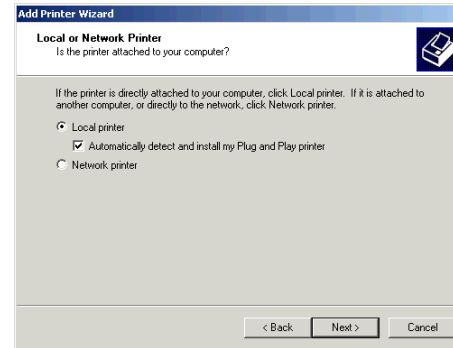
Windows 2000

Note: Administrator's authority is required when installing under Windows 2000.

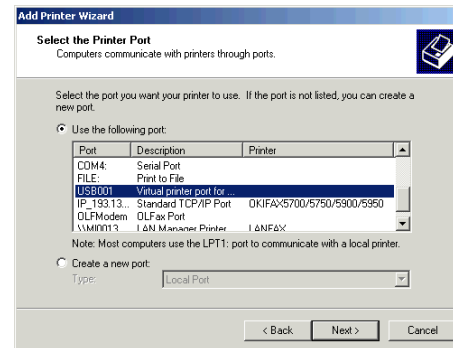
1. Click on [Start]-[Settings]-[Printers].
2. Double-click on [Add Printer].
3. When the [Add Printer Wizard] appears, click on [Next].



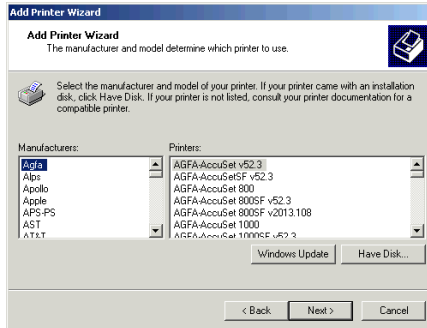
4. Select [Local Printer], remove the check mark on [Automatically detect and install my Plug and Play printer] and click on [Next].



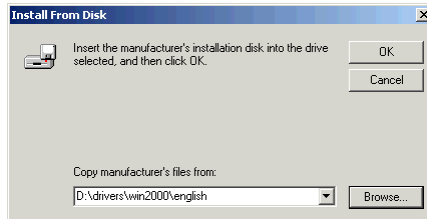
5. Select [Use the following port] and specify [USBxxx], then click on [Next].



6. Click on [Have Disk...].

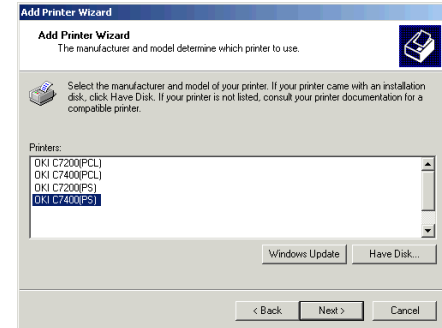


7. After the [Install from Disk] window appears, insert the Printer Software CD-ROM disk into the CD-ROM drive.

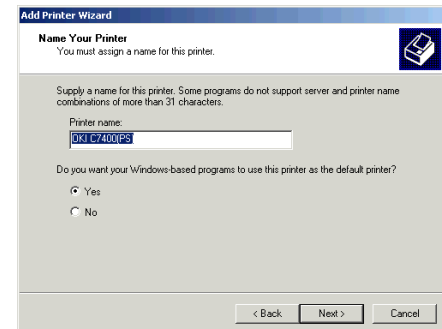


8. In the [Copy manufacturer's files from] field, enter `D:\DRIVERS\WIN2000\Language` for PostScript or PCL drivers (where D:\ is the drive letter of the CD-ROM) and click on [OK].

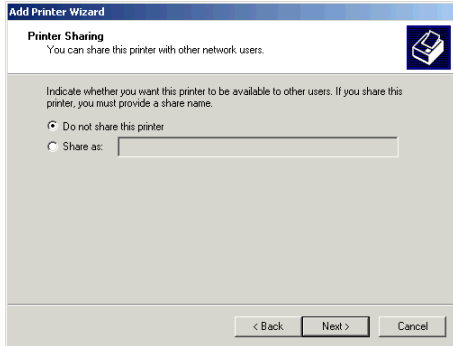
9. Choose the printer model and driver, then click on [Next].



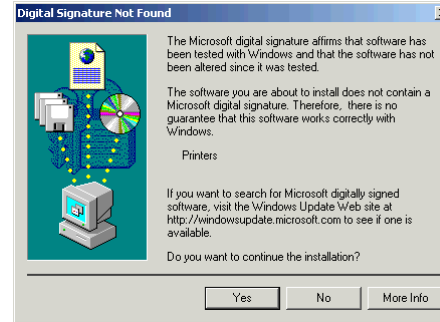
10. Confirm printer name and specify if the printer is to be used as default printer or not, then click on [Next].



11. Specify if the printer is to be shared or not, then click on [Next].

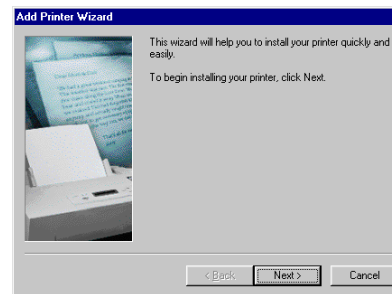


12. Specify if a test page is to be printed or not, then click on [Next], then click on [Finish].
13. In the [Digital Signature Not Found] window, click on [Yes]. File copying starts.
14. Choose [Start]-[Settings]-[Printers], then right click the printer icon and select [Set as Default Printer].

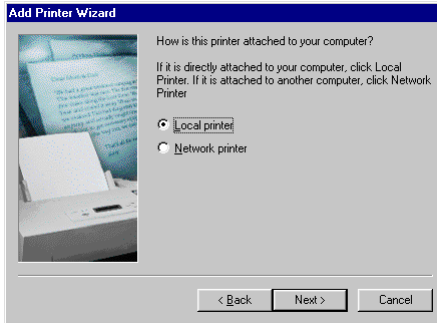


Windows 98/Me

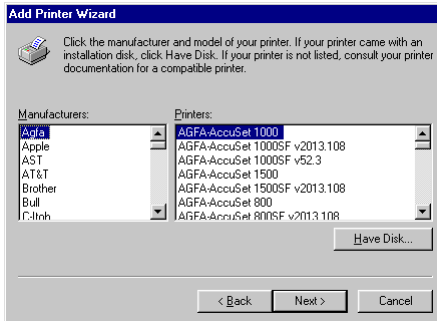
1. Click on [Start]-[Settings]-[Printers].
2. Double-click on [Add Printer].
3. When the [Add Printer Wizard] appears, click on [Next].



4. Select [Local Printer] and click on [Next].



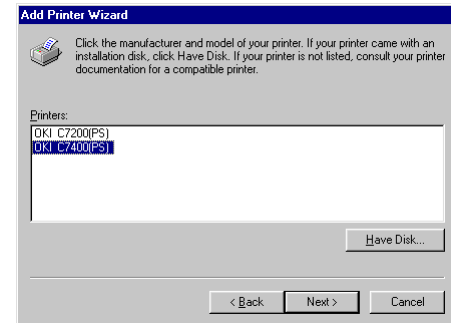
5. Click on [Have Disk...].



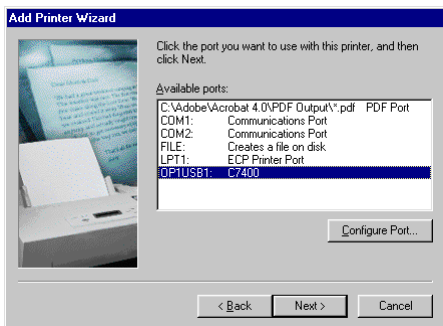
6. After the [Install from Disk] window appears, insert the Printer Software CD-ROM disk into the CD-ROM drive.



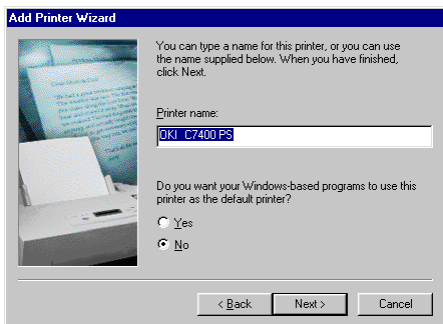
7. In the [Copy files from] field, enter D:\DRIVERS\W9598\Language for PostScript or PCL drivers (where D:\ is the drive letter of the CD-ROM) and click on [OK].
8. Choose the printer model and driver, then click on [Next].



9. Among [Available Ports], select [OPIUSBx] and click on [Next].



10. Confirm printer name and specify if the printer is to be used as default printer or not, then click on [Next].



11. Specify if a test page is to be printed or not, then click on [Finish].
12. When the printer icon appears in the Printer folder, configuration is complete.

Network connection

Note 1: *An optional Ethernet network interface card (NIC) is needed for connection to a network. For information on installing a network interface card, refer to Chapter 8 Optional Accessories in the User's Guide.*

Note 2: *Administrator's authority is required when installing using a network connection.*

1. Confirm that the power is off to the printer.
2. Connect a network interface cable (twisted pair) into the NIC socket in the printer.
3. Connect the other end of the network interface cable into the network socket.
4. Switch on the printer.
5. Install the printer driver using the Add Printer wizard and configure the printer driver to the network port the printer is connected to.
6. For further details on how to configure network connection, refer to the relevant section in the user's guide for the network interface card.

Internal hard disk

If your printer includes the hard disk, please use the following procedure to make sure that the hard disk has been enabled in the printer and printer driver.

Printer

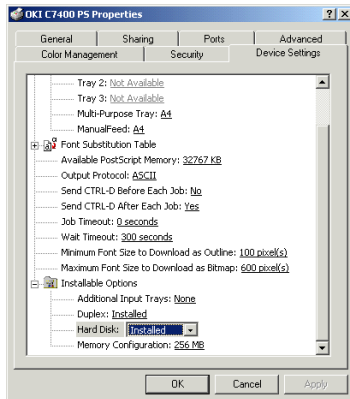
1. Print a Menu Map as follows to confirm the hard disk is correctly installed.
 - (a) Press **Menu (0)** button twice to access the INFORMATION MENU.
 - (b) Press **Select (3)** button and confirm PRINT MENU MAP is displayed on the LCD.
 - (c) Press **Select (3)** button to print the menu map.
 - (d) Check that HDD now shows installed in the printer.
2. After installation, the hard disk has to be initialised as follows:
 - (a) Press **Menu (0)** button until DISK MAINTENANCE is displayed, then press **Select (3)** button.

- (b) When HDD INITIALISE is displayed, press **Select (3)** button.
- (c) Press **Item (1)** button to shutdown the printer. The printer has to be switched off and back on again to initialise the hard disk before use.

Printer driver

Windows 2000/NT 4.0 PostScript

1. Click on [Start] - [Settings] - [Printers].
2. Highlight the printer name and click on [File] then [Properties].



3. Click on [Device Settings] tab.
4. Highlight [Hard Disk], then select [Installed] and click on [OK].

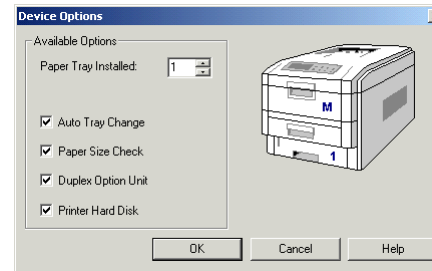
Windows 2000 PCL

1. Click on [Start] - [Settings] - [Printers].
2. Highlight the printer name and click on [File] then [Properties].
3. Click on [General] tab, [Printing Preferences] button, then [Device Options] button.

OR

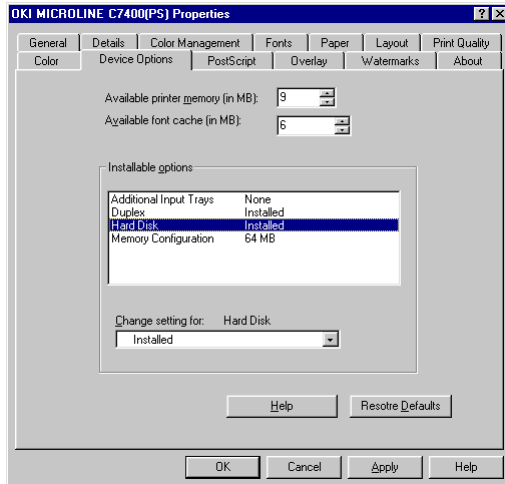
Click on [Advanced] tab, [Printing Defaults] button, then [Device Options] button.

4. Check [Printer Hard Disk] and click on [OK] three times.



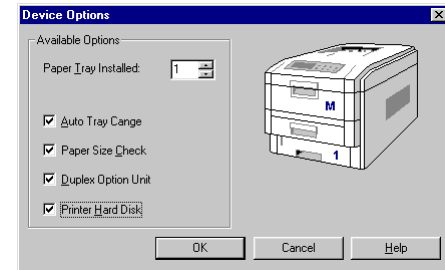
Windows 95/98/Me PostScript

1. Click on [Start] - [Settings] - [Printers].
2. Highlight the printer name and click on [File] then [Properties].
3. Click on the [Device Options] tab.
4. Highlight [Hard Disk], then select [Installed] and click on [OK].



Windows 95/98/Me/NT 4.0 PCL

1. Click on [Start] - [Settings] - [Printers].
2. For Windows 95/98/Me - Highlight the printer name and click on [File] then [Properties].
For Windows NT 4.0 - Highlight the printer name and click on [File] then [Document Default].
3. Click on the [Paper] tab, then the [Device Options] button.
4. Check [Printer Hard Disk] and click on [OK] twice.



Duplex unit

If your printer includes the duplex unit, please use the following procedure to make sure that duplex printing has been enabled in the printer and printer driver.

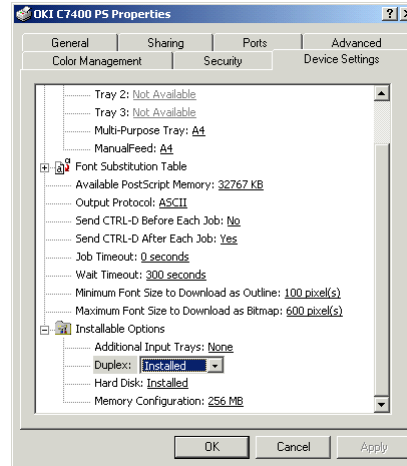
Printer

1. Press **Menu (0)** button until PRINT MENU is displayed, then press **Select (3)** button.
2. Press **Item (1)** button until DUPLEX is displayed.
3. Press **Value (2)** button until ON is displayed and press **Select (3)** button. An asterisk (*) appears to show that duplex has been set to on.
4. Press **Online (4)** button to turn the printer back on line.

Printer driver

Windows 2000/NT 4.0 PostScript

1. Click on [Start] - [Settings] - [Printers].
2. Highlight the printer name and click on [File] then [Properties].



3. Click on [Device Settings] tab.
4. Highlight [Duplex], then select [Installed] and click on [OK].

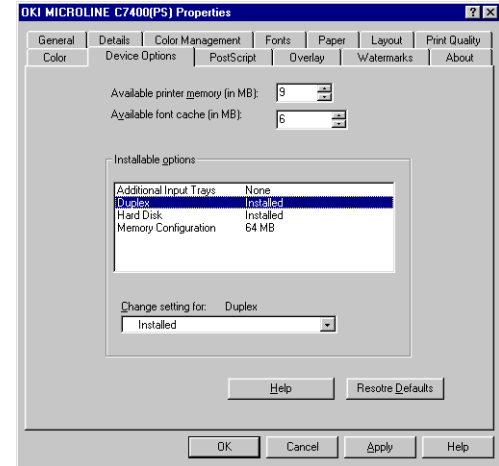
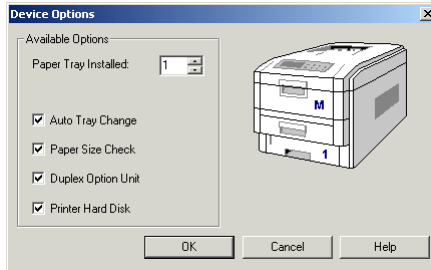
Windows 2000 PCL

1. Click on [Start] - [Settings] - [Printers].
2. Highlight the printer name and click on [File] then [Properties].
3. Click on [General] tab, [Printing Preferences] button, then [Device Options] button.

OR

Click on [Advanced] tab, [Printing Defaults] button, then [Device Options] button.

4. Check [Duplex Option Unit] and click on [OK] three times.



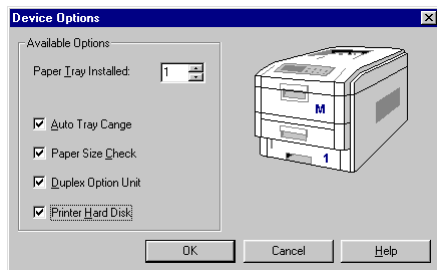
Windows 95/98/Me PostScript

1. Click on [Start] - [Settings] - [Printers].
2. Highlight the printer name and click on [File] then [Properties].
3. Click on the [Device Options] tab.
4. Highlight [Duplex], then select [Installed] and click on [OK].

Windows 95/98/Me/NT 4.0 PCL

1. Click on [Start] - [Settings] - [Printers].
2. For Windows 95/98/Me - Highlight the printer name and click on [File] then [Properties].
For Windows NT 4.0 - Highlight the printer name and click on [File] then [Document Default].
3. Click on the [Paper] tab, then the [Device Options] button.

4. Check [Duplex Option Unit] and click on [OK] twice.



Chapter 3 - Macintosh Setup

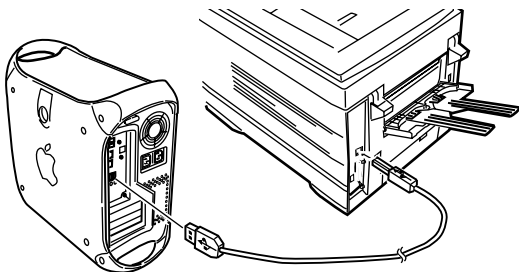
USB connection

Operating environment

- MacOS 8.5 or higher running on a Macintosh computer with a USB interface.
 - Do not disconnect the USB interface cable during printing.
 - Do not immediately disconnect and connect the USB cable or vice versa. Wait at least 5 seconds before re-connecting or disconnecting the cable.
 - The operation of the printer is not assured if a USB compatible device is connected concurrently with other USB compatible machines.
 - When connecting multiple printers of the same type, the Chooser displays *****1, *****2, *****3, etc. These numbers depend on the order of connecting or turning on each printer.
- If a USB hub is used, it is necessary to connect the USB hub directly to the computer.
 - If the memory setting for the print monitor is low and depending on the document, background printing may not be able to be carried out. Increase the memory setting for the print monitor to carry out background printing without problems.
 - Depending on the model of computer, updates to the operating system may be needed, e.g. iMac Update 1.0, iMac Update 1.1, iMac Firmware Update, etc. For information on the latest updates and installation, contact Apple Computers.

Connection

Note: *No USB interface cable is supplied with the printer. Please use a USB interface cable that is compatible with USB specification 1.1.*

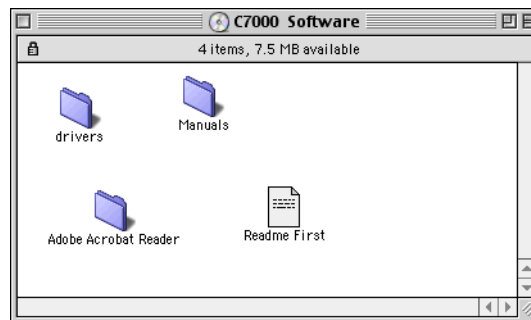


1. Make sure the printer and computer are turned off.
2. Connect the USB interface cable into the USB port on the computer.
3. Connect the other end of the USB interface cable to the USB connector on the printer.
4. Turn the printer on, then turn the computer on.

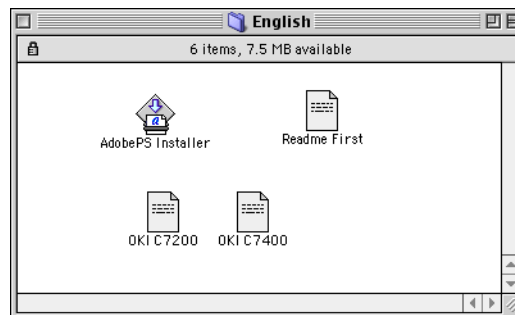
Printer driver installation

Note: Switch off antivirus software before installing a printer driver.

1. Place the software CD-ROM in the CD-ROM drive.
2. Open [Drivers] and open the required language folder.



3. Double-click on [Adobe PS Installer].

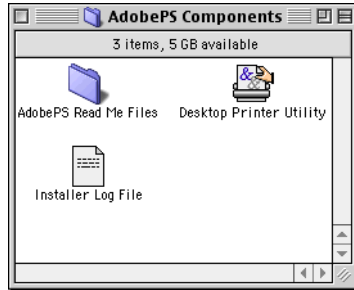


4. Click on [Continue] in the Adobe PostScript Driver screen and follow the on screen instructions.

5. When installation of the printer driver is complete, click on [Restart] button.
6. After the computer has restarted the Adobe PS icon should appear in the Chooser.

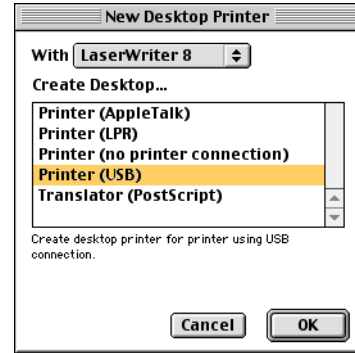
Creating desktop printer

1. In the Adobe PS Components folder at the top directory level of your hard disk, double-click on [Desktop Printer Utility].

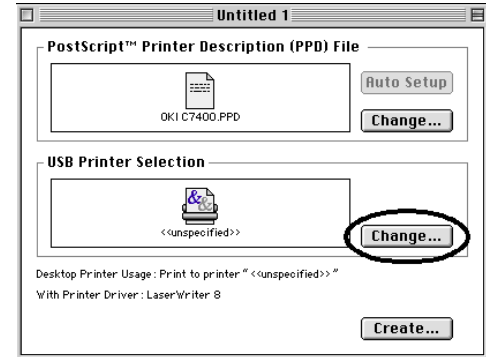


Note: *Installing Adobe PS printer driver also installs Desktop Printer Utility in the Adobe PS Components folder.*

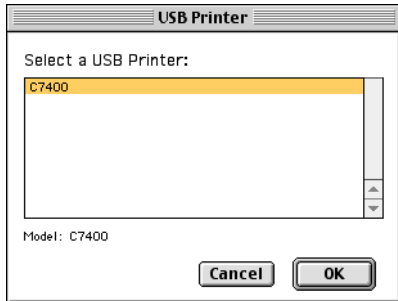
2. Select [Printer (USB)] and click on [OK].



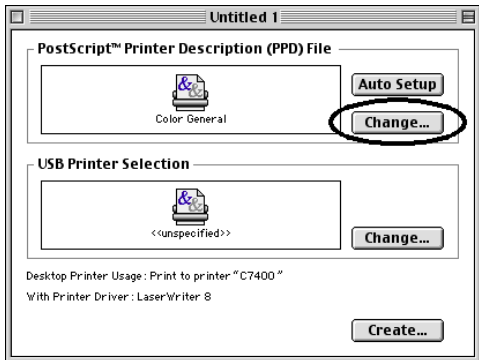
3. In the USB Printer Selection] section click [Change...].



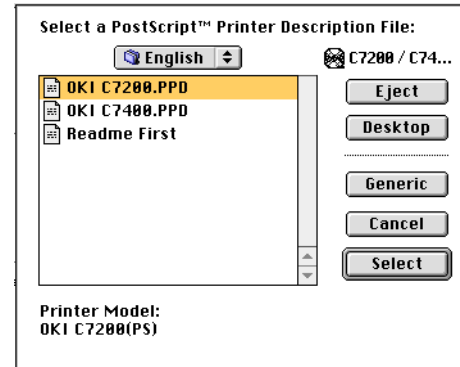
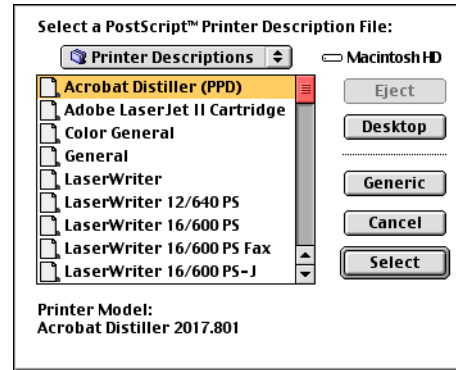
4. Select the printer then click on [OK].

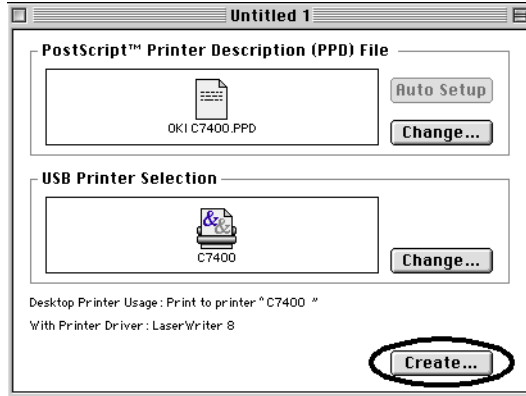


5. Click on [Change] button in [PostScript Printer Description (PPD) file].

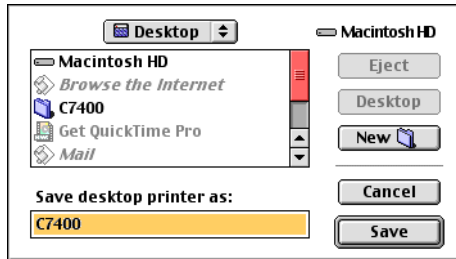


6. Select the PPD for the printer from the Drivers:language folder on the CD.





7. Click on [Create] button, enter the printer name, then click on the [Save] button.



Note: The printer icon should appear on the desktop.

8. Close the Desktop Printer Utility.

Network connection

Note 1: An optional Ethernet network interface card (NIC) is needed for connection to a network. For information on installing a network interface card, refer to Chapter 8 Optional Accessories in the User's Guide.

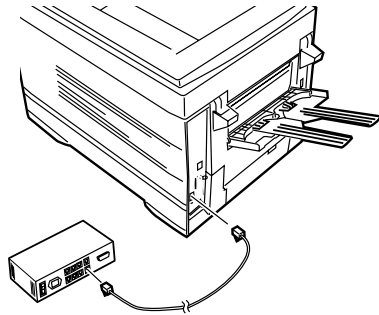
Note 2: Administrator's authority is required when installing using a network connection.

Operating environment

MacOS 8.5 or above, running on a Macintosh computer with EtherTalk interface.

Connection

1. Confirm that the power is off to the printer.
2. Connect a network interface cable (twisted pair) into the NIC socket in the printer.
3. Connect the other end of the network interface cable into the network socket.



4. Switch on the printer.
5. For further details on how to configure network connection, refer to the relevant section in the user's guide for the network interface card.

Printer driver installation

Either the Adobe PostScript printer driver or Laser-Writer printer driver can be used. However, for the Adobe PostScript printer driver 8.7, only MacOS 8.5 or higher can be used.

1. Place the Printer Software CD-ROM in the CD-ROM drive.
2. Open the [Drivers:Language] folder.
3. Double-click on [Adobe PS Installer].

4. Click [Continue] in the Adobe PostScript Driver screen and follow the on screen instructions.
5. After installation of the driver, restart the computer and the Adobe PS icon should appear in the Chooser.
6. Open [Chooser] in the Apple menu.
7. Click on [Adobe PS] and select Printer name.

Note: *The printer name is given in the EtherTalk configuration document produced in the self diagnostic test for the network interface card.*

8. Click on [Create] and an icon should appear beside the printer name.
9. Select the PPD file in the folder [Drivers:Languages] on the CD.
10. Close [Chooser].

Note: *The printer icon should appear on the desktop.*

Internal hard disk

If your printer includes the hard disk, please use the following procedure to make sure that the hard disk has been enabled in the printer and printer driver.

Printer

1. Print a Menu Map as follows to confirm the hard disk is correctly installed.
 - (a) Press **Menu (0)** button twice to access the INFORMATION MENU.
 - (b) Press **Select (3)** button and confirm PRINT MENU MAP is displayed on the LCD.
 - (c) Press **Select (3)** button to print the menu map.
 - (d) Check that HDD now shows installed in the printer.
2. After installation, the hard disk has to be initialised as follows:
 - (a) Press **Menu (0)** button until DISK MAINTENANCE is displayed, then press **Select (3)** button.

- (b) When HDD INITIALISE is displayed, press **Select (3)** button.
- (c) Press **Item (1)** button to shutdown the printer. The printer has to be switched off and back on again to initialise the hard disk before use.

Printer driver

Macintosh USB connection

1. Drag the printer icon from the desktop into the waste bin and empty the waste bin.
2. Create a new desktop printer and the settings will be updated automatically.

Macintosh network connection

1. Open [Chooser], click on [Adobe PS] and select the printer.
2. Click on [Setup] - [Configure].
3. Select [Hard disk] from [Installable options] and then select [Installed] from the drop down list.
4. Click on [OK] button twice and close [Chooser] to complete the re-configuration of the printer driver.

Duplex unit

If your printer includes the duplex unit, please use the following procedure to make sure that duplex printing has been enabled in the printer and printer driver.

Printer

1. Press **Menu (0)** button until PRINT MENU is displayed, then press **Select (3)** button.
2. Press **Item (1)** button until DUPLEX is displayed.
3. Press **Value (2)** button until ON is displayed and press **Select (3)** button. An asterisk (*) appears to show that duplex has been set to on.
4. Press **Online (4)** button to turn the printer back on line.

Printer driver

Macintosh USB connection

1. Drag the printer icon from the desktop into the waste bin and empty the waste bin.
2. Create a new desktop printer and the settings will be updated automatically.

Macintosh network connection

1. Open [Chooser], click on [Adobe PS] and select the printer.
2. Click on [Setup] - [Configure].
3. Select [Duplex] from [Installable options] and then select [Installed] from the drop down list.
4. Click on [OK] button twice and close [Chooser] to complete the re-configuration of the printer driver.

Chapter 4 - Paper and Printer Settings

Paper

Paper and envelope types

The manufacturer of this printer recommends the following guidelines when selecting paper and envelopes for use in this printer:

- All paper and envelopes should be stored flat and away from moisture, direct sunlight and heat sources.
 - For normal printing, use a smooth finished paper such with a Sheffield (smoothness) rating of 250 or less and has been designed for use in laser printers. If in doubt, please ask a paper supplier.
 - Use envelopes designed for use in laser type printers.
 - The use of heavily laid or textured paper will seriously impact on 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.
- Do not use very smooth, shiny or glossy paper.
 - Do not use heavily embossed headed paper, very rough paper or paper that has a large grain difference between the two sides.
 - Do not use paper with perforations, cut outs or ragged edges.
 - Do not use envelopes with windows or metal clasps.
 - Do not use envelopes with self sealing flaps.
 - Do not use damp, damaged or curled paper and envelopes.
 - Do not use carbon paper, NCR paper, photosensitive paper, pressure sensitive paper or thermal transfer paper.

Transparencies and adhesive labels

The manufacturer of this printer recommends the following guidelines when selecting transparencies and adhesive labels for use in this printer:

- Media must be designed for use in colour laser printers and photocopiers.
- Must be able to withstand 200°C for 0.1 sec.
- Labels should cover entire carrier sheet.

- Carrier sheet or adhesive **must not** be exposed to any part of the printer.

Paper feed and exit

Selection of which paper feed and which paper exit to use for printing and whether simplex or duplex printing is available depends upon the paper size, media weight and media type that is used. Please refer to the following tables.

Table 1: Paper sizes

Paper size	Feed			Exit	
	Tray 1	Tray 2/Tray 3	Manual	Rear (Face up)	Top (Face down)
A4	Simplex/duplex printing	Simplex/duplex printing	Simplex printing	Simplex/duplex printing	Simplex/duplex printing
A5	Simplex/duplex printing	Simplex/duplex printing	Simplex printing	Simplex/duplex printing	Simplex/duplex printing
A6	Simplex printing	Not available	Simplex printing	Simplex printing	Not available
B5	Simplex/duplex printing	Simplex/duplex printing	Simplex printing	Simplex/duplex printing	Simplex/duplex printing
Letter	Simplex/duplex printing	Simplex/duplex printing	Simplex printing	Simplex/duplex printing	Simplex/duplex printing
Legal (13 inch)	Simplex/duplex printing	Simplex/duplex printing	Simplex printing	Simplex/duplex printing	Simplex/duplex printing
Legal (14 inch)	Simplex/duplex printing	Simplex/duplex printing	Simplex printing	Simplex/duplex printing	Simplex/duplex printing
Executive	Simplex/duplex printing	Simplex/duplex printing	Simplex printing	Simplex/duplex printing	Simplex/duplex printing
Envelopes (Com-9, Com-10; DL; C5; C4; Monarch)	Not available	Not available	Simplex printing	Simplex printing	Not available
Custom (width 76.2 to 215.9 mm; height 127.0 to 900 mm)	Not available	Not available	Simplex printing	Simplex printing	Not available

Table 2: Paper weights and media settings

Paper weight	Media weight	Feed			Exit	
		Tray 1	Tray 2/Tray 3	Manual feed	Face up	Face down
60 to 62 g/m ²	Light	Simplex printing	Simplex printing	Simplex printing	Simplex printing	Simplex printing
63 to 73 g/m ²	Medium light	Simplex printing	Simplex printing	Simplex printing	Simplex printing	Simplex printing
74 to 92 g/m ²	Medium	Simplex/duplex printing	Simplex/duplex printing	Simplex printing	Simplex/duplex printing	Simplex/duplex printing
93 to 103 g/m ²	Medium heavy	Simplex/duplex printing	Simplex/duplex printing	Simplex printing	Simplex/duplex printing	Simplex/duplex printing
104 to 122 g/m ²	Heavy	Simplex printing	Simplex printing	Simplex printing	Simplex printing	Simplex printing
123 to 200 g/m ²	Ultra heavy	Not available	Not available	Simplex printing	Simplex printing	Not available
Transparencies		Simplex printing	Not available	Simplex printing	Simplex printing	Not available
Labels 1	0.1 to 0.17 mm thickness	Not available	Not available	Simplex printing	Simplex printing	Not available
Labels 2	0.17 to 0.2 mm thickness	Not available	Not available	Simplex printing	Simplex printing	Not available

Recycled paper

Recycled paper is slightly thicker than the paper weight (ream weight) indicated on the wrapper and, as a result, there may be some cases where toner may not be fused adequately.

1. If you get light print results, set the value of Media Weight to the next heavier one.
2. If toner rubs off when you rub the printed surface, do the following:

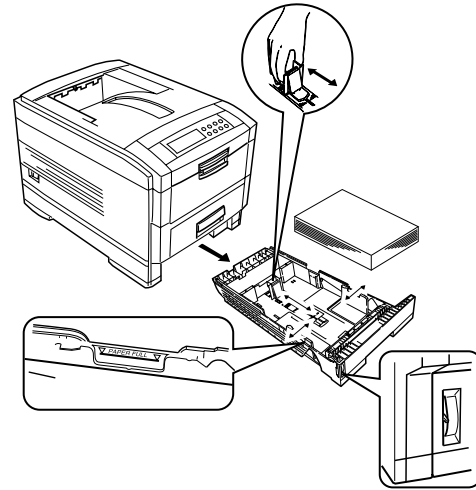
- (a) Check if Media Weight and Media Type settings of the printer are appropriate.
 - (b) Set Media Weight value to the next heavier one.
3. If the gloss is uneven, do the following:
- (a) Check if Media Weight and Media Type settings of the printer are appropriate.
 - (b) Set Media Weight value to the next lighter one.

Loading paper

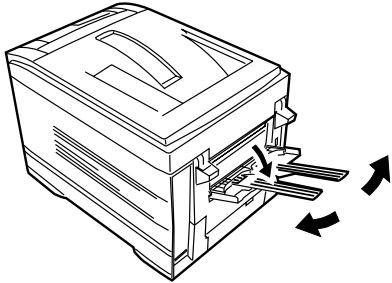
Paper tray

1. Remove the paper tray from the printer.
2. Adjust the paper guides and rear stopper to the paper size being used.
3. Do not leave space between the paper and the paper guides and rear stopper.
4. To prevent paper jams, do not exceed the Paper Full indicator. Actual capacity of sheets does depend on type of paper and the paper weight.
5. Do not crease, fold or damage the paper in any way.
6. Do not load paper of differing sizes, paper quality or thickness at the same time.
7. Always load the paper into the printer longitudinally or portrait orientation.

Note: *If using a letterhead at the top of the page, load the paper with the letterhead face down to the rear of the paper tray for portrait printing. If using a letterhead on the left side of the page, load the paper with the letterhead face down to the left.*



8. Do not insert the paper tray into the printer with excessive force.
9. If fitted, a lower paper tray cannot be used to print if there is no paper tray inserted above.
10. Do not remove the paper tray during printing.
11. For face down printing, make sure the rear paper exit is closed and the paper exits from the top of the printer. Paper is stacked in printed order and paper tray capacity is approximately 500 sheets, depending on paper weight.

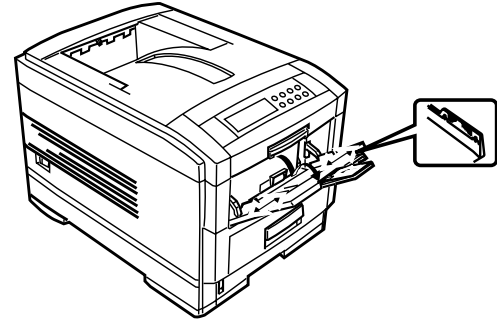


- For face up printing, make sure the rear paper exit is open and the paper support is extended. Paper is stacked in reverse order and tray capacity is approximately 100 sheets, depending on paper weight.

Note: Do not open or close the rear paper exit while printing as it may result in a paper jam.

Manual feed

- Open the manual feed tray and extend the paper feed guides.
- Load the paper into the manual feed tray with the print face upward for simplex printing and print side downward for duplex printing.



- Do not exceed the Paper Full indicator. Manual feed tray capacity is approximately 100 sheets, depending on paper weight.

Note: If using a letterhead at the top of the page, load the paper with the letterhead face down to the rear of the paper tray for portrait printing. If using a letterhead on the left side of the page, load the paper with the letterhead face down to the left.

- For face down printing, make sure the rear paper exit is closed and the paper exits from the top of the printer. Paper is stacked in printed order and paper tray capacity is approximately 500 sheets, depending on paper weight.

5. For face up printing, make sure the rear paper exit is open and the paper support is extended. Paper is stacked in reverse order and tray capacity is approximately 100 sheets, depending on paper weight.

Note: *Do not open or close the rear paper exit while printing as it may result in paper jam.*

Paper feed, size and media

Note 1: *If the settings selected manually in the printer differ from those selected in the printer driver, the printer will not print and the LCD will display an error message.*

Note 2: *The following printer driver instructions are given as a guide only. Some software applications, e.g. Microsoft Office, require the paper feed, size and media settings to be selected from within the software. This is normally done either by selecting [File] - [Page or Document Setup] or [File] - [Print] and clicking on [Properties] button.*

Printer

The paper feed, paper size, paper weight and media type can be set manually on the printer using the printer control panel as follows.

Paper feed selection

1. Press **Menu (0)** button until PRINT MENU is displayed, then press **Select (3)** button.
2. Press **Item (1)** button until PAPER FEED is displayed.

3. Press **Value (2)** button until the required paper feed is displayed, then press **Select (3)** button. An asterisk (*) appears next to the selected paper feed.

Note: *When AUTO TRAY SWITCH is set to ON and more than one paper tray is fitted, paper feed automatically switches to the next available paper tray when the selected paper feed becomes empty.*

Paper size

1. Press **Menu (0)** button until PRINT MENU is displayed, then press **Select (3)** button.
2. Press **Item (1) or (5)** button until EDIT SIZE is displayed.

Note 1: *When using paper trays, standard paper sizes are recognised automatically with CASSETTE SIZE (default setting) selected. Paper size need only be set for custom paper sizes.*

Note 2: *When using the MP tray (manual feed), the paper size has to be selected.*

3. Press **Value (2) or (6)** button until the required paper size is displayed, then press **Select (3)** button. An asterisk (*) appears next to the selected paper size.

4. Press **Online (4)** button to return the printer back to online status.
5. Select the correct paper settings in the printer driver before printing the file.

CAUTION:

If media type or media weight are not correctly set, print quality deteriorates and the fuser roller may be damaged.

Media type and weight

1. Press **Menu (0)** button until MEDIA MENU is displayed, then press **Select (3)** button.
2. Press **Item (1) or (5)** button until MEDIA TYPE or MEDIA WEIGHT for the required tray is displayed.
3. Press **Value (2) or (6)** button until the required paper type or weight is displayed, then press **Select (3)** button. An asterisk (*) appears next to the selected paper type or weight.
4. Press **Online (4)** button to return the printer back to online status.
5. Select the correct paper settings in the printer driver before printing the file.

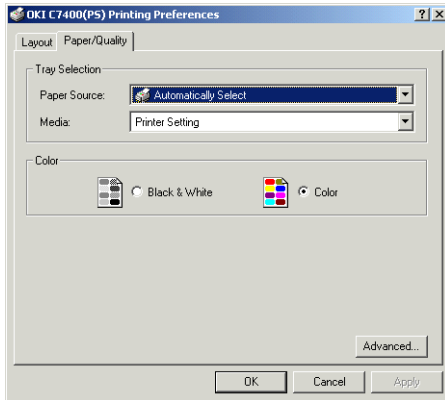
Windows 2000

PostScript

1. Click on [Start] - [Settings] - [Printers].
2. Highlight the printer name and click on [File] then [Properties].
3. Click on [General] tab, [Printing Preferences] button, then [Paper/Quality] tab.

OR

Click on [Advanced] tab, [Printing Defaults] button, then [Paper/Quality] tab.



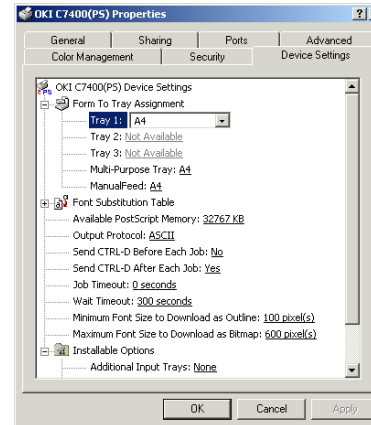
4. Select required paper feed from [Paper Source].

Note: *If [Automatically Select] is selected, the correct paper tray is automatically selected as the paper feed.*

5. Select the required paper thickness from [Media] and click on [OK].

Note: *If [Printer Setting] is selected, make sure the printer has been set to the correct media type.*

6. Click on the [Device Settings] tab.



7. Select the required paper size from [Form to Tray Assignment].

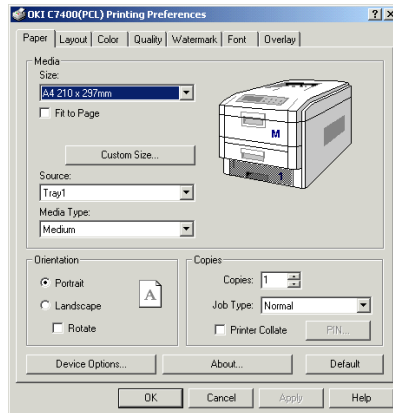
- Click on [OK] and close the printer dialogue box.

PCL

- Click on [Start] - [Settings] - [Printers].
- Highlight the printer name and click on [File] then [Properties].
- Click on [General] tab, [Printing Preferences] button, then [Paper] tab.

OR

Click on [Advanced] tab, [Printing Defaults] button, then [Paper] tab.



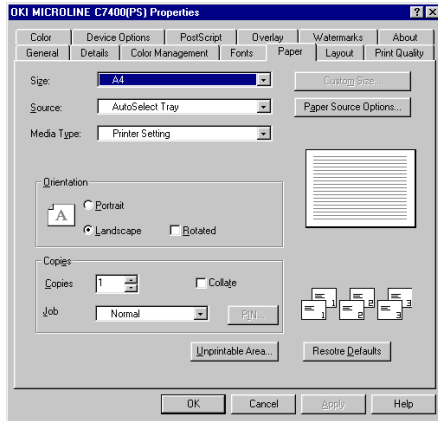
- Select the required paper size from [Size].
- Select the required paper feed from [Source].
- Select the required paper thickness from [Media Type].
- Click on [OK] twice and close the printer dialog box.

Windows 95/98/Me

PostScript

- Click on [Start] - [Settings] - [Printers].
- Highlight the printer name and click on [File] then [Properties].
- Click on the [Paper] tab.
- Select the required paper size from [Size].
- Select the required paper feed from [Source].

Note: *If [Auto Select Tray] is selected, the correct paper tray is automatically selected as the paper feed.*



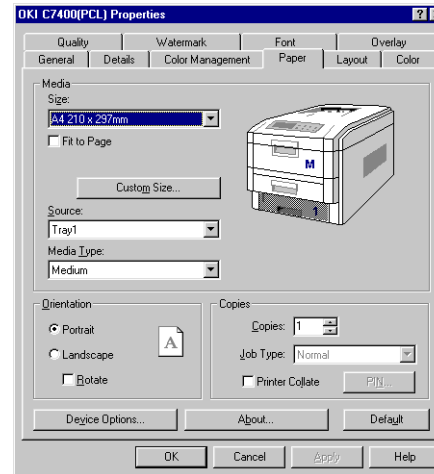
6. Select the required paper thickness from [Media Type].

Note: *If [Printer Setting] is selected, make sure the printer has been set to the correct media type.*

7. Click on [OK] and close the printer dialog box.

PCL

1. Click on [Start] - [Settings] - [Printers].
2. Highlight the printer name and click on [File] then [Properties].

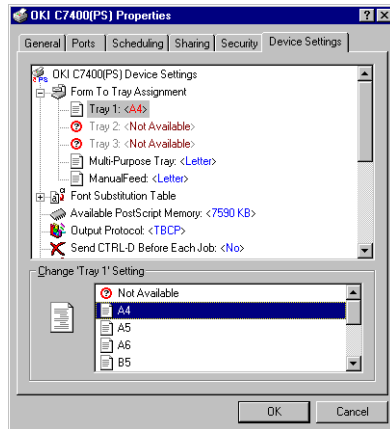


3. Click on the [Paper] tab.
4. Select the required paper size from [Size].
5. Select the required paper feed from [Source].
6. Select the required paper thickness from [Media Type].
7. Click on [OK] and close the printer dialog box.

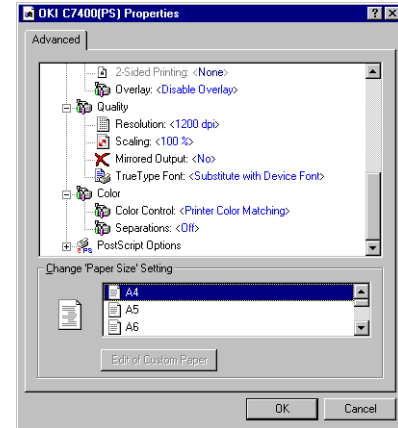
Windows NT 4.0

PostScript

1. Click on [Start] - [Settings] - [Printers].
2. Highlight the printer name and click on [File] then [Properties].
3. Click on [Device Settings] tab.



4. Highlight the required paper feed in [Form To Tray Assignment] and select the paper size from the list.
5. Click on [OK] and close the printer dialog box.



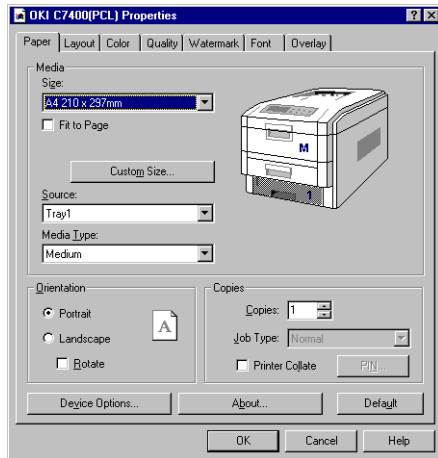
6. Open the software application being used.
7. Click on [File] - [Print], then click on [Properties] button.
8. Select the required paper settings for [Paper Size], [Paper Source] and [Paper Type].
9. Click [OK] twice to print the document.

Note 1: *If [Automatically Select] is selected for paper source, the correct paper tray is automatically selected as the paper feed.*

Note 2: If [Printer Setting] is selected for paper type, make sure the printer has been set to the correct media type.

PCL

1. Open the software application being used.
2. Click on [File] - [Print], then click on [Properties] button.
3. Click on the [Paper] tab.

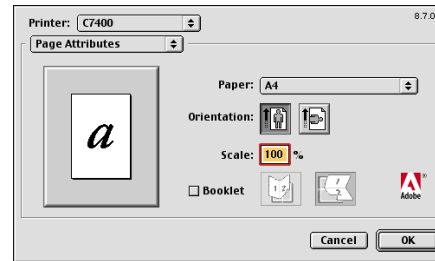


4. Select the required paper size from [Size].

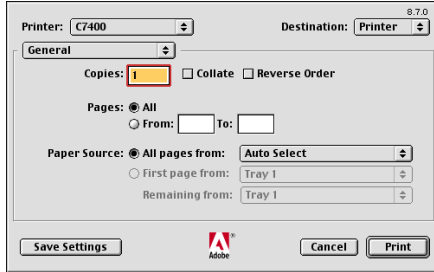
5. Select the required paper feed from [Source].
6. Select the required paper thickness from [Media Type].
7. Click [OK] twice to print the document.

Macintosh

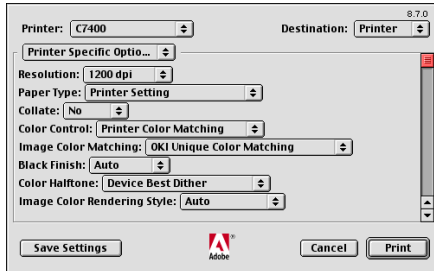
1. Click on [File] - [Page Setup].



2. In [Page Setup] select the required page size and orientation.
3. Click on [OK].
4. Click on [File] - [Print Window].



5. Select the required paper feed mode from [Feed].
6. Select [Printer Specific Options] from the drop down list.



7. Select the required media type from [Paper Type].
8. Click on [Save Settings] to save the printer driver settings or click on [Print] to print the document.

Printer settings

Confirming current settings

Current MENU settings can be confirmed by printing a menu map.

1. Press **Menu (0)** button to access the INFORMATION MENU. (If the optional hard disk drive is installed, you will need to press **Menu (0)** twice.)
2. Press **Select (3)** button and confirm PRINT MENU MAP is displayed on the LCD.
3. Press **Select (3)** button to print the menu map. Printer returns to online status when menu map is printed.

Changing settings

1. Press **Menu (0)** button until the required menu is displayed, then press **Select (3)** button.
2. Press **Item (1)** or **(5)** button until the required item is displayed.
3. Press **Value (2)** or **(6)** button until the required value is displayed.

4. Press **Select (3)** button and an asterisk (*) appears to the right of the value to show that value has been selected.
5. Press **Online (4)** button to return the printer to online status.

List of menu settings

Listed in the following table are the available printer settings. The default settings for the printer are in **bold italic** text.

Item	Value	Description
PRINT JOBS MENU		
Enter password	****	Sets password of 4 digits (0 – 7) for secure printing
Select job	No jobs; All jobs; File name 1 to nn	Selects printing job for secure printing
INFORMATION MENU		
Print menu map	Execute	Prints menu list.
Print file list	Execute	Prints job file list.
Print PCL font	Execute	Prints PCL font list.
Print PS font	Execute	Prints PostScript font list
Print demo1 to 32	Execute	Prints demonstration page
Print error log	Execute	Prints error log.
SHUTDOWN MENU		
Shutdown start	Execute	Shuts down sequence for the printer and is recommended to be used when the hard disk is fitted to prevent any loss of data.
PRINT MENU		
Copies	<i>1</i> to 999	Sets number of copies.
Duplex	On; Off	Specifies two-sided (duplex) printing if optional duplex unit is installed.
Binding	Long edge ; Short edge	Sets binding for duplex printing. Only displayed if duplex is On.
Paper feed	Tray 1 ; Tray 2; Tray 3; MP Tray	Selects source of paper feed. Tray 2 and Tray 3 only displayed if fitted.
Auto tray switch	On ; Off	Automatic switching to next tray when tray in use empties.
Paper size check	Enable ; Disable	Specifies to check paper size.

Item	Value	Description
Priority tray	<i>None</i> ; MP tray	Prioritizes multipurpose paper tray.
Resolution	600 dpi ; 1200 dpi; Quick 1200 dpi	Selects print resolution.
Mono-print speed	<i>Auto</i> ; Colour speed; Normal speed	Selects monochrome printing speed.
Orientation	<i>Portrait</i> ; Landscape	Sets page orientation for printing.
Line per page	5 to 128 (64)	Sets the number of lines per page.
Edit size	<i>Cassette size</i> ; Letter; Executive; Legal 14; Legal 13.5; Legal 13; A4; A5; A6; B5; Custom; Com-9 envelope; Com-10 envelope; Monarch envelope; DL Envelope; C5 Envelope; C4 Envelope	Cassette size is selected when using standard sized paper in the paper tray. Edit size is only used when printing one page size onto a different paper size, e.g. A6 onto A4, edit size would be set to A6, but actual paper in paper tray is A4.
MEDIA MENU		
Tray 1 mediatype	<i>Plain</i> ; Letterhead; Transparency; Bond; Recycled; Card stock; Rough	Selects the paper type for Tray 1.
Tray 2 mediatype Tray 3 mediatype	<i>Plain</i> ; Letterhead; Bond; Recycled; Card stock; Rough	Selects the paper type for the selected paper tray. Tray 2 and Tray 3 only displayed if fitted.
Tray 1 mediaweight Tray 2 mediaweight Tray 3 mediaweight	Light; Medium light; Medium ; Medium heavy; Heavy; Ultra heavy	Sets the paper weight for the selected paper tray. Tray 2 and Tray 3 only displayed if fitted.
MP tray papersize	A4 ; A5; A6; B5; Legal 14; Legal 13.5; Legal 13; Letter; Executive; Custom; Com-9 envelope; Com-10 envelope; Monarch envelope; DL Envelope; C5 Envelope; C4 Envelope	Sets the paper size for the multipurpose paper tray.
MP tray mediatype	<i>Plain</i> ; Letterhead; Transparency; Labels; Bond; Recycled; Card stock; Rough; Usertype 1 to 5	Selects the paper type for multipurpose paper tray. User type 1 to 5 are only displayed if they have been registered.
MP tray mediaweight	Light; Medium light; Medium ; Medium heavy; Heavy; Ultra heavy	Sets the paper weight for multipurpose paper tray.
Unit of measure	<i>inches</i> ; millimetres	Sets the units of measurement for custom paper size.

Item	Value	Description
x dimension	3 inches to 8.5 inches 76 mm to 216 mm (210 mm)	Sets the dimensions of custom paper. Only displays the units of measurement set in Units of measure. For these dimensions to work, the MP tray paper size must be set custom.
y dimension	5 inches to 35.5 inches (11 inches) 127 mm to 900 mm (297 mm)	
COLOUR MENU		
True black	Off ; On	Selects to print true black (CMYK) or from black toner only.
Colour balance adjust	Print pattern; Select pattern 1 to 18	Selects pattern to be printed for colour balance adjustment.
Auto registration	On ; Off	Specifies to carry out colour correction automatically.
Adjust registration	Print pattern	Prints pattern for correction and adjustment of colour registration.
Adjust registration #1 to #9	-7 to 0 to +7	Enter value of adjustment for colour registration. Can only be carried out with auto registration set to off.
SYSTEM CONFIG MENU		
Power save delay time	5 min; 15 min; 30 min; 60 min ; 240 min	Sets the time before printer enters power save mode.
Personality	Auto emulation ; PCL; AdobePostScript	Selects the printer emulation language.
Clearable warning	On ; Job	PCL emulation: Sets the time before deleting error messages. If On, press Error Delete switch to display error. If Job, error remains displayed until next print job is received. PS emulation: Error messages are only shown during job regardless of setting.
Auto continue	On; Off	Sets the printer to automatically recover after a memory overflow or print overrun.
Manual timeout	60 sec ; 30 sec; Off	Sets the time between requesting paper is inserted and when the print job is cancelled should paper not be inserted. Only works in PostScript mode.
Wait timeout	Off; 5 sec to 300 sec (90 sec)	Sets the time between receiving the last byte of data and the page being automatically ejected.
Low toner	Continue ; Stop	If Continue allows printing to continue when Low toner is displayed. If Stop is selected when Low toner is displayed, the printer goes off line.

Item	Value	Description
Jam recovery	On ; Off	Sets whether or not printing will continue after a paper jam has been cleared. If set to off, the print job that was being printed when the paper jam occurred will be cancelled after clearing the paper jam.
Error report	On; Off	Prints an error report when internal error occurs when set to On.
Language	English; German; French; Italian; Spanish; Swedish; Norwegian; Danish; Dutch; Turkish; Portuguese; Polish	Selects the printer display language.
PCL EMULATION		
True black	Off ; On	Selects to print true black (CMYK) or from black toner only.
Font source	Resident ; Downloaded	Selects location of font used. Downloaded only appears if fonts have been downloaded to printer.
Font No.	I000 to I083	Selects font number to use.
Font pitch	0.44 cpi to 99.99 cpi (10.00 cpi)	Sets the font width in characters per inch. Only displayed if font is a fixed spacing outline font.
Font height	4.00 pt to 999.75 pt (12.00 pt)	Sets the font point size. Only displayed if font is a relative spacing outline font.
Symbol set	PC-8	Selects character symbol set
A4 print width	78 column ; 80 column	Selects the number of characters in a line before automatic return.
White page skip	Off ; On	Selects not to print pages that contain no data.
CR function	CR ; CR+LF	Sets functionality on receipt of CR code.
LF function	LF ; LF+CR	Sets functionality on receipt of LF code.
Print margin	Normal ; 1/5 inch; 1/6 inch	Sets printable paper area.
PARALLEL MENU		
Parallel	Enable ; Disable	Selects parallel interface.
Bi-direction	Enable ; Disable	Selects bi-directional communication
ECP	Enable ; Disable	Selects ECP mode.
ACK width	Narrow (0.5μs) ; Medium (1.0μs); Wide (3.0μs)	Sets ACK width for compatible reception.

Item	Value	Description
ACK/Busy timing	ACK-in-Busy ; ACK-while-Busy	Sets output order for ACK signal and busy signal during compatible reception.
I-Prime	3 micron sec; 50 micron sec; Disable	Sets or disables I-Prime signal.
USB MENU		
USB	Enable ; Disable	Selects USB interface.
Soft reset	Enable ; Disable	Selects use of soft reset command.
NETWORK MENU (only if network card is fitted)		
TCP/IP	Enable ; Disable	Selects TCP/IP protocol.
Netware	Enable ; Disable	Selects Netware protocol.
EtherTalk	Enable ; Disable	Selects EtherTalk protocol.
NetBEUI	Enable ; Disable	Selects NetBEUI protocol.
Frame type	Auto ; 802.2; 802.3	Selects Ethernet frame type.
DHCP/BOOTP	Enable ; Disable	Selects to assign IP address through DHCP/BOOTP.
RARP	Enable ; Disable	Selects to assign IP address through RARP.
IP address	xxx.xxx.xxx.xxx	Configures IP address of 12 alphanumeric characters.
Subnet mask	xxx.xxx.xxx.xxx	Configures subnet mask of 12 alphanumeric characters.
Gateway address	xxx.xxx.xxx.xxx	Configures gateway address of 12 alphanumeric characters.
Initialize	On; Off	Selects network initialization.
Print settings	On; Off	Selects printing of network menu map.
MEMORY MENU		
Receive buff size	Auto ; 0.5 Mb; 1 Mb; 2 Mb; 4 Mb; 8 Mb; 16 Mb; 32 Mb	Sets the size of the receive buffer and will depend on the amount of memory installed in the printer.
Resource save	Auto ; Off; 0.5 Mb; 1 Mb; 2 Mb; 4 Mb; 8 Mb; 16 Mb; 32 Mb	Set the size of the font cache area and will depend on the amount of memory installed in the printer.
Flash initialize	Execute	Initialises flash memory if fitted.
PS flash resize	1Mb; 0.5Mb; 1.5Mb; 0Mb	Changes the size of the flash memory area.

Item	Value	Description
DISK MAINTENANCE (only appears if hard disk is fitted)		
HDD initialize	Execute	Partitions hard disk and formats each partition.
Partition #1	Common; PCL ; PS	Sets usage of partition number 1.
Partition #2	Common ; PCL; PS	Sets usage of partition number 2.
Partition #3	Common; PCL; PS	Sets usage of partition number 3.
HDD formatting	Partition 1 ; Partition 2; Partition 3	Formats specified partition.
SYSTEM ADJUST MENU		
x adjust	0 mm ; +0.25 to +2.0 mm; - 2.0 to -0.25 mm	Adjusts overall print position horizontally in 0.20 increments.
y adjust	0 mm ; +0.25 to +2.0 mm; - 2.0 to -0.25 mm	Adjusts overall print position vertically in 0.20 increments.
Duplex x adjust	0 mm ; +0.25 to +2.0 mm; - 2.0 to -0.25 mm	Adjusts overall print position of print face horizontally in 0.20 increments.
Duplex y adjust	0 mm ; +0.25 to +2.0 mm; - 2.0 to -0.25 mm	Adjusts overall print position of print face vertically in 0.20 increments.
Tray 1 Legal 14	Legal 14 ; Legal 13.5	Sets tray 1 legal paper size.
Tray 2 Legal 14	Legal 14 ; Legal 13.5	Sets tray 2 legal paper size.
Tray 3 Legal 14	Legal 14 ; Legal 13.5	Sets tray 3 legal paper size.
PCL tray 2 ID#	1 - 59 (5)	Sets tray 2 number for PCL emulation.
PCL tray 3 ID#	1 - 59 (20)	Sets tray 3 number for PCL emulation.
PCL MP tray ID#	1 - 59 (4)	Sets MP tray number for PCL emulation.
MAINTENANCE MENU		
EEPROM reset	Execute	Initializes EEPROM for each unit.
Power save	Enable ; Disable	Selects power save mode when no input is received for a specified time. See also system adjust menu.
Paper black setting	0 ; +1; +2; -2; -1	Adjusts printing to compensate for quality deterioration resulting from temperature differences.
Paper colour setting	0 ; +1; +2; -2; -1	
Transpr black setting	0 ; +1; +2; -2; -1	
Transpr colour setting	0 ; +1; +2; -2; -1	

Item	Value	Description
USAGE MENU		
Total page count	nnnnnn	Shows total number of pages printed.
Tray 1 page count	nnnnnn	Shows number of pages printed from tray 1.
Tray 2 page count	nnnnnn	Shows number of pages printed from tray 2. Displayed if optional tray 2 is installed.
Tray 3 page count	nnnnnn	Shows number of pages printed from tray 3. Displayed if optional tray 3 is installed.
MP tray page count	nnnnnn	Shows number of pages printed from multipurpose paper tray.
Black drum usage	nnnnnn images	Displays ratio of usage of black image drum.
Cyan drum usage	nnnnnn images	Displays ration of usage of cyan image drum.
Magenta drum usage	nnnnnn images	Displays ratio of usage of magenta image drum.
Yellow drum usage	nnnnnn images	Displays ratio of usage of yellow image drum.
Belt usage	nnnnnn prints	Displays ratio of usage of transfer belt.
Fuser usage	nnnnnn prints	Displays ratio of usage of fuser roller.
Black toner	10K = xxx%; 5K = xxx%	Displays black toner remaining.
Cyan toner	15K = xxx%; 7.5K = xxx%	Displays cyan toner remaining.
Magenta toner	15K = xxx%; 7.5K = xxx%	Displays magenta toner remaining.
Yellow toner	15K = xxx%; 7.5K = xxx%	Displays yellow toner remaining.

Chapter 5 - Advanced Operations

Colour printing

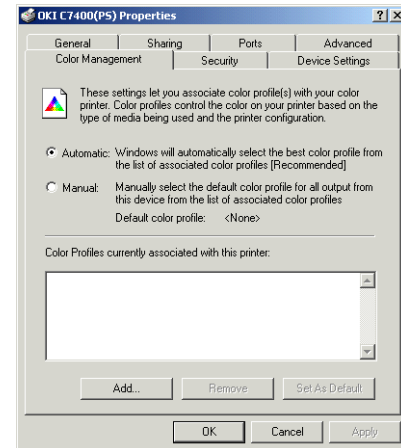
A monitor displays colours in RGB and the printer prints colours using CMYK, which creates disparity between the colour range that can be displayed and the colour range that can be printed. This disparity can be reduced by using the colour management facilities within the printer driver and help preserve consistency from data creation to printed output.

Software applications generally have their own colour matching and management facilities for display and printing. Please refer to the documentation for the software application on how to carry out colour matching and management from within the software. Please note that some software applications may overwrite the settings in the printer driver.

Note: *For further information on colour printing and the use of colour, please refer to the Colour Guide that can be found on the CD-ROM supplied with this printer.*

Windows 2000

1. Click on [Start] - [Settings] - [Printers].
2. Highlight the printer name and click on [File] then [Properties].
3. Click on the [Colour Management] tab.

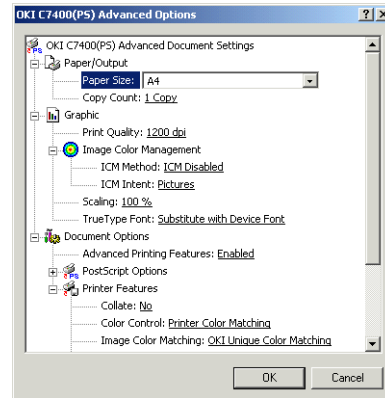
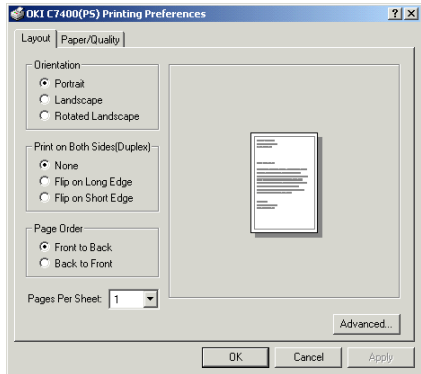


4. Select [Automatic] or [Manual] setting for colour matching.
5. If using [Manual] setting, click on the [Add] button and select the required colour profile from the list.
6. For Windows 2000 PostScript printer driver:
 - (a) Click on [General] tab, [Printing Preferences] button, then [Layout] tab.

OR

Click on [Advanced] tab, [Printing Defaults] button, then [Layout] tab.

- (b) Click on [Advanced] button.



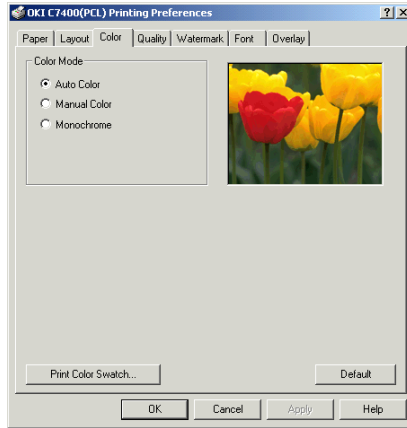
- (c) Select the required image colour management from [Graphic].
- (d) Select the required colour control and matching from [Printer Features].
- (e) Click on [OK] three times and close the printer dialog box.

7. For Windows 2000 PCL printer driver:

- (a) Click on [General] tab, [Printing Preferences] button, then [Colour] tab.

OR

Click on [Advanced] tab, [Printing Defaults] button, then [Colour] tab.

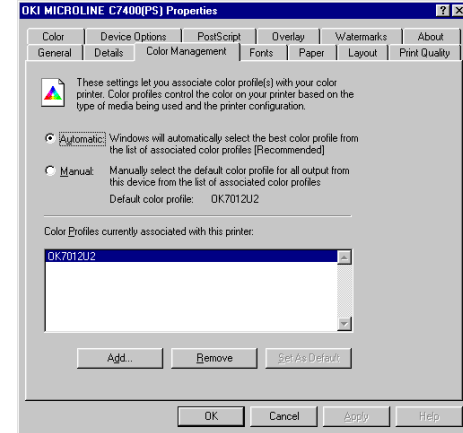


- (b) Select the required printing and colour mode from [Colour Mode].
- (c) Click on [OK] twice and close the printer dialogue box.

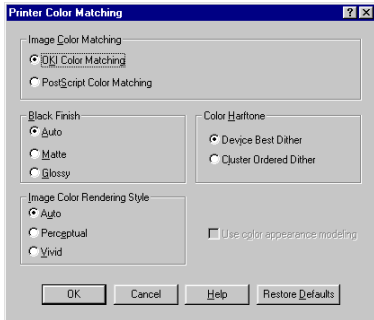
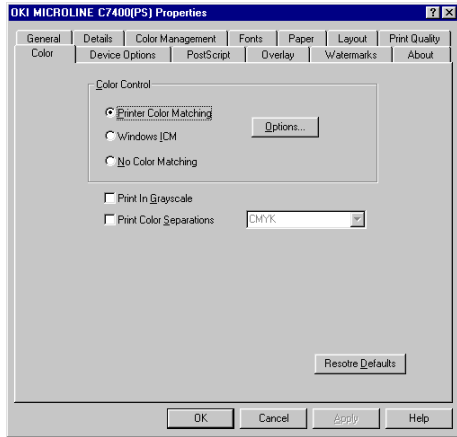
Windows 95/98/Me

1. Click on [Start] - [Settings] - [Printers].
2. Highlight the printer name and click on [File] then [Properties].

3. Click on the [Colour Management] tab.



4. Select [Automatic] or [Manual] setting for colour management.
5. If using [Manual] setting, click on the [Add] button and select the required colour profile from the list.
6. For Windows 95/98/Me PostScript printer driver:
 - (a) Click on the [Colour] tab.
 - (b) Select the required colour matching from [Colour Control].



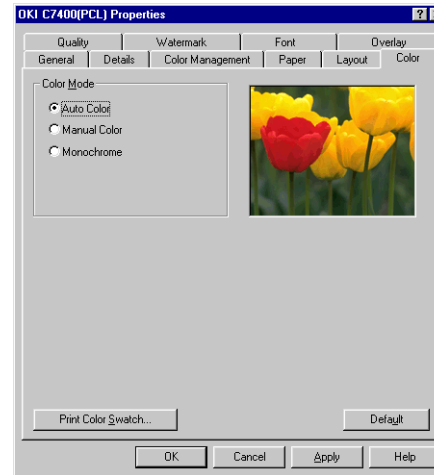
(c) Click on [Options] button and select the required setting for colour matching.

(d) Click on [OK] twice and close the printer dialogue box.

7. For Windows 95/98/Me PCL printer driver:

(a) Click on the [Colour] tab.

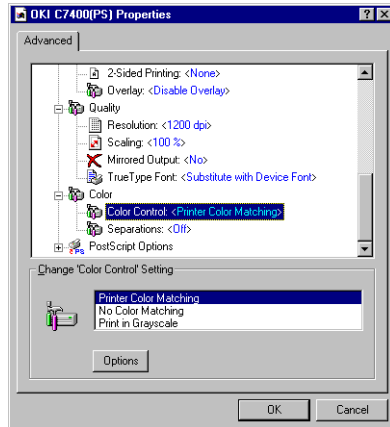
(b) Select the required printing and colour mode from [Colour Mode].



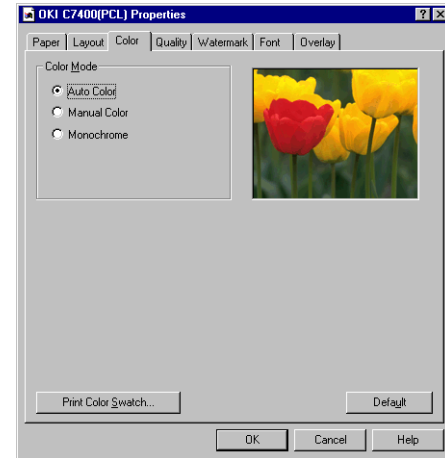
(c) Click on [OK] twice and close the printer dialogue box.

Windows NT4.0

1. Open the software application being used.
2. Click on [File] - [Print], then click on [Properties] button.
3. For Windows NT 4.0 PostScript printer driver:
 - (a) Highlight [Colour Control] and select the required setting from the list.
 - (b) Click on [Options] button and select the required settings for colour matching.
 - (c) Click [OK] three times to print the document.



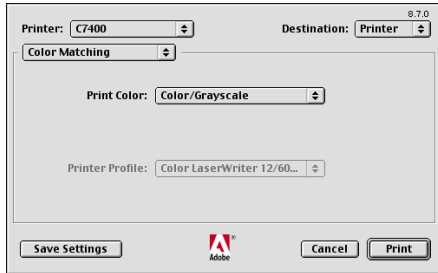
4. For Windows NT 4.0 PCL printer driver:
 - (a) Click on [Colour] tab and select the required print and colour setting from [Colour Mode].



- (b) Click [OK] twice to print the document.

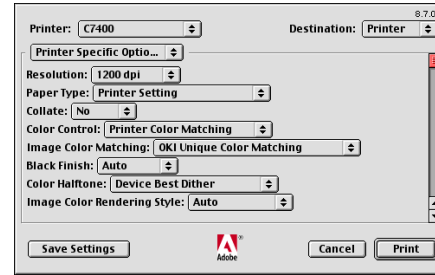
Macintosh

1. Click on [File] - [Print Window].
2. Select [Colour Matching] from the drop down selections.



3. Select the colour printing required from [Print Colour].
4. Select the printer profile required from [Printer Profile].

5. Select [Printer Specific Options] from the drop down selections and select the required settings from the various options for colour printing.



6. Click on [Save Settings] to save the printer driver settings or click on [Print] to print the document.

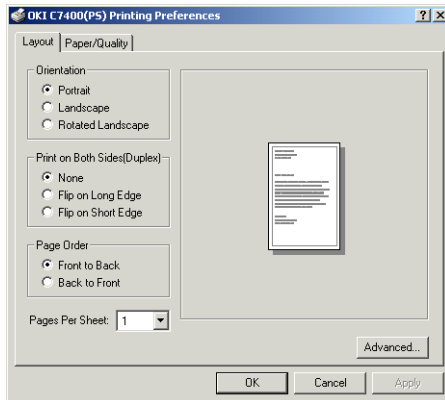
Multiple pages on one sheet

Windows 2000

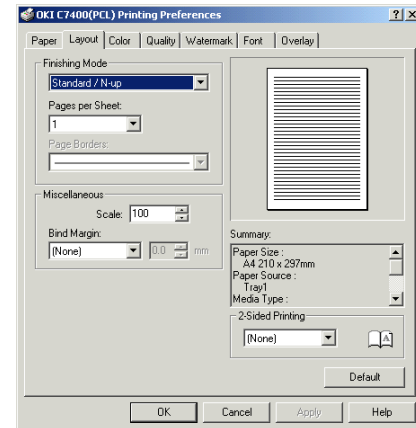
1. Click on [Start] - [Settings] - [Printers].
2. Highlight the printer name and click on [File] then [Properties].
3. Click on [General] tab, [Printing Preferences] button, then [Layout] tab.

OR

Click on [Advanced] tab, [Printing Defaults] button, then [Layout] tab.



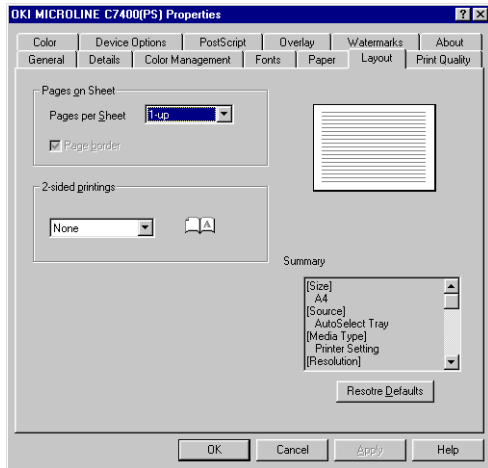
4. For Windows 2000 PostScript printer driver:
 - (a) Select number of pages per sheet from [Pages per Sheet] (16 pages per sheet max).
 - (b) Click on [OK] twice and close the printer dialogue box.
5. For Windows 2000 PCL printer driver:
 - (a) Select required number of pages per sheet from [Finishing Mode] (16 pages per sheet max).
 - (b) Select the required page border from [Page Borders].



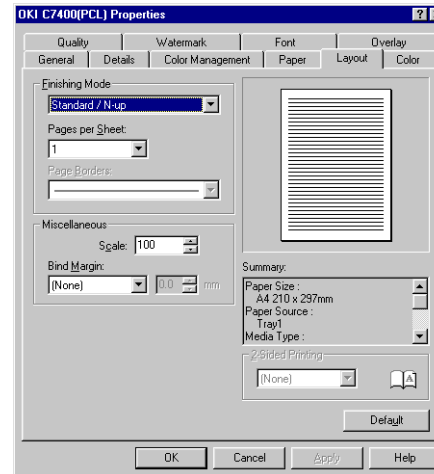
- (c) Click on [OK] twice and close the printer dialogue box.

Windows 95/98/Me

1. Click on [Start] - [Settings] - [Printers].
2. Highlight the printer name and click on [File] then [Properties].
3. Click on the [Layout] tab.
4. For Windows 95/98/Me PostScript printer driver:



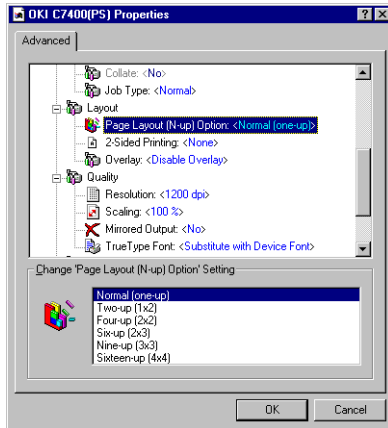
- (a) Select required number of pages per sheet from [Pages on Sheet] (16 pages per sheet max).
 - (b) Select if page border is required or not, then click on [OK] and close the printer dialogue box.
5. For Windows 95/98/Me PCL printer driver:
 - (a) Select required number of pages per sheet from [Finishing Mode] (16 pages per sheet max).



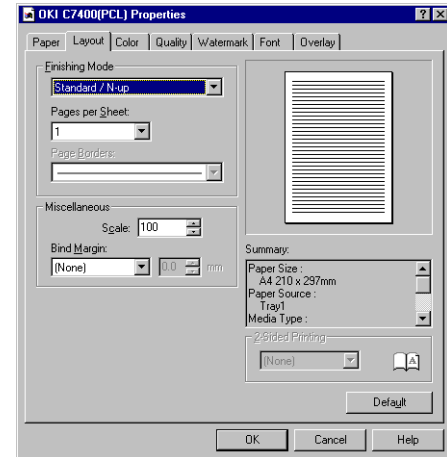
- (b) Select the required page border from [Page Borders], then click on [OK] and close the printer dialogue box.

Windows NT4.0

1. Open the software application being used.
2. Click on [File] - [Print], then click on [Properties] button.
3. For Windows NT 4.0 PostScript printer driver:
 - (a) Highlight [Page Layout (N-up) Option] and select the required setting from the list.



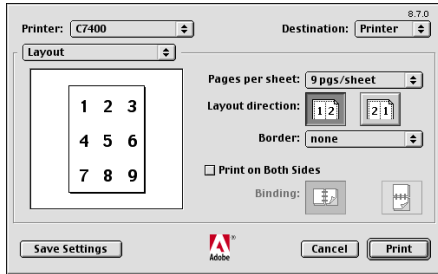
- (b) Click [OK] twice to print the document.
4. For Windows NT 4.0 PCL printer driver:
 - (a) Select required number of pages per sheet from [Finishing Mode] (16 pages per sheet max).



- (b) Select the required page border from [Page Borders].
- (c) Click on [OK] twice to print the document.

Macintosh

1. Click on [File] - [Print Window].
2. Select [Layout] from the drop down selections.



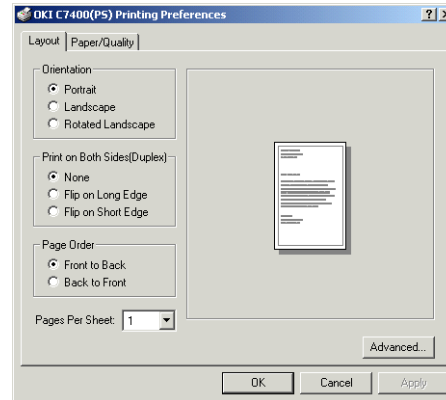
3. Select the required number of pages from [Pages per sheet] and printing order from [Layout direction].
4. Select the type of border from [Border].
5. Click on [Save Settings] to save the printer driver settings or click on [Print] to print the document.

Custom page sizes

Custom page sizes can only be printed from the multi purpose tray (manual feed). The printer setting for the multi purpose tray must be manually set to custom paper size before use. Width of a custom page size can be from 76.2 mm to 216 mm and length from 127 mm to 900 mm.

Windows 2000

1. Click on [Start] - [Settings] - [Printers].
2. Highlight the printer name and click on [File] then [Properties].



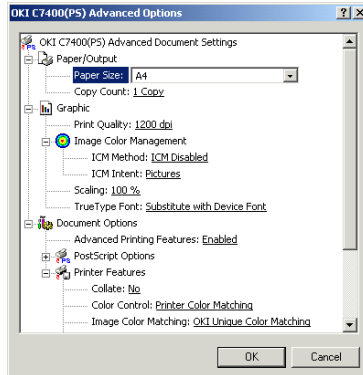
3. For Windows 2000 PostScript printer driver:

- (a) Click on [General] tab, [Printing Preferences] button, then [Layout] tab.

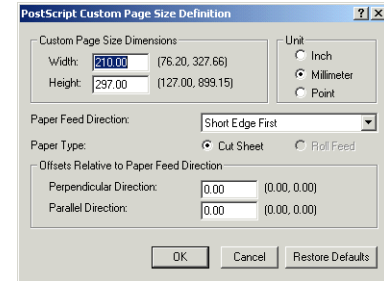
OR

Click on [Advanced] tab, [Printing Defaults] button, then [Layout] tab.

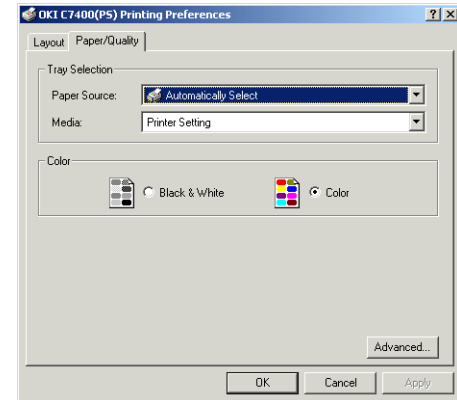
- (b) Click on [Advanced] button.



- (c) In [Paper Size], select [PostScript Custom Page Size].
- (d) Enter the width and height measurements in [Custom Page Size Dimensions], then select [Paper Feed Direction] if necessary.



- (e) Click on [OK] twice.
- (f) Click [Paper/Quality] tab and select the multi purpose tray in [Paper Source].



(g) Click on [OK] twice and close the printer dialogue box.

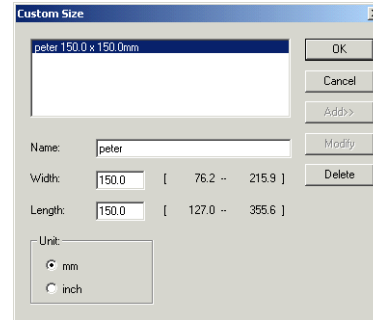
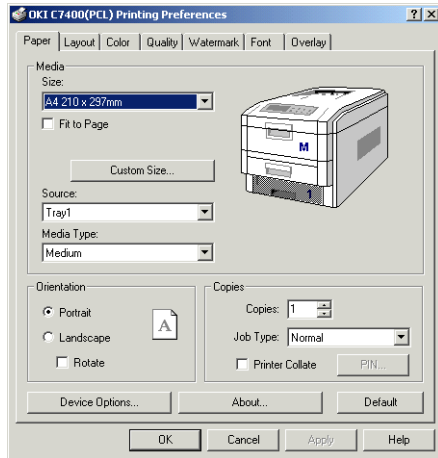
4. For Windows 2000 PCL printer driver:

(a) Click on [General] tab, [Printing Preferences] button, then [Paper] tab.

OR

Click on [Advanced] tab, [Printing Defaults] button, then [Paper] tab.

(b) Click on the [Custom Size] button.



(c) Type in the name of the custom paper size in the [Name] box then enter the width and length measurements.

(d) Click on [Add] button, then click on [OK].

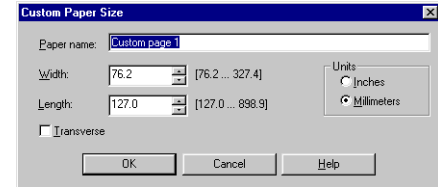
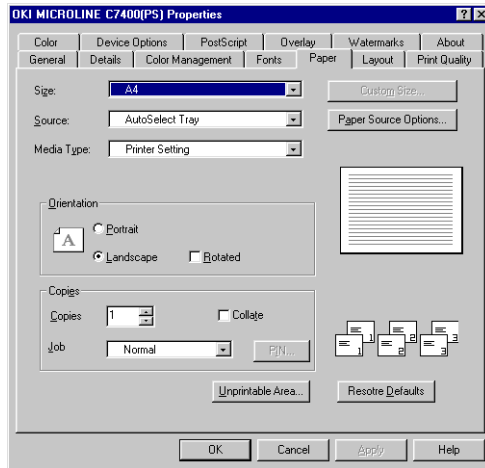
(e) Select the custom paper size in the [Size] box.

(f) Click on [OK] twice and close the printer dialogue box.

Note: The custom paper size is added to the bottom of paper size list and up to 32 custom paper sizes can be defined.

Windows 95/98/Me

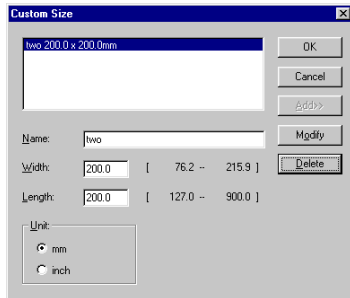
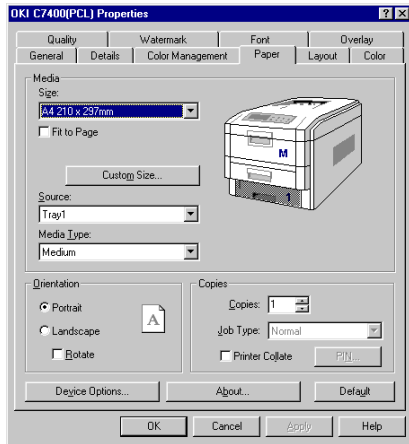
1. Click on [Start] - [Settings] - [Printers].
2. Highlight the printer name and click on [File] then [Properties].
3. For Windows 95/98/Me PostScript printer driver:
 - (a) Click on the [Paper] tab, then select [Custom page 1, 2, or 3].
 - (b) Click on [Custom Size] button.



- (c) Type in the required name for the custom paper size in the [Paper name] box, then enter the width and length measurements.
- (d) Click on [OK].
- (e) Check that the name of the custom paper size appears in the [Size] box, then click [OK] and close the printer dialogue box.

Note: A maximum of three custom paper sizes can be defined.

4. For Windows 95/98/Me PCL printer driver:
 - (a) Click on the [Paper] tab, then the [Custom Size] button.
 - (b) Type in the name of the custom paper size in the [Name] box then enter the width and length measurements.
 - (c) Click on [Add] button, then click on [OK].

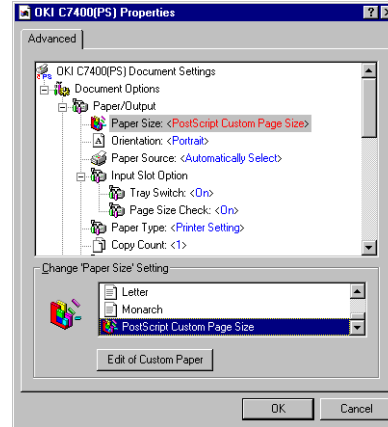


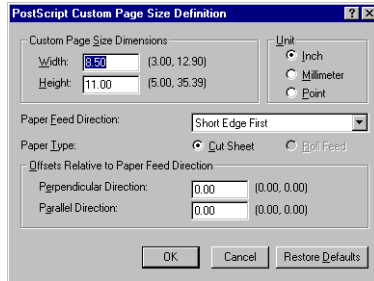
- (d) Select the custom paper size in the [Size] box, then click on [OK] and close the printer dialogue box.

Note: The custom paper size is added to the bottom of paper size list and up to 32 custom paper sizes can be defined.

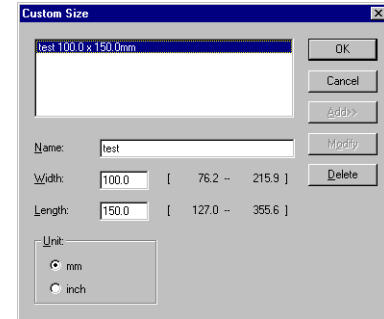
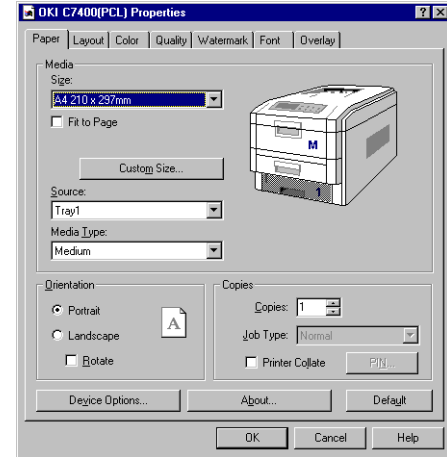
Windows NT4.0

1. Open the software application being used.
2. Click on [File] - [Print], then click on [Properties] button.
3. For Windows NT 4.0 PostScript printer driver:
 - (a) Highlight [Paper Size] and select [PostScript Custom Page Size].





- (b) Click on [Edit of Custom Paper] and the details of the custom page size and click [OK].
 - (c) Click [OK] twice to print.
4. For Windows NT 4.0 PCL printer driver:
- (a) Click on the [Paper] tab, then the [Custom Size] button.
 - (b) Type in the name of the custom paper size in the [Name] box then enter the width and length measurements.
 - (c) Click on [Add] button, then click on [OK].
 - (d) Select the custom paper size in the [Size] box.

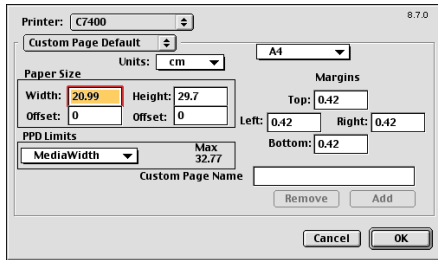


- (e) Click on [OK] twice to print the document.

Note: The custom paper size is added to the bottom of paper size list.

Macintosh

1. Click on [File] - [Page Setup].
2. Open [Custom Page Default] from the drop down selections.

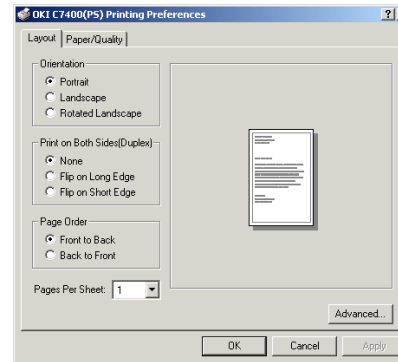


3. Enter the required page measurements in [Paper Size] and [Margins].
4. Enter a name for the custom page in [Custom Page Name], then click on [Add] button.
5. Select [Page Attributes] from the drop down selection.
6. Select the custom page from the drop down list in [Paper] and click on [OK].

Printing resolution

Windows 2000

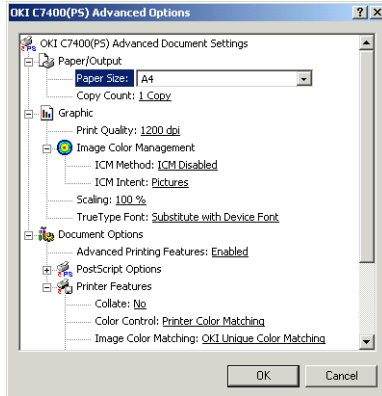
1. Click on [Start] - [Settings] - [Printers].
2. Highlight the printer name and click on [File] then [Properties].
3. For Windows 2000 PostScript printer driver:
 - (a) Click on [General] tab, [Printing Preferences] button, then [Layout] tab.



OR

Click on [Advanced] tab, [Printing Defaults] button, then [Layout] tab.

- (b) Click on [Advanced] button, then select the required printing resolution from [Print Quality].



- (c) Click on [OK] three times and close the printer dialogue box.

4. For Windows 2000 PCL printer driver:

- (a) Click on [General] tab, [Printing Preferences] button, then [Quality] tab.

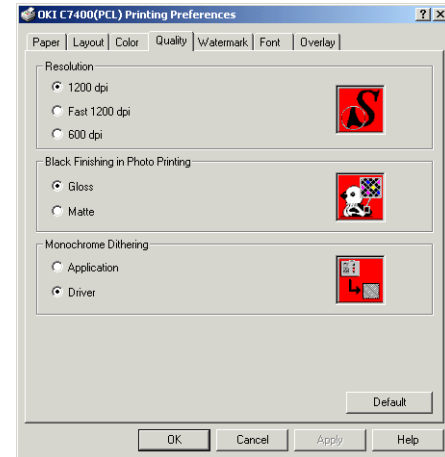
OR

Click on [Advanced] tab, [Printing Defaults] button, then [Quality] tab.

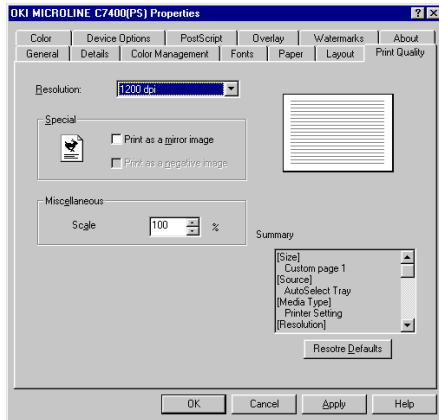
- (b) Select the required printing resolution from [Resolution].
- (c) Click [OK] twice and close the printer dialogue box.

Windows 95/98/Me

- 1. Click on [Start] - [Settings] - [Printers].

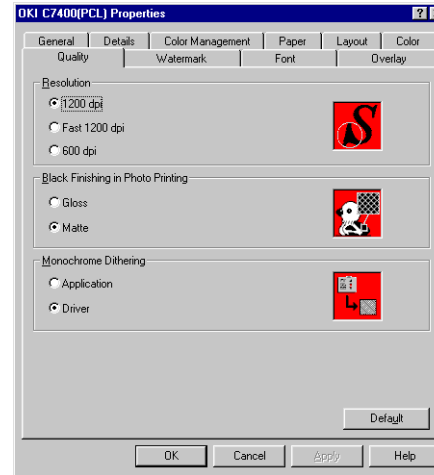


2. Highlight the printer name and click on [File] then [Properties].
3. For Windows 95/98/Me printer driver:
 - (a) Click on the [Print Quality] tab.
 - (b) Select the required printing resolution from [Resolution].
 - (c) Click [OK] and close the printer dialogue box.



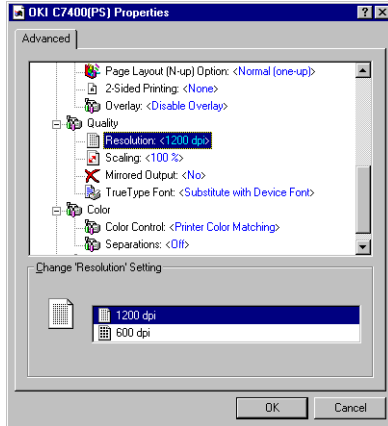
4. For Windows 95/98/Me PCL printer driver:
 - (a) Click on the [Quality] tab.

- (b) Select the required printing resolution from [Resolution].
- (c) Click [OK] and close the printer dialogue box.



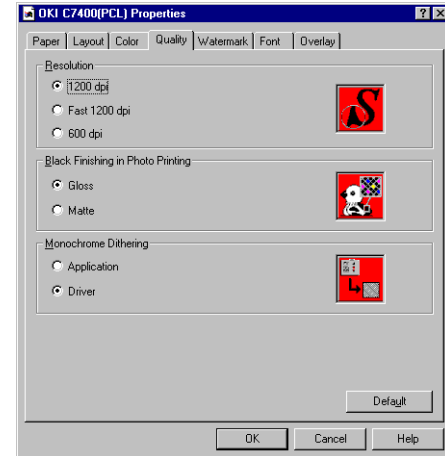
Windows NT4.0

1. Open the software application being used.



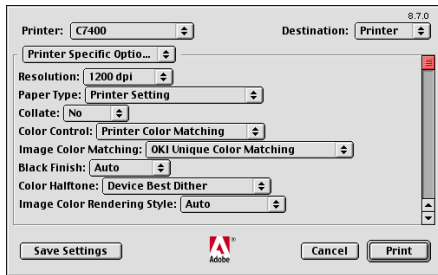
2. Click on [File] - [Print], then click on [Properties] button.
3. For Windows NT 4.0 PostScript printer driver:
 - (a) Highlight [Resolution] and select the required setting from the list.
 - (b) Click [OK] twice to print the document.

4. For Windows NT 4.0 PCL printer driver:
 - (a) Click on the [Quality] tab.
 - (b) Select the required printing resolution from [Resolution].
 - (c) Click [OK] twice to print the document.



Macintosh

1. Click on [File] - [Print Window].
2. Select [Printer Specific Options] from the drop down selections.
3. Select the required printing resolution from [Resolution].
4. Click on [Save Settings] to save the printer driver settings or click on [Print] to print the document.



Duplex printing

Duplex printing can only be carried out on standard paper sizes and paper weights between 74 and 104 g/m² (refer to Tables 1 and 2 in Chapter 4).

The optional duplex unit must be fitted to the printer before duplex printing can be carried out. Refer to Chapter 8 Optional Accessories on how to install the duplex unit if it is not fitted to the printer.

Paper must be loaded into the paper tray with the print side facing upwards. The multi purpose tray cannot be used for duplex printing.

Windows 2000

1. Click on [Start] - [Settings] - [Printers].
2. Highlight the printer name and click on [File] then [Properties].
3. For Windows 2000 PostScript printer driver:
 - (a) Click on the [Device Settings] tab.
 - (b) Check that duplex is installed in [Installable Options].
 - (c) Click on [General] tab, [Printing Preferences] button, then [Layout] tab.

OR

Click on [Advanced] tab, [Printing Defaults] button, then [Layout] tab.

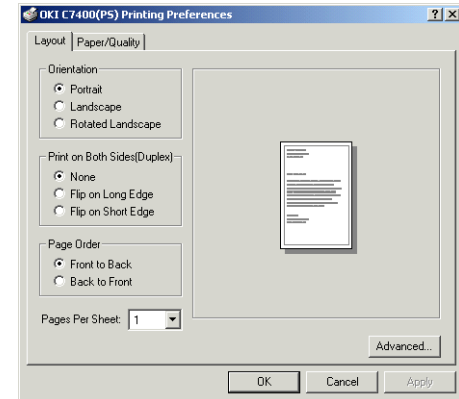
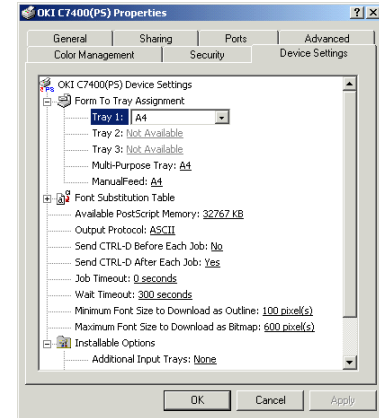
- (d) Select long or short edge from [Print on Both Sides (Duplex)].
 - (e) Click on [OK] twice and close the printer dialogue box.
4. For Windows 2000 PCL printer driver:

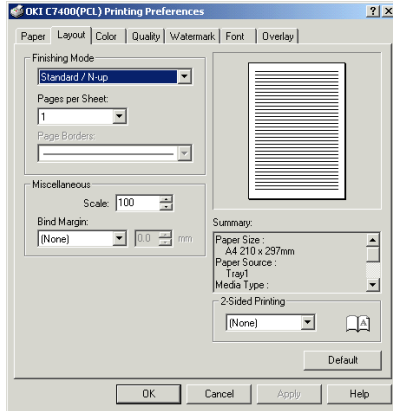
- (a) Click on [General] tab, then [Printing Preferences] button.

OR

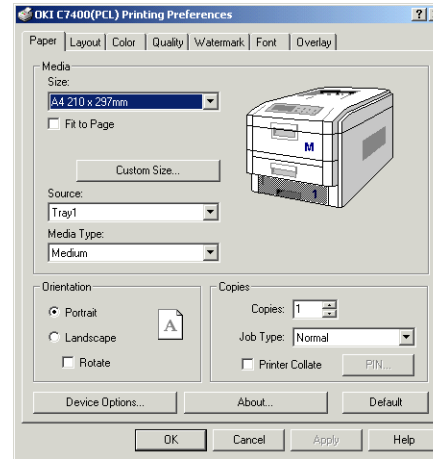
Click on [Advanced] tab, then [Printing Defaults] button.

- (b) Click on the [Paper] tab, then the [Device Options] button.
- (c) Check [Duplex Option Unit] in [Available Options] and click on [OK].
- (d) Click on [Layout] tab.
- (e) Select long or short edge from [2-sided printing].



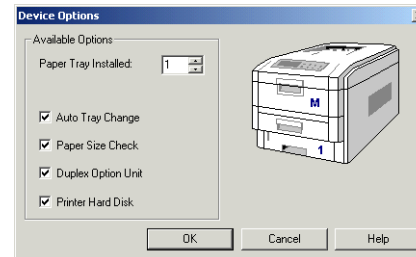


(f) Click [OK] twice and close the printer dialogue box.

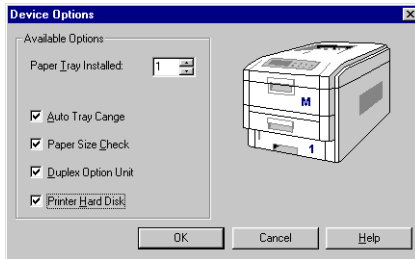


Windows 95/98/Me

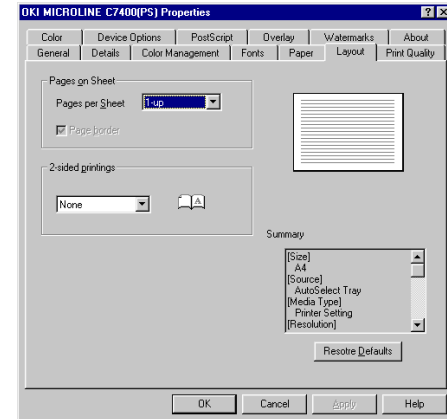
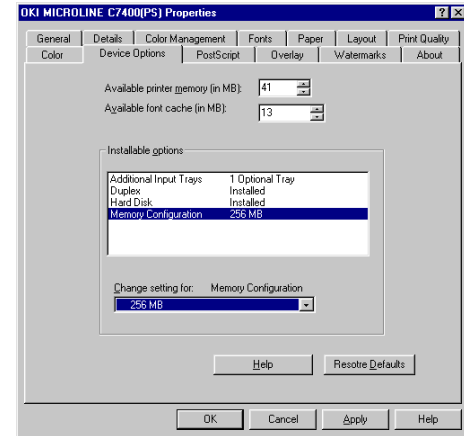
1. Click on [Start] - [Settings] - [Printers].
2. Highlight the printer name and click on [File] then [Properties].
3. For Windows 95/98/Me PostScript printer driver:
 - (a) Click on the [Device Options] tab.

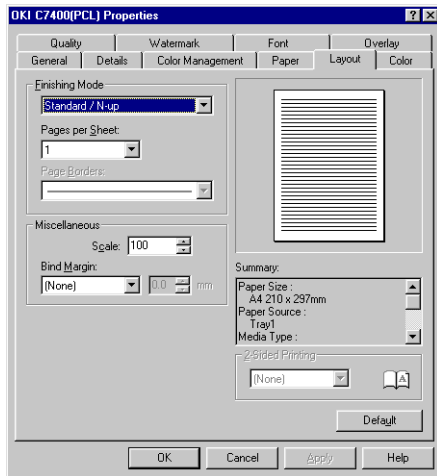


- (b) Check that duplex is installed in [Installable Options].
 - (c) Click on [Layout] tab.
 - (d) Select long or short edge from [2-sided printing].
 - (e) Click [OK] and close the printer dialogue box.
4. For Windows 95/98/Me PCL printer driver:
- (a) Click on the [Paper] tab, then the [Device Options] button.
 - (b) Check [Duplex Option Unit] in [Available Options] and click on [OK].



- (c) Click on [Layout] tab.



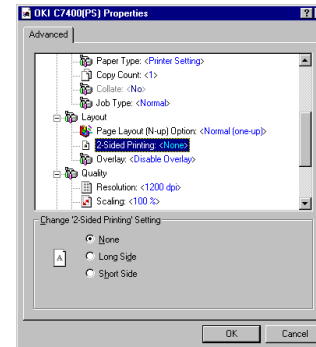
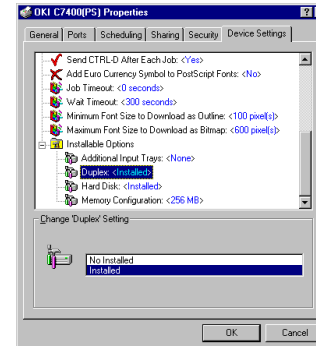


- (d) Select long or short edge from [2-sided printing].
- (e) Click [OK] and close the printer dialogue box.

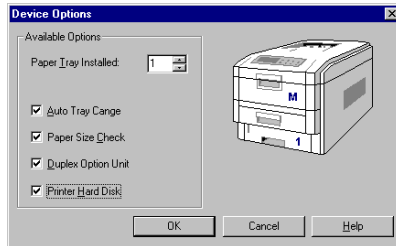
Windows NT4.0

1. Click on [Start] - [Settings] - [Printers].
2. Highlight the printer name and click on [File] then [Properties].

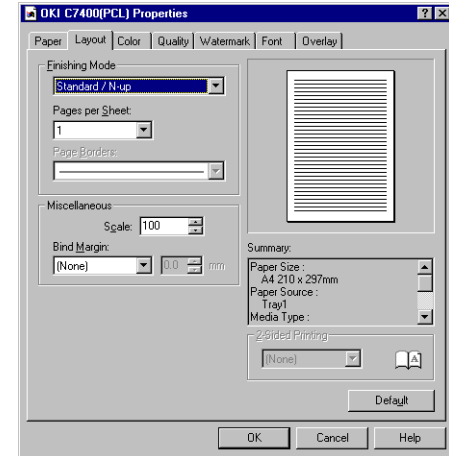
3. For Windows NT 4.0 PostScript printer driver:
 - (a) Highlight [Duplex] and select [Installed] from the list.



- (b) Click [OK] and close the printer dialogue box.
 - (c) Open the software application being used.
 - (d) Click on [File] - [Print], then click on [Properties] button.
 - (e) Highlight [2-Sided Printing] and select long or short side from the list.
 - (f) Click [OK] twice to print the document.
4. For Windows NT 4.0 PCL printer driver:
- (a) Click on the [Paper] tab, then the [Device Options] button.
 - (b) Check [Duplex Option Unit] in [Available Options] and click on [OK].



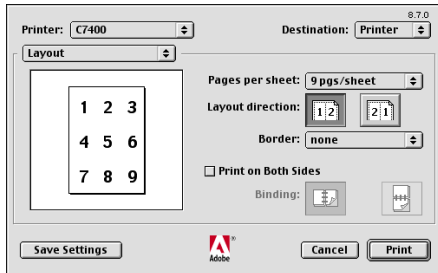
- (c) Click on [Layout] tab.



- (d) Select long or short edge from [2-sided printing].
- (e) Click [OK] twice to print the document.

Macintosh

1. Double click on the printer icon to open the printer dialogue.
2. Click on [File] - [Print Window].
3. Open [Layout] from the drop down selections.
4. Check [Print on Both Sides] and select which binding is required from [Binding].
5. Click on [Save Settings] to save the printer driver settings or click on [Print] to print the document.



Printing booklets

The optional duplex unit must be fitted to the printer before booklet printing can be carried out. Refer to Chapter 8 Optional Accessories on how to install the duplex unit if it is not fitted to the printer.

Note 1: *Printing of booklets can only be carried out using Windows 95/98/Me or NT 4.0 PCL printer driver (not network connection) and Macintosh printer driver.*

Note 2: *Some software applications may not support booklet printing.*

Note 3: *The right-to-left setting allows a booklet to be printed for right to left reading, which is used in some languages.*

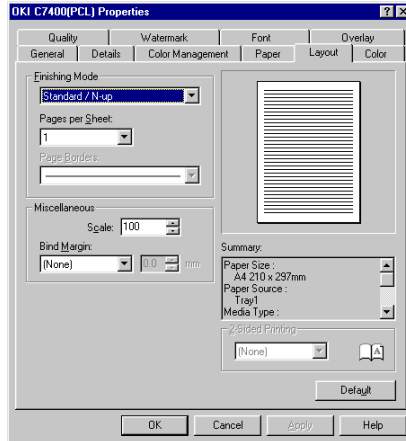
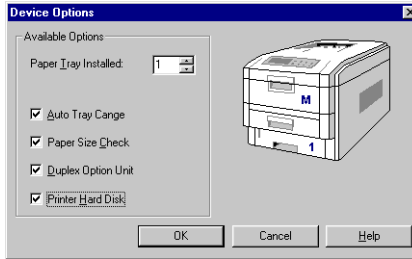
Windows 95/98/Me PCL

1. Click on [Start] - [Settings] - [Printers].
2. Highlight the printer name and click on [File] then [Properties].
3. Click on the [Paper] tab, then the [Device Options] button.
4. Check [Duplex Option Unit] in [Available Options] and click on [OK].

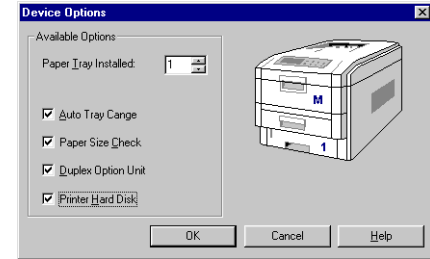
- Click [OK] and close the printer dialogue box.

Windows NT4.0 PCL

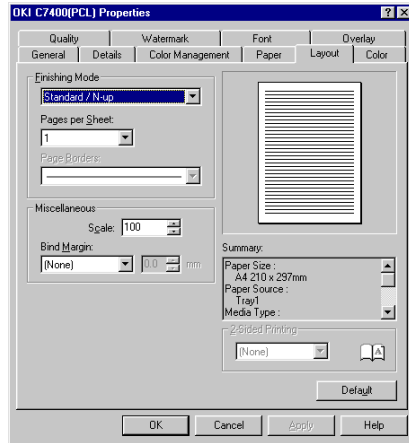
- Open the software application being used.
- Click on [File] - [Print], then click on [Properties] button.
- Click on the [Paper] tab, then the [Device Options] button.



- Click on [Layout] tab.
- Select [Booklet] and [Signature] from [Finishing Mode].



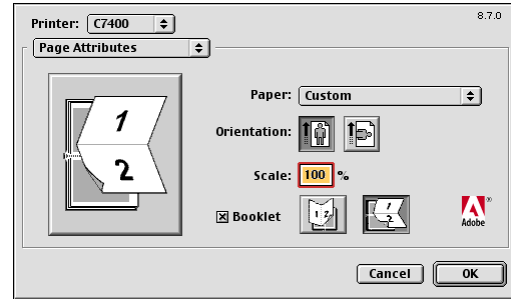
- Check [Duplex Option Unit] in [Available Options] and click on [OK].
- Click on [Layout] tab.



6. Select [Booklet] and [Signature] from [Finishing Mode].
7. Click [OK] and close the printer dialogue box.

Macintosh

1. Double click on the printer icon and click on [File] - [Page Setup].



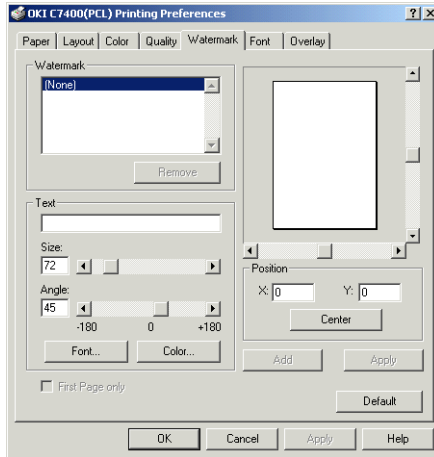
2. Check [Booklet] and select which binding is required and click on [OK].

Printing watermarks

Note: Watermarks cannot be printed using the PostScript printer driver in Windows 2000 or NT 4.0.

Windows 2000 PCL

1. Click on [Start] - [Settings] - [Printers].
2. Highlight the printer name and click on [File] then [Properties].



3. Click on [General] tab, [Printing Preferences] button, then [Watermark] tab.

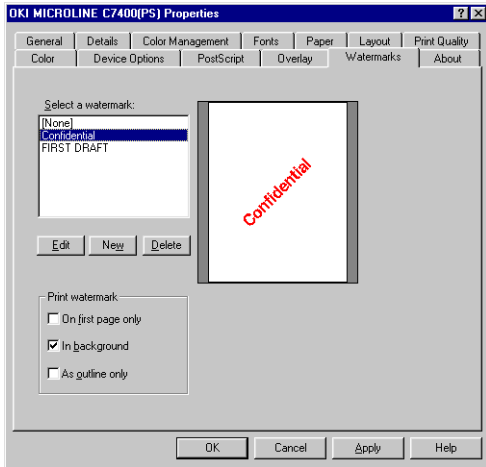
OR

Click on [Advanced] tab, [Printing Defaults] button, then [Watermark] tab.

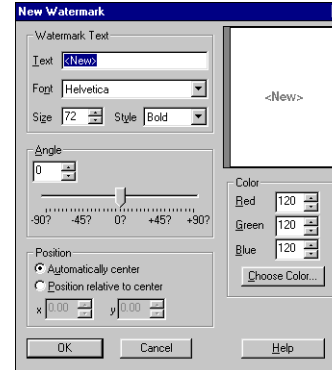
4. Select a watermark from the list in [Watermark].
5. To create a new watermark carry out the following:
 - (a) Type in the required text and select size and angle in [Text].
 - (b) Select [Font], [Colour] and [Position] of new watermark, then click on [Add].
6. Check [First Page Only] if watermark is to be printed on the first page of the document.
7. Click [OK] twice and close the printer dialogue box.

Windows 95/98/Me

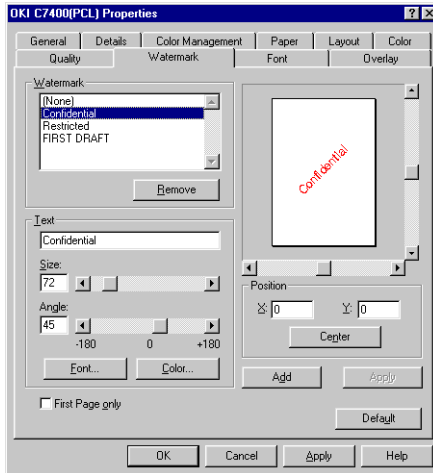
1. Click on [Start] - [Settings] - [Printers].
2. Highlight the printer name and click on [File] then [Properties].
3. Click on the [Watermark] tab.



4. For Windows 95/98/Me PostScript printer driver:
 - (a) Select a watermark from the list in [Select a watermark].
 - (b) To create a new watermark or edit an existing watermark, press the [New] or [Edit] button.
 - (c) Type in the required text and select font, size and style in [Watermark Text].
 - (d) Select [Angle], [Position] and [Colour] of new watermark, then click on [OK].



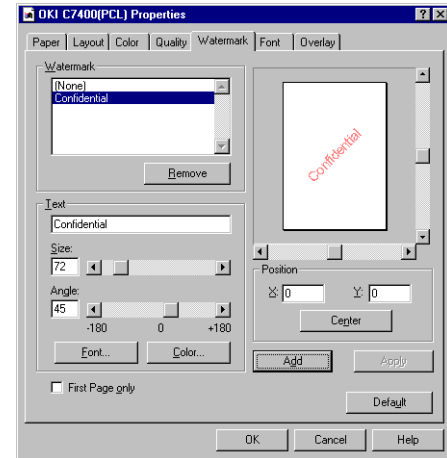
- (e) Select where and how the watermark is to be printed in [Print Watermark].
 - (f) Click [OK] and close the printer dialogue box.
5. For Windows 95/98/Me PCL printer driver:
 - (a) Select a watermark from the list in [Watermark].
 - (b) To create a new watermark, type in the required text and select size and angle in [Text].
 - (c) Select [Font], [Colour] and [Position] of new watermark, then click on [Add].



- (d) Check [First Page Only] if watermark is to be printed on the first page of the document.
- (e) Click [OK] and close the printer dialogue box.

Windows NT 4.0 PCL

1. Open the software application being used.
2. Click on [File] - [Print], then click on [Properties] button.

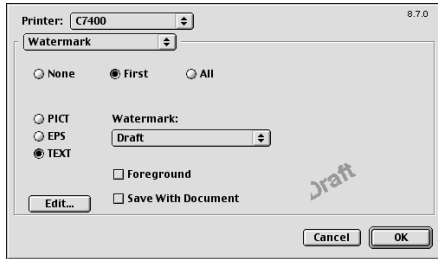


3. Click on the [Watermark] tab.
4. Select a watermark from the list in [Select a watermark].
5. To create a new watermark, type in the required text and select size and angle in [Text].
6. Select [Font], [Colour] and [Position] of new watermark, then click on [Add].
7. Check [First Page Only] if watermark is to be printed on the first page of the document.

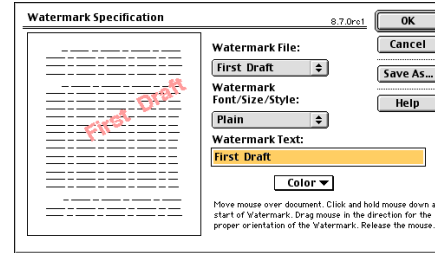
8. Click [OK] twice to print the document.

Macintosh

1. Double click on the printer icon and click on [File] - [Page Setup].
2. From the drop down list, select [Watermark].



3. To create a new watermark or edit an existing watermark as text:
 - (a) Click on [Text] and [Edit] button.
 - (b) Save the new or edited watermark and click on [OK].
4. To create a new watermark or edit an existing watermark as a PICT or EPS graphic:



- (a) Prepare or edit a graphic file in Macintosh Picture (PICT) or Encapsulated PostScript (EPS) format.
 - (b) Save and place the graphic in [System Folder] - [Initial Settings] - [Watermarks] folder.
5. Select on which pages the watermark is to be printed and select which type of watermark is to be used.
 6. Select the watermark from the drop down list in [Watermark] and click on [OK].

Collating

Note 1: If the software application being used has a collate print option, it is recommended to use only one collate option to prevent any conflicts in printing, i.e. collate from the software application or collate from the printer driver.

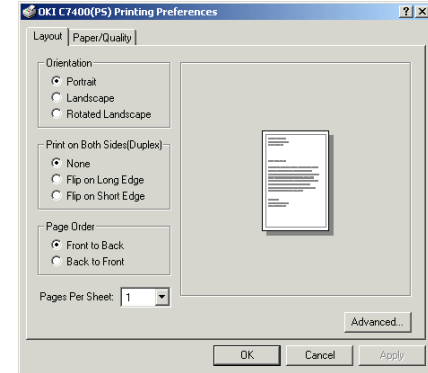
Note 2: The following instructions explain how to select collating using a printer driver.

Windows 2000

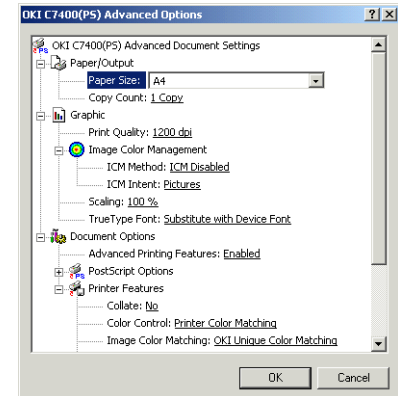
1. Click on [Start] - [Settings] - [Printers].
2. Highlight the printer name and click on [File] then [Properties].
3. For Windows 2000 PostScript printer driver:
 - (a) Click on [General] tab, [Printing Preferences] button, then [Layout] tab.

OR

Click on [Advanced] tab, [Printing Defaults] button, then [Layout] tab.



- (b) Click on [Advanced] button, then select [Collate] from [Printer Features].



- (c) Enter number of copies required in [Copy Count] and check [Collated].
- (d) Click on [OK] three times and close the printer dialogue box.

4. For Windows 2000 PCL printer driver:

- (a) Click on [General] tab, [Printing Preferences] button, then [Paper] tab.

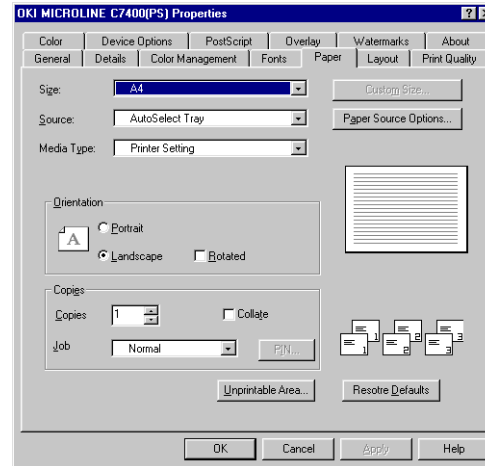
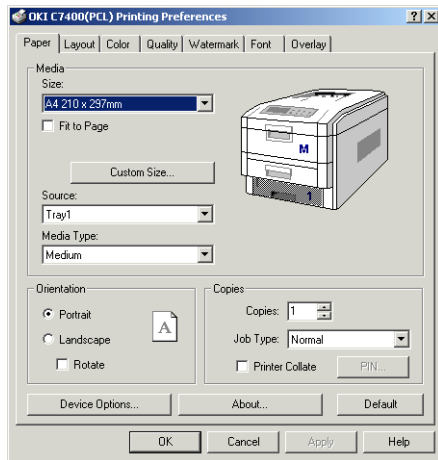
OR

Click on [Advanced] tab, [Printing Defaults] button, then [Paper] tab.

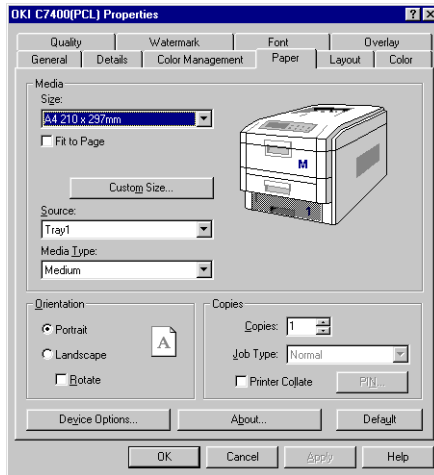
- (b) Enter the number of required copies and check the [Printer Collate] box in [Copies].
- (c) Click [OK] twice and close the printer dialogue box.

Windows 95/98/Me

1. Click on [Start] - [Settings] - [Printers].
2. Highlight the printer name and click on [File] then [Properties].
3. Click on the [Paper] tab.



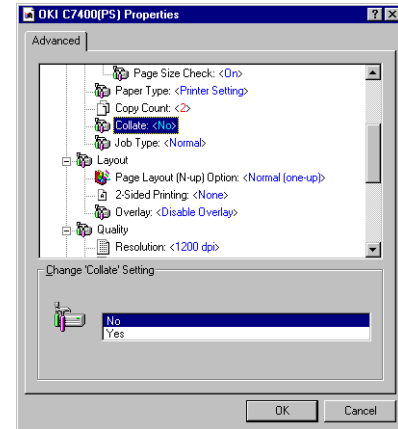
- 4. For Windows 95/98/Me PostScript printer driver:
 - (a) Enter the number of required copies and check the [Collate] box in [Copies].
 - (b) Click [OK] and close the printer dialogue box.
- 5. For Windows 95/98/Me PCL printer driver:
 - (a) Enter the number of required copies and check the [Printer Collate] box in [Copies].



- (b) Click [OK] and close the printer dialogue box.

Windows NT4.0

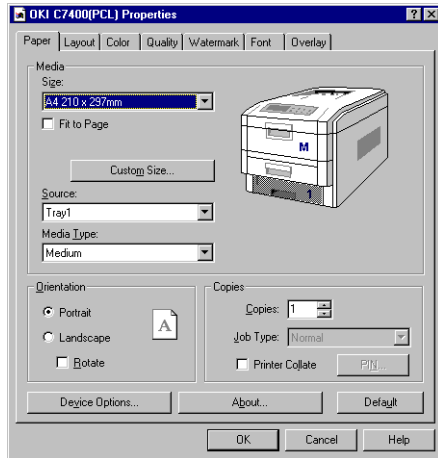
- 1. Open the software application being used.
- 2. Click on [File] - [Print], then click on [Properties] button.
- 3. For Windows NT 4.0 PostScript printer driver:
 - (a) Enter number of copies required in [Copy Count] and then select [Yes] in [Collate].



- (b) Click on [OK] twice to print the document.

4. For Windows NT 4.0 PCL printer driver:

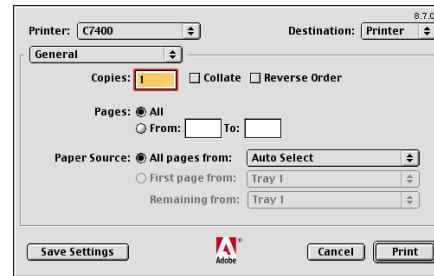
- (a) Click on the [Paper] tab.
- (b) Enter the number of required copies and check the [Printer Collate] box in [Copies].



(c) Click [OK] twice to print the document.

Macintosh

1. Click on [File] - [Print Window].
2. Enter the required number of copies in [Copies]. Check [Collate] and, if required, [Reverse Order].



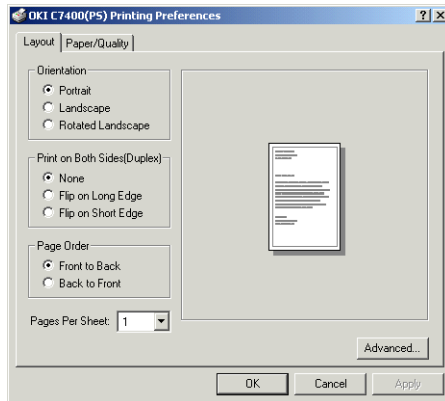
3. Click on [Save Settings] to save the printer driver settings or click on [Print] to print the document.

Font substitution

Note: *Font substitution can only be carried out using Windows PostScript and Macintosh printer drivers.*

Windows 2000 PostScript

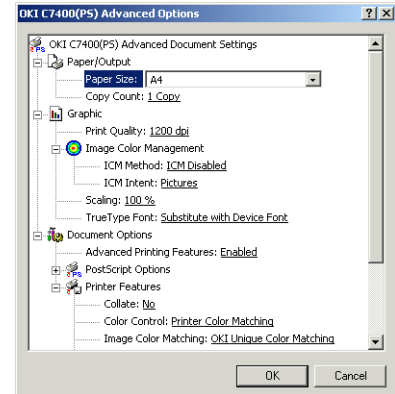
1. Click on [Start] - [Settings] - [Printers].
2. Highlight the printer name and click on [File] then [Properties].
3. Click on [General] tab, [Printing Preferences] button, then [Layout] tab.



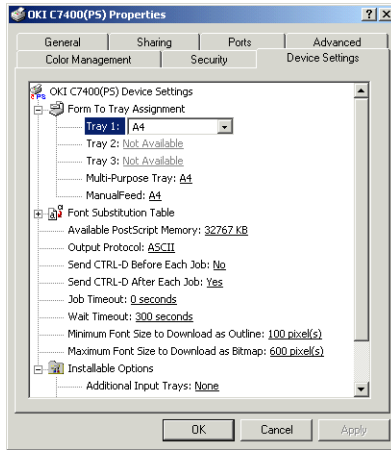
OR

Click on [Advanced] tab, [Printing Defaults] button, then [Layout] tab.

4. Click on [Advanced] button.



5. Select substitution or downloading a soft font from [True Type Font].
6. Select the required download options from [True Type Font Download Option].
7. Click on [OK] button twice.
8. Click on [Device Settings] tab and select required font substitution from [Font Substitution Table].



9. Click on [OK] and close the printer dialogue box.

Windows 95/98/Me PostScript

1. Click on [Start] - [Settings] - [Printers].
2. Highlight the printer name and click on [File] then [Properties].
3. Click on the [Fonts] tab.
4. Select the type of font substitution from the various options given.

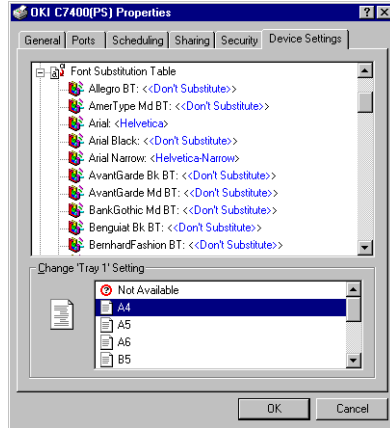
5. Click on [OK] and close the printer dialogue box.



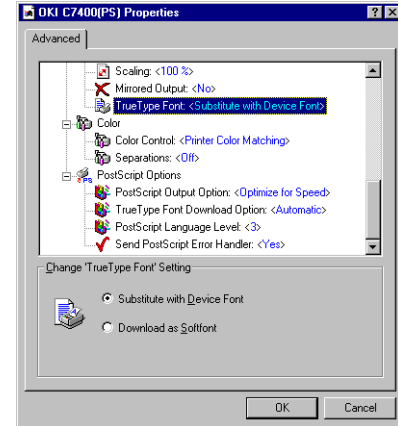
Windows NT4.0 PostScript

1. Click on [Start] - [Settings] - [Printers].
2. Highlight the printer name and click on [File] then [Properties].
3. Click on [Device Settings] tab and select required font substitution from [Font Substitution Table].
4. Click on [OK].

5. Open the software application being used.



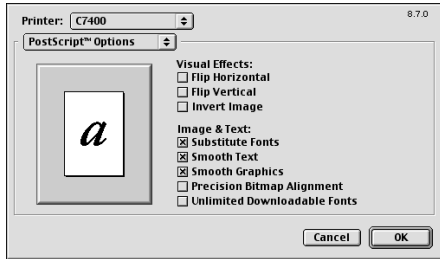
6. Click on [File] - [Print], then click on [Properties] button.
7. Highlight [True Type Font] and select substitution or download setting.
8. Highlight [True Type Font Download Option] and select required setting from the list.
9. Click [OK] twice to print the document.



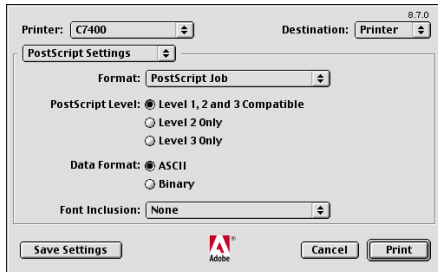
Macintosh

1. Click on [File] - [Page Setup].
2. Select [PostScript Options] from the drop down selections.

3. Check, if required, [Substitute Font] and/or [Unlimited Download able Fonts].



4. Click on [OK].
5. Click on [File] - [Print].
6. Select [Save as] from the drop down selections.



7. Select the type of font substitution from [Font Inclusion].
8. Click on [Save Settings] to save the printer driver settings or click on [Print] to print the document.

Printing font list

1. Press **Menu (0)** button until PRINT MENU is displayed, then press **Select (3)** button.
2. Press **Item (1)** button until PRINT PCL FONT or PRINT PS FONT is displayed.
3. Press **Select (3)** button to print the font list. Printer returns to online status when the font list has printed.

Proof and print

Proof and print allows printing of a single copy of a document for checking before printing multiple copies of the same document.

Note 1: *The internal hard disk must be fitted to the printer to allow for spooling of the print job before final printing.*

Note 2: *If the hard disk memory is insufficient for the spooled data, **DISK FULL** is displayed and only one copy printed.*

Note 3: *If the software application being used has a collate print option, this must be turned OFF for proof and print to operate correctly.*

Note 4: *Proof and printing may not be available in some software applications.*

Note 5: *Proof and print cannot be carried out using Windows 2000 PostScript printer driver.*

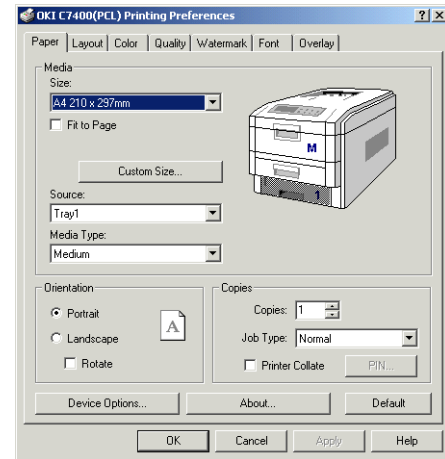
Windows 2000 PCL

1. Click on [Start] - [Settings] - [Printers].
2. Highlight the printer name and click on [File] then [Properties].

3. Click on [General] tab, [Printing Preferences] button, then [Paper] tab.

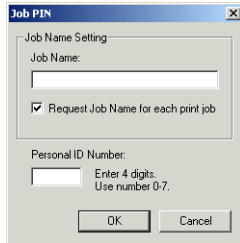
OR

Click on [Advanced] tab, [Printing Defaults] button, then [Paper] tab.



4. Enter the number of required copies and check, if required, the [Printer Collate] box in [Copies].
5. Select [Proof and Print] in [Job Type].

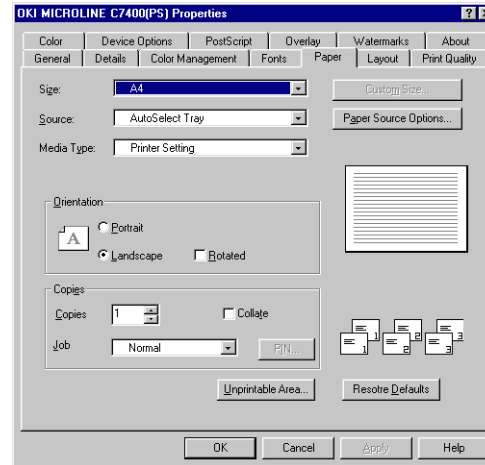
6. Enter a job name of up to 16 characters in [Job Name Setting] and check, if required, [Request Job Name for each print job].



7. Enter a four digit personal ID number using numeric characters 0 to 7 only.
8. Click on [OK] three times and close the printer dialogue box.
9. Print the document from the software application being used and one copy of the document is printed for checking.
10. After checking, the remaining copies can then be printed or deleted (if incorrect) using the procedures given below.

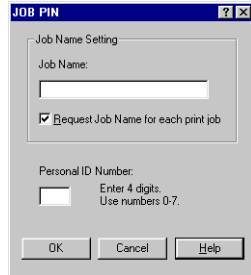
Windows 95/98/Me

1. Click on [Start] - [Settings] - [Printers].
2. Highlight the printer name and click on [File] then [Properties].
3. Click on the [Paper] tab.



4. For Windows 95/98/Me PostScript printer driver:
 - (a) Enter the number of required copies and, if required, check the [Collate] box in [Copies].

- (b) Select [Proof and Print] in [Jobs].
- (c) Enter a job name of up to 16 characters in [Job Name Setting] and check, if required, [Request Job Name for each print job].

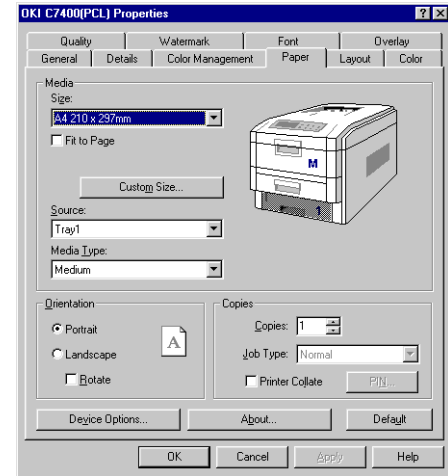


- (d) Enter a four digit personal ID number using numeric characters 0 to 7 only.

5. For Windows 95/98/Me PCL printer driver:

- (a) Enter the number of required copies and check, if required, the [Printer Collate] box in [Copies].
- (b) Select [Proof and Print] in [Job Type].
- (c) Enter a job name of up to 16 characters in [Job Name Setting] and check, if required, [Request Job Name for each print job].

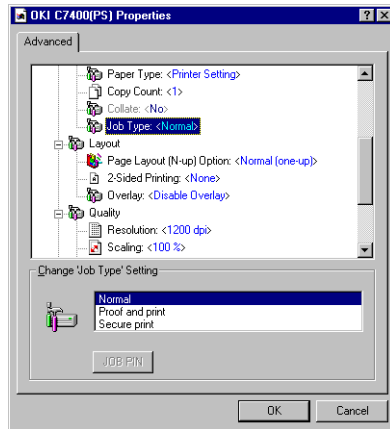
- (d) Enter a four digit personal ID number using numeric characters 0 to 7 only.



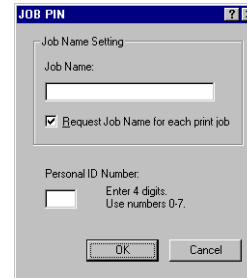
- 6. Click on [OK] twice and close the printer dialogue box.
- 7. Print the document from the software application being used and one copy of the document is printed for checking.
- 8. After checking, the remaining copies can then be printed or deleted (if incorrect) using the procedures given below.

Windows NT4.0

1. Open the software application being used.
2. Click on [File] - [Print], then click on [Properties] button.
3. For Windows NT 4.0 PostScript printer driver:
 - (a) Highlight [Job Type] and select [Proof and Print] from the list.

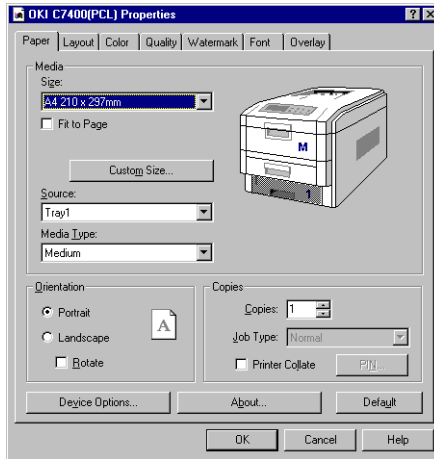


- (b) Enter a job name of up to 16 characters in [Job Name Setting] and check, if required, [Request Job Name for each print job].



- (c) Enter a four digit personal ID number using numeric characters 0 to 7.
 - (d) Click on [OK] three times to print the document and one copy of the document is printed for checking.
4. For Windows NT 4.0 PCL printer driver:
 - (a) Click on the [Paper] tab.
 - (b) Enter the number of required copies and check, if required, the [Printer Collate] box in [Copies].
 - (c) Select [Proof and Print] in [Job Type].
 - (d) Enter a job name of up to 16 characters in [Job Name Setting] and check, if required, [Request Job Name for each print job].

- (e) Enter a four digit personal ID number using numeric characters 0 to 7 only.
- (f) Click on [OK] twice to print the document and one copy of the document is printed for checking.



- 5. After checking, the remaining copies can then be printed or deleted (if incorrect) using the procedures given below.

Printing copies

To print the remaining copies of the document after checking, carry out the following on the printer:

1. Press **Menu (0)** button to access the PRINT JOBS MENU and press **Select (3)** button.
2. Enter the personal ID number using the buttons on the printer control panel.
3. Press **Value (2)** button until ALL JOBS or the required job name is displayed.
4. Press **Select (3)** button to select the print job and print the remaining copies of the document.

Note: *An alternative method of printing the remaining copies of the document is to use the Oki Storage Device Manager. Please refer to the on-line help for the Oki Storage Device Manager, which can be found on the CD supplied with the printer.*

Deleting copies

If the print job is incorrect, it must be deleted from the printer as follows:

1. Press **Menu (0)** button to access the PRINT JOBS MENU and press **Select (3)** button.
2. Enter the personal ID number using the buttons on the printer control panel.
3. Press **Value (2)** button until ALL JOBS or the required job name is displayed.
4. Press **Cancel (7)** button to delete the remaining copies of the document.
5. When the deletion confirmation message appears, confirm by pressing **Select (3)** button.

Note: *An alternative method of deleting the remaining copies of the document is to use the Oki Storage Device Manager. Please refer to the on-line help for the Oki Storage Device Manager, which can be found on the CD supplied with the printer.*

Secure printing

Secure printing or printing with passwords allows the printing confidential documents on printers that are shared with other users.

Note 1: *The internal hard disk must be fitted to the printer to allow for spooling of the print job before final printing.*

Note 2: *If the hard disk memory is insufficient for the spooled data, DISK FULL is displayed and secure printing cannot be carried out.*

Note 3: *If the software application being used has a collate print option, this must be turned OFF for secure printing to operate correctly.*

Note 4: *Secure printing may not be available in some software applications.*

Note 5: *Secure printing cannot be carried out using Windows 2000 PostScript printer driver.*

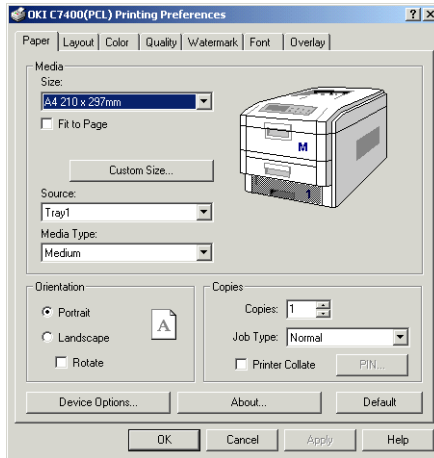
Windows 2000 PCL

1. Click on [Start] - [Settings] - [Printers].
2. Highlight the printer name and click on [File] then [Properties].

3. Click on [General] tab, [Printing Preferences] button, then [Paper] tab.

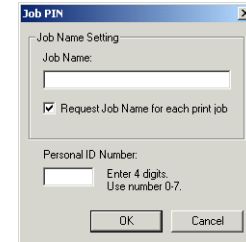
OR

Click on [Advanced] tab, [Printing Defaults] button, then [Paper] tab.



4. Enter the number of required copies and check, if required, the [Printer Collate] box in [Copies].
5. Select [Secure Print] in [Job Type].

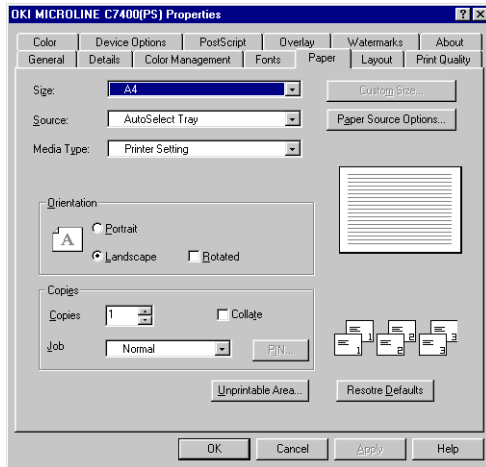
6. Enter a job name of up to 16 characters in [Job Name Setting] and check, if required, [Request Job Name for each print job].



7. Enter a four digit personal ID number using numeric characters 0 to 9 only.
8. Click on [OK] three times and close the printer dialogue box.
9. Print the document from the software application being used to spool the print job on the printer's hard disk.
10. The print job can then be printed and deleted using the procedures given below.

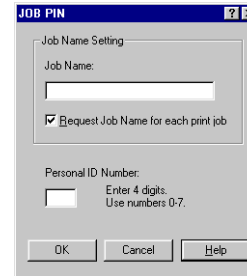
Windows 95/98/Me

1. Click on [Start] - [Settings] - [Printers].
2. Highlight the printer name and click on [File] then [Properties].
3. Click on the [Paper] tab.



4. For Windows 95/98/Me PostScript printer driver:
 - (a) If required, enter the number of required copies and check [Collate] box in [Copies].
 - (b) Select [Secure Print] in [Jobs].

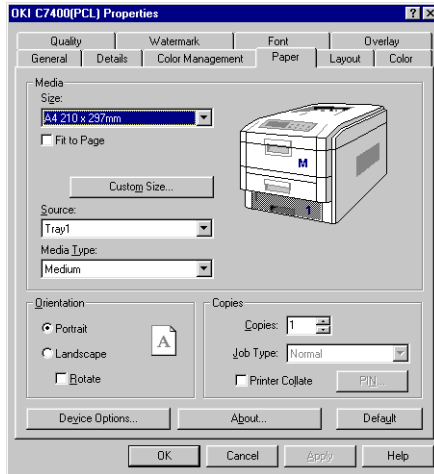
- (c) Enter a job name of up to 16 characters in [Job Name Setting] and check, if required, [Request Job Name for each print job].



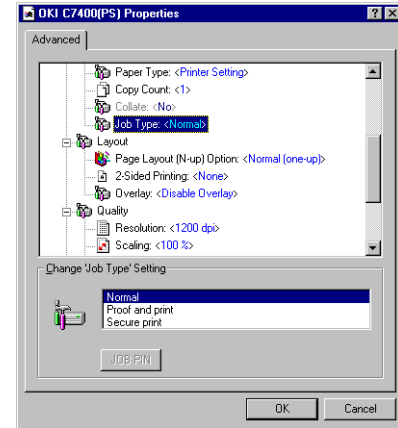
- (d) Enter a four digit personal ID number using numeric characters 0 to 7 only.
5. For Windows 95/98/Me PCL printer driver:
 - (a) Enter the number of required copies and check, if required, the [Printer Collate] box in [Copies].
 - (b) Select [Secure Print] in [Job Type].
 - (c) Enter a job name of up to 16 characters in [Job Name Setting] and check, if required, [Request Job Name for each print job].
 - (d) Enter a four digit personal ID number using numeric characters 0 to 7 only.

Windows NT4.0

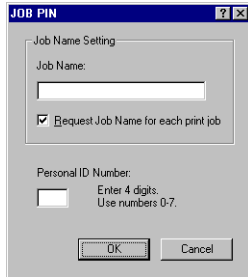
1. Open the software application being used.



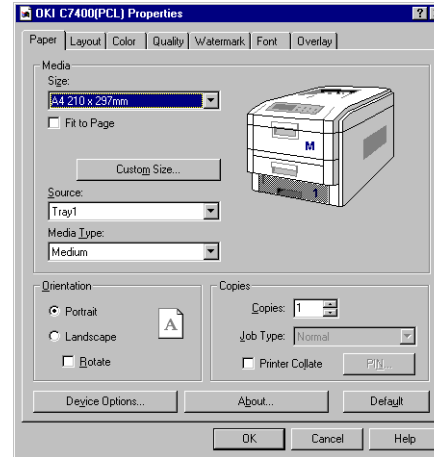
6. Click on [OK] twice and close the printer dialogue box.
7. Print the document from the software application being used to spool the print job on the printer's hard disk.
8. The print job can then be printed and deleted using the procedures given below.



2. Click on [File] - [Print], then click on [Properties] button.
3. For Windows NT 4.0 PostScript printer driver:
 - (a) Highlight [Job Type] and select [Secure Printing] from the list.
 - (b) Enter a job name of up to 16 characters in [Job Name Setting] and check, if required, [Request Job Name for each print job].



- (c) Enter a four digit personal ID number using numeric characters 0 to 7 only.
 - (d) Click on [OK] three times to print the document and close the printer dialogue box.
4. For Windows NT 4.0 PCL printer driver:
- (a) Click on the [Paper] tab.
 - (b) Select [Secure Printing] in [Job Type].
 - (c) Enter a job name of up to 16 characters in [Job Name Setting] and check, if required, [Request Job Name for each print job].
 - (d) Enter a four digit personal ID number using numeric characters 0 to 7 only.
 - (e) Click on [OK] twice to print the document and close the printer dialogue box.



5. Print the document from the software application being used to spool the print job on the printer's hard disk.
6. The print job can then be printed and deleted using the procedures given below.

Confidential printing

To print out the confidential document, carry out the following on the printer:

1. Press **Menu (0)** button to access the PRINT JOBS MENU and press **Select (3)** button.
2. Enter the personal ID number using the buttons on the printer control panel.
3. Press **Value (2)** button until ALL JOBS or the required job name is displayed.
4. Press **Select (3)** button to print the document.

Note: *An alternative method of printing or deleting a confidential document is to use the Oki Storage Device Manager. Please refer to the on-line help for the Oki Storage Device Manager, which can be found on the CD supplied with the printer.*

Deleting confidential print jobs

If a confidential print job has been printed, it can then be deleted from the printer as follows:

1. Press **Menu (0)** button to access the PRINT JOBS MENU and press **Select (3)** button.
2. Enter the personal ID number using the buttons on the printer control panel.
3. Press **Value (2)** button until ALL JOBS or the required job name is displayed.
4. Press **Cancel (7)** button to select the print job and delete it from the printer.

Overlay printing

Logos, letterheads, etc. can be registered as overlays with the printer and then printed when required. This reduces the need for having pre-printed stationery available.

Note 1: *The optional hard disk must be installed in the printer and the storage manager software has to be installed on the computer.*

Note 2: *If the hard disk memory is insufficient for the spooled data, DISK FULL is displayed and no overlays can be downloaded to the printer.*

Note 3: *If the software application being used has a collate print option, this must be turned OFF for overlay printing to operate correctly.*

Note 4: *An overlay may consist of more than one component file.*

Note 5: *Overlay printing cannot be carried out using Windows 2000 PostScript printer driver.*

Creating overlays

An overlay can be created in any software application that can handle logos, letterheads, forms, etc. and can print to file.

1. Open the software application and create the overlay.
2. Open the application's print dialogue and check the print to file box.

Note: *If the PostScript printer driver is selected, you must change the PostScript output format from [Optimize for speed] to [Encapsulated PostScript (EPS)].*

3. Print and save the file with the extension .PRN.
4. If required, continue to create .PRN files for overlays.

Downloading overlays

After creating the overlay, the file(s) must be downloaded to the printer's hard disk before it can be used. The storage device manager has to be used for downloading overlays to the printer.

The following procedure is a brief description on how to download files. For further information and

explanation on downloading, please refer to the on-line help for the storage device manager, which can be found on the CD supplied with the printer.

1. Open the storage device manager program and allow the program to locate the printer.
2. Click on [File], then [New Project].
3. Select [Add File to Project] from the [File] menu, then select overlay .prn file and add to the project.

Note: *If using a PostScript printer driver, the storage device manager automatically creates a .HST file from the .prn file. If using a PCL printer driver, the storage device manager automatically creates a .BIN file from the .prn file.*

4. Make sure the printer being used is highlighted in the lower window of the storage device manager.
5. Select [Send Project Files to Printer] from the [File] menu and the overlay will be downloaded to the printer.
6. Close the storage device manager.

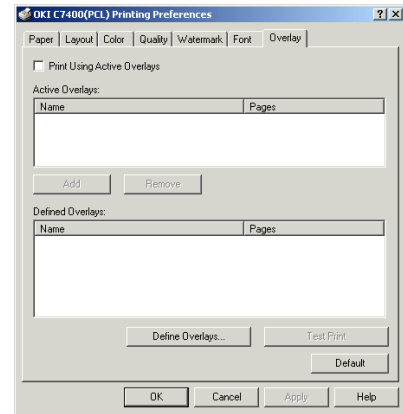
Windows 2000 PCL

1. Click on [Start] - [Settings] - [Printers].
2. Highlight the printer name and click on [File] then [Properties].
3. Click on [General] tab, [Printing Preferences] button, then [Overlay] tab.

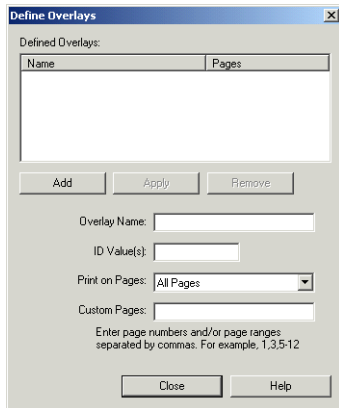
OR

Click on [Advanced] tab, [Printing Defaults] button, then [Overlay] tab.

4. Click on [Define Overlays] button.



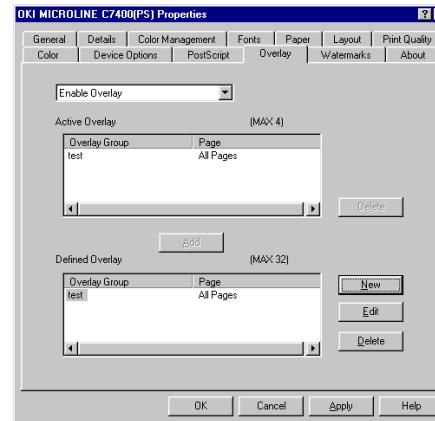
5. Enter the file name of the overlay in the [Overlay Name] box.
6. Enter the ID of the file in [ID Values]. Please refer to the user guide for the storage manager.
7. Select which pages the overlay is to be printed on from [Print on Pages], then click on [Add] button and [Close] button.
8. Highlight the overlay name in [Defined Overlay] and click on the [Add] button to add the overlay to the list in [Active Overlays].
9. Check [Print Using Active Overlays].



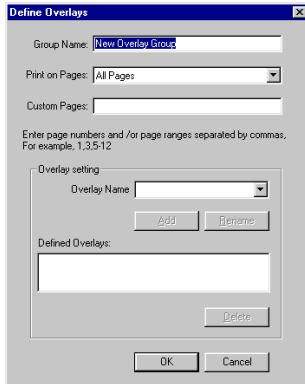
10. Click on [OK] twice and close the printer dialogue box.

Windows 95/98/Me

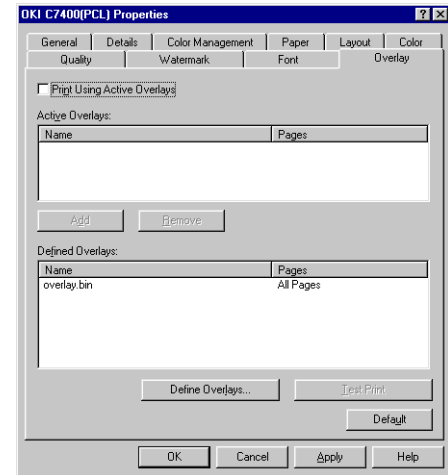
1. Click on [Start] - [Settings] - [Printers].
2. Highlight the printer name and click on [File] then [Properties].
3. For Windows 95/98/Me PostScript printer driver:
 - (a) Click on [Overlay] tab, then click on [New] button.



- (b) Enter the file name of the overlay in the [Overlay Name] box and click on the [Add] button.
- (c) If required, continue to add files to the overlay.
- (d) Enter a name for the overlay in [Group Name] and select which pages the overlay is to be printed on from [Print on Pages].
- (e) Click on [OK].
- (f) Highlight the overlay name in [Defined Overlay] and click on the [Add] button to add the overlay to the list in [Active Overlays].

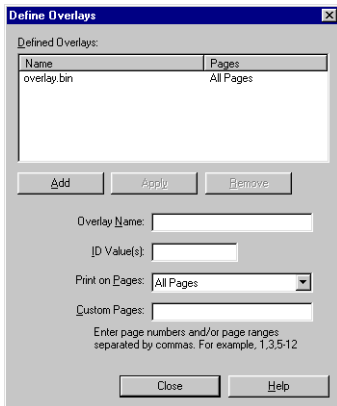


- (g) Select [Enable Overlay] from the drop down list.
 - (h) Click on [OK] and close the printer dialogue box.
4. For Windows 95/98/Me PCL printer driver:
- (a) Click on [Overlay] tab, then click on [Define Overlays] button.



- (b) Enter the file name of the overlay in the [Overlay Name] box.

- (c) Enter the ID of the file in [ID Values]. Please refer to the user guide for the storage manager.
- (d) Select which pages the overlay is to be printed on from [Print on Pages], then click on [Close].
- (e) Highlight the overlay name in [Defined Overlay] and click on the [Add] button to add the overlay to the list in [Active Overlays].

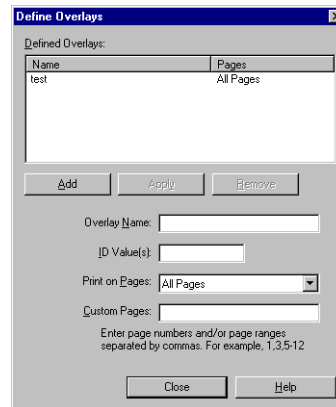


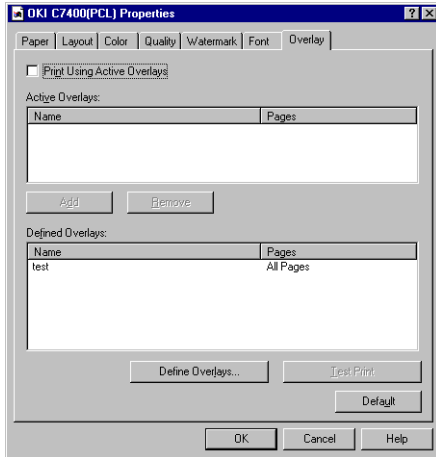
- (f) Check [Print Using Active Overlays].

- (g) Click on [OK] and close the printer dialogue box.

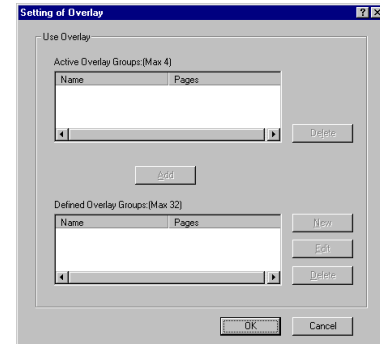
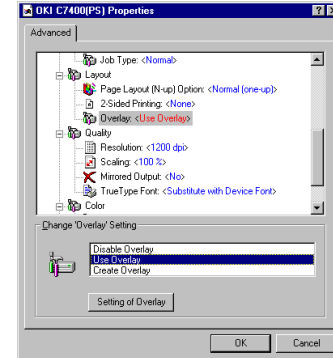
Windows NT4.0

1. Open the software application being used.
2. Click on [File] - [Print], then click on [Properties] button.
3. For Windows NT 4.0 PostScript printer driver:
 - (a) Highlight [Overlay] and select [Use Overlay] from the list.





- (b) Click on [Setting of Overlay] and select the required overlays to use.
 - (c) Click on [OK] three times to print the document.
4. For Windows NT 4.0 PCL printer driver:
- (a) Click on [Overlay] tab, then click on [Define Overlays] button.
 - (b) Enter the file name of the overlay in the [Overlay Name] box.



- (c) Enter the ID of the file in [ID Values]. Please refer to the user guide for the storage manager.

- (d) Select which pages the overlay is to be printed on from [Print on Pages].
- (e) Highlight the overlay name in [Defined Overlay] and click on the [Add] button to add the overlay to the list in [Active Overlays].
- (f) Check [Print Using Active Overlays].
- (g) Click on [OK] twice to print the document.

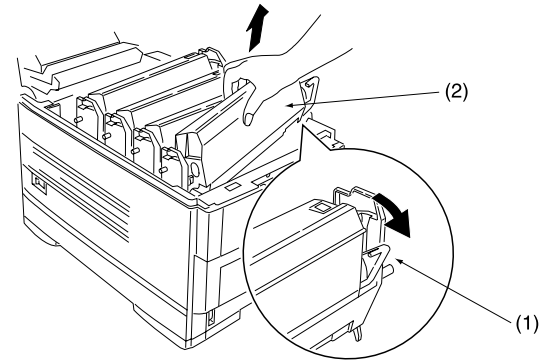
Chapter 6 - Maintenance

Changing toner cartridge

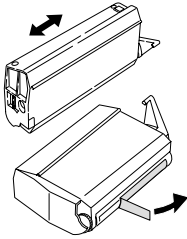
When the toner is running low, *** TONER LOW is displayed in the control panel (***) is the colour name). If printing continues without replacing the toner cartridge, CHANGE *** TONER is displayed and printing is cancelled. Depending on the operating environment, print may become feint before this message is displayed. At this stage, remove the toner cartridge and check whether it is empty; if so, the toner cartridge needs to be replaced.

Cartridge life is approximately 10 000 A4 pages at 5% print density. The first toner cartridge installed in a new image drum needs to be replaced after approximately half this amount because the toner cartridge has to fill a new image drum.

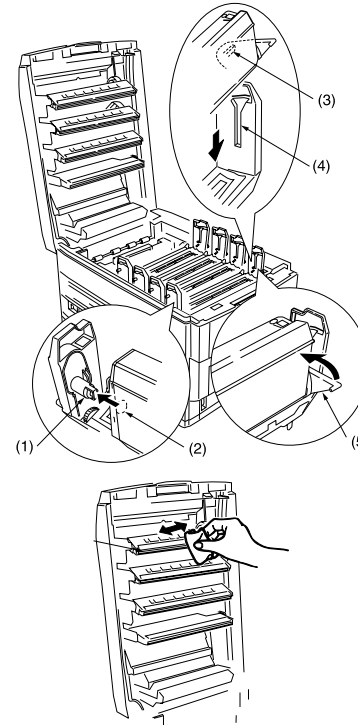
1. Switch off the printer and open the top cover.
2. Check the colour label of the toner cartridge to be changed.



3. Move the coloured lever (1) on the right of the toner cartridge in the direction of the arrow as far as it will go.
4. Remove the toner cartridge (2), lifting the right side of the cartridge first to disengage the spigot on the image drum from the toner cartridge.
5. Make sure the colours of the toner cartridge and image drum correspond.



6. Shake the new toner cartridge back and forth several times.
7. To prevent any accidental spillage of toner, hold the new toner cartridge horizontally and remove the tape carefully and slowly.
8. Insert the new toner cartridge into the image drum, left side first, engaging the drum spigot (1) in the hole (2) in the toner cartridge.
9. Gently push the toner cartridge down engaging the locking pin (3) into the groove (4) on the image drum.
10. Gently push the coloured lever (5) backward until it stops to release the toner into the image drum.



11. Gently wipe the LED head surface with LED lens cleaner or soft tissue.
12. Close the top cover.

CAUTION:

Do not use methyl alcohol or other solvents on the LED head otherwise damage to the lens surface will occur.

Note: *After installing the toner cartridge, the message on the display TONER LOW or CHANGE TONER should disappear. However, this sometimes does not disappear until printing has been carried out. If it still does not disappear, reinstall the toner cartridge.*

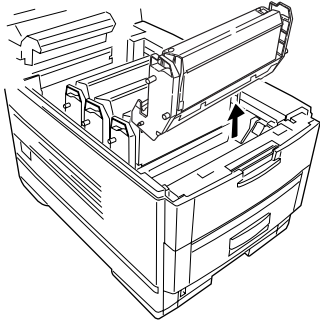
Changing image drum

When the image drum reaches the end of its product life, *** CHANGE DRUM is displayed in the control panel (*** is the colour name). If printing continues without replacing the image drum, CHANGE *** IMAGE DRUM is displayed and printing is cancelled. Change the toner cartridge and clean the LED head at the same time as changing the image drum. Image drum life is approximately 20 000 sheets of A4. However, this assumes a standard print job of three sheets. If single sheets are printed, image drum life is reduced to approximately half.

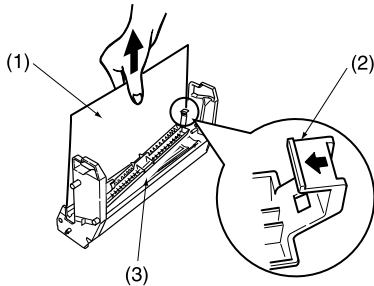
CAUTION:

Never expose image drum to light for more than 5 minutes. Never expose image drum to direct sunlight. Never touch the surface of the green drum inside the image drum unit.

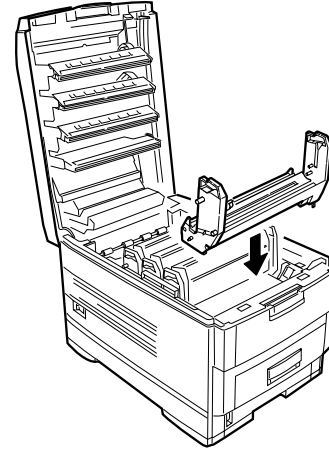
1. Switch off the printer and open the top cover.
2. Remove the image drum complete with the toner cartridge.
3. Make sure the image drum is the correct colour and remove it from the packaging.



4. Remove the protective sheet (1) from the image drum.



5. Push the tab (2) inwards and remove the blanking plate (3) from the image drum.

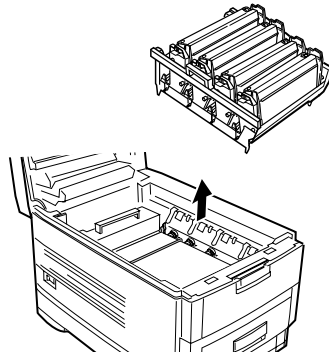


6. Install the new image drum into its correct colour location in the printer.
7. Install a new toner cartridge of the corresponding colour. See “Changing toner cartridge” above.
8. Close the top cover.

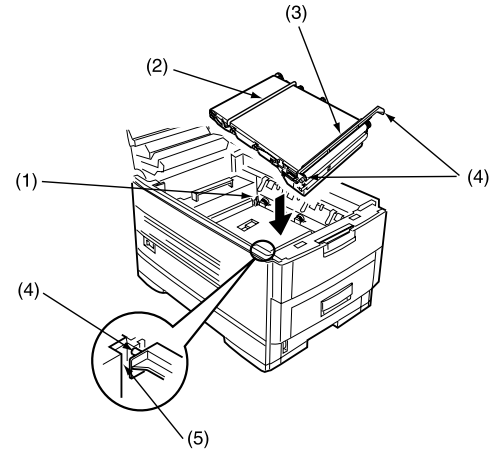
Changing transfer belt

When the transfer belt reaches the end of its product life, CHANGE BELT UNIT is displayed in the control panel. Transfer belt life is approximately 60 000 sheets, regardless of paper size. However, this assumes a standard print job of three sheets. If single sheets are printed, transfer belt life is reduced to approximately half.

1. Switch off the printer and open the top cover.
2. Remove the cradle complete with the four image drums and toner cartridges from the printer.



3. Press back the lock lever (1) and, using the handles (2 and 3), remove the transfer belt from the printer.



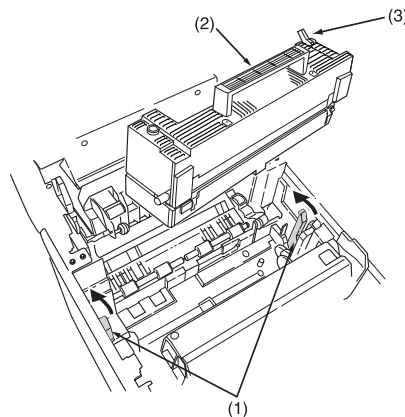
4. Remove the new transfer belt unit from its packaging.
5. Using the handles (2 and 3), align the pins (4) with the grooves (5) on the printer and insert the new transfer belt into the printer.
6. Move the lock lever (1) forward and ensure it locks the transfer belt into place.
7. Install the cradle complete with the four image drums and toner cartridges back into the printer.
8. Close the top cover.

Changing fuser unit

When the fuser unit reaches the end of its product life, CHANGE FUSER UNIT is displayed in the control panel. Fuser unit life is approximately 60 000 sheets, regardless of paper size.

WARNING
THE FUSER UNIT IS VERY HOT AFTER PRINTING.
ALWAYS USE THE HANDLE WHEN LIFTING THE FUSER UNIT.

1. Switch off the printer and open the top cover.
2. Move the two locking levers (1) forward to release the fuser unit.
3. Using the handle (2), remove the fuser unit from the printer.
4. Remove the new fuser unit from its packaging.
5. Using the handle (2), install the new fuser unit into the printer.
6. Make sure the two lock levers (1) lock the fuser unit into place.



7. Remove the transport lock (3) from the pressure roller release on top of the fuser unit.
8. Close the top cover.

Cleaning LED head

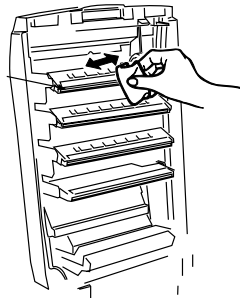
Clean the LED head when printing does not come out clearly, has white lines or text is blurred.

1. Switch off the printer and open the top cover.

CAUTION:

Do not use methyl alcohol or other solvents on the LED head otherwise damage to the lens surface will occur.

2. Gently wipe the LED head surface with LED lens cleaner or soft tissue.



3. Close the top cover.

Colour balance adjustment

Setting the colour balance ensures that the three primary colours your printer uses are properly balanced. If they are not balanced, one colour may dominate, and printed pictures will not be as lifelike as they could be.

The colour balance should be set:

- when the printer is installed
- when image drums are replaced
- if the printer is moved to a new location

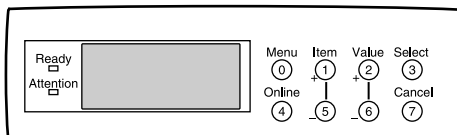
The objective of this procedure is to remove any traces of colour from the centre (*) area of the built in test pattern, so that it matches the colour of the circles marked 00 as closely as possible.

Note 1: *This procedure changes the colour balance for all print jobs.*

Note 2: *If required, the colour balance may be restored to factory settings.*

Note 3: *Since colour settings are interdependent, you may need to repeat the adjustment procedure several times to achieve best results.*

Printing the test pattern



1. Press and release the **Menu** (0) button repeatedly to access the *Colour Menu*, then press the **Select** (3) button to select this menu.
2. Press the **Select** (3) button again. The test pattern will print automatically.
3. When the test pattern appears, press the **Select** (3) button again to set the colour balance to default. Another test pattern will print automatically.
4. Carefully examine the test pattern. Your objective is to remove any traces of colour from the centre (*) area, so that it matches the colour of the circles marked 00 as closely as possible.

Understanding the colour balance test pattern

The test pattern shows 6 segments corresponding to each of the primary colours:

<i>Subtractive</i>	<i>Additive</i>
1. Yellow	2. Red
3. Magenta	4. Blue
5. Cyan	6. Green

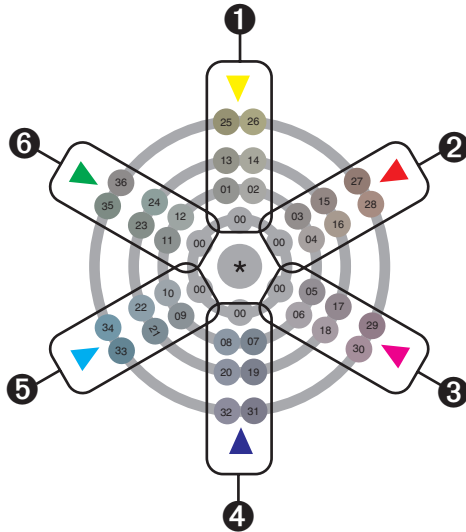
Each segment contains 7 numbered spots. Selecting a number reduces the colour content in the centre area for that colour. Selecting a large number from the outer ring makes a very coarse adjustment, while selecting a smaller number from the inner ring makes a fine adjustment.

For example, if you observe that the centre area (*) contains traces of yellow, select a number from area 1. This will reduce the yellow content and increase blue, since blue is directly opposite yellow on the test pattern.

Selecting an odd number will make the centre area lighter. Selecting an even number will make it darker.

As a guide, choose the spot which most closely matches the current centre (*) in colour and enter the number printed on it. If the spots numbered 0 are closest in colour to the centre, no adjustment is required.

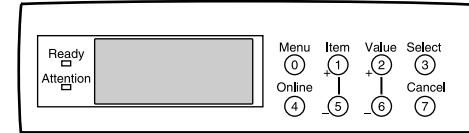
To make the centre area lighter without changing its colour choose 01 and then 07. To make the centre area darker choose 02 and then 08.



Note: The above picture is an example and your print-out may differ slightly.

After printing the test pattern, the display will give you the option of returning to the factory settings for colour balance. If you press **Select (3)** at this point, the factory settings for colour balance will be restored.

To Select a Number



1. Press the **Value (2)** button until the number you want appears.
2. Press the **Select (3)** button to enter the number and print a new test pattern.
3. Repeat the above two steps until the centre area matches the colour of the circles marked 00 as closely as possible.

To Restore Factory Settings

Print the test pattern then press **Select (3)** when the machine gives you the option of returning to the factory settings for colour balance.

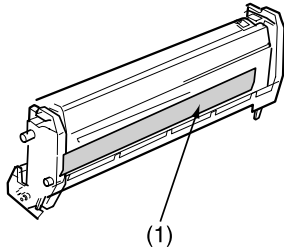
To Exit the Colour Menu

Press the **Online (4)** button.

Transporting printer

The printer is a precision machine. If transported without packaging it may be prone to mechanical damage.

1. Turn off the printer.
2. Disconnect the power cable and printer interface cable from the printer and remove any paper from the paper trays.
3. Open the top cover and remove the four image drums.
4. Seal the joint between the image drum and toner cartridge with plastic adhesive tape (1) to prevent any toner spillage during transportation.



5. Replace the four image drums complete with their toner cartridges back into the printer.

6. Install the transport lock into the fuser unit.
7. Using the original packaging protection, place the printer inside its box and seal the box.

Chapter 7 - Troubleshooting

LCD messages

The liquid crystal display (LCD) on the control panel indicates the printer status and if there is a problem with the printer. Status and error messages are listed below with an explanation of what each message means

LCD Message	Description
***** TONER LOW	Toner is low (***** indicates colour).
***** TONER SENSOR ERROR	Error with the toner sensor (***** indicates colour). Call for service.
BELT UNIT MISSING	Transfer belt unit is missing.
CANCELLING JOB	Cancelling the current job.
CENTRO I/F ERROR	Centronics interface error (parallel interface).
CHANGE ***** IMAGE DRUM	Change the image drum (***** indicates colour).
CHANGE BELT UNIT	Change the transfer belt.
CHANGE FUSER UNIT	Change the fuser unit.
CHANGE PAPER TO *****	Paper must be changed to correct paper size and/or media type (***** indicates size or media type).
CHECK BELT UNIT	Check the transfer belt for paper jam, correct installation, etc.

LCD Message	Description
CHECK DUPLEX	Check the duplex unit for paper jam, correct installation, etc.
CHECK FUSER UNIT	Check the fuser unit for paper jam, correct installation, etc.
CHECK IMAGE DRUM	Check the image drum for correct installation, etc. Colour will be indicated.
COLLATE FAIL	Collating of multiple copies has failed.
COLOUR ADJUSTING	Adjusting head so that colours do not shift on to each other.
COLOUR BALANCE ADJUST	Adjust the colour balance.
COMMUNICATION ERROR	There is an error with communications to computer.
DATA ARRIVE	Data has been received but processing has not started yet.
DATA PRESENT	Un-printed data remains in buffer. Waiting for data to follow
DISK FILE OPERATION FAILED	Error with hard disk operations.
DISK FILESYSTEM IS FULL	Hard disk/flash memory full.
DISK FULL	The internal hard drive is full.
EEPROM INITIALIZE ERROR	Call for service.

LCD Message	Description
EMPTY	Indicates which paper tray is empty.
ERROR POSTSCRIPT	A PostScript error has occurred.
FATAL ERROR	Call for service.
FUSER UNIT MISSING	Fuser unit is missing.
INSTALL ADDITIONAL MEMORY	Additional memory is required before job can be printed.
INSTALL NEW IMAGE DRUM	Install a new image drum. Colour will be indicated.
INSTALL NEW TONER	Install a new toner cartridge. Colour will be indicated.
INSTALL PAPER CASSETTE	Install the paper cassette. Paper tray will be indicated.
INVALID DATA	Data is incorrect
LOAD	Load correct paper size/type. Size/type will be indicated.
MEDIA MISMATCH	Paper type set via menu does not match that sent via driver
NEAR END	The paper in the selected ***** is nearly finished (***** indicates paper tray).
NETWORK ERROR	Network error
OFFLINE	Shows off-line status.
ONLINE	Shows on-line status.
OPEN UPPER COVER	Open the upper cover
PAPER JAM	Indicates there is a paper jam.
PAPER SIZE ERROR	Indicates wrong paper size.
PLEASE POWER OFF	Printer must be switched off after disk/flash initialisation.
POWER SAVE	The printer is in powersave mode.
PRINTING	Data is being printed

LCD Message	Description
PROCESSING	Data is being processed.
RAM CHECK	RAM is being checked after switching printer on.
REGISTRATION ADJUST TEST	Registration adjustment being tested.
REGISTRATION ERROR	An error has occurred setting up the registration.
REMOVE THE PAPER	Indicates wrong paper being used.
SERVICE CALL	A serious error has occurred. Call for service.
SHUTDOWN	Starts the shutdown procedure to protect file system on hard disk.
SIZE MISMATCH	Change paper to correct size/type. Press On-Line to continue.
STACKER FULL	Stacker is full. Remove paper.
UNSUITABLE SIZE	Indicates wrong paper size.
USB I/F ERROR	USB interface error
WARMING UP	The printer is warming up

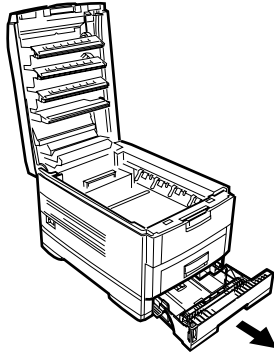
Paper jams

A paper jam will be indicated by an error message on the LCD and a paper jam is cleared as follows:

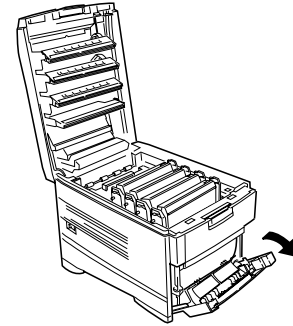
1. Open the top cover of the printer.

Note: *The top cover of the printer must remain open until all checks for paper jams have been carried out. If the top cover is closed too soon, the paper jam error will not be cleared.*

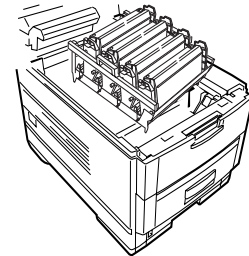
2. Remove the paper tray and remove any jammed paper from the printer, then install the paper tray.



3. Open front cover and remove any jammed paper, then close the front cover.

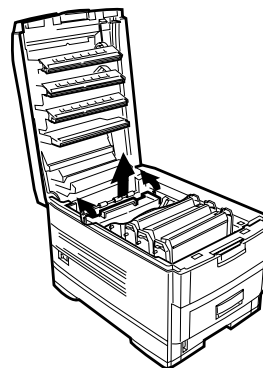
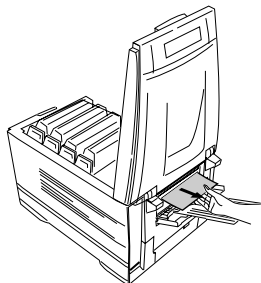


4. Remove all four image drums as one unit in their cradle.



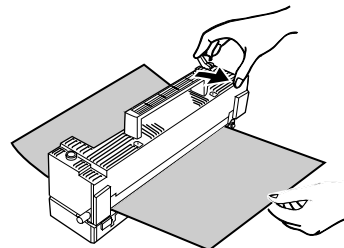
5. Carefully remove any jammed paper from the transfer belt.
6. Replace all four image drums as one unit into the printer.

7. Open the rear cover and remove any jammed paper, then close the rear cover.



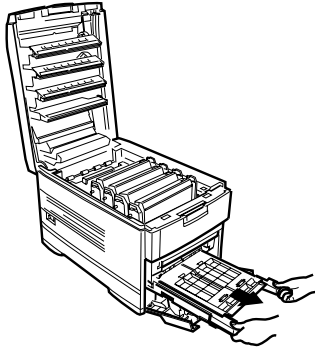
WARNING
THE FUSER UNIT IS VERY HOT AFTER PRINTING.
ALWAYS USE THE HANDLE WHEN LIFTING THE
FUSER UNIT.

8. If there is any paper jammed in the fuser unit, carry out the following:
 - (a) Move rearward the two blue locking levers.
 - (b) Remove the fuser unit, holding the unit by the handle, and place it on a flat table.
 - (c) Move forward the lever on the right of the fuser unit and slowly remove any jammed paper.

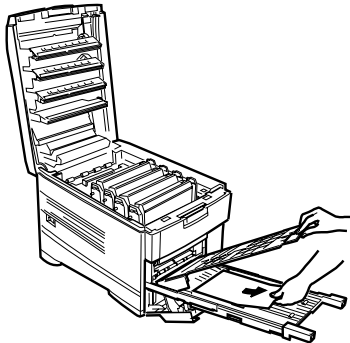


- (d) Reinstall the fuser unit into the printer.
 - (e) Move forward the two blue locking levers.
9. If there is any paper jammed in the optional duplex unit, carry out the following:

- (a) Open the front cover and slide out the duplex unit.



- (b) Open the duplex top cover and remove any jammed paper.



- (c) Close the duplex top cover and slide the duplex unit back into the printer.

- (d) Close the front cover.

- 10. If optional additional paper tray(s) are installed, remove the paper trays and check that no paper is jammed along the various parts of the exit path.
- 11. When all paper jams have been cleared, close the top cover.

Parallel transmission mode

If there are problems communicating with the computer, i.e. the printout is garbled or incorrect, the transmission mode of the parallel interface can be changed.

1. Press **Menu (0)** button until PARALLEL MENU is displayed, then press **Select (3)** button.
2. Press **Item (1)** button until the required setting is displayed.
3. Press **Value (2)** button to display ENABLE or DISABLE as required.
4. Press **Select (3)** button to select the setting. An asterisk (*) appears to the right of the selected setting.
5. Press **Online (4)** button to return the printer to online status.

Problem solving

Paper feed

Paper jams are frequent.

More than one sheet feeds at a time.

Paper feeds at an angle.

- The printer is not horizontal. Place the printer on a stable, level surface.
- Paper is too thin. Use correct type of paper (see Chapter 4).
- The paper is moist or affected by static. Store paper within specified temperature and humidity levels.
- The paper is creased or wrinkled.
- Paper is not aligned correctly. Adjust tray or manual feed guides.

Paper does not feed.

- Paper feed selection is incorrect in printer driver.

Paper curls.

- The paper is moist. Store paper within specified temperature and humidity levels.

- The paper is too thin. Set paper media setting in the printer driver to thin/light.

Paper jam has been cleared, but printer does not print.

- Removing a paper jam is not sufficient. Top cover must be opened and remain open until the paper jam has been cleared.

Printing from Windows

Cannot configure for parallel connection.

- The computer does not support bi-directional parallel interface. Use a computer that does.
- Parallel cable does not meet specifications. Use bi-directional parallel cable to IEEE 1285–1994 standard.
- Interface is disabled. Check that parallel interface is set to enable.
- Configuration procedure was not correctly followed or cancelled. Configure again from the beginning.
- Parallel cable is disconnected or faulty. Reconnect or try another cable.

- A converter, buffer or extension cable is being used. Connect printer and computer directly.

Cannot configure for USB connection.

- Windows NT4.0 does not support USB. Windows 95/3.1 with Windows 98 upgrade is not guaranteed.
- Computer does not support USB interface. Check if there is USB controller in device manager.
- USB cable does not meet specifications. Use USB cable to specification Ver.1.1.
- Interface is disabled. Check that USB interface is set to 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. Try connecting the printer and computer directly.

Printout is garbled or incorrect with parallel connection.

- Possible mismatch on parallel connection between computer and printer. Change parallel

transmission mode (see Parallel Transmission Mode above).

Cannot print.

LPT write error displayed.

PRNUSBx write error is displayed.

- Interface is disabled. In the printer menu settings, enable Parallel or USB interface.
- Printer is switched off. Switch on.
- Printer interface cable is disconnected. Reconnect the printer interface cable.
- A converter, buffer, extension cable or USB hub is being used. Connect 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.

Application error or general protection fault is displayed.

- Application is not suitable for Windows version. 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.
- Insufficient free space on hard disk. Delete unnecessary files.
- Printer driver is incorrectly configured. Correctly configure printer driver.

Insufficient memory.

- Memory is insufficient for number of applications running. Close all other applications.

Printing is slow.

- Print processing is carried out by the computer. Use a computer with a faster processor.
- Set lower print resolution in the printer driver.
- Data is too complex. Simplify data.

Printer requests paper size change to continue printing.

- Paper loaded in tray is different size to 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**.

Printing from Macintosh

Cannot configure after USB connection.

- Interface is disabled. Check that USB interface is set to enable.
- MacOS version incorrect. Use MacOS version 9.1 or higher that supports USB connection. For earlier versions, connect printer via a network.
- USB cable does not meet specifications. Use USB cable to specification Ver.1.1.
- 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. Connect the printer and computer directly.

Cannot print.

- Printer is switched off. Switch on.
- USB cable is disconnected or faulty. Reconnect or try another cable.
- A USB hub is being used. Try connecting the printer and computer directly.
- There is a Hand icon on the desktop printer. Select Start printer queue in the Printer menu.
- Configuration procedure was not correctly followed or cancelled. Configure again from the beginning.

Memory error occurs.

- Desktop print monitor or print monitor memory is insufficient. Increase memory size.

Printing is slow.

- Print processing is carried out by the computer. Use a computer with faster print processing.
- Set lower print resolution in the printer driver.
- Data is too complex. Simplify data.

Unclear printing

Longitudinal white stripes

- LED head is dirty. Clean LED head with lens cleaner or soft tissue.
- Toner is low. Change toner cartridge.
- Image drum damaged. Change image drum.

Longitudinal fading

- 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.

Faint printing

- The toner cartridge is incorrectly installed. Reinstall the toner cartridge.
- Toner is low. Change toner cartridge.
- The paper is moist. Store paper within specified temperature and humidity levels.
- Paper is unsuitable for printer. Use recommended paper.

Fading in patches

- The paper is moist. Store paper within specified temperature and humidity levels.

Longitudinal black stripes

- Image drum is damaged. Replace image drum.
- Toner is low. Change toner cartridge.
- Periodic black lateral lines or spots.

If the lines or spots occur at intervals of approximately 44 - 94 mm, the image drum (green tube) is damaged or dirty. If damaged, replace the image drum cartridge. If dirty, wipe the image drum gently with soft tissue. If this does not work, replace the image drum.

If the lines or spots occur at intervals of approximately 113 mm, the fuser roller is damaged. Change the fuser unit.

- 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.

Faint shading on unprinted sections

- Paper has been affected by static electricity. Store paper within specified temperature and humidity levels.
- Paper is too thick. Use recommended paper.
- Toner is low. Change toner cartridge.

Blurred letter edges

- LED is dirty. Clean LED with lens cleaner or soft tissue.
- Cannot print desired colour because toner is low. Replace toner cartridge.
- Black formation method does not match application. Open the printer driver and set black formation to CMYK.

Miscellaneous

The power is on, but the printer does not go online.

- Switch off the printer and disconnect the power cable. Reconnect power cable and switch printer on. If this does not clear the fault, call for service.

Print processing does not start.

- Check the control panel. If an error message is displayed, correct the problem.

Print processing cancels.

- The printer interface cable is faulty. Replace the printer interface cable.
- Time out setting is too short. Reset time out to a higher value.

Printer makes a strange noise.

- 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.

It takes a long time to start printing.

- 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.

- The image drum carries out a cleaning process to ensure print quality, which takes time.
- The fuser unit adjusts temperature, which takes time.
- The printer is processing data from another interface. Wait until this data is processed.

Toner rubs off when you rub the printed surface.

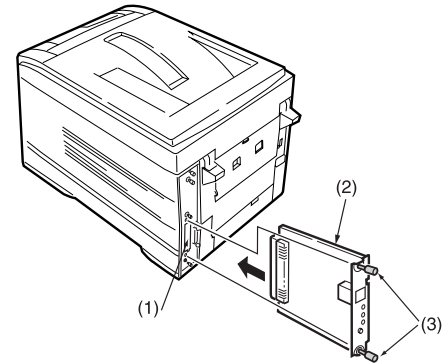
- Check if Media Weight and Media Type settings of the printer are appropriate.
- Set the value of Media weight to the next heaviest one.

Chapter 8 - Optional Accessories

Network interface card

The network interface card is an Ethernet board that supports EtherTalk, TCP/IP, IPX/SPX and NetBEUI protocols and can be connected using 100BASE-TX and 10BASE-T.

1. Turn off the printer and disconnect the power cable.
2. Loosen the two screws and remove the cover (1) from the lower option slot.
3. Insert the network interface card (2) into the option slot and secure with two screws (3).
4. Connect the power cable and switch on the printer.
5. Print a Menu Map as follows to confirm the network interface card is correctly installed.
 - (a) Press **Menu (0)** button twice to access the INFORMATION MENU.



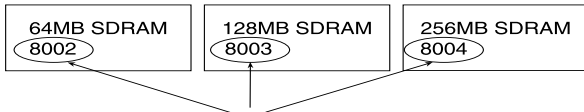
- (b) Press **Select (3)** button and confirm PRINT MENU MAP is displayed on the LCD.
- (c) Press **Select (3)** button to print the menu map.
- (d) Check that NETWORK MENU appears on the Menu Map.

Additional memory

The additional memory increases the printer's capacity to process complex data. It is recommended to install additional memory if carrying out duplex printing or if error messages appear when printing complex data. Additional memory is available in 64 Mb, 128 Mb and 256 Mb modules.

Note: *If the maximum amount of memory (1 Gb) is being installed into the printer, the memory modules that were originally specified for the printer have to be removed.*

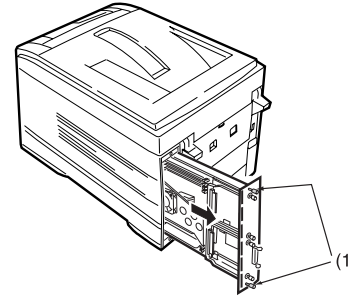
Due to the design of the memory modules, it is very important that the modules are installed according to the 3- or 4-digit identification numbers printed on the module. Please refer to the example below.



The memory module with the highest number must be installed in Slot 1 first, next highest Slot 3, next highest in Slot 2 and the lowest in Slot 4.

Installation

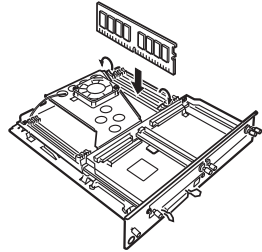
1. Switch off the printer and disconnect the power cable and printer interface cable.
2. Loosen the two screws (1) and remove the mother board.



CAUTION:

The printer may not operate correctly if memory modules are not fitted correctly and in the correct sequence.

3. Insert the memory modules into one of the four SDRAM slots as follows:
 - (a) If the memory modules all have the same identification number, the order of SDRAM slots to use is Slot 1, Slot 3, Slot 2, and Slot 4.



- (b) If the memory modules have different identification numbers, insert the highest number module into Slot 1, second highest into Slot 3, next highest into Slot 2 and lowest into Slot 4.

After installation, ALL installed memory must conform to 3 (b).

4. Replace the mother board and secure it with the two screws.
5. Connect the printer interface cable and power cable, then switch on the printer.

Note: *If the error message SERVICE CALL/034 appears on the LCD after switching the printer on, make sure the memory modules have been installed correctly.*

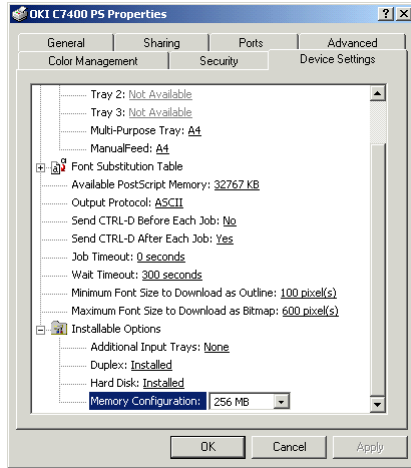
6. Print a Menu Map as follows to confirm the additional memory is correctly installed.
 - (a) Press **Menu (0)** button twice to access the INFORMATION MENU.
 - (b) Press **Select (3)** button and confirm PRINT MENU MAP is displayed on the LCD.
 - (c) Press **Select (3)** button to print the menu map.
 - (d) Check that Total Memory Size is the same as the memory now installed in the printer.

Printer driver

After installing additional memory, the memory size in the Windows PostScript and Macintosh printer drivers has to be changed.

Windows 2000 PostScript

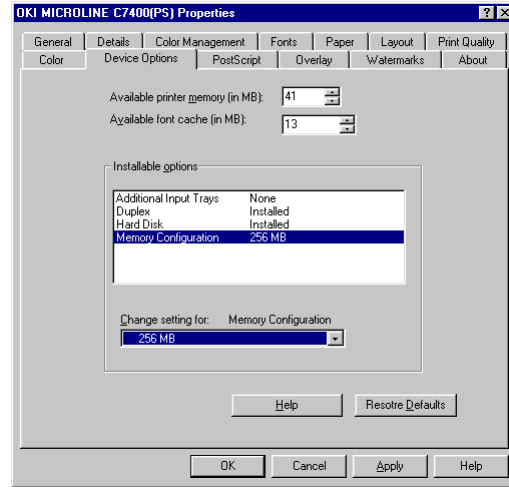
1. Click on [Start] - [Settings] - [Printers].
2. Highlight the printer name and click on [File] then [Properties].
3. Click on [Device Settings] tab.



4. Highlight [Memory Configuration] and adjust the amount of memory to the same as that now installed in the printer.

Windows 95/98/Me

1. Click on [Start] - [Settings] - [Printers].
2. Highlight the printer name and click on [File] then [Properties].
3. Click on the [Device Options] tab.



4. Highlight [Memory Configuration] and adjust the amount of memory to the same as that now installed in the printer.

Macintosh USB connection

1. Drag the printer icon from the desktop into the waste bin and empty the waste bin.
2. Create a new desktop printer and the settings will be updated automatically. Refer to Chapter 3 Macintosh Setup.

Macintosh network connection

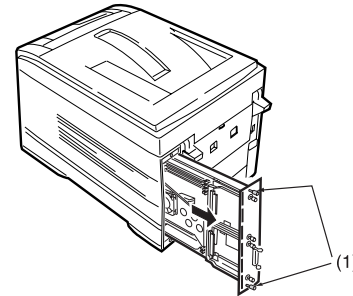
1. Open [Chooser], click on [Adobe PS] and select the printer.
2. Click on [Setup] - [Configure].
3. Select [Memory configuration] from [Installable options] and change to the amount of memory now installed in the printer from the drop down list.
4. Click on [OK] button twice and close [Chooser] to complete the re-configuration of the printer driver.

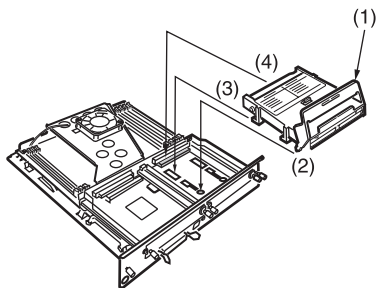
Internal hard disk

The optional internal hard disk is used for print and proof printing, password or secure printing and when printing jobs with complex data.

Installation

1. Switch off the printer and disconnect the power cable and printer interface cable.
2. Loosen the two screws (1) and remove the mother board.





3. Hold the internal hard disk by the locking handle (1).
4. Insert the handle locating lugs (2) and four locating feet (3) into the holes in the mother board making sure the hard disk connector (4) starts to engage with the socket on the control board.
5. Gently push down on the locking handle (1) making sure the hard disk moves forward and fully engages with the socket.
6. Replace the mother board and secure it with the two screws.
7. Connect the printer interface cable and power cable, then switch on the printer.
8. Print a Menu Map as follows to confirm the hard disk is correctly installed.
 - (a) Press **Menu (0)** button twice to access the INFORMATION MENU.
 - (b) Press **Select (3)** button and confirm PRINT MENU MAP is displayed on the LCD.
 - (c) Press **Select (3)** button to print the menu map.
 - (d) Check that HDD now shows installed in the printer.
9. After installation, the hard disk has to be initialised as follows:
 - (a) Press **Menu (0)** button until DISK MAINTENANCE is displayed, then press **Select (3)** button.
 - (b) When HDD INITIALISE is displayed, press **Select (3)** button.
 - (c) Press **Item (1)** button to shutdown the printer. The printer has to be switched off and back on again to initialise the hard disk before use.

Note 1: When initialising the hard disk, any fonts, overlays or print jobs that have been downloaded will be erased.

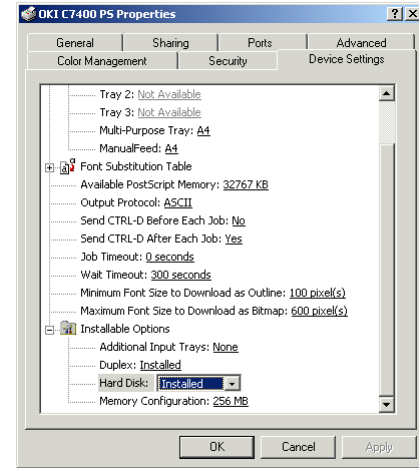
Note 2: The storage device manager can also be used to initialise the hard disk after installation.

Printer driver

After installing the hard drive and before it can be used, the printer driver has to be adjusted as follows.

Windows 2000/NT 4.0 PostScript

1. Click on [Start] - [Settings] - [Printers].
2. Highlight the printer name and click on [File] then [Properties].
3. Click on [Device Settings] tab.
4. Highlight [Hard Disk], then select [Installed] and click on [OK].



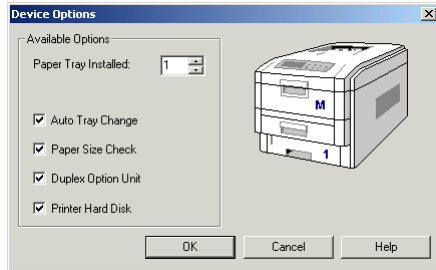
Windows 2000 PCL

1. Click on [Start] - [Settings] - [Printers].
2. Highlight the printer name and click on [File] then [Properties].
3. Click on [General] tab, [Printing Preferences] button, then [Device Options] button.

OR

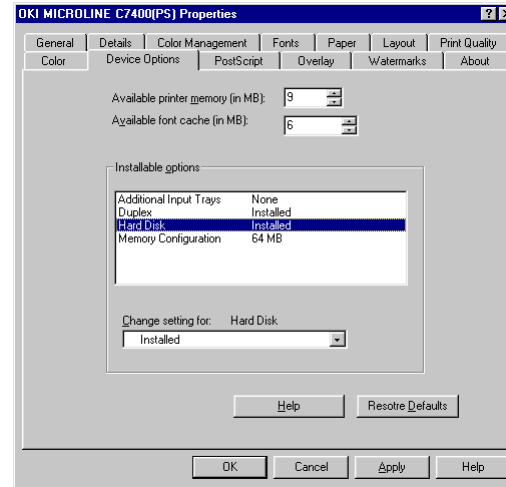
Click on [Advanced] tab, [Printing Defaults] button, then [Device Options] button.

4. Check [Printer Hard Disk] and click on [OK] three times.



Windows 95/98/Me PostScript

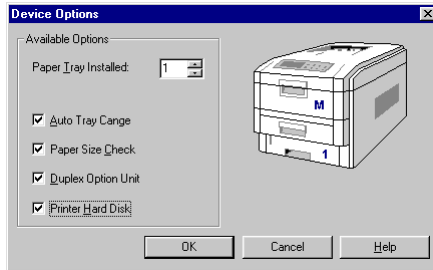
1. Click on [Start] - [Settings] - [Printers].
2. Highlight the printer name and click on [File] then [Properties].
3. Click on the [Device Options] tab.
4. Highlight [Hard Disk], then select [Installed] and click on [OK].



Windows 95/98/Me/NT 4.0 PCL

1. Click on [Start] - [Settings] - [Printers].
2. For Windows 95/98/Me - Highlight the printer name and click on [File] then [Properties].
For Windows NT 4.0 - Highlight the printer name and click on [File] then [Document Default].
3. Click on the [Paper] tab, then the [Device Options] button.

4. Check [Printer Hard Disk] and click on [OK] twice.



4. Click on [OK] button twice and close [Chooser] to complete the re-configuration of the printer driver.

Macintosh USB connection

1. Drag the printer icon from the desktop into the waste bin and empty the waste bin.
2. Create a new desktop printer and the settings will be updated automatically. Refer to Chapter 3 Macintosh Setup.

Macintosh network connection

1. Open [Chooser], click on [Adobe PS] and select the printer.
2. Click on [Setup] - [Configure].
3. Select [Hard disk] from [Installable options] and then select [Installed] from the drop down list.

Additional paper trays

Two additional paper trays can be installed and, when combined with the standard paper tray, paper capacity increases to approximately 1590 sheets.

Installation

1. Switch off the the printer and disconnect the power cable and printer interface cable.

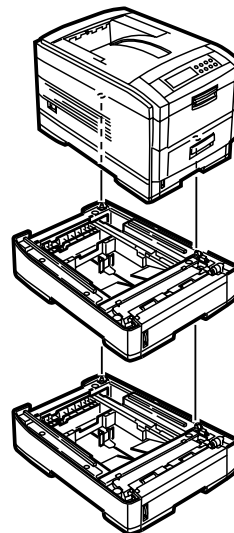
WARNING

THE PRINTER WEIGHS 48 KG. TWO PEOPLE ARE REQUIRED TO SAFELY LIFT THE PRINTER AND PREVENT ANY PERSONAL INJURY.

2. Lower the printer gently on to the additional paper tray unit aligning the holes and connection socket on the base of the printer with the spigotts and plug on the additional paper tray unit.

Note: *If installing both additional paper trays, put the two additional paper trays together as one unit first, then install the printer on top of the two additional paper trays.*

3. Connect the printer interface cable and power cable, then switch on the printer.



4. Print a Menu Map as follows to confirm the additional paper tray is correctly installed.
 - (a) Press **Menu (0)** button twice to access the INFORMATION MENU.
 - (b) Press **Select (3)** button and confirm PRINT MENU MAP is displayed on the LCD.
 - (c) Press **Select (3)** button to print the menu map.

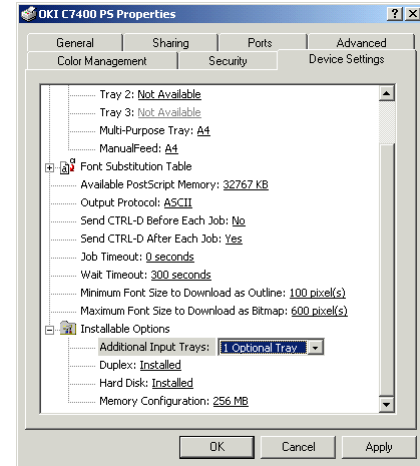
- (d) Check that TRAY 2 (and TRAY 3 if fitted) appear under MEDIA MENU.
5. Automatic tray switching is switched on as follows:
- Press **Menu (0)** button until the PRINT MENU is displayed and press **Select (3)** button.
 - Press **Item (1)** button until AUTO TRAY SWITCH is displayed.
 - Press **Value (2)** button until ON is displayed, then press **Select (3)** button.
 - Press **Online (4)** to turn the printer back online.

Printer driver

After installing additional paper trays and before they can be used, the printer driver has to be adjusted as follows.

Windows 2000/NT 4.0 PostScript

- Click on [Start] - [Settings] - [Printers].
- Highlight the printer name and click on [File] then [Properties].



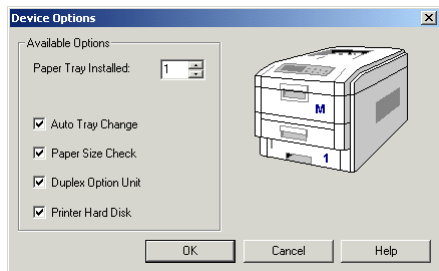
- Click on [Device Settings] tab.
- Highlight [Additional Input Trays], then select the number installed and click on [OK].

Windows 2000 PCL

- Click on [Start] - [Settings] - [Printers].
- Highlight the printer name and click on [File] then [Properties].
- Click on [General] tab, [Printing Preferences] button, then [Device Options] button.

OR

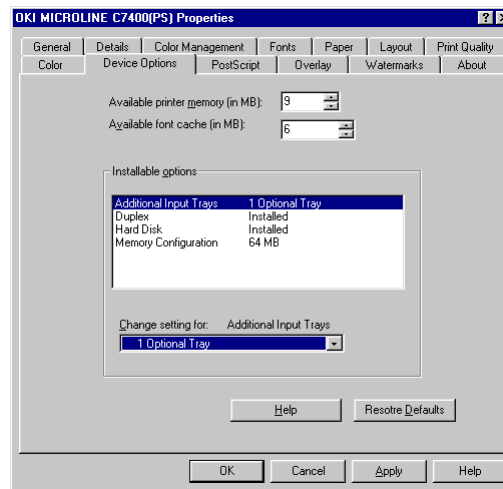
Click on [Advanced] tab, [Printing Defaults] button, then [Device Options] button.



4. Increase the number of [Paper Tray Installed] to the paper trays now installed.
5. Check [Auto Tray Change] and click on [OK] twice.

Windows 95/98/Me PostScript

1. Click on [Start] - [Settings] - [Printers].
2. Highlight the printer name and click on [File] then [Properties].
3. Click on the [Device Options] tab.



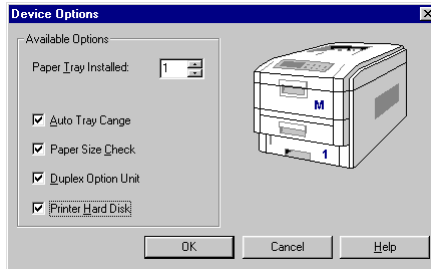
4. Highlight [Additional Input Trays], then select the number installed and click on [OK].

Windows 95/98/Me/NT 4.0 PCL

1. Click on [Start] - [Settings] - [Printers].
2. For Windows 95/98/Me - Highlight the printer name and click on [File] then [Properties].

For Windows NT 4.0 - Highlight the printer name and click on [File] then [Document Default].

3. Click on the [Paper] tab, then the [Device Options] button.



4. Increase the number of [Paper Tray Installed] to the paper trays now installed.
5. Check [Auto Tray Change] and click on [OK] twice.

Macintosh USB connection

1. Drag the printer icon from the desktop into the waste bin and empty the waste bin.
2. Create a new desktop printer and the settings will be updated automatically. Refer to Chapter 3 Macintosh Setup.

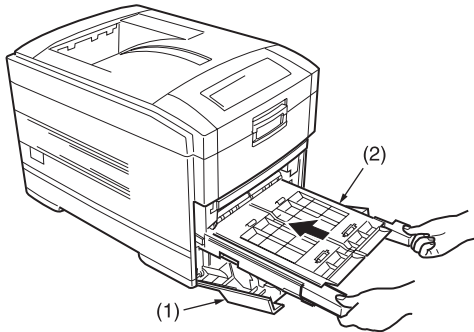
Macintosh network connection

1. Open [Chooser], click on [Adobe PS] and select the printer.
2. Click on [Setup] - [Configure].
3. Select [Additional input trays] from [Installable options] and then select the number of trays now installed from the drop down list.
4. Click on [OK] button twice and close [Chooser] to complete the re-configuration of the printer driver.

Duplex unit

Installation

1. Switch off the printer and disconnect the power cable.
2. Open the front cover (1).
3. Insert the duplex unit (2) into the printer engaging the sides of the duplex unit in the slots in the printer.
4. Gently slide the duplex unit (2) fully into the printer.
5. Close the front cover (1).



6. Connect the power cable and switch the printer on.
7. Press **Menu (0)** button until PRINT MENU is displayed, then press **Select (3)** button.
8. Press **Item (1)** button until DUPLEX is displayed.
9. Press **Value (2)** button until ON is displayed and press **Select (3)** button. An asterisk (*) appears to show that duplex has been set to on.
10. Press **Online (4)** button to turn the printer back on line.

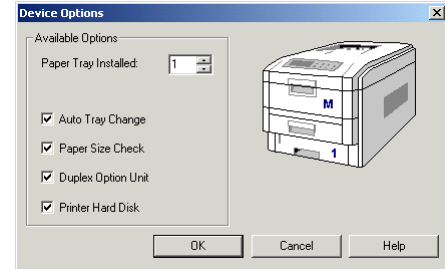
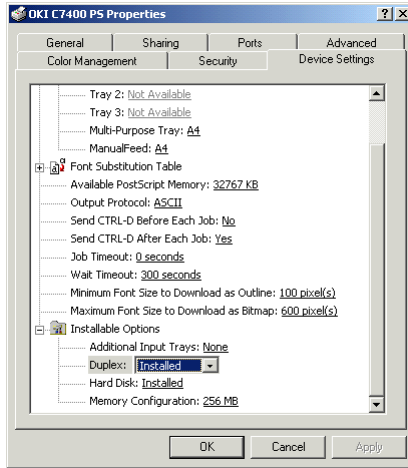
Printer driver

After installing the duplex unit and before it can be used, the printer driver has to be adjusted as follows.

Windows 2000/NT 4.0 PostScript

1. Click on [Start] - [Settings] - [Printers].
2. Highlight the printer name and click on [File] then [Properties].
3. Click on [Device Settings] tab.
4. Highlight [Duplex], then select [Installed] and click on [OK].

4. Check [Duplex Option Unit] and click on [OK] three times.



Windows 95/98/Me PostScript

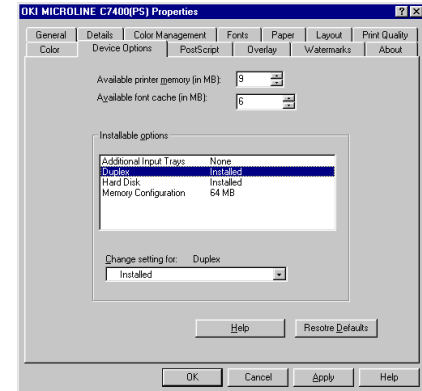
1. Click on [Start] - [Settings] - [Printers].

Windows 2000 PCL

1. Click on [Start] - [Settings] - [Printers].
2. Highlight the printer name and click on [File] then [Properties].
3. Click on [General] tab, [Printing Preferences] button, then [Device Options] button.

OR

Click on [Advanced] tab, [Printing Defaults] button, then [Device Options] button..



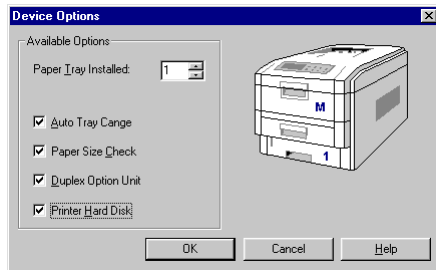
2. Highlight the printer name and click on [File] then [Properties].
3. Click on the [Device Options] tab.
4. Highlight [Duplex], then select [Installed] and click on [OK].

Windows 95/98/Me/NT 4.0 PCL

1. Click on [Start] - [Settings] - [Printers].
2. For Windows 95/98/Me - Highlight the printer name and click on [File] then [Properties].

For Windows NT 4.0 - Highlight the printer name and click on [File] then [Document Default].

3. Click on the [Paper] tab, then the [Device Options] button.



4. Check [Duplex Option Unit] and click on [OK] twice.

Macintosh USB connection

1. Drag the printer icon from the desktop into the waste bin and empty the waste bin.
2. Create a new desktop printer and the settings will be updated automatically. Refer to Chapter 3 Macintosh Setup.

Macintosh network connection

1. Open [Chooser], click on [Adobe PS] and select the printer.
2. Click on [Setup] - [Configure].
3. Select [Duplex] from [Installable options] and then select [Installed] from the drop down list.
4. Click on [OK] button twice and close [Chooser] to complete the re-configuration of the printer driver.

Appendix A - Specifications

Main specifications

Print method	Led exposed light source electronic photographic memory
Resolution	C7200 - 600 dpi C7400 - 600 dpi; 1200 dpi; Quick 1200 dpi
Colours	Cyan, magenta, yellow, black (CMYK)
CPU	Power PC 750 processor, 32 bit RISC CPU, 400 MHz
RAM	C7200 - 64 - 128 Mb standard C7400 - 256 Mb standard Up to 1 Gb max with optional memory modules
HDD	5 Gb approx (optional)
Print language	PostScript3, PCL5c
OS	Windows95/98/2000/NT4.0, MacOS 7.6 +
Internal font	PostScript 3, PCL5c fonts
Interface	IEEE Std 1284-1994 parallel, USB, Network 100BASE-TX/10BASE-T option
Print speed (see Note 1)	Colour 12 pages per minute, monochrome 20 pages per minute (A4 copy mode) Duplex colour 10 pages per minute, monochrome 16 pages per minute (A4 copy mode, optional)

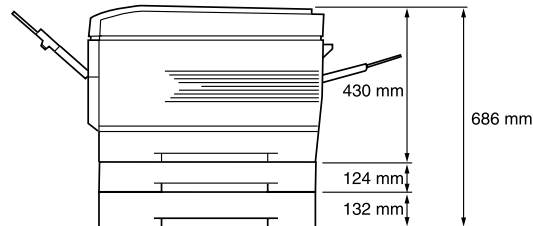
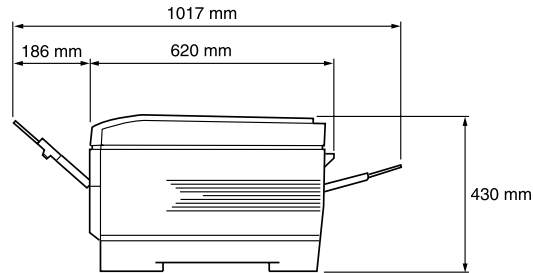
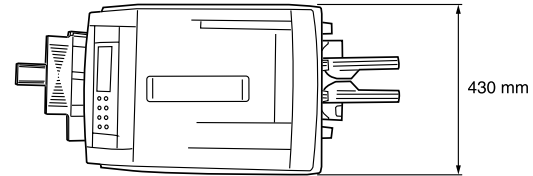
Media type	A4, A5, A6, B5, Legal 13/13.5/14 inch, executive, custom, com-9 envelope, com-10 envelope, monarch envelope, DL envelope, C5 envelope, C4 envelope
Media weight	60 to 200 g/m ²
Paper feed	Paper tray, manual feed, optional additional paper tray(s)
Paper capacity (depending on paper weight)	Paper tray: 530 sheets approx Manual feed: 100 sheets approx
Paper exit	Face up/face down (see Note 2)
Exit capacity (depending on paper weight)	Face up: 100 sheets approx Face down: 250 sheets approx, 500 sheets approx <80g/m ²
Print margin	4.3 mm min (1/16 inch)
Print accuracy	Print start accuracy: ±2 mm Paper skew: ±1 mm/100 mm Image expansion/compression: ±1 mm/100 mm
Startup time	Less than 3 min. from powering up (25°C)
Power supply	AC 230 V ± 10%, 50/60 Hz ± 1 Hz
Power consumption	Operating: 1,300 max.; 400 W av. (25°C) Standby: 1200 max.; 150 W av. (25°C) Power saving: 45 W max.
Current	7.0A or less (25°C)

Operating environment	Operating: 10 to 32 °C/20 to 80% RH (optimum 25 °C wet, 2 °C dry) Off: 0 to 43 °C/10 to 90% RH (optimum 26.8 °C wet, 2 °C dry)
Print environment	30 to 73% RH @ 10 °C; 30 to 54% RH @ 32 °C 10 to 32 °C @ 30% RH; 10 to 27 °C @ 80% RH Colour 17 to 27 °C @ 50 to 70% RH
Standard operation	Power on 220 hours/month, printing 5,000 sheets/month
Consumables/ Maintenance unit	Toner cartridge, image drum cartridge, transfer belt unit, fuser roller unit
Product life	5 years or 600,000 sheets (5,000 sheets/month)
Weight	48 kg not including optional accessories and paper

Note 1: *Print speed varies with paper size, media weight and paper feed.*

Note 2: *Exit method is limited by paper size, media weight and paper feed.*

External dimensions



Parallel interface

Basic specifications: IEEE Std 1284-1994 standard parallel interface

Connections: 36-pin receptacle 57RE-40360-830B-D29 to printer; 36-pin plug 57FE-30360 to cable

Cable: IEEE Std 1284-1994 compatible cable of up to 1.8 metres (Needs to be shielded.)

Transmission mode: Compatible, Nibble mode, ECP

Interface level: Low level +0.0 – 0.8V; High level +2.4 – 5.0V

USB interface

Basic specifications: USB specification Revision 1.1

Connections: UBB-4R-D1AT-1 to printer; B-plug to cable

Cable: USB specification Revision 1.1 cable (shielded)

Transmission mode: Full speed (12 Mbps + 0.25% maximum)

Power control: Self-powered device

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