Konica

IP-411

Print Controller

User's Guide

Acknowledgments

All brands and product names are trademarks or registered trademarks of their respective companies.

PostScript ®
A registered trademark of Adobe Systems, Inc.

Agfa Intellifont® Scalable Typefaces
A registered trademark from Agfa Corporation

TrueType ™
A trademark of Apple Computer, Inc.

Centronics ®
A registered trademark of Centronics Data Computer Corporation

HP ®, PCL ®, HP-GL ®
A registered trademark of Hewlett-Packard Company

Microsoft ®
A registered trademark of Microsoft Corporation

Windows ™
A trademark of Microsoft Corporation

PowerPage ® & Power Smoothing ®
A trademark of Electronics for Imaging, Inc. (EFI)
This product contains the PowerPage ® interpreter from EFI.

User's Guide Version Number

OP-IP411-01

Web Site Address on the Internet

http://www.konicabt.com

Disclaimer Notice

Konica Business Technologies, Inc. has made every effort to ensure that information in this manual is complete and accurate. However, constant efforts are also being made to improve and update the product. Therefore, Konica Business Technologies, Inc. shall not be liable for errors in this manual or for any consequential damages resulting from the use of this manual. Information contained herein is subject to change without notice.

Welcome to Konica's new print controller.

This new print controller is an image processing device that interfaces with your Konica printer main body, enabling you to print directly from your workstation.

Use this equipment according to instructions in this manual, which includes print controller specifications as well as detailed information on printer functions, printer drivers and driver screens. A display of fonts, symbol sets and printer commands is also included in this manual.

Other product-related manuals include the main body engine user's manual and the network interface card user's guide for the network administrator.

Should you need assistance on technical matters not covered in this manual, please phone the Konica support center at 1(800)825-5664.

Konica is committed to serving you the best way possible and we welcome your comments on this manual. Please send correspondence regarding this manual to our mailing address shown below.

We also invite you to visit Konica's Web Site to view or print user's manuals directly from your PC and to learn more about our full product line. Our Web Site address is:

http://www.konicabt.com

Mailing Address:

KONICA BUSINESS TECHNOLOGIES, INC.
Marketing/DSSG
500 Day Hill Road
Windsor, CT 06095

Definition of Terms

DPI - Dots Per Inch
The image resolution of the printer engine.

Double-Buffering
The embedded print controller is designed with an asynchronous connection between its Main CPU and the print engine. This allows the main CPU to rasterize pages into memory even when the print engine is busy printing pages from a previous job, or is being fed pages. This is commonly known as 'double-buffering' and allows higher throughput.

E-RDH - Electronic Recirculating Document Handler
An electronic memory and processing system where each image is scanned once and stored in memory. Each image is output face down in the desired order and according to special options.

Error Diffusion
A 'dithering' or half toning system that does not use 'patterns' of dots, but places the dots in a pseudorandom distribution.

I/O - Input/Output
Refers to the Input and Output channels of the system.

OHP/OHT - Overhead Projection/Overhead Transparency
The transparency media used in the bypass.

PCL - Printer Control Language
A term introduced by Hewlett Packard in their LaserJet series of printers. This product utilizes PCL-5E.

PostScript
A page description language designed by Adobe Systems Inc. This product utilizes Adobe PostScript Level 2.

Konica

NONEXCLUSIVE LICENSE AGREEMENT
READ THE TERMS AND CONDITIONS OF THIS LICENSE AGREEMENT CAREFULLY.

BY USING THE PRODUCTS DESCRIBED IN THIS USER MANUAL OR DOWNLOADING SOFTWARE OR PRINTER DRIVERS TO YOUR COMPUTER YOU AGREE TO BE BOUND BY THE TERMS OF THIS LICENSE.

The computer programs embedded in the equipment, the accompanying printer drivers (the "Software") and user documentation are copyrighted and licensed (not sold) to you by Konica Business Technologies, Inc. ("KONICA or LICENSOR"), 500 Day Hill Road, Windsor, Connecticut. This license agreement represents the entire agreement concerning the Software between you and KONICA and it supersedes any prior proposal, representation, or understanding between the parties. KONICA reserves any rights not expressly granted to you.

1. LICENSE GRANT. You do not receive title to the Software or User Documentation. Licensor grants to you, and you accept, a nonexclusive license to use the Software embedded in the Equipment in machine-readable, object code form only (referred to as the "Computer Program"), the accompanying User Documentation, and Printer Drivers furnished to you, (collectively the "Licensed Articles") only as authorized in this License Agreement. The Computer Program may be used only on the Equipment in which it is embedded and may not be shared with or transferred to any other equipment. The Printer Drivers shall be used only with printer products designed to work with the equipment containing the embedded Computer Program. You may make a single archival copy of the Printer Drivers, provided that it includes all copyright notices, markings and proprietary legends on the original, including the markings of any other company contained therein. This archival copy may not be in use at any time and must remain in your possession and control. You may not copy the drivers to a bulletin board or other similar system.

2. RESTRICTIONS. YOU MAY NOT ASSIGN, SUBLICENSE, MODIFY, ADAPT, TRANSFER, PLEDGE, LEASE, RENT OR SHARE YOUR RIGHTS UNDER THIS LICENSE AGREEMENT. YOU MAY NOT REVERSE ASSEMBLE, REVERSE COMPILE, OR OTHERWISE TRANSLATE THE SOFTWARE OR PRINTER DRIVERS, OR USE ANY OTHER METHOD TO DISCOVER THE PRINTER DRIVER'S OR SOFTWARE'S SOURCE CODE. YOU MAY NOT CREATE DERIVATIVE WORKS BASED UPON THE SOFTWARE OR ANY PART THEREOF. YOU MAY NOT COPY THE LICENSED ARTICLES EXCEPT AS SPECIFICALLY PROVIDED IN THIS LICENSE AGREEMENT.

3. LICENSOR'S RIGHTS. You acknowledge and agree that the Licensed Articles are proprietary products of Licensor or its suppliers and are protected under U.S. copyright law. You further acknowledge and agree that all right, title and interest in and to the Licensed Articles, including associated intellectual property rights, are and shall remain with Licensor or its supplier. Licensor's suppliers may protect their rights in the Licensed Articles in the event of a violation of this License Agreement. This License Agreement does not convey to you an interest in or to the Licensed Articles, but only a limited right of use revocable in accordance with the terms of this License Agreement.

4. LICENSE FEES. The license fees of $250.00 (included in the purchase price of the Equipment) paid by you are paid in consideration of the licenses granted under this License Agreement.

5. TERMINATION. This License Agreement is effective upon the purchase and acceptance of the Equipment by you or the downloading of any Software or Printer Driver from KONICA's Website or other authorized electronic medium and shall continue until terminated. This License Agreement will terminate upon your sale, transfer or disposal of the Equipment having the Software embedded therein. Licensor may terminate this License Agreement upon the breach by you of any term hereof. Upon such termination by Licensor, you agree to delete the Software and Printer Drivers from the hard drive of the Equipment and destroy all copies of the Software and Printer Drivers and User Documentation.

(Continued)

6. LIMITED WARRANTY. Licensor warrants, for your benefit alone, for a period of 90 days from the date of commencement of this License Agreement (referred to as the "Warranty Period") that the Software and Printer Drivers shall operate substantially in accordance with the functional specifications in the User Documentation. KONICA specifically does not warrant that the Software or Printer Drivers will operate uninterrupted or error-free. If during the Warranty Period, a defect in the Software or Printer Drivers appears, you may contact the Licensor for either a replacement or, if so elected by Licensor, refund of amounts paid by you under this License Agreement. You agree that the foregoing constitutes your sole and exclusive remedy for breach by Licensor of any warranties made under this Agreement. EXCEPT FOR THE WARRANTIES SET FORTH ABOVE, THE LICENSED ARTICLES, AND THE SOFTWARE CONTAINED THEREIN, ARE LICENSED "AS IS," AND LICENSOR DISCLAIMS ANY AND ALL OTHER WARRANTIES, WHETHER EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

7. LIMITATION OF LIABILITY. Licensor's cumulative liability to you or any other party for any loss or damages resulting from any claims, demands, or actions arising out of or relating to this Agreement shall not exceed $250.00. In no event shall Licensor be liable for any indirect, incidental, consequential, special, or exemplary damages or lost profits, even if Licensor has been advised of the possibility of such damages. SOME STATES DO NOT ALLOW THE LIMITATION OR EXCLUSION OF LIABILITY FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

8. GOVERNING LAW. This License Agreement shall be construed and governed in accordance with the laws of the State of Connecticut. Should any term of this License Agreement be declared void or unenforceable by any court of competent jurisdiction, such declaration shall have no effect on the remaining terms hereof.

9. COSTS OF LITIGATION. If any action is brought by either party to this License Agreement against the other party regarding the subject matter hereof, the prevailing party shall be entitled to recover, in addition to any other relief granted, reasonable attorney fees and expenses of litigation.

10. NO WAIVER. The failure of any party to enforce any rights granted hereunder or to take action against the another party in the event of any breach hereunder shall not be deemed a waiver by that party as to subsequent enforcement of rights or subsequent actions in the event of future breaches.

11. U.S. GOVERNMENT RESTRICTED RIGHTS. The Licensed Articles are provided with restricted rights. Use, duplication, or disclosure by the government is subject to restrictions set forth in subparagraph (c)(1)(ii) of the Rights in Technical Data and Computer Software clause at DFARS 252.277-7013, and paragraph (c)(1) and (2) of the Commercial Computer Software - Restricted Rights clause at FAR 52.277-19. The manufacturer is: Konica Business Technologies, Inc., 500 Day Hill Road, Windsor, Connecticut 06095.

Konica IP-411

FCC Regulations

The Konica IP-411 generates, uses, and can radiate radio frequency energy. If the equipment is not installed and used in accordance with the instruction manual, interference with radio communications may result. This equipment has been tested and found to comply with the limits for a Class A computing device, pursuant to Subpart J, Part 15, of FCC rules, which are designed to provide reasonable protection against interference from such equipment when it is operating in a commercial environment.

Users operating this equipment in a residential area are likely to cause interference, in which case they may be required to correct the interference at their own expense.

Canadian Department of Communications Regulations

Le présent appareil n'émet pas de bruits radioélectriques dépassant les limites applicables aux de Class A prescrites dans le règlement sur la brouillage radioélectrique édicté par Le Ministère des Communications du Canada.

This equipment does not exceed the Class A limits for radio noise emissions as set out in the radio interference regulations of the Canadian Department of Communications.

EN60950
EN50081-1
EN50082-1

Contents

Section 1: The Print Controller

The Print Controller

Introduction

The print controller interfaces directly with your Konica printer main body, enabling you to print directly from your PC or network. Please note that the network interface manual is provided separately for the network administrator..

This print controller supports PCL 5E and PostScript Level 1 & 2 compliant files and automatically uses the correct language for each print job, provided the print job follows specific industry standard conventions for detecting the beginning and end of each job.

Basically, print controller language detection works as follows:

- To determine the language in which a job was created, the preprocessor checks the beginning of each job.
- When a specific language code is detected, the preprocessor switches to that language, then processes the job.
- If the preprocessor cannot determine which language to use, the default language will be used for the job.
- The system determines when the end of the job is reached by the *end-of-file* command of each language or by a 30-second time-out.
- For language switching to function correctly, the system must be able to detect when the end of the job is reached.

PCL 5E: The PCL 5E interpreter of the print controller is PowerPCL from Pipeline Associates, Inc. PowerPCL is an HP PCL 5E clone that supports multiple resolutions and PJL commands.

PostScript: The optional PostScript interpreter for the print controller is PowerPage2 from Electronics for Imaging, Inc. This is a Level 2 PostScript interpreter that also has Level 1 compatibility. The PostScript programming language is specifically tailored to produce images in a device independent manner. PostScript language programs are reproducible on virtually any device without significant differences, except for differences created in the devices themselves.

PJL Commands: Many of the PJL commands, as defined by HP, are supported by the print controller. Several special functions are controlled in PCL mode via the PJL commands. In addition, commands to provide bidirectional (BiDi) functionality are also supported.

The Print Controller

System Configuration

The Konica IP-411 Print Controller is an embedded control board for the Konica 7040/7033 Copier engine and is based on an IBM compatible PC architecture that includes the following:

Intel Pentium 233 MMX CPU
PCI bus interface to 7040/7033 Copier engine
PCI bus interface to optional network board (KN-302)
Standard 32 MB 168 pin DIMM memory
IDE 8 MB Flash (standard)
IDE Hard Drive (optional HD-104)

The IP-411 embedded control board contains custom hardware and software for communicating with and controlling the print engine. The IP-411 embedded control board can be reprogrammed in the field via the Parallel Port or through the network.

Settings

Default Settings

Default Paper Size	Letter
Default Resolution	400 dpi
Default Emulation	PCL 5E
Default Printer Quality	Text Mode

Other Settings

E-RDH Print Order	Normal
Duplex	Off
Sheet Insertion	Off
Paper Thickness	Normal
Print Density	Engine default
Finisher Mode	Job Offset

The Print Controller

Media Support

The Print Controller supports the following paper dimensions and orientations through the printer's main body.

USA (inches)

Tabloid-R	(11 x 17)
Legal-R	(8.5 x 14)
Letter-R	(8.5 x 11)
Letter	(11 x 8.5)
Half-Letter-R	(5.5 x 8.5)
A4	(297 x 210 mm)
A4R	(210 x 297 mm)
B4R	(364 x 257)

Europe (millimeters)

A3R	(297 x 420)
A4	(297 x 210)
A4R	(210 x 297)
A5R	(210 x 148)
B4R	(364 x 257)
B5	(182 x 257)
B5R	(257 x 182)
F4R	(330.2 x 203.2)

NOTE: An 'R' next to the paper size indicates that the short edge feeds first.

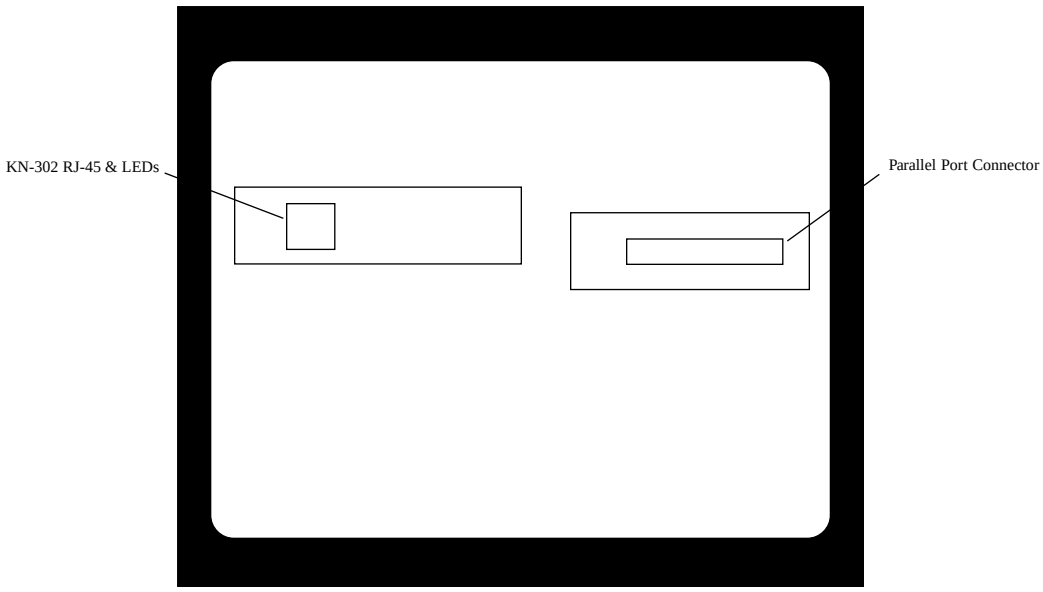
Special Media

Paper type can be specified from the print job screen. Overhead transparency material (OHT/OHP), thick paper, and thin paper can only be used through the manual bypass tray. After selecting the manual bypass tray, you will be prompted to insert the requested paper size into the tray.

The Print Controller

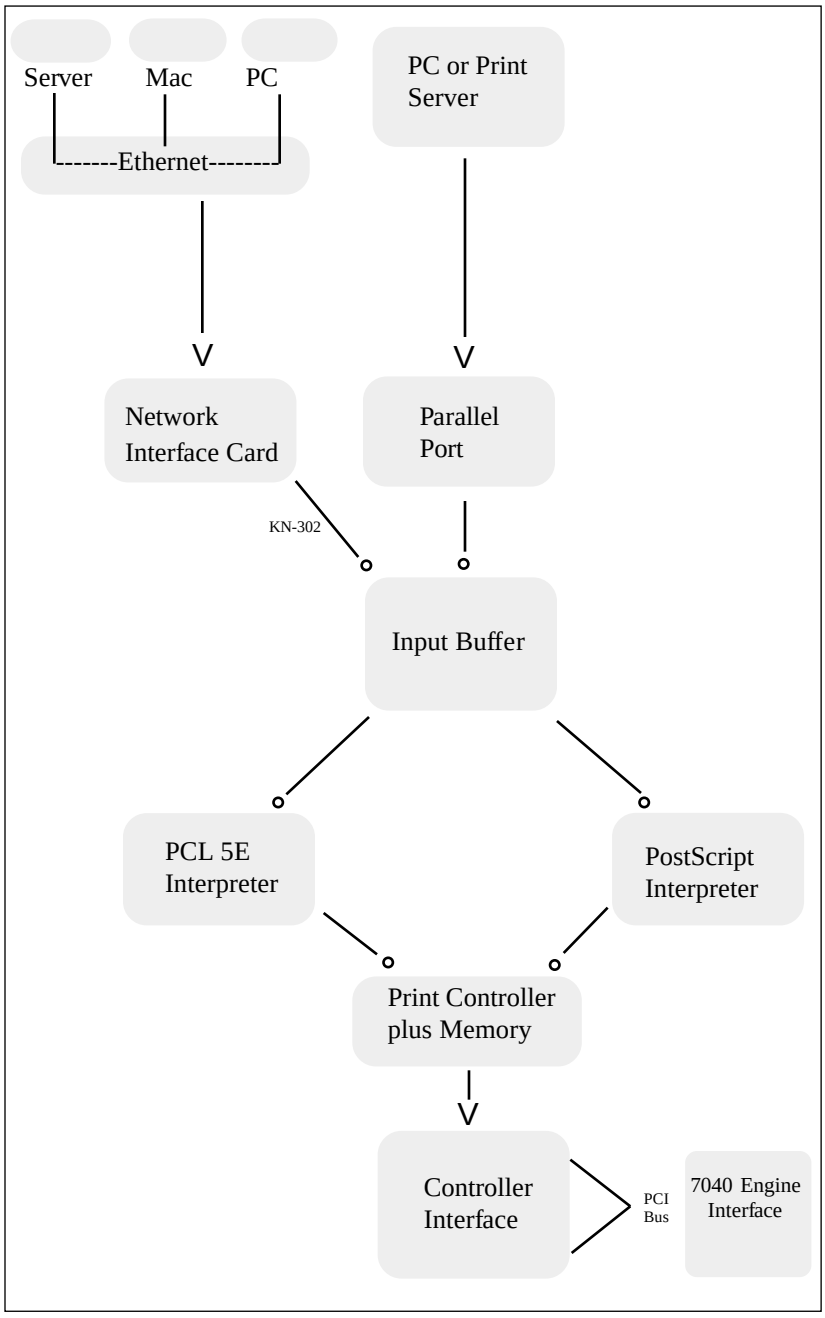
Layout

Main Body Engine Rear View



The Print Controller

I/O Interfaces



The Print Controller

Memory Configuration

Most of the print controller memory is used for rasterizing the image. A small portion (~2.7 MB) is used for the system operation.

The basic print controller configuration includes 32 MB of RAM. Even with 16 MB, 1-bit mode printing at 400 dpi is available on all paper sizes. By replacing the standard 32 MB DIMM, the print controller may be upgraded to 64 MB (standard) to allow 8.5"x11" grayscale printing; or 128 MB (optional) to allow 11"x17" or A3 grayscale printing or double buffering on smaller paper sizes.

When using the E-RDH in the one-sided mode, printing will be performed simultaneously while the print controller rasterizes the pages in the print job and sends them to the E-RDH memory. While pages are being printed from the E-RDH memory, the print controller continues to rasterize the next print job in the sequence.

The more memory in the print controller, the more pages it can rasterize while waiting for the previous job to print. A typical example of the memory requirements for a Letter page is as follows:

	1-Bit	**8-Bit**
400 DPI	1,870 Kbytes	14.96 Mbytes
600 DPI	4,207 Kbytes	33.66 Mbytes

32 MBytes installed = 15 pages @ 1-Bit, 400 DPI

You may select various image quality modes from your print driver screen to produce various levels of grayscale. The following Table shows the available image quality modes and the grayscale levels they produce.

Print Mode	**Print Engine**	**Print Controller**	**Grayscale**
Text (PCL/PS)	1-Bit Mode	1-Bit Mode	2 Levels
High (PS)	8-Bit Mode	8-Bit Mode	256 Levels

Memory Upgrade Modules

To obtain optimal printer performance, Konica recommends that DIMM modules be installed by a Konica certified technician. For details, contact your Konica service representative; or the Konica National Systems Solutions Group at 1(800) 825-5664.

The Print Controller

Specifications

System	
Architecture	IBM Compatible PC System
Processor	233 MHz Intel Pentium MMX
Memory	32 MB standard - MU105 64 MB - MU301 128 MB - MU302
Hard Drive	IDE Compatible - Laptop HD-104 IDE Flash 8 MB
Input/Output Interfaces	
Parallel	IEEE 1284 compatible bidirectional compatible
Network Connectivity	Optional KN-302 Ethernet Network Interface (10Base2/10Base-T) NetWare 3.x, 4.x (IPX/SPX) Apple Talk (Ether Talk) TCP/IP (LPD/LPR) LAN Manager/Server (NetBios) via TCP/IP SNMP
PDL Support	
Standard	PCL 5E
Optional	PostScript 2
Font Support	
PCL	45 PCL Fonts
PostScript	35 PostScript Fonts (optional)
Driver Software	Windows 3.1, 3.11, Windows 95 Windows NT Workstation & Server (ver. 3.x, 4.x) Macintosh and UNIX

Print Controller Features	**IP-411 w/o Hard Disk**	**IP-411 w/Hard Disk**
Job Spooling	No	Yes
Job Recovery	No	Yes
Font Download	No	Yes
Forms Overlay	No	Yes

Rec. Oper. Environment	50°~86°F (10°~30° C); 10~80% RH
Warm Up	Approx. 1.5 min. @ 68°F (20°C); 50% RH
Power Source	+5V/4.8A; +12V/.13A; -12V/0A
Power Consumption	25.56 W (Running Mode)
Radio Interference	FCC Rules part 15, Class A; CE Class B
Main Body Safety Std.	UL 1950; TUV-GS

Section 2: Printer Drivers

Printer Drivers

Installing Printer Drivers

Windows 3.x

The Printer Drivers that come with the IP-411 Print Controller are actually software programs that enable you to control all the printing settings for the selected printer.

Before you can print from your application (e.g., spreadsheet or word processor), the appropriate printer driver must be installed on your computer system.

Installing Printer Drivers is a simple procedure that includes the following:

- Installing a specific printer driver
- Assigning a port to the printer
- Specifying settings for your printer (optional)
- Setting the default printer

Installing a Specific Printer Driver (ex. Windows 3.x Printer Driver)

1. Double-click the Main icon in Program Manager.

2. Choose the Control Panel icon.

3. In the Control Panel window, choose the Printers icon.

4. Choose the Add button.

5. In the *List Of Printers* box, select *Install Unlisted or Updated Printer.*

Depending on your printer driver version, you may need to click the Browse button to find and select the printer driver. Then, click OK until the Add Unlisted or Updated Printer box displays. To install a driver that is listed but not installed, highlight it in the *List of Printers* box.

6. Choose the Install button.

7. Insert the disk containing the printer driver into your floppy drive, The default for the Konica drivers is drive A. If you are using a different drive, specify it. When the appropriate drive is selected, click on OK.

8. In the Add Unlisted or Updated Printer box, select the appropriate driver and click on OK.

9. The printer name will appear in the list of installed printers.

Printer Drivers

Installing Printer Drivers

Windows 3.x

Assigning a Port

By default, LPT1 will be assigned to the newly installed printer.

1. To assign a different port, click on the Connect button.

2. In the Ports list, select the port you want to assign to the printer.

NOTE: When installing to a network, up to three LPT printers can be assigned (LPT1, LPT2, LPT3) without having to add more through the WIN.INI file. Should it be necessary to add more than three printers, click on the Help button in the Connect box for instructions.

Tip: If you print to LPT1 in Windows 3.x and LPT1 is redirected to another port, the printer will not print. To correct this, select LPT1.DOS in the Connect dialog box.

Specifying Printer Settings

This is an optional step for making changes to the default printer settings, such as paper size or orientation. These settings can be temporarily overridden from within your application.

1. Click on the Setup button in the Printers dialog box.

2. When the Setup box is displayed, make the desired selections.

Setting the Default Printer

When you install a printer, it will automatically be highlighted in the Printers dialog box.

1. Highlight the printer you want as the default printer.

2. Click on the Set As Default Printer button.

NOTE: Some applications act as a control panel, making their settings become the system default. This is not a function of the driver.

Printer Drivers

Checking the Version of A Printer Driver

Windows 3.x

There may be times when you need to know if you are using the most up-to-date printer driver. Use the following procedure to check the version of a printer driver.

1. Highlight the driver in the Printers dialog box.

2. Click on the Setup button.

3. Click on the About button.

4. The About dialog box will be displayed with the printer version shown.

Printer Drivers

Printing Modes

Output Quality

High Mode (PostScript)
High Mode produces 256-level grayscale printing with 8 bits per pixel.

Text Mode (PCL/PostScript)
Text Mode performs normal quality 2-level grayscale printing.

Normal/Reverse Print Order

Some applications have a Reverse Print Order setting; if selected, the setting will do exactly as it indicates.

Duplex Mode

Stackless duplex means that the duplex mode makes unlimited 2-sided prints.

Mode Restriction: Duplex Mode cannot be used together with the manual Feed Tray or High Mode.

Offset Stacker/Stapler

Multiple sets are copied and offset from each other with or without stapling.

Mode Restriction: Job Offset or Stapling cannot be used with the Manual Feed Tray.

NOTE: When switching resolution, wait up to 5 min. for the temperature adjustment to take place.

Printer Drivers

Printing Modes

Real Time Mode Print

The print controller performs page printing and starts printing as soon as it starts receiving a print job. This is different from *document printing*, where a printer starts printing only after receiving the entire print job.

Dual Access

The Dual Access function provides an efficient means for the printer to simultaneously handle different types of printer/copier jobs. Dual Access capabilities are shown below:

- Scanning-Printing
- Printing - Copying
- Printing - Printing
- Copying- Copying
- Copying - Printing

The Electronic Recirculating Document Handler (E-RDH) allows the print engine to receive a job while it is printing your scanned or stored documents.

The print engine controls and creates the messages on the operation panel screen. The operation panel screen generates a Job Status screen, which is a copier type tab-based screen.

When you access printer setting values and parameters, the print controller will take over the control of the operation panel screen.

Image Density Selection

Controlling the Print Density level provides an efficient way to save toner. You may select this function directly from your print driver screen.

There are five distinct Print Density modes that can be used. Each mode is listed below, along with the corresponding level of toner density used by the mode.

- Normal 100%
- Toner Save Mode 80%
- Draft Mode 60%

Printer Drivers

Tray Selection/Paper Selection

The system selects the paper size and paper tray in the manner specified below.

When Paper Size is Not Specified

? When a print job *does not specify paper size*, the default paper size will be used.

When a Paper Tray is Specified

? When the print job *specifies a tray*, one of the following occurs:

(a) If the requested tray contains paper, the printer will use the requested tray.

(b) If the requested tray contains no paper, the printer will NOT look for another

tray that may contain the requested paper size.

NOTE: Make sure the tray you specify is supplied with the desired paper type and size.

Auto Tray Selection Mode

? If you request a paper size in the application screen, the printer will locate the paper source for that paper size and print the job.

? If a paper size you requested in the application screen cannot be located, the system will prompt you with a message on the control panel to request another paper size. In the event you are prompted to request another paper size, you may do one of the following:

(a) Load the desired paper size in the manual tray or in tray 1 and continue printing.

(b) Select another paper size and print.

(c) Abort the job.

Special Paper (OHP/Thin/Thick)

? If there is no paper installed, or if the wrong size paper is installed, the system will prompt you to install paper.

Printer Drivers

Font Selection

Standard fonts of the PostScript and PCL 5e languages are displayed on the following pages. The PostScript fonts shown are the visual equivalent of the Adobe fonts with the same names.

A PostScript compatible file system is provided for storing downloaded fonts or other files. At this time, PCL 5e does not support storing downloaded fonts on a hard drive.

Fonts that are downloaded with a print job are lost when the language changes or when the power is turned off. PostScript fonts can be permanently installed on the hard drive. Refer to your software documentation for font installation procedures.

Selecting Fonts from Application Software
Fonts can be selected through your application software after you have set up your hard disk with the necessary printer files and font files. Refer to your application software documentation for details.

Selecting PCL 5 Fonts using Embedded Printer Commands
Some applications allow embedded commands to be entered in your file from within your document. When an embedded printer command is entered, the printer performs a font search to match the certain font characteristics, e.g., spacing, pitch, point size. Printer commands for PCL 5 are included in Section 5.

NOTES:
1. Temporary soft fonts that are downloaded for a specific document are deleted when the font printout is generated; and they do not appear on the font printout.

2. Downloaded permanent soft fonts remain resident in the printer until they are replaced with other fonts or until the printer is turned off.

3. PostScript fonts listed are the visual equivalent of Adobe font names and are not the actual Adobe fonts.

Printer Drivers

Font Characteristics

A font is described by its Symbol Set and font characteristics, such as, Typeface, Point Size, Pitch, Spacing, Stroke Weight and Style.

Symbol Set: A Symbol Set relates to the unique set of all available alphanumeric, punctuation, and special symbols in a font. More than one Symbol Set can be used by one font, e.g., the math symbol set, legal symbol set, and Roman-8 symbol set.

Typefaces: Times Roman abcdefABCDEF&%!Helvetica abcdefABCDEF 12345&%!
Typeface relates to the design of all the characters and symbols that make up a font, including serif and sans serif design. Times Roman displays the serif design, Helvetica displays the san serif design.

Point Size: 8 Point abcdefABCDEF12345&%! 12 Point abcdefABCDEF 12345&%!
Point size relates to font height, and is measured in points at 72 points per inch. Point size is fixed in a bitmapped font, and variable in a scalable font.

Pitch: `Courier 10 Point 12 Pitch` `Courier 12 Point 10 Pitch`
Pitch relates to the number of characters per horizontal inch. Fonts have either fixed pitch or proportional spacing. Proportional spacing means the number of characters per inch is variable. A 12 pitch font, for example, prints 12 characters per horizontal inch.

Spacing: `Fixed Spacing Courier 10` Proportional Spacing Times Roman 10
Spacing relates to the amount of space allotted to each character, as for [i] and [x]. In Fixed Spacing, each character occupies either the same amount of space and is *fixed.* In Proportional Spacing, each character space varies according to the width of the character and is *proportional.* Whether Fixed or Proportional, the specified amount of space allotted to characters is specified for the entire font.

Stroke Weight: Helvetica Narrow abcdefABCDEF12345&%! **Helvetica Bold abcdefABCDEF12345&%!**
Stroke weight relates to print thickness of each character and is measured in terms of light (as in Helvetica Narrow), medium (as in Helvetica), and bold (**as in Helvetica Bold**).

Style: Helvetica Oblique abcdefABCDEF12345&%!
Style relates to posture (upright, italics), width (condensed, normal, expanded), and structure (outline, solid, shadow).

Printer Drivers

PostScript Printer Language Fonts

The following fonts are the visual equivalent of Adobe font names.

AvantGarde-Book	ABCDEFGHIJ1234567890
AvantGarde-BookOblique	*ABCDEFGHIJ1234567890*
AvantGarde-Demi	**ABCDEFGHIJ1234567890**
AvantGarde-DemiOblique	***ABCDEFGHIJ1234567890***
Bookman-Demi	**ABCDEFGHIJ1234567890**
Bookman-DemiItalic	***ABCDEFGHIJ1234567890***
Bookman-Light	ABCDEFGHIJ1234567890
Bookman-LightItalic	*ABCDEFGHIJ1234567890*
Courier	ABCDEFGHIJ1234567890
Courier-Bold	**ABCDEFGHIJ1234567890**
Courier-BoldOblique	***ABCDEFGHIJ1234567890***
Courier-Oblique	*ABCDEFGHIJ1234567890*
Helvetica	ABCDEFGHIJ1234567890
Helvetica-Oblique	*ABCDEFGHIJ1234567890*
Helvetica-Bold	**ABCDEFGHIJ1234567890**
Helvetica-BoldOblique	***ABCDEFGHIJ1234567890***
Helvetica-Narrow	ABCDEFGHIJ1234567890
Helvetica-Narrow-Oblique	*ABCDEFGHIJ1234567890*
Helvetica-Narrow-Bold	**ABCDEFGHIJ1234567890**
Helvetica-Narrow-BoldOblique	***ABCDEFGHIJ1234567890***
NewCenturySchlbk-Bold	**ABCDEFGHIJ1234567890**
NewCenturySchlbk-BoldItalic	***ABCDEFGHIJ1234567890***
NewCenturySchlbk-Italic	*ABCDEFGHIJ1234567890*
NewCenturySchlbk-Roman	ABCDEFGHIJ1234567890
Palatino-Bold	**ABCDEFGHIJ1234567890**
Palatino-BoldItalic	***ABCDEFGHIJ1234567890***
Palatino-Italic	*ABCDEFGHIJ1234567890*
Palatino-Roman	ABCDEFGHIJ1234567890
Symbol	ΑΒΧΔΕΦΓΗΙϑ1234567890
Times-Bold	**ABCDEFGHIJ1234567890**
Times-BoldItalic	***ABCDEFGHIJ1234567890***
Times-Italic	*ABCDEFGHIJ1234567890*
Times-Roman	ABCDEFGHIJ1234567890
ZapfChancery-MediumItalic	*ABCDEFGHIJ1234567890*
ZapfDingbats	✡✢✣✤✥❖✧★☆✪🖉🖌✓✔✕✖✗✘✙🖋

Printer Drivers

PCL Printer Language Fonts

The interpreter for the PCL language interprets the following fonts for a PCL print job.

Coronet	ABCDEFGHIJ9876543210
Clarendon Condensed	ABCDEFGHIJ9876543210
Marigold	ABCDEFGHIJ9876543210
Letter Gothic	ABCDEFGHIJ9876543210
Letter Gothic Bold	**ABCDEFGHIJ9876543210**
Letter Gothic Italic	*ABCDEFGHIJ9876543210*
Garamond Kuraiv Halbfett	ABCDEFGHIJ9876543210
Antique Olive	ABCDEFGHIJ9876543210
Antique Olive Bold	**ABCDEFGHIJ9876543210**
Antique Olive Italic	*ABCDEFGHIJ9876543210*
Garamond Antique	ABCDEFGHIJ9876543210
Garamond Halbfett	ABCDEFGHIJ9876543210
Garamond Kuraiv	ABCDEFGHIJ9876543210
Arial	ABCDEFGHIJ9876543210
Arial Bold	**ABCDEFGHIJ9876543210**
Arial Italic	*ABCDEFGHIJ9876543210*
Arial Bold Italic	***ABCDEFGHIJ9876543210***
Times New Roman	ABCDEFGHIJ9876543210
Times New Roman Bold	**ABCDEFGHIJ9876543210**
Times New Roman Italic	***ABCDEFGHIJ9876543210***
Times New Roman Bold Italic	***ABCDEFGHIJ9876543210***
Symbol	ΑΒΧΔΕΦΓΗΙ9876543210
Wingdings	
Courier	ABCDEFGHIJ9876543210
Courier Bold	**ABCDEFGHIJ9876543210**
Courier Italic	*ABCDEFGHIJ9876543210*
Courier Bold Italic	***ABCDEFGHIJ9876543210***
Albertus Medium	ABCDEFGHIJ9876543210
Albertus Extra Bold	**ABCDEFGHIJ9876543210**

(Continued)

Printer Drivers

PCL Printer Language Fonts

The interpreter for the PCL language interprets the following fonts for a PCL print job.

(Continued from previous page)

CG Times	ABCDEFGHIJ9876543210
CG Times Italic	*ABCDEFGHIJ9876543210*
CG Times Bold	**ABCDEFGHIJ9876543210**
CG Times Bold Italic	***ABCDEFGHIJ9876543210***
CG Omega	ABCDEFGHIJ9876543210
CG Omega Bold	**ABCDEFGHIJ9876543210**
CG Omega Italic	*ABCDEFGHIJ9876543210*
CG Omega Bold Italic	***ABCDEFGHIJ9876543210***
Univers Medium	ABCDEFGHIJ9876543210
Univers Bold	ABCDEFGHIJ9876543210
Univers Medium Italic	ABCDEFGHIJ9876543210
Univers Bold Italic	***ABCDEFGHIJ9876543210***
Univers Medium Condensed	ABCDEFGHIJ9876543210
Univers Bold Condensed	**ABCDEFGHIJ9876543210**
Univers Medium Condensed Italic	*ABCDEFGHIJ9876543210*
Univers Bold Condensed Italic	***ABCDEFGHIJ9876543210***

Section 3: Printer Driver Screens

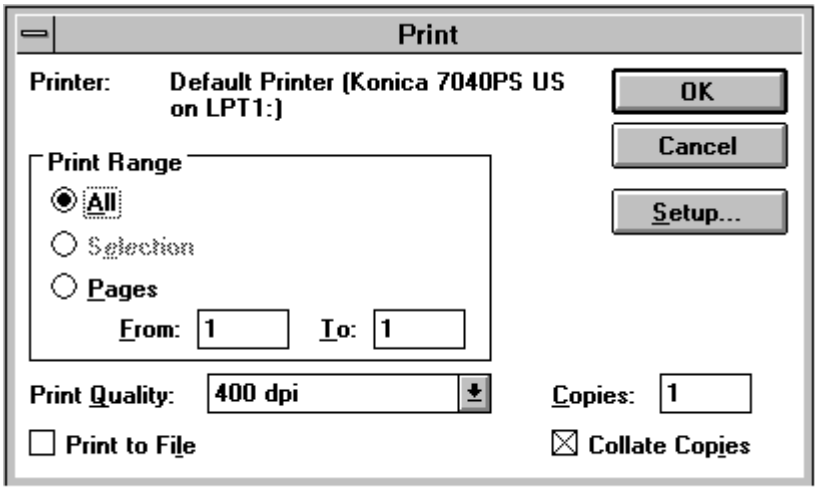
Printer Driver Screens

Overview

This section shows the various printer driver screens you will encounter when making printing selections, depending the printer driver installed. Samples include PostScript and PCL printer driver screens for Windows 3.1; and PostScript and PCL printer driver screens for Windows 95.

Windows 3.1 screens are similar to the screens in Windows for Workgroups. Many Windows 95 screens are similar to the screens in Windows NT.

When you select Print from your application screen, the following basic Windows screen displays.



Use the default settings shown on the screen or select options associated with each printing mode.

The following pages show a typical array of screens for the following printer drivers:

Windows 3.1 PS

Windows 3.1 PCL

Windows 95 PS

Windows 95 PCL

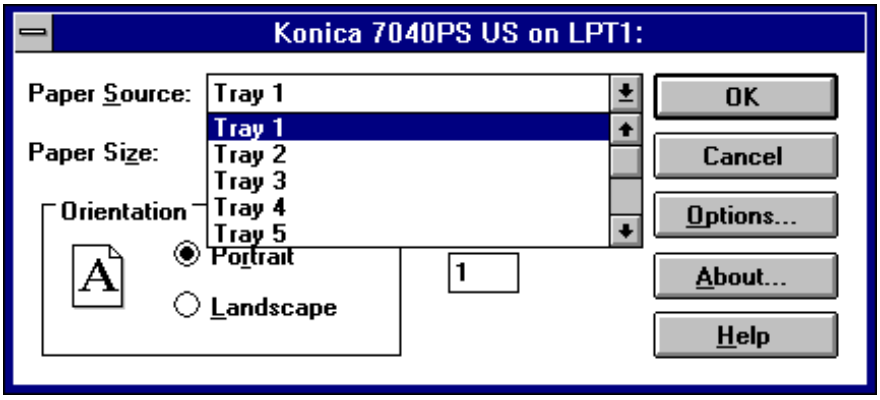
Windows NT4 PS

Windows NT4 PCL

PostScript Driver Screens for Windows 3.1

Printer Driver Screens

PostScript Driver Screens for Windows 3.1 Paper Source



The Print selection screen indicates the current settings for Paper Source, Paper Size and Orientation.

Paper Source
Auto Select mode is the default setting, which means the printer will select an appropriate tray containing the desired paper size. If you do not wish to use the Auto Select mode, you may select a specific tray.

When a specific tray is selected, as from the list of tray options shown in this sample screen, the selected tray will be used if it contains paper. If the specified tray does not contain paper, the system will not use another tray, even if another tray contains the desired paper.

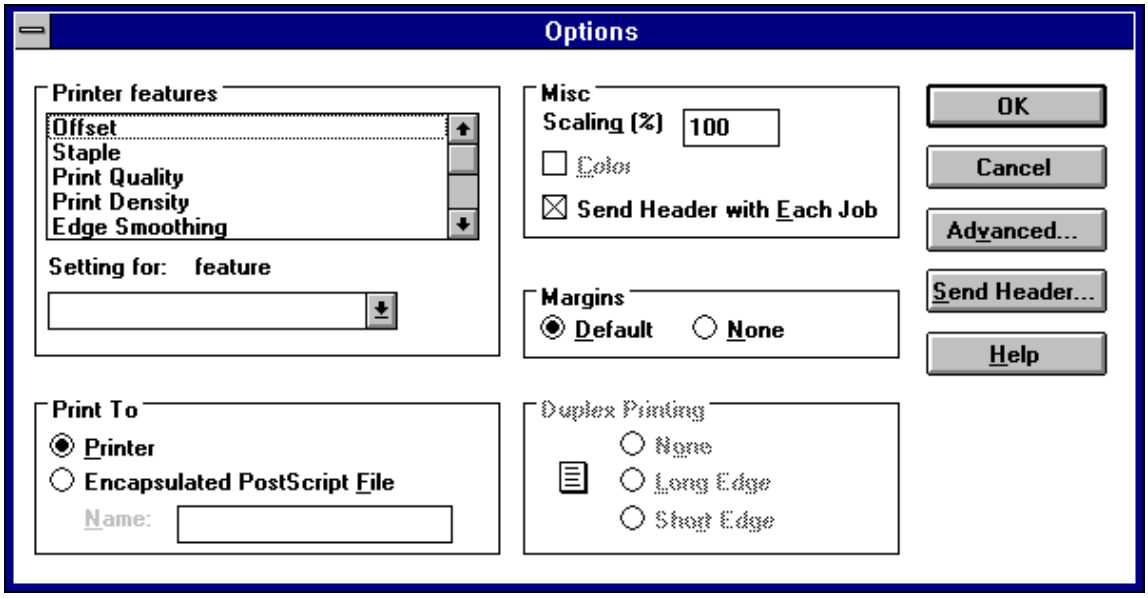
Paper Size
The default Paper Size is Letter size. If a different paper size is specified, it will be used if it is loaded in a tray.

Orientation
The default orientation is Portrait, which describes the vertical rather than horizontal (Landscape) positioning of the page

If you wish to view or change other printing settings, click Options to display the screen shown on the next page.

Printer Driver Screens

PostScript Driver Screens for Windows 3.1 Options



When Options is selected from the initial print selection screen shown on the previous page, the above screen displays the features that allow you to control the finishing style of your print job. Features include the following:

Offset or Staple
When printing multiple sets, the Staple mode staples each separate set.
The Offset mode keeps the sets separated without stapling them.

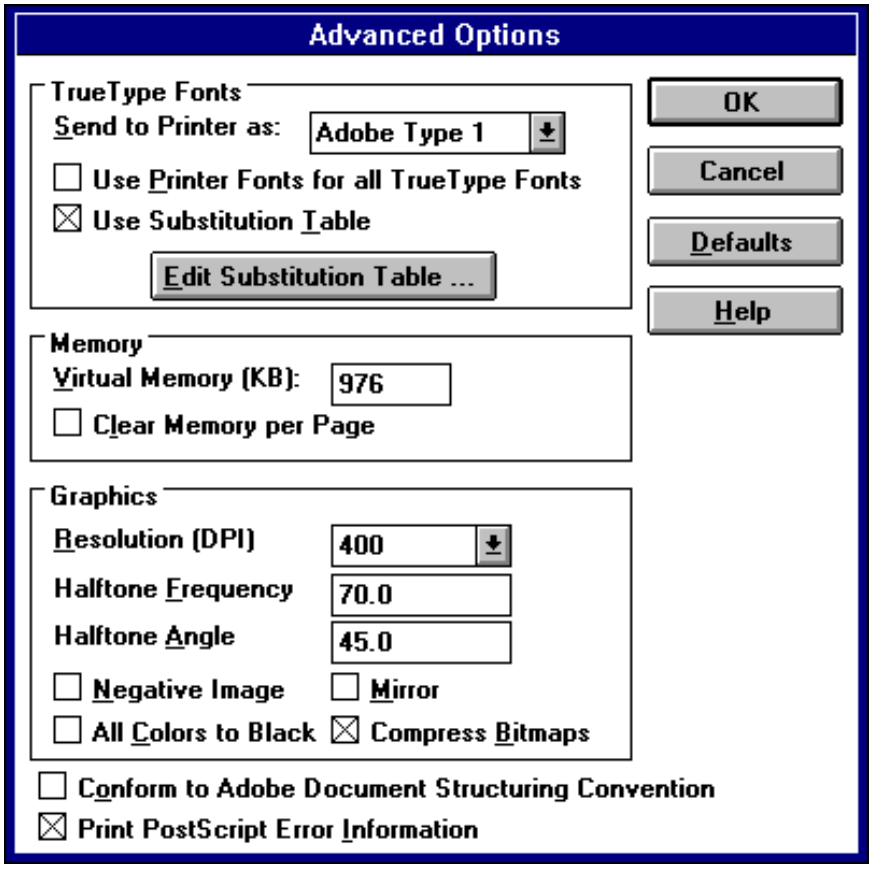
Print Quality
When printing image that requires higher resolution than text you may select higher resolution for graphics and halftone images. The Text mode is the default.

Print Density
Reduce toner consumption by 20% with the Toner Saver mode or by 40% with the Draft mode.
The default mode is Normal.

Edge Smoothing
Set this mode On to enhance the image by filling in feathered edges with extra toner.
The default mode setting is Off.

Printer Driver Screens

PostScript Driver Screens for Windows 3.1 Advanced Options



The Advanced Options screen allows you to select the following:

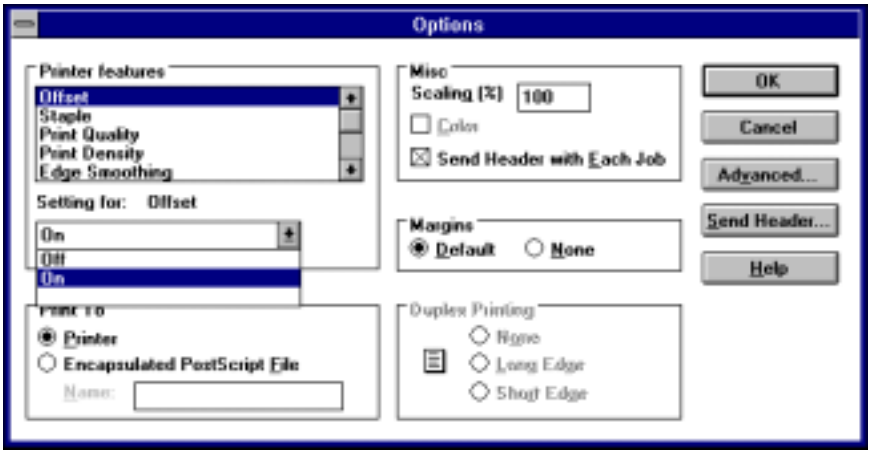
Fonts
You may change the default font currently in use by clicking the arrow in the [S*end to Printer as:*] field to display the list of available fonts.

Memory
Increase the amount of memory that is currently allocated for storing pages.

Graphics
Increase the current resolution setting to handle complicated text or halftone images.
Click the Resolution arrowto display the setting options. The default setting is 400 dpi.

Printer Driver Screens

PostScript Driver Screens for Windows 3.1 Offset Mode



From the Options screen, use the arrow under Printer features to scroll through the list of available options.

When printing multiple sets you may select the Offset mode to keep the sets separated.

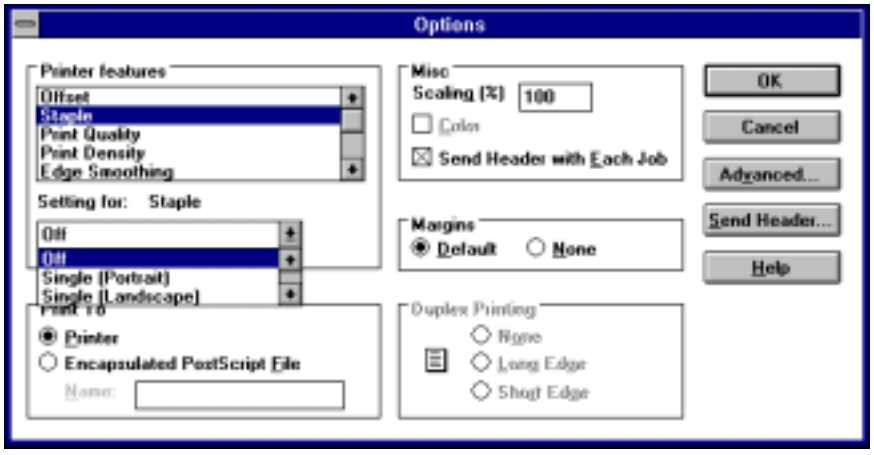
1 Highlight the Offset feature.

2 In the [*Setting for: Offset*] field, click Offset On.

3 Then click OK.

Printer Driver Screens

PostScript Driver Screens for Windows 3.1 Staple Mode



From the Options screen, use the arrow under Printer features to scroll through the list of available options.

When printing multiple sets you may select the Staple mode to staple each set.

1 Highlight the Staple feature.

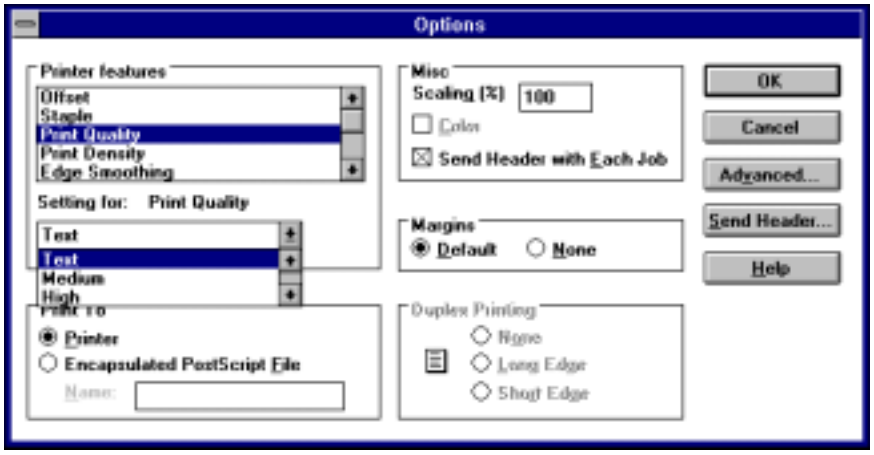
2 Then, select the preferred staple style under [*Setting for: Staple*].

- Single Portrait mode places a staple in the upper left corner of a portrait document.
- Single Landscape mode places a single staple in the upper left corner of a landscape document.
- Double Staple mode places two staples along the left edge of a portrait or landscape document.

3 When the correct setting is made, click OK.

Printer Driver Screens

PostScript Driver Screens for Windows 3.1 Print Quality



From the Options screen, use the arrow under Printer features to scroll through the list of available options.

When your document includes graphic or halftone images that require a higher resolution than that used for text you may change the Print Quality setting.

Mode settings include: Text, Medium, High and Very High.

1 Highlight Print Quality to display the current setting.

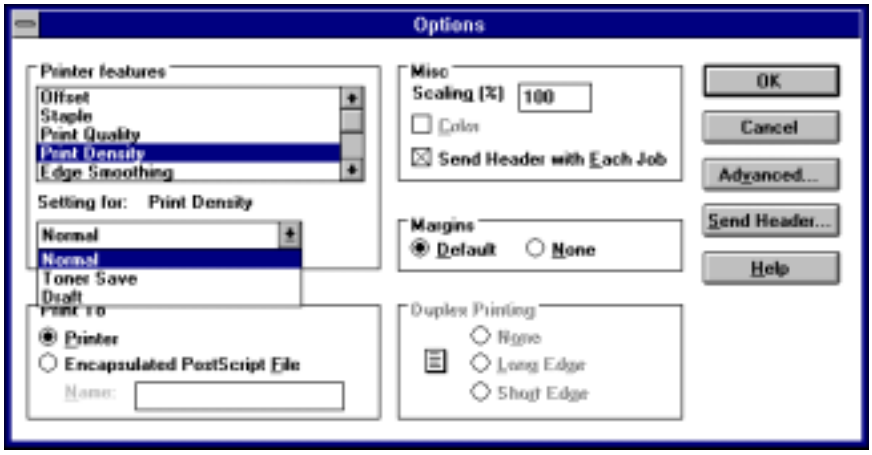
2 Use the arrow to scroll through a list of mode options.

3 Select the desired Print Quality mode, then click OK..

Note: Use the Very high mode for true grayscale printing.

Printer Driver Screens

PostScript Driver Screens for Windows 3.1 Print Density



Print Density allows you to reduce toner consumption by using the Toner Saver mode or Draft mode.

1 From the Options screen, use the arrow under Printer features to scroll through the list of available options, then highlight Print Density.

- Toner Saver mode reduces the amount of toner normally used by 20%.
- Draft mode reduces the amount of toner normally used by 40%.

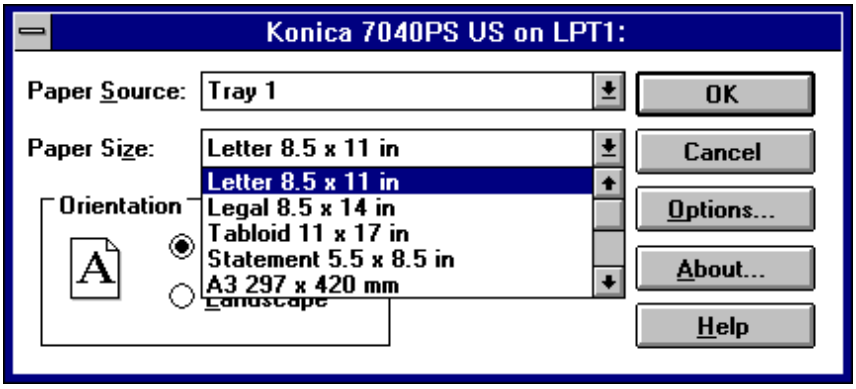
The current Print Density setting will be displayed in the [*Setting for: Print Density*] field.

2 Use the arrow to scroll to the desired setting.

3 Click on the desired mode, then click OK.

Printer Driver Screens

PostScript Driver Screens for Windows 3.1 Paper Size



The Print screen indicates the current setting for paper size.

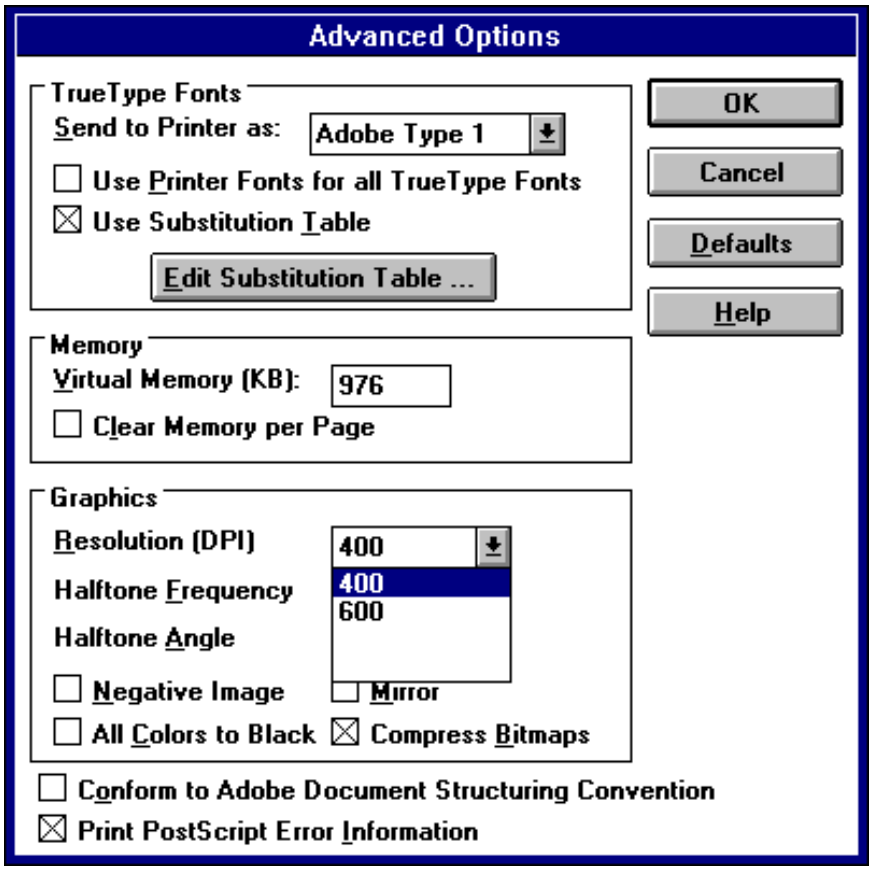
1 Use the Paper Size arrow to scroll through the list of options if you wish to select another paper size.

2 Double click on your selection, then click OK.

Note: If a specific paper size is selected along with a specific tray, be sure the correct paper is loaded in the selected tray, as no other tray will be used.

Printer Driver Screens

PostScript Driver Screens for Windows 3.1 Resolution



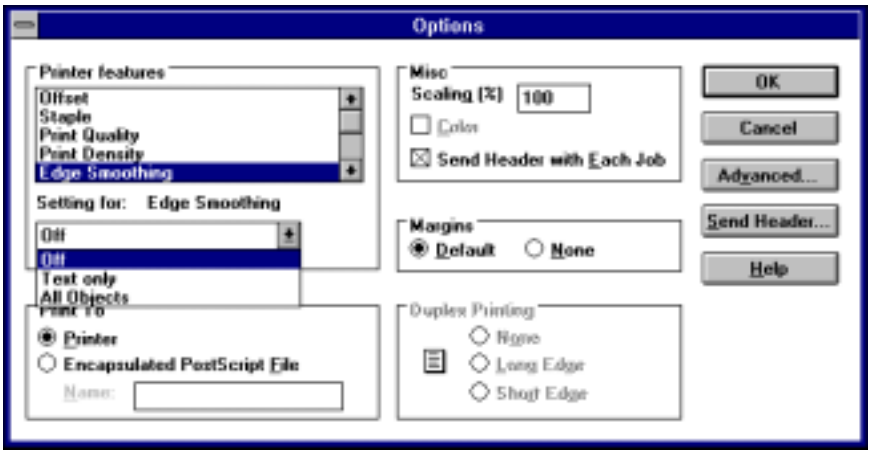
The Advanced Options screen indicates the current advanced settings and the default Resolution setting of 400 dpi.

1 To change the Resolution setting, click on the arrow to display the options.

2 Double click the desired Resolution, then click OK.

Printer Driver Screens

PostScript Driver Screens for Windows 3.1 Edge Smoothing



Edge Smoothing
The default setting is Off. When Edge Smoothing is turned On, edges of text or objects are filled in with extra toner and feathered edges are closed to enhance the image.

1 From the Options screen, use the arrow under Printer features to scroll through the list of available options.

2 Click on the Edge Smoothing feature.
Notice that the default setting of Off is indicated in the [*Setting for: Edge Smoothing*] field.

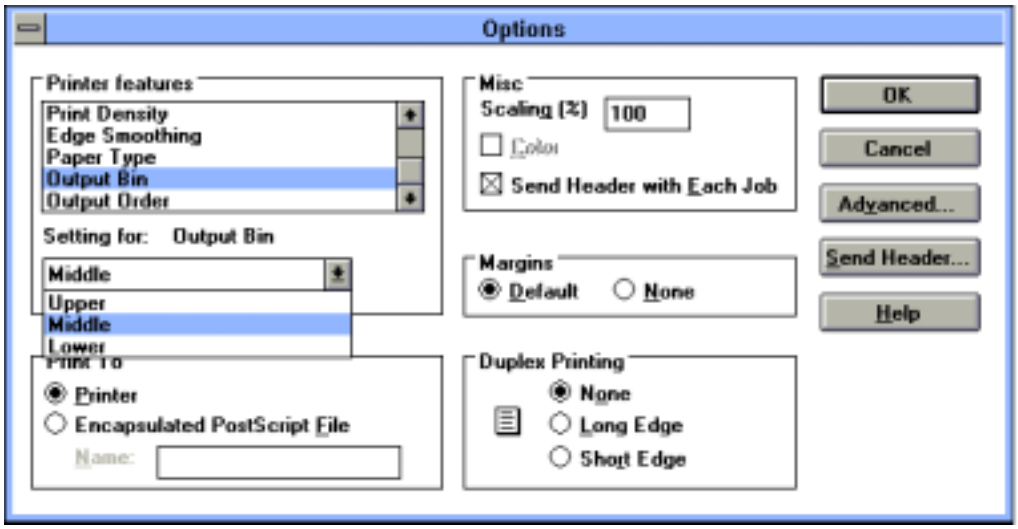
3 To turn the setting On, click the arrow to highlight the On setting.
Other settings are: **On for Text only** and **On for All Objects**.

4. When the setting you want is indicated, click OK.

To leave the setting unchanged, click Cancel.

Printer Driver Screens

PostScript Driver Screens for Windows 3.1 Output Bin



Output Bin

1. From the Options screen, use the arrow under Printer features to scroll through the list of available options.

2 Click on the Output Bin feature.

Output Bin describes which area of the finisher will be used as the output tray. This enables you to control a special or high volume job you may want to run from one source. The current Output Bin setting is indicated in *Setting for: Output Bin*. The default setting is for the middle tray.

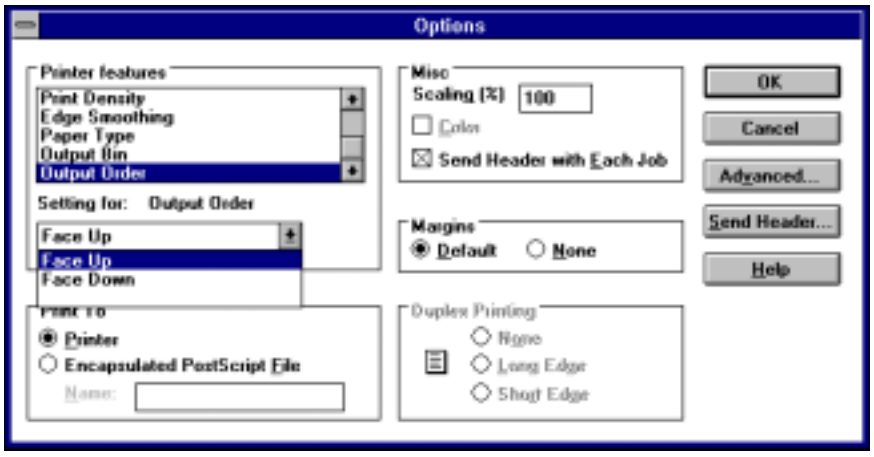
3 To change the setting, click the arrow to view further setting options, then select another output tray.

4 When the correct setting is indicated, click OK.

To leave the setting unchanged, click Cancel.

Printer Driver Screens

PostScript Driver Screens for Windows 3.1 Output Order



1 From the Options screen, use the arrow under Printer features to scroll through the list of available options.

2 Click on the Output Order feature to display the current setting in *Setting for: Output Order*. The default setting is Face Up. Use the face up mode when the sequential order of your document is not required. This mode is speedier than the face down mode. Select the face down mode when the sequential order of your document is required.

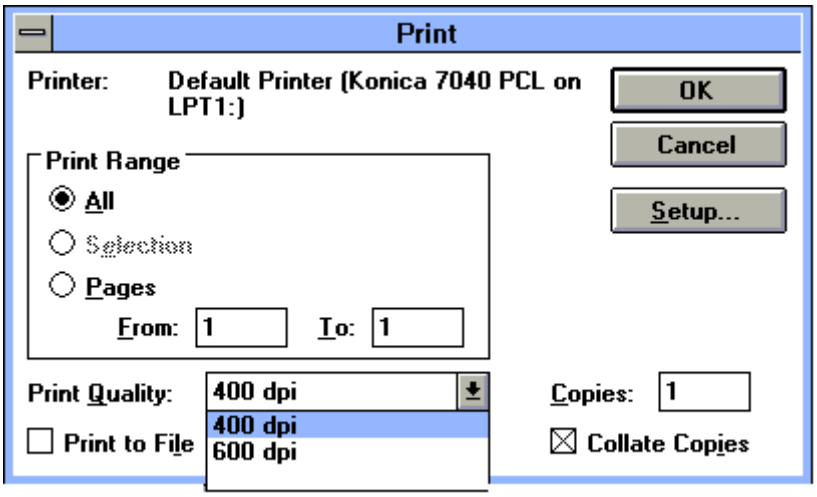
3 When the correct setting is indicated, click OK.

To leave the setting unchanged, click Cancel.

PCL Driver Screens for Windows 3.1

Printer Driver Screens

PCL Driver Screens for Windows 3.1 — Select Print

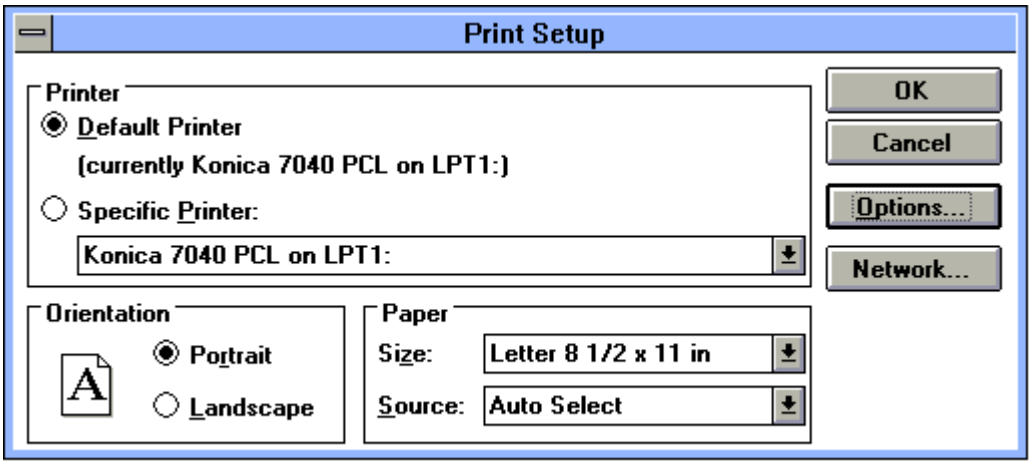


Select Print
When you select Print from your Windows application screen, the Windows Print screen displays the current settings as shown above.

To change settings, click on the Setup key to display the PCL Printer Driver screen shown on the next page.

Printer Driver Screens

PCL Driver Screens for Windows 3.1 Print Setup



View Current Printer Settings
When Setup is selected from the Print screen (see previous page), the Print Setup screen displays the current settings.

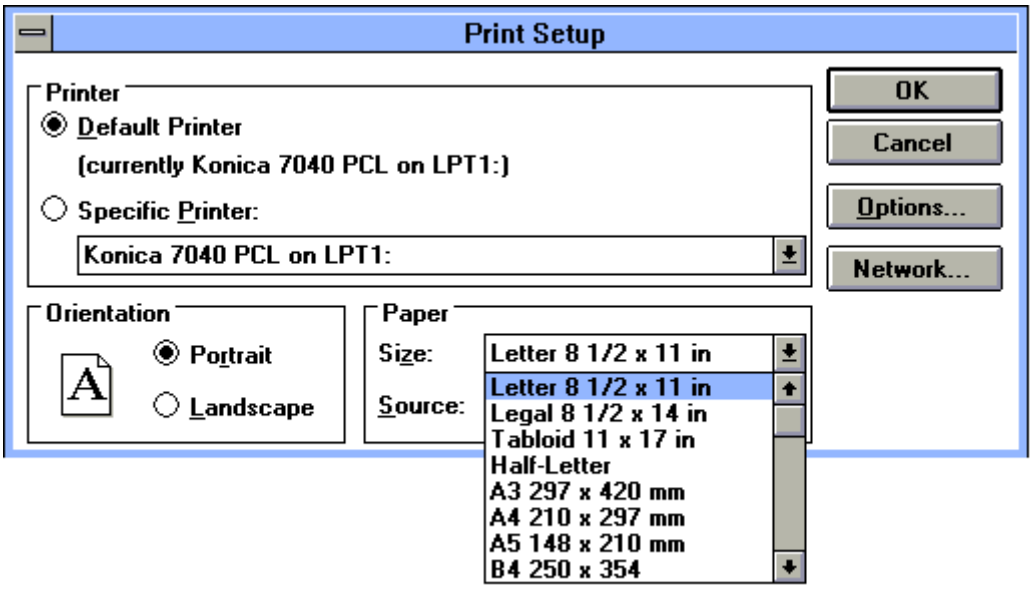
The current settings indicate that the Konica 7040 printer is set up on the LPT1 port with portrait orientation, letter size paper and Auto Select mode already selected. If no changes are made, your print job will be performed according to these settings.

To view optional paper sizes, click the arrow next to paper size. (See next page.)

To leave the settings unchanged, click Cancel.

Printer Driver Screens

PCL Driver Screens for Windows 3.1 Print Setup

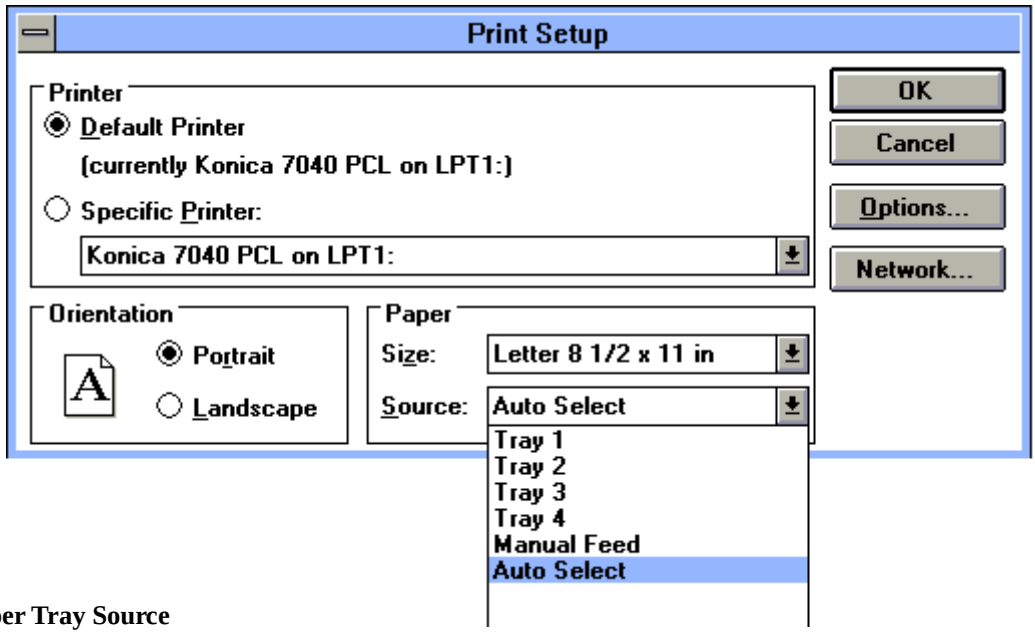


Paper Size
When you click the arrow next to paper size, optional paper sizes are listed.

If you wish to select another paper size, be sure to load that size in one of the paper trays before selecting it.

Printer Driver Screens

PCL Driver Screens for Windows 3.1 Print Setup



Paper Tray Source

Using Auto Select
Auto Select is the default mode for paper tray Source, which means the printer will automatically locate the tray containing the selected paper size without your intervention. To view other tray options, click the arrow next to the current tray Source setting. Other paper trays are shown in the above screen.

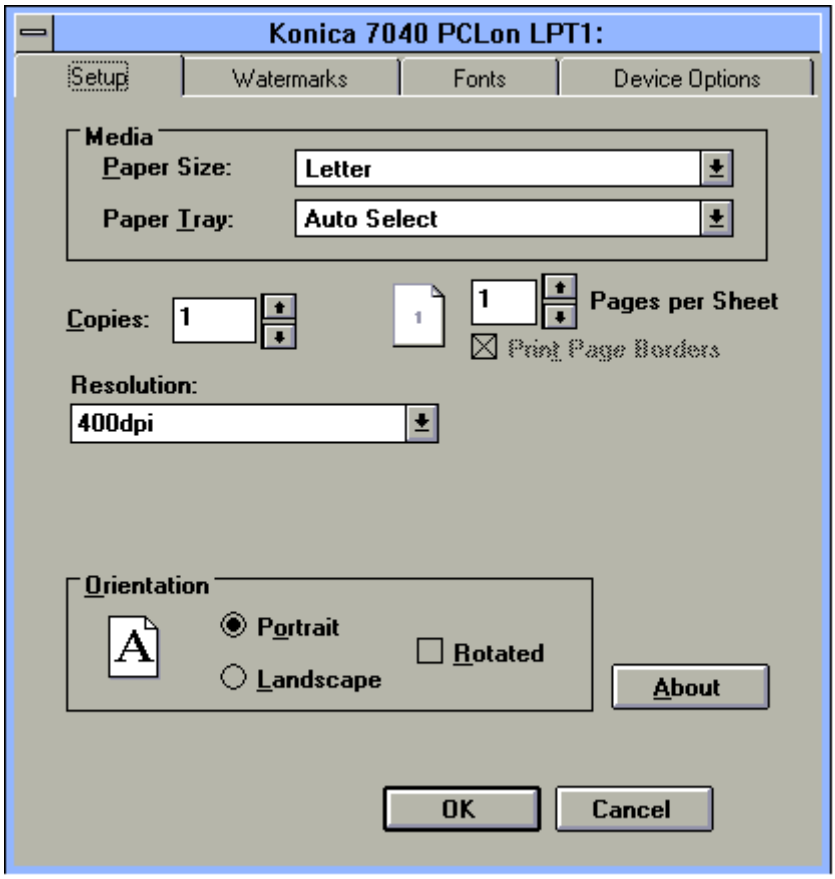
Selecting A Paper Tray
If you specify a tray, that tray will be used if it contains paper. If the selected tray is empty, the printer will not search for another tray, even if another tray contains paper.

- When the desired paper tray is indicated in the Source field, click OK.
- To see other print settings, click Options to view the screen shown on the next page.

To leave the settings unchanged, click Cancel.

Printer Driver Screens

PCL Driver Screens for Windows 3.1 Setup Tab



Setup Screen
The Setup tab brings you to a screen that shows the current settings for Paper Size, Paper Tray, Resolution and Orientation. This sample screen indicates that your print job will be performed on letter size paper selected by Auto Select mode with 400dpi resolution, and the paper will be output in the portrait style.

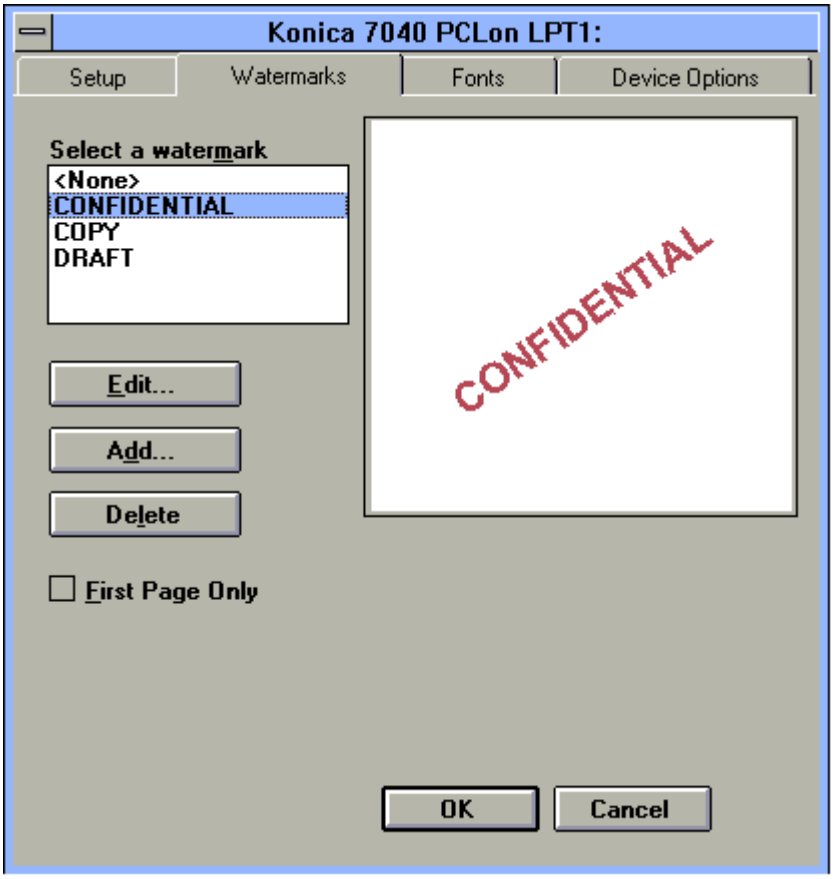
1. To change settings, click the arrow next to a current setting and highlight another setting.

2. When the setting(s) you want are indicated on the screen, click OK.

To leave the settings unchanged, click Cancel.

Printer Driver Screens

PCL Driver Screens for Windows 3.1 Watermarks Tab



Watermarks
The Watermarks screen allows you to select <None>, CONFIDENTIAL, COPY, or DRAFT for your Watermark setting. You may Add a new Watermark to the list by clicking Add, and you may Edit or Delete a highlighted Watermark by clicking Edit or Delete.

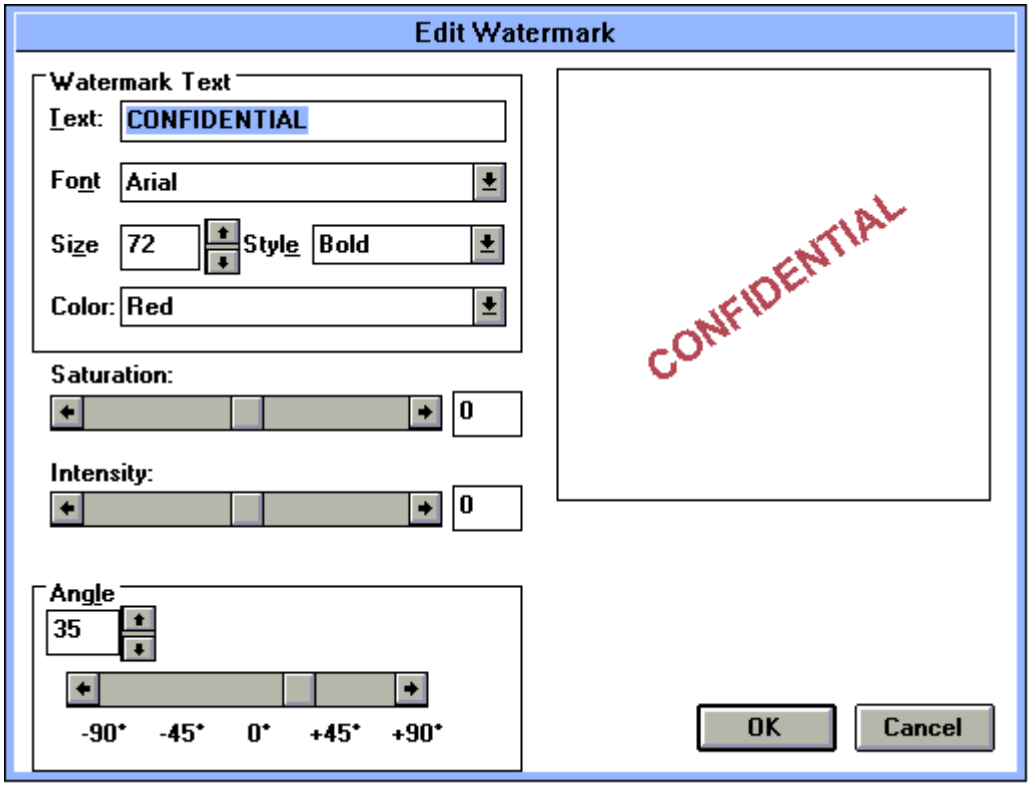
To select a Watermark you want to print out on your documents, highlight it, then click OK.

If you want to edit the Watermark before printing it, click Edit to display the screen shown on the next page.

To leave the settings unchanged, click Cancel.

Printer Driver Screens

PCL Driver Screens for Windows 3.1 Edit Watermark



Edit Watermark
The Edit screen allows you to change the Font, Size, Style and Color of the highlighted text. Other settings allow you to adjust the Saturation and Intensity of the color.

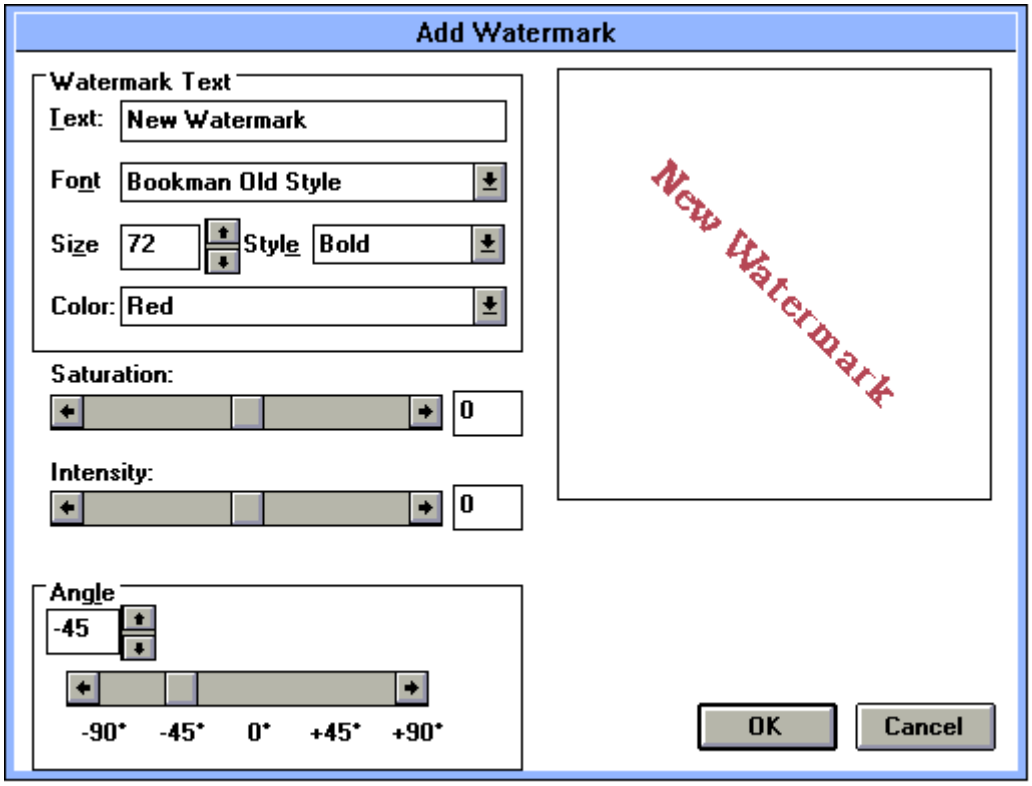
You may also change the angle of the Watermark by clicking the left or right arrow and selecting the desired value (+) or (-) for the angle. The angle in the example shown above is 35°, which is a (+) value.

When all settings changes are made, click OK.

To leave the settings unchanged, click Cancel.

Printer Driver Screens

PCL Driver Screens for Windows 3.1 Add Watermark



Add Watermark
When you click Add on the Watermarks screen, the Add Watermark screen displays, as shown above.

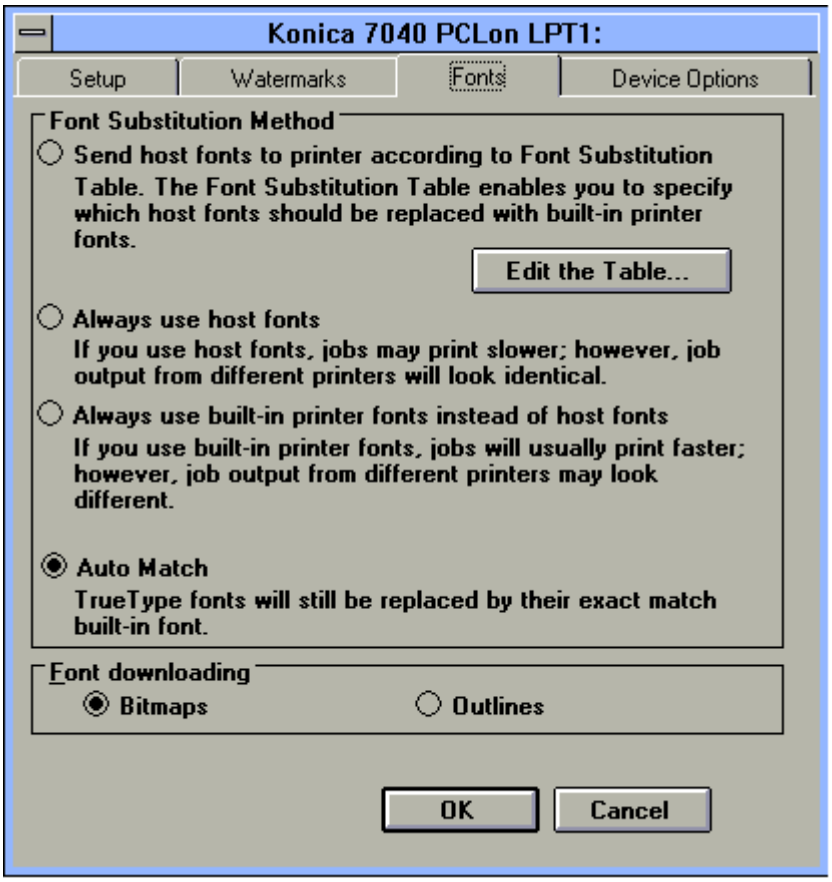
In the Text field, enter the text for a new watermark and select other attributes as desired, such as Font, Size, Style, etc.

The text for the new watermark will appear in the box on the right, as shown in the example above.

When settings are completed, click OK.

Printer Driver Screens

PCL Driver Screens for Windows 3.1 Fonts Tab



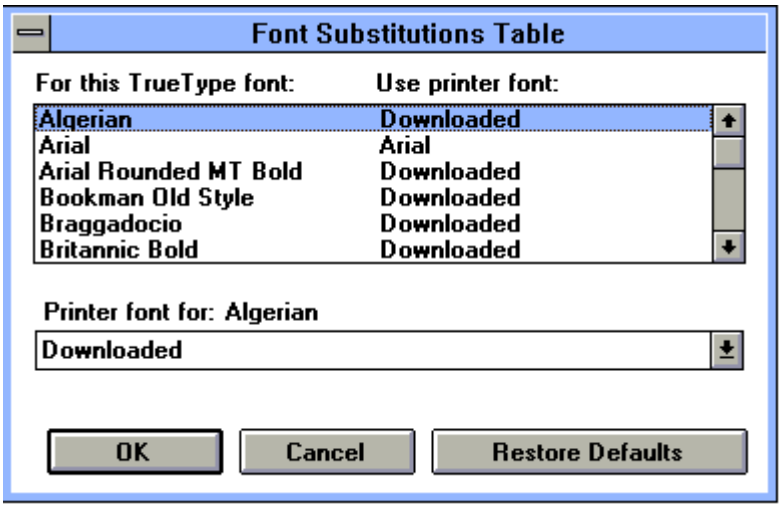
Fonts Settings
The Fonts tab displays a screen indicating the current font substitution method, along with three other options.

The default setting is Auto Match, which means TrueType fonts will be replaced by exact match built-in fonts that usually print faster. Thus, when jobs are output from different printers, the built-in exact match fonts will look identical.

If you wish to edit the Fonts Substitution Table select Edit the Table on the above screen and follow instructions on the next page.

Printer Driver Screens

PCL Driver Screens for Windows 3.1 Font Substitutions Table



Font Substitutions Table
When you click Edit the Table on the previous screen, a list of True Type fonts displays on the screen along with the printer's method of using each font.

The [*Printer font for: Algerian*] field indicates that the Algerian host font is downloaded to the printer .

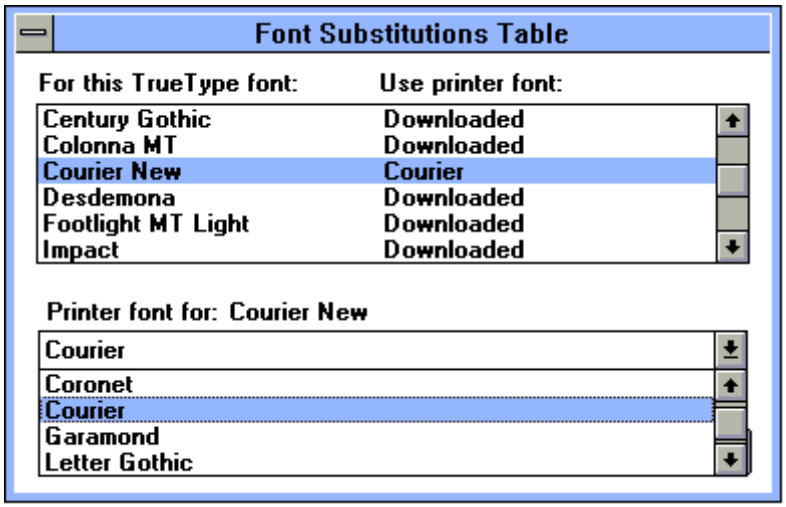
Use the arrows to scroll through the font list to see how each font is currently specified, i.e., as a downloaded font or as a built in printer font.

When the selection you want is indicated, click OK.

If no changes are required, click Cancel.

Printer Driver Screens

PCL Driver Screens for Windows 3.1 Fonts Substitution Table



Font Substitutions Table
1. Highlight the desired font.
In this screen, Courier New is highlighted.

2. Use the arrow in the [*Printer font for:*] field and scroll down to the desired setting.

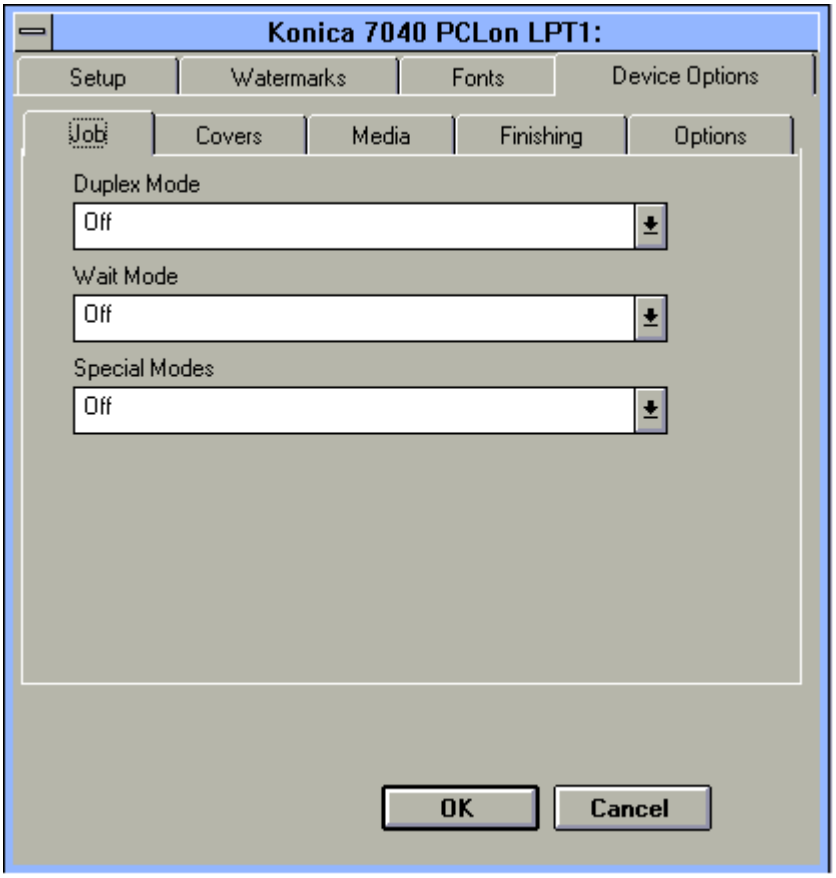
In this sample screen, the [*Printer font for: Courier New*] field indicates that Courier is selected as the built-in auto-match printer font.

3. When the setting change is made, click OK.

To leave the setting unchanged, click Cancel.

Printer Driver Screens

PCL Driver Screens for Windows 3.1 Job Tab



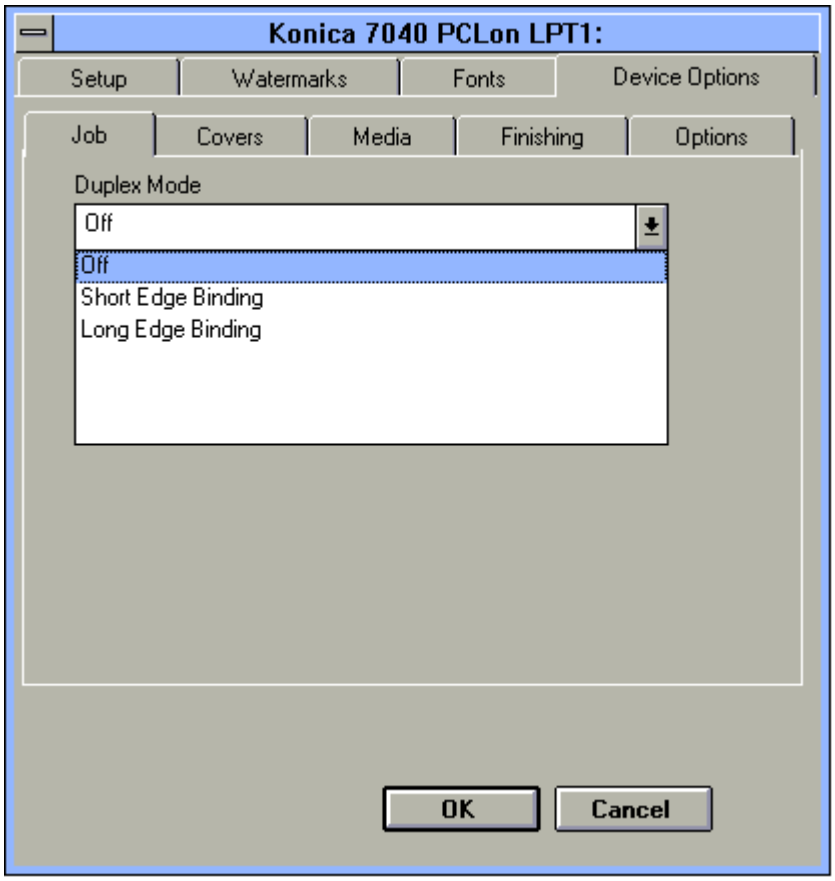
Job Settings
The current Job settings indicate that the Duplex Mode, Wait Mode and Special Modes are Off.

To view or change these settings, click the arrow next to the setting to display option settings, then click OK.

To view or change Duplex Mode settings, see next page.

Printer Driver Screens

PCL Driver Screens for Windows 3.1 Job - Duplex Mode



Duplex Mode

1. When you click the arrow next to Duplex Mode, option settings are displayed.

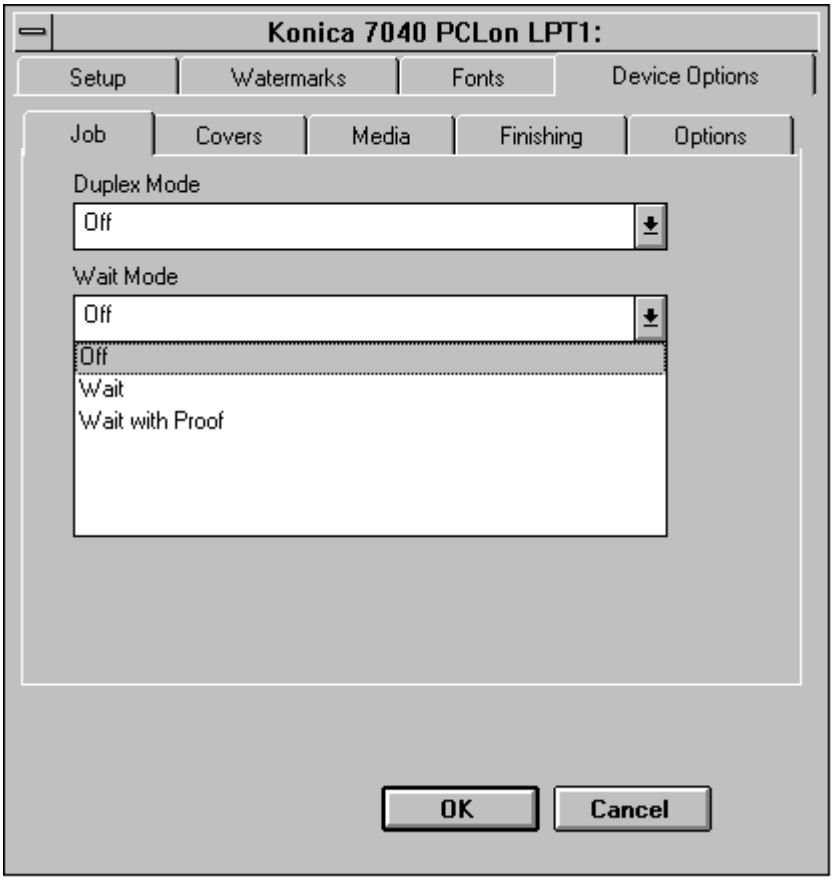
- Select Short Edge Binding to bind the document along the short edge (Landscape orientation).
- Select Long Edge Binding to bind the document along the long edge (Portrait orientation).

2. When the correct setting for binding style is indicated in the Duplex Mode field, click OK.

To leave the settings unchanged, click Cancel.

Printer Driver Screens

PCL Driver Screens for Windows 3.1 Job - Wait Mode



Wait Mode
From the Job tab screen, click the arrow next to the Wait Mode field.

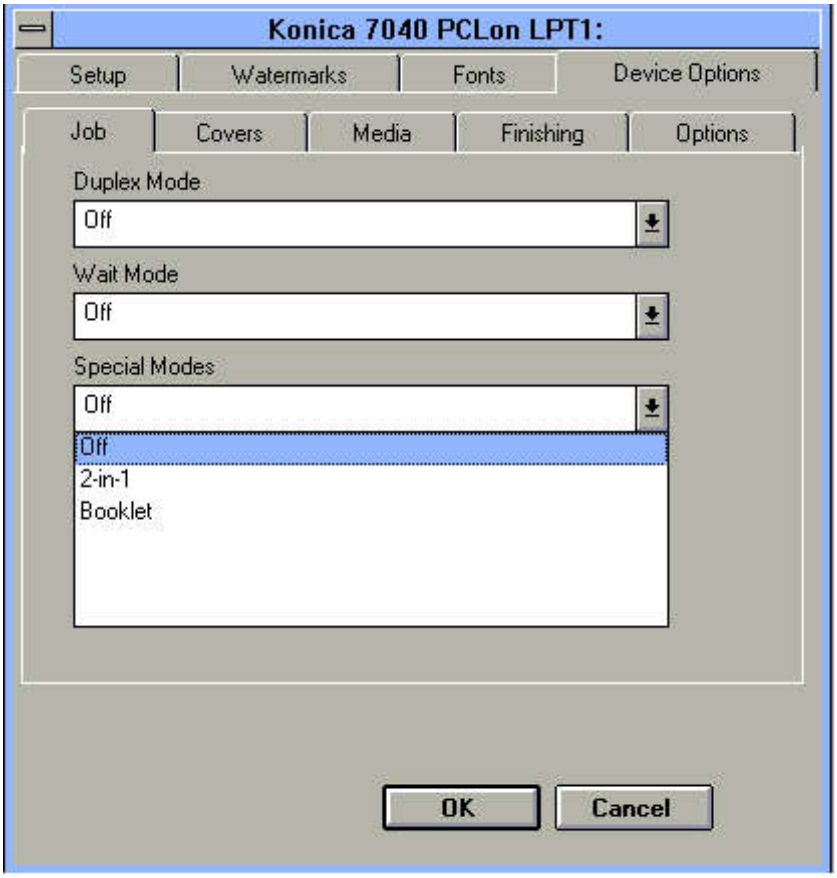
Select Wait On to be prompted to install special paper, such as OHP, Thin stock or Thick stock before the printing job is started. Or, select Wait with Proof to be prompted to print a proof set before printing multiple sets.

When the setting you want is indicated in the Wait Mode field, click OK.

To leave the settings unchanged, click Cancel.

Printer Driver Screens

PCL Driver Screens for Windows 3.1 Job - Special Modes



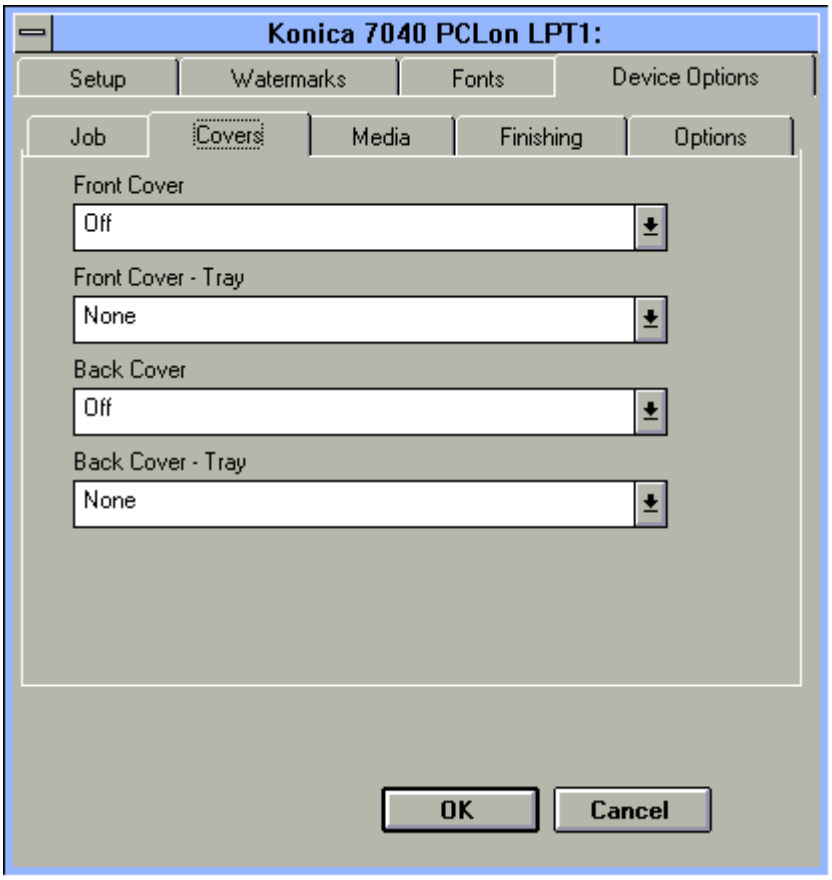
Special Modes
From the Job tab screen, click the arrow next to the Special Modes field to display the Special Modes options.

Select 2-in-1 to print two pages (images) on one standard sheet, or, select Booklet to print four pages (images) on one standard sheet. When the setting you want is indicated in the Special Modes field, click OK.

To leave the settings unchanged, click cancel.

Printer Driver Screens

PCL Driver Screens for Windows 3.1 Covers Tab



Front and Back Covers
The Covers tab displays the above screen that shows the default settings for Front Cover, Front Cover Tray, Back Cover mode and Back Cover Tray.

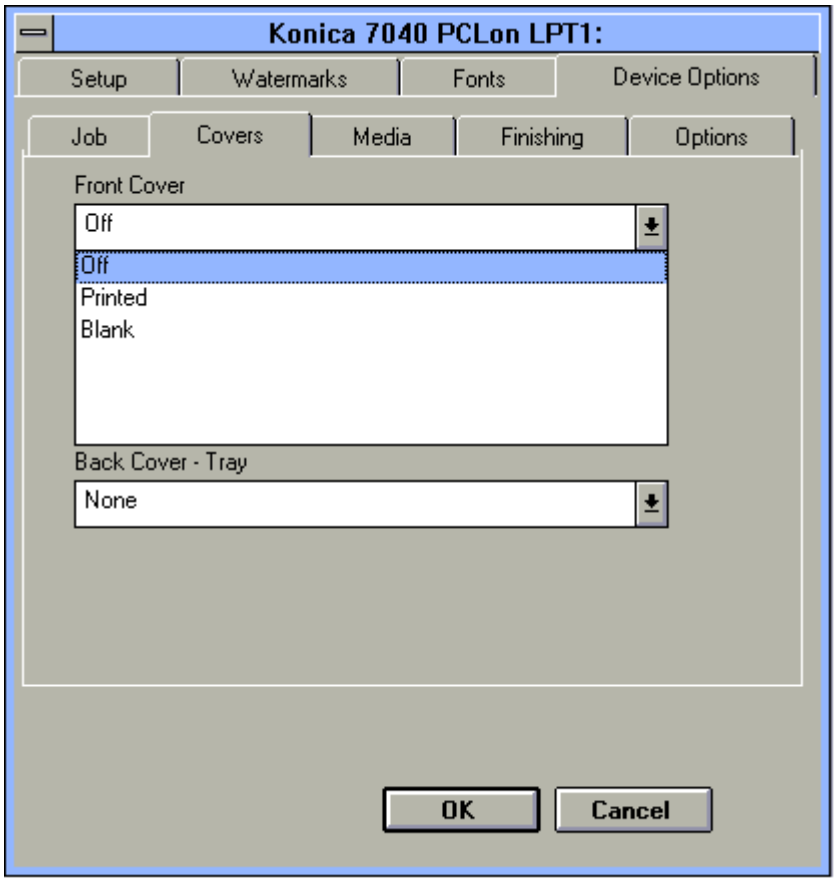
To view or change these settings, click the arrow next to one of the settings.

Options for the Front Cover mode are shown on the next page.

To leave the settings unchanged, click Cancel.

Printer Driver Screens

PCL Driver Screens for Windows 3.1 Covers



Front Cover Mode
The Front Cover mode is Off by default. To view options, click the arrow next to the Front Cover field.

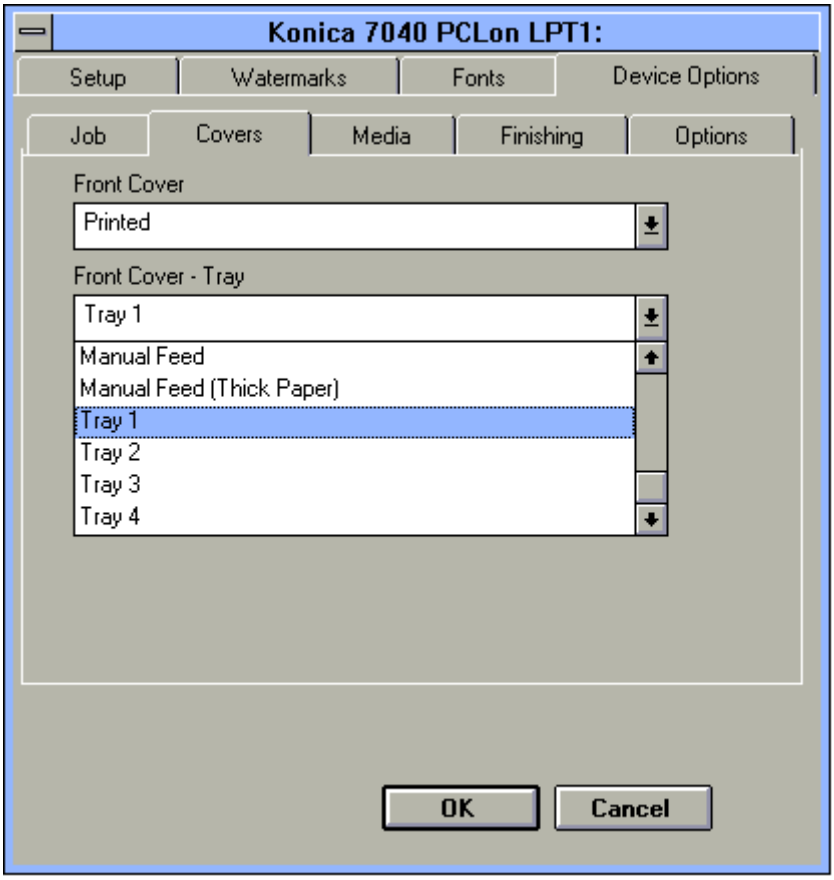
Select Printed to print on the Front Cover sheets before inserting them into your document.
Select Blank to insert Front Cover sheets into your document without printing them first.

Front Cover sheets do not have to be plain and can be colored or preprinted (as letterhead).
In the Blank mode, preprinted Front Cover sheets will be inserted without any changes.
In the Printed mode, you may print directly on the preprinted Front Cover sheets.

To leave the settings unchanged, click Cancel.

Printer Driver Screens

PCL Driver Screens for Windows 3.1 Covers



Front Cover Tray
Click on the arrow next to the Front Cover Tray field to view tray options.

Highlight the tray you want to use for the Front Covers, then click OK. In this example, Tray 1 is selected.

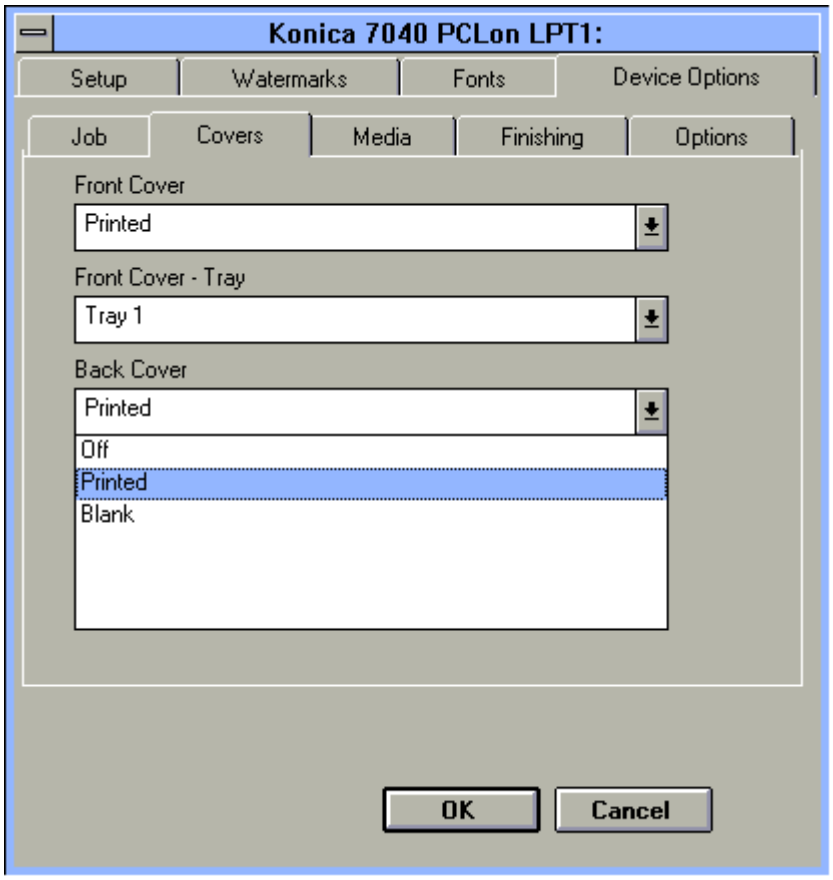
If you are using colored or preprinted paper for the Front Covers, be sure to load the paper in the tray selected, otherwise the paper currently loaded will be used.

Remember that Thick Paper must be fed manually through the Bypass tray.

To leave the settings unchanged, click on Cancel.

Printer Driver Screens

PCL Driver Screens for Windows 3.1 Covers



Back Cover Mode
The Back Cover mode is Off by default. To view options, click the arrow next to the Back Cover field.

- Select Printed to print on the Back Cover sheets before inserting them into your document. (Even colored or preprinted Letterhead sheets will be printed in this mode.)

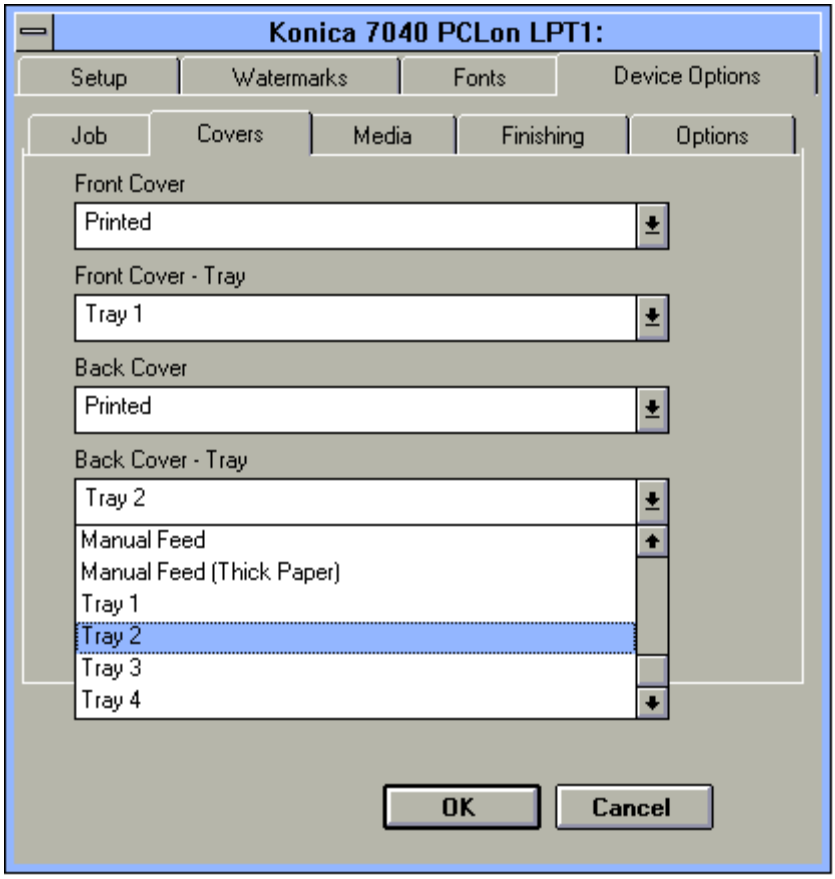
- Select Blank to insert the Back Cover sheets into your document without printing them first.

Sheets for Back Cover insertion can be plain, colored or preprinted (as letterhead).

To leave the settings unchanged, click Cancel.

Printer Driver Screens

PCL Driver Screens for Windows 3.1 Covers



Back Cover Tray
1. Click on the arrow next to the Back Cover Tray field to view tray options.

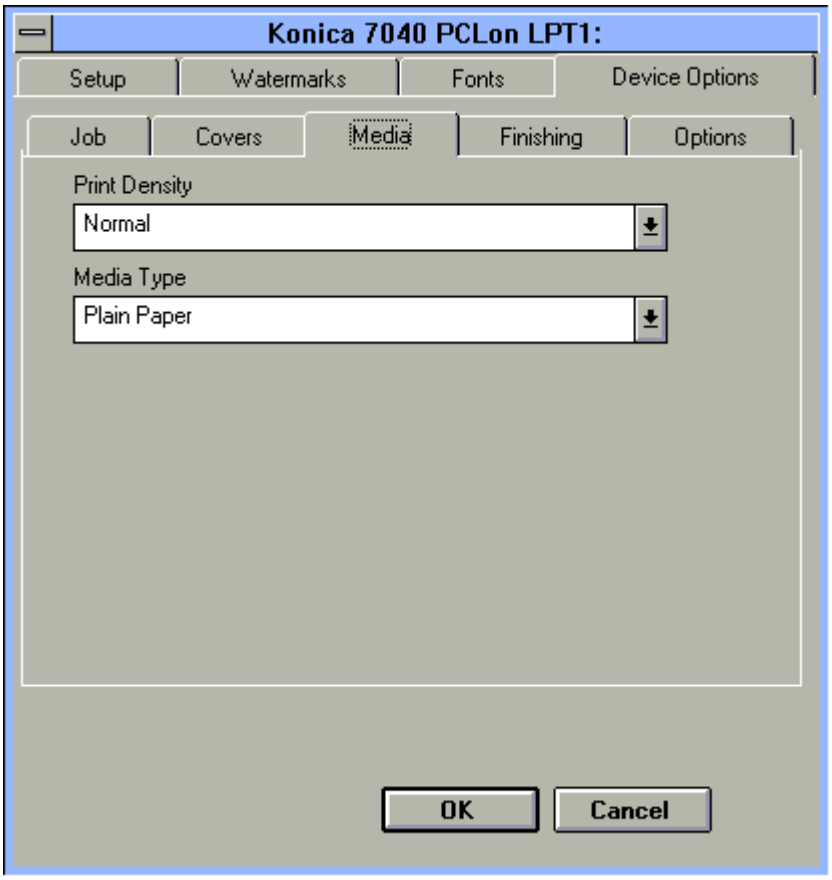
2. Highlight the tray you want to use for Back Covers, then click OK.
In this example, Tray 2 is selected.

If you are using colored or preprinted paper for the Back Covers, be sure to load the paper in the tray selected, otherwise the paper currently loaded will be used. Remember to manually feed Thick Paper through the Bypass tray.

To leave the setting unchanged, click Cancel.

Printer Driver Screens

PCL Driver Screens for Windows 3.1 Media Tab



Media Settings
When you click on the Media tab, current settings are displayed for Print Density and Media Type.

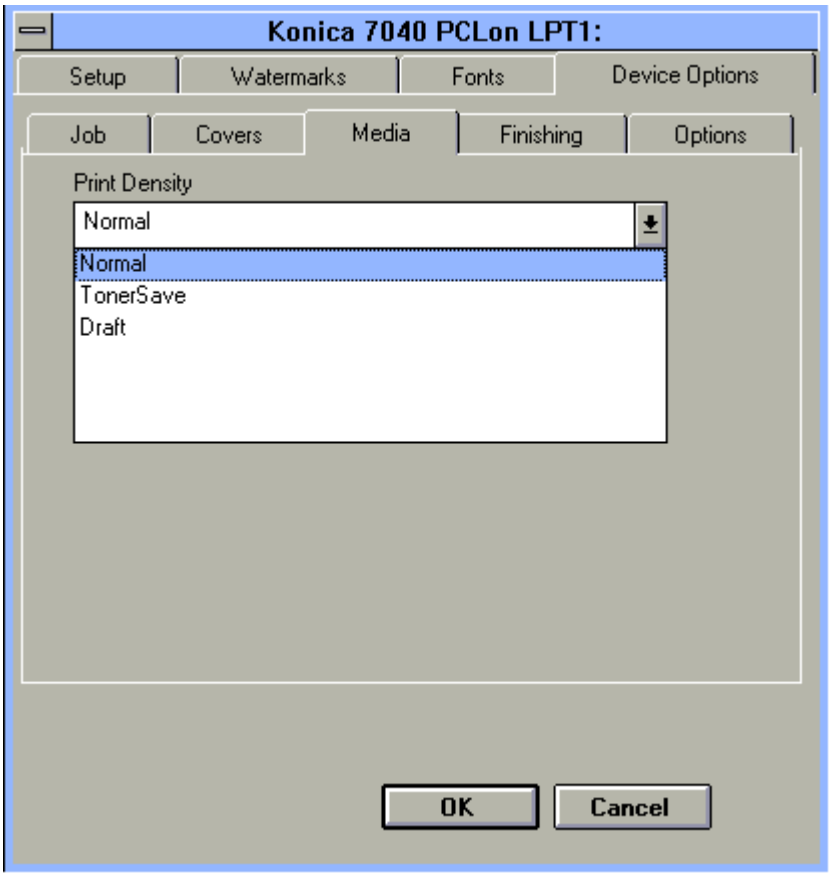
This screen shows that Normal is selected for Print Density and Plain Paper is selected for Media Type.

To change either of these settings, click the arrow next to the current setting to display options, highlight the setting you want, then click OK (see next page).

To leave the settings unchanged, click Cancel.

Printer Driver Screens

PCL Driver Screens for Windows 3.1 Media Settings



Print Density

1. Click the arrow next to the Print Density setting to display density options.

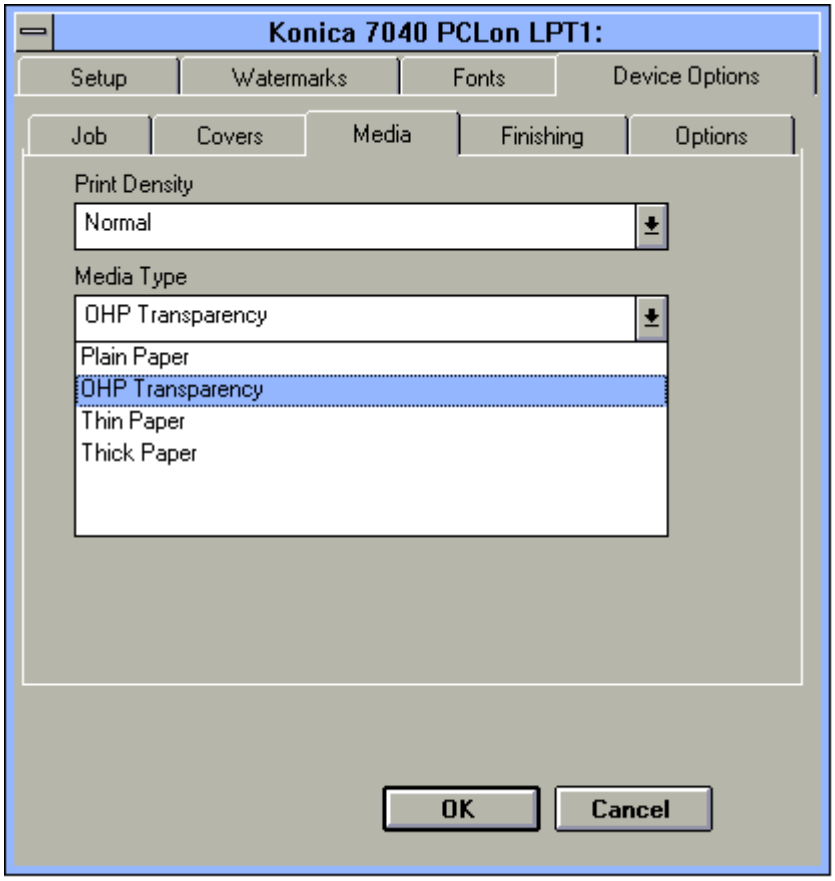
- Select the Toner Save mode to use only 80% of the toner normally used.
- Select Draft mode to use only 60% of the toner normally used.

2. When the setting you want is displayed, click OK.

To leave the settings unchanged, click Cancel

Printer Driver Screens

PCL Driver Screens for Windows 3.1 Media Type



Media Type

1. Click on the arrow next to the Media Type setting to display a list of options, including OHP Transparency, Thin Paper and Thick Paper.

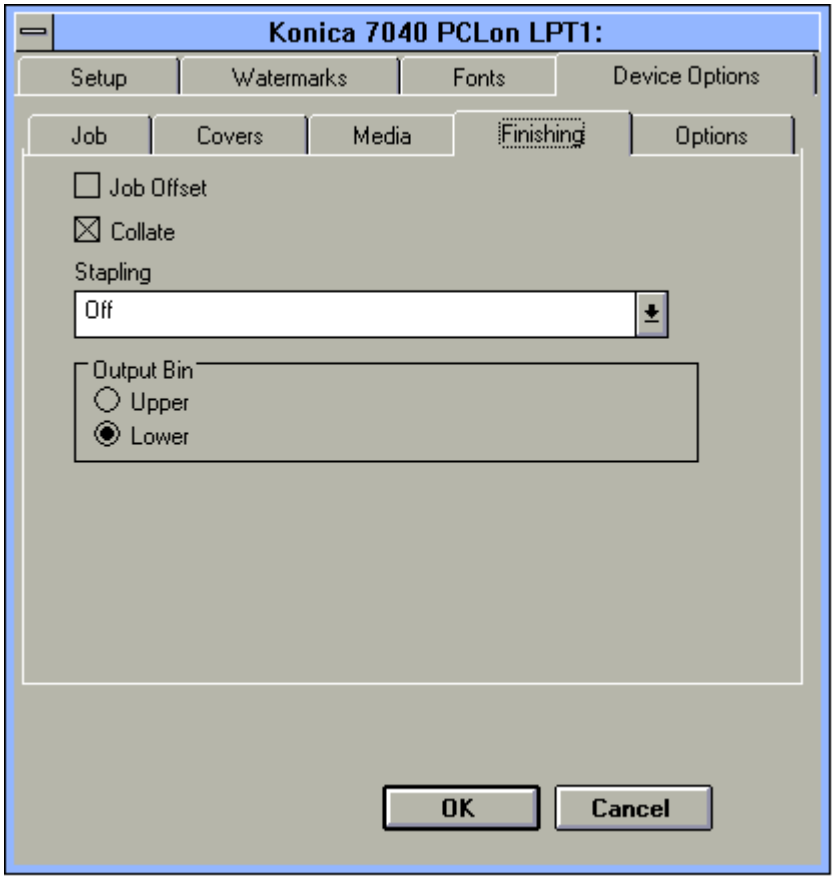
2. Highlight the desired setting.
This screen shows that OHP Transparency is highlighted.

3. Click OK to complete the selection.
Keep in mind that special stock must be fed manually through the Bypass.

To leave the settings unchanged, click Cancel.

Printer Driver Screens

PCL Driver Screens for Windows 3.1 Finishing Tab



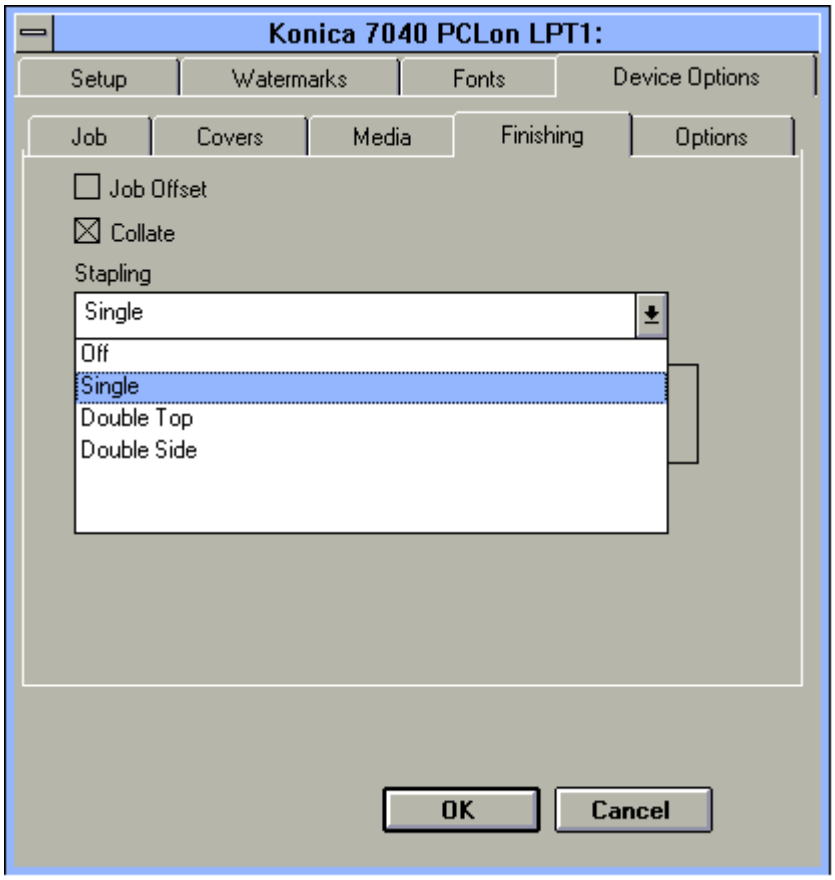
Finishing Settings
The Finishing screen shows the default settings for Collate, Stapling and Output Bin.

The default setting for Stapling is Off. Click the arrow in the Stapling field to display optional Stapling settings. (See next page.)

To leave the settings unchanged, click Cancel.

Printer Driver Screens

PCL Driver Screens for Windows 3.1 Finishing



Stapling

1. Click the arrow in the Stapling field to display stapling options.

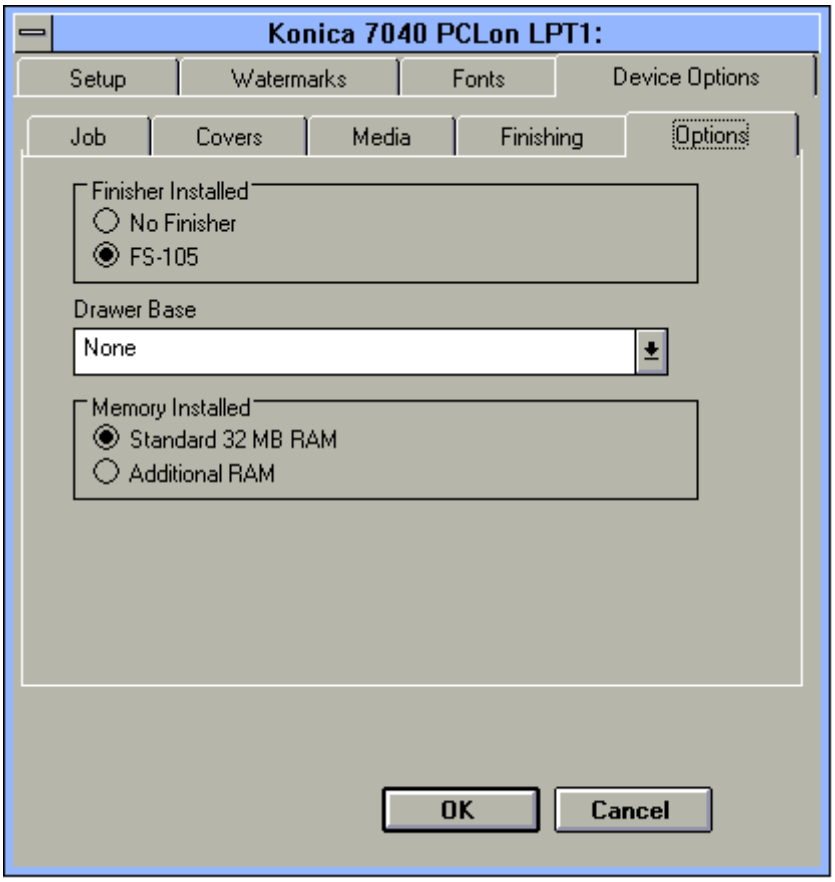
- Single stapling inserts one staple in the upper left corner of your document.
- Double Top stapling inserts two staples across the top edge of your document.
- Double Side stapling inserts two staples along the left edge of your document.

2. Highlight the desired Stapling option, then click OK.

To leave the settings unchanged, click Cancel.

Printer Driver Screens

PCL Driver Screens for Windows 3.1 Options (Device)



Device Settings

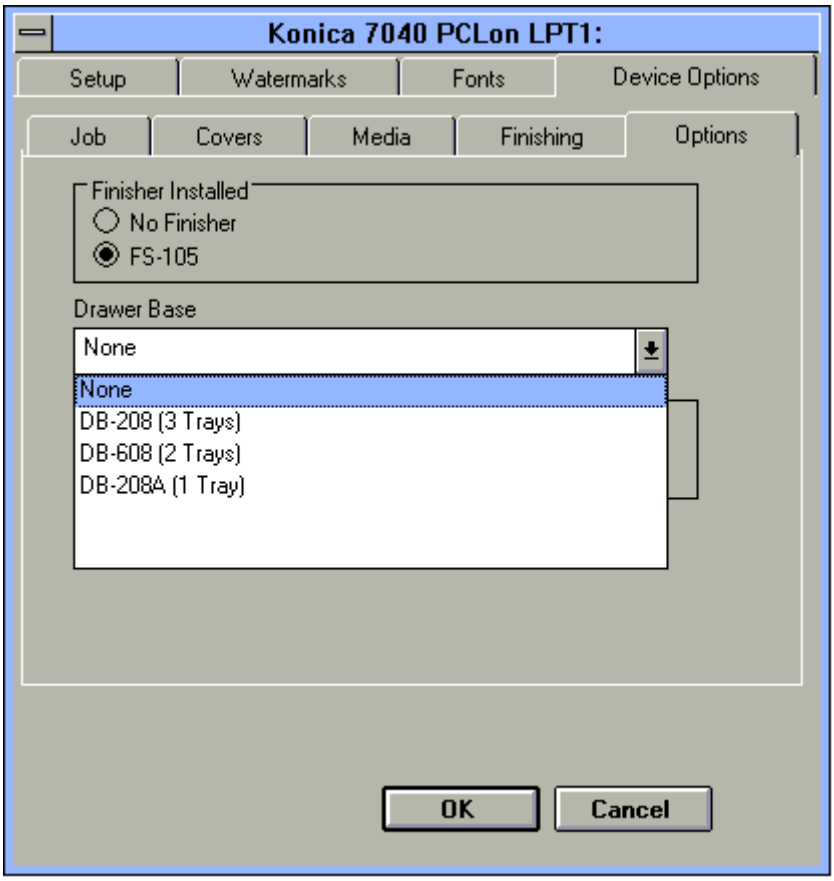
The Options screen shows the default settings for Finisher, Drawer Base and Memory installed.

To view or change the current Drawer Base setting, click on the arrow in the Drawer Base field (see next page.)

To leave the settings unchanged, click Cancel.

Printer Driver Screens

PCL Driver Screens for Windows 3.1 Drawer Base Setting



Drawer Base Setting
The current Drawer Base setting is displayed along with optional settings.

1. To change the setting, highlight the desired setting.

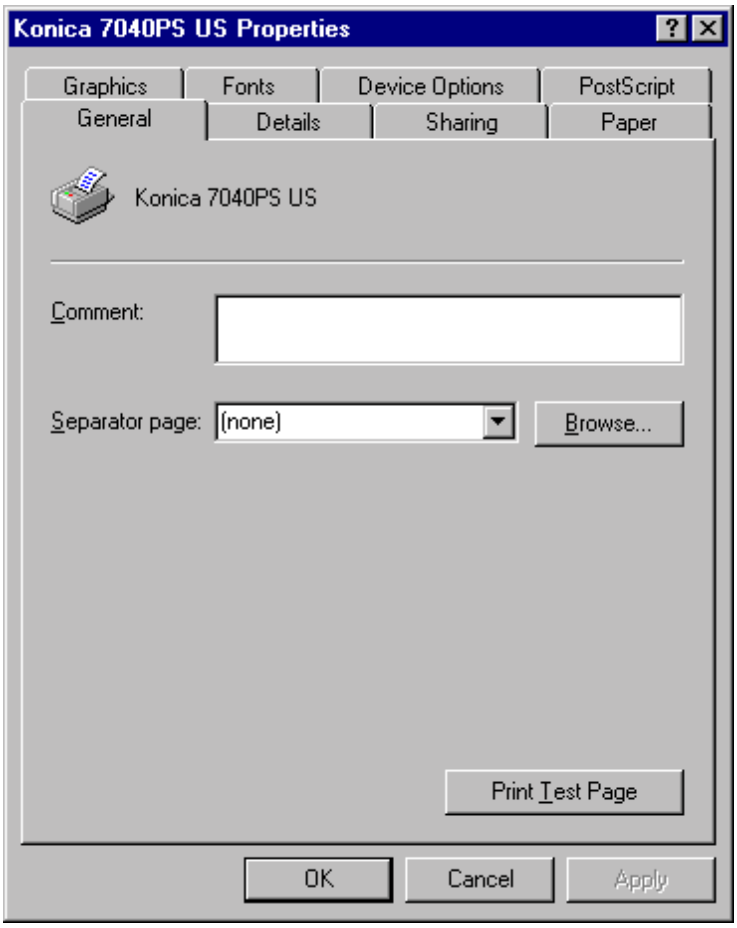
2. When the desired setting is indicated, click OK.

To leave the setting unchanged, click Cancel.

PostScript Driver Screens for Windows 95

Printer Driver Screens

PostScript Driver Screens for Windows 95 General Tab



General Screen
The General tab brings you to the above basic screen that identifies the name of your printing device.

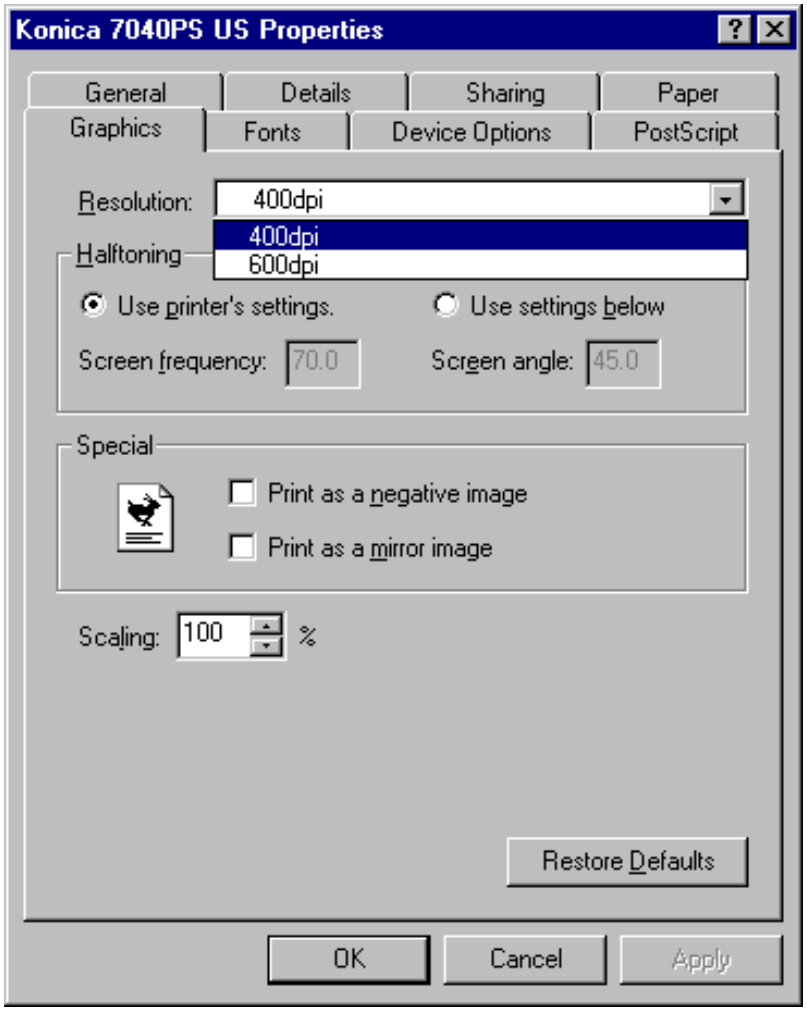
Click on Browse to review your printing environment and get questions answered up front. Or, click Print Test Page to print a test page.

Type a key word in the Comment field and click OK. The system will search for the topic and guide you further. Click on the Separator page arrow to display option settings.

The following pages show the screens for each tab selection.

Printer Driver Screens

PostScript Driver Screens for Windows 95 Graphics Tab



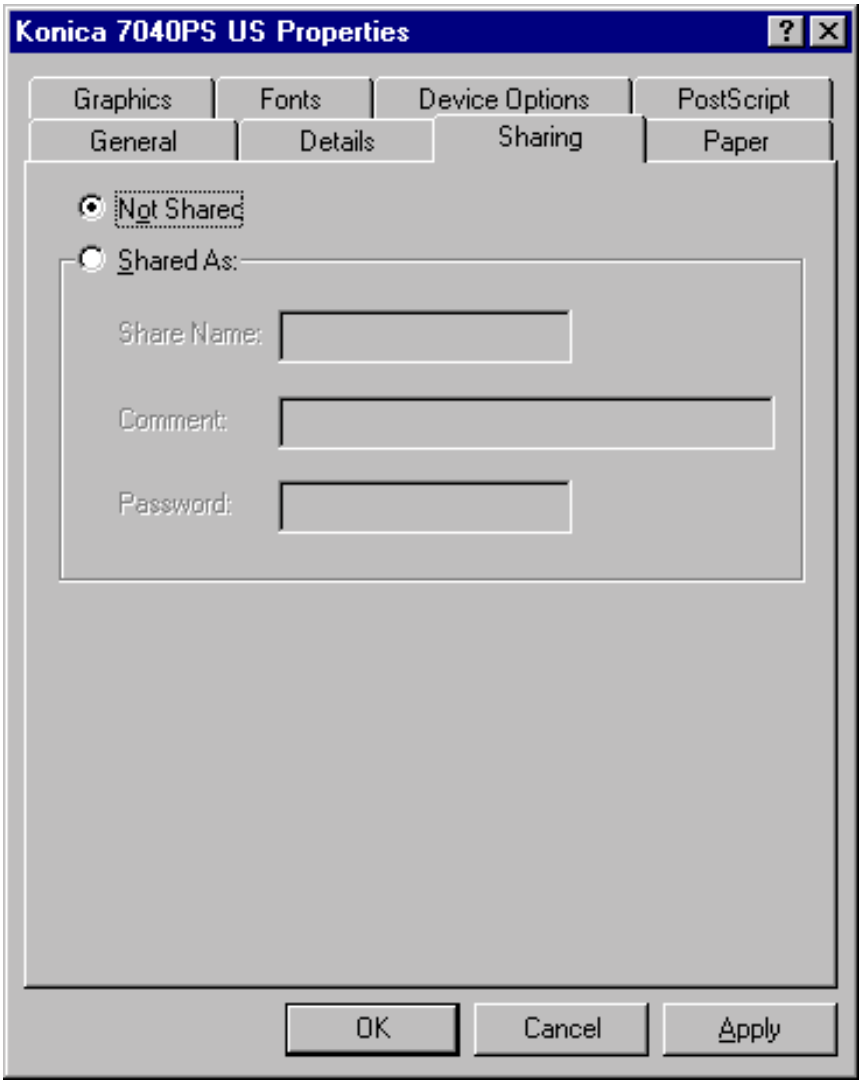
Resolution & Halftoning
The Graphics tab brings you to a screen that displays default settings for Resolution & Halftoning. The default setting for Resolution is 400 dpi with no special Halftoning selected.

If desired, select 600 dpi Resolution or a Halftoning special mode, then click OK.

To leave the setting unchanged and exit from the screen, click Cancel.
To restore the default settings, click Restore Defaults.

Printer Driver Screens

PostScript Driver Screens for Windows 95 Sharing Tab

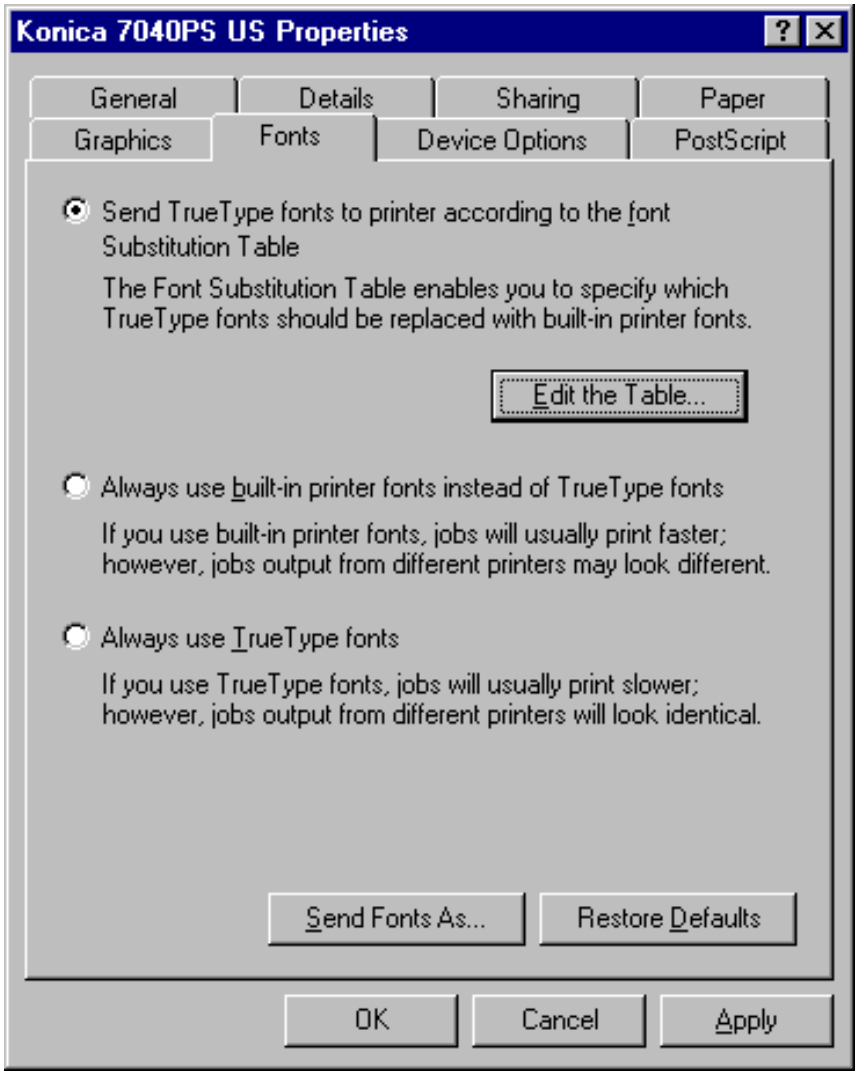


Sharing On A Network
The Sharing tab displays a screen that shows whether your printer is being shared on a network.

The *Not Shared* status is indicated in the above screen.
If your printer is being shared, details will be indicated in the [*Shared As:*] field.

Printer Driver Screens

PostScript Driver Screens for Windows 95 Fonts Tab



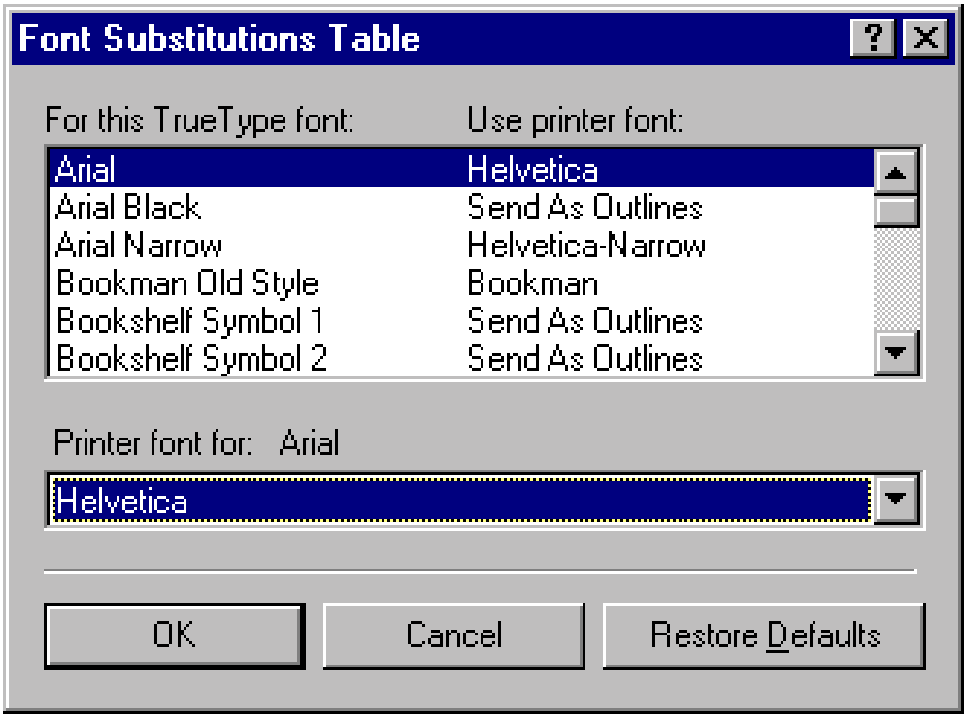
Fonts Screen

The Fonts screen displays the current Font selection settings.
The default setting is: *Send True Type fonts to printer according to the font Substitution Table*.

Keep in mind that built-in printer fonts usually print faster than downloaded fonts.
To edit the table, click Edit the Table and follow instructions on the next page.

Printer Driver Screens

PostScript Driver Screens for Windows 95 **Font Substitutions Table**



Font Substitutions Table
The Font Substitutions Table displays when you select Edit the Table from the Fonts screen shown on the previous page.

This Table lets you specify host fonts you want to be replaced with built-in printer fonts. Keep in mind that printing is faster with built-in fonts.

In this sample screen, the Arial font is downloaded for the Helvetica font.

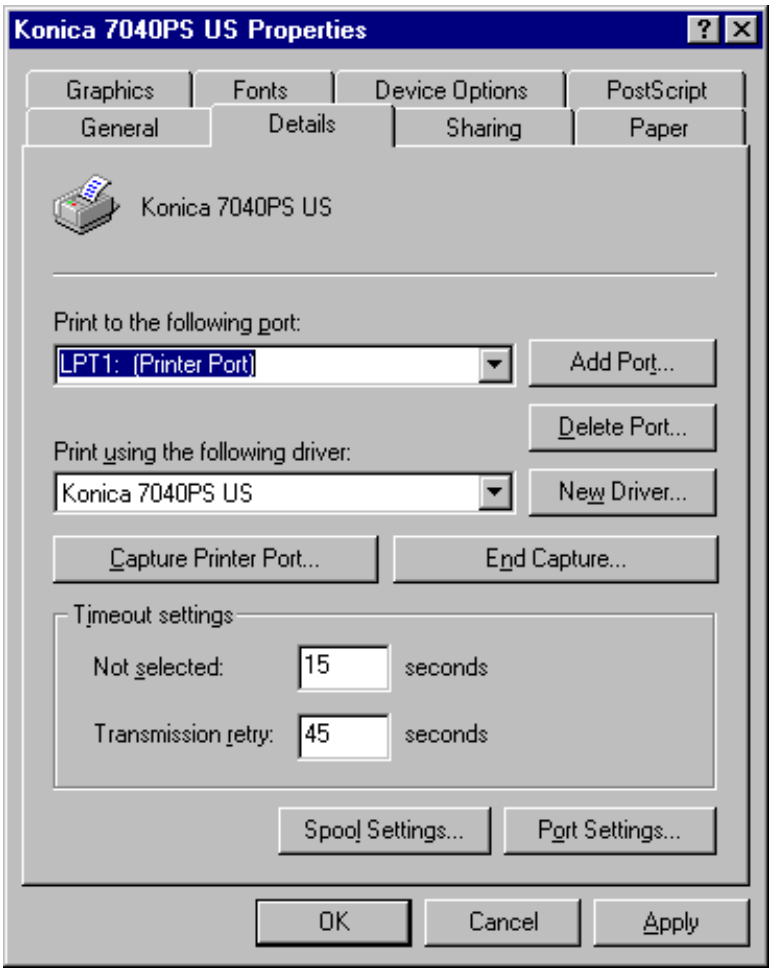
1 Use the arrows to scroll through the font list to see how they are currently specified.

2 Highlight the font substitution you want, then click OK.

To leave the setting unchanged, click Cancel.

Printer Driver Screens

PostScript Driver Screens for Windows 95 Details Tab - Printer Port



Printer Port
The Details tab displays a screen indicating the current print port setting. The default setting is LPT1.

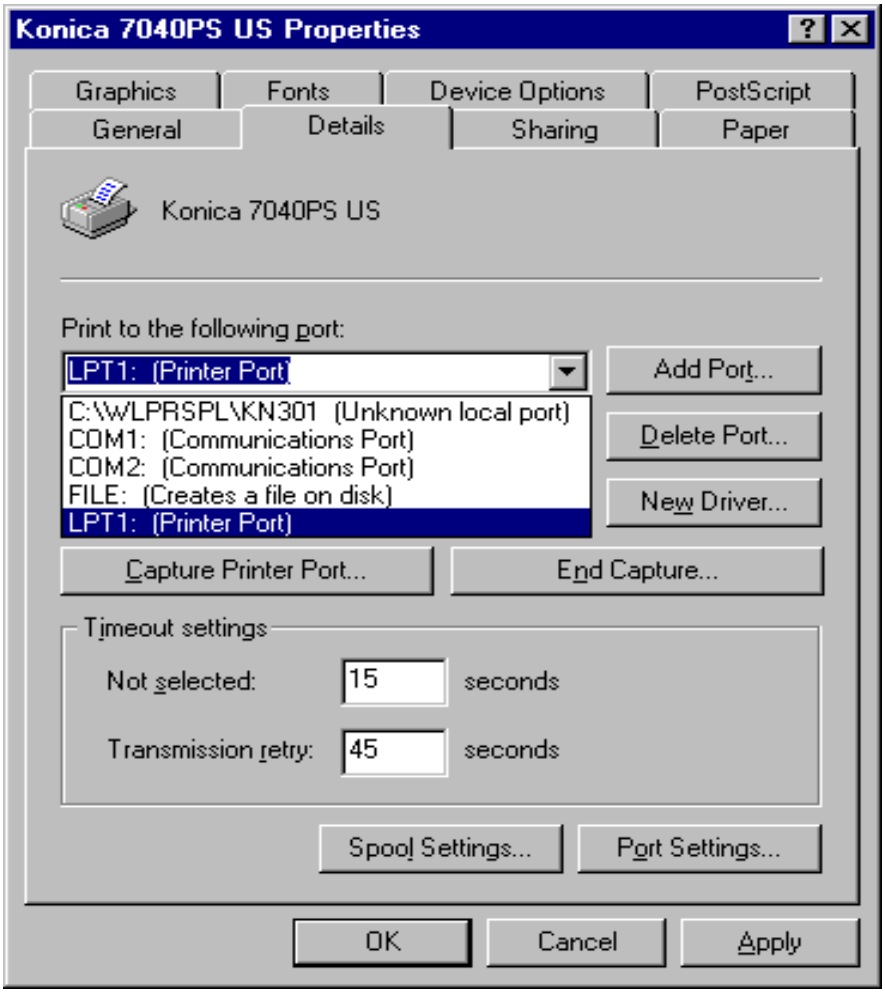
1 Click on the arrow next to the current setting to display the optional port settings (see next page).

2 When the port setting you require is indicated, click OK.

This screen also allows you to change the *Capture Printer Port. . . Timeout settings* used for capturing files for printing. You may need to adjust this timeout setting when printing very large files, but you will not need to change this setting to print ordinary jobs.

Printer Driver Screens

PostScript Driver Screens for Windows 95 Details Tab - Printer Port



Printer Port Setting Options
The default printer port setting is LPT1.

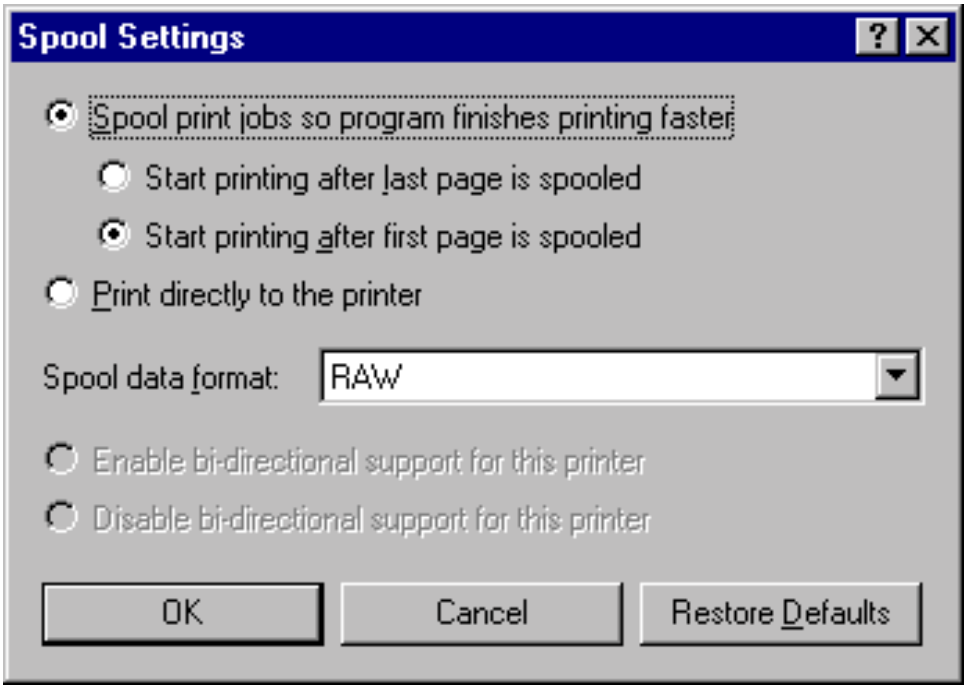
1 Click the arrow next to the current setting to display port options.

2 Highlight the desired printer port setting, then click OK.

To leave the setting unchanged, click Cancel.

Printer Driver Screens

PostScript Driver Screens for Windows 95 Details Tab



Spool Settings
When you click Spool Settings from the Details screen, the Spool Setting screen appears, as shown above.

The default Spool setting is *Start printing after first page is spooled.* This setting enables printing to start after the first page is spooled so that the print job finishes faster.

You may change this setting to *Start printing after the last page is spooled,* or you may *Print directly to the printer*.

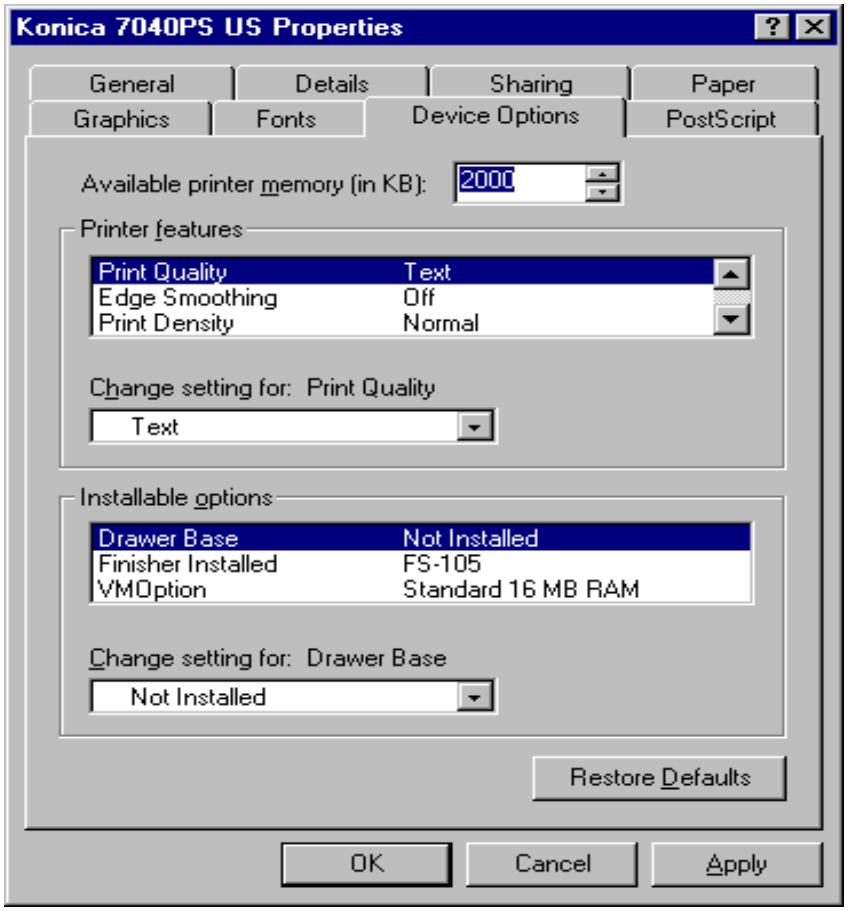
1 Highlight the desired Spool setting.
2 Click OK.

To leave the setting unchanged and exit from the screen, click Cancel.

To restore the default settings before exiting from this screen, click on the Restore Defaults button.

Printer Driver Screens

PostScript Driver Screens for Windows 95 Device Options Tab



Device Options
The Device Options screen displays the current settings for Printer features and Installable options.

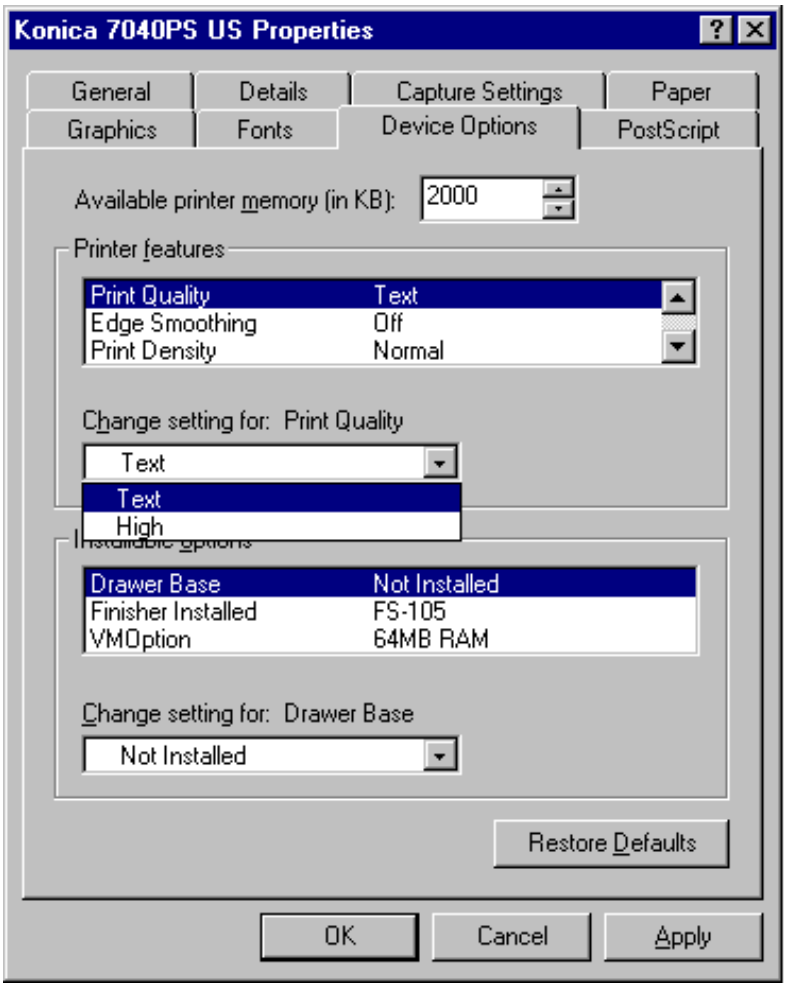
1 To view setting options, click the arrow next to Printer features or Installable options.
2 Highlight the desired setting, then click OK.

Refer to the next several pages for screen details of all Printer features and Installable options.

To exit from the screen without making changes, click Cancel.

Printer Driver Screens

PostScript Driver Screens for Windows 95 Device Options Tab



Printer Features - Print Quality
The default setting for Print Quality is Text. To change the default setting:

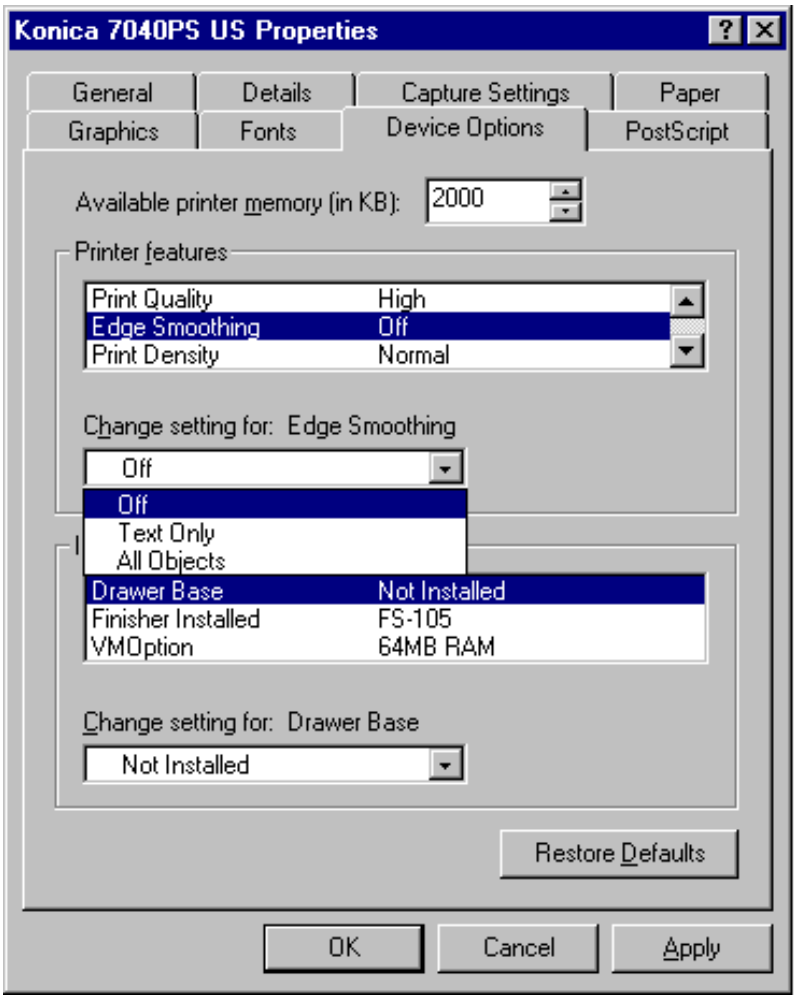
1 Use the arrow in the [*Change setting for: Print Quality*] field to view options.
2 Highlight the desired mode, then click OK.

- Select High mode to print image that requires finer resolution.

To leave settings unchanged and exit from the screen, click Cancel.

Printer Driver Screens

PostScript Driver Screens for Windows 95 Device Options Tab



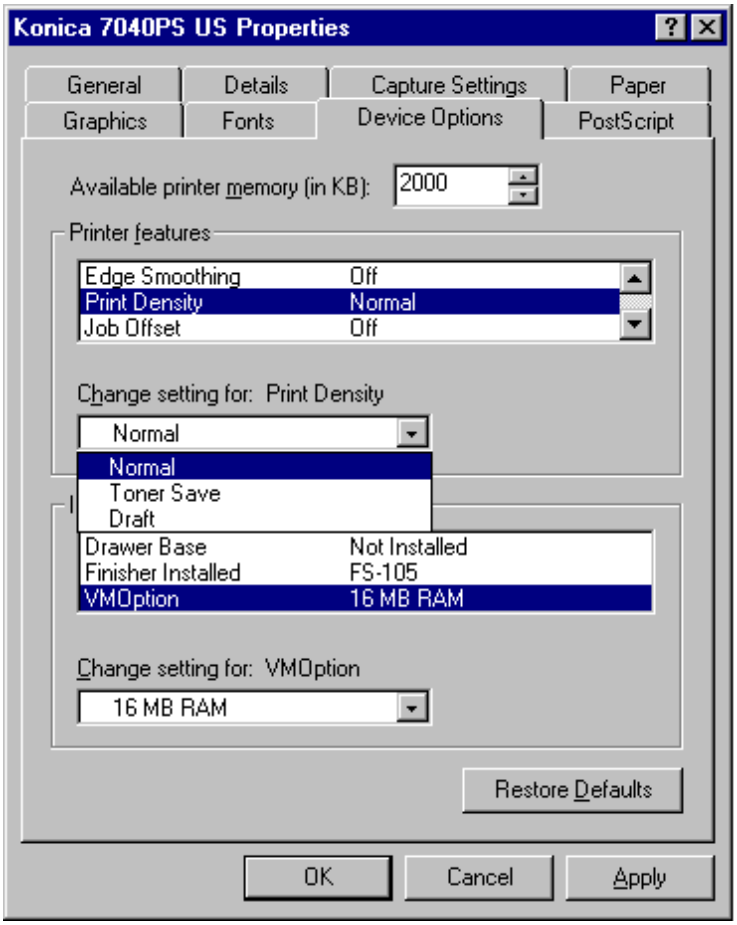
Printer Features - Edge Smoothing
The default setting for Edge Smoothing is Off. When Edge Smoothing On, feathered edges are filled in with extra toner to make the printed image clearer.

To change the default setting and turn Edge Smoothing ON:
1 Use the arrow in the [*Change setting for: Edge Smoothing*] field to view options.
2 Highlight On, then click OK.

To leave the setting unchanged and exit from the screen, click Cancel.

Printer Driver Screens

PostScript Driver Screens for Windows 95 Device Options Tab



Printer Features - Print Density
The default setting for Print Density is Normal. To change the default setting:

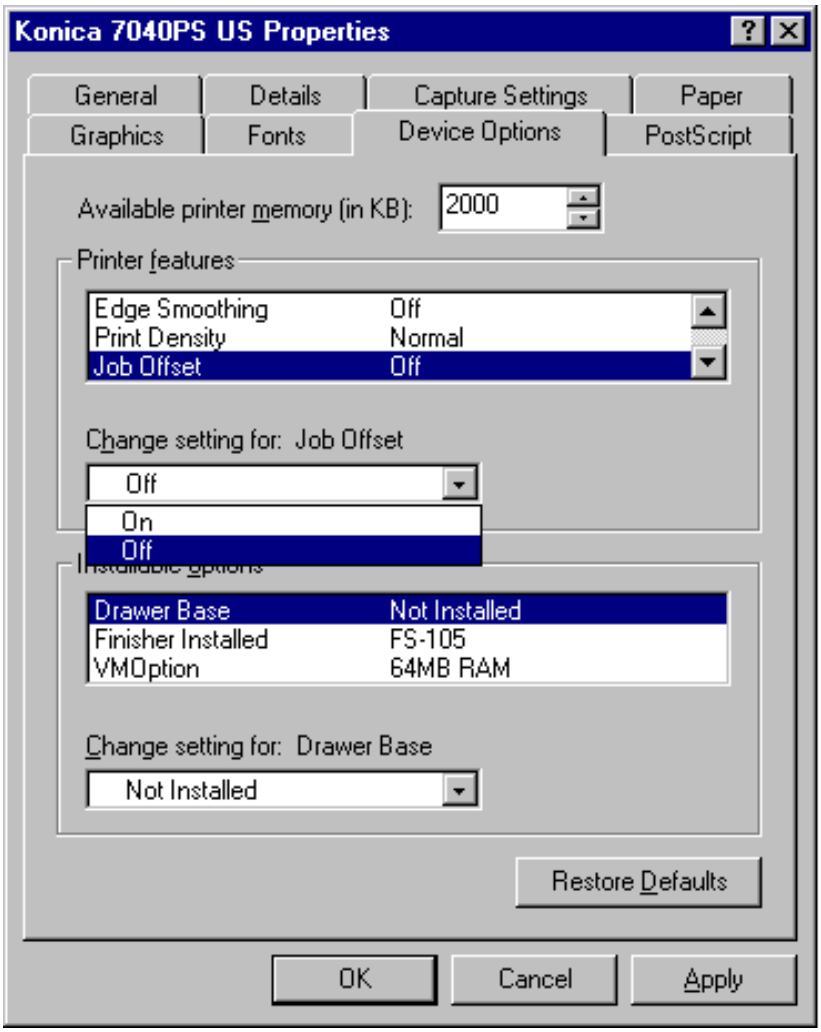
1 Use the arrow in the [*Change setting for: Print Density*] field to view options.
2 Highlight the desired option, such as, Toner Save mode or Draft mode, then click OK.

- Toner Save uses 80% of the toner amount used in Normal mode.
- Draft mode uses 60% of the toner amount used in Normal mode.

To leave the setting unchanged and exit from the screen, click Cancel.

Printer Driver Screens

PostScript Driver Screens for Windows 95 Device Options Tab



Printer Features - Job Offset

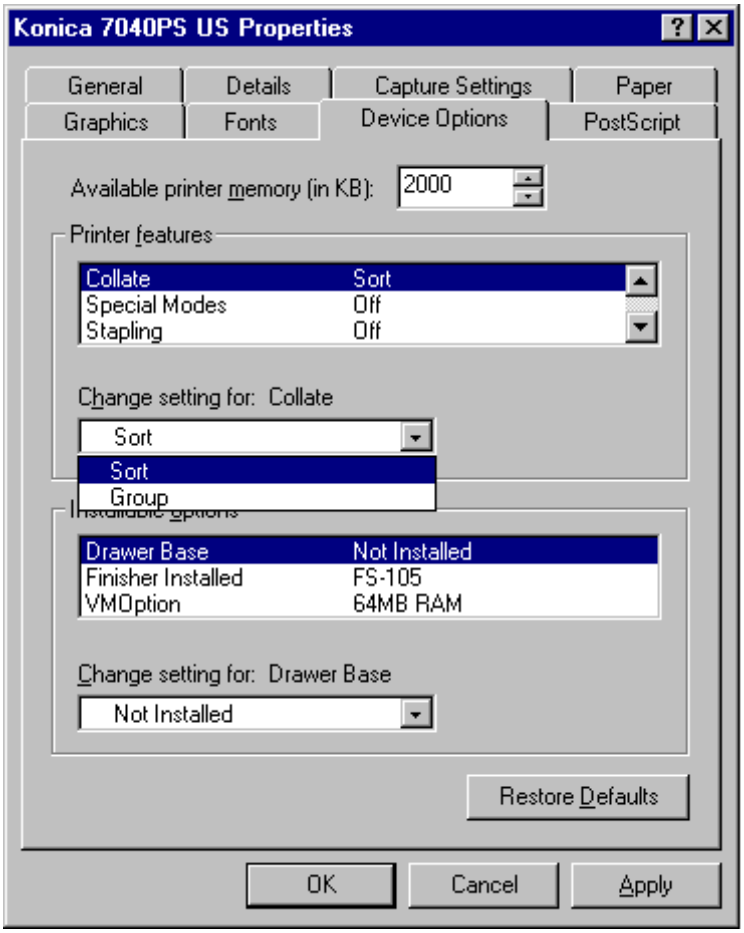
Job Offset mode delivers multiple printed set to the finisher with sets offset from one another. The default setting for Job Offset is Off. To change the default setting and turn Job Offset ON:

1 Use the arrow in the [*Change setting for: Job Offset*] field to view options.
2 Highlight On, then click OK.

To leave the setting unchanged and exit from the screen, click Cancel.

Printer Driver Screens

PostScript Driver Screens for Windows 95 Device Options Tab



Printer Features - Collate
The Collate mode allows you to Sort together multiple copies of the original set or Group together multiple copies of each original page.

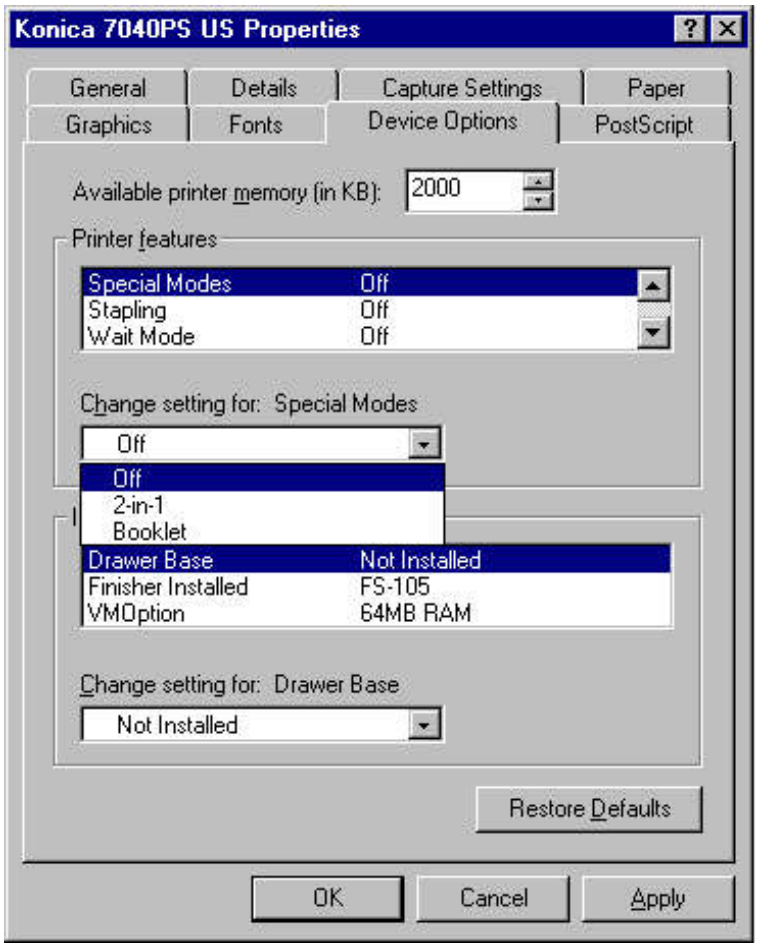
The default setting for Collate is Sort. To change the default setting:

1 Use the arrow in the [*Change setting for: Collate*] field to view options.
2 Highlight Group, then click OK.

To leave the setting unchanged and exit from the screen, click Cancel.

Printer Driver Screens

PostScript Driver Screens for Windows 95 Device Options Tab



Printer Features - Special Modes
The default setting for Special Modes is Off. To change the default setting:

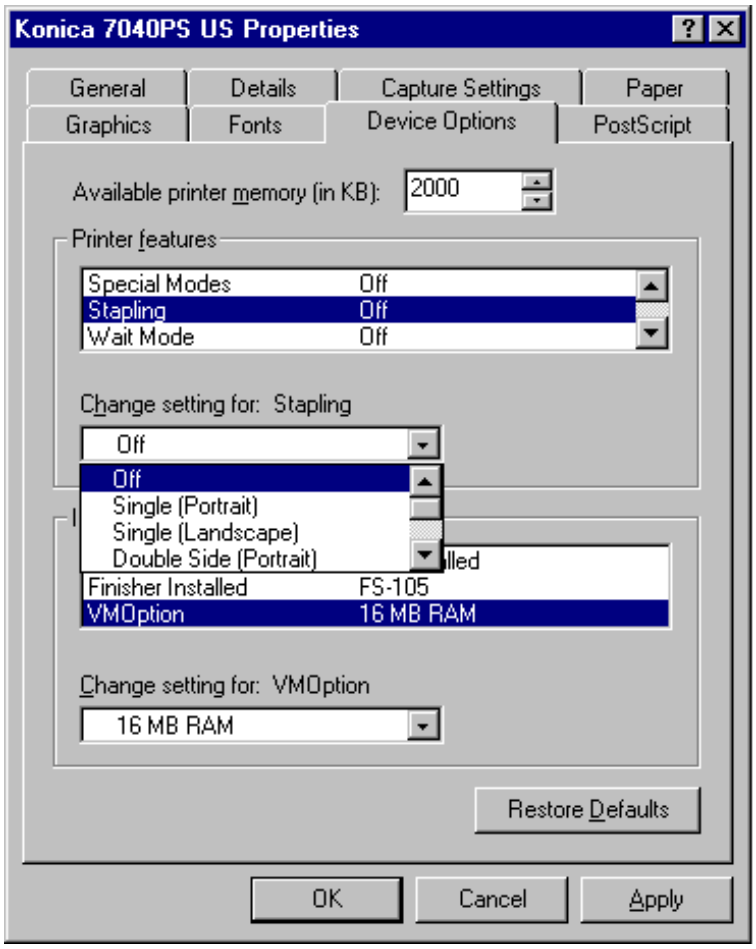
1 Use the arrow in the [*Change setting for: Special Modes*] field to view options.
2 Highlight another setting, then click OK.

- Select 2-in-1 mode to print two pages (images) on one standard size sheet.
- Select the Booklet mode to print four pages (images) on one standard size sheet.

To leave the setting unchanged and exit from the screen, click Cancel.

Printer Driver Screens

PostScript Driver Screens for Windows 95 Device Options Tab



Printer Features - Stapling
The default setting for Stapling is Off. To change the default setting:

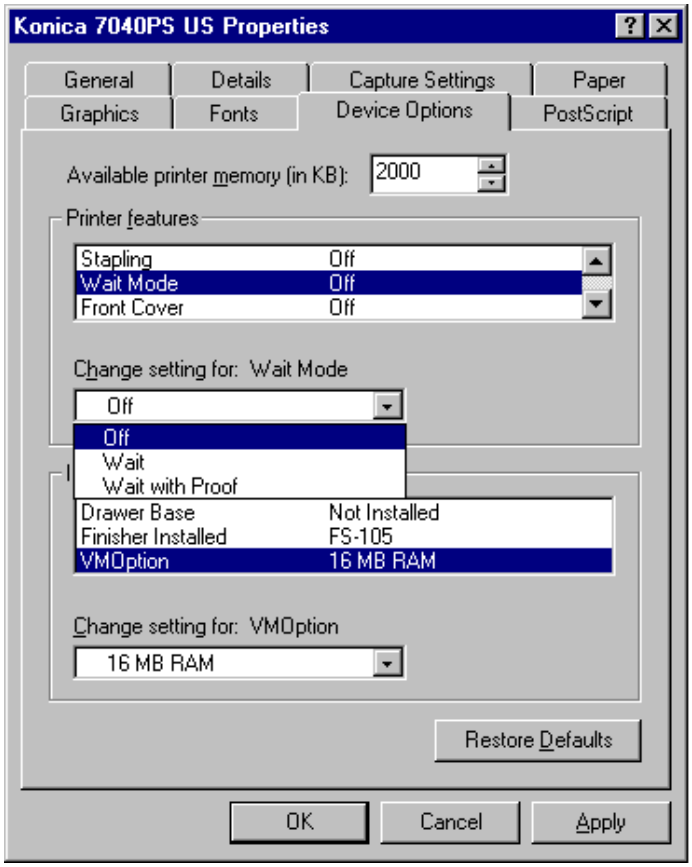
1 Use the arrow in the [*Change setting for: Stapling*] field to view options.
2 Highlight another setting, then click OK.

Select Single or Double stapling on Portrait or Landscape orientation, as desired.

To leave the setting unchanged and exit the screen, click Cancel.

Printer Driver Screens

PostScript Driver Screens for Windows 95 Device Options Tab



Printer Features - Wait Mode
The default setting for Wait Mode is Off. To change the default setting:

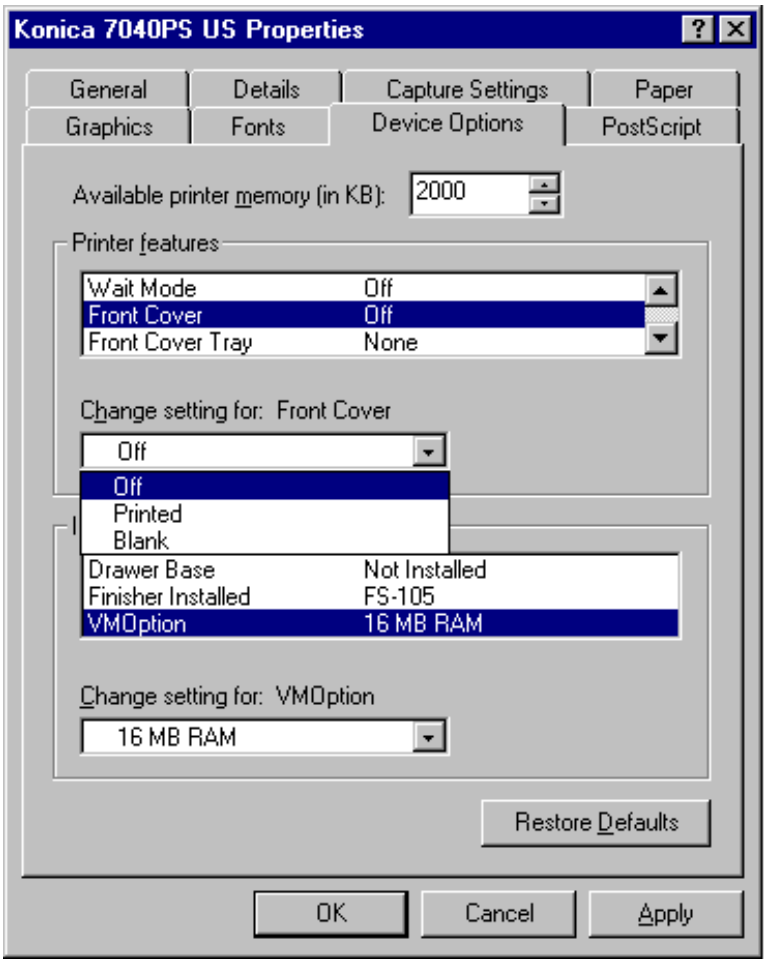
1 Use the arrow in the [*Change setting for: Wait Mode*] field to view options.
2 Select the desired setting, then click OK.

- Wait means you will be prompted to install special paper, e.g., OHP, Thin or Thick stock.
- Wait with Proof means that you will be prompted to print a proof set before printing multiple sets.

To leave the setting unchanged and exit from the screen, click Cancel.

Printer Driver Screens

PostScript Driver Screens for Windows 95 Device Options Tab



Printer Features - Front Cover
The default setting for Front Cover is Off. To change the default setting:

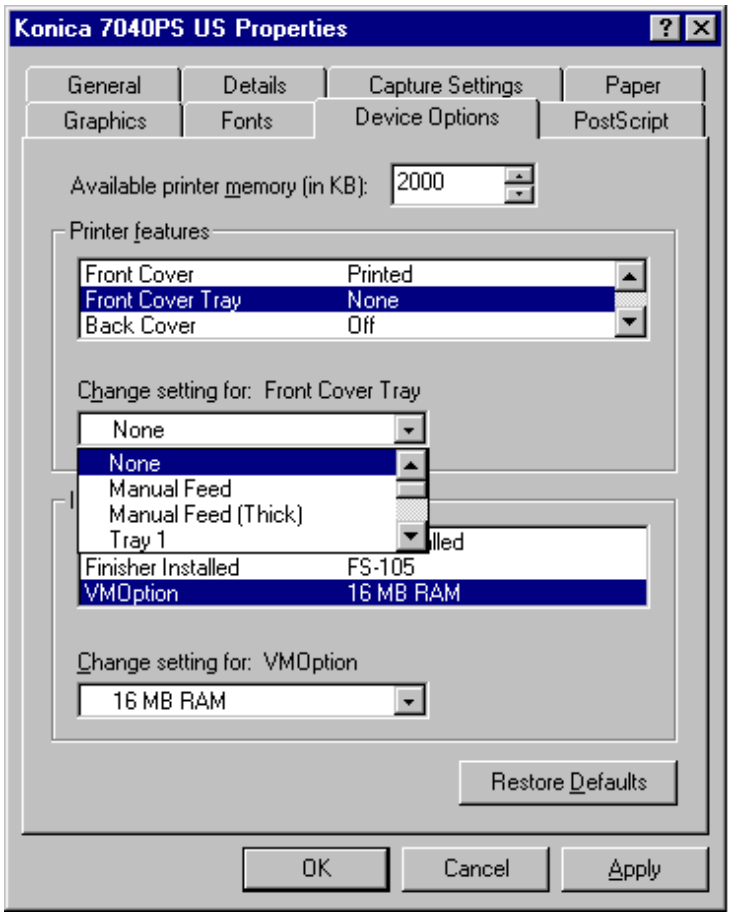
1 Use the arrow in the [*Change setting for: Front Cover*] field to view options.
2 Highlight On, then click OK.

- Printed means that the cover sheet will be printed prior to being inserted.
- Blank means that a blank cover sheet will be inserted, i.e., without being copied.

To leave the setting unchanged and exit from the screen, click Cancel.

Printer Driver Screens

PostScript Driver Screens for Windows 95 Device Options Tab



Printer Features - Front Cover Tray
The default setting for Front Cover Tray is None. To change the default setting:

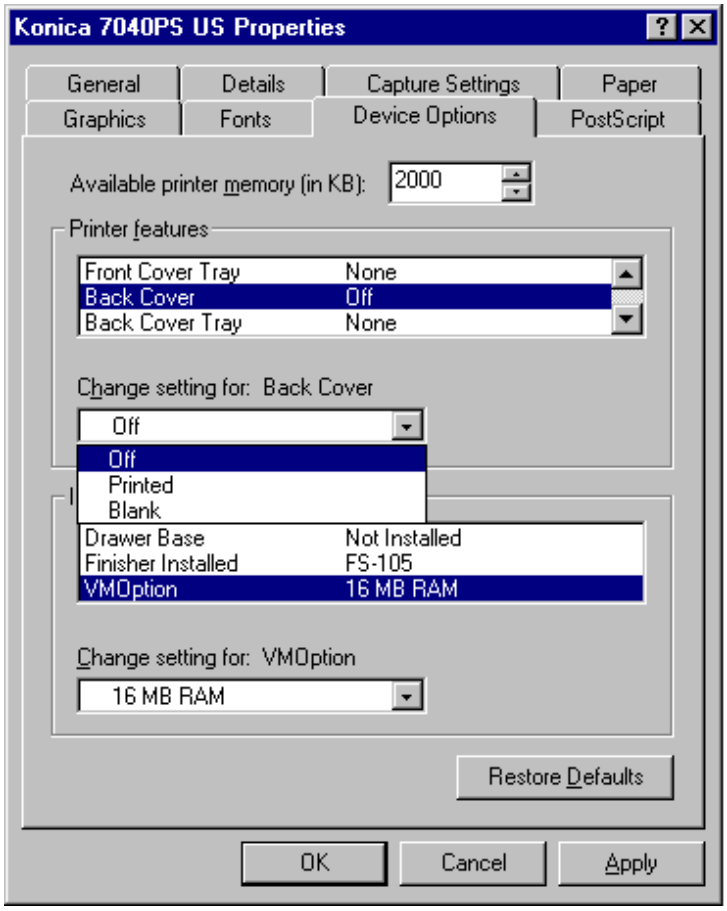
1 Use the arrow in the [*Change setting for: Front Cover Tray*] field to view options.
2 Highlight another setting, then click OK.

- Manual feed enables you to stack 20 lb bond paper in the bypass tray for front cover insertion.
- Manual Feed (Thick) enables you to manually feed up to 32 lb bond covers from the bypass tray.
- Tray 1 enables you to feed 20 lb paper from Tray 1 for front cover insertion.

To leave the setting unchanged and exit from the screen, click Cancel.

Printer Driver Screens

PostScript Driver Screens for Windows 95 Device Options Tab



Printer Features - Back Cover
The default setting for Back Cover is Off. To change the default setting:

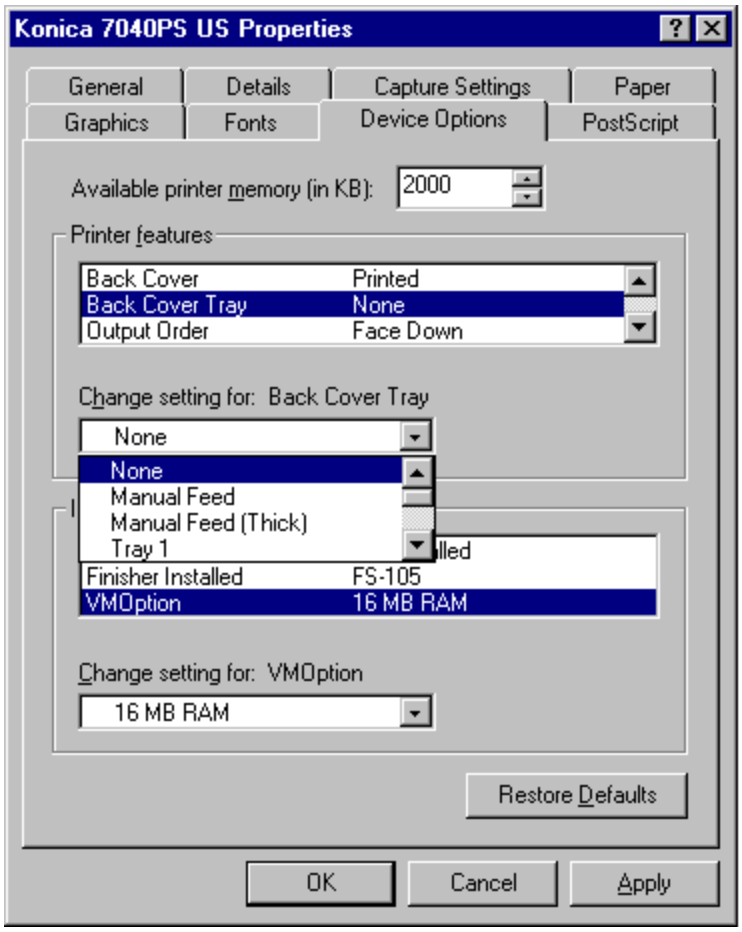
1 Use the arrow in the [*Change setting for: Back Cover*] field to view options.
2 Highlight On, then click OK.

- Printed means that back covers will be copied prior to being inserted.
- Blank means that back covers will be inserted as blank sheets, i.e., without being copied.

To leave the setting unchanged, click Cancel.

Printer Driver Screens

PostScript Driver Screens for Windows 95 Device Options Tab



Printer Features - Back Cover Tray
The default setting for Back Cover Tray is Off. To change the default setting:

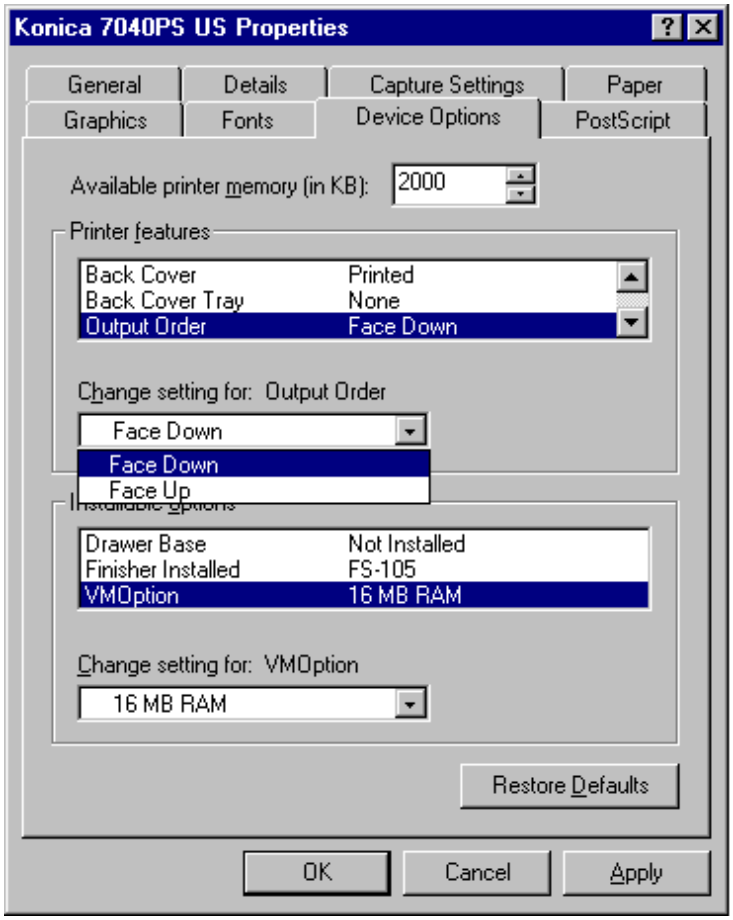
1 Use the arrow in the [*Change setting for: Back Cover Tray*] field to view options.
2 Highlight another setting, then click OK.

- Manual Feed enables you to stack 20 lb bond paper in the bypass tray for back cover insertion.
- Manual Feed (Thick) enables you to manually feed up to 32 lb bond back covers from the bypass.
- Tray 1 enables you to feed 20 lb paper from Tray 1 for back cover insertion.

To leave the setting unchanged and exit from the screen, click Cancel.

Printer Driver Screens

PostScript Driver Screens for Windows 95 Device Options Tab



Printer Features - Output Order
The default setting for Output Order is Face Down. To change the default setting:

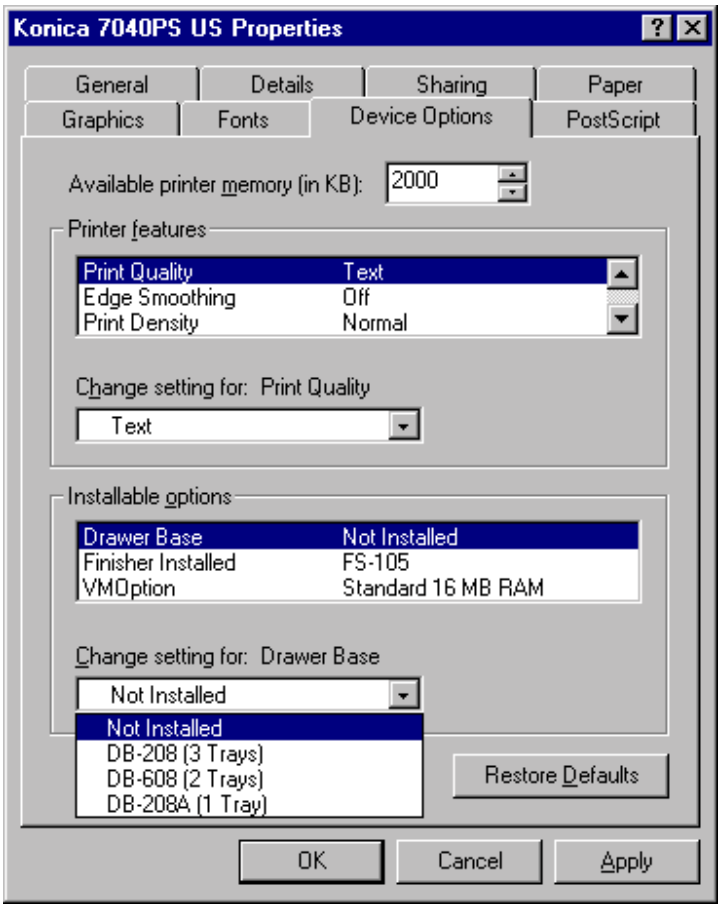
1 Use the arrow in the [*Change setting for: Output Order*] field to view options.
2 Highlight Face Up, then click OK.

- Use Face Down to output the job face down and in proper order.
- Use Face Up to output the job face up without sequential order.

To leave the setting unchanged and exit from the screen, click Cancel.

Printer Driver Screens

PostScript Driver Screens for Windows 95 Device Options Tab



Installable Options - Drawer Base
The Device Options screen displays a list of Installable options. When Drawer Base is highlight in the Installable options field, the current setting displays. This screen shows that a Drawer Base is Not Installed.

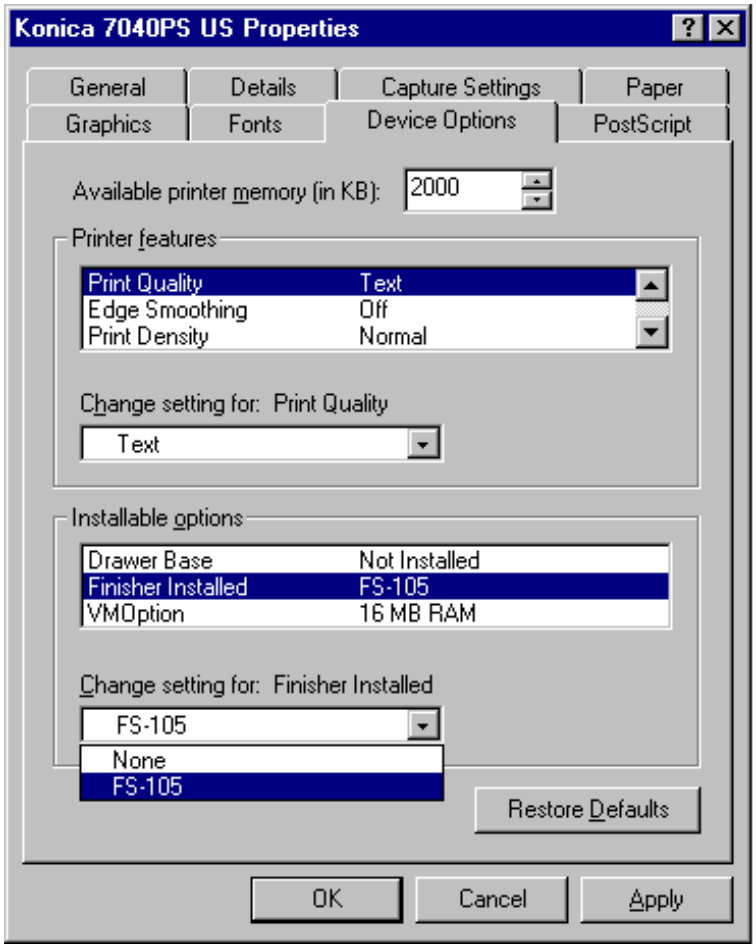
1 Click the arrow in the [*Change Setting for: Drawer Base*] field to view option settings.
2 Highlight DB-208, DB-608, or DB-208A, as desired, then click OK.

To leave the setting unchanged and exit from the screen, click Cancel.
To resume the default setting, click Restore Defaults.

Note: Refer to the main body User's Manual for Drawer Base specifications.

Printer Driver Screens

PostScript Driver Screens for Windows 95 Device Options Tab



Installable Options - Finisher

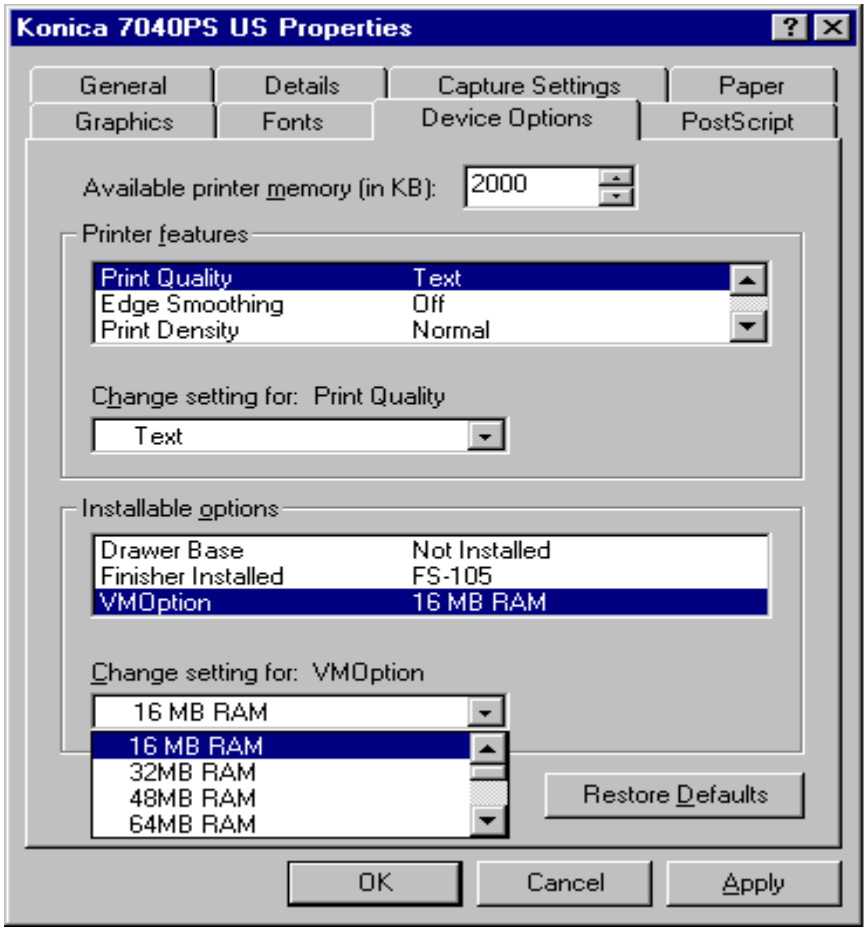
The Device Options screen displays a list of Installable options. When Finisher Installed is highlighted in the Installable options field, the current setting displays. This screen shows that the FS-105 finisher is installed.

1 Click the arrow in the [*Change Setting for: Finisher Installed*] field to view the option settings.
2 Highlight the desired setting, then click OK.

To leave the setting unchanged and exit from the screen, click Cancel.
To resume the default setting, click Restore Defaults.

Printer Driver Screens

PostScript Driver Screens for Windows 95 Device Options Tab



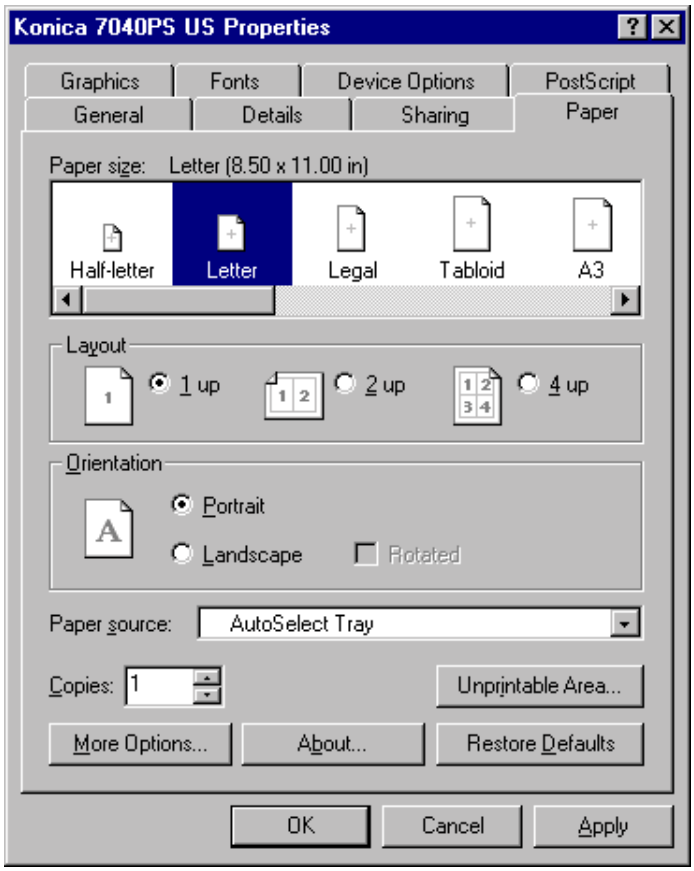
Installable Options - VMOption (Virtual Memory)
The Device Options screen displays a list of Installable options. When VMOption is highlighted in the Installable options field, the current setting displays. This screen shows that 16 MB RAM is installed.

1 Click the arrow in the [*Change setting for: VMOption*] field to view option settings.
2 Highlight 32 MB, 48 MB or 64 MB, as desired, then click OK.

To leave the setting unchanged and exit from the screen, click Cancel.
To resume the default settings, click Restore Defaults.

Printer Driver Screens

PostScript Driver Screens for Windows 95 Paper Tab



Paper Size
When you click the Paper tab, the above screen displays the current settings for Paper Size, Layout, Orientation, Paper Source, and a setting for the number of Copies.

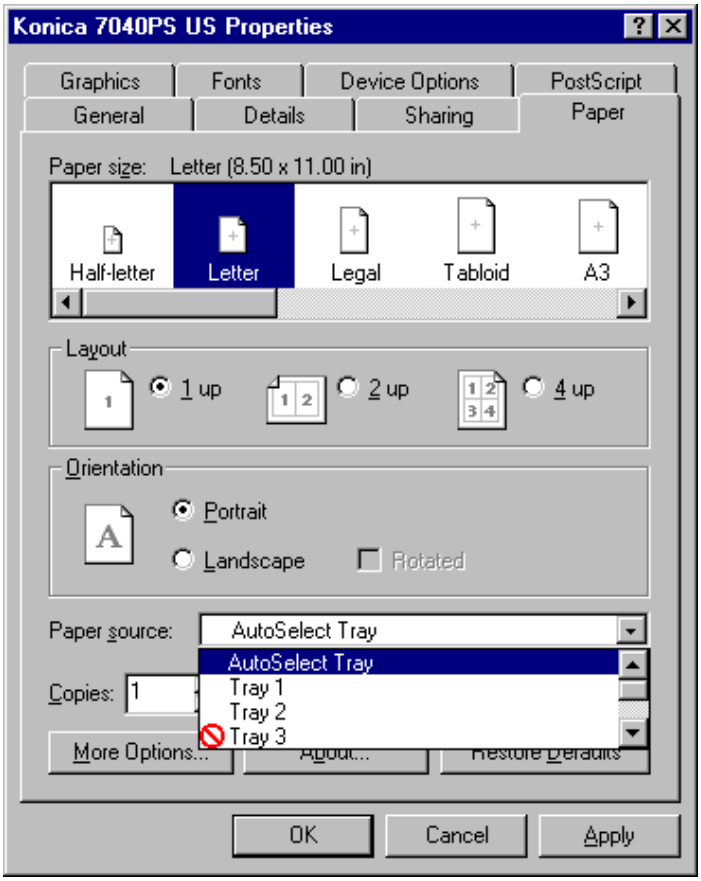
The default Paper Size setting is Letter.

1 To change the setting, highlight the desired paper size.
2 Click OK.

To leave the setting unchanged, click Cancel.
To resume the default setting, click Restore Defaults.
To view other Paper settings, click on More Options and refer to the following pages.

Printer Driver Screens

PostScript Driver Screens for Windows 95 Paper Tab



Paper Source

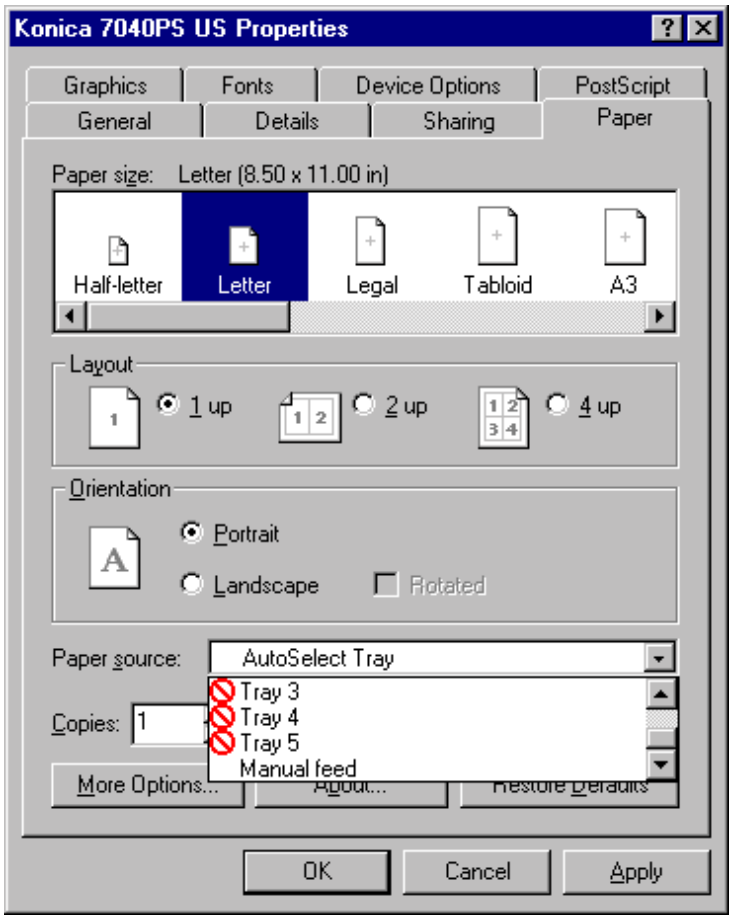
The default setting for Paper Source is AutoSelect Tray, which means the printer will use the appropriate tray for the selected paper size. I you wish to leave the current setting unchanged, click Cancel. If you wish to specify a paper tray, keep in mind that the system will look for the selected paper size in that tray but it will not look for the paper in another tray, even if another tray contains that paper size.

1 To specify a tray, click the arrow in the [*Paper source*] field to view setting options.
2 Highlight a specific tray source, as desired, then click OK.

Note: Trays indicated by ⃠ are unavailable due to a conflict with another setting. If you select an unavailable tray, a dialog box will display to describe the conflict and provide you with an opportunity to change the incompatible setting.

Printer Driver Screens

PostScript Driver Screens for Windows 95 Paper Tab



Specifying Manual Tray

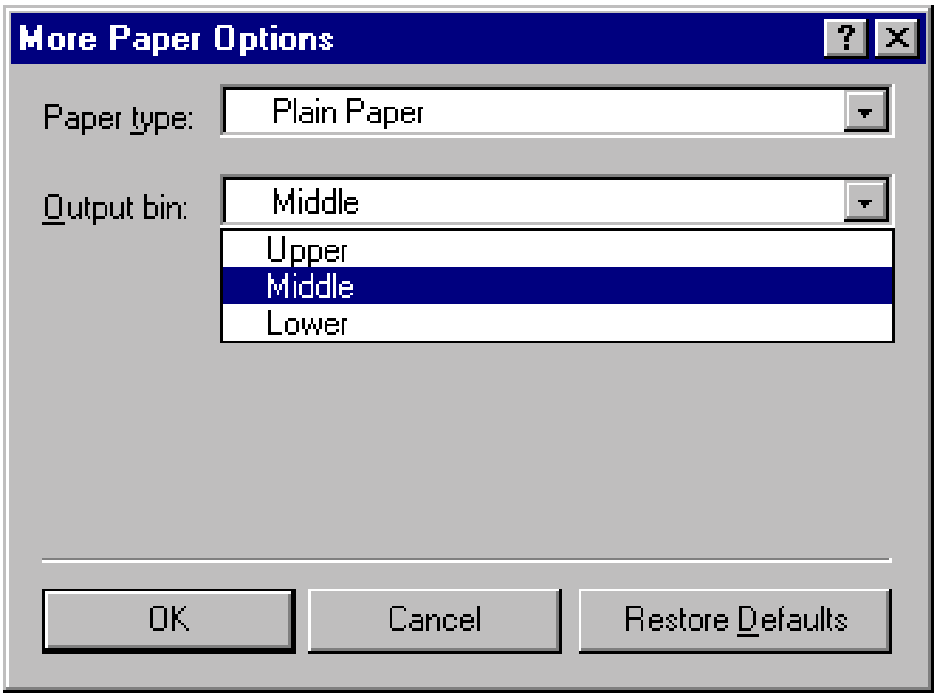
1 To specify the Manual feed tray, click the arrow in the [*Paper source*] field to view options.
2 Highlight Manual Feed, then click OK.

When the job is completed, the default setting (AutoSelect tray) will be resumed.

To leave the setting unchanged, click Cancel.

Printer Driver Screens

PostScript Driver Screens for Windows 95 Paper Tab



More Options Screen - Output bin
Click on the More Options button to display current settings for Paper type and Output bin.

The default setting for Output bin is the Middle Bin.

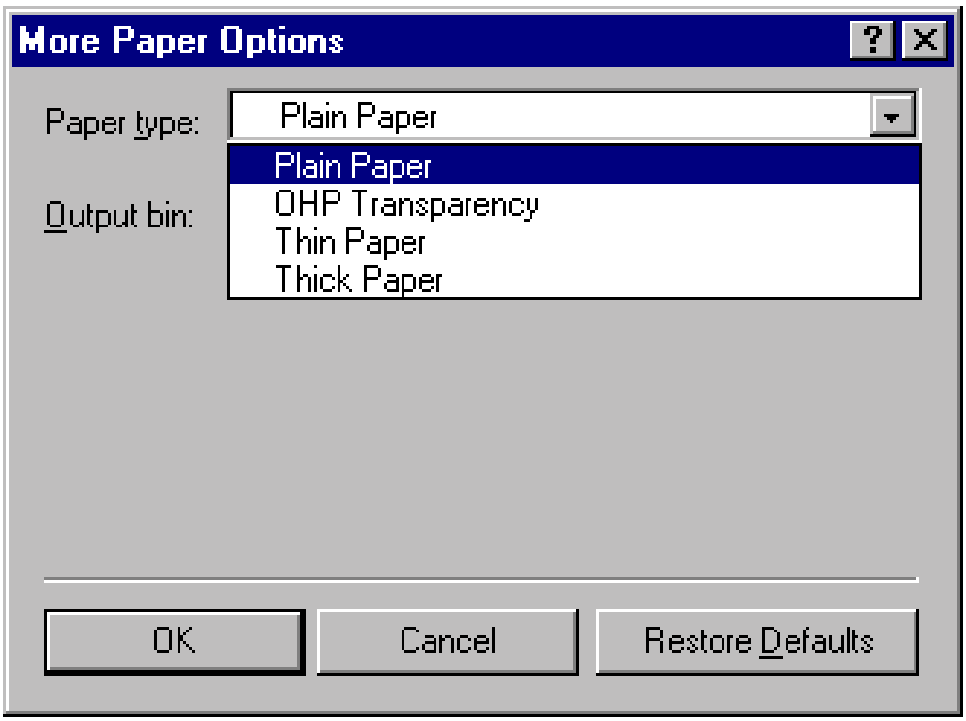
1 Click on the arrow next to the Output bin setting to view other options.
2 Highlight another setting, then click OK.

The job will be output to the selected bin.
When the job is completed, the default bin (Middle) will be resumed.

To leave the setting unchanged, click Cancel.

Printer Driver Screens

PostScript Driver Screens for Windows 95 Paper Tab



More Options Screen - Paper type
The above screen indicates the current setting for Paper type. The default setting is Plain Paper.

1 Click the arrow next to the current Paper type setting to view other options.
2 Highlight the desired paper type setting, then click OK.

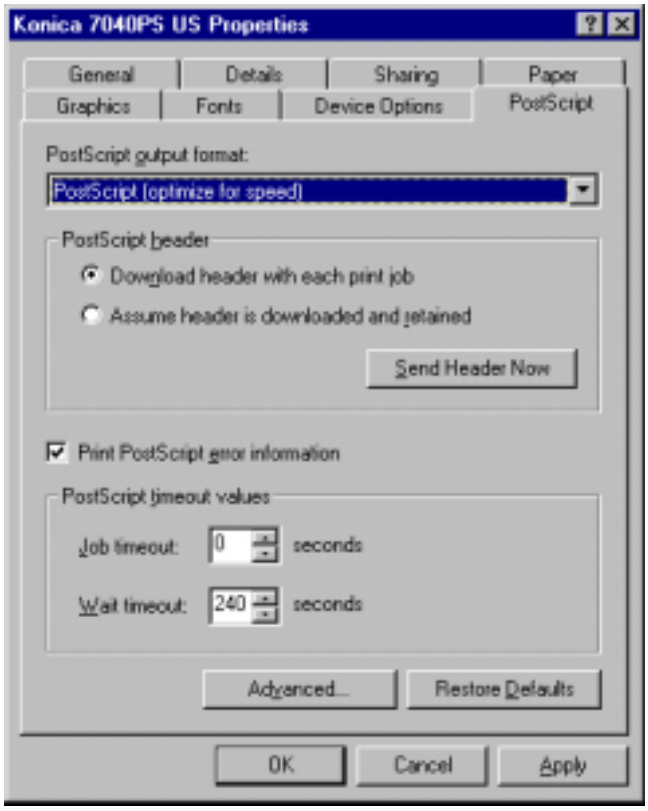
Be sure the paper you select is loaded in the appropriate tray.

When the job is completed, the default Paper type setting for Plain Paper will be resumed.

To leave the setting unchanged, click Cancel.

Printer Driver Screens

PostScript Driver Screens for Windows 95 PostScript Tab



PostScript Output Format
1 Click the PostScript tab to display the PostScript settings screen shown above.

The sample screen shows the PostScript Output format setting is *Postscript [optimize for speed]*. (See details on next page.) Other settings include PostScript header information, which downloads a header with each job; Print PostScript error information, Job timeout, and Wait timeout.

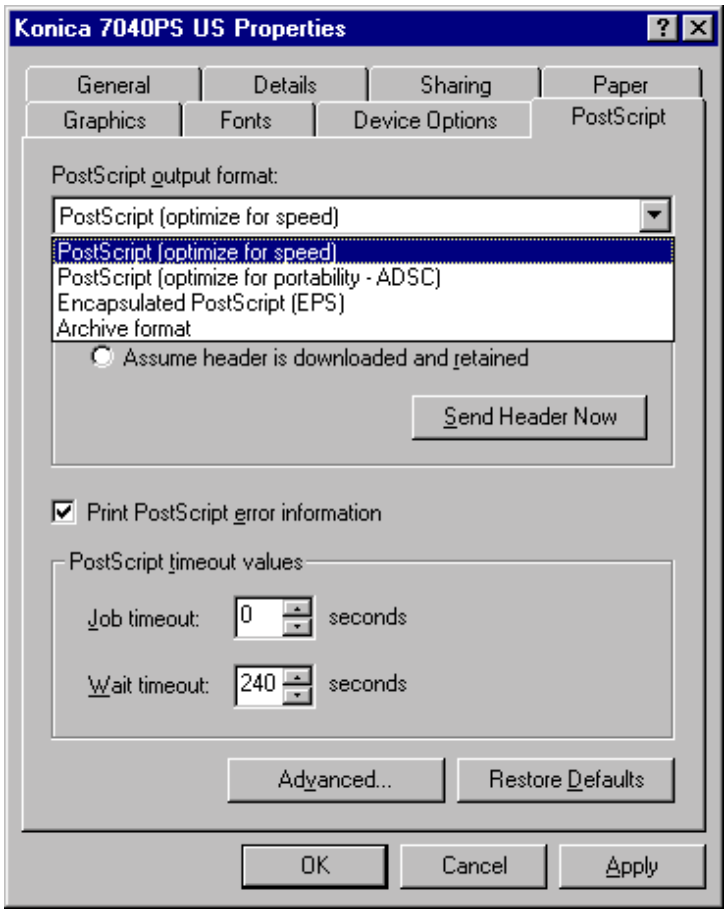
Note: Before changing the default settings for Job timeout and Wait timeout, be sure you understand the effect of the change.

2 When all settings are as desired, click OK.

To resume the default settings, click Restore Defaults.
To leave settings unchanged, click Cancel.

Printer Driver Screens

PostScript Driver Screens for Windows 95 PostScript Tab



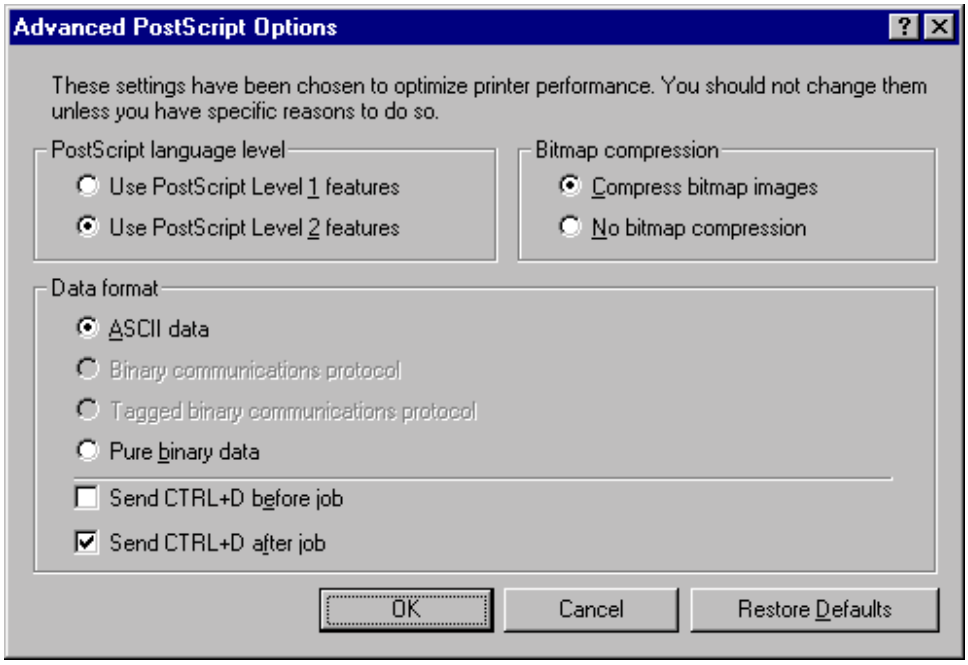
Changing PostScript output format
The default setting is *PostScript [optimize for speed]*. To change this setting:

1 Click the arrow next to the setting to view options.
2 Select the desired setting, then click OK.

To exit the screen without making any changes, click Cancel.
To resume default settings, click Restore Defaults.

Printer Driver Screens

PostScript Driver Screens for Windows 95 PostScript Tab



Advanced PostScript Options
The above screen displays when you click the Advanced button on the PostScript settings screen.

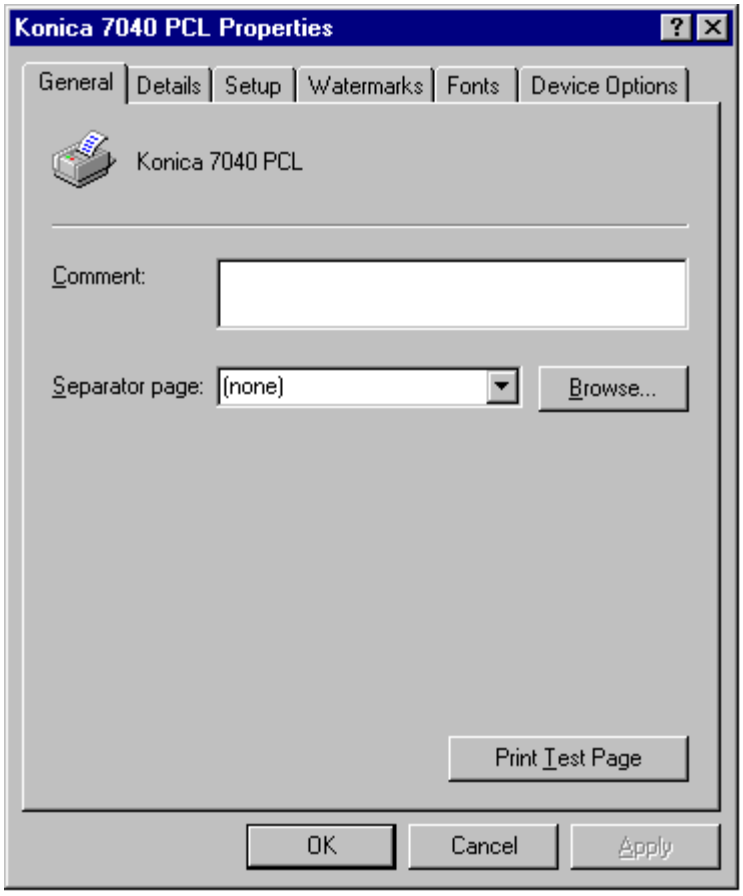
As the screen indicates, "These settings have been chosen to optimize printer performance. You should not change them unless you have specific reasons to do so."

Therefore, make necessary changes only if you fully understand the effects of the change.

PCL Driver Screens for Windows 95

Printer Driver Screens

PCL Driver Screens for Windows 95 General Tab



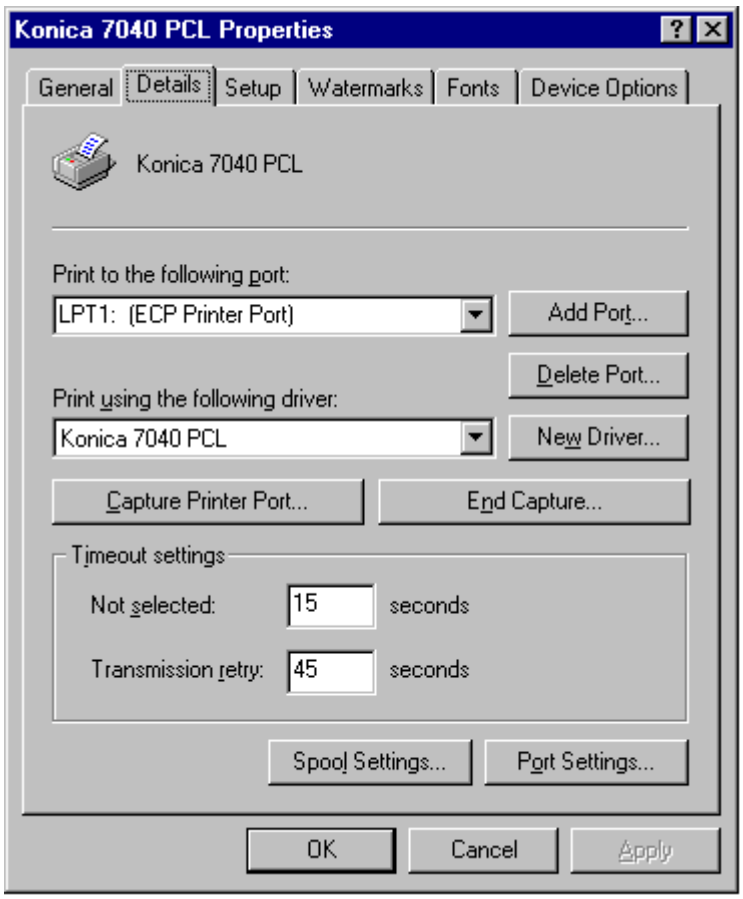
General Screen
The General screen identifies the name of your printer and provides a Comment field in which you may key in a specific request. The information you request will be displayed on the screen. This screen also displays tabs for all available properties settings for the PCL Driver.

Just click the tab topic you require and the appropriate screen will be displayed. See screens starting on next page.

Should you decide not to go further with any selection, click the Cancel button at the bottom of the screen.

Printer Driver Screens

PCL Driver Screens for Windows 95 Details Tab



Details Screen

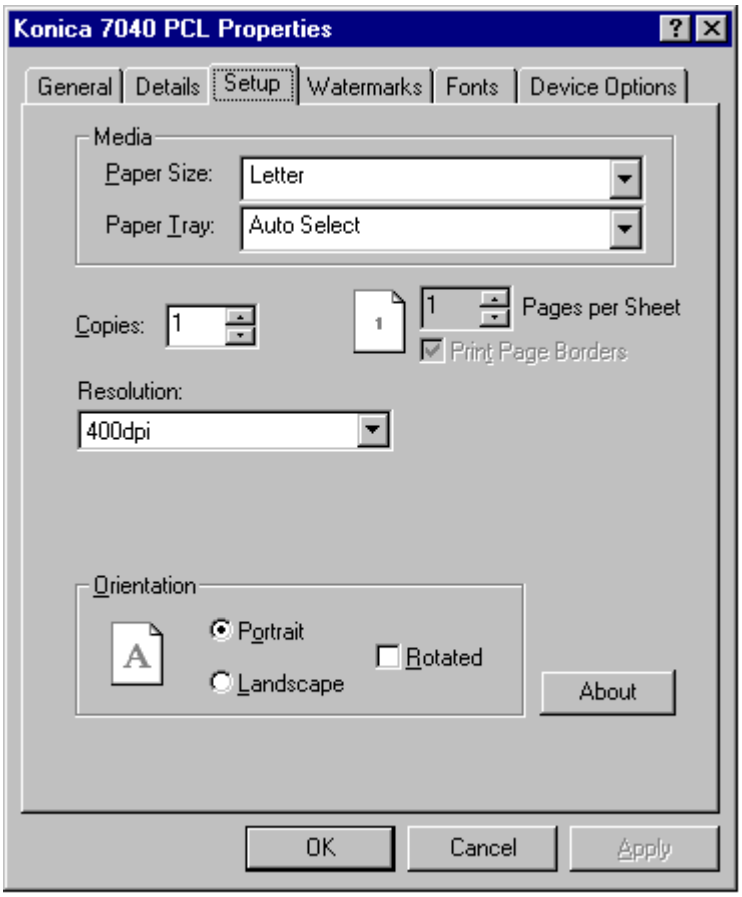
The Details tab brings you to a screen that shows the current Port setting in the [*Print to the following port*] field. The default setting is LPT1, as shown. To change this setting, click the arrow next to the setting to view options, then highlight another Port setting, as required.

The Printer Driver in use is indicated in the [*Print using the following driver:*] field. The Konica 7040 PCL driver is shown on this screen as the current driver. To change this setting, click the arrow next to the setting to view driver options, then highlight another driver, as required.

This screen also lets you to change the Timeout settings for capturing files for printing. To print very large files, you may need to adjust this time-out setting. In most cases, however, you will not need to change this setting.

Printer Driver Screens

PCL Driver Screens for Windows 95 Setup Screen



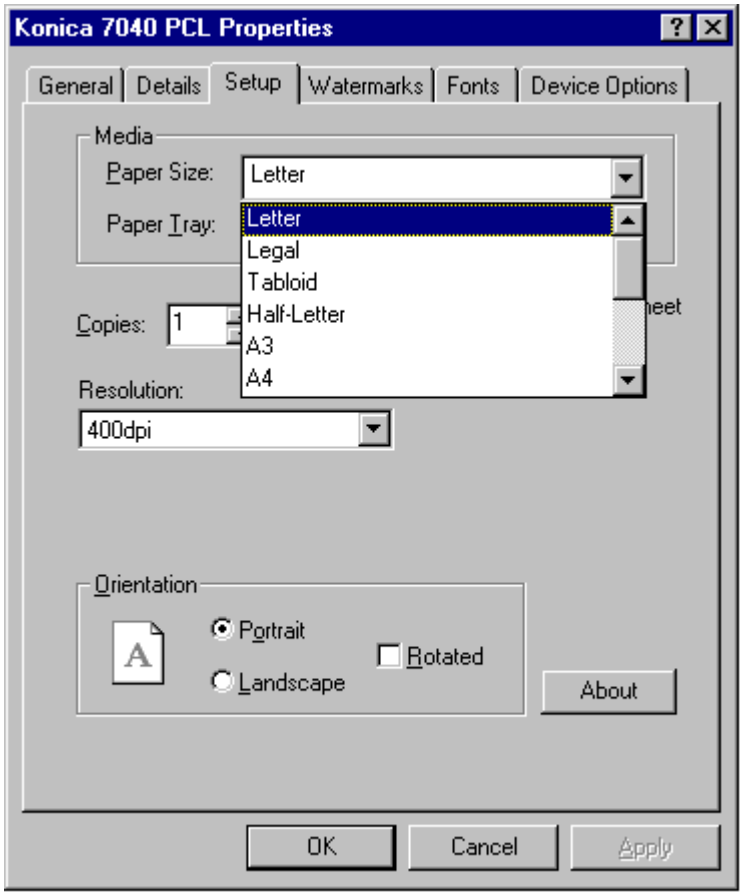
Setup Screen
The Setup screen displays the following default settings:

- Paper Size: Letter
- Paper Tray: Auto Select
- Resolution: 400dpi
- Orientation: Portrait

To view or change the Paper Size, click the arrow next to the current setting. See next page.
To leave the settings unchanged, click Cancel.

Printer Driver Screens

PCL Driver Screens for Windows 95 Setup Screen



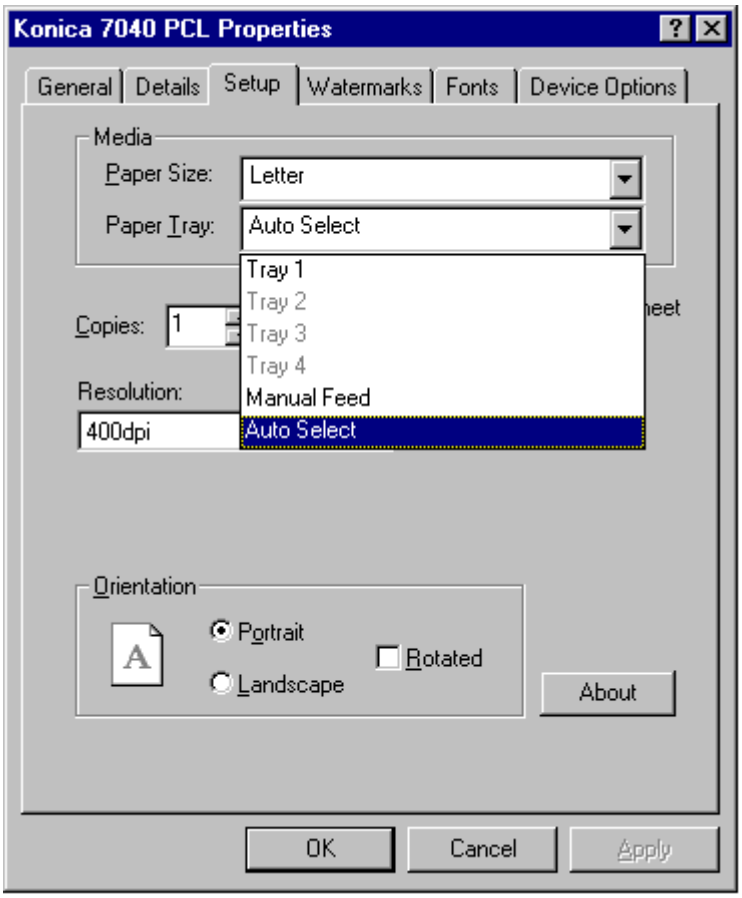
Paper Size
The default paper size is Letter size.

1 Click the arrow to scroll through the available paper size options.
2 To select another paper size, double click on the desired size, then click OK.

To leave the setting unchanged, click Cancel.

Printer Driver Screens

PCL Driver Screens for Windows 95 Setup Screen



Paper Tray Setting

The default setting for Paper Tray is Auto Select, which enables the printer to automatically select an appropriate tray for the paper type you select. If desired, you may turn off Auto Select, and specify a tray.

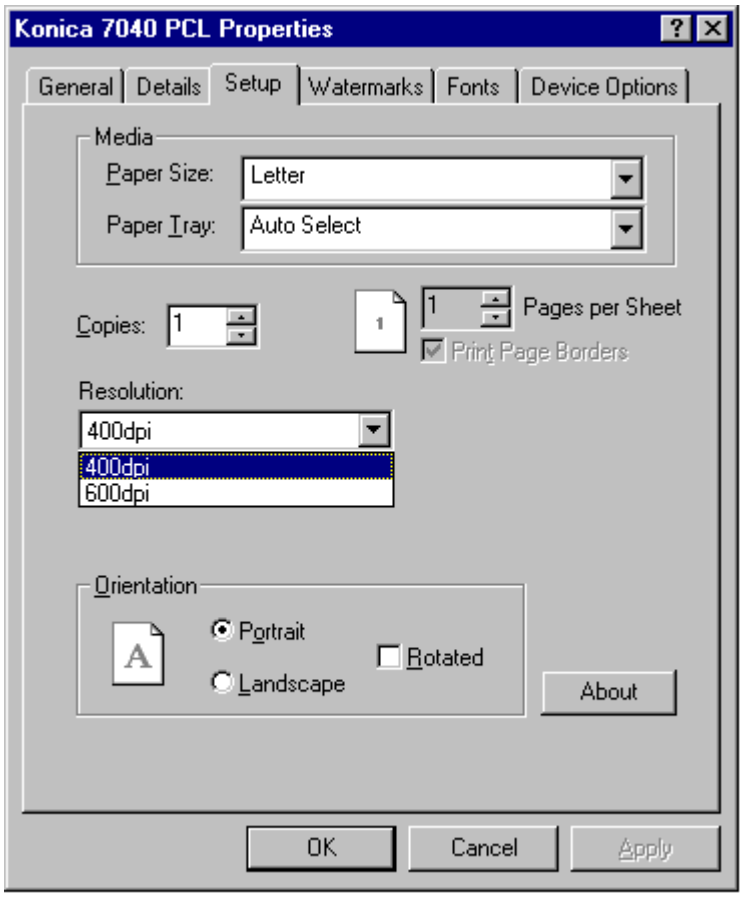
1 To specify a tray, click the arrow next to Paper Tray to view tray options.
2 Highlight the tray you want to use, then click OK.

When you specify a tray, be sure to load the tray with the appropriate paper. Keep in mind that if the tray you specify is empty, the printer will not look for another tray, even if the selected paper size is loaded in a tray. This is a safeguard to prevent the wrong paper type from being used for a job.

To leave the Auto Select tray setting unchanged, click Cancel.

Printer Driver Screens

PCL Driver Screens for Windows 95 Setup Screen



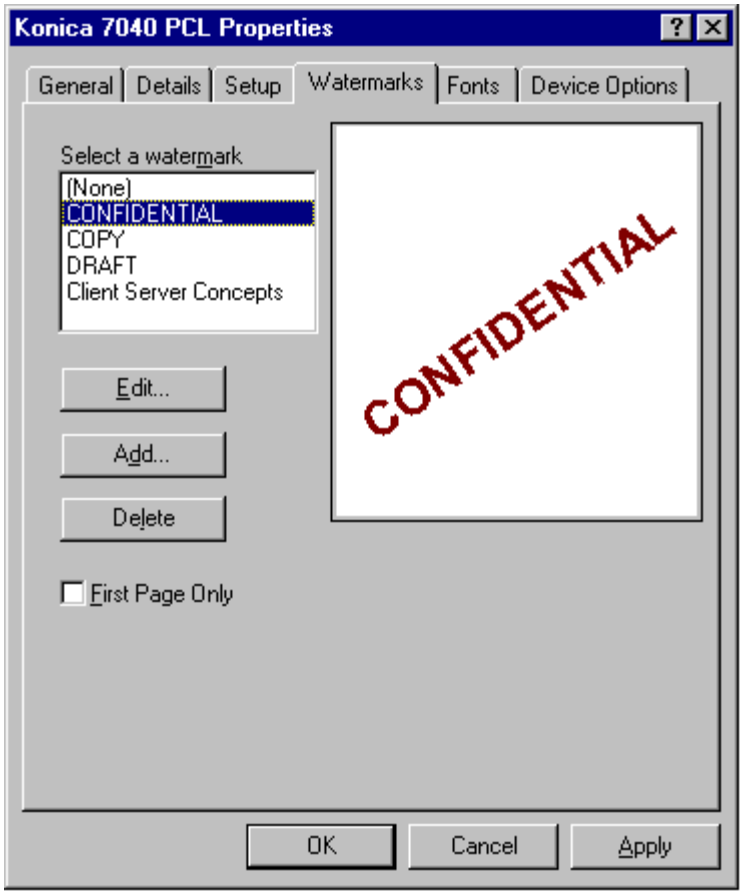
Resolution
The current setting for Resolution is indicated on the Setup screen. The default setting is 400 dpi.

1 To change the setting indicated, click the arrow under Resolution to display another setting.
2 Highlight **600dpi**, then click OK.

To leave the setting unchanged, click Cancel.

Printer Driver Screens

PCL Driver Screens for Windows 95 Watermarks



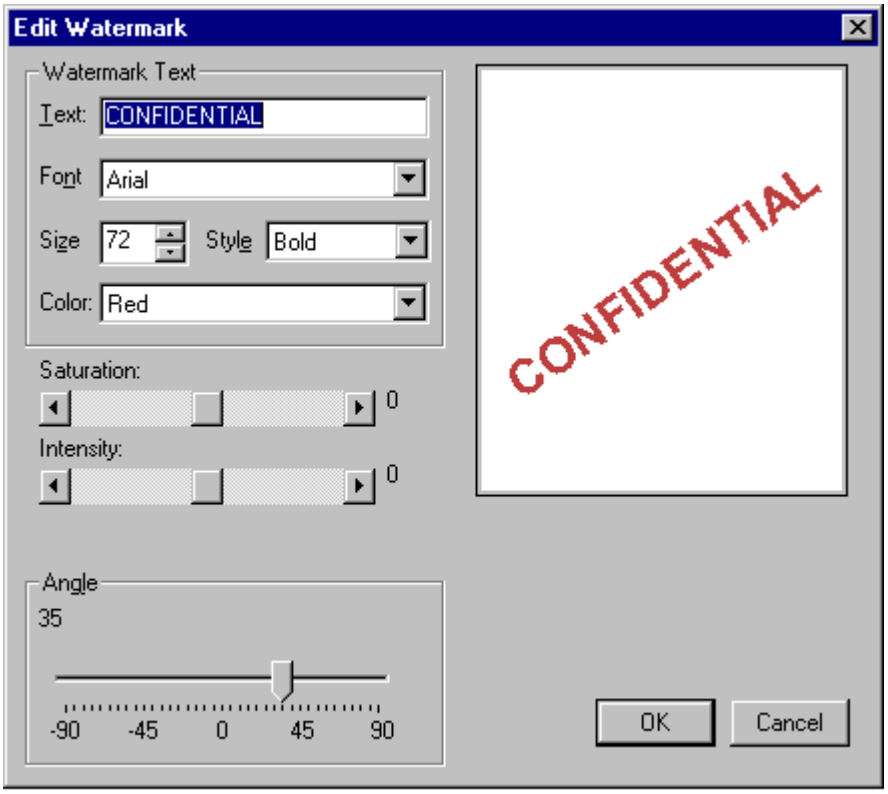
Selecting a Watermark
Click on the Watermarks tab to display the screen shown above. From this screen, you may Select, Edit, Add, or Delete a Watermark.

To Select a Watermark, highlight it, then click OK.
To Edit a Watermark, highlight it, then click Edit and use the procedure shown on the next page.
To Add a Watermark, click Add and follow the procedure on p. 3-86.
To Delete a Watermark, highlight it, click delete, then click OK.

To leave settings unchanged, click Cancel

Printer Driver Screens

PCL Driver Screens for Windows 95 — Edit Watermark



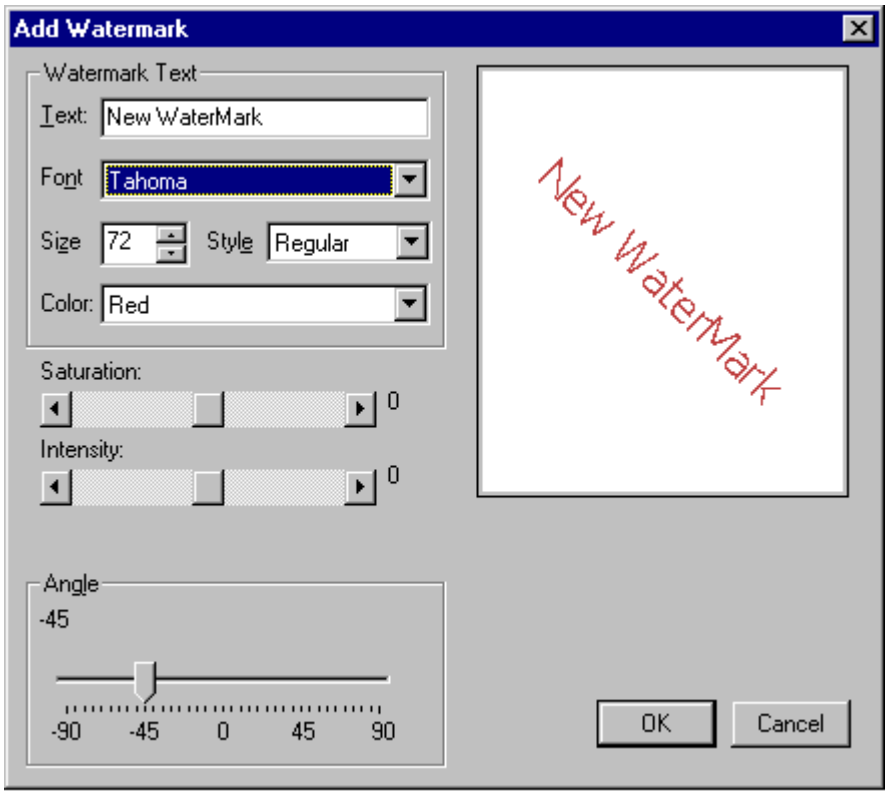
Edit Watermark
Click the Edit button (see previous page) for the selected Watermark to display the screen shown above. You may edit the Font type, Size, Style, Color, Saturation, Intensity and Angle.

1 Be sure the Watermark you want to edit is indicated in the Text field above.
2 Click the arrow of the attribute you want to change.
3 View the option settings, then highlight the new setting.
4 When all changes are indicated, click OK to make the edits effective.

To leave the settings unchanged, click Cancel.

Printer Driver Screens

PCL Driver Screens for Windows 95 — Add Watermark



Add Watermark

1 To add a Watermark, click Add on the Watermarks screen on p. 3-84.
2 In the Text field, enter the wording for the new Watermark.
3 Select the Font, Size, Style Color, Saturation, Intensity and the Angle, as desired.
4 When all settings are completed, click OK.

To leave the settings unchanged and exit from this screen, click Cancel.

Printer Driver Screens

PCL Driver Screens for Windows 95 Fonts Tab

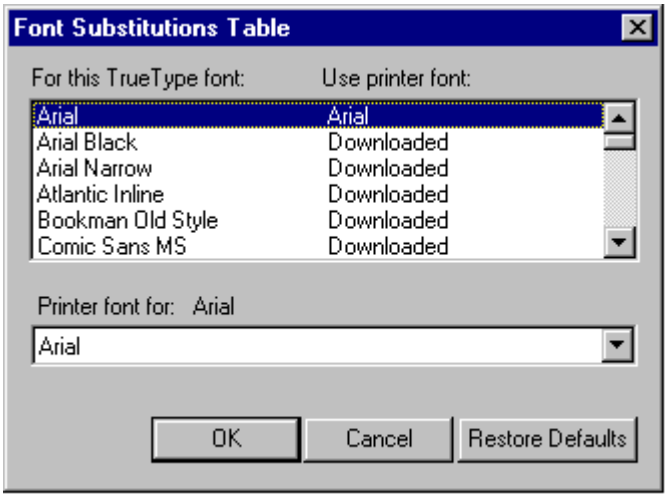
Fonts Screen
The Fonts tab displays the current font settings, as shown in the above screen.

The default setting is Auto Match, which means that TrueType fonts will be exactly matched by the fonts built into your printer. Compared to downloaded fonts, built-in printer fonts allow for speedier printing. Before changing the default setting, be sure you understand how it will affect printing performance.

To view or change Auto Match fonts, click Edit the Table to display the Font Substitution Table (see next page.)

Printer Driver Screens

PCL Driver Screens for Windows 95 Font Substitutions Table



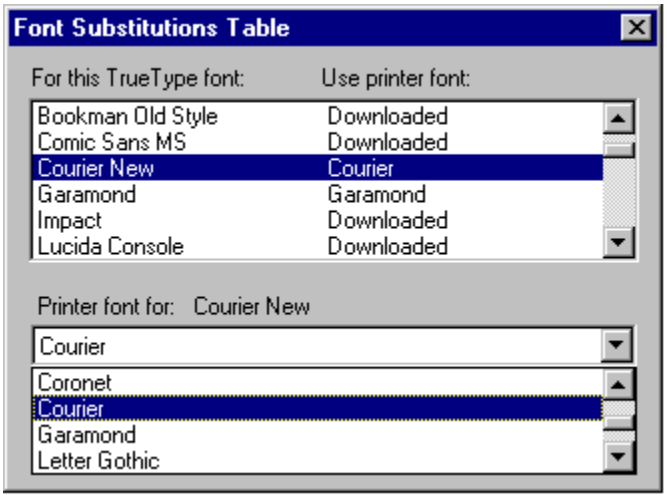
Font Substitutions Table
The Font Substitutions Table enables you to specify which fonts are to be used by your printer for any given TrueType font. Keep in mind that fonts already built in to your printer enable you to print faster than fonts that need to be downloaded to your printer.

This sample screen indicates that an exact-match built-in printer font is used for the TrueType Arial font.

Use the arrows to scroll through the font list to see how they are currently specified. You may substitute any font for a TrueType font. (See next page).

Printer Driver Screens

PCL Driver Screens for Windows 95 Font Substitutions Table



Editing the Font Substitution Table

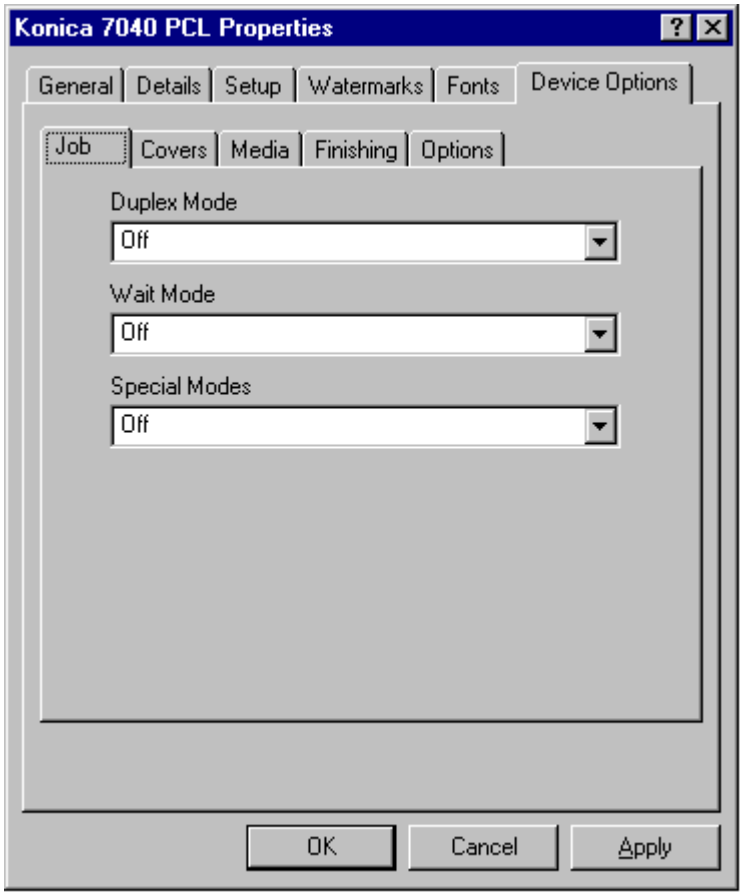
This sample screen shows that the exact-match Courier built-in printer font is used for the Courier New TrueType font.

1 To edit the table, highlight a TrueType font.
   Notice that the current substitution for that font is displayed in the lower part of the screen, in the [*Printer font for:*] field.
2 Click the arrow in the [*Printer font for:*] field to view other font substitutions.
3 Highlight the desired font substitution, then click OK.

To leave the setting unchanged and exit from this screen, click Cancel.

Printer Driver Screens

PCL Driver Screens for Windows 95 Job Tab



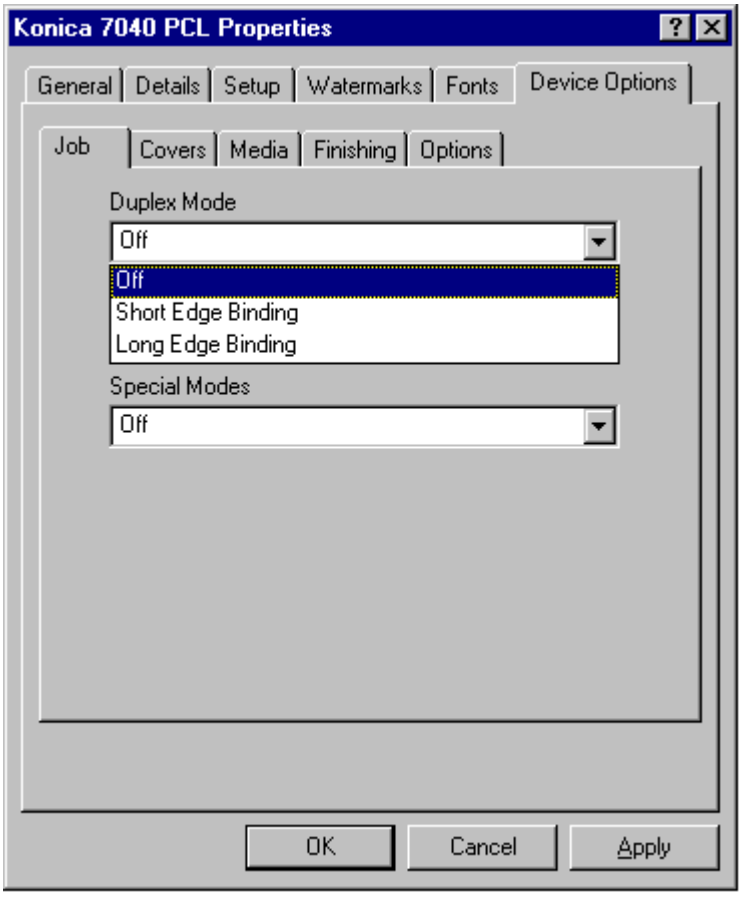
Job Settings Screen
The Job settings screen displays current job settings.

In the above screen, default settings for Duplex Mode, Wait Mode and Special Modes are indicated as Off.

To change these settings, click the arrow next to each mode to view setting options and follow instructions starting on the next page.

Printer Driver Screens

PCL Driver Screens for Windows 95 Duplex Mode



Duplex Mode
1 Click the Duplex Mode arrow to view setting options.

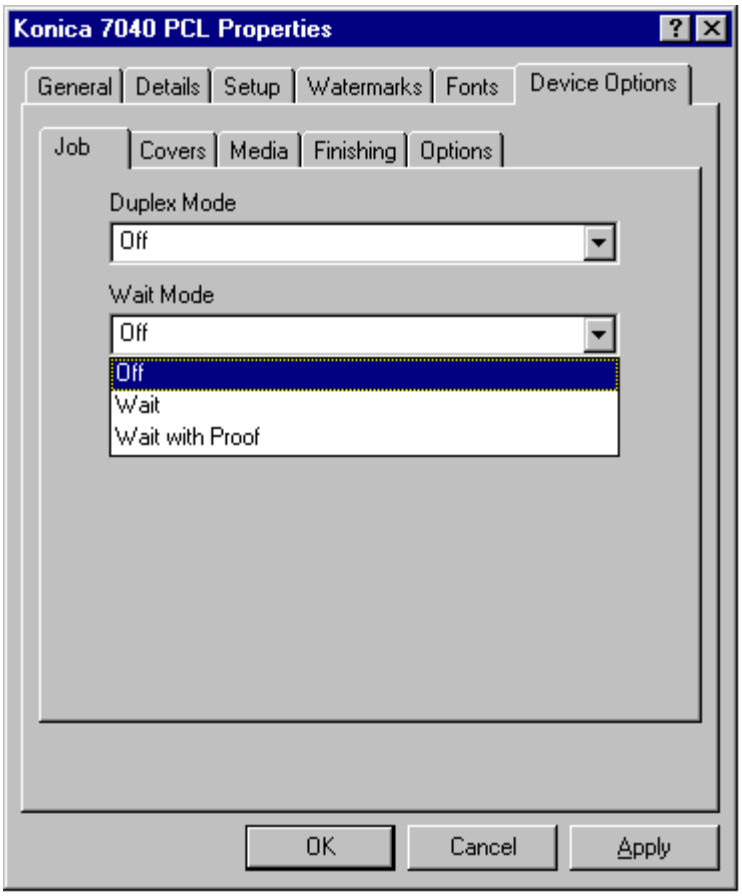
- Select Short Edge Binding to bind the document along the short edge for landscape orientation.
- Select Long Edge Binding to bind the document along the long edge for portrait orientation.

2 When the binding style you want is indicated in the Duplex Mode field, click OK.

To leave the Duplex Mode setting unchanged, click Cancel.

Printer Driver Screens

PCL Driver Screens for Windows 95 Wait Mode



Wait Mode

1 Click the Wait Mode arrow to view setting options.

- Select Wait On to be prompted to install special paper, such as OHP, Thin stock or Thick stock before printing.

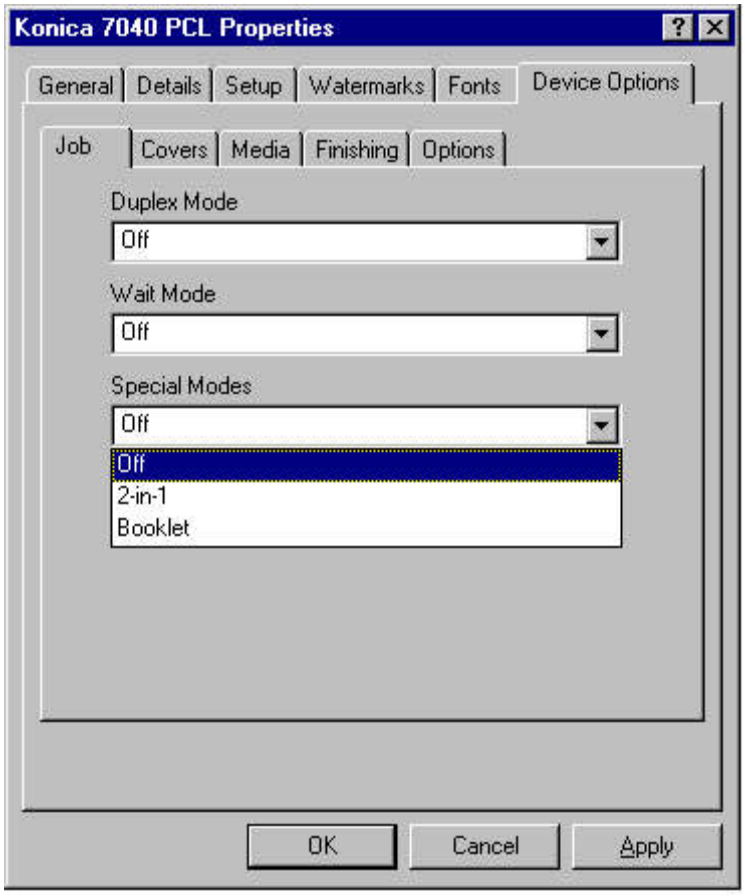
- Select Wait with Proof to be prompted to print a proof set before printing multiple sets.

2 When the setting you want is indicated in the Wait Mode field, click OK.

To leave the Wait Mode setting unchanged, click Cancel.

Printer Driver Screens

PCL Driver Screens for Windows 95 Special Modes



Special Modes
1 Click the Special Modes arrow to view setting options.

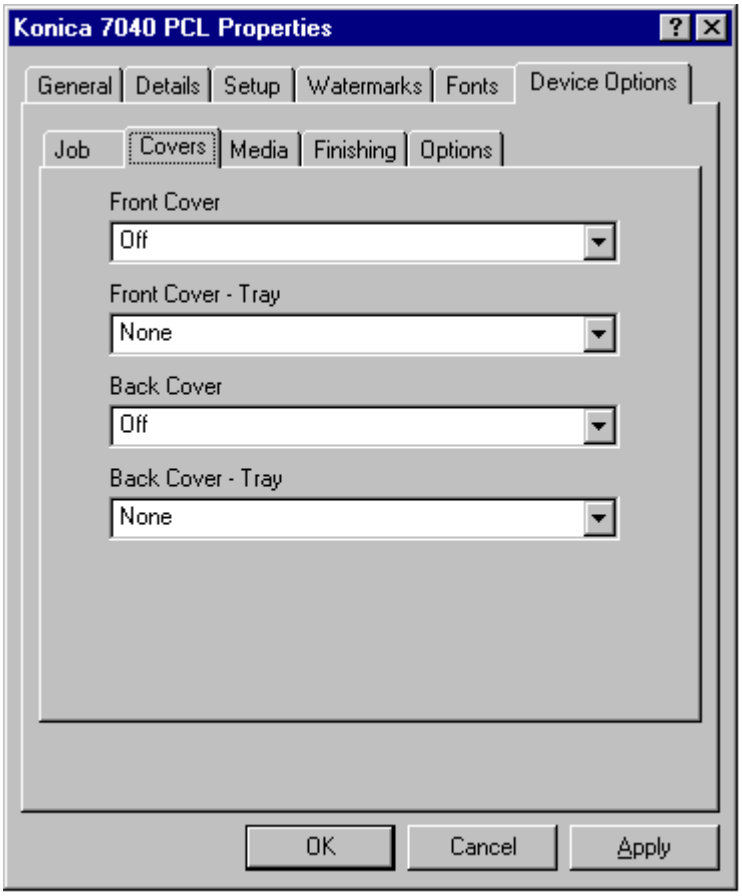
- Select 2-in-1 to print two pages (images) on one standard sheet.
- Select Booklet to print four pages (images) on one standard sheet.

2 When the setting you want is indicated in the Special Modes field, click OK.

To leave the Special Modes settings unchanged, click cancel.

Printer Driver Screens

PCL Driver Screens for Windows 95 Covers Tab



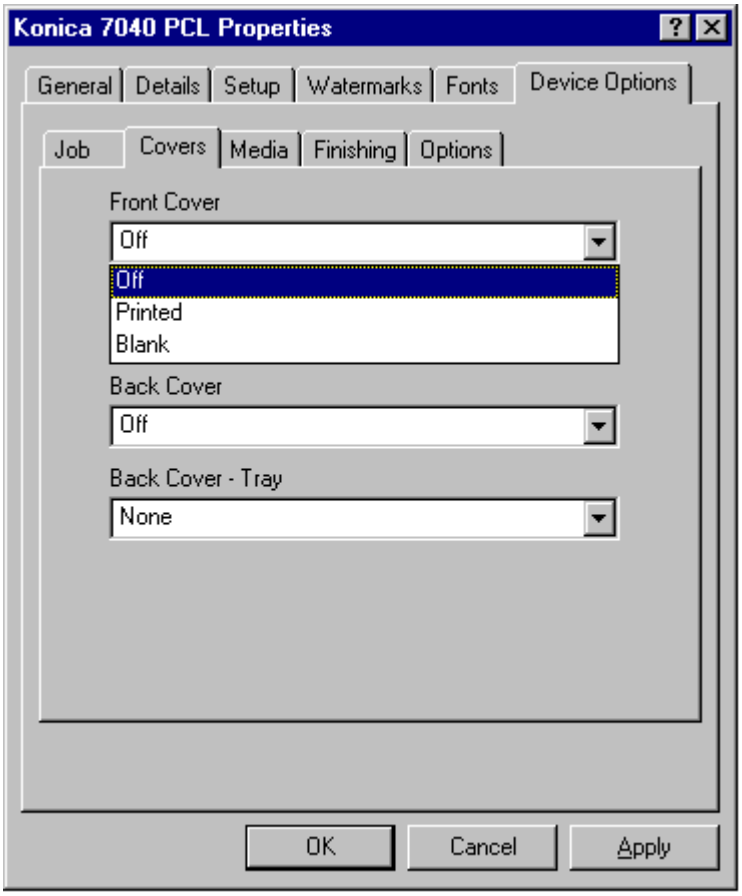
Covers Setting Screen
The Covers tab displays the above screen that shows the default settings for Front Cover, Front Cover Tray, Back Cover mode and Back Cover Tray.

To view or change these settings, click the arrow next to the settings and follow instructions starting on the next page.

To leave Cover settings unchanged, click Cancel.

Printer Driver Screens

PCL Driver Screens for Windows 95 Front Covers



Front Cover Mode
The Front Cover mode is Off by default. To change this setting:

1 Click the arrow next to the Front Cover field to view option settings.

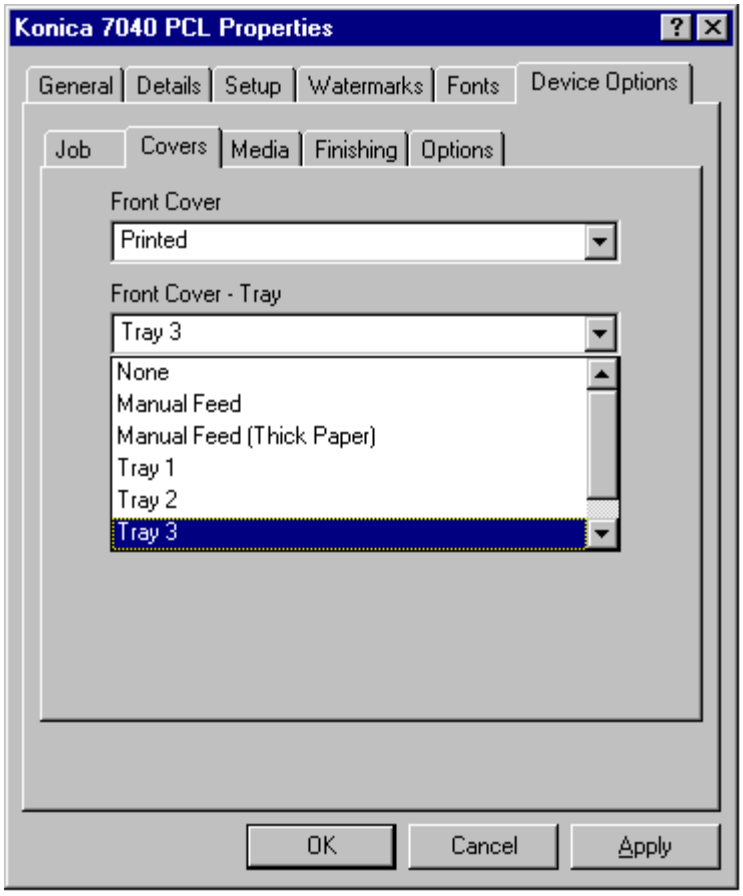
- Select Printed to print on the Front Cover sheets before inserting them into your document.
- Select Blank to insert Front Cover sheets into your document without printing them first. Front Cover sheets can be plain, colored or preprinted.

2 When the desired setting is indicated, click OK.

To leave the Front Cover mode setting unchanged, click Cancel.

Printer Driver Screens

PCL Driver Screens for Windows 95 Front Covers



Front Cover Tray
The Front Cover Tray is set at None by default. To change this setting:

1 Click on the arrow next to the Front Cover Tray field to view tray options.
2 Highlight the tray you want to use for Front Covers, then click OK.

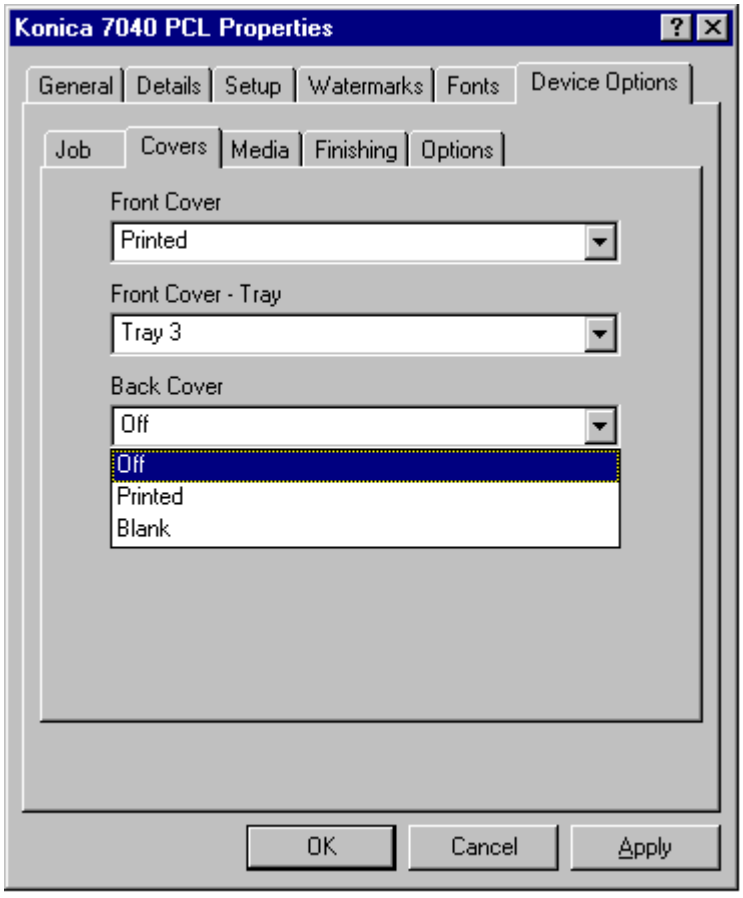
In this example, Tray 1 is selected.

If you are using colored or preprinted paper for the Front Covers, be sure to load the paper in the tray selected for Front Covers, otherwise the paper currently loaded in that tray will be used.

To leave the settings unchanged, click Cancel.

Printer Driver Screens

PCL Driver Screens for Windows 95 Back Covers



Back Cover Mode
The Back Cover mode is Off by default. To change this setting:

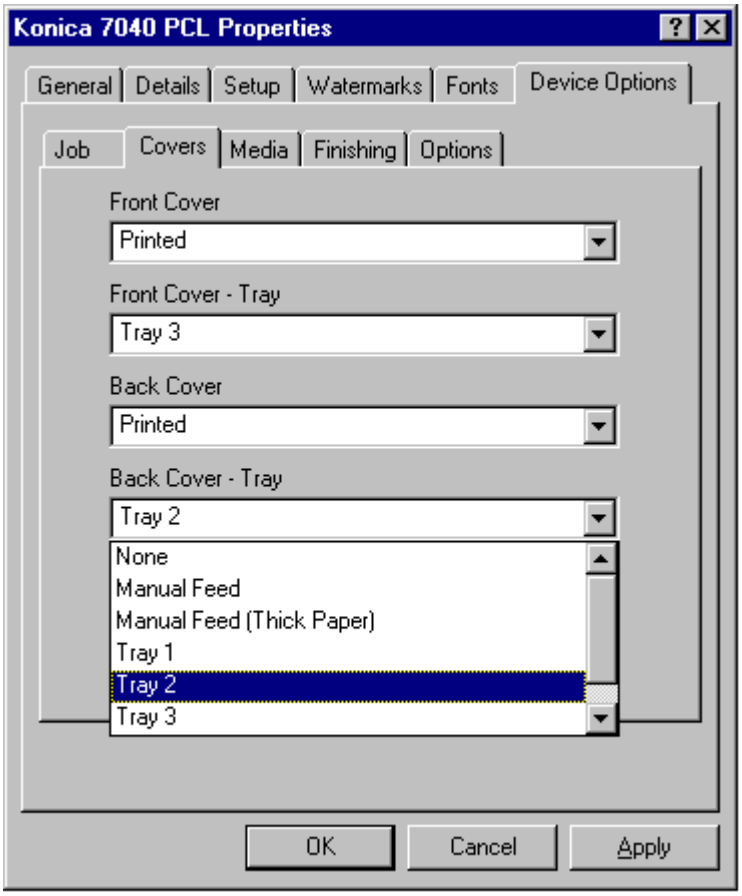
1 Click the arrow next to the Back Cover field to view options.

- Select Printed to print on the Back Cover sheets before inserting them into your document.
- Select Blank to insert the Back Cover sheets into your document without printing them first. Back Cover sheets can be plain, colored or preprinted.

To leave the Back Cover mode setting unchanged, click Cancel.

Printer Driver Screens

PCL Driver Screens for Windows 95 Back Covers



Back Cover Tray
The Back Cover Tray is set at None by default. To change this setting:

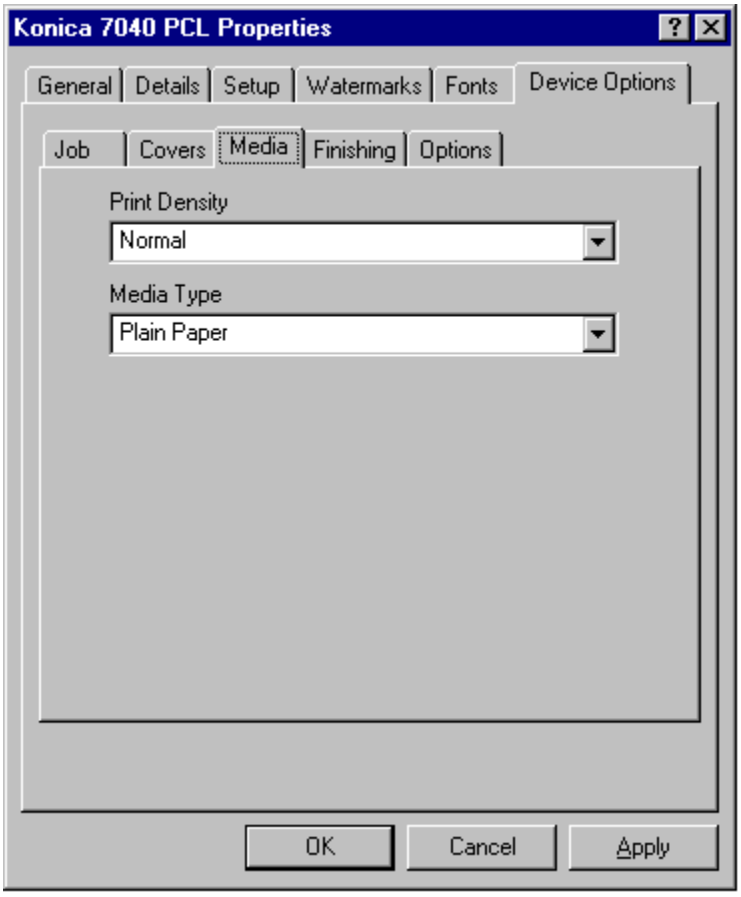
1 Click the arrow next to the Back Cover Tray field to view tray options.
2 Highlight the tray you want to use for the Back Covers, then click OK. In this example, Tray 2 is selected.

If you are using colored or preprinted paper for the Back Covers, be sure to load the paper in the tray selected, otherwise the paper currently loaded will be used.

To leave the Back Cover Tray setting unchanged, click Cancel.

Printer Driver Screens

PCL Driver Screens for Windows 95 Media Tab



Media Settings Screen
When you click on the Media tab, current settings are displayed for Print Density and Media Type.

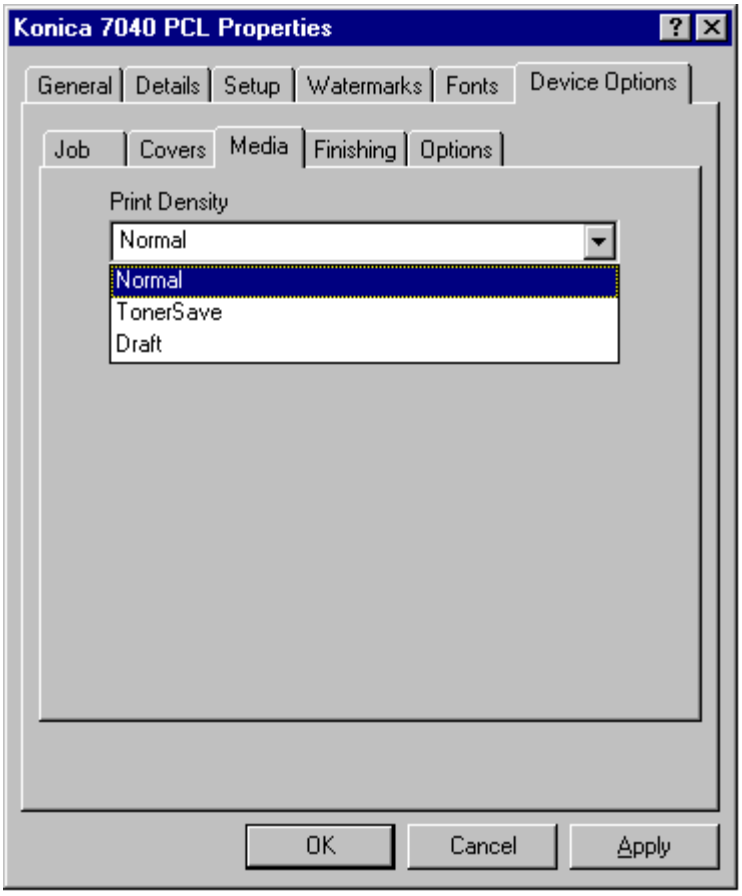
This screen shows that Normal is selected for Print Density and Plain Paper is selected for Media Type.

To change either of these settings, click the arrow next to the current setting to display options, highlight the setting you want, then click OK and follow instructions starting on the next page.

To leave the Media settings unchanged, click Cancel.

Printer Driver Screens

PCL Driver Screens for Windows 95 Media



Print Density
The default setting for Print Density is Normal. To change this setting:

1 Click the arrow in the Print Density field to view options.

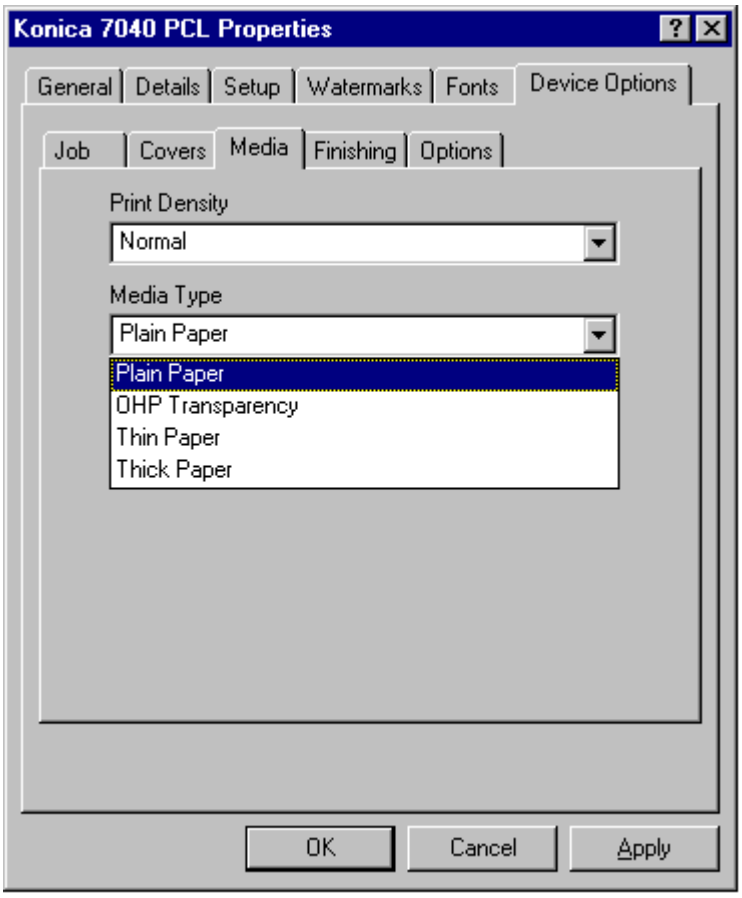
- Select the Toner Save mode to use only 80% of the toner normally used.
- Select Draft mode to use only 60% of the toner normally used.

2 Highlight the desired setting, then click OK.

To leave the Print Density setting unchanged, click Cancel

Printer Driver Screens

PCL Driver Screens for Windows 95 Media



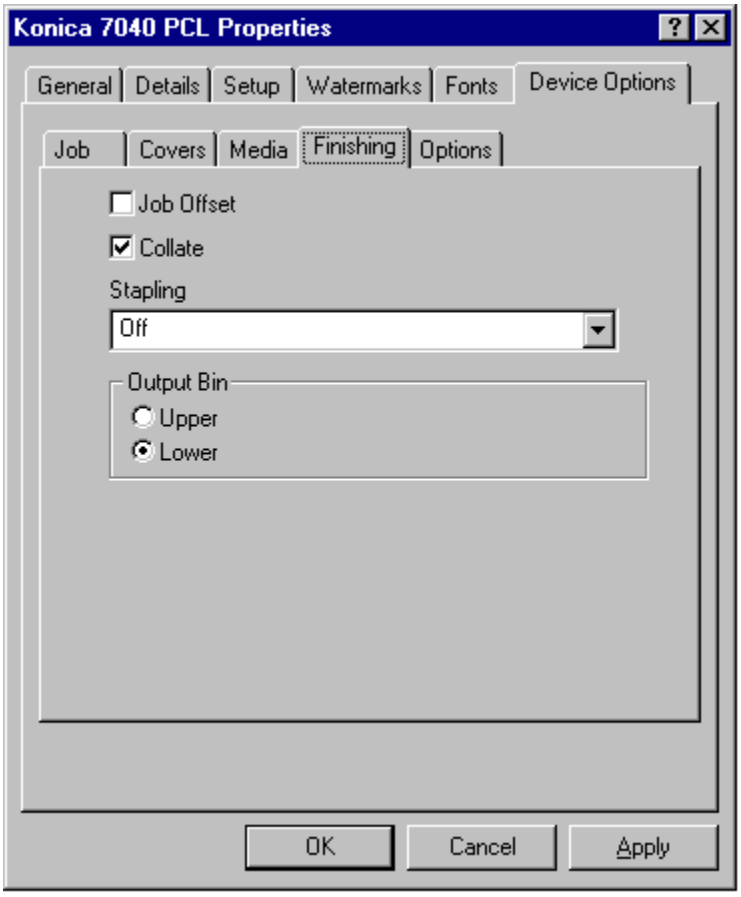
Media Type
The default setting for Media Type is Plain Paper. To change this setting:

1 Click on the arrow in the Media Type field to view options (OHP Transparency, Thin or Thick Paper).
2 Highlight the desired Media Type setting. This screen shows OHP Transparency is selected.
3 Click OK to complete the selection. Feed special stock through the Bypass tray.

To leave the Media Type setting unchanged, click Cancel.

Printer Driver Screens

PCL Driver Screens for Windows 95 Finishing Tab



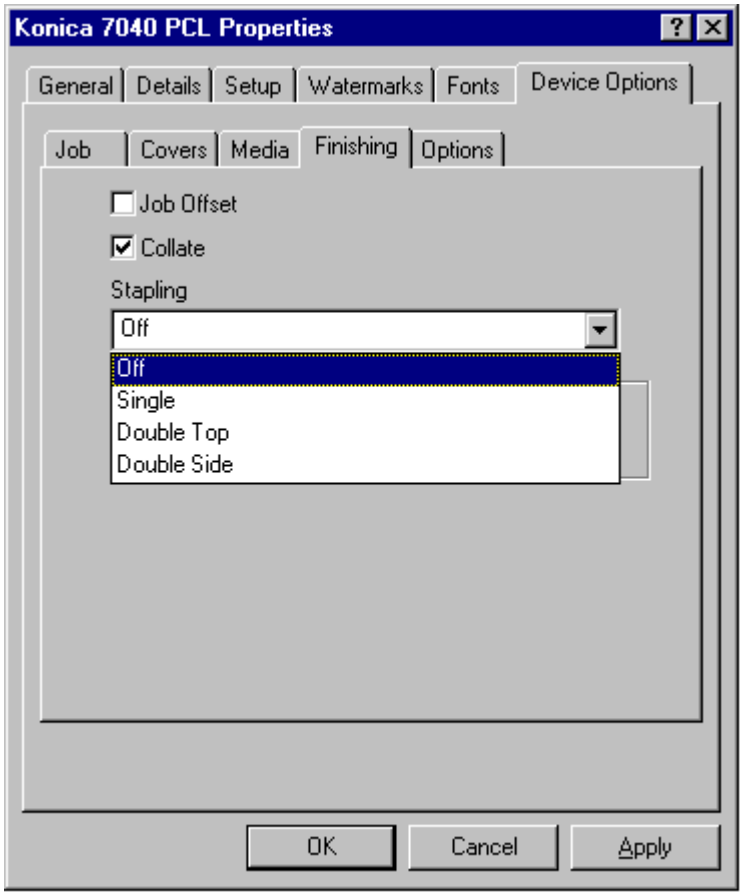
Finishing Settings Screen
The Finishing screen shows the default settings for Collate, Stapling and Output Bin.

Click the arrow next to the Stapling setting to display optional Stapling settings and follow instructions on the next page.

To leave the Finishing Settings unchanged, click Cancel.

Printer Driver Screens

PCL Driver Screens for Windows 95 Finishing



Stapling
The default setting for Stapling is Off. To change this setting:

1 Click the arrow in the Stapling field to view options. Three Stapling options are available.

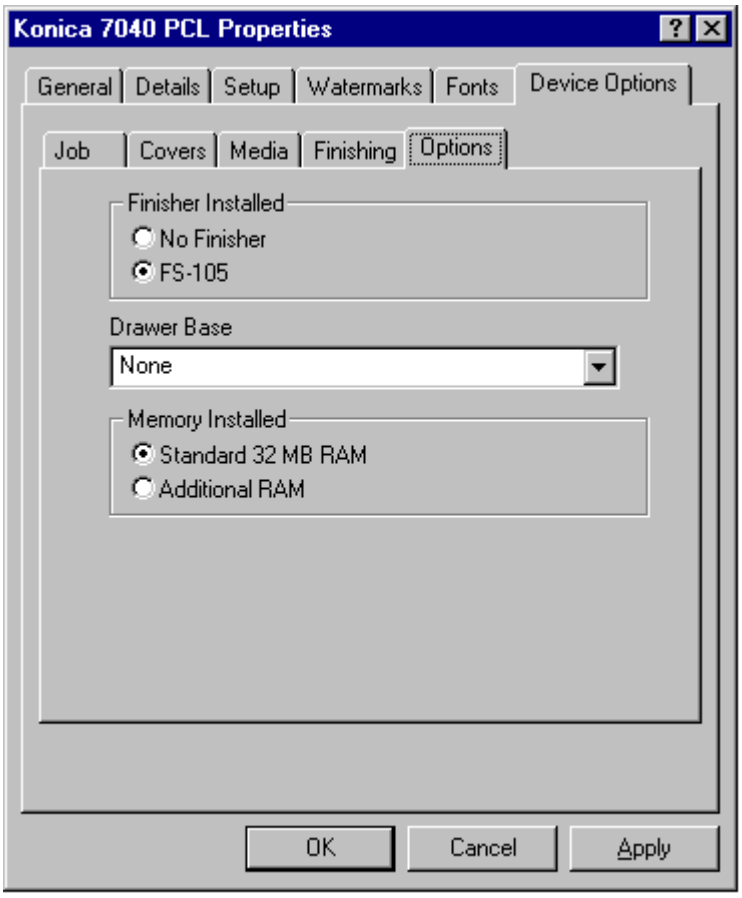
- Single stapling inserts one staple in the upper left corner of your document.
- Double Top stapling inserts two staples across the top edge of your document.
- Double Side stapling inserts two staples along the left edge of your document.

2 Highlight the desired Stapling setting, then click OK.

To leave the Stapling setting unchanged, click Cancel.

Printer Driver Screens

PCL Driver Screens for Windows 95 Options (Device)



Device Settings
The Options screen shows the current settings for Finisher, Drawer Base and Memory Installed.

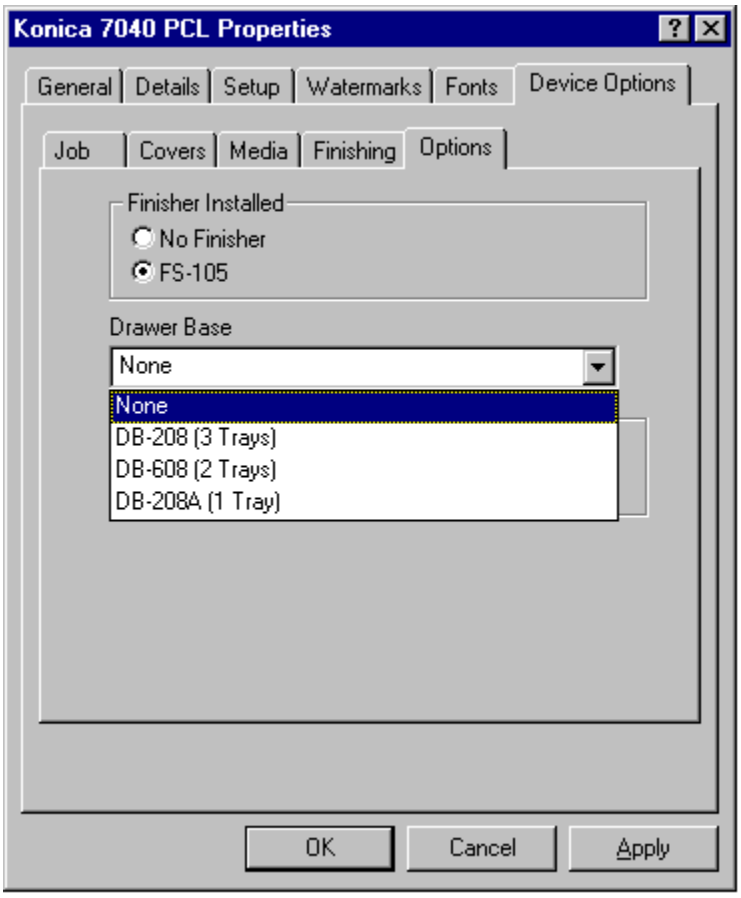
This sample screen shows that the FS-105 Finisher is installed, the Drawer Base setting is None, and the installed Memory is 32 MB RAM.

To change the current Drawer Base setting, click on the arrow next to Drawer Base to view options and follow instructions on the next page.

To leave the Device settings unchanged, click Cancel.

Printer Driver Screens

PCL Driver Screens for Windows 95 Options (Device)



Drawer Base Setting
The default setting for Drawer Base is None. To change this setting:

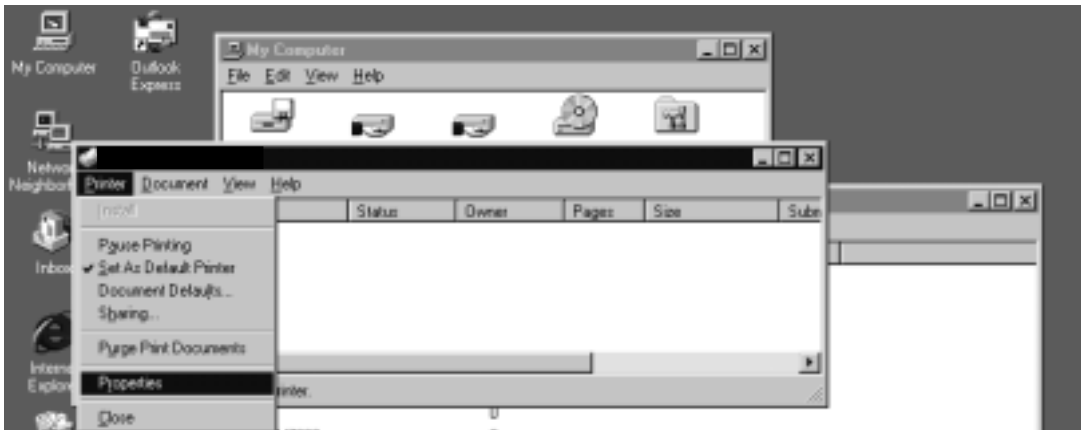
1 Click the arrow in the Drawer Base field to view options.
2 Highlight the desired Drawer Base setting, then click OK.

To leave the Drawer Base setting unchanged, click Cancel.

PS (PostScript) Driver Screens for Windows NT

Printer Driver Screens

PS Driver Screens for Windows NT — Selecting Printer



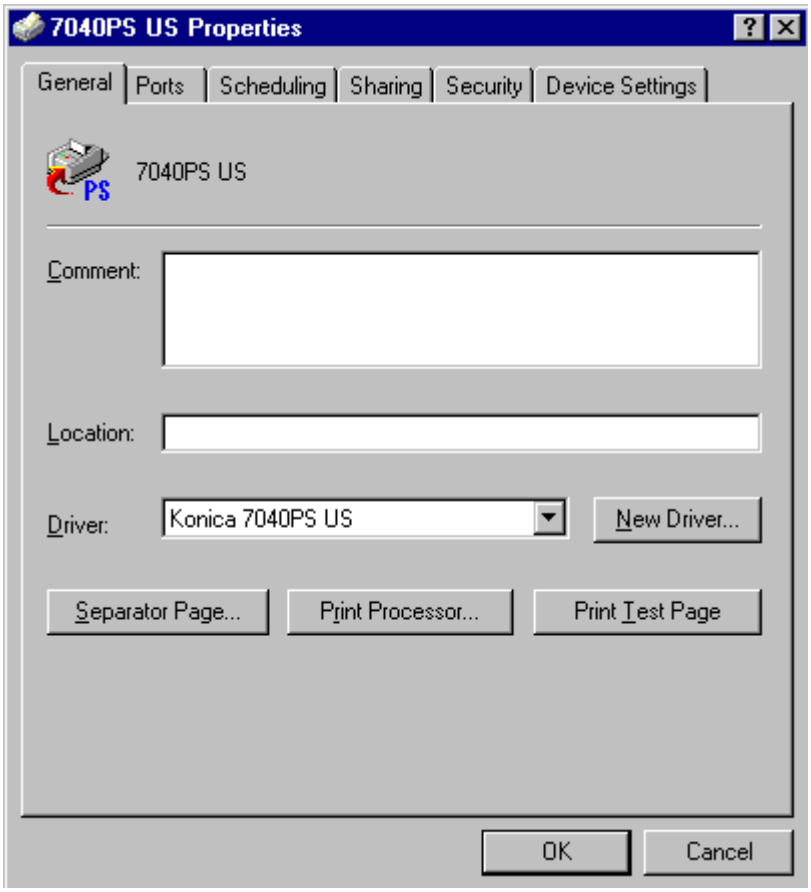
Printer Menu

When you select Printer from the Printer menu, a sub-screen displays as shown above.

This screen allows you to select Properties, which displays a General screen for choosing device settings for installed options. Highlight Properties and follow instructions starting on the next page.

Printer Driver Screens

PS Driver Screens for Windows NT General Screen



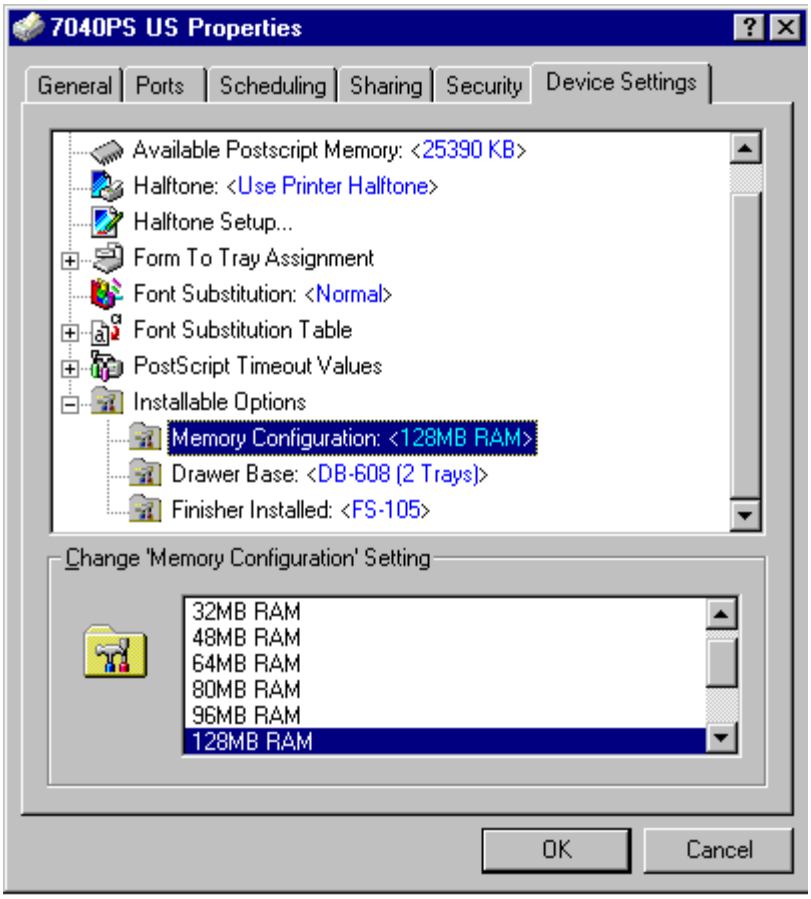
General Screen
The General screen identifies the name of your printer and provides a Comment field in which you may key in a specific request. The information you request will be displayed on the screen. This screen also displays tabs for all available properties settings for the PS Driver.

Just click the tab topic you require and the appropriate screen will be displayed. Should you decide not to go further with any selection, click the Cancel button at the bottom of the screen.

To view or change the Device Settings, click on the tab and follow instructions starting on the next page.

Printer Driver Screens

PS Driver Screens for Windows NT Device Settings



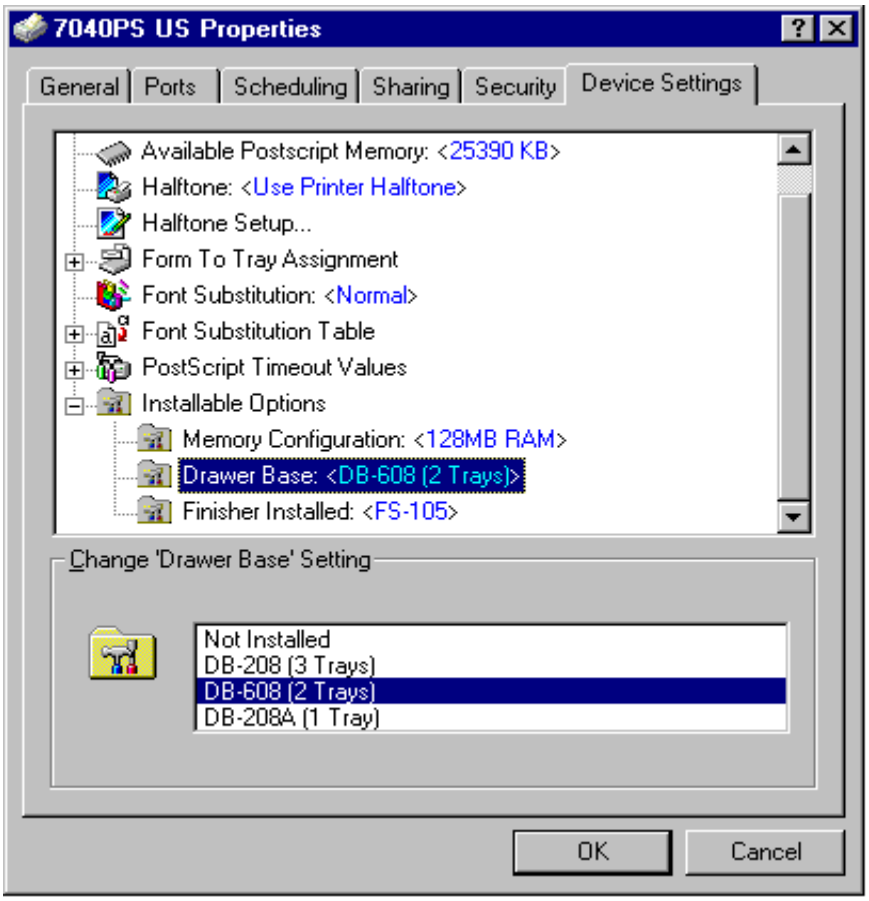
Installable Options - Memory Configuration
The Device Settings tab brings you to the Device Settings screen shown above.

1 Click Installable Options to display a list of installable options, e.g., Memory, Drawer Base and Finisher.
2 Highlight Memory Configuration to display the current Memory setting. This sample screen indicates that 128MB is the current setting. Optional settings are displayed in the lower portion of the screen as 32MB (default), 48MB, 64MB, 80MB or 128MB.
3 Highlight the desired Memory setting, then click OK.

To leave the current Memory setting unchanged, click Cancel.

Printer Driver Screens

PS Driver Screens for Windows NT Device Settings



Installable Options - Drawer Base

1 To view the current Drawer Base setting, highlight Drawer Base in the Installable options field. This sample screen indicates that the DB-608 Drawer Base is installed. Notice that the [*Change Setting for: Drawer Base*] field displays the current setting and lists the available setting options.

2 To change the setting to DB-208 or DB-208A, simply highlight the setting, then click OK.

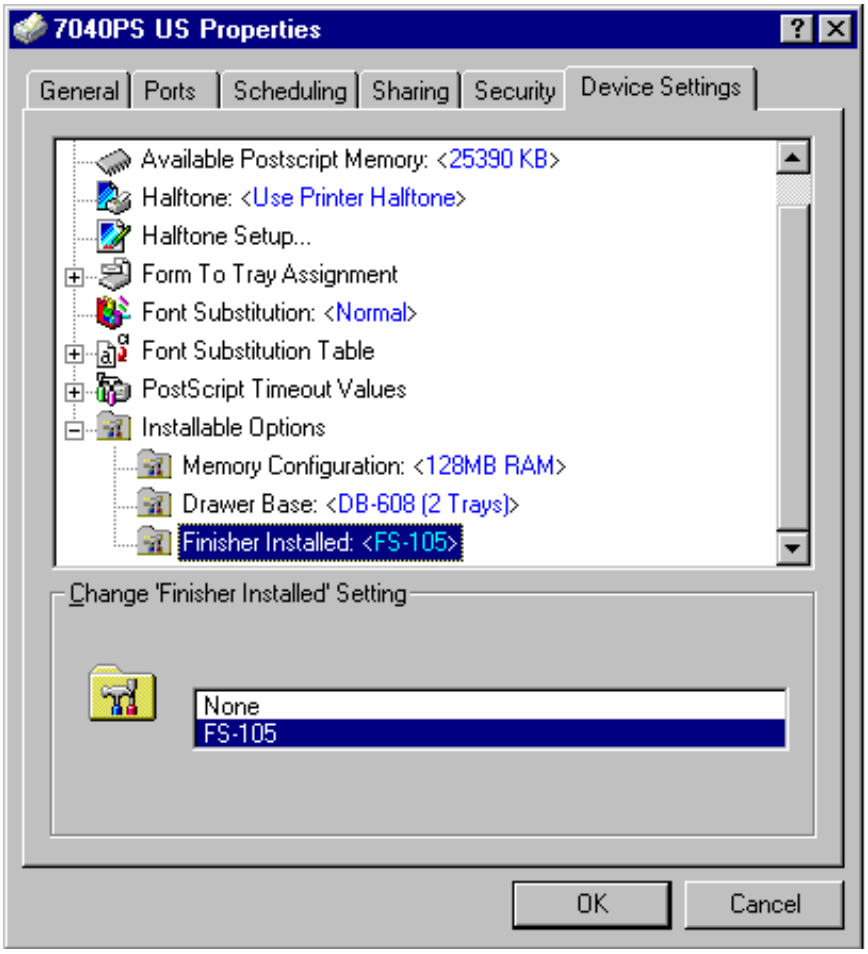
To leave the current Drawer Base setting unchanged, click Cancel.

To resume the default settings, click Restore Defaults.

Note: Refer to the main body User's Manual for Drawer Base specifications.

Printer Driver Screens

PS Driver Screens for Windows NT Device Settings



Installable Options - Finisher

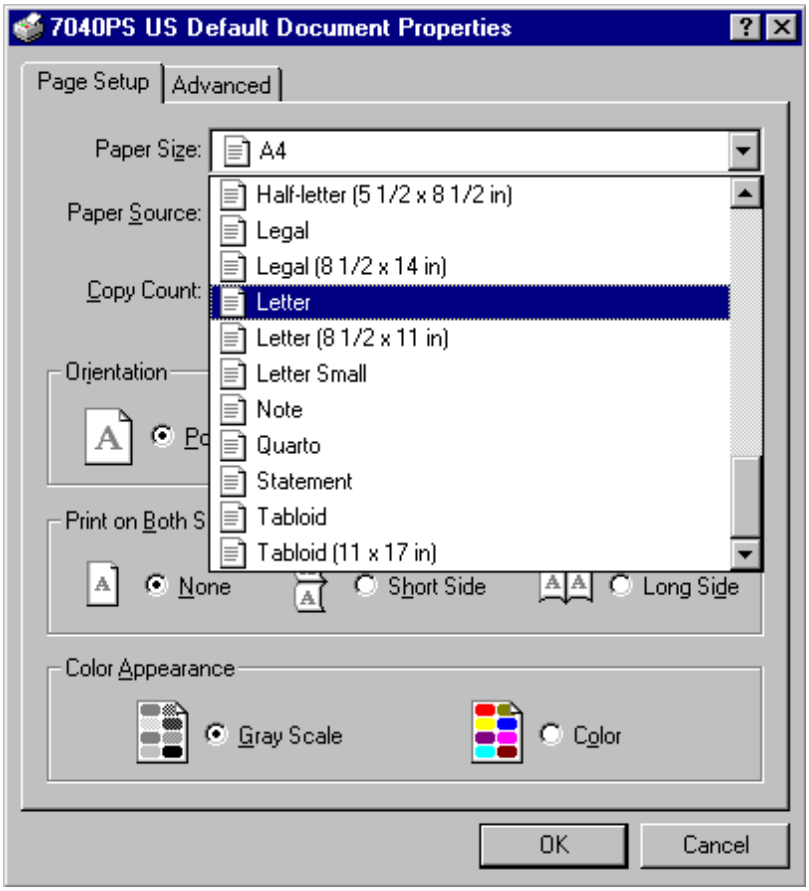
1 Highlight Finisher Installed under Installable Options to display the current setting. This sample screen indicates that the FS-105 finisher is installed. Notice that the current setting is indicated in the [*Change 'Finisher Installed' Setting*] field along with setting options.

2 To change the current setting to None, highlight None, then click OK.

To leave the current Finisher setting unchanged, click Cancel.

Printer Driver Screens

PS Driver Screens for Windows NT Document Defaults



Page Setup Screen - Paper Size

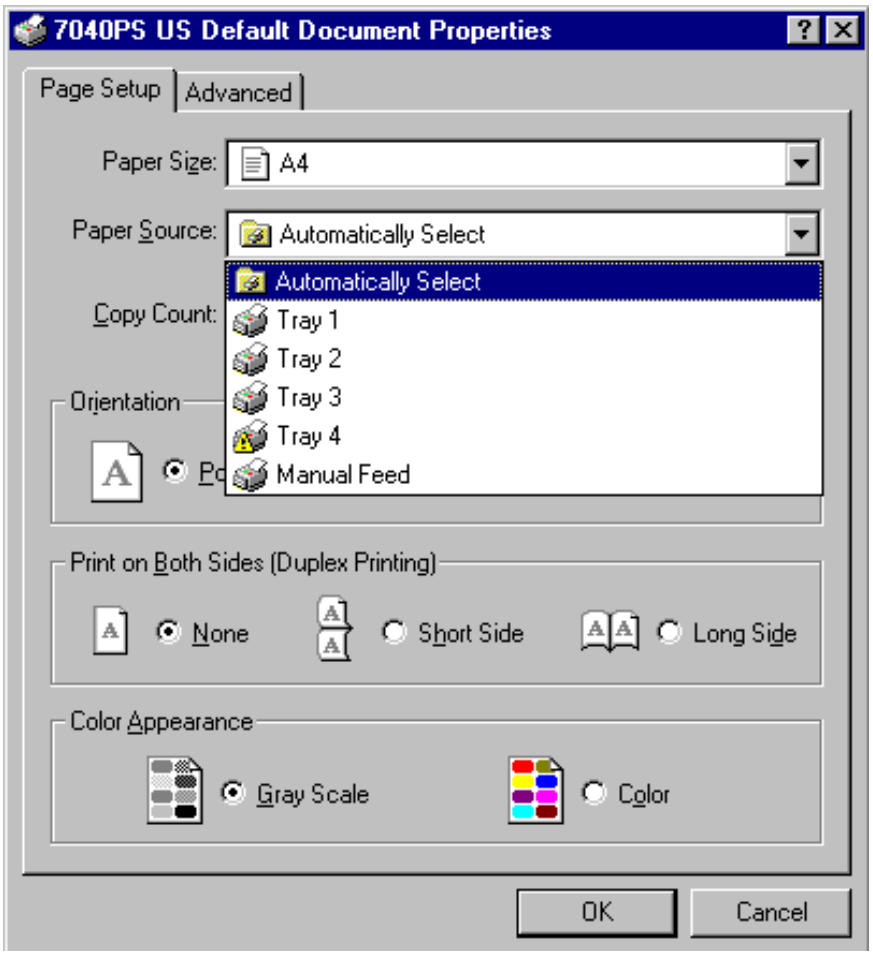
1 Select Print from the application screen to display the Printer Menu screen, then select Document Defaults to display the Page Setup screen, shown above. The Page Setup screen enables you to view or change settings for Paper Size, Paper Source, Collate, Copy Count, Orientation, Duplex Printing, or Color Appearance (Gray Scale). This screen shows you how to set the Paper Size. See the following pages for other Page Setup settings.

2 The current Paper Size shown in the above example is Letter size, the default setting.
3 To change this setting choose the desired setting from the list, highlight the setting, then click OK.

To leave the current Paper Size setting unchanged, click Cancel.

Printer Driver Screens

PS Driver Screens for Windows NT Document Defaults



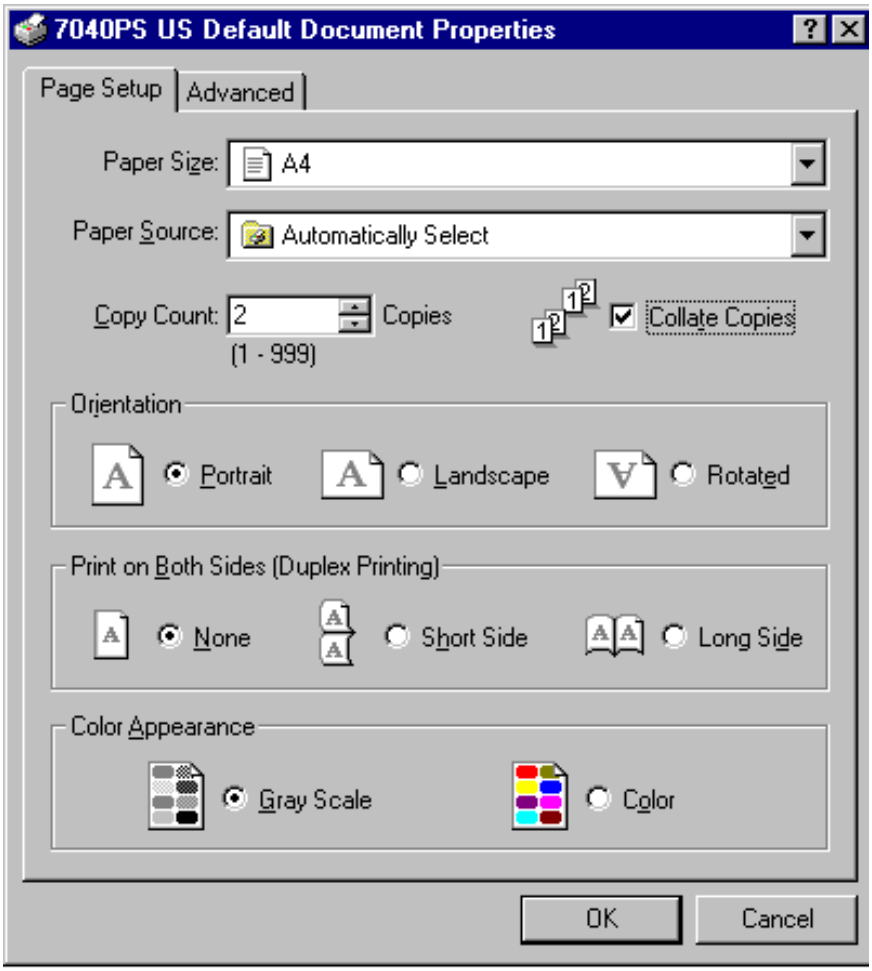
Page Setup Screen - Paper Source
The default setting for Paper Source is *Automatically Selected,* as indicated in the above screen. This setting enables the printer to automatically select a tray that contains the selected paper size.

1 Use the arrow in the Paper Source field to view other settings.
2 To change the current setting and specify a tray, highlight the desired tray, then click OK.

NOTE: When a specific tray is selected, the printer will use only that tray. Be sure the tray contains the desired paper size. If the tray you specify is empty, the printer will not look for paper in another tray, even if another tray contains the desired paper size.

Printer Driver Screens

PS Driver Screens for Windows NT Document Defaults



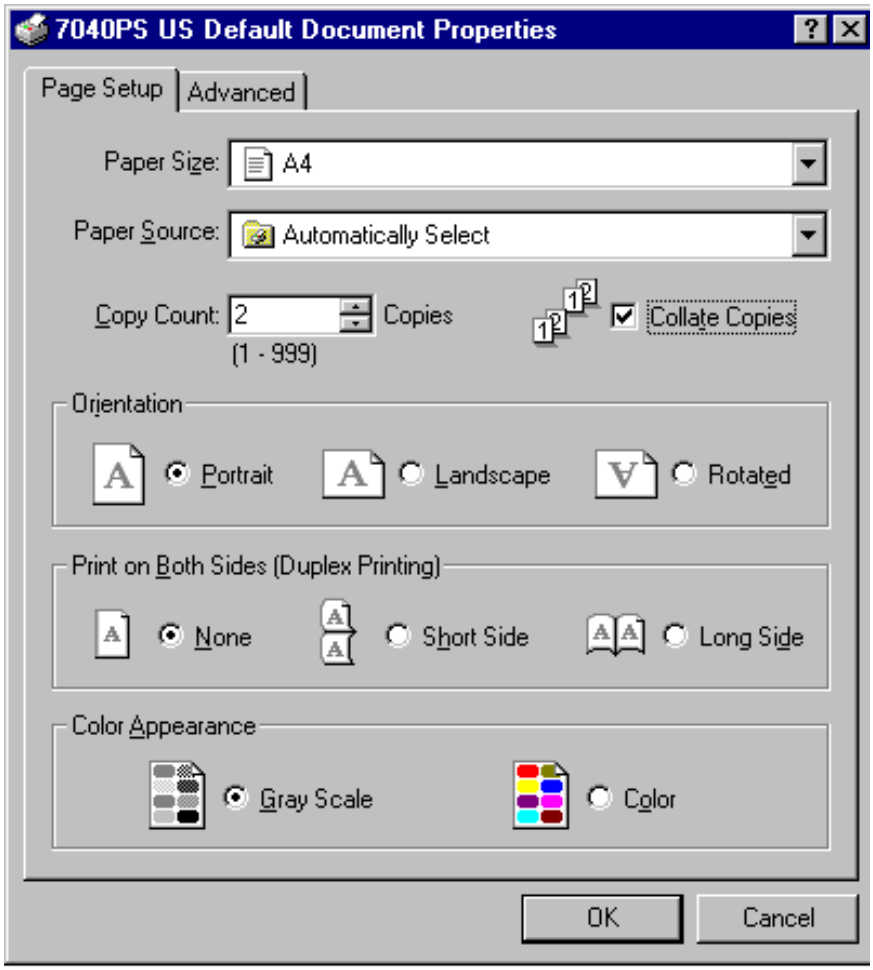
Page Setup Screen - Collate
When checked, the Collate function enables you to print multiple sets of an original document and collate each set in the proper order. In the above screen, the Collate function is checked and [2] Copies are selected in the Copy Count field. The icon next to the Collate check shows the result to expect.

1 To turn off the Collate feature, click the Collate arrow to make it disappear from the box.
2 After making the desired change, click OK.

To leave the current Collate setting unchanged, click Cancel.

Printer Driver Screens

PS Driver Screens for Windows NT Document Defaults



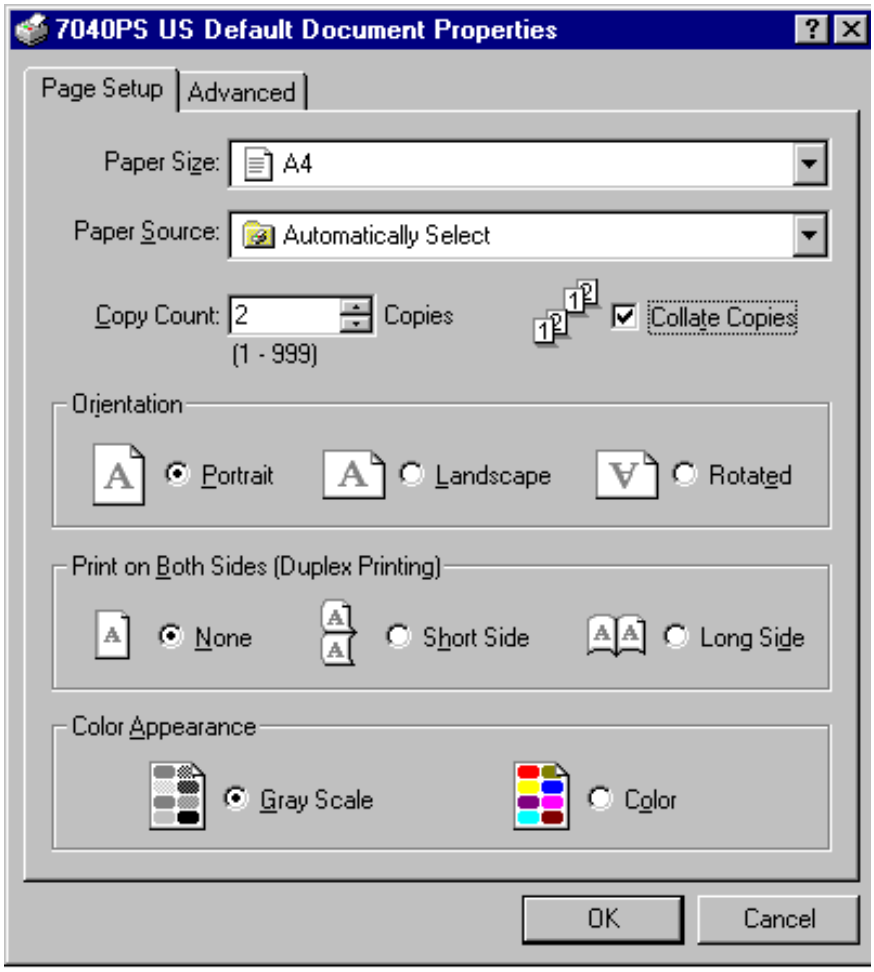
Page Setup Screen - Copy Count
The Copy Count setting enables you to select from 1-999 copies. To overcome the limit imposed by the maximum capacity of the output tray, remove the output pages before the tray limit is reached.

IF COLLATE IS CHECKED, the entire **original set** will be copied in the amount shown in *Copy Count.*
IF COLLATE IS UNCHECKED, each **original page** will be copied in the amount shown in *Copy Count.*

To use the new settings, click OK.
To leave the settings unchanged, click Cancel.

Printer Driver Screens

PS Driver Screens for Windows NT Document Defaults



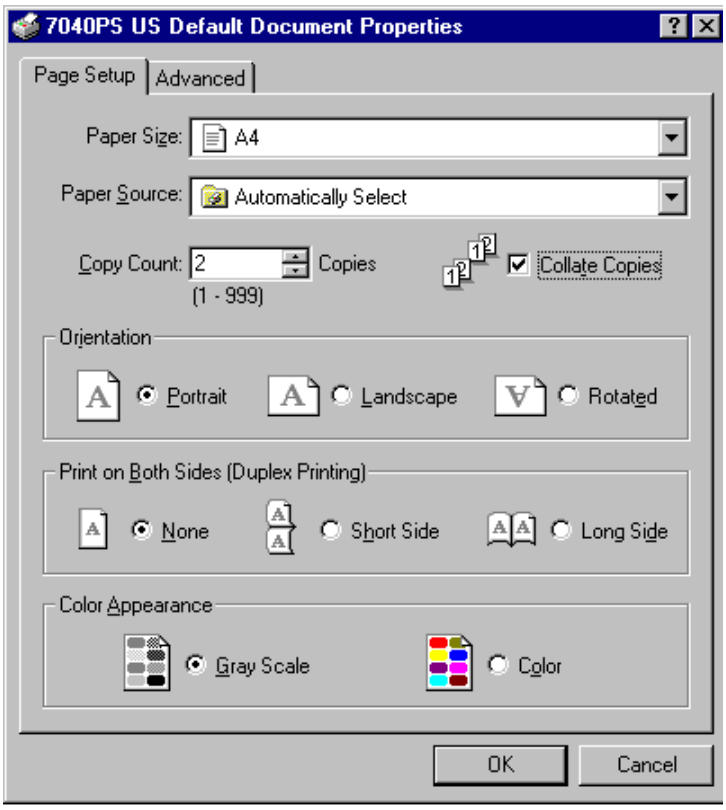
Page Setup Screen - Orientation (Portrait, Landscape, Rotated)
The Orientation setting enables you to output the image in either portrait or landscape style.

When landscape style is selected, you may also select Rotate to vertically flip the image from head to foot. The default setting indicated above shows Portrait orientation selected and Landscape and Rotated not selected.

To change the current setting, click on the desired setting, then click OK.
To leave the current setting unchanged, click Cancel.

Printer Driver Screens

PS Driver Screens for Windows NT Document Defaults



Page Setup - Duplex Printing (None, Short Side, Long Side)
When there is no black dot next to [None], Duplex Printing is on and printing will be performed on both sides of each sheet. When a black dot is visible next to [None], Duplex Printing is off and printing will be performed on one side of each sheet.

In the default setting, Duplex Printing is off, as shown by the visible black dot next to None.

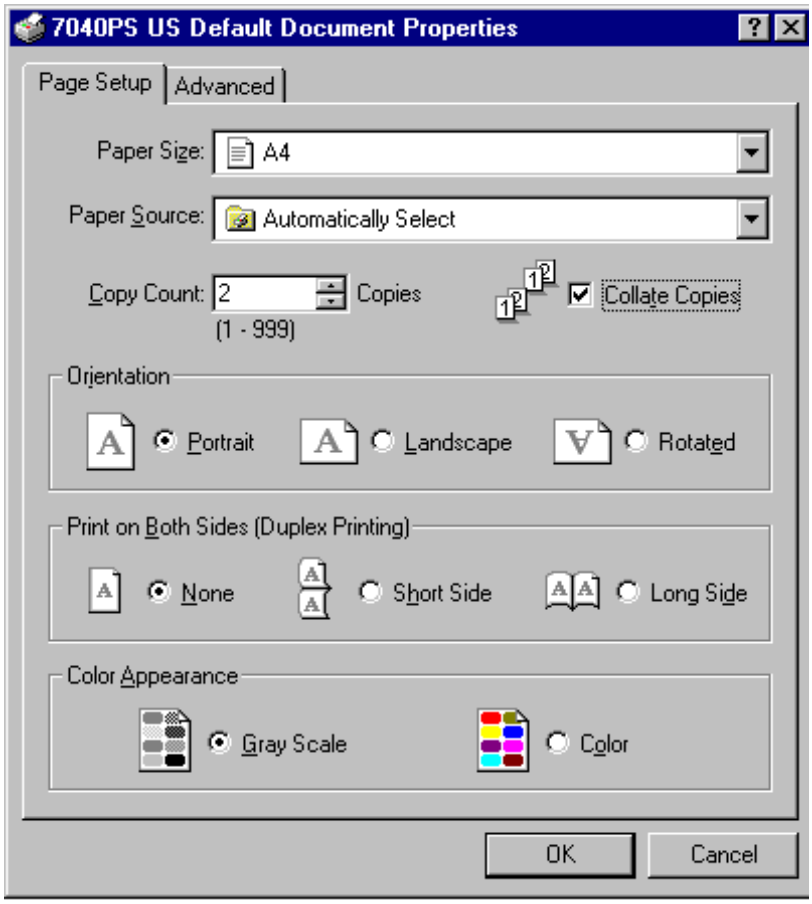
1 To turn Duplex Printing on, click None so that no black dot is visible.
2 Select Short Side or Long Side. Icons next to these two modes depict the output result.

- With Short Side, output pages can be read by lifting each sheet from the bottom.
- With Long Side, output pages can be read by turning pages sideways, as in a book.

To leave the Duplex setting unchanged, click Cancel.

Printer Driver Screens

PS Driver Screens for Windows NT Document Defaults

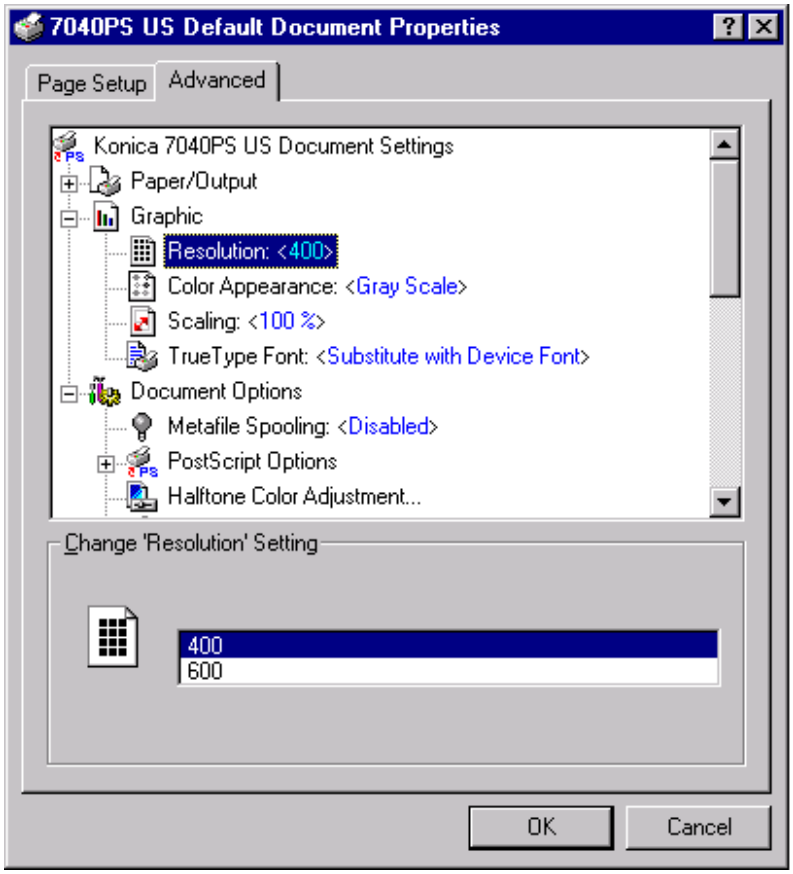


Page Setup - Color Appearance (Gray Scale)
By default, the Gray Scale setting is on, as indicated by the black dot next to the Gray Scale setting.

Since this printer is a black and white printer only, no other setting is available.

Printer Driver Screens

PS Driver Screens for Windows NT Document Defaults



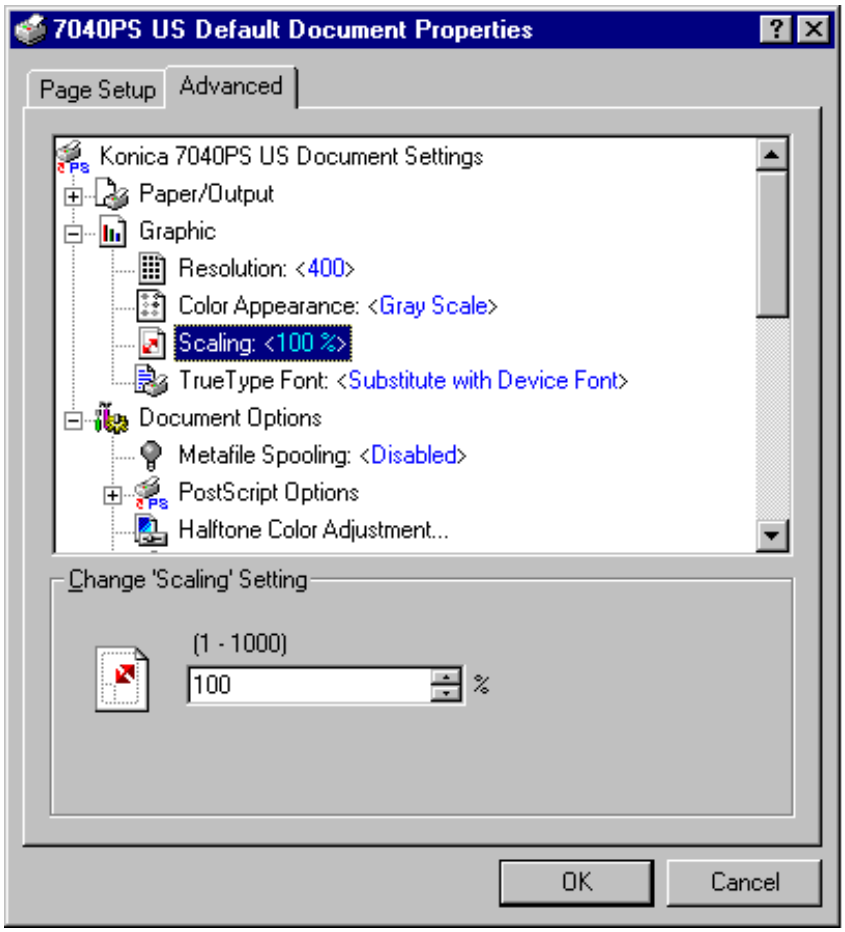
Advanced - Resolution (400 dpi/ 600 dpi)
Select Advanced tab on the Page Setup screen to display the screen shown above. Resolution is listed under the Graphic heading.

The Resolution setting shown in the example is 400 dpi, which is the default setting for text mode. Notice that the current setting is indicated in the [*Change 'Resolution' Setting*] field along with the available option, 600 dpi.

To change the current Resolution setting, highlight the desired option, then click OK.
To leave the current setting unchanged, click Cancel.

Printer Driver Screens

PS Driver Screens for Windows NT Document Defaults



Advanced - Scaling
Highlight Scaling under the Graphic heading to view the current setting.

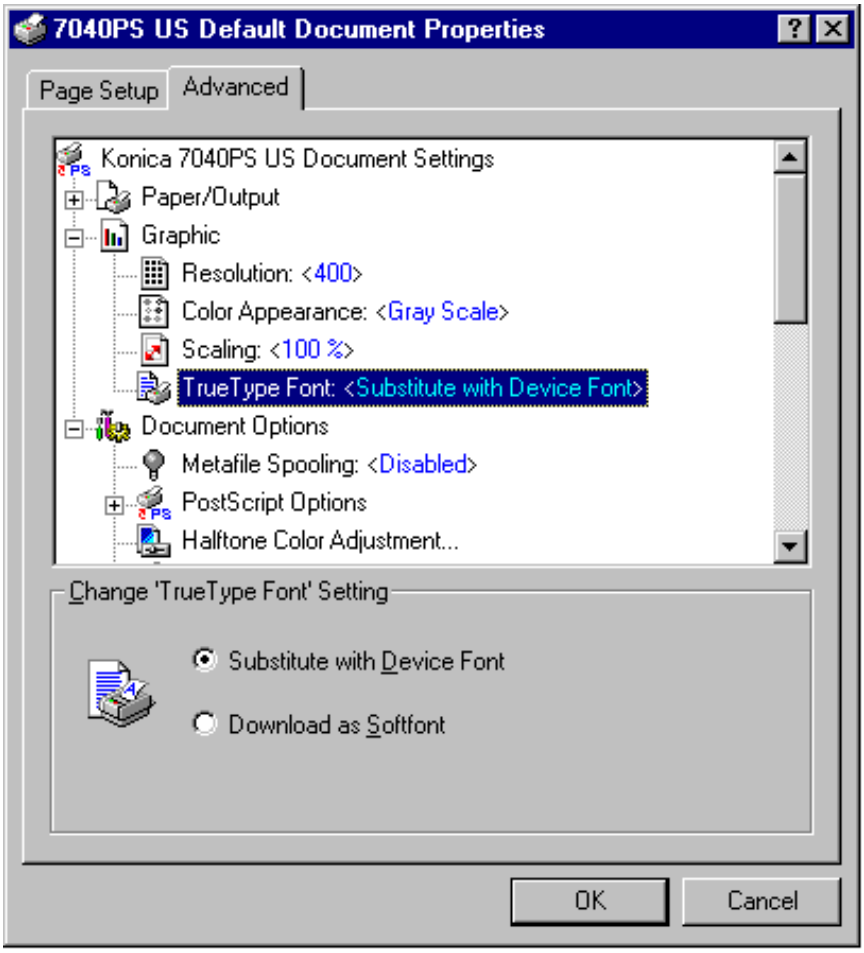
The default setting shown above is 100%, which means the printed image will be 100% of the original image size, i.e., no reduction, no enlargement. Notice that the current setting is reflected in the [*Change 'Scaling' Setting*] field.

1 To change the current setting, use the arrow next to the percent sign to scroll to the desired setting.
2 When the setting you want is indicated, click OK.

To leave the current Scaling setting unchanged, click Cancel.

Printer Driver Screens

PS Driver Screens for Windows NT Document Defaults



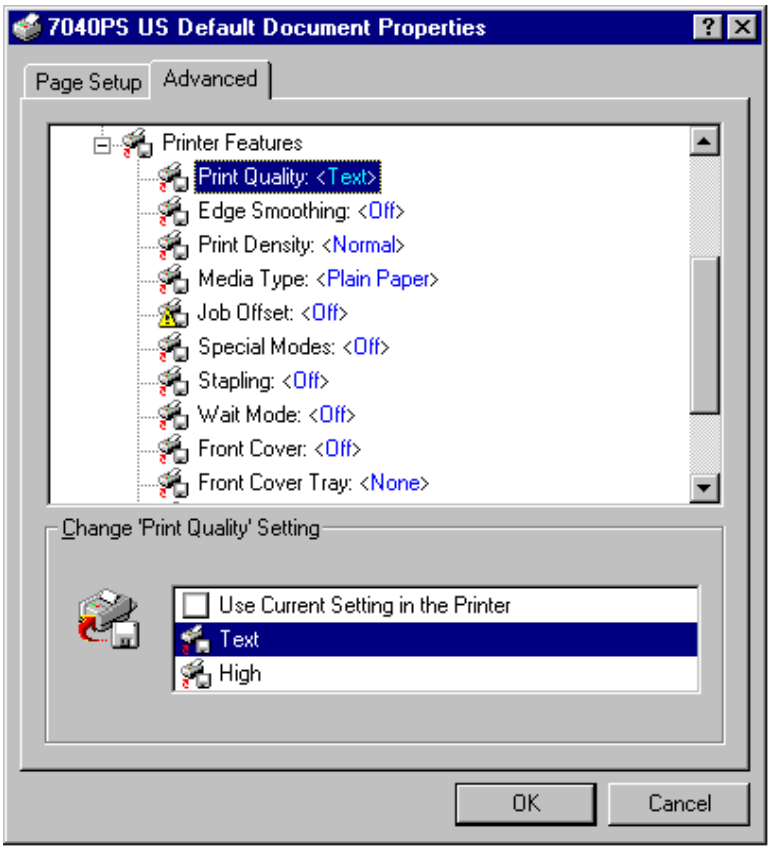
Advanced - TrueType Font
Highlight TrueType Font listed under the Graphic heading to display the current setting. In this example, the default setting, *Substitute with Device Font* is indicated.

When *Substitute with Device Font* is selected, TrueType fonts will be replaced by their exact match built-in fonts, which usually print faster. Notice that the current setting is indicated in the [*Change TrueType Font' Setting*] field.

To change the current setting, click [Download as Softfont] , then click OK.
To leave the current TrueType Font setting unchanged, click Cancel.

Printer Driver Screens

PS Driver Screens for Windows NT Document Defaults



Advanced - Printer Features (Print Quality)
Click on Printer Features to view the list, including Print Quality, Edge Smoothing, Print Density, Media Type, Job Offset, Special Modes, Stapling, Wait Mode, Front Cover, Front Cover Tray, Back Cover, Back Cover Tray, Output Bin, and Output Order. These features continue on the next page.

1 Highlight Print Quality to display the current setting. The default setting is <Text>.
Notice that the setting is indicated in the [*Change 'Print Quality' Setting*] field along with options.

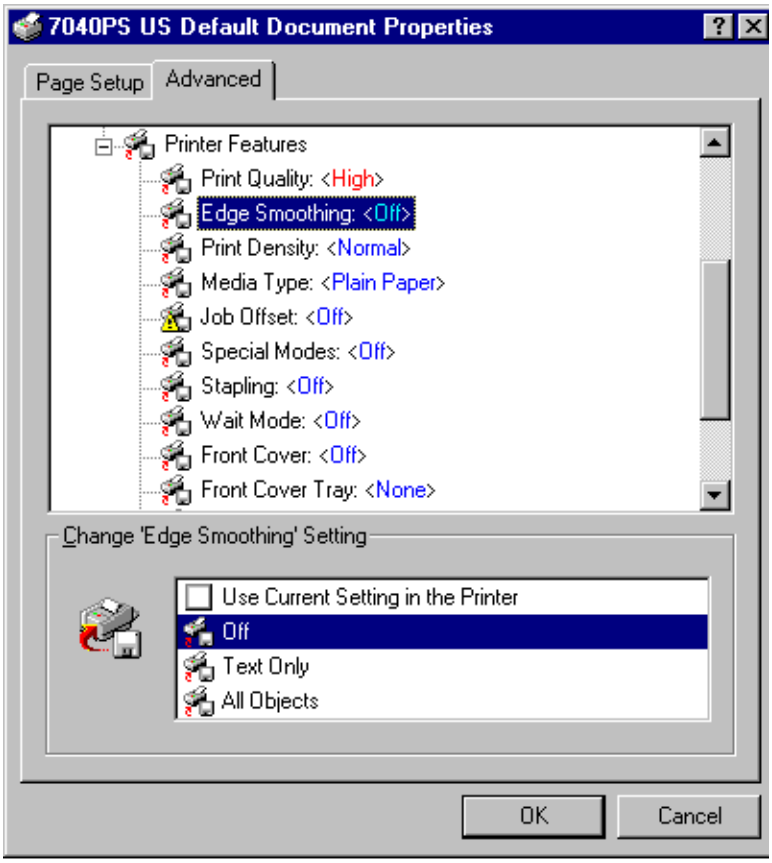
2 To change the current Print Quality setting, highlight the desired setting, then click OK.

- Use High mode for graphic images that require finer resolution.

To leave the current Print Quality setting unchanged, click Cancel.

Printer Driver Screens

PS Driver Screens for Windows NT Document Defaults



Advanced - Printer Features (Edge Smoothing)
Highlight Edge Smoothing to display the current setting. Off is the default setting. Notice that the setting is indicated in the [*Change 'Edge Smoothing' Setting*] field along with options.

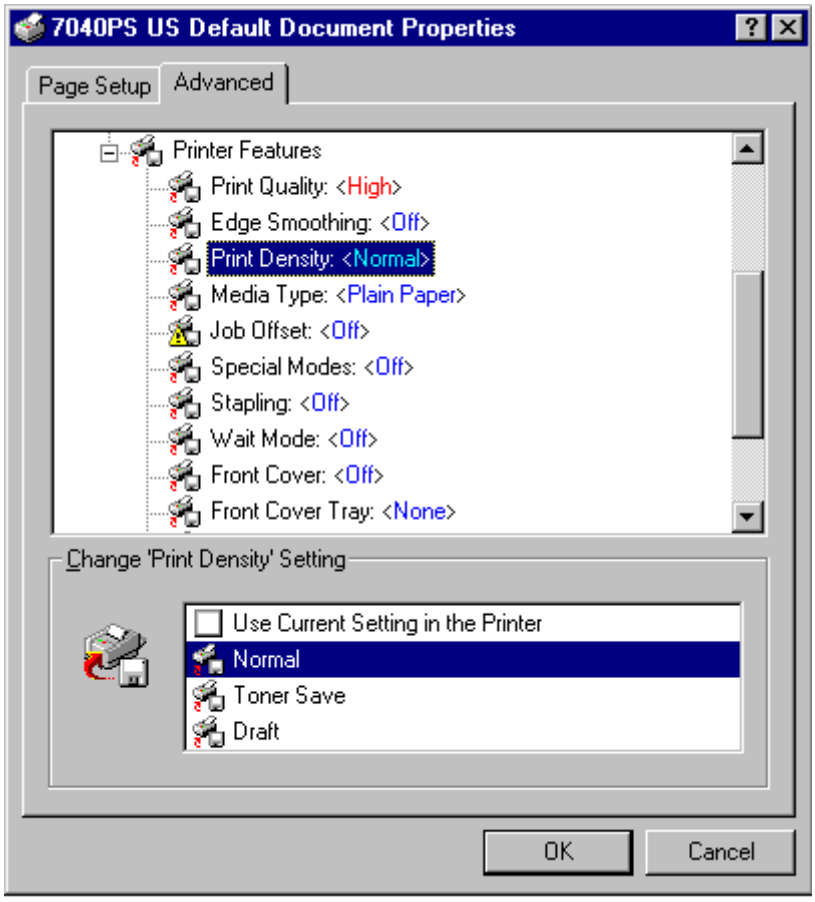
To change the current setting, highlight the desired option setting, then click OK.

Use Edge Smoothing for [Text Only] or [All Objects] to close up feathered edges and obtain a clearer printed image.

To leave the current Edge Smoothing setting unchanged, click Cancel.

Printer Driver Screens

PS Driver Screens for Windows NT Document Defaults



Advanced - Printer Features (Print Density)
Highlight Print Density to display the current setting. Normal is the default setting.
Notice that the setting is indicated in the [*Change 'Print Density' Setting*] field along with options.

1 To change the current Print Density setting, highlight the desired setting.

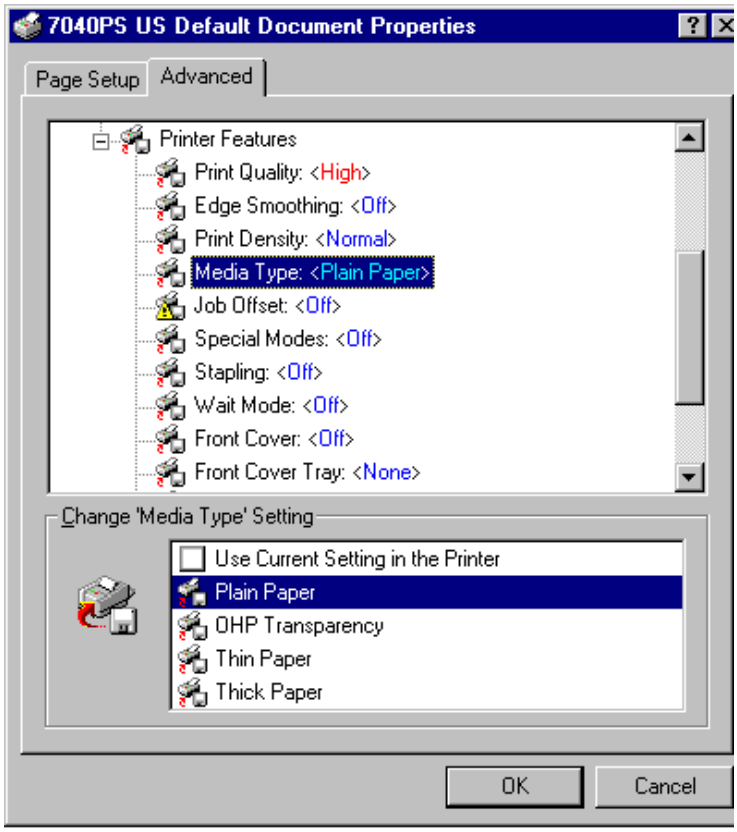
- Choose Toner Save to use 80% of the normal toner amount.
- Choose Draft to use 60% of the normal toner amount.

2 When the desired setting is indicated, click OK.

To leave the current Print Density setting unchanged, click Cancel.

Printer Driver Screens

PS Driver Screens for Windows NT Document Defaults



Advanced - Printer Features (Media Type)
Highlight Media Type to display the current setting. Plain Paper is the default setting.
Notice that the setting is indicated in the *Change 'Media Type' Setting* field along with options.

1 To change the current Media Type setting, highlight the desired setting.

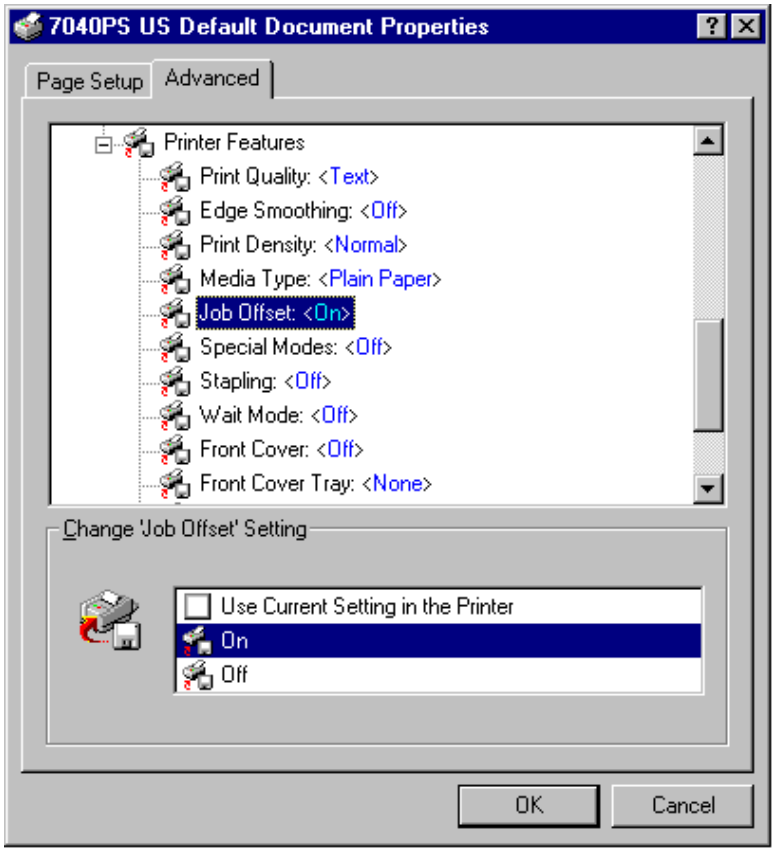
- Use the manual Bypass tray for OHP Transparency, Thin Paper, or Thick Paper.

2 When the desired setting is indicated, click OK.

To leave the current Media Type setting unchanged, click Cancel.

Printer Driver Screens

PS Driver Screens for Windows NT Document Defaults



Advanced - Printer Features (Job Offset)
Highlight Job Offset to display the current setting. On is the default setting.
Notice that the setting is indicated in the [*Change 'Job Offset' Setting*] field along with options.

1 To change the current setting, highlight the desired setting.

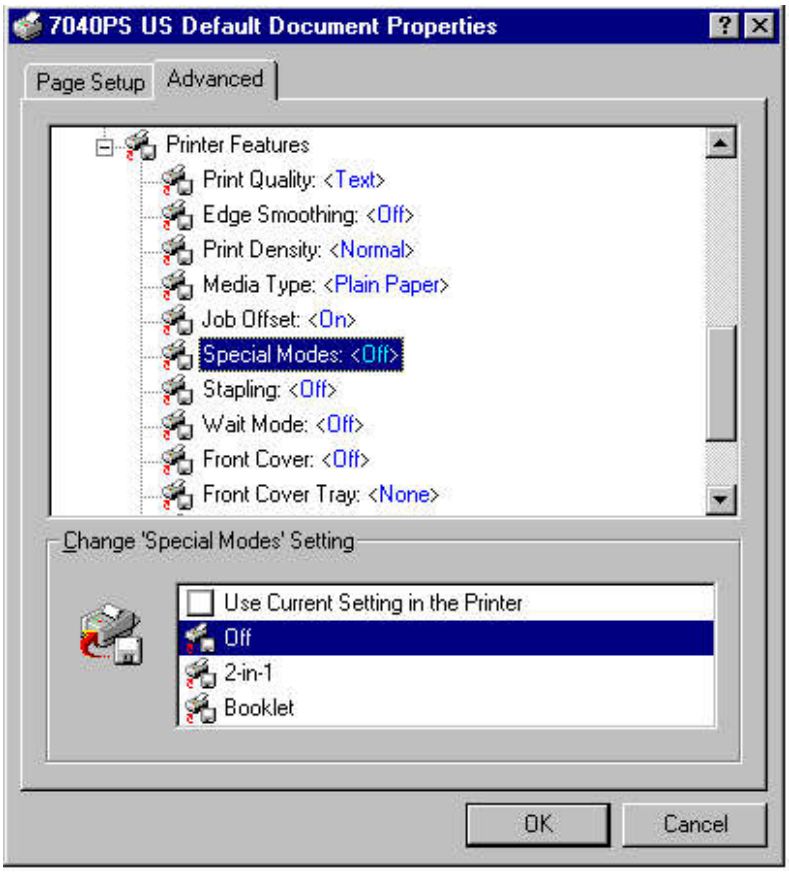
- Choose Job Offset <Off> when the output pages do not need to be separated as sets.

2 When the desired setting is indicated, click OK.

To leave the current Job Offset setting unchanged, click Cancel.

Printer Driver Screens

PS Driver Screens for Windows NT Document Defaults



Advanced - Printer Features (Special Modes)
Highlight Special Modes to display the current setting. Off is the default setting.
Notice that the setting is indicated in the *Change 'Special Modes' Setting* field along with options.

1 To change the Special Modes setting, highlight the desired setting.

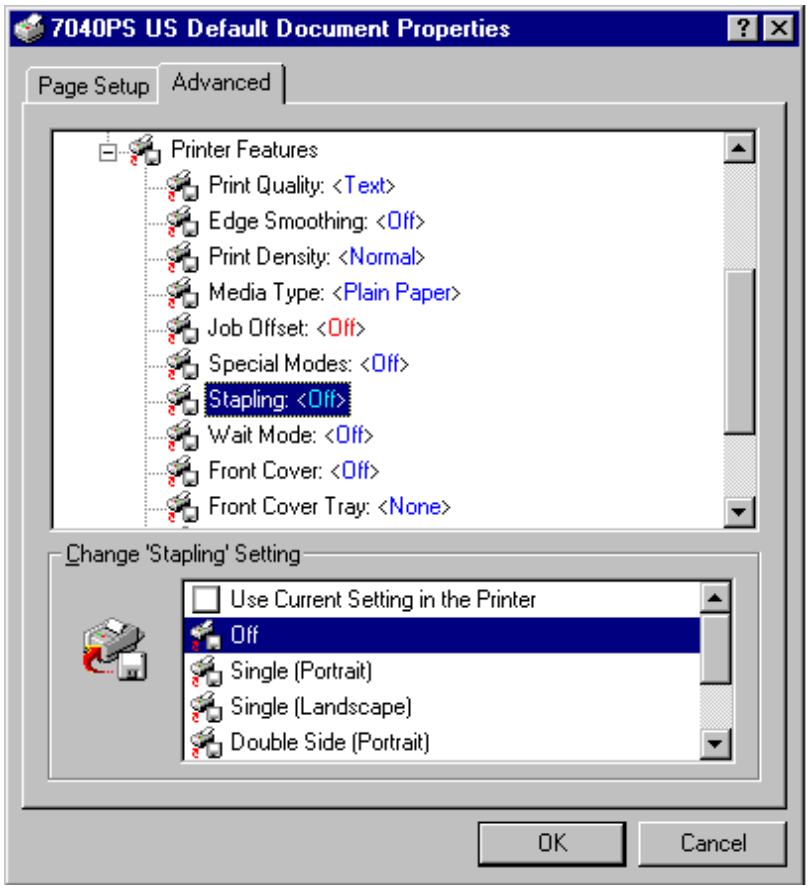
- Choose 2-in-1 to print two pages (images) on one sheet.
- Choose Booklet mode to print 4 pages (images) on one sheet.

2 When the desired setting is indicated, click OK.

To leave the current Special Modes setting unchanged, click Cancel.

Printer Driver Screens

PS Driver Screens for Windows NT Document Defaults



Advanced - Printer Features (Stapling)
Highlight Stapling to display the current setting. Off is the default setting.
Notice that the setting is indicated in the [*Change 'Stapling' Setting*] field along with options.

1 To change the current setting, highlight the desired setting.

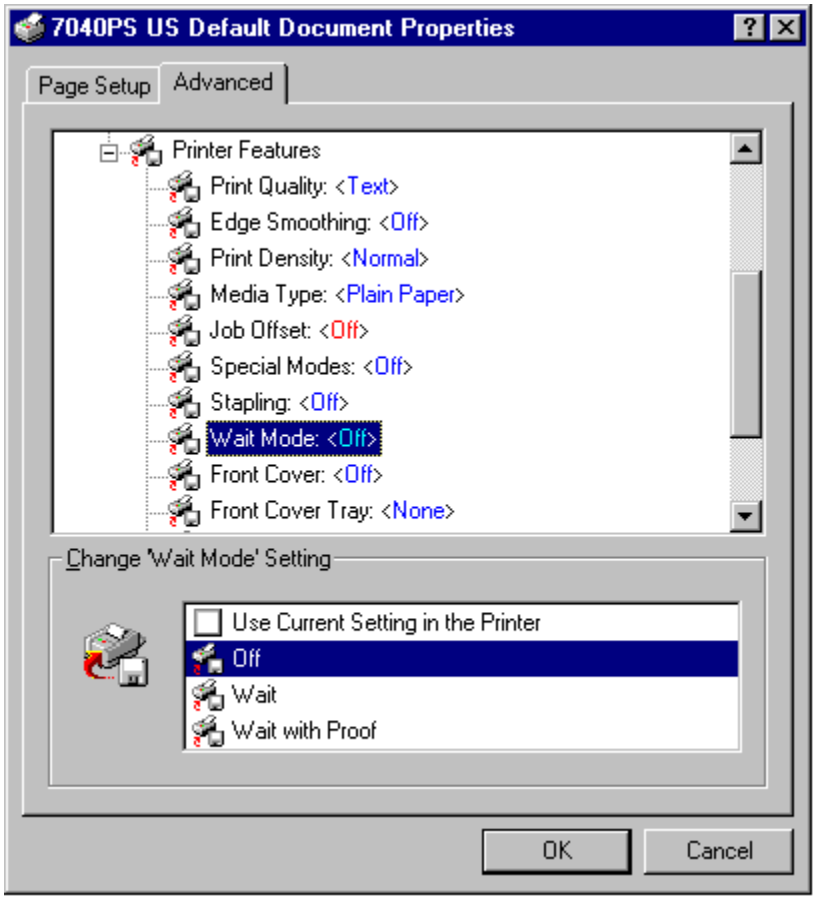
- Choose Single [Portrait], Single [Landscape], or Double Side [Portrait].

2 When the desired stapling setting is indicated, click OK.

To leave the current Stapling setting unchanged, click Cancel.

Printer Driver Screens

PS Driver Screens for Windows NT Document Defaults



Advanced - Printer Features (Wait Mode)
Highlight Wait Mode to display the current setting. Off is the default setting.
Notice that the setting is indicated in the *Change 'Wait Mode' Setting* field along with options.

1 To change the current setting, highlight the desired setting.

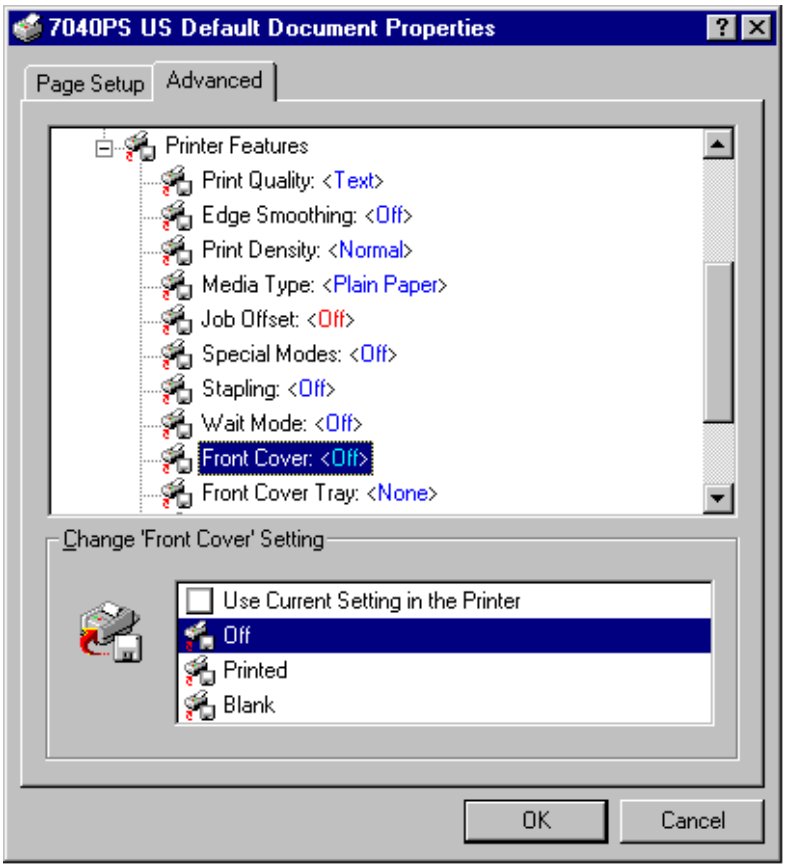
- Choose Wait to be prompted to install special paper, such as OHP or Thin or Thick Stock.
- Choose Wait with Proof to be prompted to print a proof set before printing multiple sets.

2 When the desired setting is indicated, click OK.

To leave the current Wait Mode setting unchanged, click Cancel.

Printer Driver Screens

PS Driver Screens for Windows NT Document Defaults



Advanced - Printer Features (Front Cover)
Highlight Front Cover to display the current setting. Off is the default setting.
Notice that the setting is indicated in the [*Change 'Front Cover' Setting*] field along with options.

1 To change the current setting, highlight the desired setting.

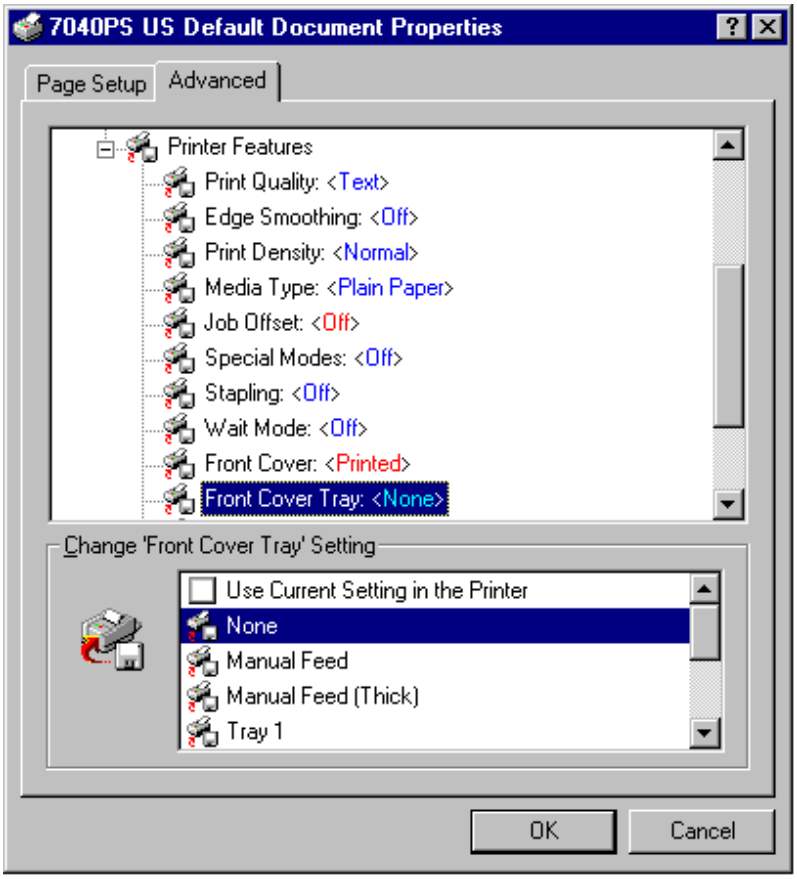
- Choose Printed to copy the front cover sheet before inserting it.
- Choose Blank to insert the front cover sheet without copying it.

2 When the desired setting is indicated, click OK.

To leave the current Front Cover setting unchanged, click Cancel.

Printer Driver Screens

PS Driver Screens for Windows NT Document Defaults



Advanced - Printer Features (Front Cover Tray)
Highlight Front Cover Tray to display the current setting. None is the default setting.
Notice that the setting is indicated in the [*Change 'Front Cover Tray' Setting*] field along with options.

1 To change the current setting, highlight the desired setting.

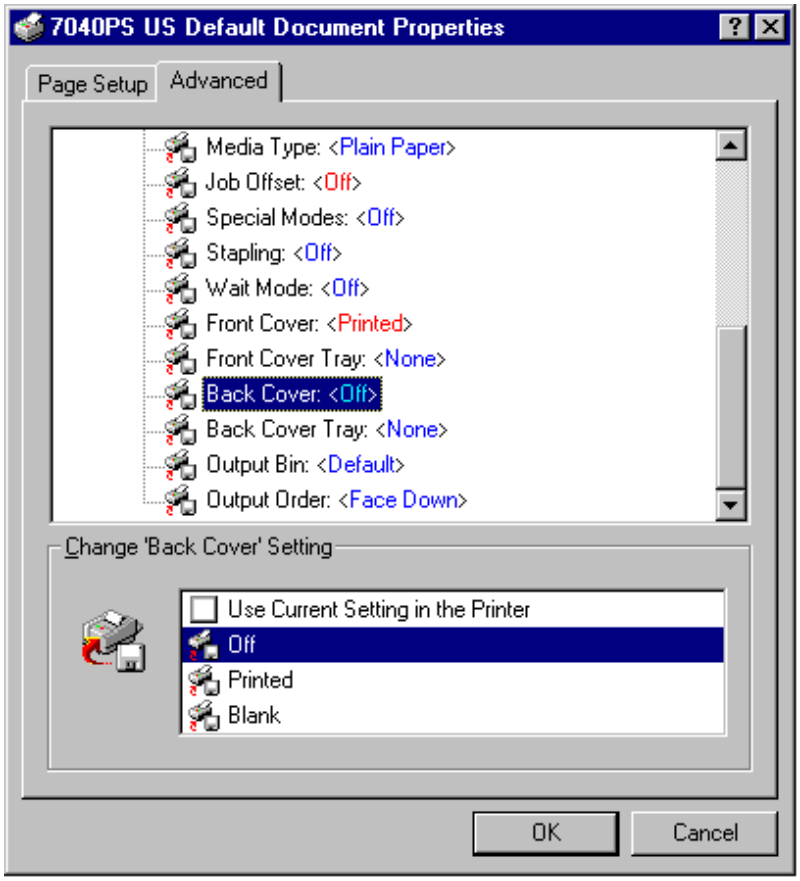
- Use Manual feed to stack 20 lb bond paper in the manuals bypass tray for front cover insertion.
- Use Manual Feed (Thick) to manually feed up to 32 lb bond front covers from the bypass tray. Tray 1 enables you to feed 20 lb paper from Tray 1 for front cover insertion.

2 When the desired setting is indicated, click OK.

To leave the current Front Cover Tray setting unchanged, click Cancel.

Printer Driver Screens

PS Driver Screens for Windows NT Document Defaults



Advanced - Printer Features (Back Cover)
Highlight Back Cover to display the current setting. Off is the default setting.
Notice that the setting is indicated in the [*Change 'Back Cover' Setting*] field along with options.

1 To change the current setting, highlight the desired setting.

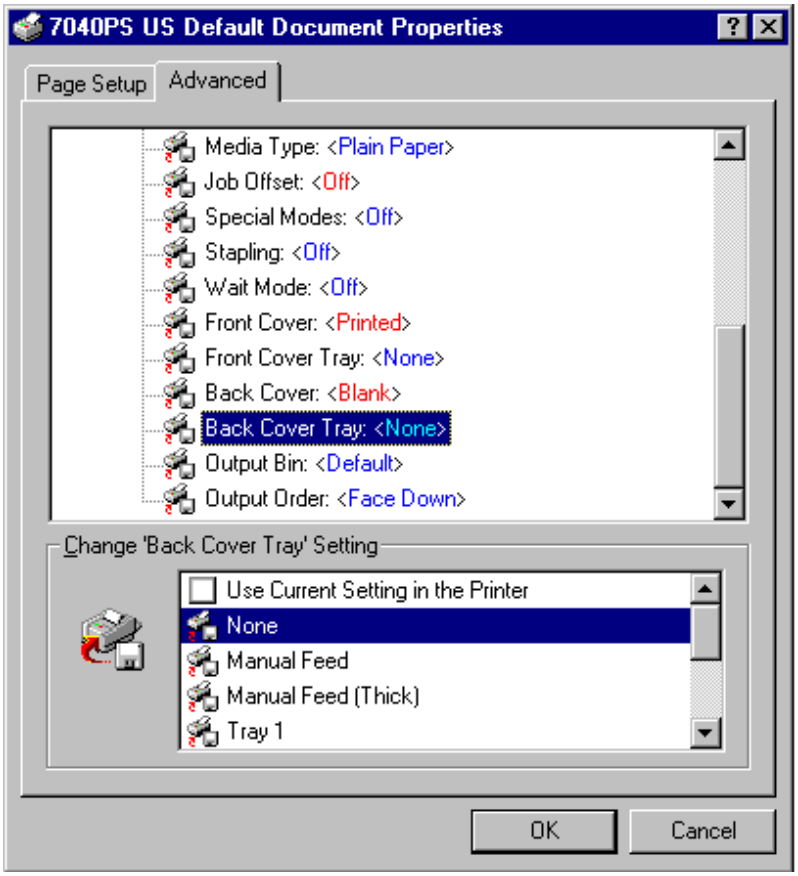
- Choose Printed to copy the back cover sheet before inserting it.
- Choose Blank to insert the back cover sheet without copying it.

2 When the desired setting is indicated, click OK.

To leave the current Back Cover setting unchanged, click Cancel.

Printer Driver Screens

PS Driver Screens for Windows NT Document Defaults



Advanced - Printer Features (Back Cover Tray)
Highlight Back Cover Tray to display the current setting. None is the default setting.
Notice that the setting is indicated in the *Change 'Back Cover Tray' Setting* field along with options.

1 To change the current setting, highlight the desired setting.

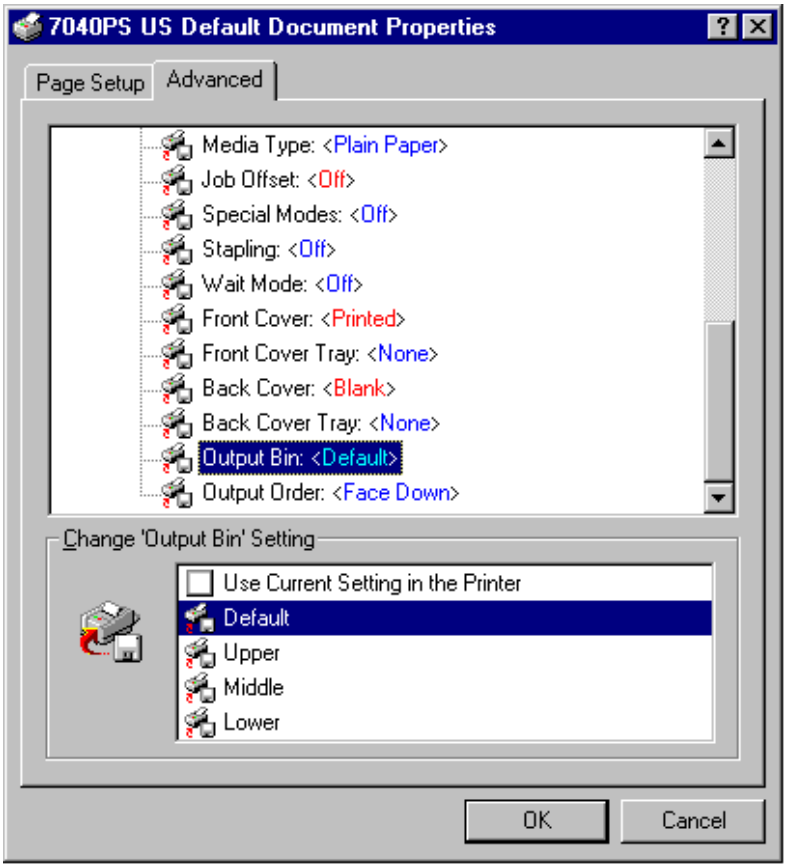
- Use Manual feed to stack 20 lb bond paper in the manuals bypass tray for back cover insertion. •
- Use Manual Feed (Thick) to manually feed up to 32 lb bond back covers from the bypass tray. Tray 1 enables you to feed 20 lb paper from Tray 1 for back cover insertion.

2 When the desired setting is indicated, click OK.

To leave the current Back Cover Tray setting unchanged, click Cancel.

Printer Driver Screens

PS Driver Screens for Windows NT Document Defaults



Advanced - Printer Features (Output Bin)
Highlight Output Bin to display the current default setting. Output Bin describes which area of the finisher will be used as the output tray. This enables you to control a special or high volume job you may want to run from one tray source. The default setting uses any appropriate tray that is available.

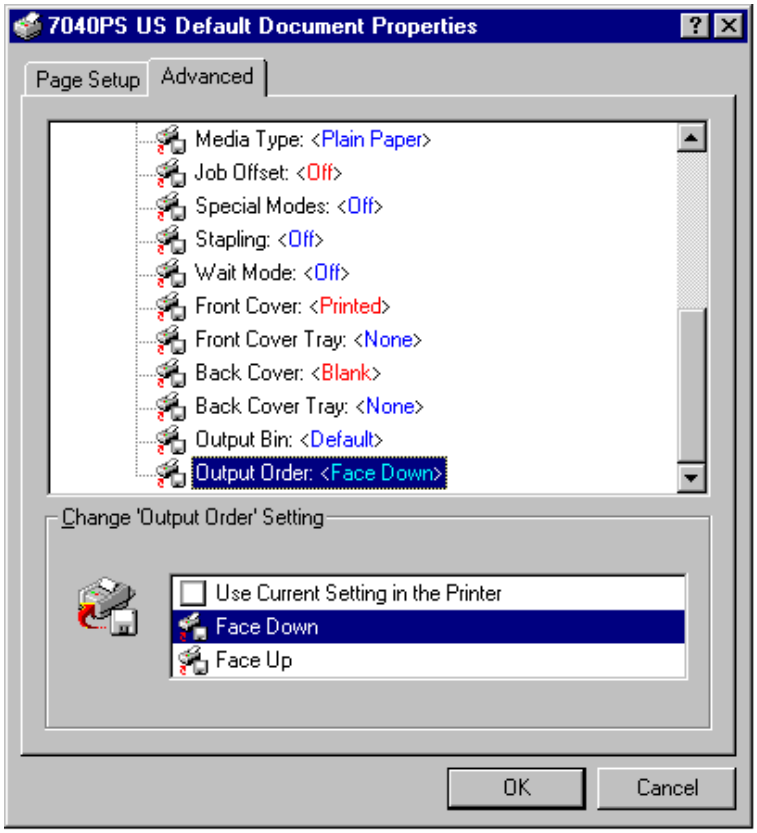
Notice that the current setting is indicated in the [*Change 'Output Bin' Setting*] field along with options.

To change the current setting, highlight the desired setting, then click OK.

To leave the current Output Bin setting unchanged, click Cancel.

Printer Driver Screens

PS Driver Screens for Windows NT Document Defaults



Advanced - Printer Features (Output Order)
Highlight Output Order to display the current setting. Face Down is the default setting.
Notice that the setting is indicated in the [*Change 'Output Order' Setting*] field along with options.

1 To change the current setting, highlight the desired setting

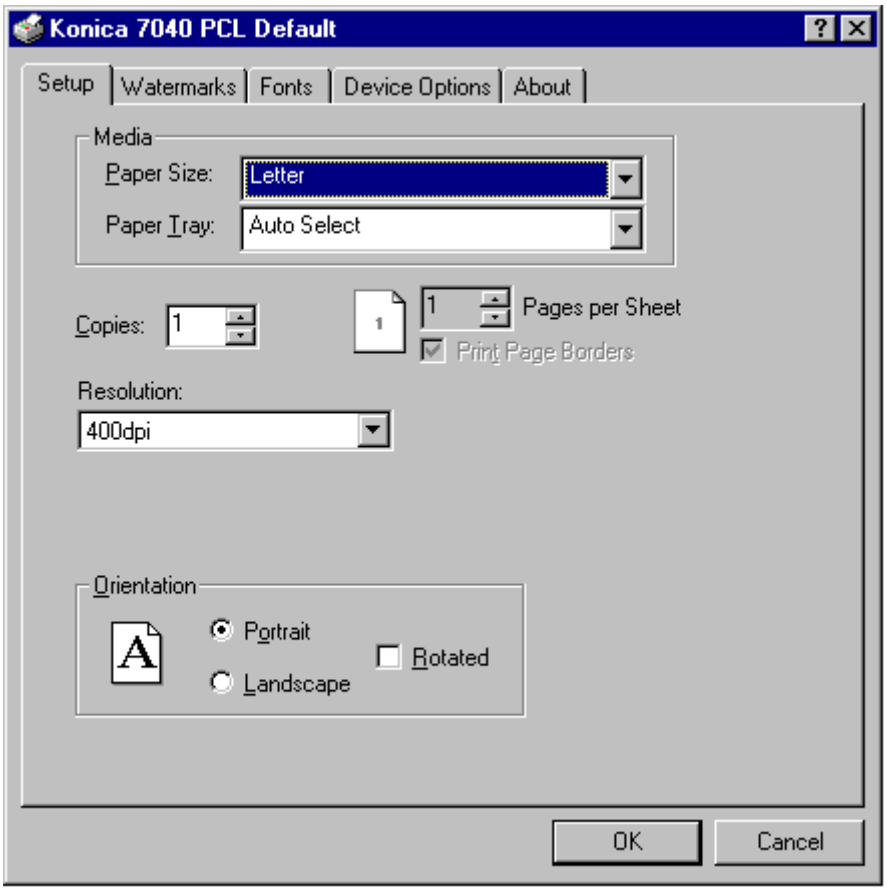
- Use Face Down mode when the sequential order of output pages is required.
- Use the speedier Face Up mode if sequential order of your document is not required.

2 When the desired setting is indicated, click OK.

To leave the current Output Order setting unchanged, click Cancel.

PCL Driver Screens for Windows NT4

PCL Driver Screens for Windows NT — Setup Tab

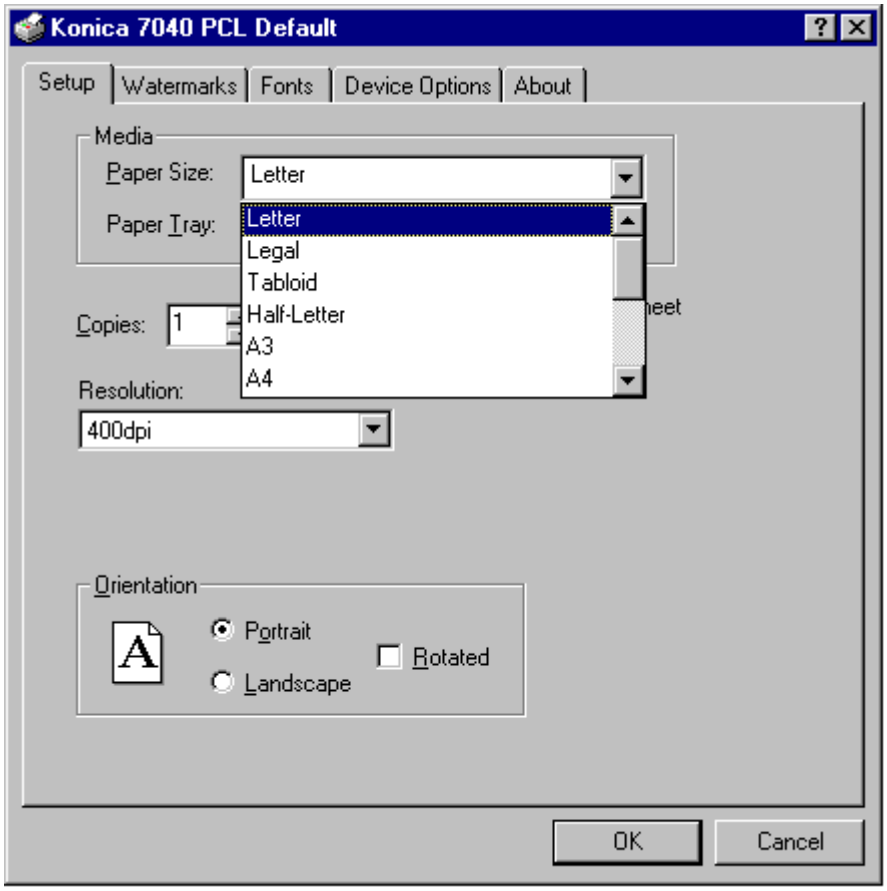


Setup Screen
The Setup screen displays the following default settings:

- Paper Size: Letter
- Paper Tray: Auto Select
- Resolution: 400dpi
- Orientation: Portrait

To view or change the Paper Size, click the arrow next to the current setting. See next page.
To leave the settings unchanged, click Cancel.

PCL Driver Screens for Windows NT — Setup Screen



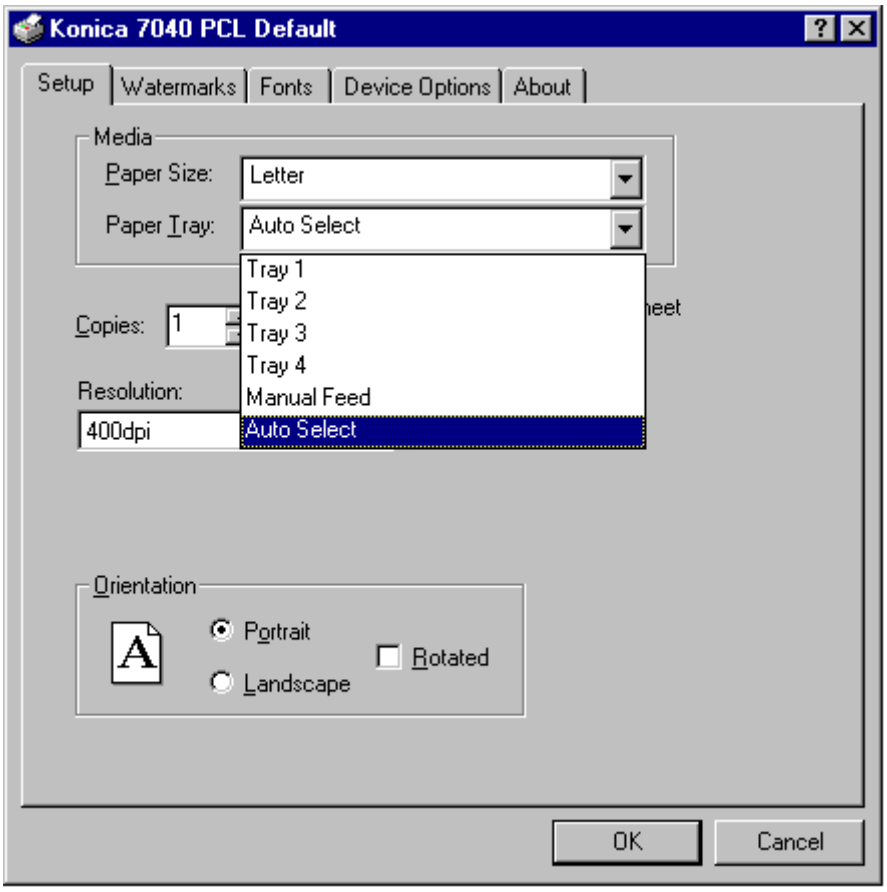
Paper Size
The default paper size is Letter size.

1 Click the arrow to scroll through the available paper size options.

2 To select a paper size, double click on the desired size, then click OK.

To leave the setting unchanged, click Cancel.

PCL Driver Screens for Windows NT — Setup Screen



Paper Tray Setting
The default setting is Auto Select, which enables the printer to automatically select the appropriate tray for the paper you select.

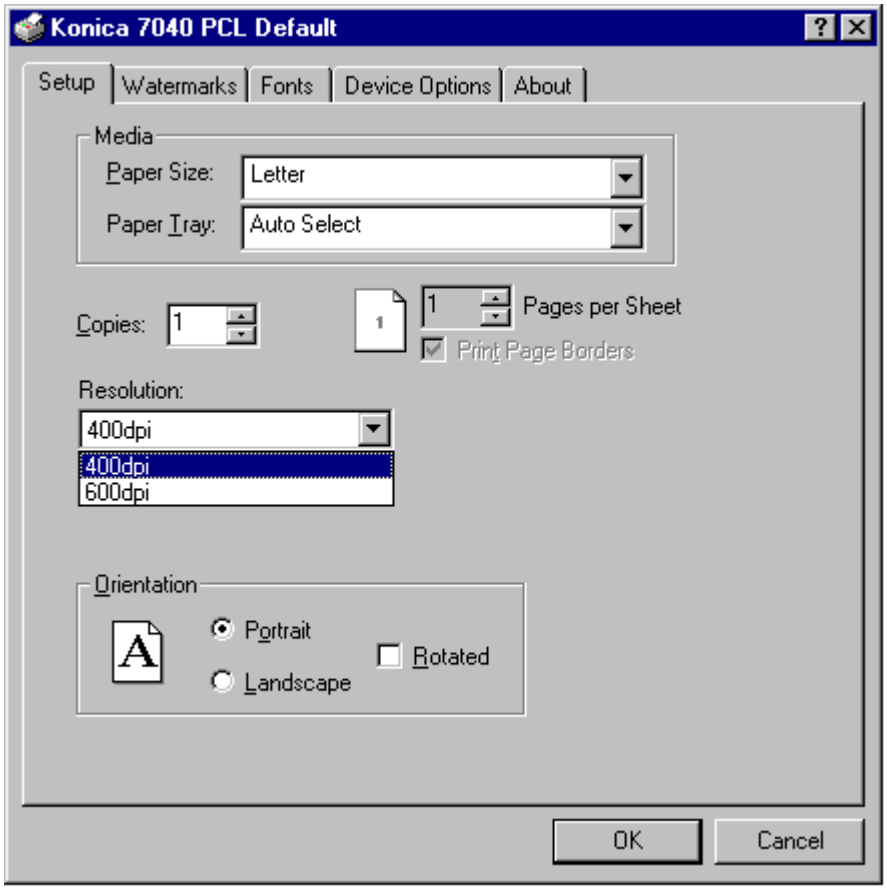
If you do not wish to use the Auto Select tray, click on the arrow to scroll through the available choices, then select the desired paper tray.

When a specific tray is selected, be sure to load it with the appropriate paper.

To leave the Auto Select tray setting unchanged, click Cancel.

Printer Driver Screens

PCL Driver Screens for Windows NT — Setup Screen



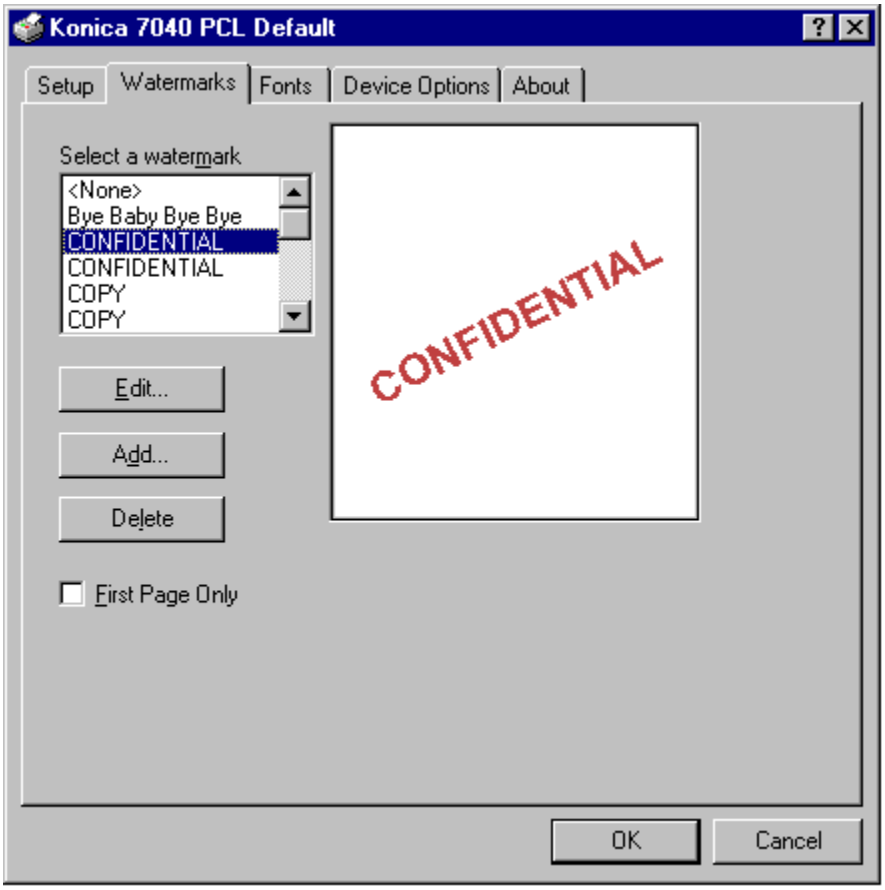
Resolution
The current setting for Resolution is indicated. The default setting is 400 dpi.

1 To change the current setting, click on the arrow to display the available settings.

2 Highlight the desired setting, then click OK.

To leave the setting unchanged, click Cancel.

PCL Driver Screens for Windows NT — Watermarks Tab



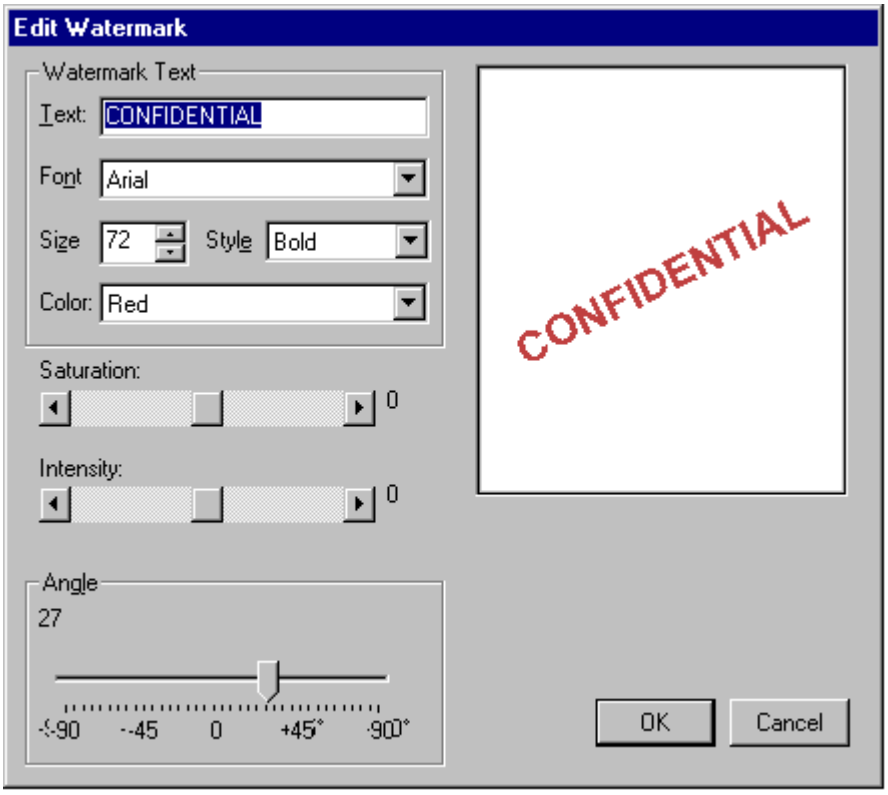
Selecting a Watermark

Click on the Watermarks tab to display the screen shown above. From this screen, you may Select, Edit, Add, or Delete a Watermark.

To Select a Watermark, highlight it, then click OK.
To Edit a Watermark, highlight it, then click Edit and use the procedure shown on the next page.
To Add a Watermark, click Add and follow the procedure on p. 3-143.
To Delete a Watermark, highlight it, click delete, then click OK.

To make no selections, click Cancel

PCL Driver Screens for Windows NT **Edit Watermark**



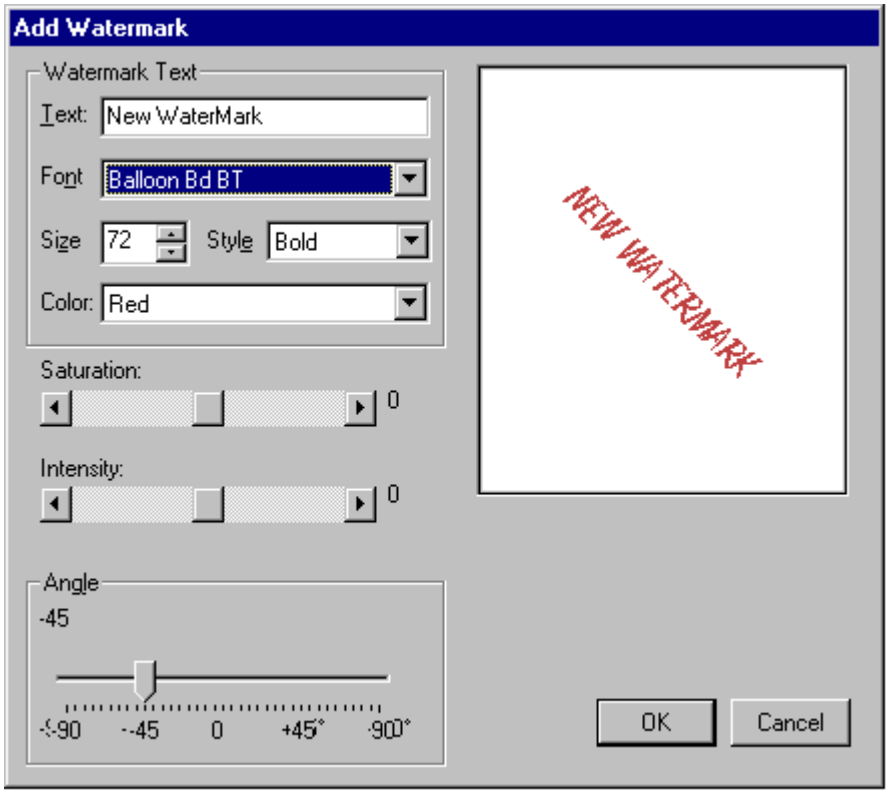
Edit Watermark
To edit a Watermark, highlight one of the Watermarks listed on the previous screen, then click Edit to display the Edit screen shown above.

You may change the Font, Size, Style Color, Saturation, Intensity and the Angle.

When the edits are completed, click OK.

To leave the settings on this screen unchanged, click Cancel.

PCL Driver Screens for Windows NT **Add Watermark**



Add Watermark

1 To add a Watermark, click Add on the Watermarks screen.

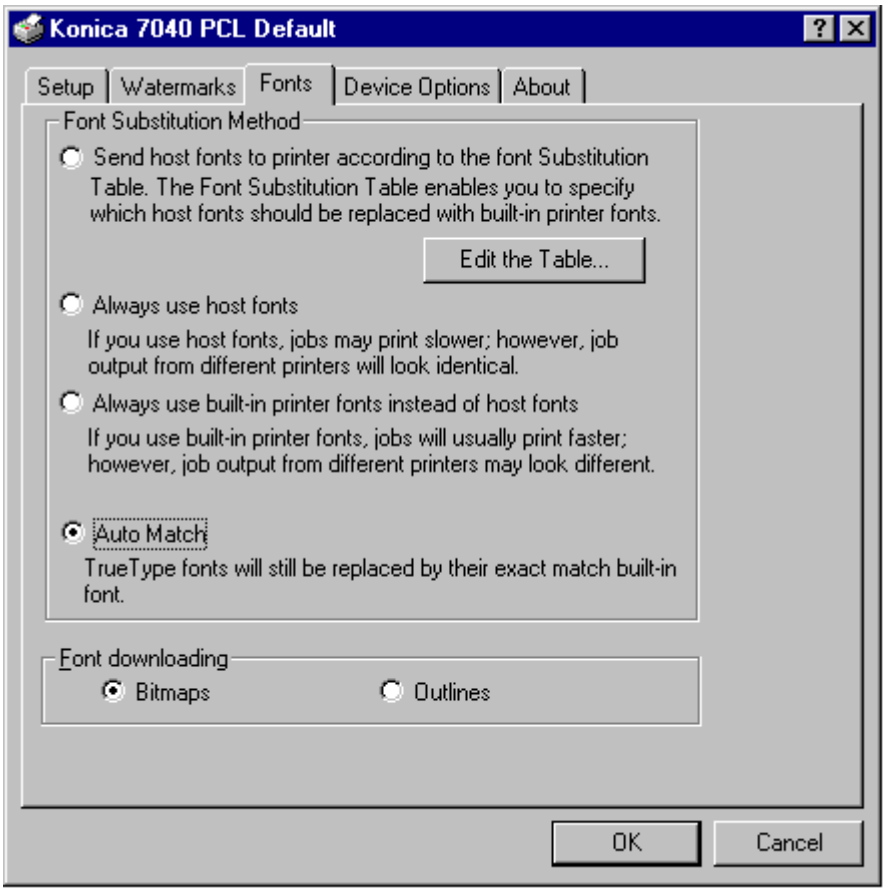
2 In the Text field, enter the wording for the new Watermark.

3 Select the Font, Size, Style Color, Saturation, Intensity and the Angle, as desired.

4 When the settings are completed, click OK.

To leave the settings on this screen unchanged, click Cancel.

PCL Driver Screens for Windows NT — Fonts Tab

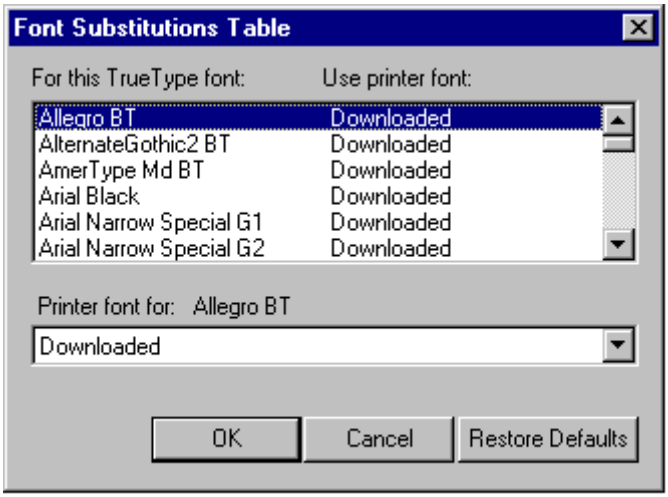


Fonts Screen
The Fonts tab displays a screen that shows the current font settings.

The default setting is Auto Match, which means that TrueType fonts will be replaced by the exact-match fonts built into your printer. Built-in fonts allow for speedier printing in comparison to using downloaded host fonts. Before changing this default setting, be sure you understand how it will affect printing performance.

To view or change the Auto Match fonts, click Edit the Table to display the Font Substitution Table (see next page.)

PCL Driver Screens for Windows NT Fonts Substitution Table

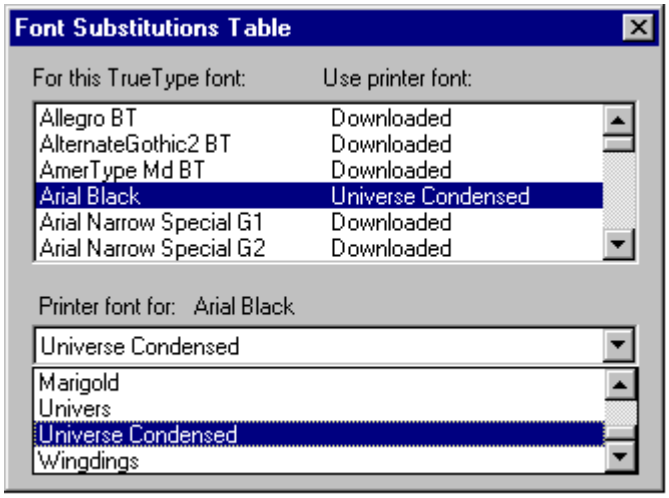


Font Substitutions Table
The Font Substitution Table enables you to specify which fonts shall be used by your printer for any given TrueType font. Keep in mind that fonts already built in to your printer enable you to print faster than fonts that need to be downloaded to your printer..

This sample screen indicates that an exact-match built-in printer font is used for the TrueType Arial font.

Use the arrows to scroll through the font list to see how they are currently specified. You may substitute any font to be used for a TrueType font. (See next page).

PCL Driver Screens for Windows NT — Fonts Substitution Table



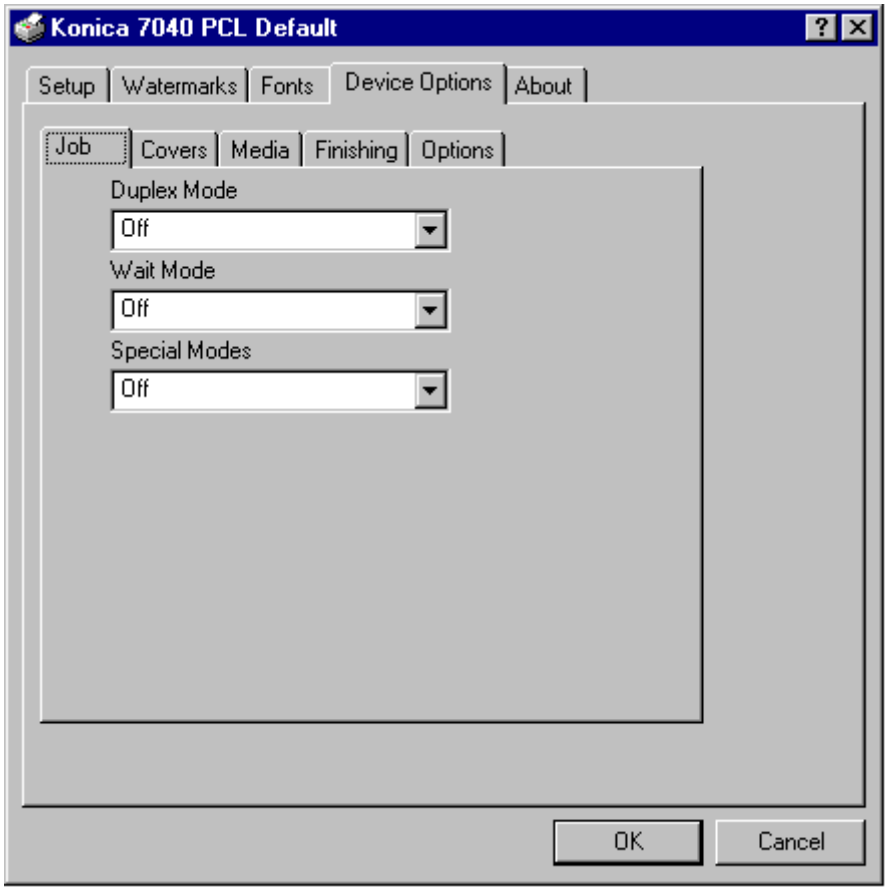
Editing the Font Substitution Table
This sample screen shows that the Courier New TrueType font uses the exact-match Courier built-in printer font.

1 To edit the table, highlight a TrueType font.
Notice that the currently selected printer font displays in the lower part of the screen.

2 Click the arrow in the [*Printer font for:*] field to scroll to a font substitution, then click OK.

To leave the setting unchanged, click Cancel.

PCL Driver Screens for Windows NT — Job Tab

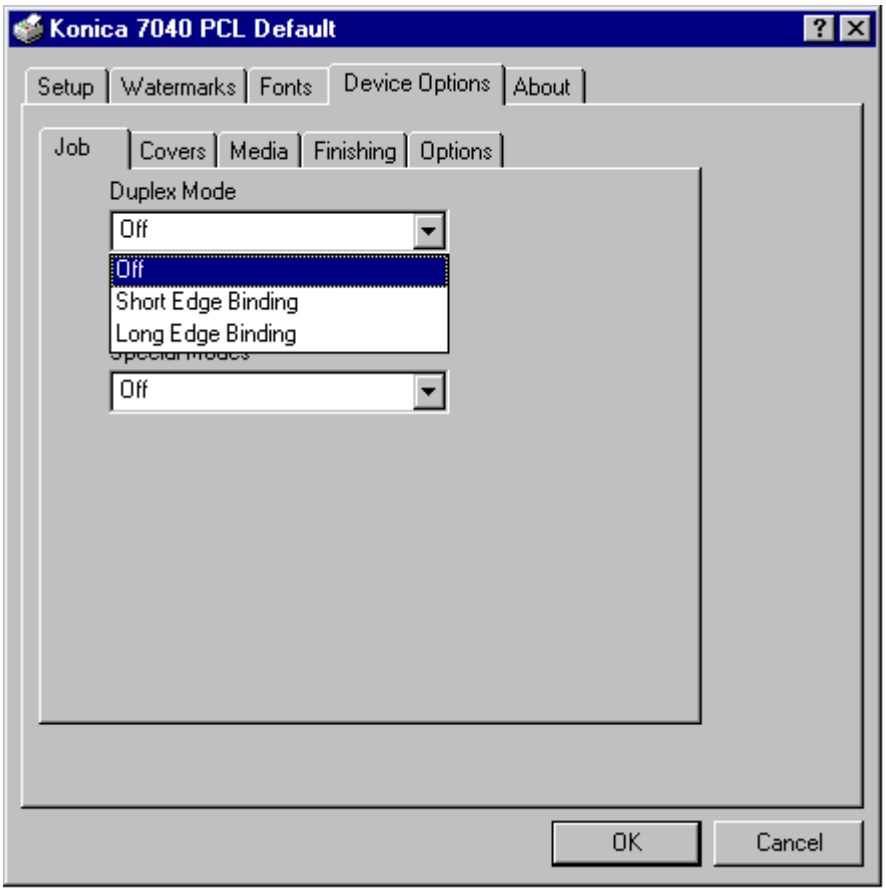


Job Settings
The current Job settings indicate that the Duplex Mode, Wait Mode and Special Modes are Off.

To view or change these settings, click the arrow next to the setting to display option settings, then click OK.

To view or change Duplex Mode settings, see next page.

PCL Driver Screens for Windows NT — Duplex Mode

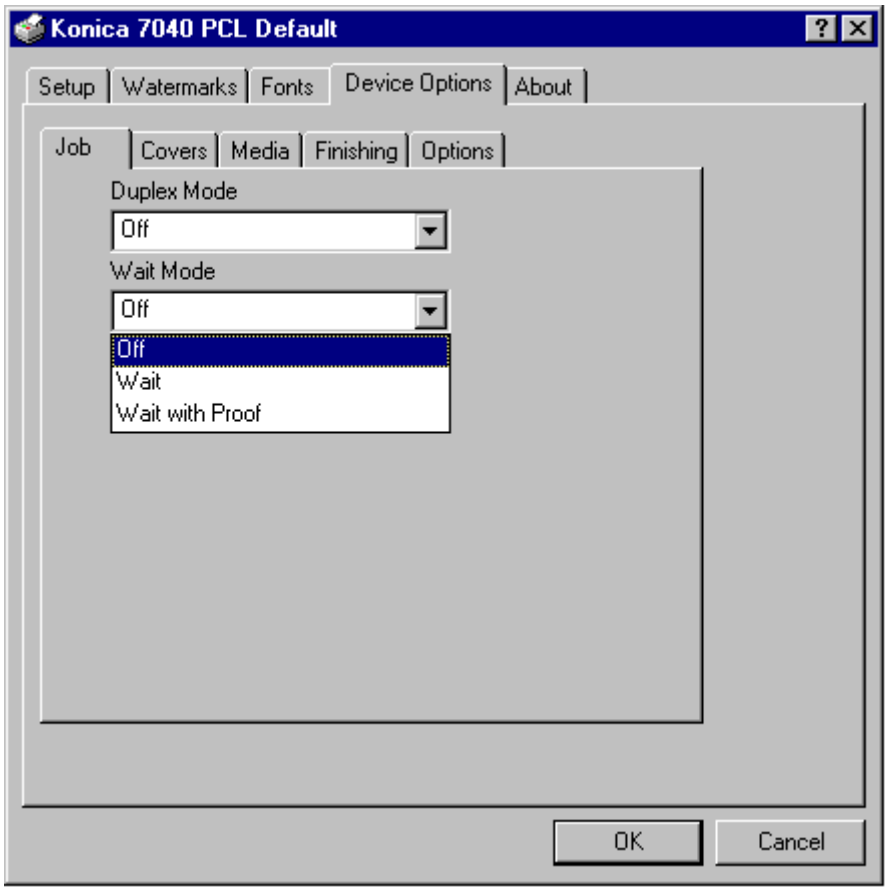


Duplex Mode
When you click the Duplex Mode arrow, you may select Short Edge Binding to bind the document along the short edge or you may select Long Edge Binding to bind the document along the long edge, as in the usual Portrait orientation.

When the binding style you want is indicated in the Duplex Mode field, click OK.

To leave the Duplex Mode setting unchanged, click Cancel.

PCL Driver Screens for Windows NT — Wait Mode



Wait Mode

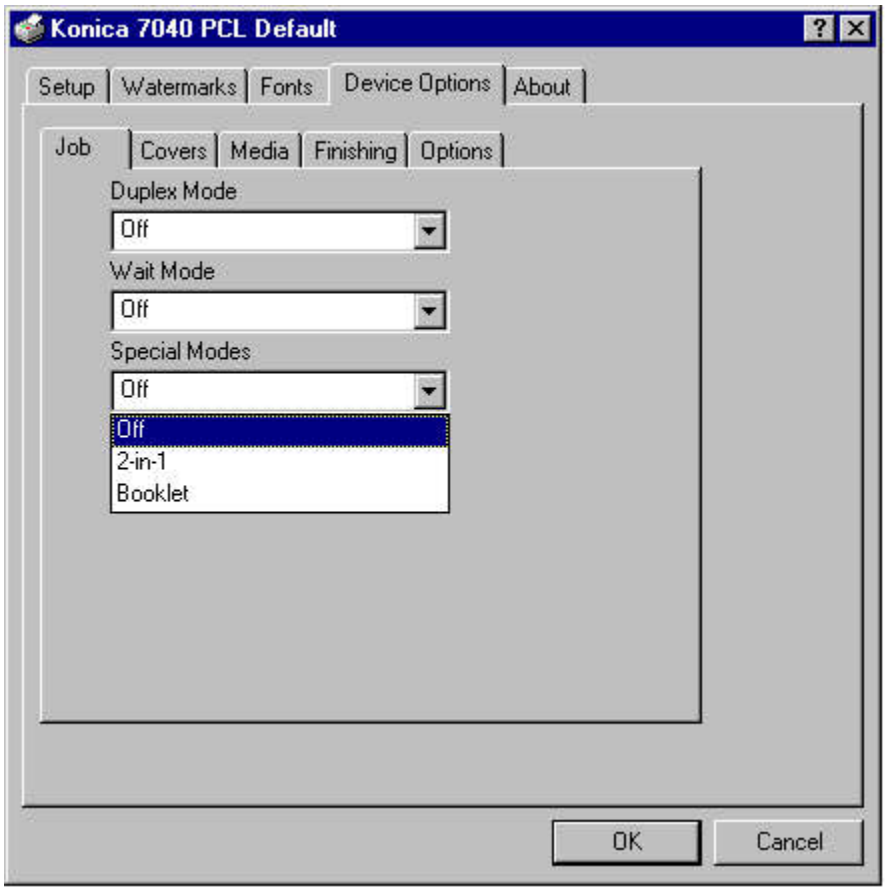
1 From the Job tab screen, click the arrow next to the Wait Mode field.

- Select Wait On to be prompted to install special paper, such as OHP, Thin stock or Thick stock before the printing job is started.
- Select Wait with Proof to be prompted to print a proof set before printing multiple sets.

2 When the setting you want is indicated in the Wait Mode field, click OK.

To leave the Wait Mode setting unchanged, click Cancel.

PCL Driver Screens for Windows NT — Special Modes



Special Modes

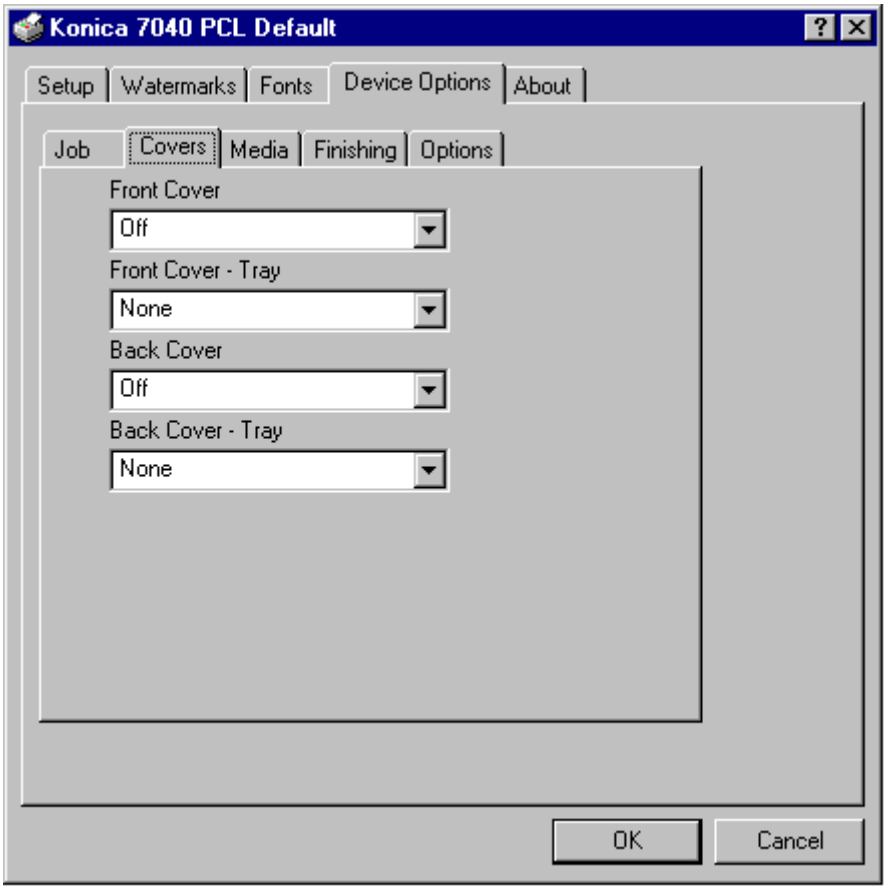
1 From the Job tab screen, click the arrow next to the Special Modes field to display the Special Modes options.

- Select 2-in-1 to print two pages (images) on one standard sheet.
- Select Booklet to print four pages (images) on one standard sheet.

2 When the setting you want is indicated in the Special Modes field, click OK.

To leave the Special Modes setting unchanged, click cancel.

PCL Driver Screens for Windows NT — Covers Tab



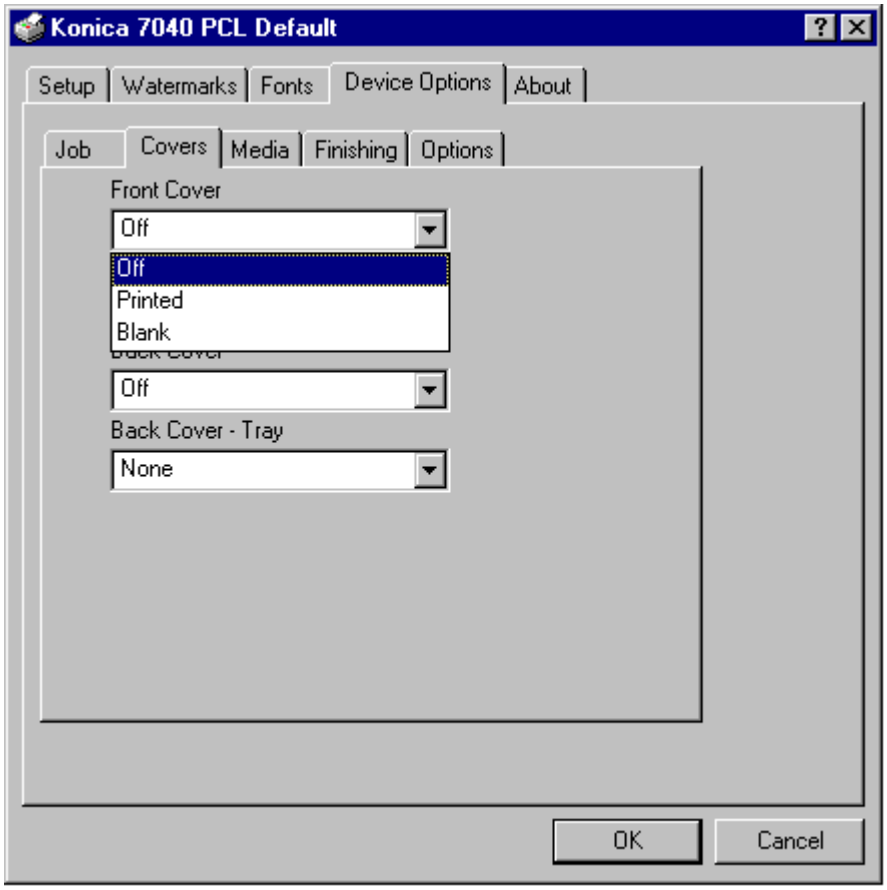
Default Settings for Covers
The Covers tab displays the above screen that shows the default settings for Front Cover, Front Cover Tray, Back Cover mode and Back Cover Tray.

To view or change these settings, click the arrow next to one of the settings.

Options for the Front Cover mode are shown on the next page.

To leave the Cover setting unchanged, click Cancel.

PCL Driver Screens for Windows NT — Front Covers



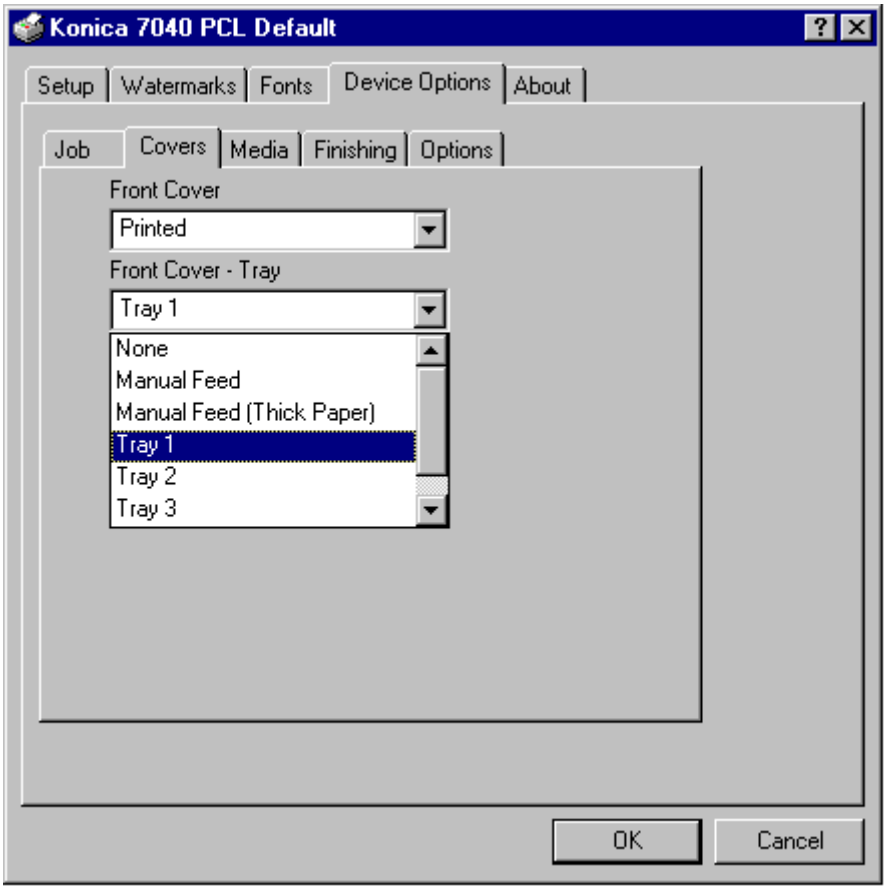
Front Cover Mode
The Front Cover mode is Off by default. To view options, click the arrow next to the Front Cover field.

- Select Printed to print on the Front Cover sheets before inserting them into your document.
- Select Blank to insert Front Cover sheets into your document without printing them first.

Front Cover sheets do not have to be plain and can be colored or preprinted (as letterhead).
In the Blank mode, preprinted Front Cover sheets will be inserted without any changes.
In the Printed mode, you may print directly on the preprinted Front Cover sheets.

To leave the Front Cover Mode setting unchanged, click Cancel.

PCL Driver Screens for Windows NT — Front Covers



Front Cover Tray

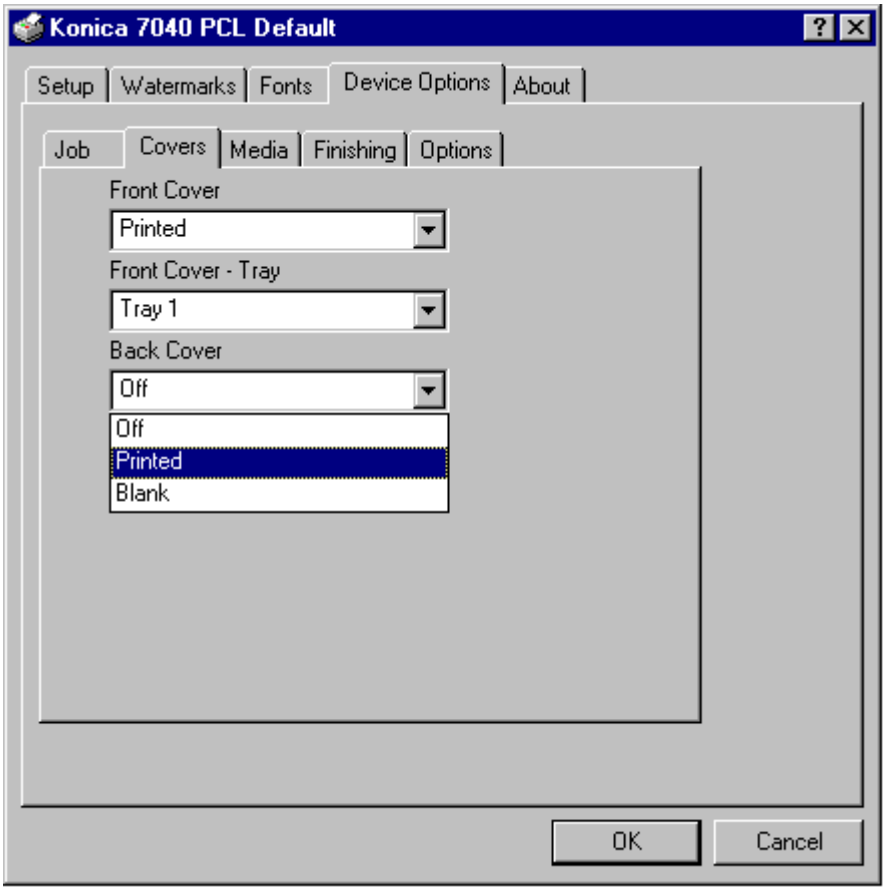
1 Click on the arrow next to the Front Cover Tray field to view tray options.

2 Highlight the tray you want to use for the Front Covers, then click OK.
In this example, Tray 1 is selected.

If you are using colored or preprinted paper for the Front Covers, be sure to load the paper in the tray selected, otherwise the paper currently loaded will be used.

To leave the Front Cover Tray setting unchanged, click on Cancel.

PCL Driver Screens for Windows NT — Back Covers



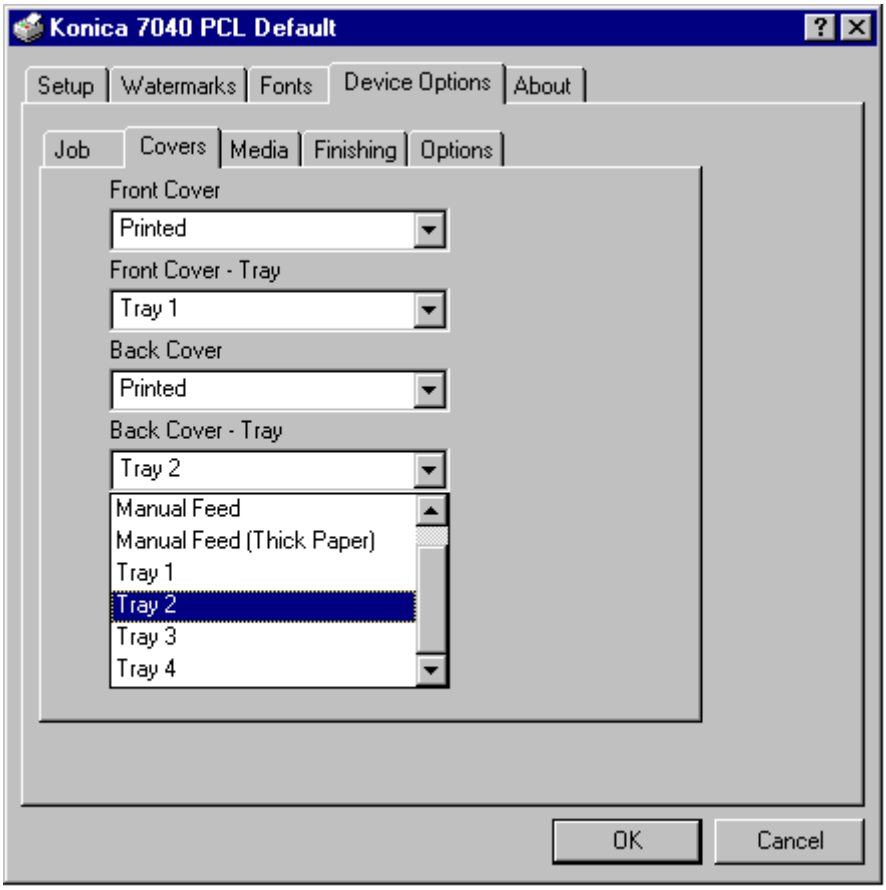
Back Cover Mode
The Back Cover mode is Off by default. To view options, click the arrow next to the Back Cover field.

- Select Printed to print on the Back Cover sheets before inserting them into your document.
- Select Blank to insert the Back Cover sheets into your document without printing them first.

Back Cover sheets do not have to be plain and can be colored or preprinted (as letterhead).
In the Blank mode, preprinted Back Cover sheets will be inserted without any changes.
In the Printed mode, you may print directly on the preprinted Back Cover sheets.

To leave the Back Cover Mode setting unchanged, click Cancel.

PCL Driver Screens for Windows NT — Back Covers



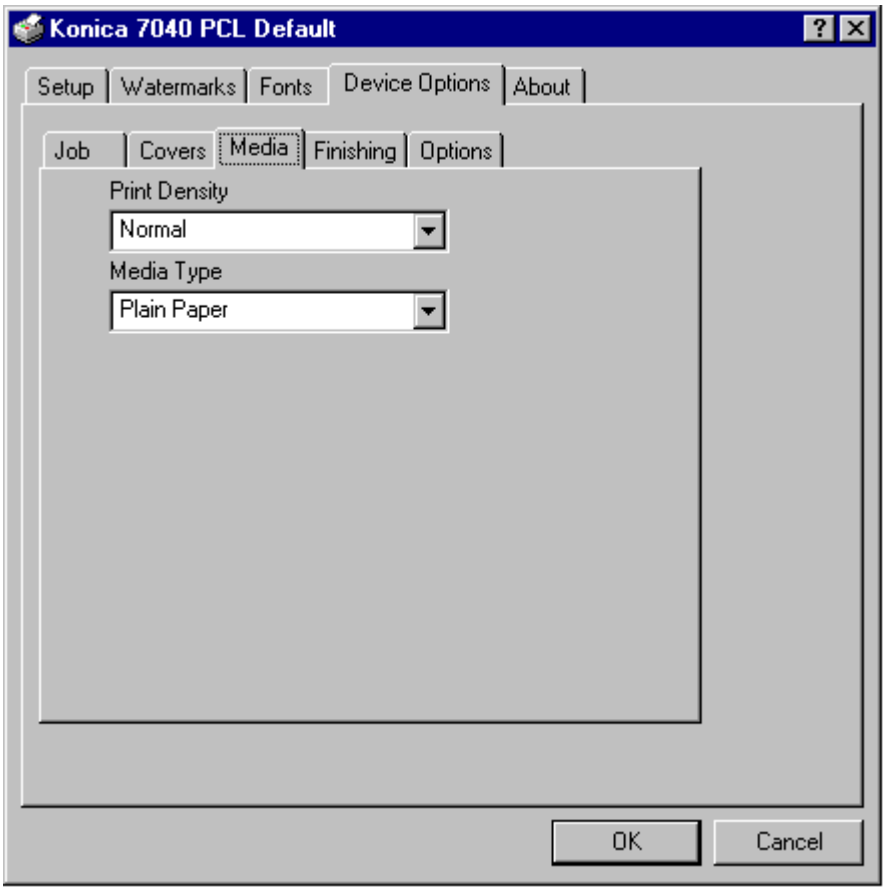
Back Cover Tray
1 Click on the arrow next to the Back Cover Tray field to view tray options.

2 Highlight the tray you want to use for the Back Covers, then click OK.
In this example, Tray 2 is selected.

If you are using colored or preprinted paper for the Back Covers, be sure to load the paper in the tray selected, otherwise the paper currently loaded will be used.

To leave the Back Cover Tray setting unchanged, click Cancel.

PCL Driver Screens for Windows NT — Media Tab



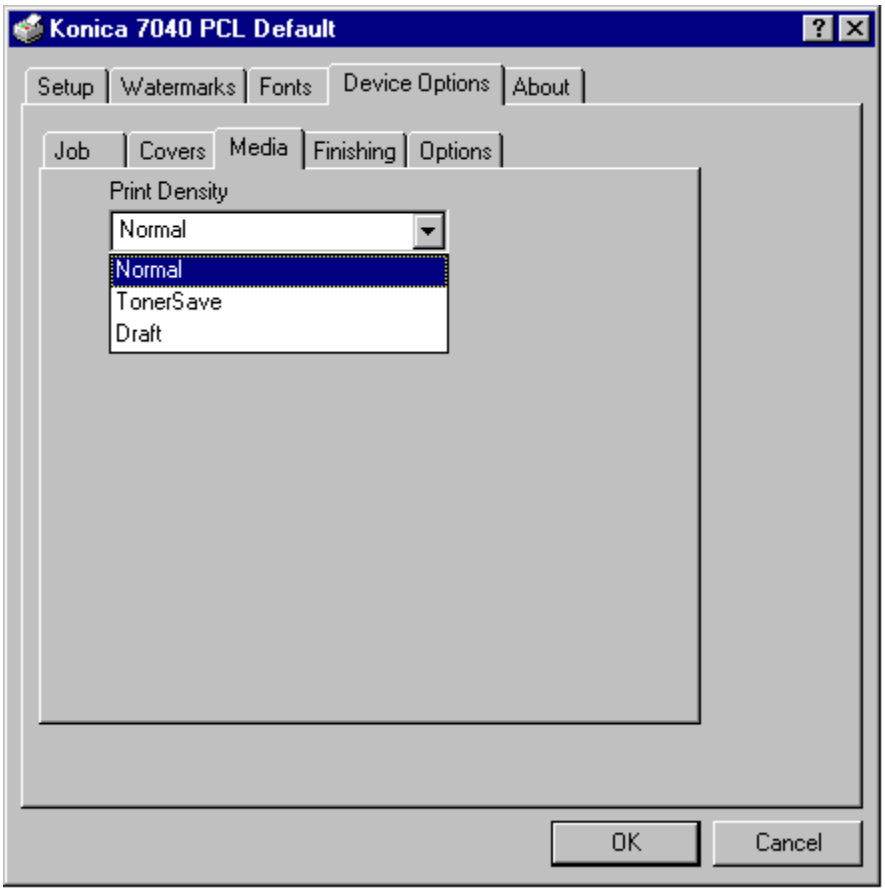
Media Settings
When you click on the Media tab, current settings are displayed for Print Density and Media Type.

This screen shows that Normal is selected for Print Density and Plain Paper is selected for Media Type.

To change either of these settings, click the arrow next to the current setting to display options, highlight the setting you want, then click OK (see next page).

To leave the Media settings unchanged, click Cancel.

PCL Driver Screens for Windows NT — Media



Print Density

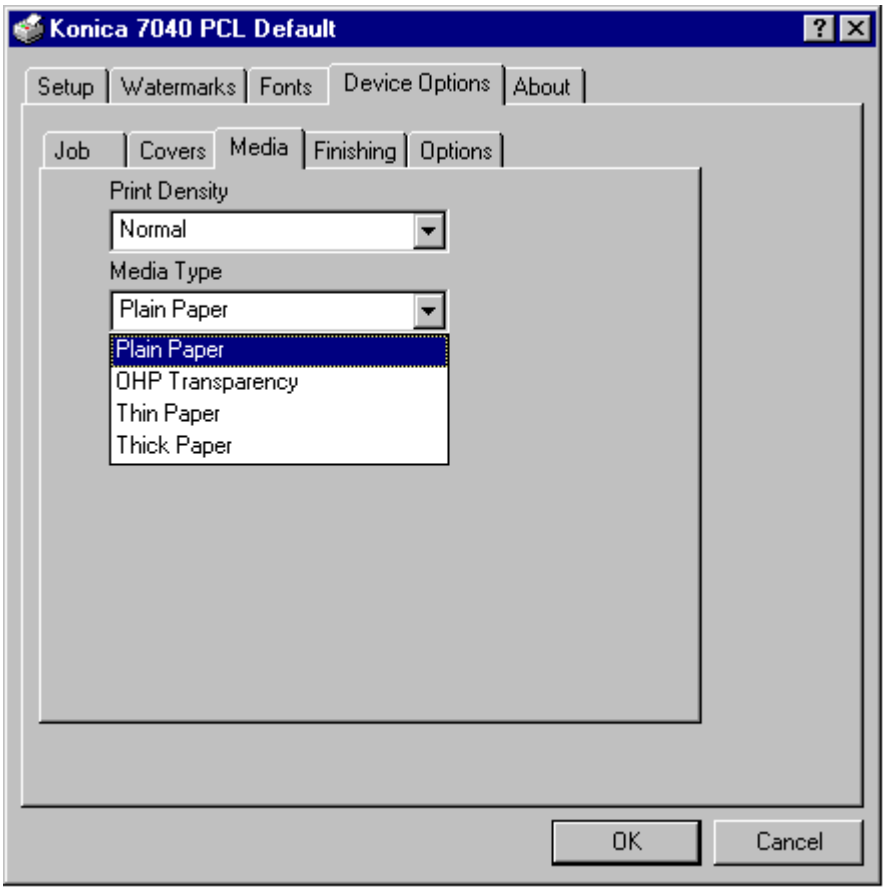
1 Click the arrow next to the Print Density setting to display density options.

- Select the Toner Save mode to use only 80% of the toner normally used.
- Select Draft mode to use only 60% of the toner normally used.

2 When the setting you want is displayed, click OK.

To leave the Print Density setting unchanged, click Cancel

PCL Driver Screens for Windows NT — Media



Media Type
When you click on the arrow next to the Media Type setting, a list of options appears, including OHP Transparency, Thin Paper and Thick Paper.

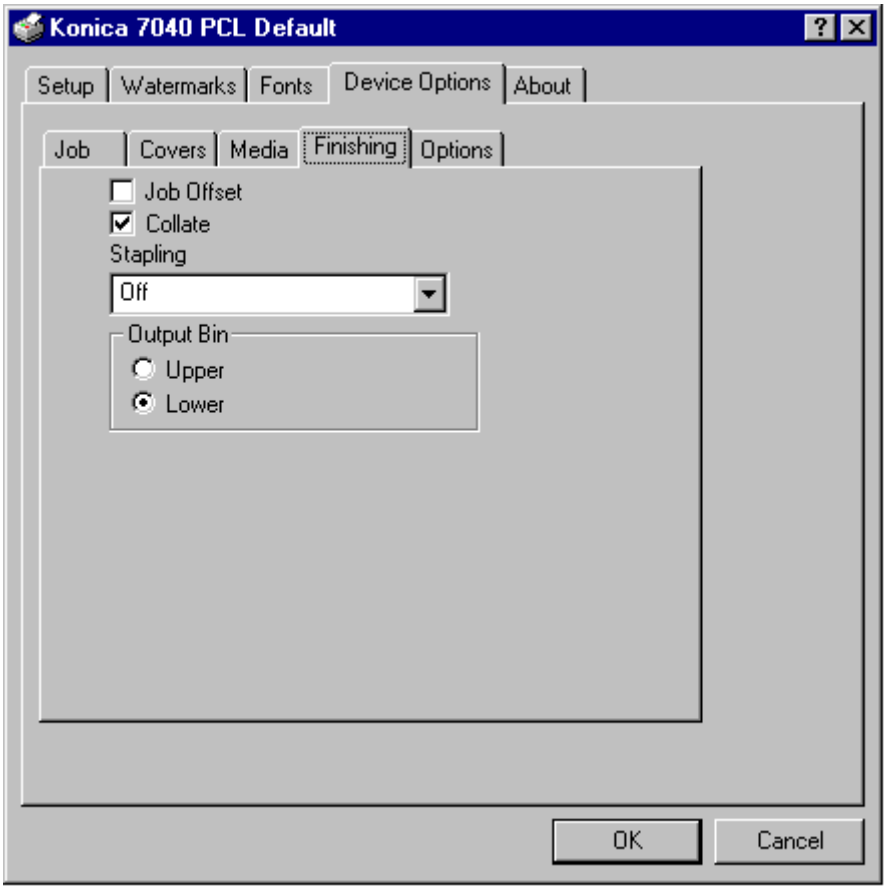
1 Highlight the setting you require. This screen shows OHP Transparency is selected.

2 Click OK to complete the selection.

Keep in mind that special stock is fed through the Bypass.

To leave the Media Type setting unchanged, click Cancel.

PCL Driver Screens for Windows NT — Finishing Tab

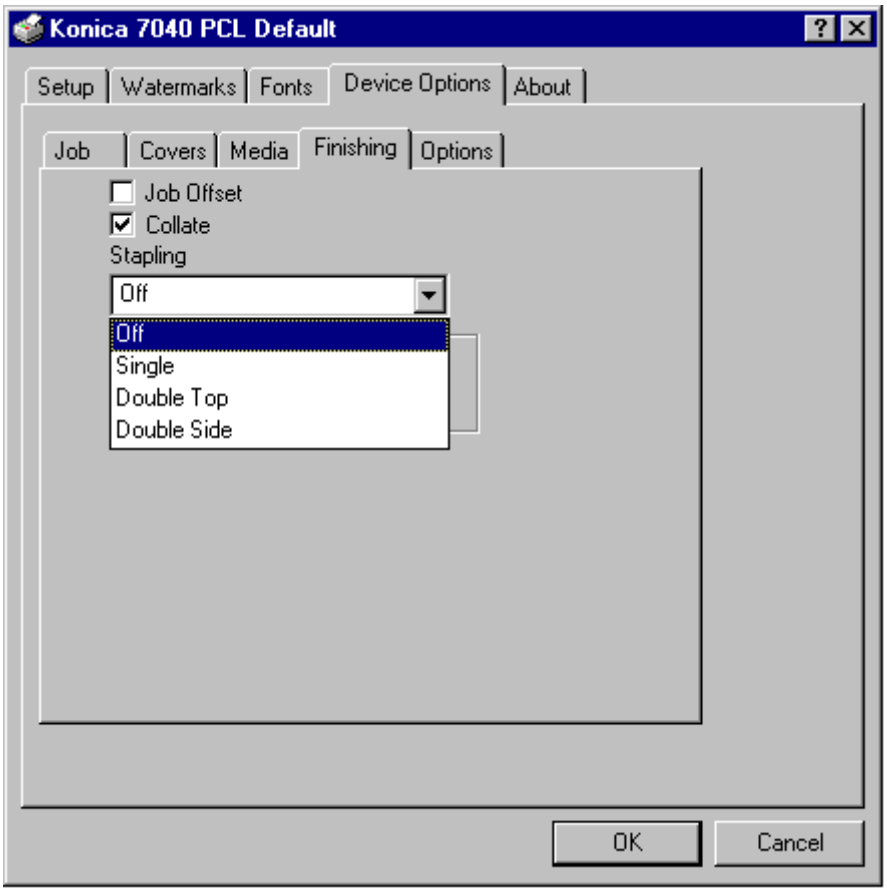


Finishing Settings
The Finishing screen shows the default settings for Collate, Stapling and Output Bin.

Click the arrow next to the Stapling setting (Off) to display optional Stapling settings. See next page.

To leave the Finishing settings unchanged, click Cancel.

PCL Driver Screens for Windows NT — Finishing



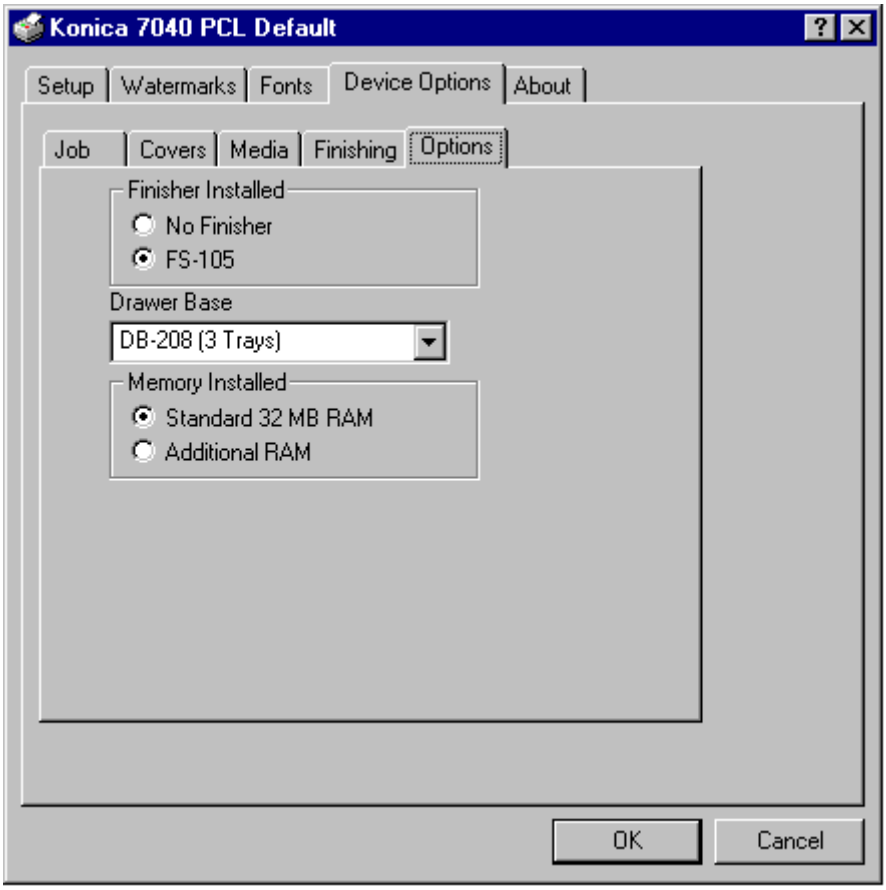
Stapling
Three Stapling options are available.

- Single stapling inserts one staple in the upper left corner of your document.
- Double Top stapling inserts two staples across the top edge of your document.
- Double Side stapling inserts two staples along the left edge of your document.

Highlight the desired Stapling setting, then click OK.

To leave the settings unchanged, click Cancel.

PCL Driver Screens for Windows NT — Options (Device)

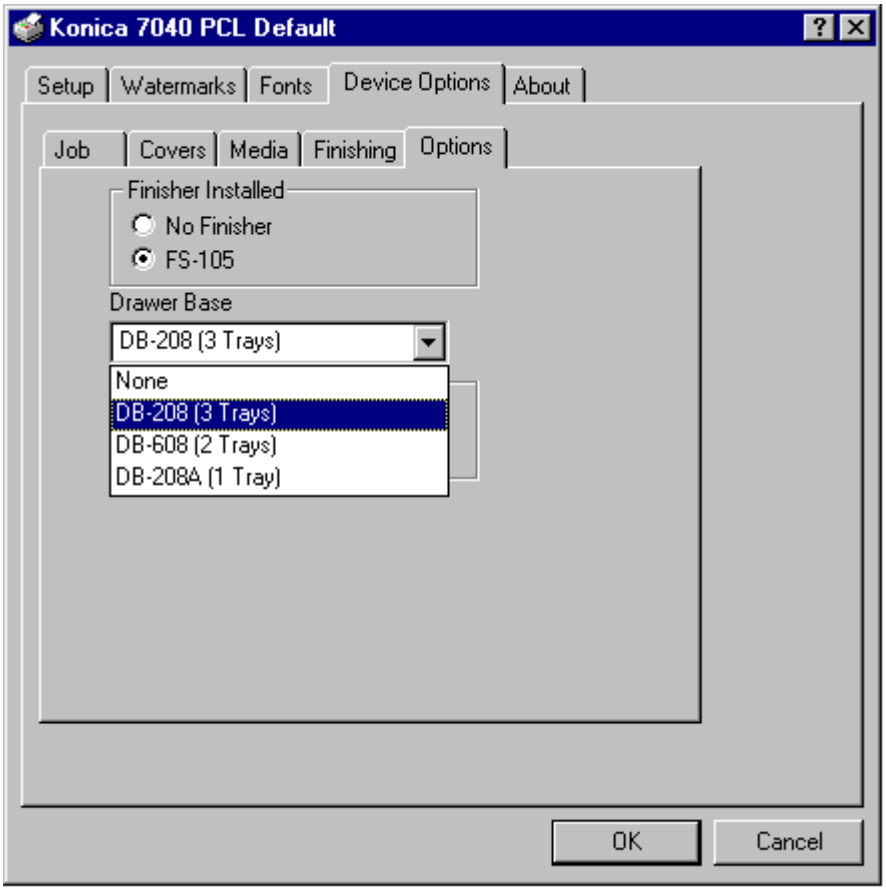


Device Settings
The Options screen shows the default settings for Finisher, Drawer Base and Memory installed.

To view or change the current Drawer Base setting, click on the arrow next to the Drawer Base (see next page.)

To leave the settings unchanged, click Cancel.

PCL Driver Screens for Windows NT — Options (Device)



Drawer Base Setting
The current Drawer Base setting is displayed along with options settings.

To change the setting, highlight the desired setting, then click OK.

To leave the setting unchanged, click Cancel.

Section 4: Symbol Sets & Roman-8 Character Conversion Tables

Symbol Sets

Symbol Sets

The symbol sets listed below are displayed on pages 4~19.

Please check your application software documentation to determine which symbol sets are supported.

For programmers using HP PCL language printer commands, the PCL value is given for each symbol set.

Symbol Sets

US:	ASCII (ISO 6)
DT:	Desk Top
E1:	ECMA-94 Latin 1 (ISO 8859/1)
LG:	Legal Symbol Set
M8:	Math-8 Symbol Set
PB:	Microsoft Publishing
PC:	PC-8
PC:	PC-8 DN (Denmark/Norway)
PM:	PC-850
PI:	Pi Font
MS:	PS Math
TS:	PS Text
R8:	Roman-8
VI:	Ventura International
VM:	Ventura Math
VU:	Ventura US
WN:	Windows

Symbol Sets

US: ASCII (ISO 6) Symbol Set

PCL Value: ØU

NUL 0	DLE 16	 32	0 48	@ 64	P 80	‘ 96	p 112	128	144	160	176	192	208	224	240
SOH 1	DC1 17	! 33	1 49	A 65	Q 81	a 97	q 113	129	145	161	177	193	209	225	241
STX 2	DC2 18	" 34	2 50	B 66	R 82	b 98	r 114	130	146	162	178	194	210	226	242
ETX 3	DC3 19	# 35	3 51	C 67	S 83	c 99	s 115	131	147	163	179	195	211	227	243
EOT 4	DC4 20	$ 36	4 52	D 68	T 84	d 100	t 116	132	148	164	180	196	212	228	244
ENQ 5	NAK 21	% 37	5 53	E 69	U 85	e 101	u 117	133	149	165	181	197	213	229	245
ACK 6	SYN 22	& 38	6 54	F 70	V 86	f 102	v 118	134	150	166	182	198	214	230	246
BEL 7	ETB 23	’ 39	7 55	G 71	W 87	g 103	w 119	135	151	167	183	199	215	231	247
BS 8	CAN 24	(40	8 56	H 72	X 88	h 104	x 120	136	152	168	184	200	216	232	248
HT 9	EM 25	) 41	9 57	I 73	Y 89	i 105	y 121	137	153	169	185	201	217	233	249
LF 10	SUB 26	* 42	: 58	J 74	Z 90	j 106	z 122	138	154	170	186	202	218	234	250
VT 11	ESC 27	+ 43	; 59	K 75	[91	k 107	{ 123	139	155	171	187	203	219	235	251
FF 12	FS 28	, 44	< 60	L 76	\ 92	l 108	| 124	140	156	172	188	204	220	236	252
CR 13	GS 29	- 45	= 61	M 77	] 93	m 109	} 125	141	157	173	189	205	221	237	253
SO 14	RS 30	. 46	> 62	N 78	^ 94	n 110	~ 126	142	158	174	190	206	222	238	254
SI 15	US 31	/ 47	? 63	O 79	_ 95	o 111	 127	143	159	175	191	207	223	239	255

Symbol Sets

DT: Desk Top Symbol Set

PCL Value: 7J

NUL 0	DLE 16	 32	0 48	@ 64	P 80	‘ 96	p 112	 128	 144	 160	“ 176	— 192	‹ 208	a 224	´ 240
SOH 1	DC1 17	! 33	1 49	A 65	Q 81	a 97	q 113	 129	 145	¶ 161	” 177	± 193	› 209	o 225	ˋ 241
STX 2	DC2 18	" 34	2 50	B 66	R 82	b 98	r 114	 130	 146	§ 162	µ 178	× 194	« 210	æ 226	ˆ 242
ETX 3	DC3 19	# 35	3 51	C 67	S 83	c 99	s 115	 131	 147	† 163	‰ 179	÷ 195	» 211	Æ 227	¨ 243
EOT 4	DC4 20	$ 36	4 52	D 68	T 84	d 100	t 116	 132	 148	‡ 164	• 180	° 196	, 212	ð 228	˜ 244
ENQ 5	NAK 21	% 37	5 53	E 69	U 85	e 101	u 117	 133	 149	© 165	● 181	’ 197	„ 213	Đ 229	ˇ 245
ACK 6	SYN 22	& 38	6 54	F 70	V 86	f 102	v 118	 134	 150	® 166	○ 182	” 198	· 214	ij 230	˘ 246
BEL 7	ETB 23	’ 39	7 55	G 71	W 87	g 103	w 119	 135	 151	™ 167	○ 183	¼ 199	¡ 215	IJ 231	˝ 247
BS 8	CAN 24	(40	8 56	H 72	X 88	h 104	x 120	 136	 152	℅ 168	■ 184	½ 200	¿ 216	ł 232	° 248
HT 9	EM 25	) 41	9 57	I 73	Y 89	i 105	y 121	 137	 153	¢ 169	■ 185	¾ 201	Pt 217	Ł 233	· 249
LF 10	SUB 26	* 42	: 58	J 74	Z 90	j 106	z 122	 138	 154	– 170	□ 186	¹ 202	ℓ 218	œ 234	¯ 250
VT 11	ESC 27	+ 43	; 59	K 75	[91	k 107	{ 123	 139	 155	— 171	□ 187	² 203	£ 219	Œ 235	¸ 251
FF 12	FS 28	, 44	< 60	L 76	\ 92	l 108	| 124	 140	 156	… 172	¹ 188	3 204	¥ 220	ø 236	˛ 252
CR 13	GS 29	- 45	= 61	M 77	] 93	m 109	} 125	 141	 157	fi 173	¬ 189	/ 205	¤ 221	Ø 237	· 253
SO 14	RS 30	. 46	> 62	N 78	^ 94	n 110	~ 126	 142	 158	fl 174	¦ 190	 206	*f* 222	þ 238	ı 254
SI 15	US 31	/ 47	? 63	O 79	_ 95	o 111	 127	 143	 159	 175	= 191	 207	ß 223	Þ 239	 255

Symbol Sets

‚1: ECMA-94 Latin 1 (ISO 8859/1) Symbol Set

PCL Value: ØN

NUL 0	DLE 16	 32	0 48	@ 64	P 80	` 96	p 112	 128	 144	 160	° 176	À 192	Ð 208	à 224	ð 240
SOH 1	DC1 17	! 33	1 49	A 65	Q 81	a 97	q 113	 129	 145	¡ 161	± 177	Á 193	Ñ 209	á 225	ñ 241
STX 2	DC2 18	" 34	2 50	B 66	R 82	b 98	r 114	 130	 146	¢ 162	2 178	Â 194	Ò 210	â 226	ò 242
ETX 3	DC3 19	# 35	3 51	C 67	S 83	c 99	s 115	 131	 147	£ 163	3 179	Ã 195	Ó 211	ã 227	ó 243
EOT 4	DC4 20	$ 36	4 52	D 68	T 84	d 100	t 116	 132	 148	¤ 164	´ 180	Ä 196	Ô 212	ä 228	ô 244
ENQ 5	NAK 21	% 37	5 53	E 69	U 85	e 101	u 117	 133	 149	¥ 165	µ 181	Å 197	Õ 213	å 229	õ 245
ACK 6	SYN 22	& 38	6 54	F 70	V 86	f 102	v 118	 134	 150	¦ 166	¶ 182	Æ 198	Ö 214	æ 230	ö 246
BEL 7	ETB 23	' 39	7 55	G 71	W 87	g 103	w 119	 135	 151	§ 167	· 183	Ç 199	× 215	ç 231	÷ 247
BS 8	CAN 24	(40	8 56	H 72	X 88	h 104	x 120	 136	 152	¨ 168	¸ 184	È 200	Ø 216	è 232	ø 248
HT 9	EM 25	) 41	9 57	I 73	Y 89	i 105	y 121	 137	 153	© 169	1 185	É 201	Ù 217	é 233	ù 249
LF 10	SUB 26	* 42	: 58	J 74	Z 90	j 106	z 122	 138	 154	a 170	o 186	Ê 202	Ú 218	ê 234	ú 250
VT 11	ESC 27	+ 43	; 59	K 75	[91	k 107	{ 123	 139	 155	« 171	» 187	Ë 203	Û 219	ë 235	û 251
FF 12	FS 28	, 44	< 60	L 76	\ 92	l 108	| 124	 140	 156	¬ 172	¼ 188	Ì 204	Ü 220	ì 236	ü 252
CR 13	GS 29	- 45	= 61	M 77	] 93	m 109	} 125	 141	 157	- 173	½ 189	Í 205	Ý 221	í 237	ý 253
SO 14	RS 30	. 46	> 62	N 78	^ 94	n 110	~ 126	 142	 158	® 174	¾ 190	Î 206	Þ 222	î 238	þ 254
SI 15	US 31	/ 47	? 63	O 79	_ 95	o 111	 127	 143	 159	¯ 175	¿ 191	Ï 207	ß 223	ï 239	ÿ 255

Symbol Sets

LG: Legal Symbol Set

PCL Value: 1U

NUL 0	DLE 16	 32	0 48	@ 64	P 80	° 96	p 112	128	144	160	176	192	208	224	240
SOH 1	DC1 17	! 33	1 49	A 65	Q 81	a 97	q 113	129	145	161	177	193	209	225	241
STX 2	DC2 18	" 34	2 50	B 66	R 82	b 98	r 114	130	146	162	178	194	210	226	242
ETX 3	DC3 19	# 35	3 51	C 67	S 83	c 99	s 115	131	147	163	179	195	211	227	243
EOT 4	DC4 20	$ 36	4 52	D 68	T 84	d 100	t 116	132	148	164	180	196	212	228	244
ENQ 5	NAK 21	% 37	5 53	E 69	U 85	e 101	u 117	133	149	165	181	197	213	229	245
ACK 6	SYN 22	& 38	6 54	F 70	V 86	f 102	v 118	134	150	166	182	198	214	230	246
BEL 7	ETB 23	' 39	7 55	G 71	W 87	g 103	w 119	135	151	167	183	199	215	231	247
BS 8	CAN 24	(40	8 56	H 72	X 88	h 104	x 120	136	152	168	184	200	216	232	248
HT 9	EM 25	) 41	9 57	I 73	Y 89	i 105	y 121	137	153	169	185	201	217	233	249
LF 10	SUB 26	* 42	: 58	J 74	Z 90	j 106	z 122	138	154	170	186	202	218	234	250
VT 11	ESC 27	+ 43	; 59	K 75	[91	k 107	§ 123	139	155	171	187	203	219	235	251
FF 12	FS 28	, 44	= 60	L 76	® 92	l 108	¶ 124	140	156	172	188	204	220	236	252
CR 13	GS 29	- 45	= 61	M 77	] 93	m 109	† 125	141	157	173	189	205	221	237	253
SO 14	RS 30	. 46	¢ 62	N 78	© 94	n 110	™ 126	142	158	174	190	206	222	238	254
SI 15	US 31	/ 47	? 63	O 79	_ 95	o 111	 127	143	159	175	191	207	223	239	255

Symbol Sets

M8: Math-8 Symbol Set

PCL Value: 8M

NUL 0	DLE 16	 32	0 48	∴ 64	Π 80	∵ 96	π 112	 128	 144	 160	¯ 176	⊕ 192	Å 208	⌈ 224	⌉ 240
SOH 1	DC1 17	✓ 33	1 49	A 65	P 81	α 97	ρ 113	 129	 145	↑ 161	∀ 177	⊙ 193	⊣ 209	⌊ 225	⌋ 241
STX 2	DC2 18	″ 34	2 50	B 66	Σ 82	β 98	σ 114	 130	 146	→ 162	∃ 178	⊗ 194	⊢ 210	⌠ 226	⌡ 242
ETX 3	DC3 19	° 35	3 51	Γ 67	T 83	γ 99	τ 115	 131	 147	↓ 163	⊤ 179	⊖ 195	∟ 211	⎧ 227	⎫ 243
EOT 4	DC4 20	∞ 36	4 52	Δ 68	ϒ 84	δ 100	υ 116	 132	 148	← 164	⊥ 180	⊘ 196	∍ 212	⎩ 228	⎭ 244
ENQ 5	NAK 21	÷ 37	5 53	E 69	Φ 85	ϵ 101	ϕ 117	 133	 149	⇑ 165	∪ 181	∧ 197	∫ 213	⎪ 229	⎪ 245
ACK 6	SYN 22	∝ 38	6 54	Z 70	X 86	ζ 102	χ 118	 134	 150	⇒ 166	∩ 182	∨ 198	∮ 214	ϕ 230	⎪ 246
BEL 7	ETB 23	′ 39	7 55	H 71	Ψ 87	η 103	ψ 119	 135	 151	⇓ 167	∈ 183	⊻ 199	∠ 215	⌡ 231	⌟ 247
BS 8	CAN 24	(40	8 56	Θ 72	Ω 88	θ 104	ω 120	 136	 152	⇐ 168	∋ 184	¬ 200	∅ 216	⎲ 232	⎴ 248
HT 9	EM 25	) 41	9 57	I 73	∇ 89	ι 105	ϑ 121	 137	 153	⇕ 169	∉ 185	○ 201	א 217	‖ 233	⟩ 249
LF 10	SUB 26	× 42	e 58	K 74	∂ 90	κ 106	φ 122	 138	 154	↔ 170	⊂ 186	· 202	ב 218	∠ 234	⌟ 250
VT 11	ESC 27	+ 43	ε 59	Λ 75	ς 91	λ 107	ϖ 123	 139	 155	⇳ 171	⊃ 187	• 203	ג 219	⁄ 235	⧹ 251
FF 12	FS 28	, 44	< 60	M 76	≤ 92	μ 108	≃ 124	 140	 156	⇔ 172	⊄ 188	● 204	ℭ 220	— 236	⟨ 252
CR 13	GS 29	− 45	= 61	N 77	≠ 93	ν 109	≡ 125	 141	 157	⇄ 173	⊅ 189	○ 205	ℑ 221	═ 237	∓ 253
SO 14	RS 30	. 46	> 62	Ξ 78	≥ 94	ξ 110	≠ 126	 142	 158	⇆ 174	⊆ 190	† 206	ℜ 222	* 238	± 254
SI 15	US 31	/ 47	≈ 63	O 79	_ 95	o 111	▩ 127	 143	 159	→ 175	⊇ 191	‡ 207	ℨ 223	≅ 239	 255

Symbol Sets

PB: Microsoft Publishing Symbol Set

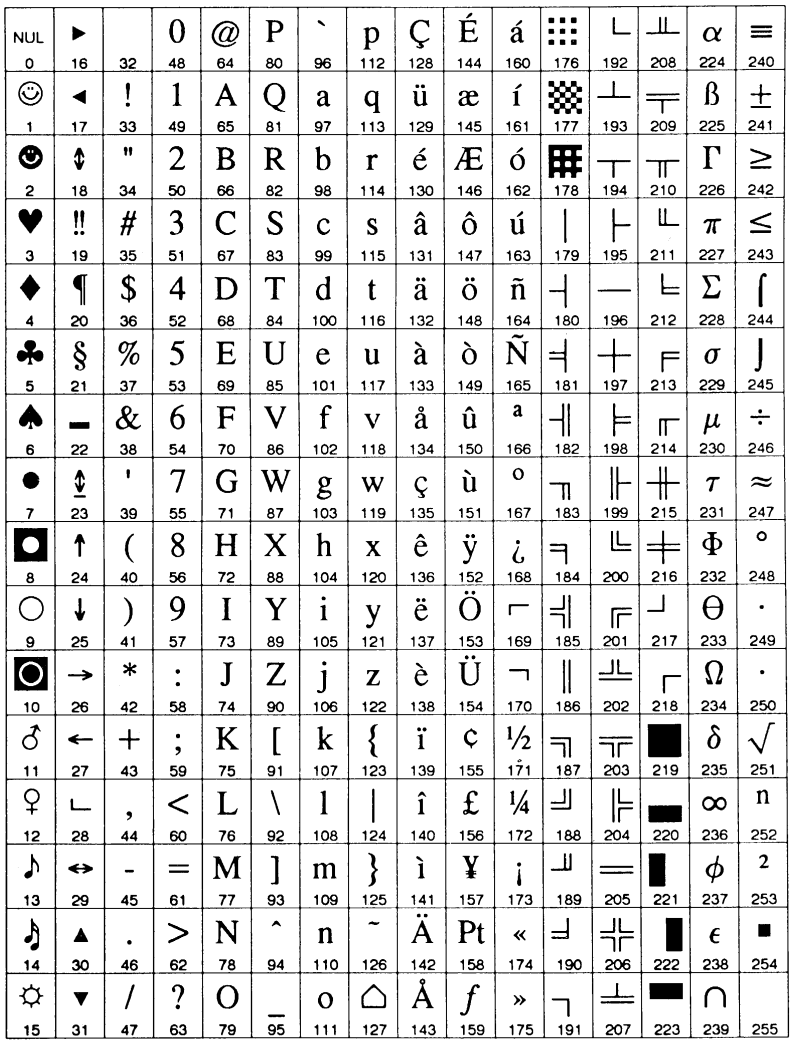
PCL Value: 6J

NUL 0	16	32	48	2 64	80	‘ 96	112	128	144	160	° 176	192	208	Ω 224	240
1	17	1 33	49	65	81	97	113	129	145	′ 161	● 177	ˋ 193	ˋ 209	225	241
2	18	” 34	50	66	Ŗ 82	98	114	130	146	″ 162	● 178	´ 194	´ 210	226	242
3	19	3 35	51	67	Š 83	℅ 99	š 115	131	147	^ 163	● 179	^ 195	^ 211	227	243
4	20	4 36	52	68	™ 84	100	Thin Space 116	132	148	~ 164	○ 180	˜ 196	˜ 212	228	244
5	21	5 37	53	69	85	101	117	133	149	165	○ 181	¯ 197	¯ 213	229	ı 245
6	22	7 38	54	70	86	102	118	134	150	166	◯ 182	˘ 198	˘ 214	IJ 230	ij 246
BEL 7	23	’ 39	55	71	87	103	119	135	151	167	■ 183	˙ 199	˙ 215	Ŀ 231	ŀ 247
BS 8	24	9 40	56	72	88	104	120	136	152	168	■ 184	¨ 200	¨ 216	Ł 232	ł 248
HT 9	25	0 41	57	73	Ÿ 89	105	121	137	153	fi 169	■ 185	201	217	233	249
LF 10	26	8 42	58	74	Ž 90	106	ž 122	138	154	fl 170	□ 186	° 202	° 218	234	250
VT 11	ESC 27	† 43	59	75	91	107	123	139	155	ff 171	□ 187	¸ 203	¸ 219	235	251
FF 12	28	, 44	” 60	76	92	ℓ 108	124	140	156	ffi 172	□ 188	204	220	236	252
CR 13	29	— 45	‡ 61	— 77	93	Em Space 109	125	141	157	ffl 173	‰ 189	˝ 205	˝ 221	237	253
SO 14	30	... 46	62	– 78	6 94	En Space 110	“ 126	142	Pt 158	‹ 174	◆ 190	˛ 206	˛ 222	238	254
SI 15	31	/ 47	63	Œ 79	= 95	œ 111	127	143	*f* 159	› 175	◇ 191	ˇ 207	ˇ 223	’n 239	255

Symbol Sets

ºC: PC-8 Symbol Set

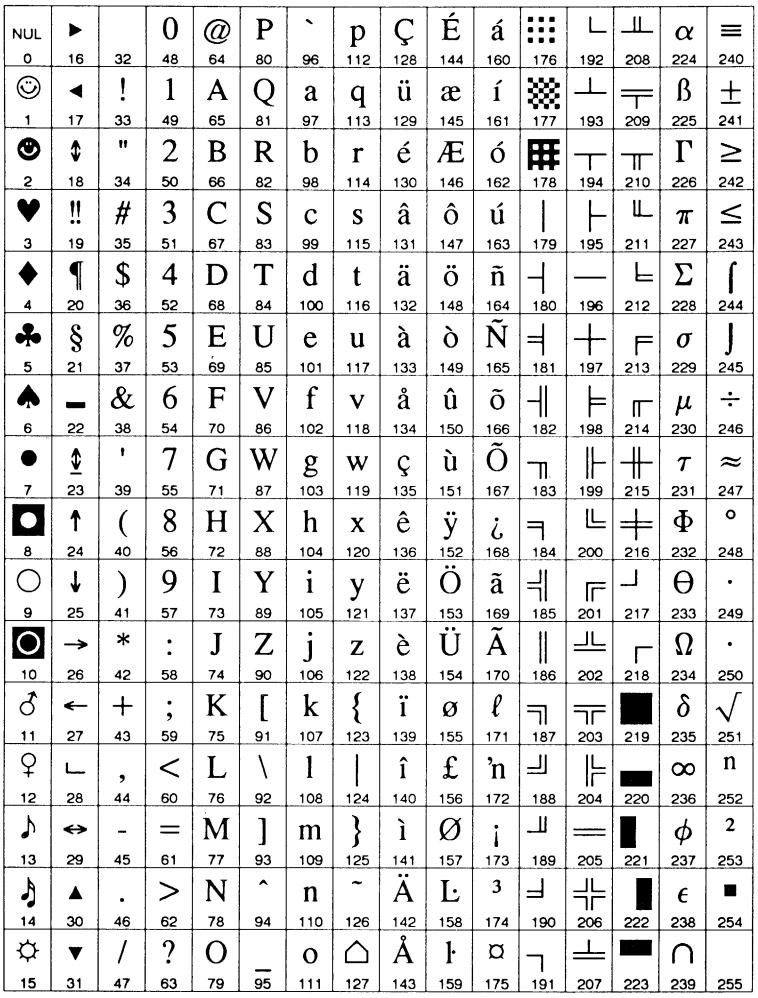
PCL Value: 1ØU



Symbol Sets

PC: PC-8 DN (Denmark/Norway) Symbol Set

PCL Value: 11U



PM: PC-850 Symbol Set

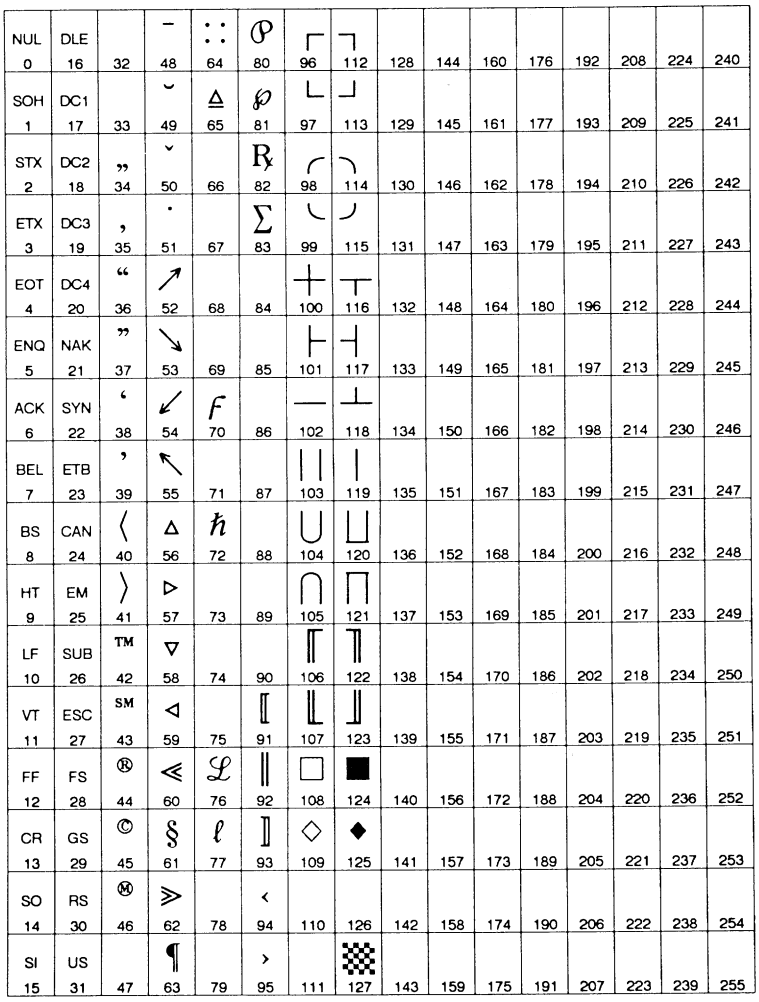
PCL Value: 12U

NUL 0	▶ 16	 32	0 48	@ 64	P 80	` 96	p 112	Ç 128	É 144	á 160	▒ 176	└ 192	ð 208	Ó 224	- 240
☺ 1	◀ 17	! 33	1 49	A 65	Q 81	a 97	q 113	ü 129	æ 145	í 161	▓ 177	┴ 193	Ð 209	ß 225	± 241
☻ 2	↕ 18	" 34	2 50	B 66	R 82	b 98	r 114	é 130	Æ 146	ó 162	▒ 178	┬ 194	Ê 210	Ô 226	‗ 242
♥ 3	‼ 19	# 35	3 51	C 67	S 83	c 99	s 115	â 131	ô 147	ú 163	│ 179	├ 195	Ë 211	Ò 227	¾ 243
♦ 4	¶ 20	$ 36	4 52	D 68	T 84	d 100	t 116	ä 132	ö 148	ñ 164	┤ 180	— 196	È 212	õ 228	¶ 244
♣ 5	§ 21	% 37	5 53	E 69	U 85	e 101	u 117	à 133	ò 149	Ñ 165	Á 181	┼ 197	ı 213	Õ 229	§ 245
♠ 6	▬ 22	& 38	6 54	F 70	V 86	f 102	v 118	å 134	û 150	ª 166	Â 182	ã 198	Í 214	µ 230	÷ 246
• 7	↨ 23	' 39	7 55	G 71	W 87	g 103	w 119	ç 135	ù 151	º 167	À 183	Ã 199	Î 215	þ 231	¸ 247
◘ 8	↑ 24	(40	8 56	H 72	X 88	h 104	x 120	ê 136	ÿ 152	¿ 168	© 184	╚ 200	Ï 216	Þ 232	° 248
○ 9	↓ 25	) 41	9 57	I 73	Y 89	i 105	y 121	ë 137	Ö 153	® 169	╣ 185	╔ 201	┘ 217	Ú 233	¨ 249
◙ 10	→ 26	* 42	: 58	J 74	Z 90	j 106	z 122	è 138	Ü 154	¬ 170	‖ 186	╩ 202	┌ 218	Û 234	· 250
♂ 11	← 27	+ 43	; 59	K 75	[91	k 107	{ 123	ï 139	ø 155	½ 171	╗ 187	╦ 203	■ 219	Ù 235	¹ 251
♀ 12	∟ 28	, 44	< 60	L 76	\ 92	l 108	| 124	î 140	£ 156	¼ 172	╝ 188	╠ 204	▄ 220	ý 236	³ 252
♪ 13	↔ 29	- 45	= 61	M 77	] 93	m 109	} 125	ì 141	Ø 157	¡ 173	¢ 189	═ 205	¦ 221	Ý 237	² 253
♫ 14	▲ 30	. 46	> 62	N 78	^ 94	n 110	~ 126	Ä 142	× 158	« 174	¥ 190	╬ 206	Ì 222	¯ 238	■ 254
☼ 15	▼ 31	/ 47	? 63	O 79	_ 95	o 111	⌂ 127	Å 143	ƒ 159	» 175	┐ 191	¤ 207	▌ 223	´ 239	 255

Symbol Sets

PI: Pi Font Symbol Set

PCL Value: 15U



NUL 0	DLE 16	32	48	64	80	96	112	128	144	160	176	192	208	224	240
SOH 1	DC1 17	33	49	65	81	97	113	129	145	161	177	193	209	225	241
STX 2	DC2 18	34	50	66	82	98	114	130	146	162	178	194	210	226	242
ETX 3	DC3 19	35	51	67	83	99	115	131	147	163	179	195	211	227	243
EOT 4	DC4 20	36	52	68	84	100	116	132	148	164	180	196	212	228	244
ENQ 5	NAK 21	37	53	69	85	101	117	133	149	165	181	197	213	229	245
ACK 6	SYN 22	38	54	70	86	102	118	134	150	166	182	198	214	230	246
BEL 7	ETB 23	39	55	71	87	103	119	135	151	167	183	199	215	231	247
BS 8	CAN 24	40	56	72	88	104	120	136	152	168	184	200	216	232	248
HT 9	EM 25	41	57	73	89	105	121	137	153	169	185	201	217	233	249
LF 10	SUB 26	42	58	74	90	106	122	138	154	170	186	202	218	234	250
VT 11	ESC 27	43	59	75	91	107	123	139	155	171	187	203	219	235	251
FF 12	FS 28	44	60	76	92	108	124	140	156	172	188	204	220	236	252
CR 13	GS 29	45	61	77	93	109	125	141	157	173	189	205	221	237	253
SO 14	RS 30	46	62	78	94	110	126	142	158	174	190	206	222	238	254
SI 15	US 31	47	63	79	95	111	127	143	159	175	191	207	223	239	255

Symbol Sets

MS: PS Math Symbol Set

PCL Value: 5M

NUL 0	DLE 16	 32	0 48	≅ 64	Π 80	‾ 96	π 112	 128	 144	 160	° 176	ℵ 192	∠ 208	◇ 224	 240
SOH 1	DC1 17	! 33	1 49	A 65	Θ 81	α 97	θ 113	 129	 145	ϒ 161	± 177	ℑ 193	∇ 209	⟨ 225	⟩ 241
STX 2	DC2 18	∀ 34	2 50	B 66	P 82	β 98	ρ 114	 130	 146	′ 162	″ 178	ℜ 194	® 210	® 226	∫ 242
ETX 3	DC3 19	# 35	3 51	X 67	Σ 83	χ 99	σ 115	 131	 147	≤ 163	≥ 179	℘ 195	© 211	© 227	⌠ 243
EOT 4	DC4 20	∃ 36	4 52	Δ 68	T 84	δ 100	τ 116	 132	 148	/ 164	× 180	⊗ 196	™ 212	™ 228	⎮ 244
ENQ 5	NAK 21	% 37	5 53	E 69	Y 85	ε 101	υ 117	 133	 149	∞ 165	∝ 181	⊕ 197	∏ 213	∑ 229	⌡ 245
ACK 6	SYN 22	& 38	6 54	Φ 70	ς 86	φ 102	ϖ 118	 134	 150	ƒ 166	∂ 182	∅ 198	√ 214	⎡ 230	⎤ 246
BEL 7	ETB 23	∍ 39	7 55	Γ 71	Ω 87	γ 103	ω 119	 135	 151	♣ 167	• 183	∩ 199	· 215	⎢ 231	⎢ 247
BS 8	CAN 24	(40	8 56	H 72	Ξ 88	η 104	ξ 120	 136	 152	♦ 168	÷ 184	∪ 200	¬ 216	⎣ 232	⎦ 248
HT 9	EM 25	) 41	9 57	I 73	Ψ 89	ι 105	ψ 121	 137	 153	♥ 169	≠ 185	⊃ 201	∧ 217	⎡ 233	⎤ 249
LF 10	SUB 26	* 42	: 58	ϑ 74	Z 90	φ 106	ζ 122	 138	 154	♠ 170	≡ 186	⊇ 202	∨ 218	⎢ 234	⎢ 250
VT 11	ESC 27	+ 43	; 59	K 75	[91	κ 107	{ 123	 139	 155	↔ 171	≈ 187	∉ 203	⇔ 219	⎣ 235	⎦ 251
FF 12	FS 28	, 44	< 60	Λ 76	∴ 92	λ 108	| 124	 140	 156	← 172	… 188	⊂ 204	⇐ 220	⎡ 236	⎤ 252
CR 13	GS 29	− 45	= 61	M 77	] 93	μ 109	} 125	 141	 157	↑ 173	| 189	⊆ 205	⇑ 221	{ 237	} 253
SO 14	RS 30	. 46	> 62	N 78	⊥ 94	ν 110	~ 126	 142	 158	→ 174	— 190	∈ 206	⇒ 222	⎣ 238	⎦ 254
SI 15	US 31	/ 47	? 63	O 79	_ 95	o 111	 127	 143	 159	↓ 175	↵ 191	∉ 207	⇓ 223	⎮ 239	 255

Symbol Sets

TS: PS Text Symbol Set

PCL Value: 1ØJ

NUL 0	DLE 16	 32	0 48	@ 64	P 80	‘ 96	p 112	 128	 144	 160	 176	 192	— 208	 224	 240
SOH 1	DC1 17	! 33	1 49	A 65	Q 81	a 97	q 113	 129	 145	¡ 161	– 177	` 193	 209	Æ 225	æ 241
STX 2	DC2 18	" 34	2 50	B 66	R 82	b 98	r 114	 130	 146	¢ 162	† 178	´ 194	 210	 226	 242
ETX 3	DC3 19	# 35	3 51	C 67	S 83	c 99	s 115	 131	 147	£ 163	‡ 179	ˆ 195	 211	a 227	 243
EOT 4	DC4 20	$ 36	4 52	D 68	T 84	d 100	t 116	 132	 148	/ 164	· 180	˜ 196	 212	 228	 244
ENQ 5	NAK 21	% 37	5 53	E 69	U 85	e 101	u 117	 133	 149	¥ 165	 181	¯ 197	 213	 229	ı 245
ACK 6	SYN 22	& 38	6 54	F 70	V 86	f 102	v 118	 134	 150	ƒ 166	¶ 182	˘ 198	 214	 230	 246
BEL 7	ETB 23	’ 39	7 55	G 71	W 87	g 103	w 119	 135	 151	§ 167	• 183	¸ 199	 215	 231	 247
BS 8	CAN 24	(40	8 56	H 72	X 88	h 104	x 120	 136	 152	¤ 168	, 184	¨ 200	 216	Ł 232	ł 248
HT 9	EM 25	) 41	9 57	I 73	Y 89	i 105	y 121	 137	 153	' 169	„ 185	 201	 217	Ø 233	ø 249
LF 10	SUB 26	* 42	: 58	J 74	Z 90	j 106	z 122	 138	 154	“ 170	” 186	° 202	 218	Œ 234	œ 250
VT 11	ESC 27	+ 43	; 59	K 75	[91	k 107	{ 123	 139	 155	« 171	» 187	¸ 203	 219	o 235	ß 251
FF 12	FS 28	, 44	< 60	L 76	\ 92	l 108	| 124	 140	 156	‹ 172	… 188	 204	 220	 236	 252
CR 13	GS 29	- 45	= 61	M 77	] 93	m 109	} 125	 141	 157	› 173	‰ 189	˝ 205	 221	 237	 253
SO 14	RS 30	. 46	> 62	N 78	^ 94	n 110	~ 126	 142	 158	fi 174	 190	˛ 206	 222	 238	 254
SI 15	US 31	/ 47	? 63	O 79	_ 95	o 111	 127	 143	 159	fl 175	¿ 191	ˇ 207	 223	 239	 255

Symbol Sets

R8: Roman-8 Symbol Set

PCL Value: 8U

NUL 0	DLE 16	 32	0 48	@ 64	P 80	‘ 96	p 112	 128	 144	 160	¯ 176	â 192	Å 208	Á 224	Þ 240
SOH 1	DC1 17	! 33	1 49	A 65	Q 81	a 97	q 113	 129	 145	À 161	Ý 177	ê 193	î 209	Ã 225	þ 241
STX 2	DC2 18	" 34	2 50	B 66	R 82	b 98	r 114	 130	 146	Â 162	ý 178	ô 194	Ø 210	ã 226	· 242
ETX 3	DC3 19	# 35	3 51	C 67	S 83	c 99	s 115	 131	 147	È 163	° 179	û 195	Æ 211	Đ 227	µ 243
EOT 4	DC4 20	$ 36	4 52	D 68	T 84	d 100	t 116	 132	 148	Ê 164	Ç 180	á 196	å 212	ð 228	¶ 244
ENQ 5	NAK 21	% 37	5 53	E 69	U 85	e 101	u 117	 133	 149	Ë 165	ç 181	é 197	í 213	Í 229	¾ 245
ACK 6	SYN 22	& 38	6 54	F 70	V 86	f 102	v 118	 134	 150	Î 166	Ñ 182	ó 198	ø 214	Ì 230	– 246
BEL 7	ETB 23	’ 39	7 55	G 71	W 87	g 103	w 119	 135	 151	Ï 167	ñ 183	ú 199	æ 215	Ó 231	¼ 247
BS 8	CAN 24	(40	8 56	H 72	X 88	h 104	x 120	 136	 152	´ 168	¡ 184	à 200	Ä 216	Ò 232	½ 248
HT 9	EM 25	) 41	9 57	I 73	Y 89	i 105	y 121	 137	 153	` 169	¿ 185	è 201	ì 217	Õ 233	a 249
LF 10	SUB 26	* 42	: 58	J 74	Z 90	j 106	z 122	 138	 154	^ 170	¤ 186	ò 202	Ö 218	õ 234	o 250
VT 11	ESC 27	+ 43	; 59	K 75	[91	k 107	{ 123	 139	 155	¨ 171	£ 187	ù 203	Ü 219	Š 235	« 251
FF 12	FS 28	, 44	< 60	L 76	\ 92	l 108	| 124	 140	 156	~ 172	¥ 188	ä 204	É 220	š 236	■ 252
CR 13	GS 29	- 45	= 61	M 77	] 93	m 109	} 125	 141	 157	Ù 173	§ 189	ë 205	ï 221	Ú 237	» 253
SO 14	RS 30	. 46	> 62	N 78	^ 94	n 110	~ 126	 142	 158	Û 174	*f* 190	ö 206	ß 222	Ÿ 238	± 254
SI 15	US 31	/ 47	? 63	O 79	_ 95	o 111	 127	 143	 159	£ 175	ç 191	ü 207	Ô 223	ÿ 239	 255

Symbol Sets

VI: Ventura International Symbol Set

PCL Value: 13J

NUL 0	DLE 16	 32	0 48	@ 64	P 80	‘ 96	p 112	 128	 144	„ 160	‰ 176	â 192	Å 208	Á 224	Œ 240
SOH 1	DC1 17	! 33	1 49	A 65	Q 81	a 97	q 113	 129	 145	À 161	“ 177	ê 193	î 209	Ã 225	œ 241
STX 2	DC2 18	" 34	2 50	B 66	R 82	b 98	r 114	 130	 146	Â 162	” 178	ô 194	Ø 210	ã 226	¶ 242
ETX 3	DC3 19	# 35	3 51	C 67	S 83	c 99	s 115	 131	 147	È 163	° 179	û 195	Æ 211	 227	† 243
EOT 4	DC4 20	$ 36	4 52	D 68	T 84	d 100	t 116	 132	 148	Ê 164	Ç 180	á 196	å 212	 228	‡ 244
ENQ 5	NAK 21	% 37	5 53	E 69	U 85	e 101	u 117	 133	 149	Ë 165	ç 181	é 197	í 213	Í 229	— 245
ACK 6	SYN 22	& 38	6 54	F 70	V 86	f 102	v 118	 134	 150	Î 166	Ñ 182	ó 198	ø 214	Ì 230	– 246
BEL 7	ETB 23	’ 39	7 55	G 71	W 87	g 103	w 119	 135	 151	Ï 167	ñ 183	ú 199	æ 215	Ó 231	 247
BS 8	CAN 24	(40	8 56	H 72	X 88	h 104	x 120	 136	 152	© 168	¡ 184	à 200	Ä 216	Ò 232	 248
HT 9	EM 25	) 41	9 57	I 73	Y 89	i 105	y 121	 137	 153	® 169	¿ 185	è 201	ì 217	Õ 233	a 249
LF 10	SUB 26	* 42	: 58	J 74	Z 90	j 106	z 122	 138	 154	™ 170	¤ 186	ò 202	Ö 218	õ 234	o 250
VT 11	ESC 27	+ 43	; 59	K 75	[91	k 107	{ 123	 139	 155	‹ 171	£ 187	ù 203	Ü 219	Š 235	« 251
FF 12	FS 28	, 44	< 60	L 76	\ 92	l 108	| 124	 140	 156	› 172	¥ 188	ä 204	É 220	š 236	• 252
CR 13	GS 29	- 45	= 61	M 77	] 93	m 109	} 125	 141	 157	Ù 173	§ 189	ë 205	ï 221	Ú 237	» 253
SO 14	RS 30	. 46	> 62	N 78	^ 94	n 110	~ 126	 142	 158	Û 174	*f* 190	ö 206	ß 222	Ÿ 238	 254
SI 15	US 31	/ 47	? 63	O 79	_ 95	o 111	 127	 143	 159	 175	ç 191	ü 207	Ô 223	ÿ 239	… 255

Symbol Sets

VM: Ventura Math Symbol Set

PCL Value: 6M

NUL 0	DLE 16	 32	0 48	≅ 64	Π 80	¯ 96	π 112	 128	 144	◇ 160	® 176	≤ 192	↓ 208	| 224	⎡ 240
SOH 1	DC1 17	! 33	1 49	A 65	Θ 81	α 97	θ 113	 129	 145	√ 161	⊃ 177	♦ 193	← 209	· 225	TM 241
STX 2	DC2 18	∀ 34	2 50	B 66	P 82	β 98	ρ 114	 130	 146	⎣ 162	⊇ 178	≥ 194	® 210	∠ 226	⇐ 242
ETX 3	DC3 19	# 35	3 51	X 67	Σ 83	χ 99	σ 115	 131	 147	⎡ 163	⌠ 179	∂ 195	″ 211	⌡ 227	⇔ 243
EOT 4	DC4 20	∃ 36	4 52	Δ 68	T 84	δ 100	τ 116	 132	 148	⎢ 164	 180	ℵ 196	ƒ 212	 228	∨ 244
ENQ 5	NAK 21	% 37	5 53	E 69	Y 85	ε 101	υ 117	 133	 149	⎣ 165	♣ 181	′ 197	ℑ 213	{ 229	Σ 245
ACK 6	SYN 22	& 38	6 54	Φ 70	ς 86	φ 102	ϖ 118	 134	 150	⎧ 166	⊕ 182	ℜ 198	© 214	⌠ 230	TM 246
BEL 7	ETB 23	∋ 39	7 55	Γ 71	Ω 87	γ 103	ω 119	 135	 151	⎢ 167	⊗ 183	℘ 199	± 215	⟩ 231	| 247
BS 8	CAN 24	(40	8 56	H 72	Ξ 88	η 104	ξ 120	 136	 152	⇑ 168	⊆ 184	∞ 200	→ 216	 232	⌡ 248
HT 9	EM 25	) 41	9 57	I 73	Ψ 89	ι 105	ψ 121	 137	 153	⇒ 169	∪ 185	♠ 201	↑ 217	¬ 233	∅ 249
LF 10	SUB 26	* 42	: 58	ϑ 74	Z 90	φ 106	ζ 122	 138	 154	⇓ 170	— 186	∝ 202	≠ 218	∇ 234	∩ 250
VT 11	ESC 27	+ 43	; 59	K 75	[91	κ 107	{ 123	 139	 155	∉ 171	… 187	• 203	≡ 219	⌠ 235	∈ 251
FF 12	FS 28	, 44	< 60	Λ 76	∴ 92	λ 108	| 124	 140	 156	⊂ 172	| 188	/ 204	° 220	| 236	© 252
CR 13	GS 29	− 45	= 61	M 77	] 93	μ 109	} 125	 141	 157	⌡ 173	∧ 189	♥ 205	↔ 221	⎤ 237	∉ 253
SO 14	RS 30	. 46	> 62	N 78	⊥ 94	ν 110	~ 126	 142	 158	⎢ 174	↵ 190	× 206	⎡ 222	⌡ 238	⎤ 254
SI 15	US 31	/ 47	? 63	O 79	_ 95	o 111	 127	 143	 159	} 175	≈ 191	ϒ 207	∫ 223	÷ 239	⟨ 255

Symbol Sets

VU: Ventura US

PCL Value: 14J

NUL 0	DLE 16	 32	0 48	@ 64	P 80	‘ 96	p 112	 128	 144	„ 160	‰ 176	 192	 208	 224	 240
SOH 1	DC1 17	! 33	1 49	A 65	Q 81	a 97	q 113	 129	 145	 161	“ 177	 193	 209	 225	 241
STX 2	DC2 18	" 34	2 50	B 66	R 82	b 98	r 114	 130	 146	 162	” 178	 194	 210	 226	¶ 242
ETX 3	DC3 19	# 35	3 51	C 67	S 83	c 99	s 115	 131	 147	 163	º 179	 195	 211	 227	† 243
EOT 4	DC4 20	$ 36	4 52	D 68	T 84	d 100	t 116	 132	 148	 164	 180	 196	 212	 228	‡ 244
ENQ 5	NAK 21	% 37	5 53	E 69	U 85	e 101	u 117	 133	 149	 165	 181	 197	 213	 229	— 245
ACK 6	SYN 22	& 38	6 54	F 70	V 86	f 102	v 118	 134	 150	 166	 182	 198	 214	 230	– 246
BEL 7	ETB 23	’ 39	7 55	G 71	W 87	g 103	w 119	 135	 151	 167	 183	 199	 215	 231	 247
BS 8	CAN 24	(40	8 56	H 72	X 88	h 104	x 120	 136	 152	© 168	 184	 200	 216	 232	 248
HT 9	EM 25	) 41	9 57	I 73	Y 89	i 105	y 121	 137	 153	® 169	 185	 201	 217	 233	 249
LF 10	SUB 26	* 42	: 58	J 74	Z 90	j 106	z 122	 138	 154	™ 170	 186	 202	 218	 234	 250
VT 11	ESC 27	+ 43	; 59	K 75	[91	k 107	{ 123	 139	 155	 171	 187	 203	 219	 235	 251
FF 12	FS 28	, 44	< 60	L 76	\ 92	l 108	| 124	 140	 156	 172	 188	 204	 220	 236	• 252
CR 13	GS 29	- 45	= 61	M 77	] 93	m 109	} 125	 141	 157	 173	§ 189	 205	 221	 237	 253
SO 14	RS 30	. 46	> 62	N 78	^ 94	n 110	~ 126	 142	 158	 174	 190	 206	 222	 238	 254
SI 15	US 31	/ 47	? 63	O 79	_ 95	o 111	 127	 143	 159	 175	ç 191	 207	 223	 239	… 255

Symbol Sets

WN: Windows

PCL Value: 9U

NUL 0	 16	 32	0 48	@ 64	P 80	` 96	p 112	 128	 144	 160	° 176	À 192	Ð 208	à 224	ð 240
 1	 17	! 33	1 49	A 65	Q 81	a 97	q 113	 129	‘ 145	¡ 161	± 177	Á 193	Ñ 209	á 225	ñ 241
 2	 18	" 34	2 50	B 66	R 82	b 98	r 114	 130	’ 146	¢ 162	² 178	Â 194	Ò 210	â 226	ò 242
 3	 19	# 35	3 51	C 67	S 83	c 99	s 115	 131	 147	£ 163	³ 179	Ã 195	Ó 211	ã 227	ó 243
 4	 20	$ 36	4 52	D 68	T 84	d 100	t 116	 132	 148	¤ 164	´ 180	Ä 196	Ô 212	ä 228	ô 244
 5	 21	% 37	5 53	E 69	U 85	e 101	u 117	 133	 149	¥ 165	µ 181	Å 197	Õ 213	å 229	õ 245
 6	 22	& 38	6 54	F 70	V 86	f 102	v 118	 134	 150	¦ 166	¶ 182	Æ 198	Ö 214	æ 230	ö 246
BEL 7	 23	' 39	7 55	G 71	W 87	g 103	w 119	 135	 151	§ 167	· 183	Ç 199	× 215	ç 231	÷ 247
BS 8	 24	(40	8 56	H 72	X 88	h 104	x 120	 136	 152	¨ 168	¸ 184	È 200	Ø 216	è 232	ø 248
HT 9	 25	) 41	9 57	I 73	Y 89	i 105	y 121	 137	 153	© 169	¹ 185	É 201	Ù 217	é 233	ù 249
LF 10	 26	* 42	: 58	J 74	Z 90	j 106	z 122	 138	 154	ª 170	º 186	Ê 202	Ú 218	ê 234	ú 250
VT 11	ESC 27	+ 43	; 59	K 75	[91	k 107	{ 123	 139	 155	« 171	» 187	Ë 203	Û 219	ë 235	û 251
FF 12	 28	, 44	< 60	L 76	\ 92	l 108	| 124	 140	 156	¬ 172	¼ 188	Ì 204	Ü 220	ì 236	ü 252
CR 13	 29	- 45	= 61	M 77	] 93	m 109	} 125	 141	 157	- 173	½ 189	Í 205	Ý 221	í 237	ý 253
SO 14	 30	. 46	> 62	N 78	^ 94	n 110	~ 126	 142	 158	® 174	¾ 190	Î 206	Þ 222	î 238	þ 254
SI 15	` 31	/ 47	? 63	O 79	_ 95	o 111	 127	 143	 159	¯ 175	¿ 191	Ï 207	ß 223	ï 239	ÿ 255

Roman-8 Character Conversion Tables

Roman-8 Character Conversion Tables

When the Roman-8 symbol set is downloaded to a PCL-based printer, it can be changed to other ISO symbol sets. The Roman-8 Symbol Set is displayed on p. 4-16.

The decimal value for each symbol indicated on the Roman-8 Symbol Set can be entered with a corresponding hexadecimal or octal value as shown in the Tables on the pages following. The type of entry that is required depends on specific requirements of your software.

Roman-8 Character Conversion Tables

Roman-8 Character Conversion Table

Graphic	Hexadecimal	Decimal	Octal	Description
	00	0	000	NUL (Null)
	01	1	001	SOH (Start of Heading)
	02	2	002	STX (Start of Text)
	03	3	003	ETX (End of Text)
	04	4	004	EOT (End of Transmission)
	05	5	005	ENQ (Enquiry)
	06	6	006	ACK (Acknowledge)
	07	7	007	BEL (Bell)
	08	8	010	BS (Backspace)
	09	9	011	HT (Horizontal Tabulation)
	0A	10	012	LF (Line Feed)
	0B	11	013	VT (Vertical Tabulation)
	0C	12	014	FF (Form Feed)
	0D	13	015	CR (Carriage Return)
	0E	14	016	SO (Shift Out)
	0F	15	017	SI (Shift In)
	10	16	020	DLE (Data Link Escape)
	11	17	021	DC1 (Device Control 1 or X-On)
	12	18	022	DC2 (Device Control 2)
	13	19	203	DC3 (Device Control 3 or X-Off)
	14	20	024	DC4 (Device Control 4)
	15	21	025	NAK (Negative Acknowledge)
	16	22	026	SYN (Synchronous Idle)
	17	23	027	ETB (End of Transmission Block)
	18	24	030	CAN (Cancel)
	19	25	031	EM (End of Medium)
	1A	26	032	SUB (Substitute)
	1B	27	033	ESC (Escape)
	1C	28	034	FS (File Separator)
	1D	29	035	GS (Group Separator)
	1E	30	036	RS (Record Separator)
	1F	31	037	US (Unit Separator)
	20	32	040	SP (Space)

Roman-8 Character Conversion Table (continued)

Graphic	Hexadecimal	Decimal	Octal	Description
!	21	33	041	Exclamation Point
"	22	34	042	Quotation Mark
#	23	35	043	Number Sign
$	24	36	044	Dollar Sign
%	25	37	045	Percent Sign
&	26	38	046	Ampersand
'	27	39	047	Closing Single Quote (Apostrophe)
(	28	40	050	Opening Parenthesis
)	29	41	051	Closing Parenthesis
*	2A	42	052	Asterisk
+	2B	43	053	Plus
,	2C	44	054	Comma
-	2D	45	055	Hyphen
.	2E	46	056	Period (Point)
/	2F	47	057	Slant (Solidus)
0	30	48	060	Zero
1	31	49	061	One
2	32	50	062	Two
3	33	51	063	Three
4	34	52	064	Four
5	35	53	065	Five
6	36	54	066	Six
7	37	55	067	Seven
8	38	56	070	Eight
9	39	57	071	Nine
:	3A	58	072	Colon
;	3B	59	073	Semicolon
<	3C	60	074	Less Than Sign
=	3D	61	075	Equal Sign
>	3E	62	076	Greater Than Sign
?	3F	63	077	Question Mark
@	40	64	100	Commercial At
A	41	65	101	Uppercase A

Roman-8 Character Conversion Table (continued)

Graphic	Hexadecimal	Decimal	Octal	Description
B	42	66	102	Uppercase B
C	43	67	103	Uppercase C
D	44	68	104	Uppercase D
E	45	69	105	Uppercase E
F	46	70	106	Uppercase F
G	47	71	107	Uppercase G
H	48	72	110	Uppercase H
I	49	73	111	Uppercase I
J	4A	74	112	Uppercase J
K	4B	75	113	Uppercase K
L	4C	76	114	Uppercase L
M	4D	77	115	Uppercase M
N	4E	78	116	Uppercase N
O	4F	79	117	Uppercase O
P	50	80	120	Uppercase P
Q	51	81	121	Uppercase Q
R	52	82	122	Uppercase R
S	53	83	123	Uppercase S
T	54	84	124	Uppercase T
U	55	85	125	Uppercase U
V	56	86	126	Uppercase V
W	57	87	127	Uppercase W
X	58	88	130	Uppercase X
Y	59	89	131	Uppercase Y
Z	5A	90	132	Uppercase Z
[	5B	91	133	Opening Square Bracket
\	5C	92	134	Reverse Slant
]	5D	93	135	Closing Bracket
^	5E	94	136	Caret (Circumflex)
_	5F	95	137	Underscore (Low Line)
`	60	96	140	Opening Single Quote
a	61	97	141	Lowercase a

Roman-8 Character Conversion Table (continued)

Graphic	Hexadecimal	Decimal	Octal	Description
b	62	98	142	Lowercase b
c	63	99	143	Lowercase c
d	64	100	144	Lowercase d
e	65	101	145	Lowercase e
f	66	102	146	Lowercase f
g	67	103	147	Lowercase g
h	68	104	150	Lowercase h
i	69	105	151	Lowercase i
j	6A	106	152	Lowercase j
k	6B	107	153	Lowercase k
l	6C	108	154	Lowercase l
m	6D	109	155	Lowercase m
n	6E	110	156	Lowercase n
o	6F	111	157	Lowercase o
p	70	112	160	Lowercase p
q	71	113	161	Lowercase q
r	72	114	162	Lowercase r
s	73	115	163	Lowercase s
t	74	116	164	Lowercase t
u	75	117	165	Lowercase u
v	76	118	166	Lowercase v
w	77	119	167	Lowercase w
x	78	120	170	Lowercase x
y	79	121	171	Lowercase y
z	7A	122	172	Lowercase z
{	7B	123	173	Opening Brace (Curly Bracket)
|	7C	124	174	Vertical Line
}	7D	125	175	Closing Brace (Curly Bracket)
~	7E	126	176	Approximate (tilde)
▒	7F	127	177	DEL (Delete)
	80	128	200	Undefined Control Code
	81	129	201	Undefined Control Code

Roman-8 Character Conversion Table (continued)

Graphic	Hexadecimal	Decimal	Octal	Description
	82	130	202	Undefined Control Code
	83	131	203	Undefined Control Code
	84	132	204	Undefined Control Code
	85	133	205	Undefined Control Code
	86	134	206	Undefined Control Code
	87	135	207	Undefined Control Code
	88	136	210	Undefined Control Code
	89	137	211	Undefined Control Code
	8A	138	212	Undefined Control Code
	8B	139	213	Undefined Control Code
	8C	140	214	Undefined Control Code
	8D	141	215	Undefined Control Code
	8E	142	216	Undefined Control Code
	8F	143	217	Undefined Control Code
	90	144	220	Undefined Control Code
	91	145	221	Undefined Control Code
	92	146	222	Undefined Control Code
	93	147	223	Undefined Control Code
	94	148	224	Undefined Control Code
	95	149	225	Undefined Control Code
	96	150	226	Undefined Control Code
	97	151	227	Undefined Control Code
	98	152	230	Undefined Control Code
	99	153	231	Undefined Control Code
	9A	154	232	Undefined Control Code
	9B	155	233	Undefined Control Code
	9C	156	234	Undefined Control Code
	9D	157	235	Undefined Control Code
	9E	158	236	Undefined Control Code
	9F	159	237	Undefined Control Code
	A0	160	238	Undefined Control Code

Roman-8 Character Conversion Tables

Roman-8 Character Conversion Table (continued)

Graphic	Hexadecimal	Decimal	Octal	Description
À	A1	161	241	Uppercase A Grave
Â	A2	162	242	Uppercase A Circumflex
È	A3	163	243	Uppercase E Grave
Ê	A4	164	244	Uppercase E Circumflex
Ë	A5	165	245	Uppercase E Dieresis
Î	A6	166	246	Uppercase I Circumflex
Ï	A7	167	247	Uppercase I Dieresis
´	A8	168	250	Lowercase Acute Accent
`	A9	169	251	Lowercase Grave Accent
^	AA	170	252	Lowercase Circumflex Accent
¨	AB	171	253	Lowercase Dieresis Accent
~	AC	172	254	Lowercase Tilde Accent
Ù	AD	173	255	Uppercase U Grave
Û	AE	174	256	Uppercase U Circumflex
£	AF	175	257	Italian Lira (Pound Sterling)
¯	B0	176	260	Overscore (High Line)
Ý	B1	177	261	Uppercase Y Acute
ý	B2	178	262	Lowercase Y Acute
°	B3	179	263	Degree
Ç	B4	180	264	Uppercase C Cedilla
ç	B5	181	265	Lowercase c Cedilla
Ñ	B6	182	266	Uppercase N Tilde
ñ	B7	183	267	Lowercase n Tilde
¡	B8	184	270	Inverted Exclamation Mark
¿	B9	185	271	Inverted Question Mark
¤	BA	186	272	General Currency Symbol
£	BB	187	273	Pound Sterling Sign
¥	BC	188	274	Yen Sign
§	BD	189	275	Section Mark
ƒ	BE	190	276	Dutch Guilder Symbol
¢	BF	191	277	Cent Sign
â	C0	192	300	Lowercase a Circumflex

Roman-8 Character Conversion Tables

Roman-8 Character Conversion Table (continued)

Graphic	Hexadecimal	Decimal	Octal	Description
ê	C1	193	301	Lowercase e Circumflex
ô	C2	194	302	Lowercase o Circumflex
û	C3	195	303	Lowercase u Circumflex
á	C4	196	304	Lowercase a Acute
é	C5	197	305	Lowercase e Acute
ó	C6	198	306	Lowercase o Acute
ú	C7	199	307	Lowercase u Acute
à	C8	200	310	Lowercase a Grave
è	C9	201	311	Lowercase e Grave
ò	CA	202	312	Lowercase o Grave
ù	CB	203	313	Lowercase u Grave
ä	CC	204	314	Lowercase a Dieresis
ë	CD	205	315	Lowercase e Dieresis
ö	CE	206	316	Lowercase o Dieresis
ü	CF	207	317	Lowercase u Dieresis
Â	D0	208	320	Uppercase A Bolle
î	D1	209	321	Lowercase i Circumflex
Ø	D2	210	322	Uppercase O Oblique
Æ	D3	211	323	Uppercase AE Diphthong
å	D4	212	324	Lowercase a Bolle
í	D5	213	325	Lowercase i Acute
ø	D6	214	326	Lowercase o Oblique
æ	D7	215	327	Lowercase ae diphthong
Ä	D8	216	330	Uppercase A Dieresis
ì	D9	217	331	Lowercase i Grave
Ö	DA	218	332	Uppercase O Dieresis
Ü	DB	219	333	Uppercase U Dieresis
É	DC	220	334	Uppercase E Acute
ï	DD	221	335	Lowercase i Dieresis
ß	DE	222	336	Lowercase es-zet ligature
Ô	DF	223	337	Uppercase O Circumflex
Á	E0	224	338	Uppercase A Acute

Roman-8 Character Conversion Table (continued)

Graphic	Hexadecimal	Decimal	Octal	Description
Ã	E1	225	341	Uppercase A Tilde
ã	E2	226	342	Lowercase a Tilde
Ð	E3	227	343	Uppercase Eth
ð	E4	228	344	Lowercase eth Icelandic
Í	E5	229	345	Uppercase I Acute
Ì	E6	230	346	Uppercase I Grave
Ó	E7	231	347	Uppercase O Acute
Ò	E8	232	350	Uppercase O Grave
Õ	E9	233	351	Uppercase O Tilde
õ	EA	234	352	Lowercase o Tilde
Š	EB	235	353	Uppercase S Hacek
š	EC	236	354	Lowercase s Hacek
Ú	ED	237	355	Uppercase U Acute
Ÿ	EE	238	356	Uppercase Y Dieresis
ÿ	EF	239	357	Lowercase y Dieresis
Þ	F0	240	360	Uppercase Thorn
þ	F1	241	361	Lowercase Thorn
·	F2	242	362	Lowercase Catalan Middle Dot
µ	F3	243	363	Lowercase mu (Micro)
¶	F4	244	364	Pilcrow (Paragraph Sign)
¾	F5	245	365	Vulgar Fraction - Three Fourths
–	F6	246	366	Minus Sign
¼	F7	247	367	Vulgar Fraction - One Fourth
½	F8	248	370	Vulgar Fraction - One Half
ª	F9	249	371	Female Ordinal
º	FA	250	372	Male Ordinal
«	FB	251	373	Left Pointing Guillemets (Quotes)
■	FC	252	374	Medium Solid Box
»	FD	253	375	Right Pointing Guillemets (Quotes)
±	FE	254	376	Plus Over Minus
	FF	255	377	Undefined

Section 5: PCL 5 Printer Commands

PCL 5 Printer Commands

The following page display the basic PCL 5 escape codes for job control, page control, cursor positioning font selection, font management, vector graphics, raster graphics, printing, macros, programming, palette extensions, and HP-GL/2.

To obtain additional printer related information, please visit Konica's Web site at http://www.konicabt.com.

Job Control Commands - Reset

Function	Parameter	Command		Decimal Value		Hexadecimal Value	
Reset	----------	E_cE		027 069		1B 45	
Number of Copies	# of Copies (1-99)	E_c&ℓ#X	(x)	027 038 108 #...# 088	(120)	1B 26 6C #...# 58	(78)
Long-Edge (left) Offset Registration	# of Decipoints (1/720")	E_c&ℓ#U	(u)	027 038 108 #...# 085	(117)	1B 26 6C #...# 55	(75)
Short-Edge (top) Offset Registration	# of Decipoints (1/720")	E_c&ℓ#Z	(z)	027 038 108 #...# 090	(122)	1B 26 6C #...# 5A	(7A)

Page Control: Page Length, Size, Orientation

Function	Parameter	Command		Decimal Value	Hexadecimal Value
Paper Source	Eject Page	E_c&ℓ0H	(h)	027 038 108 048 072	(104)	1B 26 6C 30 48	(68)
	Upper Tray	E_c&ℓ1H	(h)	027 038 108 049 072	(104)	1B 26 6C 31 48	(68)
	Manual Feed	E_c&ℓ2H	(h)	027 038 108 050 072	(104)	1B 26 6C 32 48	(68)
	Manual Envelope Feed	E_c&ℓ3H	(h)	027 038 108 051 072	(104)	1B 26 6C 33 48	(68)
	Lower Tray	E_c&ℓ4H	(h)	027 038 108 052 072	(104)	1B 26 6C 34 48	(68)
Page Size	Executive	E_c&ℓ1A	(a)	027 038 108 049 065	(97)	1B 26 6C 31 41	(61)
	Letter	E_c&ℓ2A	(a)	027 038 108 050 065	(97)	1B 26 6C 32 41	(61)
	Legal	E_c&ℓ3A	(a)	027 038 108 051 065	(97)	1B 26 6C 33 41	(61)
	A4	E_c&ℓ26A	(a)	027 038 108 050 054 065	(97)	1B 26 6C 32 36 41	(61)
Envelopes	Monarch	E_c&ℓ80A	(a)	027 038 108 056 048 065	(97)	1B 26 6C 38 30 41	(61)
	COM 10	E_c&ℓ81A	(a)	027 038 108 056 049 065	(97)	1B 26 6C 38 31 41	(61)
	DL	E_c&ℓ90A	(a)	027 038 108 057 048 065	(97)	1B 26 6C 39 30 41	(61)
	C5	E_c&ℓ91A	(a)	027 038 108 057 049 065	(97)	1B 26 6C 39 31 41	(61)
Page Length	# of Lines	E_c&ℓ#P	(p)	027 038 108 #...# 080	(112)	1B 26 6C #...# 50	(70)
Orientation	Portrait	E_c&ℓ0O	(o)	027 038 108 048 079	(111)	1B 26 6C 30 4F	(6F)
	Landscape	E_c&ℓ1O	(o)	027 038 108 049 079	(111)	1B 26 6C 31 4F	(6F)
	Reverse Portrait	E_c&ℓ2O	(o)	027 038 108 050 079	(111)	1B 26 6C 32 4F	(6F)
	Reverse Landscape	E_c&ℓ3O	(o)	027 038 108 051 079	(111)	1B 26 6C 33 4F	(6F)
Print Direction	# Degrees of Rotation (counterclockwise, 90° increments only)	E_c&a#P	(p)	027 038 097 #...# 080	(112)	1B 26 61 #...# 50	(70)

Page Control Commands - Margins and Text Length				
Function	Parameter	Command	Decimal Value	Hexadecimal Value
Top Margin	# of Lines	E_c&ℓ#E (e)	027 038 108 #...# 069 (101)	1B 26 6C #...# 45 (65)
Text Length	# of Lines	E_c&ℓ#F (f)	027 038 108 #...# 070 (102)	1B 26 6C #...# 46 (66)
Left Margin	# of Columns	E_c&ℓ#L (l)	027 038 097 #...# 076 (108)	1B 26 61 #...# 4C (6C)
Right Margin	# of Columns	E_c&a#M (m)	027 038 097 #...# 077 (109)	1B 26 61 #...# 4D (6D)
Clear Horizontal Margins	----------	E_c9	027 057	1B 39
Perforation Skip Mode				
Perforation Skip	Disable	E_c&ℓ0L (l)	027 038 108 048 076 (108)	1B 26 6C 30 4C (6C)
	Enable	E_c&ℓ1L (l)	027 038 108 049 076 (108)	1B 26 6C 31 4C (6C)
Horizontal Column Spacing				
Horizontal Motion Index (HMI)	# of 1/120" Increments	E_c&k#H (h)	027 038 107 #...# 048 72 (104)	1B 26 6B #...# 4B (68)
Vertical Line Spacing				
Vertical Motion Index (VMI)	# of 1/48" Increments	E_c&ℓ#C (c)	027 038 108 #...# 048 076 (99)	1B 26 6C #...# 43 (63)
Line Spacing (Lines per Inch)	1 line/inch	E_c&ℓ1D (d)	027 038 108 049 068 (100)	1B 26 6C 31 44 (64)
	2 lines/inch	E_c&ℓ2D (d)	027 038 108 050 068 (100)	1B 26 6C 32 44 (64)
	3 lines/inch	E_c&ℓ3D (d)	027 038 108 051 068 (100)	1B 26 6C 33 44 (64)
	4 lines/inch	E_c&ℓ4D (d)	027 038 108 052 068 (100)	1B 26 6C 34 44 (64)
	6 lines/inch	E_c&ℓ6D (d)	027 038 108 054 068 (100)	1B 26 6C 36 44 (64)
	8 lines/inch	E_c&ℓ8D (d)	027 038 108 056 068 (100)	1B 26 6C 38 44 (64)
	12 lines/inch	E_c&ℓ12D (d)	027 038 108 049 050 068 (100)	1B 26 6C 31 32 44 (64)
	16 lines/inch	E_c&ℓ16D (d)	027 038 108 049 054 068 (100)	1B 26 6C 31 36 44 (64)
	24 lines/inch	E_c&ℓ24D (d)	027 038 108 050 052 068 (100)	1B 26 6C 32 34 44 (64)
	48 lines/inch	E_c&ℓ48D (d)	027 038 108 052 056 068 (100)	1B 26 6C 34 38 44 (64)

Cursor Positioning - Vertical and Horizontal						
Function	Parameter	Command		Decimal Value		Hexadecimal Value
Vertical Position	# of Rows	E_c&a#R	(r)	027 038 097 #...# 082	(114)	1B 26 61 #...# 52 (72)
	# of Dots	E_c*p#Y	(y)	027 042 112 #...# 089	(121)	1B 2A 70 #...# 59 (79)
	# of Decipoints	E_c&a#V	(v)	027 038 097 #...# 086	(118)	1B 26 61 #...# 56 (76)
Horizontal Position	# of Columns	E_c&a#C	(c)	027 038 097 #...# 067	(99)	1B 26 61 #...# 43 (63)
	# of Dots	E_c*p#X	(x)	027 042 112 #...# 088	(120)	1B 2A 70 #...# 58 (78)
	# of Decipoints	E_c&a#H	(h)	027 038 097 #...# 072	(104)	1B 26 61 #...# 48 (68)
Half Line Feed		E_c =		027 061		1B 3D
End-of-Line Termination						
Line Termination	CR=CR; LF=LF; FF=FF	E_c&k0G	(g)	027 038 107 048 071	(103)	1B 26 6B 30 47 (67)
	CR=CR+LF; LF=LF; FF=FF	E_c&k1G	(g)	027 038 107 049 071	(103)	1B 26 6B 31 47 (67)
	CR=CR; LF=CR+LF; FF=CR+FF	E_c&k2G	(g)	027 038 107 050 071	(103)	1B 26 6B 32 47 (67)
	CR=CR+LF; LF=CR+LF FF=CR+FF	E_c&k3G	(g)	027 038 107 051 071	(103)	1B 26 6B 33 47 (67)
Push/Pop Position						
Push/Pop Position	Push	E_c&f0S	(s)	027 038 102 048 083	(115)	1B 26 66 30 53 (73)
	Pop	E_c&f1S	(s)	027 038 102 049 083	(115)	1B 26 66 31 53 (73)

Font Selection - Symbol Set Collection							
Function	Parameter	Command		Decimal Value		Hexadecimal Value	
Primary Symbol Set	ISO 60: Norwegian 1	E_c(ØD	(d)	027 040 048 068	(100)	1B 28 30 44	(64)
	ISO 61: Norwegian 2	E_c(1D	(d)	027 040 049 068	(100)	1B 28 31 44	(64)
	ISO 4: United Kingdom	E_c(1E	(e)	027 040 049 069	(101)	1B 28 31 45	(65)
	ISO 25: French (obsolete)	E_c(ØF	(f)	027 040 048 070	(102)	1B 28 30 46	(66)
	ISO 69: French	E_c(1F	(f)	027 040 049 070	(102)	1B 28 31 46	(66)
	HP German (obsolete)	E_c(ØG	(g)	027 040 048 071	(103)	1B 28 30 47	(67)
	ISO 21: German	E_c(1G	(g)	027 040 049 071	(103)	1B 28 31 47	(67)
	ISO 15: Italian	E_c(Øl	(i)	027 040 048 073	(105)	1B 28 30 49	(69)
	ISO 14: JIS ASCII	E_c(1K	(k)	027 040 048 075	(107)	1B 20 30 4B	(6B)
	ISO 57: Chinese	E_c(2K	(k)	027 040 050 075	(107)	1B 28 32 4B	(6B)
	ECMA-94 Latin 1	E_c(ØN	(n)	027 040 048 078	(110)	1B 28 30 4E	(6E)
	ISO 11: Swedish	E_c(ØS	(s)	027 040 048 083	(115)	1B 28 30 53	(73)
	HP Spanish (obsolete)	E_c(1S	(s)	027 040 049 083	(115)	1B 28 31 53	(73)
	ISO 17: Spanish	E_c(2S	(s)	027 040 050 083	(115)	1B 28 32 53	(73)
	ISO 10: Swedish	E_c(3S	(s)	027 040 051 083	(115)	1B 28 33 53	(73)
	ISO 16: Portuguese	E_c(4S	(s)	027 040 052 083	(115)	1B 28 34 53	(73)
	ISO 85: Spanish	E_c(5S	(s)	027 040 053 083	(115)	1B 28 35 53	(73)
	ISO 6: ASCII	E_c(6S	(s)	027 040 054 083	(115)	1B 28 36 53	(73)
	ISO 2: IRV	E_c(ØU	(u)	027 040 048 085	(117)	1B 28 30 55	(75)
	Roman8	E_c(2U	(u)	027 040 050 085	(117)	1B 28 32 55	(75)
	PC-8	E_c(8U	(u)	027 040 056 085	(117)	1B 28 38 55	(75)
	PC-8 D/N	E_c(10U	(u)	027 040 049 048 085	(117)	1B 28 31 30 55	(75)
	PC 850	E_c(11U	(u)	027 040 049 049 085	(117)	1B 28 31 31 55	(75)
		E_c(12U	(u)	027 040 049 050 085	(117)	1B 28 31 32 55	(75)
Spacing							
Primary Spacing	Proportional	E_c(s1P	(p)	027 040 115 049 080	(112)	1B 28 73 31 50	(70)
	Fixed	E_c(s0P	(p)	027 040 115 048 080	(112)	1B 28 73 30 50	(70)
Pitch							
Primary Pitch	# of Characters/Inch	E_c(s#H	(h)	027 040 115 #...# 072	(104)	1B 28 73 #...# 48	(68)
Set Pitch Mode	10.0	E_c&k0S	(s)	027 038 107 048 083	(115)	1B 26 6B 30 53	(73)
	Compressed (16.5-16.7)	E_c&k2S	(s)	027 038 107 050 083	(115)	1B 26 6B 32 53	(73)
	Elite (12.0)	E_c&k4S	(s)	027 038 107 052 083	(115)	1B 26 6B 34 53	(73)

Font Selection - Point Size					
Function	Parameter	Command	Decimal Value		Hexadecimal Value	
Primary Height	# Points	E_c(s#V (v)	027 040 115 #...# 086	(118)	1B 28 73 #...# 56	(76)
Style						
Primary Style	Upright	E_c(s0S (s)	027 040 115 048 083	(115)	1B 28 73 30 53	(73)
	Italic	E_c(s1S (s)	027 040 115 049 083	(115)	1B 28 73 31 53	(73)
Stroke Weight						
Primary Font	Ultra Thin	E_c(s-7B	027 040 115 -055 066	(98)	1B 28 73 -37 42	(62)
Stroke Weight	Extra Thin	E_c(s-6B	027 040 115 -054 066	(98)	1B 28 73 -36 42	(62)
	Thin	E_c(s-5B	027 040 115 -053 066	(98)	1B 28 73 -35 42	(62)
	Extra Light	E_c(s-4B	027 040 115 -052 066	(98)	1B 28 73 -34 42	(62)
	Light	E_c(s-3B	027 040 115 -051 066	(98)	1B 28 73 -33 42	(62)
	Demi Light	E_c(s-2B	027 040 115 -050 066	(98)	1B 28 73 -32 42	(62)
	Semi Light	E_c(s-1B	027 040 115 -049 066	(98)	1B 28 73 -31 42	(62)
	Medium (Normal)	E_c(s0B	027 040 115 048 066	(98)	1B 28 73 30 42	(62)
	Semi Bold	E_c(s1B	027 040 115 049 066	(98)	1B 28 73 31 42	(62)
	Demi Bold	E_c(s2B	027 040 115 050 066	(98)	1B 28 73 32 42	(62)
	Bold	E_c(s3B	027 040 115 051 066	(98)	1B 28 73 33 42	(62)
	Extra Bold	E_c(s4B	027 040 115 052 066	(98)	1B 28 73 34 42	(62)
	Black	E_c(s5B	027 040 115 053 066	(98)	1B 28 73 35 42	(62)
	Extra Black	E_c(s6B	027 040 115 054 066	(98)	1B 28 73 36 42	(62)
	Ultra Black	E_c(s7B	027 040 115 055 066	(98)	1B 28 73 37 42	(62)

Primary Typeface						
Typeface	Courier	E_c(s3T	(t)	027 040 115 051 084	(116)	1B 28 73 33 54 (74)
	Univers	E_c(s4148T	(t)	027 040 115 052 084	(116)	1B 28 73 34 54 (74)
	LinePrinter	E_c(s0T	(t)	027 040 115 048 084	(116)	1B 28 73 30 54 (74)
	CG Times	E_c(s4101T	(t)	027 040 115 053 084	(116)	1B 28 73 35 54 (74)
Font Default						
Font Default	Primary Font	E_c(3@		027 040 051 064		1B 28 33 40
	Secondary Font	E_c)3@		027 041 051 064		1B 29 33 40
Underline						
Underline	Enable Fixed	E_c&d0D	(d)	027 038 100 048 068	(100)	1B 26 64 30 44 (64)
	Enable Floating	E_c&d3D	(d)	027 038 100 051 068	(100)	1B 26 64 33 44 (64)
	Disable	E_cd@		027 038 100 064		1B 26 64 40
Transparent Print						
Print Data	# of Bytes	E_c&p#X[Data]		027 038 112 #...# 088		1B 26 70 #...# 58

Font Management - ID and Character Control

Function	Parameter	Command		Decimal Value		Hexadecimal Value	
Assign Font ID	Font ID #	E_c*c#D	(d)	027 042 099 #...# 068	(100)	1B 2A 63 #...# 44	(64)
Font and Character Control	Delete All Fonts	E_c*c0F	(f)	027 042 099 048 070	(102)	1B 2A 63 30 46	(66)
	Delete All Temporary Fonts	E_c*c1F	(f)	027 042 099 049 070	(102)	1B 2A 63 31 46	(66)
	Delete Last Font ID Specified	E_c*c2F	(f)	027 042 099 050 070	(102)	1B 2A 63 32 46	(66)
	Delete Last Character Specified	E_c*c3F	(f)	027 042 099 051 070	(102)	1B 2A 63 33 46	(66)
	Make Font Temporary	E_c*c4F	(f)	027 042 099 052 070	(102)	1B 2A 63 34 46	(66)
	Make Font Permanent	E_c*c5F	(f)	027 042 099 053 070	(102)	1B 2A 63 35 46	(66)
	Copy/Assign the Currently Invoked Font as Temporary	E_c*c6F	(f)	027 042 099 054 070	(102)	1B 2A 63 36 46	(66)
Font Selection by ID Number							
Select Font (with ID #)	ID # Primary Font	E_c(#X	(x)	027 040 #...# 088	(120)	1B 28 #...# 58	(78)
	ID # Secondary Font	E_c)#X	(x)	027 041 #...# 088	(120)	1B 28 #...# 58	(78)

Soft Font Creation

Function	Parameter	Command		Decimal Value		Hexadecimal Value	
Font Descriptor (Font Header)	# of Bytes	E_c)s#W[Data]		027 041 115 #...# 087		1B 29 73 #...# 57	
Download Character	# of Bytes	E_c(s#W[Data]		027 040 115 #...# 087		1B 28 73 #...# 57	
Character Code	Character Code # (decimal)	E_c*c#E	(e)	027 042 099 #...# 069	(101)	1B 2A 63 #...# 45	(65)

Vector Graphics								
Function	Parameter	Command		Decimal Value		Hexadecimal Value		
Enter HP-GL/2 Mode	Use Previous HP-GL/2 Pen Position	E_c%0B		027 037 048 066	(98)	1B 25 30 42	(62)	
	Use Current PCL CAP	E_c%1B		027 037 049 066	(98)	1B 25 31 42	(62)	
HP-GL/2 Plot Horizontal Size	Horizontal Size in Inches	E_c*c#K		027 042 099 #...# 075	(107)	1B 2A 63 #...# 4B	(6B)	
HP-GL/2 Plot Vertical Size	Vertical Size in Inches	E_c*c#L		027 042 099 #...# 076	(108)	1B 2A 63 #...# 4C	(6C)	
Set Picture Frame Anchor Point	Set Anchor Point to CAP	E_c*c0T		027 042 099 048 084	(116)	1B 2A 63 30 54	(74)	
Picture Frame Horizontal Size	Decipoints	E_c*c#X		027 042 99 #...# 088	(120)	1B 2A 63 #...# 58	(78)	
Picture Frame Vertical Size	Decipoints	E_c*c#Y		027 042 99 #...# 089	(121)	1B 2A 63 #...# 59	(79)	
Raster Graphics								
Raster Resolution	75 Dots/Inch	E_c*t75R	(r)	027 042 116 055 053 082	(114)	1B 2A 74 37 35 52	(52)	
	100 Dots/Inch	E_c*t100R	(r)	027 042 116 049 048 048 082	(114)	1B 2A 74 31 30 30 52	(72)	
	150 Dots/Inch	E_c*t150R	(r)	027 042 116 049 053 048 082	(114)	1B 2A 74 31 35 30 52	(72)	
	300 Dots/Inch	E_c*t300R	(r)	027 042 116 051 048 048 082	(114)	1B 2A 74 33 30 30 52	(72)	

Graphics - Raster Graphics Presentation

Function	Parameter	Command		Decimal Value	Hexadecimal Value	
Raster Graphics Presentation	Rotate Image	E_c*r0F	(f)	027 042 114 048 070	1B 2A 72 30 46	(66)
	LaserJet	E_c*r3F	(f)	027 042 114 051 070	1B 2A 72 33 46	(66)
	Landscape Compatible					
Start Raster Graphics	Left Raster Graphics Margin	E_c*r0A	(a)	027 042 114 048 065	1B 2A 72 30 41	(61)
	Current Cursor	E_c*r1A	(a)	027 042 114 049 065	1B 2A 72 31 41	(61)
Raster Y Offset	# of Raster Lines of Vertical Movement	E_c*b#Y	(y)	027 042 098 #...# 089	1B 2A 62 #...# 59	(79)
Set Raster Compression Mode	Uncoded	E_c*b0M	(m)	027 042 098 048 077	1B 2A 62 30 41	(6D)
	Run-Length Encoded	E_c*b1M	(m)	027 042 098 049 077	1B 2A 62 31 41	(6D)
	Tagged Image File Format	E_c*b2M	(m)	027 042 098 050 077	1B 2A 62 32 41	(6D)
	Delta Row	E_c*b3M	(m)	027 042 098 051 077	1B 2A 72 33 41	(6D)
Transfer Raster Data	# of Bytes	E_c*b#W[Data]		027 042 098 #...# 087	1B 2A 62 #...# 57	
End Raster Graphics	---------	E_c*rB	(b)	027 042 114 066	1B 2A 72 42	(62)
Raster Height	# of Raster Rows	E_c*r#T	(t)	027 042 114 #...# 084	1B 2A 72 #...# 54	(74)
Raster Width	# of Pixels of the Specified Resolution	E_c*r#S	(s)	027 042 114 #...# 083	1B 2A 72 #...# 53	(73)

Print Model - Imaging					
Function	Parameter	Command	Decimal Value		Hexadecimal Value
Select Pattern	Solid Black (default)	E_c*v0T	027 042 118 048 084	(116)	1B 2A 76 30 54 (74)
	Solid White	E_c*v1T	027 042 118 049 084	(116)	1B 2A 76 31 54 (74)
	HP-Defined Shading Pattern	E_c*v2T	027 042 118 050 084	(116)	1B 2A 76 32 54 (74)
	HP-Defined Cross-Hatched Pattern	E_c*v3T	027 042 118 051 084	(116)	1B 2A 76 33 54 (74)
Select Source Transparency Mode	Transparent	E_c*v0N	027 042 118 048 078	(110)	1B 2A 76 31 42 (6E)
	Opaque	E_c*v1N	027 042 118 049 078	(110)	1B 2A 76 31 42 (6E)
Select Pattern Transparency Mode	Transparent	E_c*v0O	027 042 118 048 079	(111)	1B 2A 76 30 43 (6F)
	Opaque	E_c*v1O	027 042 118 049 079	(111)	1B 2A 76 31 43 (6F)
Rectangle Dimensions					
Rectangle Width (Horizontal Size)	# of Dots	E_c*c#A (a)	027 042 099 #...# 065	(97)	1B 2A 63 #...# 41 (61)
	# of Decipoints	E_c*c#H (h)	027 042 099 #...# 072	(104)	1B 2A 63 #...# 48 (68)
Rectangle Height (Vertical Size)	# of Dots	E_c*c#B (b)	027 042 099 #...# 066	(98)	1B 2A 63 #...# 42 (62)
	# of Decipoints	E_c*c#V (v)	027 042 099 #...# 086	(118)	1B 2A 63 #...# 56 (76)

Print Model - Rectangular Area Fill

Function	Parameter	Command	Decimal Value		Hexadecimal Value	
Fill Rectangular Area	Solid Black	E_c*c0P	027 042 099 048 080	(112)	1B 2A 63 30 50	(70)
	Erase (Solid White Area Fill)	E_c*c1P	027 042 099 049 080	(112)	1B 2A 63 31 50	(70)
	Shaded Fill	E_c*c2P	027 042 099 050 080	(112)	1B 2A 63 32 50	(70)
	Cross-Hatched Fill	E_c*c3P	027 042 099 050 080	(112)	1B 2A 63 33 50	(70)
	User Defined	E_c*c4P	027 042 099 052 080	(112)	1B 2A 63 34 50	(70)
	Current Pattern	E_c*c5P	027 042 099 053 080	(112)	1B 2A 63 35 50	(70)
Pattern ID	% of Shading or Type of Pattern	E_c*c#G	027 042 099 #...# 071	(103)	1B 2A 63 #...# 47	(67)
Shading	2% Gray	E_c*c2G	027 042 099 050 071	(103)	1B 2A 63 32 47	(67)
	10% Gray	E_c*c10G	027 042 099 049 048 071	(103)	1B 2A 63 31 30 47	(67)
	15% Gray	E_c*c15G	027 042 099 049 053 071	(103)	1B 2A 63 31 35 47	(67)
	30% Gray	E_c*c30G	027 042 099 051 048 071	(103)	1B 2A 63 33 30 47	(67)
	45% Gray	E_c*c45G	027 042 099 052 053 071	(103)	1B 2A 63 34 35 47	(67)
	70% Gray	E_c*c70G	027 042 099 055 048 071	(103)	1B 2A 63 37 30 47	(67)
	90% Gray	E_c*c90G	027 042 099 057 048 071	(103)	1B 2A 63 39 30 47	(67)
	100% Gray	E_c*c100G	027 042 099 049 048 048 071	(103)	1B 2A 63 31 30 30 47	(67)
Pattern	1 Horizontal Line	E_c*c1G	027 042 099 049 071	(103)	1B 2A 63 31 47	(67)
	2 Vertical Lines	E_c*c2G	027 042 099 050 071	(103)	1B 2A 63 32 47	(67)
	3 Diagonal Lines	E_c*c3G	027 042 099 051 071	(103)	1B 2A 63 33 47	(67)
	4 Diagonal Lines	E_c*c4G	027 042 099 052 071	(103)	1B 2A 63 34 47	(67)
	5 Square Grid	E_c*c5G	027 042 099 053 071	(103)	1B 2A 63 35 47	(67)
	6 Diagonal Grid	E_c*c6G	027 042 099 054 071	(103)	1B 2A 63 36 47	(67)

Macros				
Function	Parameter	Command	Decimal Value	Hexadecimal Value
Macro ID	Macro ID #	E_c&f#Y (y)	027 038 102 #...# 089 (121)	1B 26 66 #...# 59 (79)
Macro Control	Start Macro Definition	E_c&f0X (x)	027 038 102 048 088 (120)	1B 26 66 30 58 (78)
	Stop Macro Definition	E_c&f1X (x)	027 038 102 049 088 (120)	1B 26 66 31 58 (78)
	Executive Macro	E_c&f2X (x)	027 038 102 050 088 (120)	1B 26 66 32 58 (78)
	Call Macro	E_c&f3X (x)	027 038 102 051 088 (120)	1B 26 66 33 58 (78)
	Enable Overlay	E_c&f4X (x)	027 038 102 052 088 (120)	1B 26 66 34 58 (78)
	Disable Overlay	E_c&f5X (x)	027 038 102 053 088 (120)	1B 26 66 35 58 (78)
	Delete Macros	E_c&f6X (x)	027 038 102 054 088 (120)	1B 26 66 36 58 (78)
	Delete All Temporary Macros	E_c&f7X (x)	027 038 102 055 088 (120)	1B 26 66 37 58 (78)
	Delete Macro ID	E_c&f8X (x)	027 038 102 056 088 (120)	1B 26 66 38 58 (78)
	Make Temporary	E_c&f9X (x)	027 038 102 057 088 (120)	1B 26 66 39 58 (78)
	Make Permanent	E_c&f10X (x)	027 038 102 049 048 088 (120)	1B 26 66 31 30 58 (78)

Programming Hints				
Function	Parameter	Command	Decimal Value	Hexadecimal Value
Display Functions	On	E_cY	027 089	1B 59
	Off	E_cZ	027 090	1B 5A
End-of-Line Wrap	Enabled	E_c&s0C (c)	027 038 115 048 067 (99)	1B 26 73 30 43 (63)
	Disabled	E_c&s1C (c)	027 038 115 049 067 (99)	1B 26 73 31 43 (63)

Dual Context Extensions

Command	Mnemonic	Parameters
Enter PCL Mode	Esc%#A	0 - Retain Previous PCL Cursor Position and Palette 1 - Use Current HPGL Pen Position and Palette
Reset	EscE	None
Primary Font	FI	Font_ID
Secondary Font	FN	Font_ID
Scalable or Bitmapped Fonts	SB	0 - Scalable Fonts Only 1 - Bitmapped Fonts Allowed

Palette Extensions

Command	Mnemonic	Parameters
Transparency Mode	TR	0 - Off (Opaque) 1 - On (Transparent)
Number of Pens	NP	2,4,8
Screened Vectors	SV	[screen_type[,shading[,index]]]

HP-GL/2 Kernel - Vector Group		
Command	Mnemonic	Parameters
Arc Absolute	AA	x__center,y__center,swewp__angle [,chord__angle];
Arc Relative	AR	x__increment,y__increment,sweep__angle
Absolute Arc Three Point	AT	[,chord__angle]; x__inter,y__inter,x__end,y__end
Plot Absolute	PA	[,chord__angle];
Plot Relative	PR	[x,y...[,x,y]];
Pen Down	PD	[x,y...[,x,y]];
Pen Up	PU	[x,y...[,x,y]];
Relative Arc Three Point	RT	[x,y...[,x,y]]; x__incr__inter,y__incr__inter,x__incr__end,y__incr-end
Polyline Encoded	PE	[,chord__angle]; [flag[val]'coord__pair...[flag[val]'coord__pair]];
Polygon Group		
Circle	CI	radius[,chord__angle];
Fill Rectangle Absolute	RA	x__coordinate,y__cordinate;
Fill Rectangle Relative	RR	x__increment,y__increment;
Edge Rectangle Absolute	EA	x__coordinate,y__coordinate;
Edge Rectangle Relative	ER	x__increment,y__increment;
Fill Wedge	WG	radius,start__angle,sweep__angle [,chord__angle];
Edge Wedge	EW	radius,start__angle,sweep__angle [,chord__angle];
Polygon Mode	PM	polygon__definition;
Fill Polygon	FP	
Edge Polygon	EP	

HP-GL/2 Kernel - Character Group		
Command	Mnemonic	Parameters
Select Standard Font	SS	
Select Alternate Font	SA	
Absolute Direction	DI	[run,rise];
Relative Direction	DR	[run,rise];
Absolute Character Size	SI	[width,height];
Relative Character Size	SR	[width,height]
Character Slant	SL	[tangent__of__angle];
Extra Space	ES	[width [,height]]
Standard Font Definition	SD	[kind,value...[,kind,value]]
Alternate Font Definition	AD	[kind,value...[,kind,value]];
Character Fill Mode	CF	[fill__mode[,edge__pen]];
Label Origin	LO	[position];
Label	LB	[char... [char]]1bterm
Define Label Terminator	DT	[1bterm[model]];
Character Plot	CP	[spaces,lines];
Transparent Data	TD	[model];
Define Variable Text Path	DV	[path,[line]];

HP-GL/2 Kernel - Line and Fill Attributes Group		
Command	Mnemonic	Parameters
Line Type	LT	[line__type[,pattern__length[,mode]]];
Line Attributes	LA	[kind,value...[,kind,value]];
Pen Width	PW	[width[,pen]];
Pen Width Unit Selection	WU	[type];
Select Pen	SP	[pen];
Symbol Mode	SM	[char];
Fill Type	FT	[fill__type[,option 1[option 2]]];
Anchor Corner	AC	[x__coordinate,y__coordinate;]
Raster Fill Definition	RF	[index[,width,height,pen__nbr...pen__nbr]];
User-Defined Line Type	UL	[index[gap 1...gapn]];
Configuration and Status Group		
Scale	SC	[x1,x2,y2[,type[,left,bottom]]]; OR [x1,xfactor,y1,yfactor,2];
Input Window	IW	[xLL,yLL,xUR,yUR];
Input P1 and P2	IP	[p1x,p1y[,p2x,p2y]];
Input Relative P1 and P2	IR	[p1x,p1y[,p2x,p2y]];
Default Values	DF	
Initialize	IN	[n];
Rotate Coordinate System	RO	[angle];
Advance Full Page	PG	[n];
Replot	RP	[n];

KONICA BUSINESS TECHNOLOGIES, INC.
500 Day Hill Road
Windsor, CT 06095
Telephone: (860) 683-2222
0P-IP411-01

Printed in U.S.A. **November 1999**