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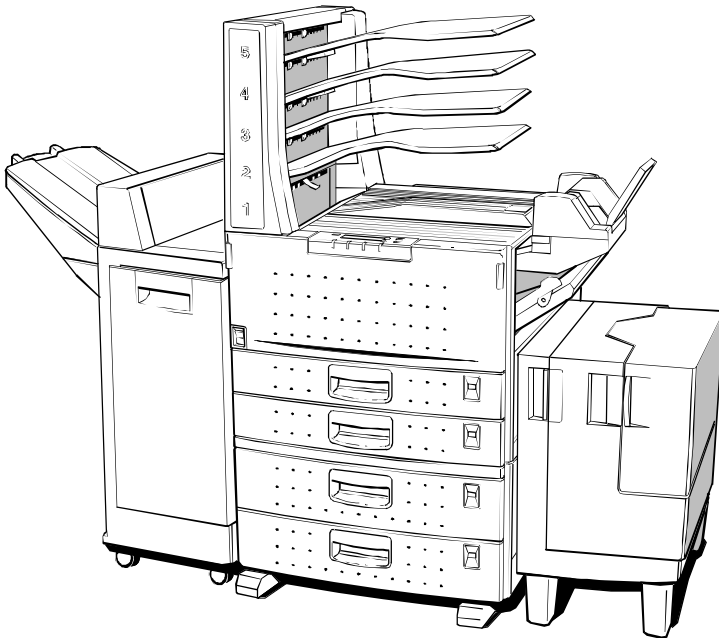
MP01

Printer Driver / Utility Reference
<PCL and TIFF>

Operating Instructions

Read this manual carefully before you use this product and keep it handy for future reference. For safety, please follow the instructions in this manual.

Important

Parts of this manual are subject to change without prior notice.
In no event will the company be liable for direct, indirect, special, incidental,
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INTRODUCTION

We have three manuals that describe the operational procedures separately for the operation and maintenance of the machine, the operation of Printer Driver/ Utility <PCL and TIFF> and the operation of Printer Driver/Utility <PostScript®- option>.

This manual contains detailed instructions on the installation and use of PCL and TIFF printer drivers for Windows 3.1 and 95. To insure safe and efficient operation of the printer, all users should read and follow the instructions contained in this manual.

Printer Reference

> Describes the optional procedures and functions of the printer including loading paper, use of the Control Panel and other operational tasks.

Printer Driver/Utility Reference <PCL and TIFF> (this manual)

> Describes the operational procedures and functions to use PCL and TIFF driver.

Printer Driver/Utility Reference <PostScript®-option>

> Describes the operational procedures and functions to use PostScript® (option) driver.

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1. USING THE PCL5e PRINTER DRIVER

USING THE PCL5e
PRINTER DRIVER

OVERVIEW

This chapter provides information on setting up and using the PCL5e printer driver software provided with the printer.

Note: *To use this printer with a Macintosh computer, you must install the PostScript® option.* ☛ *Refer to the "Printer Driver/Utility Reference <PostScript®- option>" for more information.*

PRINTER SOFTWARE

Your printer is provided with software containing PCL5e and TIFF printer drivers for Windows 3.1 and Windows 95.

☛ Refer to the "Using the TIFF Printer Driver" chapter for information on installing and using the TIFF printer driver.

Installing the PCL5e Printer Driver on Windows 3.1

The PCL5e printer driver is provided on one 3.5-inch diskette. Follow these steps to install the PCL5e printer driver on your Windows 3.1 system:

1 Insert the "PCL Printer Driver for Windows 3.1" diskette in the 3.5-inch drive on the host computer.

2 Close all the applications that are currently running.

3 From the Program Manager, double-click on the **Main** icon and then double-click on the **Control Panel** icon.

4 From the Control Panel window, double-click on the **Printers** icon. The List of Printers window displays.

5 In the List of Printers window, scroll to the top of the list and select **Install Unlisted or Updated Printers**.

6 Click the **[Install]** button. The Install Driver window displays.

7 From the Install Driver window, select the drive in which the installation diskette is located and click **[OK]**. The Add Unlisted or Updated Printer window displays, listing your printer name.

8 Click **[OK]** to complete the installation.

Installing the PCL5e Printer Driver on Windows 95

The PCL5e printer driver is provided on one 3.5-inch diskette. Follow these steps to install the PCL5e printer driver on your Windows 95 system:

1 Insert the "PCL Printer Driver for Windows 95" diskette in the 3.5-inch drive on the host computer.

2 Close all the applications that are currently running.

3 Click **[Start]** and select **Printers** from the Settings submenu. The Printers window displays.

4 From the Printers window, double-click on the **Add Printers** icon. The Printer Wizard window displays.

5 From the Printer Wizard window, click **[Next>]**. The list of printers displays.

6 Click **[Have Disk]**. The Install From Disk window displays.

7 In the Install From Disk window, type the letter for the drive containing the installation diskette and click **[OK]**. Your printer name displays.

8 Click **[Next>]** and follow the instructions that display on the screen to complete the installation.

USING THE WINDOWS PCL DRIVER

You use the standard Windows 3.1 or Windows 95 PCL printer driver software to print documents from your applications. You can also use the PCL driver to change printer settings independently of your applications.

Note: *You can use the printer Control Panel to change many of these settings. However, the selections you make using the printer driver software override your Control Panel selections, and the selections made in the Print window of most applications override both the printer driver and the Control Panel settings.*

Accessing Printer Settings

In general, you access printer settings by selecting **Print** from the File menu, and clicking the **[Properties]** button, or by selecting **Print Setup** from the File menu when available from your application.

You can also access the printer settings using your operating system. Follow these steps to access the Setup window available on the PCL5e driver for Windows 3.1:

1 Access the Control Panel and double-click on the **Printers** icon.
A list of the currently available printers displays.

2 Select the line for your printer, highlighting the entire line. The Printer window displays, providing a list of the currently listed print jobs.

3 Click the **[Setup]** button to access the Setup window.

Follow these steps to access the Properties window available on the PCL5e driver for Windows 95:

1 Click **[Start]** and select **Printers** from the Settings submenu.
The Printers window displays.

2 Double-click on your printer name. Your printer window displays, providing a list of the currently listed print jobs.

3 Select **Properties** from the Printer menu available on your window. The Properties window displays.

When you access the Properties window using the Settings submenu, it contains the following tabs. You use these tabs to specify the parameters and options you want to use for your print job.

Note1: *The Sharing Tab appears only when the printer is accessed through a Network.*

Note2: *When you access the Properties window using the Print window of an application, only Setup, Paper, Print Quality and Overlays are accessed.*

❒ **General Tab**
❒ **Details Tab**
❒ **Sharing Tab**
❒ **Setup Tab**
❒ **Paper Tab**
❒ **Print Quality Tab**
❒ **Accessories Tab**
❒ **Overlays Tab**
❒ **Fonts Tab**

General Tab

The General tab displays only when you access the Properties window by selecting **Printers** from the Settings submenu. This tab contains general description information about the printer, and allows you to print a test page.
☛ Refer to the documentation provided with your operating system for further information on this tab.

Details Tab

The Details tab displays only when you access the Properties window by selecting **Printers** from the Settings submenu. This tab contains setup information about the printer driver and the printer ports. ☛ Refer to the documentation provided with your operating system for further information on this tab.

Sharing Tab

The Sharing tab displays only when you access the Properties window by selecting **Printers** from the Settings submenu. This tab contains setup information about how the printer will be shared, naming conventions and password control. ☛ Refer to the documentation provided with your operating system for further information on this tab.

Note: *This Tab appears only when the printer is accessed through a Network.*

Setup Tab

To access the Setup tab, from the Properties window, click on the Setup tab. You can see the Paper Size, Input Paper Source and Output Paper Source.

Setup Tab Parameters

You use the Set up tab to specify printer settings for the current print job. The parameters you can specify on the Setup tab are as follows:

Copies
Use your keyboard, or the incremental spin box, to specify the number of copies you want to print. You can specify from **1** to **999** copies.

The default value is **1**.

Orientation
Click the radio button that corresponds to the image orientation you want to use. The options are as follows:

❐ **Portrait** - prints with the left margin along the long side of the paper.

❐ **Landscape** - prints with the left margin along the short side of the paper.

The default value is **Portrait**.

Collate

You use this selection to enable the disk-based collation feature. With this feature, the printer can efficiently print collated sets of a multiple-page document by temporarily storing the document on the printer hard disk. This selection displays only when the optional hard disk is installed. The options are as follows:

❐ **On** (check box checked) - enables disk-based collation.

❐ **Off** (check box not checked) - disables disk-based collation.

The default value is **Off**.

Note: *The collate function, located in the Print window of your application, must be turned off if you set this Collate option to* **On**. *Otherwise, you will get multiple sets of your collated job.*
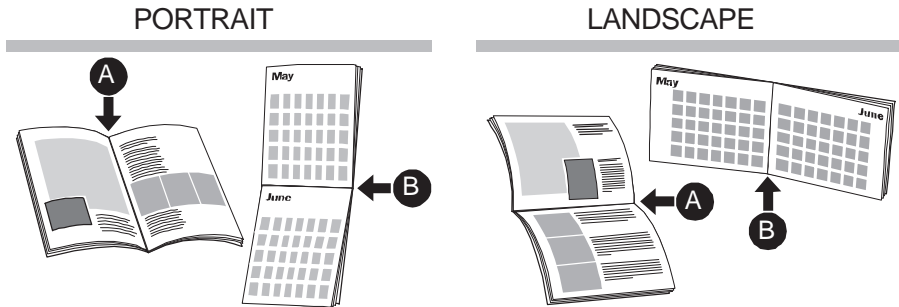
Duplex

Use the radio buttons to specify the format of duplex output. The options are as follows:

❐ **Off** - disables duplex printing.

❐ **Long Edge** - when printing in Portrait orientation, use this setting when you want to bind your output along the left edge of the paper, like a book. In Landscape orientation, this setting produces output that you can bind along the top edge of the paper, like a calendar.

❐ **Short Edge** - when printing in Portrait orientation, use this setting when you want to bind your output along the top edge of the paper, like a calendar. In Landscape orientation, this setting produces output that you can bind along the left edge of the paper, like a book.

The default value is **Off**.

Figure 1-1 shows the two binding methods.

Figure 1-1. Binding methods

PORTRAIT   LANDSCAPE

A. Long Edge binding

B. Short Edge binding

> *Note:*   *This selection displays only when the Duplex Tray is installed. Duplex printing is not available on certain sizes, including A5 , A6 , 5$^1/_2$" × 8$^1/_2$", and envelopes.*

Staple

You use this selection to specify whether you want your output stapled. This selection displays only when the optional Finisher is installed. The stapler can staple up to 20 sheets of A4 or Letter paper, to a maximum of 30 sets.

When you turn Staple on, Collate turns on automatically. If you enable collation from the Print window of your application, the entire job is stapled together. The options are as follows:

❑   **On** - enables stapling.

❑   **Off** - disables stapling.

The default value is **Off**.

> *Note:*   *The following output combination should not be stapled, as the staple will be placed in an awkward position:*
> *Duplex, Short Edge binding, Landscape orientation*

Setup Tab Control Buttons

You use the Control buttons located on the Setup tab to perform the following functions.

About
> Displays information about the copyright data and Version Information of the printer driver.

Restore Defaults
> Resets this tab to the system default settings.

Help
> Accesses the Help window, which provides detailed information on the parameters available on the Setup tab.

OK
> Saves your parameter settings and closes the Properties window.

Cancel
> Cancels your parameter settings and closes the Properties window.

Apply
> Saves your parameter settings and leaves the Setup tab displayed.

Paper Tab

To access the Paper tab, from the Properties window, click on the Paper tab. You can see the Paper Selection, Paper Size, Paper Source, and Output Tray.

Paper Tab Parameters

You use the Paper tab to specify printer settings for the current print job. The parameters you can specify on the Paper tab are as follows:

Paper Selection

You use this selection to select the paper source for all pages or switching between the first page and the other pages. The options as follows:

❐ **Same paper for all pages** - Choose Same paper for all pages if you want to use the same kind of paper for all pages of the print job. Select the paper size or paper tray you want to print from in the dialog below.

❐ **Different paper for first page** - To have the first page of the print job printed on a different kind of paper, choose Different paper for first page. You can then switch between the First Page and the Other Pages tabs in the dialog below and select the paper size or paper tray.

The Default value is **Same paper for all pages**.

All Pages Tab (Paper Source)

The All Pages area of the Paper dialog allows you to set your printer's default paper size and input tray or option. You can select the paper size or paper source either by clicking a tray in the printer graphic or one of the selectors to the right.

First Page Tab (Paper Source)

This tab appears if you have selected Different paper for first page in the Paper Selection. Select the paper size and tray to use for the cover or the first page either by clicking a tray in the printer graphic or one of the selectors to the right.

Other Pages Tab (Paper Source)

This tab appears if you have selected Different paper for first page in the Paper Selection. Select the paper tray to use for the other pages either by clicking a tray in the printer graphic or one of the selectors to the right.

Paper Size

The Paper Size selection of the Paper dialog allows you to set the default paper or envelope size for your printer.

Select the paper size you require from the list box. This box provides a summary of all the paper sizes supported by the printer driver and printer configuration.

Note: *Your Windows application software may override this setting. Check the paper size you have selected in the application.*

The options are as follows:

- **Letter ($8^1/_2$" x 11")**
- **Legal ($8^1/_2$" x 14")**
- **11" x 17"**
- **$5^1/_2$" x $8^1/_2$"**
- **Executive ($7^1/_4$" x $10^1/_2$")**
- **A3 (297 x 420 mm)**
- **A4 (210 x 297 mm)**
- **A5 (148 x 210 mm)**
- **B4 JIS (257 x 364 mm)**
- **B5 JIS (182 x 257 mm)**

- **A6 (105 x 148 mm)**
- **8" x 13"**
- **$8^1/_4$" x 13"**
- **$8^1/_2$" x 13"**
- **Com 10 Env ($4^1/_8$" x $9^1/_2$")**
- **Monarch Env ($3^7/_8$" x $7^1/_2$")**
- **C5 Env (162 x 229 mm)**
- **C6 Env (114 x 162 mm)**
- **DL Env(110 x 220 mm)**
- **Maximum size (11.7" x 17")**

The default value is **A4**.

Custom Size Paper

The printer supports a Custom Paper Size feature that allows you to define dimensions for nonstandard paper sizes in applications that support custom or nonstandard paper sizes. The printer can print custom size paper only from the Bypass Tray, but can print any size paper up to a maximum size of 297 mm x 432 mm (11.69" x 17.0"). The minimum size is 90 mm x 148mm (3.54" x 5.83").

To define and print a custom paper size from most applications, access the Page Setup window from the File menu. Click on the **Paper Size** tab, select **Maximum Size** in the Paper Size drop-down list box. You then define the size of the special paper you are using by setting the margins for printing on the Maximum size. Subtract from the Maximum size width of 297 mm or 11.69" the width of your special paper. Divide the result by 2 and enter this number as the Left Margin and Right Margin in the Page Setup Window. Subtract the length of your special size paper from the Maximum size length of 432 mm or 17.0". Enter this number as the Bottom Margin. For example, to print a special size paper of 7" x 9", subtract 7" from 11.69" to get 4.69", divide 4.69" by 2 to get 2.345". Enter 2.345" as the Left and Right Margin. Subtract 9" from 17" to get 8". Enter the Bottom Margin as 8.0". You can then use the application to create the document you want to print on the custom size paper that you have defined.

When you are ready to print the document on the custom size paper, select **Print** from the File menu and click the **[Properties]** button available on the Print window. Click on the Paper tab, the selected paper size will be **Maximum Size.** Select **Bypass Tray** from the Paper Source drop-down list box and set any other print parameters you want to use for the print job. Click **[OK]** to save your changes and return to the Print window. Click **[OK]** in the Print window to save your print settings and send your job to the printer.

Go to the printer. The Operator Control Panel displays the "Load Custom Size/Bypass Tray." Message. In the Bypass tray, load the special nonstandard paper you specified for your print job and press the **[#/↵]** key. Your job will print from the Bypass Tray using the paper you loaded. If you want to print a draft copy of your document, you can load any paper size in the Bypass Tray, as long as it is the same or larger than the custom size paper you specified for your document.

If you print on custom size paper on a regular basis, you can set the Bypass Tray to print special or custom paper sizes without having to load the paper and press the **[#/↵]** key each time you want to print. To do so, you use the Operator Control Panel to set the **Maximum Size** setting for the paper contained in the Bypass Tray to 297 mm x 432 mm. To perform this task, enter the Menu mode from the Operator Control Panel and access the Job Control menu. From the Job Control menu, select **Paper Input**. From the Paper Input submenu, select **Bypass Size** and select **Width/Length**. The display will show Width. You can set the width dimension in millimeters by pressing the **[▼]** key or the **[▲]** key. Set the width to 297 and press the **[#/↵]** key. You enter the Length dimension using the same procedure. Set the length to 432. You can then load the special paper in the Bypass Tray and use your application or the printer driver to select **Bypass Tray** as the Paper Source whenever you want to print on the special paper size. This allows you to print documents on the special paper size at any time, without loading paper in the printer or pressing the **[#/↵]** key on the Operator Control Panel each time.

Paper Source

The sources listed are a summary of the paper sources that support the selected paper size. A combination of the following sources and options will appear:

- ❑ **Auto Tray Select**
- ❑ **Bypass Tray**
- ❑ **Large Capacity Tray**
- ❑ **Tray 1**
- ❑ **Tray 2**
- ❑ **Tray 3**
- ❑ **Tray 4**
- ❑ **Envelope Feeder**

The **Tray 3** and **Tray 4** options display when the optional Paper Bank is installed. The **Large Capacity Tray (LCT)** option displays when the optional Large Capacity Tray (LCT) is installed. The **Envelope Feeder** option displays when the optional Envelope Feeder is installed. The **Bypass Tray** option does not display when the Envelope Feeder is installed. The **Tray 1** option does not display when the optional Duplex Tray is installed.

Note1: *When you select **Auto Tray Select**, the automatic tray switching feature is enabled. This features switches the input paper tray to another tray containing paper with the same size and orientation, when the active tray runs out of paper. The printer checks the other trays in the following sequence: **LCT**, **Tray 1**, **Tray 2**, **Tray 3**, **Tray 4**, **Bypass Tray**. If you select a specific tray, the automatic tray switching feature is disabled.*

Note2: *Your printer must be fitted with the options and you must have selected them on the Accessories dialog in order to access them.*

The default value is **Auto Tray Select**.

Destination Tab (Paper Output)

The Destination area of the Paper dialog allows you to set the paper output destination. To select the output destination, click on your Printer graphic or on one of the selectors to the right.

The options listed are a summary of the output destinations available on your particular model depending on the paper size selected.

❐ **Printer Default**

❐ **Standard Tray (Output Tray 1)**

❐ **External Tray**

❐ **Output Tray 2**

❐ **Output Tray 3**

❐ **Output Tray 4**

❐ **OuMtput Tray 5**

❐ **Sift Tray (Face Down)**

❐ **Sift Tray (Face Up)**

Note: *Your printer must be fitted with the options and you must have selected them on the Accessories Tab in order to access them.*

Paper Tab Control Buttons

You use the control buttons located on the Paper tab to perform the following functions:

Restore Defaults
Resets this tab to the system default settings.

Help
Accesses the Help window, which provides detailed information on the parameters available on the Paper tab.

OK
Saves your parameter settings and closes the Properties window.

Cancel
Cancels your parameter settings and closes the Properties window.

Apply
Saves your parameter settings and leaves the Paper tab displayed.

Print Quality Tab

To access the Print Quality Tab, from the Properties window, click on the Print Quality Tab. You can see the Resolution, Edge Smoothing, Toner saving, Graphics, and TrueType.

Print Quality Tab Parameters

You use the Print Quality tab to specify printer settings for the current print job. The parameters you can specify on the Print Quality tab are follows:

Resolution

For best results, set the Printer Resolution option to 600 dots per inch (dpi) and use graphics and fonts that are designed specifically for printers that print at 600 dpi resolution. For faster printing and smaller memory requirements, use 300 dpi instead The options are as follows:

- ❑ **300 dpi**
- ❑ **600 dpi**

The default value is **600 dpi**.

Edge Smoothing

Edge smoothing is a technique used for improving the print quality of text and graphics. Indentations in curved lines are automatically smoothed to produce a cleaner appearance The options are as follows:

- ❑ **On**
- ❑ **Off**

The default value is **On**.

Toner Saving

If Toner Saving is turned on, approximately one half of the normal amount of toner will be used when printing. This will increase the life of the Toner cartridge, but prints may appear lighter. The options are as follows:

- ❑ **On**
- ❑ **Off**

The default value is **Off**.

Graphics Mode (Graphics)

Use the Graphics Mode setting to tell Windows how to send graphic information to the printer. PCL5e Generic Printers will print graphics as either raster images or as HP-GL/2 graphic images. All graphics can be printed as raster images, but some geometric shapes or patterns print faster

if they are printed as HP- GL/2 graphics. The options are as follows:

❑ **Raster** - When you select the Raster setting, Windows will send all graphics to the printer as bit map raster images.

❑ **HP/GL2** - If you select the HP/GL2 setting, Windows will send graphics to the printer as a mixture of HP/GL2 and raster images.

The default value is **HP/GL2**.

Note: *Not all graphic images can print using the HP/GL2 setting. If you are using the HP/GL2 setting and your graphic images do not print as they appear on your computer screen, select the Raster setting and reprint your graphic.*

Halftone (Graphics)

Halftone refers to a type of pattern that is applied to printed images. By using combinations of black dots, these patterns produce a gray appearance on the printed page.

The best way to choose a Halftone setting for your graphic image is to experiment. Print a graphic image at each setting and choose the one you like best. The options are as follows:

❑ **Photographic Images** - Choose this setting for printed images that you want to have smooth, realistic and photographic appearance. The Photographic Images setting provides soft contrasts between various shades of gray. It also works well for images originally designed with color.

❑ **Line Art** - Choose this setting for graphic images with intricate lines and fine detail, like clip art graphics. The Line Art Images setting provides solid lines and sharp contrast between shaded areas.

❑ **Scanned Images** - Choose if your graphic images were originally scanned in from a scanner. This setting is specially turned to provide exceptional quality and clarity for printed images that were originally scanned in.

The default value is **Photographic Images**.

TrueType Mode (TrueType)

This section of the Options dialog allows you to select options associated with TrueType fonts. The options are as follows:

❐ **Download as TrueType** - When this option is selected, the whole character set for each TrueType font contained on the page is sent to the printer in an "outline" form that the PCL5e Generic TrueType rasterizer can understand and render directly. Use this option if you have only a small number of TrueType fonts on your page and you want to optimize text printing performance.

It is also recommended that you use this option if you have a small number of TrueType fonts on your page and the character size selections are very large.

Note: *If you have a large number of TrueType fonts on your page then choosing this option will cause a significant drop in performance. It may also cause a memory overflow in your Printer.*

❐ **Download as bit image** - When this option is selected, each TrueType character will be downloaded as an individual bitmap font. As the page is built up by the printer driver new font bitmaps are sent down. When a character is used again, the bitmap is automatically selected from those previously downloaded to printer memory. As the printer memory fills up, the driver automatically deletes font bitmaps that have not been used for some time.

Use this option if you have a large number of TrueType fonts on your printed page.

❐ **Print as graphics** - Select this feature to have all Fonts as graphics.

Note: *This setting is available only when Graphic Mode is Raster.*

The default value is **Download as TrueType**.

Use Printer Font (TrueType)

Check this box to use equivalent printer fonts for TrueType fonts.

The default value is **On**. (check box checked.)

Print All Text As Black (TrueType)
> Select this feature to have all text in your print job printed in black regardless of the original color.
>
> The default value is **Off**. (check box not checked.)

Print Quality Tab Control Buttons

You use the control buttons located on the Print Quality tab to perform the following functions:

Restore Defaults
> Resets this tab to the system default settings.

Help
> Accesses the Help window, which provides detailed information on the parameters available on the Print Quality tab.

OK
> Saves your parameter settings and closes the Properties window.

Cancel
> Cancels your parameter settings and closes the Properties window.

Apply
> Saves your parameter settings and leaves the Print Quality tab displayed.

Accessories Tab

The Accessories Tab displays only when you access the Properties window by selecting **Printers** from the Settings submenu.

Accessories Tab Parameters

The parameters you can specify on the Accessories tab area as follows.

The Accessories group allows you to specify which options you have installed. The actual items shown vary according to the printer model. On your printer options are as follows:

- ❑ **Paper Bank**
- ❑ **Large Capacity Tray**
- ❑ **Envelope Feeder**
- ❑ **Mailbox**

- ❑ **Finisher**
- ❑ **Duplex tray**
- ❑ **Printer Hard Disk**

After you have installed the options, update the printer driver by clicking on the relevant checkbox. This tells the printer driver that the options are now available. The printer driver reconfigures itself. The printer graphical image change and the options available in the All Pages and Destination sections of the Paper group change to reflect your new configuration.

Accessories Tab Control Buttons

You can use the control buttons located on the Accessories tab to perform the following functions:

Help
> Accesses the Help window, which provides detailed information on the parameters available on the Accessories tab.

OK
> Saves your parameter settings and closes the Properties window.

Cancel
> Cancels your parameter settings and closes the Properties window.

Apply
> Saves your parameter settings and leaves the Accessories tab displayed.

Overlays Tab

To access the Overlays tab, from the Properties window, click the Overlays tab.

Overlays Tab Parameters

You use the Overlays tab to create and delete simple page overlays for your printer. The parameters you can specify are follows:

Create Overlay

> Before a Page Overlay can be used it must first be created. The following procedure documents how to create a Page Overlay.

> To create a Page overlay from a file containing your logo or image.

1 In the Overlays tab, choose the **[Create Overlay]** button.

2 Type a name in the File Name box (maximum eight characters).

3 Select the destination pathname from the directories box.
(The default is C:\PAGEOVER).

4 Click the **[OK]** button.

The next print job sent to the printer will not produce any output. Instead it will be stored on your computer disk. The file name will appear in the overlay list box the next time the Page Overlay Installer is loaded. During printing, a Message box will appear requesting confirmation that you want to create a Page Overlay. Choose the Yes button if you do. Choosing the No button will cancel the print job.

By default , the Page Overlay will be stored in the default Page Overlay Directory.

Load Overlay

Occasionally you may want to use a file created externally as an overlay, in these circumstances the overlay manager needs to be informed of the file and where it resides. To do this use the Load Overlay button.

To use Load Overlay.

1 Click the **[Load Overlay]** button on the Overlays dialog.

2 Select the file required from the list of files.

3 Click **[OK]**.

The file is now shown in the list of overlays on the Overlays tab and is available to use with other functions within the Overlays tab.

Note: *If you source an external file from a floppy disk and then remove the disk from the disk drive the file will no longer be available as an overlay. If you intend to use this file regularly, then it is recommended that you copy the file to your local system disk before using the Load Overlay button.*

Delete Overlay

Choosing this option allows you to delete overlays. If the overlay is only resident in your local system directory, then it will be removed from the directory. Once an overlay has been deleted from your system directory, it can only be restored by creating it as a new overlay.

Query Page Overlay

This option causes a Message box to appear whenever a Page Overlay is sent to the printer. This requests confirmation that you wish to send a page overlay. If this option is unchecked, the selected page overlay file will always be sent to the printer. This option is not active if No Overlay is selected or if the present selected overlay has been permanently downloaded to the printer.

The default values is **Off**.

Overlays Tab Control Buttons

You can use the control buttons located on the Overlays tab to perform the following functions:

Help
>   Accesses the Help window, which provides detailed information on the parameters available on the Overlays tab.

OK
>   Saves your parameter settings and closes the Properties window.

Cancel
>   Cancels your parameter settings and closes the Properties window.

Apply
>   Saves your parameter settings and leaves the Overlays tab displayed.

Fonts Tab

The Fonts tab displays only when you access the Properties window by selecting Printers from the setting submenu.

Fonts Tab Parameters

You use the Fonts tab to transfer PCL5e Bitmap Fonts and True Type Fonts from your computer to your printer.

Add Fonts
>   Use this button to make additional PCL5e fonts available for installation to the printer.

>   ❐   **Permanent** - Select this option to download selected fonts permanently to your printer. You will generally be able to print faster when fonts are permanently installed; however, permanent installations may limit the amount of printer memory available for printing graphics and complex pages.

>   ❐   **Temporary** - Select this option for fonts that you wish to download into your printer's memory only when you need them, leaving the printer's memory free to process graphics and complex pages.

>   The following procedure documents how to Add Fonts.

1 Click **[Add Fonts]**.

2 In Add Fonts Dialog Box, type drive and directory where Soft Font is stored (usually, A:\).

3 In Add Fonts Dialog Box, click **[OK]**.

4 After completion of procedure **1** through **3**, available fonts are listed in the right box.

5 In the font list in the right box, click fonts to install.

6 Click **[Add]**.

7 Type drive and directory where the font is installed (usually, C:\PCLFONTS).

8 Click **[Add]**.

9 After completion of procedure **1** through **8**, installed fonts are listed in the left box.

10 To clear the font list shown in the right box, click **[Close Drive]**.

☐ Select font to download from font list of the left box.

☐ Click **[Permanent]** or **[Temporary]**.

☐ Repeat procedure **1** and **2** for Font which needs to change Download Option.

☐ In Driver display, click **[Close]** after completion of Download Option change.

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☐ If Permanent is selected, Dialog box requesting to choose either **[Update Printer Memory fonts now]** or **[Update Printer Memory fonts at system startup]** is displayed.

☐ Check **[Update Printer Memory fonts now]** to download the font immediately. Check **[Update Printer Memory fonts at system startup]** to download the font at PC startup.

Delete Fonts

Use this button to delete PCL5e fonts.

The following procedure documents how to Delete Fonts.

1 Click the font from the list shown in the left box in the Dialog Box.

2 Click **[Delete]**.

3 Dialog Box asking whether delete the font from hard disk (PC) or not is shown.

4 Click **[Yes]** to delete the font from both of Windows and hard disk. Click **[No]** to do not delete the font from hard disk but Windows.

5 After click **[No]**, font is not shown, however, the font file remains in hard disk.

Copy Fonts to New Port

If you are using more than one printer, or if you change the port your printer is on, click on this button to move or copy your installed fonts to the other printer or printer port. A list of available ports is displayed; click on the one you want.

The following procedure documents how to Copy Fonts to New Port.

1 Click **[Copy Fonts to New Port]**.

2 In the Copy Fonts to New Port Dialog Box, click port in which the font is copied or moved.

3 Click **[OK]**.

4 Currently installed font is shown in the selected port in right box of the Dialog Box.

5 In either left or right box, click font to copy or move.

6 An arrow indicating the direction to copy or move is shown between 2 boxes.

7 Click **[Move]** or **[Copy]**.

8 Selected font is copied or moved to the specified port.

9 Click **[End Copy Fonts to New Port]**.

Fonts Tab Control Buttons

You can use the control buttons located on the Fonts tab to perform the following function:

Help
> Accesses the Help window, which provides detailed information on the parameters available on the Fonts tab.

OK
> Saves your parameter settings and closes the Properties window.

Cancel
> Cancels your parameter settings and closes the Properties window.

Apply
> Saves your parameter settings and leaves the Fonts tab displayed.

2. USING THE TIFF PRINTER DRIVER

OVERVIEW

This chapter provides information on setting up and using the TIFF printer driver software provided with the printer.

Note: *A TIFF printer driver is not available for the Macintosh operating system.*

PRINTER SOFTWARE

Your printer is provided with software containing PCL5e and TIFF printer drivers for Windows 3.1 and Windows 95.

☛ Refer to the "Using the PCL5e Printer Driver" chapter for information on installing and using the PCL5e printer driver.

Installing the TIFF Printer Driver on Windows 3.1

The TIFF printer driver is provided on one 3.5-inch diskette. Follow these steps to install the TIFF printer driver on your Windows 3.1 system:

1 Insert the "TIFF Printer Driver for Windows 3.1" diskette in the 3.5-inch drive on the host computer.

2 Close all the applications that are currently running.

3 From the Program Manager, double-click on the **Main** icon and then double-click on the **Control Panel** icon.

4 From the Control Panel window, double-click on the **Printers** icon. The List of Printers window displays.

5 In the List of Printers window, scroll to the top of the list and select **Install Unlisted or Updated Printers**.

6 Click the **[Install]** button. The Install Driver window displays.

7 From the Install Driver window, select the drive in which the installation diskette is located and click **[OK]**. The Add Unlisted or Updated Printer window displays, listing the TIFF driver.

8 Click **[OK]** to complete the installation.

Installing the TIFF Printer Driver on Windows 95

The TIFF printer driver is provided on one 3.5-inch diskette. Follow these steps to install the TIFF printer driver on your Windows 95 system:

1 Insert the "TIFF Printer Driver for Windows 95" diskette in the 3.5-inch drive on the host computer.

2 Close all the applications that are currently running.

3 Click **[Start]** and select **Printers** from the Settings submenu. The Printers window displays.

4 From the Printers window, double-click on the **Add Printers** icon. The Add Printer Wizard window displays.

5 From the Add Printer Wizard window, click **[Next>]**. The list of printers displays.

6 Click **[Have Disk]**. The Install From Disk window displays.

7 In the Install from Disk window, type the letter for the drive containing the installation diskette and click **[OK]**. The TIFF driver description displays.

8 Click **[Next>]** and follow the instructions that display on the screen to complete the installation.

USING THE TIFF PRINTER DRIVER

The TIFF driver for Windows 3.1 or Windows 95 that converts job stream input to rasterized images, compresses the images, and sends them to the printer as TIFF files. This feature is especially useful for printing image documets that consist mainly of image data.

Accessing Printer Settings

In general, you access printer settings by selecting **Print** from the File menu, and clicking the **[Properties]** button, or by selecting **Print Setup** from the File menu when available from your application.

You can also access the printer settings using your operating system. Follow these steps to access the Setup window available on the TIFF driver for Windows 3.1:

1 Access the Control Panel and double-click on the **Printers** icon. A list of the currently available printers displays.

2 Select the line for this printer, highlighting the entire line.

3 Click the **[Setup]** button to access the Setup window.

Note: *When you access printer settings using the TIFF driver for Windows 3.1, a Setup window displays. The Windows 3.1 Setup window contains the same parameter settings as the Windows 95 Paper tab. However, the Windows 3.1 Setup window contains additional control buttons. These buttons access the Device Options, and Configuration windows, which are described later in this chapter.*

Follow these steps to access the Properties window available on the TIFF driver for Windows 95:

1 Click **[Start]** and select Printers from the Settings submenu. The Printers window displays.

2 Double-click on your printer name. Your printer window displays, providing a list of the currently listed print jobs.

3 Select **Properties** from the Printer menu available on your printer window. The Properties window displays.

When you access the Properties window using the Settings submenu, it contains the following tabs. You use these tabs to specify the parameters and options you want to use for your print job.

Note1: *Sharing Tab appears only when the printer is accessed through a Network.*

Note2: *When you access the Properties window using the Print window of an application, only Setup, Paper, Print Quality and Overlays are accessed.*

▫ **General Tab**
▫ **Details Tab**
▫ **Sharing Tab**
▫ **Paper Tab**
▫ **Graphics Tab**
▫ **Device Options Tab**
▫ **Configuration Tab**

USING THE TIFF
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General Tab

The General tab displays only when you access the Properties window by selecting **Printers** from the Settings submenu. This tab contains general description information about the printer, and allows you to print a test page. ☛ Refer to the documentation provided with your operating system for further information on this tab.

Details Tab

The Details tab displays only when you access the Properties window by selecting **Printers** from the Settings submenu. This tab contains setup information about the printer driver and the printer ports. ☛ Refer to the documentation provided with your operating system for further information on this tab.

Sharing Tab

The Sharing tab displays only when you access the Properties window by selecting **Printers** from the Settings submenu. This tab contains setup information about the how the printer will be shared, naming conventions and password control. ☞ Refer to the documentation provided with your operating system for further information on this tab.

Note: *The Sharing tab appears only when the printer is accessed through a Network.*

Paper Tab

To access the Paper tab, from the Properties window, click on the Paper tab.

Paper Tab Parameters

You use the Paper tab to specify printer settings for the current print job. The parameters you can specify on the Paper tab are as follows:

Paper Size
Use the drop-down list box to select the paper size for the current job. When you try to print and the size you select is not available, the printer stops and the "Load <paper size>" message displays on the Control Panel.

The options are as follows:

- **Letter ($8^1/_2$" x 11")**
- **Legal ($8^1/_2$" x 14")**
- **11" x 17"**
- **$5^1/_2$" x $8^1/_2$"**
- **Executive ($7^1/_4$" x $10^1/_2$")**
- **A3 (297 x 420 mm)**
- **A4 (210 x 297 mm)**
- **A5 (148 x 210 mm)**
- **A6 (105 x 148 mm)**
- **B4 JIS (257 x 364 mm)**
- **B5 JIS (182 x 257 mm)**
- **8" x 13"**
- **$8^1/_4$" x 13"**
- **$8^1/_2$" x 13"**
- **Com 10 Env ($4^1/_8$" x $9^1/_2$")**
- **Monarch Env ($3^7/_8$" x $7^1/_2$")**
- **C5 Env (162 x 229 mm)**
- **C6 Env (114 x 162 mm)**
- **DL Env (110 x 220 mm)**
- **Maximum size (11.7" x 17")**

The default value is **A4**.

Custom Size Paper

The printer supports a Custom Paper Size feature that allows you to define dimensions for nonstandard paper sizes in applications that support custom or nonstandard paper sizes. The printer can print custom size paper only from the Bypass Tray, but can print any size paper up to a maximum size of 297 mm x 432 mm (11.69" x 17.0"). The minimum size is 90 mm x 148mm (3.54" x 5.83").

To define and print a custom paper size from most applications, access the Page Setup window from the File menu. Click on the **Paper Size** tab, select **Maximum Size** in the Paper Size drop-down list box. You then define the size of the special paper you are using by setting the margins for printing on the Maximum size so that your special paper size is defined. Subtract from the Maximum size width of 297 mm or 11.69" the width of your special paper. Divide the result by 2 and enter this number as the Left Margin and Right Margin in the Page Setup Window. Subtract the length of your special size paper from the Maximum size length of 432 mm or 17.0". Enter this number as the Bottom Margin. For example, to print a special size paper of 7" x 9", subtract 7" from 11.69" to get 4.69", divide 4.69" by 2 to get 2.345". Enter 2.345 as the Left and Right Margin. Subtract 9" from 17" to get 8". Enter the Bottom Margin as 8.0". You can then use the application to create the document you want to print on the custom size paper that you have defined.

When you are ready to print the document on the custom size paper, select **Print** from the File menu and click the **[Properties]** button available on the Print window. Click on the Paper tab, the selected paper size will be **Maximum Size**. Select **Bypass Tray** from the Paper Source drop-down list box and set any other print parameters you want to use for the print job. Click **[OK]** to save your changes and return to the Print window. Click **[OK]** in the Print window to save your print settings and send your job to the printer.

Go to the printer. The Operator Control Panel displays the "Load Custom Size/Bypass Tray." Message. In the Bypass tray, load the special nonstandard paper you specified for your print job and press the **[#/↵]** key. Your job will print from the Bypass Tray using the paper you loaded. If you want to print a draft copy of your document, you can load any paper size in the Bypass Tray, as long as it is the same or larger than the custom size paper you specified for your document.

If you print on custom size paper on a regular basis, you can set the Bypass Tray to print special or custom paper sizes without having to load the paper and press the **[#/↵]** key each time you want to print. To do so, you use the Operator Control Panel to set the **Maximum Size** setting for the paper contained in the Bypass Tray to 297 mm x 432 mm. To perform this task, enter the Menu mode from the Operator Control Panel and access the Job Control menu. From the Job Control menu, select **Paper Input**. From the Paper Input submenu, select **Bypass Size** and select **Width/Length**. The display will show Width. You can set the width dimension in millimeters by pressing the **[▼]** key or the **[▲]** key Set the width to 297 and press the **[#/↵]** key. You enter the Length dimension using the same procedure. Set the length to 432. You can then load the special paper in the Bypass Tray and use your application or the printer driver to select **Bypass Tray** as the Paper Source whenever you want to print on the special paper size. This allows you to print documents on the special paper size at any time, without loading paper in the printer or pressing the **[#/↵]** key on the Operator Control Panel each time.

Paper Source

Use the drop-down list box to specify the input tray you want to use. When **Auto Tray Select** is enabled, the printer uses the first available tray, starting from the default tray that contains the specified paper size. The options are as follows:

❑ **Tray 1**	❑ **LCT**
❑ **Tray 2**	**(Large Capacity Tray)**
❑ **Tray 3**	❑ **Envelope Feeder**
❑ **Tray 4**	❑ **Bypass Tray**
	❑ **Auto Tray Select**

The **Tray 3** and **Tray 4** options display when the optional Paper Bank is installed. The **Large Capacity Tray (LCT)** option displays when the optional Large Capacity Tray (LCT) is installed. The **Envelope Feeder** option displays when the optional Envelope Feeder is installed. The **Bypass Tray** option does not display when the Envelope Feeder is installed. The **Tray 1** option does not display when the optional Duplex Tray is installed.

The default value is **Auto Tray Select**.

> ***Note:*** *When you select **Auto Tray Select**, the automatic tray switching feature is enabled. This features switches the input paper tray to another tray containing paper with the same size and orientation, when the active tray runs out of paper. The printer checks the other trays in the following sequence: LCT, Tray 1, Tray 2, Tray 3, Tray 4, Bypass Tray. If you select a specific tray, the automatic tray switching feature is disabled.*

Copies

Use your keyboard, or the incremental spin box, to specify the number of copies you want to print. You can specify from **1** to **999** copies. The default value is **1**.

Orientation

Click the radio button that corresponds to the image orientation you want to use. The options are as follows:

❐ **Portrait** - prints with the left margin along the long side of the paper.

❐ **Landscape** - prints with the left margin along the short side of the paper.

The default value is **Portrait**.

Paper Tab Control Buttons

You use the control buttons located on the Paper tab to perform the following functions:

About

Displays information about the copyright date and revision level of the printer driver.

Restore Defaults

Resets this tab to the system default settings.

Help

Accesses the Help window, which provides detailed information on the parameters available on the Paper tab.

OK

Saves your parameter settings and closes the Properties window.

Cancel

Cancels your parameter settings and closes the Properties window.

Apply

Saves your parameter settings and leaves the Paper tab displayed.

Graphics Tab

To access the Graphics tab, from the Properties window, click the Graphics tab.

Graphics Tab Parameters

You use the Graphics tab to specify the appearance of text and graphics for the current print job. The parameters you can specify are as follows:

Printer Resolution

You use this selection to set the printer resolution for TIFF output. The options are as follows:

- ❏ **600 dpi**
- ❏ **400 dpi**
- ❏ **300 dpi**
- ❏ **200 dpi**

The default value is **300 dpi**.

Toner Saving

You can use this function when you print draft copies of documents. When you enable Toner Saving, the printer uses less than the normal amount of toner, which makes black areas print as gray but does not affect readability. The options are as follows:

- ❏ **On** (checkbox checked) - enables Toner Saving. The printer uses approximately one half of the normal amount of toner.

- ❏ **Off** (checkbox not checked) - disables Toner Saving.

The default value is **Off**.

Edge Smoothing

You use this selection to enhance print quality. The options are as follows:

❐ **On** (checkbox checked) - enables edge smoothing. The printer rasterizes output to enhance print quality. The appearance of the output emulates a resolution of 1200 dpi, reducing ragged edges and providing printed output with smooth curved and diagonal lines.

❐ **Off** (checkbox not checked) - disables edge smoothing.

The default value is **On**.

Note: *When you enable this function, images and halftones may be adversely affected and not print properly.*

Graphics Tab Control Buttons

You use the control buttons located on the Graphics tab to perform the following functions.

Restore Defaults

Resets this tab to the system default settings.

Help

Accesses the Help window, which provides detailed information on the parameters available on the Graphics tab.

OK

Saves your parameter settings and closes the Properties window.

Cancel

Cancels your parameter settings and closes the Properties window.

Apply

Saves your parameter settings and leaves the Graphics tab open.

Device Options Tab

To access the Device Options tab, from the Properties window, click on the Device Options tab.

Device Options Tab Parameters

The parameters you can specify on the Device Options tab are as follows:

Output Tray

Use the drop-down list box to specify the output tray you want to use. The options are as follows:

- **External Tray**
- **Output Tray 1 (Standard)**
- **Output Tray 2**
- **Output Tray 3**
- **Output Tray 4**
- **Output Tray 5**
- **Shift Tray Face-down**
- **Shift Tray Face-up**

The **Output Tray 2**, **Output Tray 3**, **Output Tray 4**, and **Output Tray 5** options display only when the optional four-bin Mailbox is installed. The **Shift Tray** options display only when the optional Finisher is installed. When the Finisher is installed, the **External Tray** option is not available.

The default value is **Output Tray 1 (Standard)**.

Note: *When you select a* ***Shift Tray*** *option (either* ***Face-down*** *or* ***Face-up***)*, the job separation, or jogging, function is always activated. When this is the case, the print jobs are always separated (except when the Stapler option is set to* ***On***)*. Stapled jobs are not separated.*

Staple

You use this selection to specify whether you want your output stapled. This selection displays only when the optional Finisher is installed. The stapler can staple up to 20 sheets of A4 or Letter paper, to a maximum of 30 sets. When you select stapling, you must set the Output Tray option to **Shift Tray Face-down**.

When you turn Staple on, Collate turns on automatically. If you enable collation from the Print window of your application, the entire job is stapled together.

The options are as follows:

❑ **On** (checkbox checked) - enables stapling.

❑ **Off** (checkbox not checked) - disables stapling.

The default value is **Off**.

Note: *The following output combinations should not be stapled, as the staple will be placed in an awkward position:*

Duplex, Short Edge binding, Landscape orientation

Collate

You use this selection to enable the disk-based collation feature. With this feature, the printer can efficiently print collated sets of a multiple-page document by temporarily storing the document on the printer hard disk. This selection displays only when the optional hard disk is installed. The options are as follows:

❑ **On** (checkbox checked) - enables disk-based collation.

❑ **Off** (checkbox not checked) - disables soft collation.

The default value is **Off**.

Note: *The collation function, located in the Print window of your application, must be turned off if you set this Collate option to **On**. Otherwise, you will get multiple sets of your collated job.*

Duplex

Use the radio buttons to specify the format of duplex output. The options are as follows:

❑ **Off** - disables duplex printing.

❑ **Long Edge Binding** - when printing in Portrait orientation, use this setting when you want to bind your output along the left edge of the paper, like a book. In Landscape orientation, this setting produces output that you can bind along the top edge of the paper, like a calendar.

❐ **Short Edge Binding** - when printing in Portrait orientation, use this setting when you want to bind your output along the top edge of the paper, like a calendar. In Landscape orientation, this setting produces output that you can bind along the top edge of the paper, like a book.

The default value is **Off**.

Figure 2-1 illustrates the two binding methods.

Figure 2-1. Binding methods
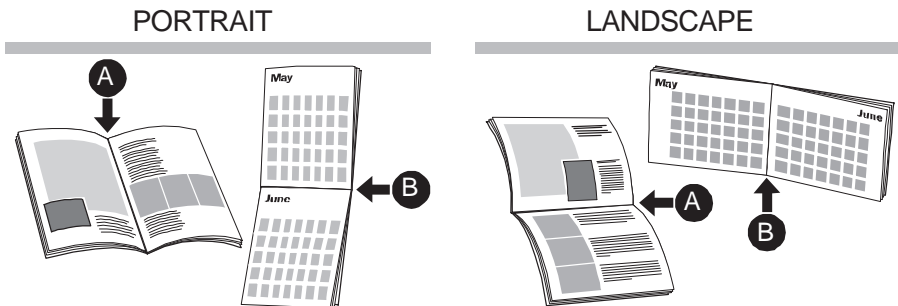
A. **Long Edge binding**
B. **Short Edge binding**

Note: *This selection displays only when the Duplex Tray is installed. Duplex printing is not available on certain sizes, including A5, A6, Halfletter, and envelopes.*

Device Options Tab Control Buttons

You use the control buttons located on the Device Options tab to perform the following functions:

Restore Defaults
Resets this tab to the system default settings.

Help
Accesses the Help window, which provides detailed information on the parameters available on the Device Options tab.

OK

    Saves your parameter settings and closes the Device Options tab.

Cancel

    Cancels your parameter settings and closes the Device Options tab.

Apply

    Saves your parameter settings and leaves the Device Options tab displayed.

Configuration Tab

To access the Configuration tab, you must either use the Control Panel to access the printer driver (Windows 3.1), or the use the Settings submenu to access the Printers selection (Windows 95). ☞ Refer to the "Accessing Printer Settings" in this chapter.

Using the Configuration Tab

When you are setting up your printer for the first time, or when you install a new optional accessory, you use this tab to configure the printer driver to recognize the installed equipment or the new accessory. To configure or add an accessory, click the box next to the associated accessory name on the tab and select **Installed** from the drop-down list box. Click **[OK]** to save your change.

To remove an accessory, click the box next to the associated accessory name on the tab and select **Not Installed** from the drop-down list box. Click **[OK]** to save your change.

Configuration Tab Control Buttons

You use the control buttons located on the Configuration tab to perform the following functions:

Restore Defaults

    Resets this tab to the system default settings.

Help

    Accesses the Help window, which provides detailed on the parameters available on the Configuration tab.

OK

    Saves your parameter settings and closes the Properties window.

Cancel

Cancels your parameter settings and closes the Properties window.

Apply

Saves your parameter settings and leaves the Configuration tab displayed.

TIFF FILE PRINT UTILITY PROGRAM

A DOS utility program, called RP.EXE, is also provided that supports printing of bilevel TIFF, PCX or DCX image files directly without using the TIFF driver. This program is a simple utility that runs under the DOS Operating Environment. TIFF images will be printed in their original size, centered on the page. If the TIFF image is too large for the selected paper size, the image will be clipped.

The utility program sends the command @PJL ENTER LANGUAGE=TIFF as well as other commands along with the TIFF, PCX or DCX image files to the printer. The commands switch the printer personality to the TIFF mode and provide other printing information to the printer. The utility program will ignore multiple bit per pixel image files because it only supports bi-level (one bit per pixel) image files. PCX and DCX files must be sent one at a time, but several standard TIFF files can be printed with one command entry. See the syntax section below.

The command syntax is:

    RP /D, /C, /N=#, /P=name filename1, filename2,... LPT# PRN#

where,
    /D indicates Duplex (Default: Simplex)

    /C indicates Collate (Default: No collation)

    /N indicates the Number of Copies (Range: 1 - 999, Default: 1)

    /P indicates paper size selection (Default: LETTER)

    Paper size selections include: EXECUTIVE, LETTER, LEGAL, LEDGER, A3, A4, A5, A6, JISB4, JISB5, FOOLSCAP, HALFLETTER, F/GL, FOLIO

    filename1, filename2,...indicates the file name which must be in TIFF, PCX, or DCX format

    LPT# indicates the printer port number (Default: LPT1)

    PRN# indicates the printer name (Default: None)

Other parameters can be set using the printer's Control Panel. The only required parameter is the filename.

This utility program is located on the TIFF Printer Driver for Windows 3.1 diskette provided with the printer. No special installation procedure is needed, the program must be copied into the same directory as the TIFF, PCX or DCX file that you want to print. You can copy it on to a diskette in the floppy disk drive or the RP program can be copied to any directory on the hard disk or other storage media. You can use Windows File Manager or Explorer as appropriate or DOS commands to copy the program.

To run the program, select the MS-DOS command mode in Windows, type in "<disk letter>:<\directory path>\RP", any special parameters as shown in the syntax format and the file name of a TIFF, PCX or DCX file you want to print. Then hit the Enter key. The file will be sent to the printer and printed.

APPENDIX

COMMANDS

This section contains information on the Printer Control Language version 5e (PCL5e) and Printer Job Language (PJL) commands supported by the printer. This section also contains information on the PCL and PJL environment variables.

PCL Commands

The implementation of PCL5e supports the Command Set of the Hewlett Packard LaserJet 4si. Additional features and capabilities of this machine are implemented using additional PJL commands. ☞ Refer to the Hewlett-Packard publication, *HP LaserJet 4si User's Reference Manual, First Edition, 1993*, HP Part No. C2010-90901, for more information on the PCL5e commands.

PJL Commands

The Printer Job Language (PJL) commands provide application developers with the ability to remotely control a laser printer. These controls include changing printer languages, enabling and disabling printer functions, and receiving printer status messages. The printer supports Standard PJL with the following exceptions:

❐   Backward Compatibility mode is not supported.

❐   The exact value of the TIMEOUT variable is always used for I/O port time-outs.

❐   The method of automatically selecting a personality is subjective. However, in general, the correct personality is identified.

☞ Refer to the Hewlett-Packard publication, *Printer Job Language Technical Reference Manual Edition 9*, HP Part No. 5021-0328, for more information on PJL commands and status messages.

FONTS

This section contains information on the PCL5e fonts that are supported by the printer. This section also contains information on how to select supported fonts and how to use additional fonts.

Fonts are the style of characters you can use for your printed documents, for example, Times New Roman (abcdefg ABCDEFG) and Wingdings (✐ ◯ ◔ ◑ ◈ ◐ ◉ ◻◻◻◻◻◻◻). This section describes the fonts available with the printer.

The two basic types of fonts are scaleable and bitmap. When you send a document to the printer, you can direct the printer to set the scaleable fonts to any size you want. Bitmap fonts are predefined and are not scaled or changed during printing. Each bitmap font has a fixed point size (height of the font), pitch (number of characters per inch), and orientation (portrait or landscape).

Note: *The height of fonts is described in points. A point is 1/72 of an inch.*

Using Fonts

This section contains information on the fonts that are supported by the printer, as well as information on how you can use these fonts in your print jobs.

Built-In Fonts

Built-in fonts are provided with the printer for both the PCL5e and PostScript printer languages.

Note: *The PostScript® fonts are only available when you have the PostScript(r) option. ☞ Refer to the PostScript® option documentation for information on these fonts.*

The PCL5e built-in fonts consist of 35 Type 1 Intellifont compatible scaleable fonts, ten TrueType scaleable fonts, and one bitmap font. The supported fonts and symbol sets are listed in this section.

APPENDIX

You can print a PCL5e fonts page to see what each of the fonts looks like. The following PCL5e scaleable fonts are provided with the printer:

- ◆ Albertus Extra Bold
- ◆ Albertus Medium
- ◆ Antique Olive
- ◆ Antique Olive Bold
- ◆ Antique Olive Italic
- ◆ Arial
- ◆ Arial Bold
- ◆ Arial Bold Italic
- ◆ Arial Italic
- ◆ Omega
- ◆ Omega Bold
- ◆ Omega Bold Italic
- ◆ Omega Italic
- ◆ Times
- ◆ Times Bold

- ◆ Times Bold Italic
- ◆ Times Italic
- ◆ Coronet
- ◆ Clarendon Condensed
- ◆ Courier
- ◆ Courier Bold
- ◆ Courier Bold Italic
- ◆ Courier Italic
- ◆ Garamond Antiqua
- ◆ Garamond Halbfett
- ◆ Garamond Kursiv
- ◆ Garamond Kursiv Halbfett
- ◆ Letter Gothic
- ◆ Letter Gothic Bold
- ◆ Letter Gothic Italic

- ◆ Marigold
- ◆ Symbol
- ◆ Times New
- ◆ Times New Bold
- ◆ Times New Bold Italic
- ◆ Times New Italic
- ◆ Univers Bold
- ◆ Univers Bold Condensed
- ◆ Univers Bold Condensed Italic
- ◆ Univers Bold Italic
- ◆ Univers Medium
- ◆ Univers Medium Condensed
- ◆ Univers Medium Condensed Italic
- ◆ Univers Italic
- ◆ Wingdings Regular

The following Symbol Sets, used for scaleable typefaces, are provided with the printer:

- ◆ ASCII
- ◆ Desktop
- ◆ ISO French
- ◆ ISO German
- ◆ ISO Italian
- ◆ ISO Latin 1
- ◆ ISO Latin 2
- ◆ ISO Latin 5
- ◆ ISO Norwegian
- ◆ ISO Spanish
- ◆ ISO Swedish
- ◆ ISO United Kingdom

- ◆ Legal
- ◆ Math-8
- ◆ MC Text1
- ◆ Microsoft Publishing
- ◆ Names
- ◆ PC-8
- ◆ PC-8 DN
- ◆ PC-850
- ◆ PC-852
- ◆ PC-Turk
- ◆ PI Font
- ◆ PS Math

- ◆ PS Text
- ◆ Roman-8
- ◆ Symbol1
- ◆ Ventura International
- ◆ Ventura Math
- ◆ Ventura US
- ◆ Windows 3.0 Latin 1
- ◆ Windows Latin 1
- ◆ Windows Latin 2
- ◆ Windows Latin 5
- ◆ Wingdings1

The PCL5e Line Printer bitmap font is provided with the printer. This bitmap font is available in medium, 16.65 pitch, 8.5 points, landscape and portrait.

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