



# Tech Info Library

## LaserWriter: How to Print 21 cpi When Using PCL (3/93)

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LaserWriter: How to Print 21 cpi When Using PCL (3/93)

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TOPIC -----

How can I print 21 characters per inch (cpi) to my Apple LaserWriter while using HP's Printer Control Language (PCL)?

DISCUSSION -----

You must first put your PCL-compatible LaserWriter into PCL emulation mode and then send your LaserWriter the appropriate control code. The LaserWriter IIf and IIg, LaserWriter Pro 600 and 630, and Personal LaserWriter NTR are PCL-compatible.

There are two ways of putting your LaserWriter into PCL emulation mode:

- Set your printer to PCL emulation mode.
- Invoke the PCL emulator from PostScript.

Set Your Printer to PCL Emulation Mode

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To set your LaserWriter to PCL emulation mode, put the rotary thumbwheel switch on the printer to the position for HP LaserJet Plus emulation. This position varies among the different LaserWriter printers. Until your LaserWriter is switched to a different setting, all input will be treated as PCL input. You must also choose a printer driver in your software that is configured for a HP LaserJet IIP (this driver is often shipped with MS-DOS, Windows, or the PCL-compatible application).

Invoke the PCL Emulator from PostScript

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Invoking the PCL emulator within a PostScript program makes it easier to switch between PostScript files and other printer language emulators. You invoke a particular printer emulation inside a PostScript language program with

a 'statusdict' procedure called 'emulate'. The PostScript command string to invoke PCL is:

```
statusdict begin currentfile /hpcl emulate
```

The control code for the pitch or characters per inch (cpi) selection is:

```
ESC(s#H
```

where the # is the pitch or cpi. Note that the pitch setting doesn't apply to proportional fonts, since the number of characters printed in an inch of proportional type varies, depending on which letters are printed.

The control code for 21 cpi printing is:

```
ESC(s21H
```

If you are already in PCL emulation mode, you can simply send this control code to the printer through your application program.

If you want to invoke PCL emulation mode from PostScript and start 21 cpi printing, type this command string

```
statusdict begin currentfile /hpcl emulate ESC(s21H
```

into a text editor and save it as a text file. Then, launch the LaserWriter Utility and select the 'Download PostScript file' option from the Utilities menu. Download the text file you have saved and your LaserWriter will be able to print 21 cpi in PCL emulation mode.

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