# Tech Info Library

## LaserWriter: LaserJet Plus Emulation Over AppleTalk

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Article Change History
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08/20/92 - UPDATED
                • To include Personal LaserWriter NT and NTR.


TOPIC -----------------------------------------------------------

How can I print from a PC with the LaserWriter IINTX or Personal
LaserWriter NT or NTR in HP LaserJet Plus emulation mode over AppleTalk
(that is, with an AppleTalk card in the PC)?

DISCUSSION ------------------------------------------------------

Here are the steps you need to follow.  The article concludes with two
troubleshooting sections:

Step One: Connection
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1) Connect a LocalTalk connector box to the appropriate port on the PC. (An
AppleTalk interface card must be installed inside the PC.)

2) Connect another LocalTalk connector box to the LaserWriter.

3) Using a LocalTalk cable, connect the two connector boxes together.

(Note: If more devices are to be added to the AppleTalk network, consult
the manual that came with your LocalTalk cables and connectors.)

Step Two: Switch Settings
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While the LaserWriter is off, set the printer switches according to the
following list.

These switch settings place the LaserWriter IINTX in PostScript Batch Mode,
AppleTalk:

• 1 UP

- 2 UP
- 3 UP
- 4 UP
- 5 UP (any position)
- 6 UP (any position)

To place the Personal LaserWriter NT in PostScript Batch Mode, AppleTalk,
set the single pushwheel switch to either position "0" or "7."

Step Three: Power On
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Turn on the LaserWriter and the PC. After a few seconds, the LaserWriter
prints a test page containing its current settings.

Step Four: Change LaserWriter to LaserJet Plus Emulation Mode
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The following PostScript code switches the LaserWriter into LaserJet Plus
emulation mode.  Note: The "%" characters and following comments are not
necessary. You can omit them when typing in the program.  From the DOS
prompt, type the following:

```
COPY CON POST.TXT
serverdict begin 0 exitserver %This exits the printer server loop.
statusdict begin             %Start modifying settings.
5 setsoftwareiomode          %Set printer to HP LaserJet+ mode.
end                          %This is the end of the mode switch routine.
systemdict/quit get exec     %Force an error to cause a system start test
                             %page.
(control z)                  %Press the keyboard control key and the z key
                             %together. This ends text editing and saves
                             %the file.
```

Step Five: PostScript Code
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Send the PostScript file through a PostScript download utility (included
with most AppleTalk interface cards for the PC) or an application like
Microsoft Word (which contains PostScript code printing). Once the file has
been sent, the printer switches internally from the PostScript batch mode
to LaserJet Plus emulation.  After a few seconds, it prints a test page
displaying the new settings.

Note: Currently, there is no method of software switching back to PostScript or
to any other emulation mode once you have left PostScript mode on the
LaserWriter. The correct method is to change the DIP switch settings and
wait 30 seconds. If you want to use PostScript, switch one should be set to
DOWN. Wait 30 seconds and move the switch back to the UP position.

Troubleshooting: No test page
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If the LaserWriter will not print a test page to indicate HP emulation
mode, follow these steps:

1) Check cable, connector box connections, and paper supply to the

LaserWriter.

2) Turn off any spooler commands that may be implemented on the PC.

3) Check the PostScript file (POST.TXT) for any typing errors.  If none are
   apparent, we suggest re-typing the PostScript code from scratch.  If the
   LaserWriter II does not get the PostScript code character for character,
   the mode change will not work.

4) Once the code has been retyped, send it to the LaserWriter. If the
   LaserWriter prints a test page, then all is well. If the LaserWriter
   prints out a page containing the PostScript code, it is in LaserJet+
   emulation mode, but a test page will not be printed. (There is an error
   in the PostScript code that instructs the LaserWriter IINTX to print a
   test page, but the mode switch was successful.)

5) If the LaserWriter does nothing, then start over from step 1.

Troubleshooting: No printing from within an application
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If the LaserWriter won't print from within an application, check these
things:

• The application must also be set up to print to a LaserJet+ using
  Times, Helvetica, or Courier.

• The application must be capable of sending output over an AppleTalk
  network.
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