DOS Compatibility Card: Printing to a HP LaserJet (3/95)

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TOPIC --

How do I direct connect an HP LaserJet serial printer to a Quadra 610 DOS
compatible, or the DOS Compatibility Card, so I do not have to go through the
printer emulation mode?

DISCUSSION ---

Here is how you need connect the printer to the Macintosh in order to use the HP
LaserJet in both PCL and Auto mode. In the Auto mode the printer switches to
PostScript if needed.

Communication Settings

On the printer set it to:

- Serial (or Auto to allow it to print from any port)
- 9600* (1)
- XON/XOFF
- Robust XON = OFF (2)

Notes:
(1) - You can also set the printer to 19,200, if you use the "Faster Printing
Directly to Port" option in Windows.

(2) - You can also use Robust XON = ON

Cable Pinouts No Handshaking

```
.    DB9 Male                    Din 8 Male
.    --------                    ---------

.  DCD 1----|
.  DTR 4----|-------------------|----1 HSKo (DTR)
.  RTS 7----|                   |----2 HSKi (CTS)
.  CTS 8----|
.     TxD 3----------------------5 RxD-
```

```
.      RxD 2-----------------------3 TxD-
. SIG GND 5---------------------|----4 SIG GND
.                              |----7 GPi
.      DSR 6 - No Connection
.      RI  9 - No Connection
```

This cable is a straight through connection without handshaking. The way it is
illustrated above is that pins 1,4,7, and 8 on the DB9 Male are connected to
pins 1 and 2 on the Din 8 Male. Pin 5 on the DB9 is connected to both pins 4 and
7 on the Din 8. On this cable everything is grounded except for transmit and
receive. The HSKo and HSKi on the Macintosh are not used, so a more straight
forward cable like the one below can be used instead.

Cable Pinouts Straight Though Connection

```
.        DB9 Male                Din 8 Male
.        --------                ----------
DCD      1 No Connection         1  HSKo (DTR) No Connection
DTR      4 No Connection         2  HSKi (CTS) No Connection
RTS      7 No Connection
CTS      8 No Connection
RxD      2-----------------------5  RxD-
TxD      3-----------------------3  TxD-
SIG GND 5 No Connection          4  SIG GND  No Connection
DSR      6 No Connection         7  GPi      No Connection
RI       9 No Connection
```


Both of these cables work in Windows and DOS. You can use these cables in
Windows at either 19,200 or 9600 baud. You can only use 9600 baud when you are
using MS-DOS.

Setup
-----
1) Open the PC Setup control panel

2) Configure either COM1 or COM2 for the desired Macintosh port

3) Click the Restart PC button

4) Click the OK button in the dialog box that asks if you want to continue.

5) Close the PC Setup control panel

6) Switch to DOS

Printing From DOS
----
1) Type in the following at the DOS prompt:

```
.         MODE COM1:96,n,8,1,p
```

2) Type the following:

.   MODE LPT1:=COM1:<cr>

You can print as usual from any DOS application.

Note:
It is preferable to use applications that can print directly to the serial port,
instead of having to reroute LPT1. You can also add those commands listed above
to the AUTOEXEC.BAT file so you do not have to re-type them after restarting.

Printing From Windows
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1) In Windows, double-click the "Main" icon

2) Double-click the Control Panels icon

3) Double-click the Printers icon

4) Install the appropriate driver for the serial printer you are using.

Note:
Consult the Windows manual for driver installation if needed.

5) After driver installation, click the "Connect" button in the Printers Control
Panel.

6) Select the appropriate COMM port, click the check box marked "Fast Printing
Direct to Port"

7) Click the "Settings" button

8) Set the COMM port parameters to:

. Baud Rate: 19200
. Data Bits: 8
. Parity: None
. Stop Bits: 1
. Flow Control: Xon/Xoff

9) Click either "Set As Default Printer" or "Close" and Windows is setup to
print to a DOS serial printer without having to go through emulation.

Article Change History:
01 Mar 1995 - Corrected some pinout labels.

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