HEWLETT®
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HP **JetDirect** **Print Servers**

HP JetDirect 400N

Hardware Installation Guide

For HP Printers with MIO Slots

Hardware Installation Guide

HP JetDirect 400N Print Server

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Customer Support:
For assistance, visit HP Customer Care Online at:

   www.hp.com/support/net_printing

or HP Customer Care By Phone listed in the *Quick Setup Guide* supplied with this product.

Warranty and Service:
For product warranty and service information, refer to the *Quick Setup Guide* supplied with this product.

A copy of the specific warranty terms applicable to your Hewlett-Packard product and replacement parts can be obtained from your HP Sales and Service Office or authorized dealer.

Safety Considerations

Prior to the installation and use of this product, review all safety markings and instructions.

Safety Symbols:

Instruction Manual Symbol. If the product is marked with this symbol, refer to the product manuals to protect the product from damage.

WARNING	A WARNING denotes a hazard that can cause injury.
CAUTION	A CAUTION denotes a hazard that can damage equipment or data.

Do not proceed beyond a **WARNING** or a **CAUTION** notice until you have understood the hazardous conditions and have taken appropriate steps.

Grounding:

This product is installed in a safety class 1 product that has a protective earthing terminal. There must be an uninterruptible safety earth ground from the main power source to the product's input wiring terminals, power cord, or supplied power cord set. Whenever it is likely that the protection has been impaired, disconnect the power cord until the ground has been restored.
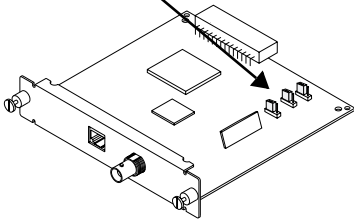
Servicing:

Any service, adjustment, maintenance, or repair of this product must be performed only by authorized service-trained personnel.

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HP JetDirect Print Servers

10/100TX Link Jumpers
(see Appendix B)

HP J4100A

HP J4100A for Fast Ethernet and IEEE 802.3u (10/100Base-TX, 10Base2) networks. An RJ-45 connector supports 10/100 Mbps network connections using unshielded twisted-pair cable. (For 100Base-TX networks, use Category 5 cable.) The BNC connector supports 10 Mbps operation through thin coaxial cables.

Token Ring
Data-Rate Switch
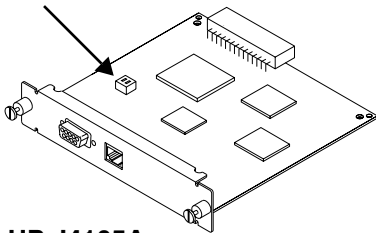
HP J4105A

HP J4105A for Token Ring (IEEE 802.5) networks and can be configured for 4 or 16 Mbps operation. An RJ-45 connector supports network connections using unshielded twisted-pair cables. A DB9 connector supports type 1, 2 or 6 shielded twisted-pair cables.
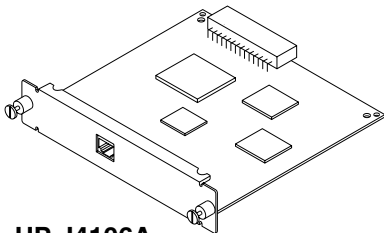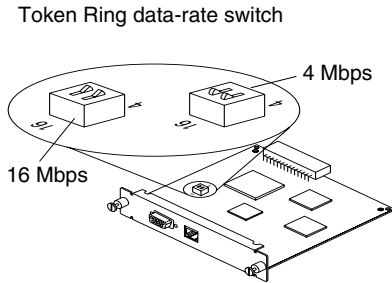
HP J4106A

HP J4106A for 10 Mbps Ethernet/IEEE 802.3 (10Base-T) networks. An RJ-45 connector supports network connections using unshielded twisted-pair cables.

Quick Installation

1. **If you have a Token Ring card,**

Token Ring data-rate switch

4 Mbps

16 Mbps

Set the network Data-Rate switch to 16 Mbps (default) or 4 Mbps depending on your network. If you don't know the network data rate, ask your network administrator.

2. **Before installing the card, verify that your printer works.** Print a test page or configuration plot. For instructions, see chapter 2 or refer to your printer manuals.

3. **Turn off your printer and insert the card.**
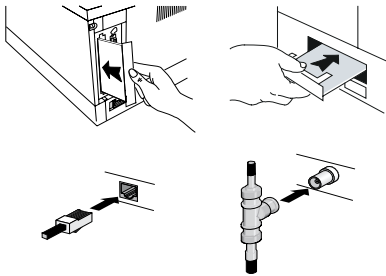
Then connect the network cables.

(See next page)

4. Verify that the card was installed correctly.

Location of "I/O CARD READY" message on test page

4, 4M

4 Plus/4M Plus, 4V/4MV

4Si & 4Si MX, Lower & Upper

5, 5M, 5N

5Si, 5Si MX/NX, 5Si Mopier

Color LaserJet Color LaserJet 5/5M

Lower & Upper

CopyJet & CopyJet M

1200C, 1200C/PS

1600C, 1600CM 1600CN

DesignJet 600/700/ 2000/2500/3000/3500 Series

Print another test page (or configuration plot) and verify that the "I/O CARD READY" message appears.

On the test page, the location of the "I/O CARD READY" message depends on your printer model.

NOTE	If other messages appear, see the troubleshooting sections of the *HP JetDirect Print Server Administrators Guide*.
	For HP J4100A (10/100Base-TX), see appendix B in this manual for special troubleshooting information.

5. Configure the card for network operation.

READY

On Line   Menus   Items   +   Select ▲

Data   Attention
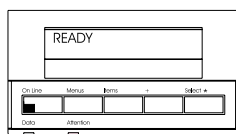
HP JetDirect

CD-ROM

In most cases, you will use the HP JetDirect software on the CD-ROM. For some printers, you can use the printer's control panel to configure basic network parameters. See chapter 3 (for HP LaserJet, Professional Series, and DesignJet ColorPro GA printers) or chapter 4 (for HP DesignJet large format printers).

Contents

4 Using the Control Panel To Configure HP JetDirect Cards in Large-Format Printers

A Specifications and Regulatory Statements

B HP J4100A 10/100Base-TX Print Server

The HP JetDirect Print Server Card

Introduction

The HP JetDirect print server is a card that is installed in the modular input/output (MIO) slot of a printer and allows the printer to be connected directly to a network instead of a single PC. When you use an HP JetDirect print server, you can place your printer anywhere on a network for use by multiple clients.

The HP JetDirect print server card must first be installed into the printer and then be configured for network operation. To configure the print server, you can use HP JetDirect software, or the printer's control panel for selected printers*.

This guide shows you how to perform the hardware installation for the following printers:

• HP Color LaserJet*, and Color LaserJet 5 Series* (5, 5M)
• HP LaserJet 5Si Series* (5Si, 5Si MX, 5Si NX, 5Si Mopier)
• HP LaserJet 5 Series* (5, 5M, 5N)
• HP LaserJet 4Si Series* (4Si, 4Si MX)
• HP LaserJet 4 Plus Series* (4 Plus, 4M Plus)
• HP LaserJet 4 Series* (4, 4M)
• HP LaserJet 4V Series* (4V, 4MV)
• HP Professional Series* (2500C, 2500CM)
• HP DeskJet 1200C Series (1200C, 1200C/PS)
• HP DeskJet 1600C Series (1600C, 1600CM, 1600CN)
• HP CopyJet and CopyJet M color printer-copier
• HP DesignJet 600 Series* (600, 650C)
• HP DesignJet 700 Series* (700, 750C, 750C Plus, 755CM)
• HP DesignJet 2000CP, 2500CP, 3000CP, 3500CP Series*
• HP DesignJet ColorPro GA Series*

* Control panels for these printers allow you to configure some network parameters manually (see chapters 3 and 4).

To set up network printing using the HP JetDirect software, refer to the *HP JetDirect 400N Quick Setup Guide* included with this product.

The HP JetDirect Print Server Cards at a Glance

Network Types	Network Connections Supported
Ethernet, IEEE 802.3 (10/100Base-TX, 10Base2)	RJ-45 (unshielded twisted-pair cable), BNC (thin Ethernet coaxial cable)
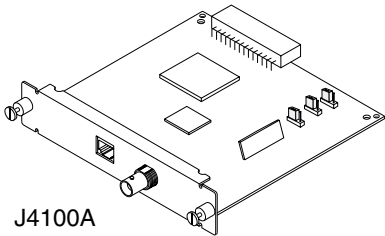
J4100A
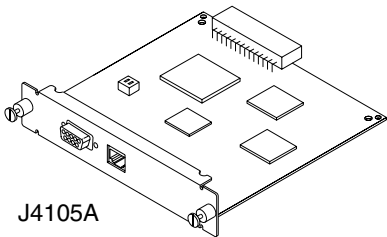
Network Types	Network Connections Supported
Token Ring, IEEE 802.5 (4 or 16 Mbps)	RJ-45 (unshielded twisted-pair cable), DB 9 (type 1, 2 or 6 shielded twisted-pair cable)

J4105A
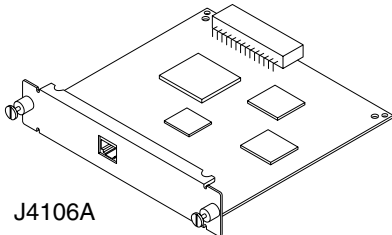
Network Types	Network Connections Supported
Ethernet, IEEE 802.3 (10Base-T)	RJ-45 (unshielded twisted-pair cable)

J4106A

Supported Networks

Supported Network Protocols	Supported Networks[1]	Applicable Products
IPX/SPX and compatible	Novell NetWare Microsoft Windows 95/98/NT/2000	J4100A J4105A J4106A
EtherTalk	AppleTalk	J4100A J4106A
DLC/LLC	Microsoft Windows NT Artisoft LANtastic[2]	J4100A J4105A J4106A
TCP/IP	Microsoft Windows 95/98/NT/2000 Novell NetWare 5 via NDPS LPD UNIX, including: Hewlett-Packard HP-UX, Sun Microsystems Solaris (Sun SPARCsystems only), Linux SCO UNIX[2], IBM AIX[2], HP MPE-iX[2]	J4100A J4105A J4106A
1 For other networks, consult your system vendor or authorized HP dealer.		
2 Contact your network system vendor for software, documentation, and support.		

What You Need for Installation

- The appropriate HP JetDirect print server, documentation, and software.

- A static-safe environment for handling the card. A grounding wrist strap or similar device is recommended.

- Appropriate network cables and connectors for connecting the card to the network.

- A small flat-blade screwdriver. Installing the card into the upper MIO slot of an HP LaserJet 4Si/4Si MX printer also requires a small Phillips-head screwdriver.

CAUTION   The HP JetDirect card contains electronic components that can be damaged by static electricity through electrostatic discharge (ESD). To prevent ESD damage, maintain frequent contact with any bare sheet metal surface on the printer. A grounding wrist strap (or similar device) is useful for this purpose. Handle the card carefully at all times. Avoid touching electronic components or circuit paths.

2

Installing the HP JetDirect Print Server Card

Task 1. If you have a Token Ring card, set the Data-Rate switch (if necessary)

Before installing a Token Ring card, you must set the data-rate switch to either 4 Mbit/second or 16 Mbit/second (factory default). The selected setting depends on the data-rate operation of your Token Ring network.

1. Locate the Data-Rate switch on the Token Ring print server card.

2. Set the switch to 4 Mbit/s or 16 Mbit/s.
    Note: when switches are pressed toward the "Open" position, they are in the 16 Mbit/s setting.

16 Mbit/s

4 Mbit/s position
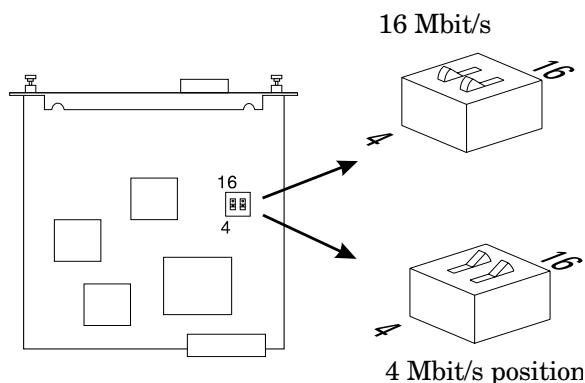
Task 2. Before installing the card, verify the printer works

The following pages show instructions for printing a self-test page or configuration plot to verify the printer is operating correctly. Locate and follow the instructions for your specific printer. If a self-test page or configuration plot does not print, see your printer manuals for troubleshooting procedures.

HP LaserJet 5, 5M, and 5N printers

1. Turn on the printer.

2. Press `Menu` repeatedly until TEST MENU appears.

3. Press `Item` repeatedly until Print Self Test appears.

4. Press `Select` to print the Test Page.
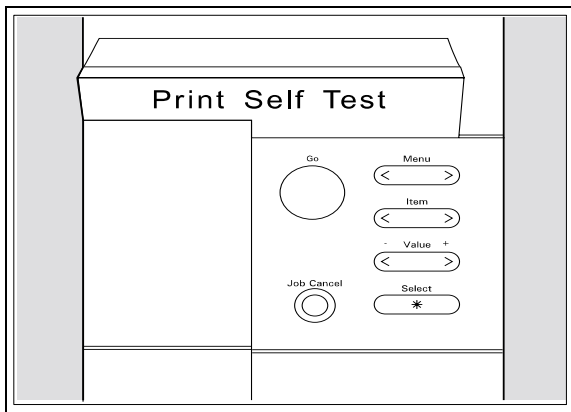
Control Panel for the HP LaserJet 5, 5M, 5N

HP LaserJet 5Si, 5Si MX, 5Si NX, 5Si Mopier printers

1. Turn on the printer and wait until a ready message is displayed.

2. Press `Menus` repeatedly until TEST MENU appears.

3. Press `Items` until PCL CONFIGURATION PAGE appears.

4. Press `Select*` to print the PCL configuration page.
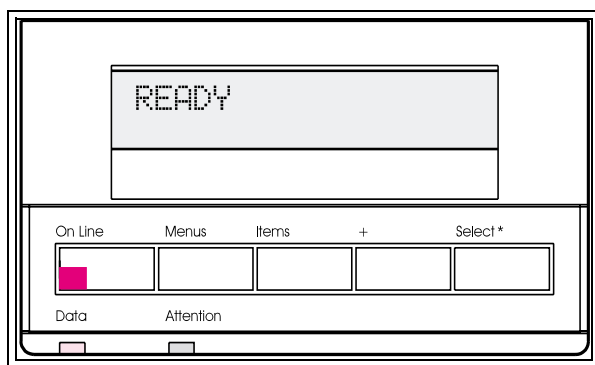
Control Panel for the HP LaserJet 5Si Series printers

2

Installation

HP Color LaserJet and Color LaserJet 5, 5M printers

1. Turn on the printer and wait until a ready message is displayed.

2. Switch the printer offline by pressing `On Line` to turn off the On Line light.

3. Press `Menu` repeatedly until the following appears:
    ```
    PCL TEST MENU
    PCL SELF TEST
    ```

4. Press `Enter`. A self-test page will print.
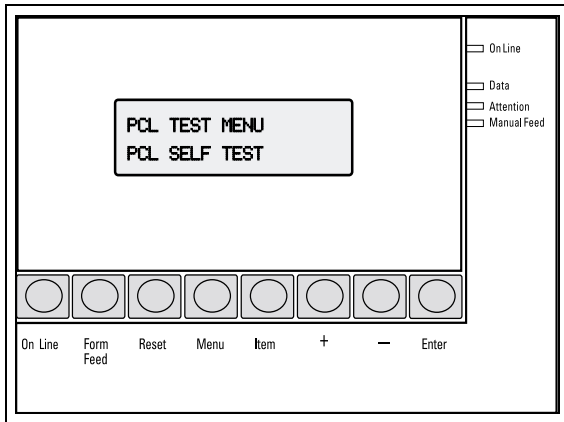
Control Panel for HP Color LaserJet and Color LaserJet 5/5M

HP LaserJet 4, 4M, 4 Plus, and 4M Plus printers

1. Turn on the printer and wait until the Ready light is lit.

2. Switch the printer offline by pressing `On Line` to turn off the On Line light.

3. Press `Menu` repeatedly until TEST MENU appears.

4. Press `Item` repeatedly until SELF TEST appears.

5. Press `Enter`. A self-test page will print.

05 SELF TEST

Ready
On Line   Form Feed   Paper Size   Enter

            Menu   Item   +

Shift   Reset   Continue   -

Control Panel for HP LaserJet 4, 4M, 4 Plus, and 4M Plus

HP LaserJet 4Si and 4Si MX printers

1. Turn on the printer and wait until the Ready light is lit.

2. Switch the printer offline by pressing
    `On Line` to turn off the On Line light.

3. Press `Menu` repeatedly until TEST MENU appears.

4. Press `Item` repeatedly until SELF TEST appears.

5. Press `Enter`. A self-test page will print.

```
┌──────────────────────────────────────────┐
│  ▭ Ready      ┌───────────────────────┐   │
│  ▭ Manual     │  ▐ 05 SELF TEST ▌     │   │
│  ▭ Duplex     └───────────────────────┘   │
│                                           │
│  ┌────────┐ ┌────────┐ ┌────────┐ ┌─────┐ │
│  │On Line │ │ Menu   │ │ Item   │ │  +  │ │
│  │        │ │        │ │        │ │  -  │ │
│  └────────┘ └────────┘ └────────┘ └─────┘ │
│  ┌────────┐ ┌────────┐ ┌────────┐ ┌─────┐ │
│  │Form Feed│ │Continue│ │        │ │Enter│ │
│  │        │ │ Reset  │ │ Shift  │ │     │ │
│  └────────┘ └────────┘ └────────┘ └─────┘ │
└──────────────────────────────────────────┘
```

Control Panel for HP LaserJet 4Si and 4Si MX
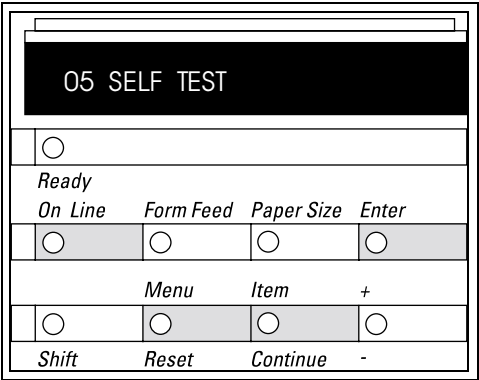
HP LaserJet 4V and 4MV printers

1. Turn on the printer and wait until the Ready light is lit.

2. Switch the printer offline by pressing `On Line` to turn off the
    On Line light.

3. Press `Menu` repeatedly until TEST MENU appears.

4. Press `Item`. SELF TEST appears.

5. Press `Enter`. SELF TEST appears, followed by PRINTING TEST,
    and a self-test page will print.

Control Panel for HP LaserJet 4V and 4MV

HP 2500C/CM Professional Series and HP DesignJet ColorPro GA Printers

1. Turn on the printer and wait for READY to appear in the display panel.

2. Press **Menu** until SELF TEST MENU appears.

3. Press **Item** to display PRINT DIAGNOSTIC PAGE.

4. Press **Select**. A printer diagnostic page will print along with an HP JetDirect self-test page.
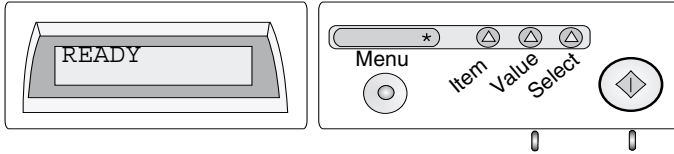
HP DeskJet 1600C, 1600CM, and 1600CN printers

1. Turn on the printer.

2. Press the blue button. A self-test page will print.
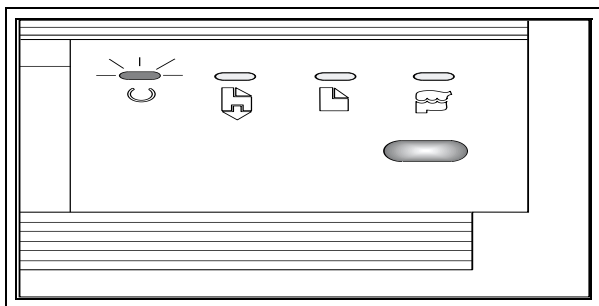
Control Panel for HP DeskJet 1600C, 1600CM, and 1600CN

HP DeskJet 1200C and 1200 C/PS printers
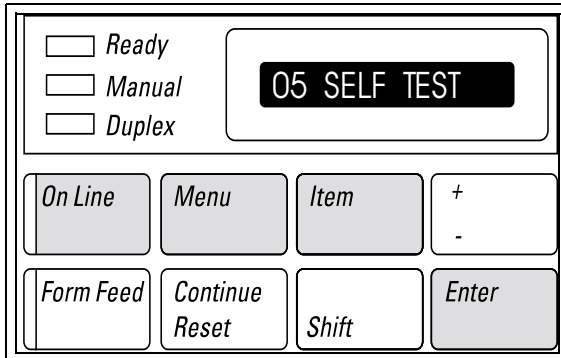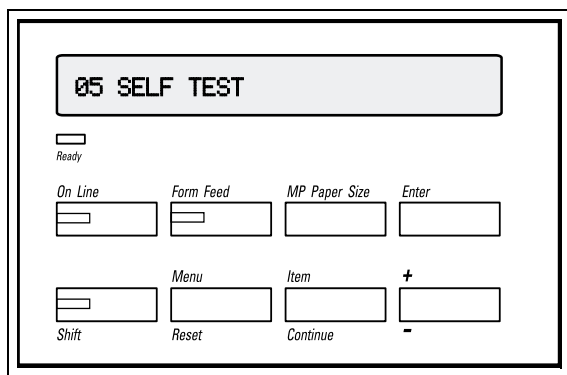
1. Turn on the printer and wait until the Ready light is lit.

2. Switch the printer offline by pressing `Reset` to turn off the On Line light.

3. Hold `Shift` and press `Test`. A self-test page will print.
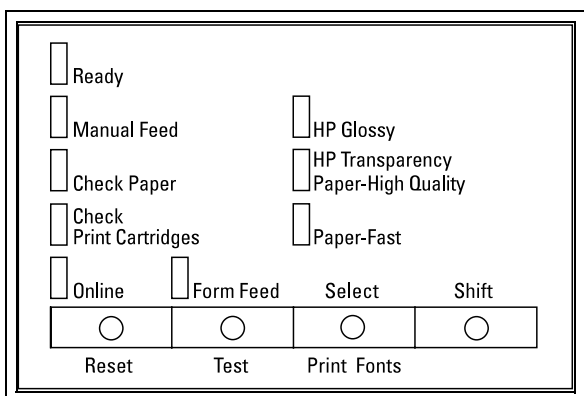
Control Panel for HP DeskJet 1200C and 1200C/ PS printers

HP DesignJet 600 Series large-format printers

1. Turn on the printer and wait until the printer displays STATUS Ready to plot.

2. Press Enter . FULL MENUS Plot Mgmt → appears.

3. Press ↓ until FULL MENUS Utilities appears.

4. Press Enter again. UTILITIES <menu item>→ appears.

5. Press ↓ until Config Plot appears.

6. Press Enter . A configuration plot will print.
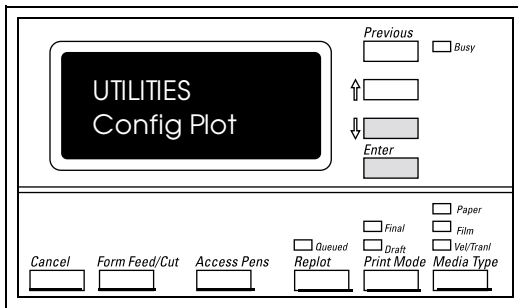
Control Panel for HP DesignJet 600 Series Printers

HP DesignJet 700, 750C, 750C Plus, 755CM, 2000CP, 2500CP, 3000CP, 3500CP large-format printers

To print a DesignJet configuration page:

1. Turn on the printer and wait until STATUS Ready appears.

2. Press the two arrow keys simultaneously.

To print a configuration plot for JetDirect:

1. Turn on the printer and wait until STATUS Ready appears.

2. Press `Enter`. FULL MENUS appears.

3. Press ↓ until FULL MENUS Utilities appears.

4. Press `Enter`, then ↓ until Service Config appears.

5. Press `Enter`. A configuration plot with JetDirect information will print.
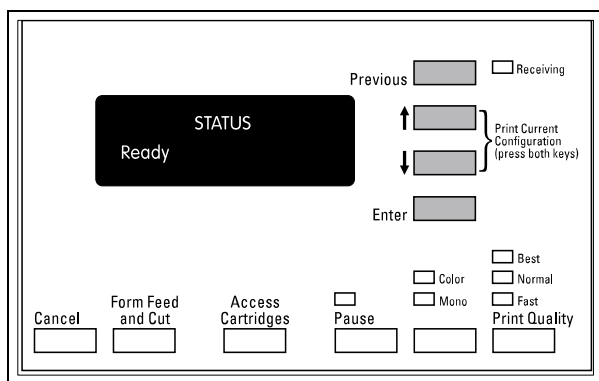
Control Panel for HP DesignJet 700/2000/2500/3000/3500 Series

HP CopyJet and CopyJet M color printer-copiers

1. Turn on the printer.

2. Press the `Test Menu` button.
   The control panel display shows
   ```
   - = Test page
   + = PCL fonts
   ```

3. Press `-` to print the Test Page.
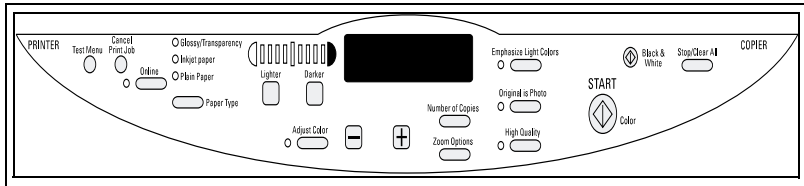
Control Panel for HP CopyJet and CopyJet M printer-copiers

Task 3. Insert the HP JetDirect print server card into the printer

Locate the instructions for installing the card into your specific printer. To prevent electrostatic discharge (ESD) damage when installing the card, maintain frequent contact with any bare sheet metal surface on the printer. (See "What You Need for Installation" in chapter 1.)

To install the card into the HP LaserJet 4, 4M, 4 Plus, 4M Plus, Color LaserJet, and Color LaserJet 5/5M printers

1. Turn off the printer and unplug the power cord.

2. Locate the HP Modular Input/Output (MIO) slot at the back of the printer (see the appropriate figure below).
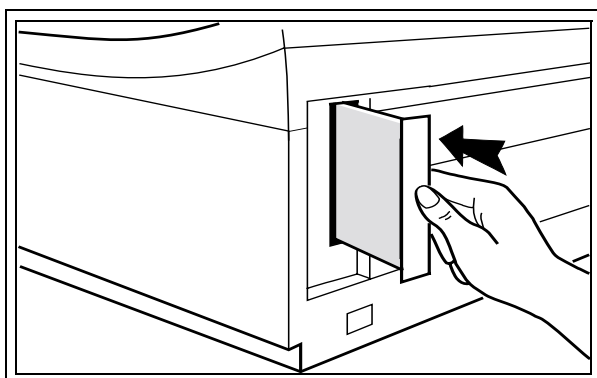
Components face right for 4, 4M, 4 Plus, or 4M Plus
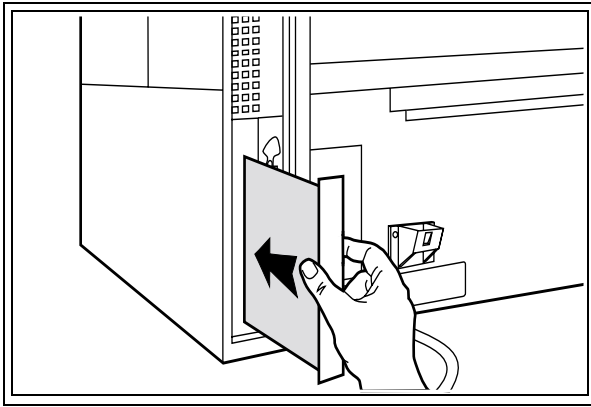
Components face left for Color LaserJets (including 5/5M)

3. If the slot has a cover plate, remove it.

4. Insert the card. Align the card with the guide rails in the printer.

5. Press the card into the slot until firmly seated and tighten each thumbscrew a little at a time, alternating between each side until both screws are secure.

6. Connect the network cable to the card.

7. Connect the power cord and turn on the printer.

NOTE   For the HP J4100A JetDirect card (RJ-45 and BNC), you can connect to *one* of the Ethernet ports (only one Ethernet port is active at a time).

For the HP J4105A JetDirect card (RJ-45 and DB9), you can connect to *only one* Token Ring port.

To install the card into the HP LaserJet 4V and 4MV printers

1. Turn off the printer and unplug the power cord.

2. Locate the HP modular I/O (MIO) slot at the back of the printer (see the figure below).

Components face downward for 4V and 4MV printers

3. If the slot has a cover plate, remove it.

4. Insert the card. Align the card with the guide rails in the printer.

5. Press the card into the slot until the card is firmly seated.

6. Tighten each thumbscrew a little at a time, alternating between each side until both screws are secure.

7. Connect the network cable to the card.

8. Connect the power cord and turn on the printer.

NOTE   For the HP J4100A JetDirect card (RJ-45 and BNC), you can connect to *one* of the Ethernet ports (only one Ethernet port is active at a time).

For the HP J4105A JetDirect card (RJ-45 and DB9), you can connect to *only one* Token Ring port.

To install the card into the HP LaserJet 5, 5M, or 5N printers

1. Turn off the printer and unplug the power cord.

2. Locate the HP Modular Input/Output (MIO) slot at the back of the printer (see the figure below).

Components face right for HP LaserJet 5, 5M, 5N

3. If the slot has a cover plate, remove it.

4. Insert the card. Align the card with the guide rails in the printer.

5. Press the card into the slot until firmly seated and tighten each thumbscrew a little at a time, alternating between each side until both screws are secure.

6. Connect the network cable to the card.

7. Connect the power cord and turn on the printer.
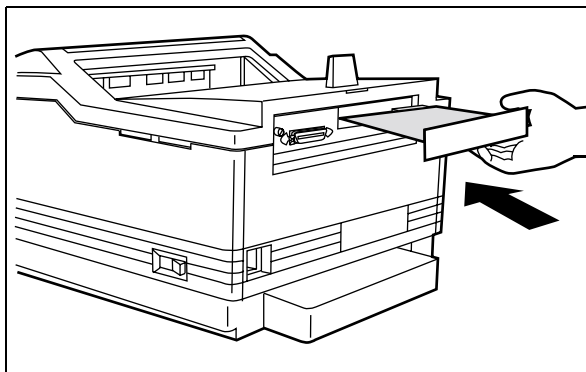
NOTE   For the HP J4100A JetDirect card (RJ-45 and BNC), you can connect to *one* of the Ethernet ports (only one Ethernet port is active at a time).

For the HP J4105A JetDirect card (RJ-45 and DB9), you can connect to *only one* Token Ring port.

The HP LaserJet 4Si Series and 5Si Series Printers Have Two Card Slots

The HP LaserJet 4Si, 4Si MX, 5Si, 5Si MX, 5Si NX, and 5Si Mopier printers have two HP modular input/output (MIO) slots that enable you to run more than one type of network, such as Ethernet and Token Ring, by installing a card for each type of network.

Note the following restrictions:

- The use of two Ethernet cards in the same printer (which includes both 10Base-T or 100Base-TX cards) is *not supported*.

- If you plan to install an HP J4100A 10/100Base-TX JetDirect card in a LaserJet 5Si Series printer, use the *upper* MIO slot.

- If you plan to install only one card in an HP LaserJet 4Si Series printer, use the *lower* MIO slot. If you want to add an additional card in a 4Si Series printer, you must perform special installation procedures to use the *upper* MIO slot. To use the upper MIO slot, you must use one of the following HP JetDirect products: HP J4105A or HP J4106A. The special installation instructions are described later in this chapter.

NOTE   The HP J4100A 10/100Base-TX JetDirect card is *not supported* in the upper slot of an HP LaserJet 4Si Series printer. If you plan to use this card, you must install it in the *lower* MIO slot.

2

Installation

To install a card into the *lower slot* of the HP LaserJet 4Si Series, and *either slot* of the 5Si Series printers

1. Turn off the printer and unplug the power cord.

2. Locate the HP modular I/O (MIO) slots at the back of the printer.
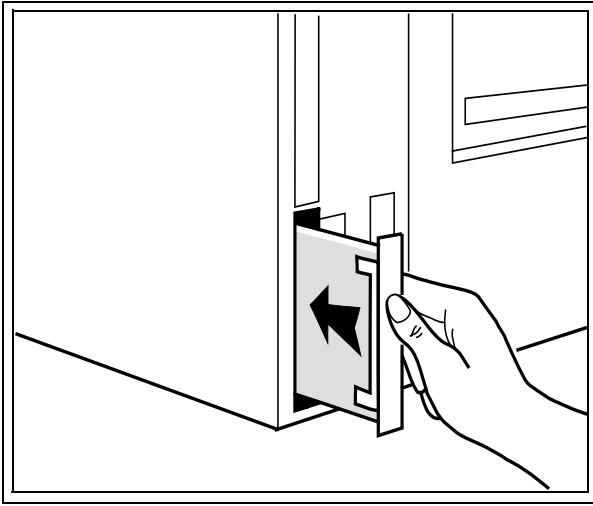
Components face left in HP LaserJet 4Si Series
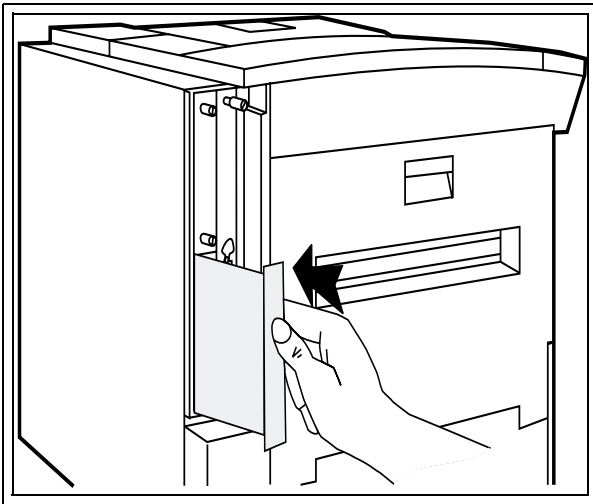
Components face right in HP LaserJet 5Si Series

3. Remove the cover plate. (Remember: use the lower slot for the 4Si or 4Si MX.)

4. Insert the card. Align the card with the guide rails in the printer.

5. Press the card into the slot until the card is firmly seated.

6. Tighten each thumbscrew a little at a time, alternating between each side until both of the screws are secure.

7. Connect the network cable.
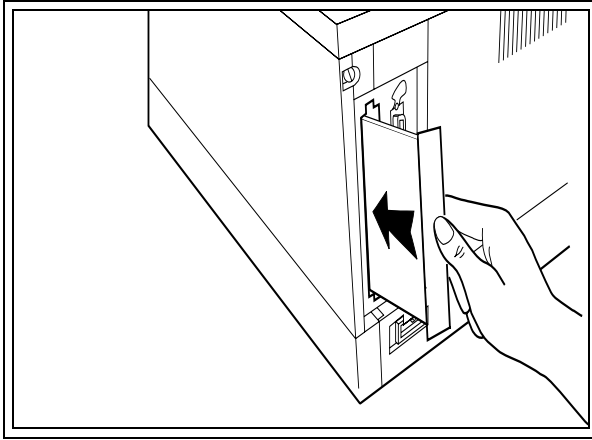
8. Connect the power cord and turn on the printer.

NOTE	For the HP J4100A JetDirect card (RJ-45 and BNC), you can connect to *one* of the Ethernet ports (only one Ethernet port is active at a time).
	For the HP J4105A JetDirect card (RJ-45 and DB9), you can connect to *only one* Token Ring port.

2

Installation

To install a card into the upper MIO slot of the HP LaserJet 4Si and 4Si MX printers

NOTE   To use the upper slot of an HP LaserJet 4Si or 4Si MX printer, you must assemble two cards together and insert them both into the printer at the same time. To assemble the cards together, the card to be used in the upper slot must be fitted with a custom cover plate. Custom cover plates must be ordered from Hewlett-Packard:

•C2009-60111 (for HP J4105A or J4106A)

1. Turn off the printer and unplug the power cord.

2. Remove the existing card from the *lower* MIO slot of the printer. (You will assemble this card to the new card later.)
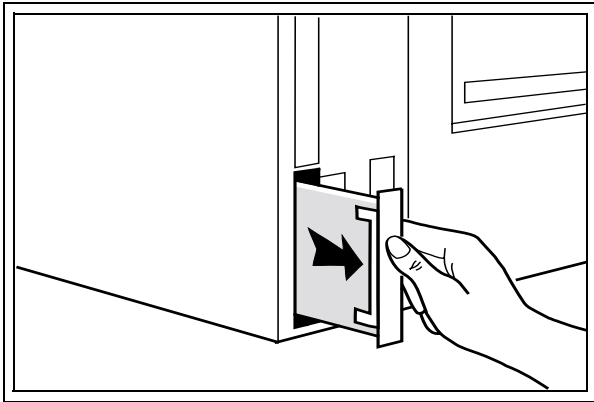
Remove card from lower MIO slot

3. Remove the protective cover from the *upper* MIO slot.

4. For the HP JetDirect card that will be installed into the upper slot, remove the front plate by removing the two side screws (A).

    •   If your HP JetDirect card is a Token Ring card, also remove the mounting screws (B) from the front plate.

    •   The front plate should separate from the card. Save this front plate for future use, if desired.
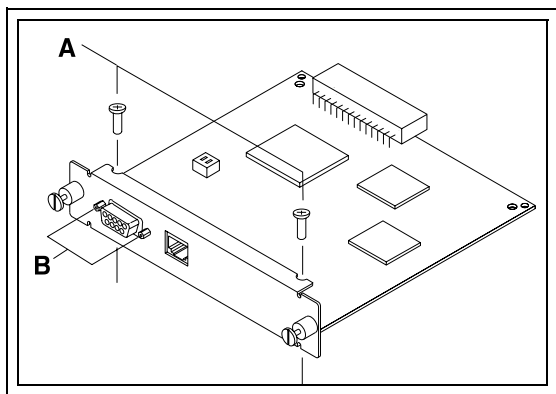
Remove faceplate from card

5. Obtain the appropriate custom cover plate for your card. Remove the plastic clip and screws from the rear of the cover plate. Save the clip—you will use it later in the installation process.
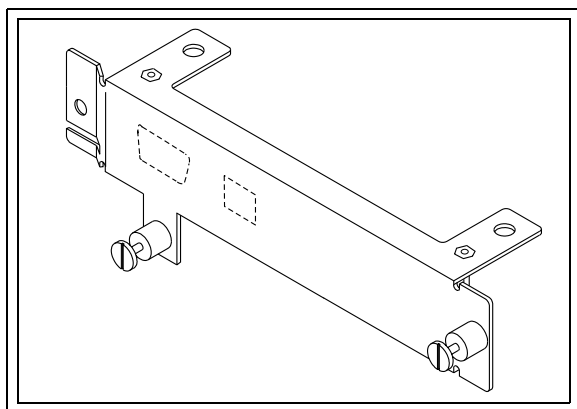
Custom cover plate for Token Ring card

6. Compare the HP JetDirect card's front plate with the custom cover plate. Peel off the appropriate part of the label on the customized cover plate to match the holes punched out on the HP JetDirect card's front plate:

- If you are installing an HP J4106A JetDirect card (RJ-45 port only), expose that hole in the custom cover plate by peeling off the RJ-45 portion of the label.

- For an HP J4105A JetDirect card, peel off the DB-9 and RJ-45 portions of the label.

7. Attach the custom cover plate to the HP JetDirect card.

- Align the holes in the cover plate to the holes in the card.

- Insert and slowly tighten the side screws (A).

- If you have a Token Ring card, insert the mounting screws (B) and slowly tighten them.
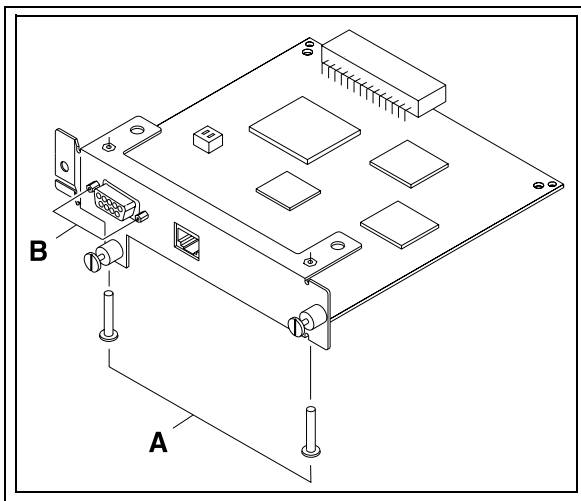
Peel off label parts and attach cover plate to card

8. With the components facing up, assemble the two cards together. The card that will be installed into the upper slot (with custom cover plate) will be to the right. Secure the cards by tightening the spring-loaded thumbscrews (C).
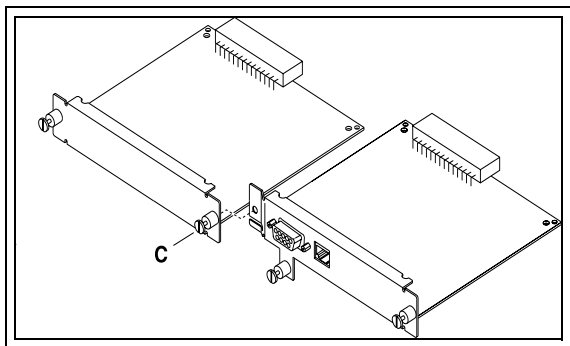
Connect cards with customized plate at right

9. Attach the plastic retaining clip (D) to the card assembly, matching the small holes in the two cards.
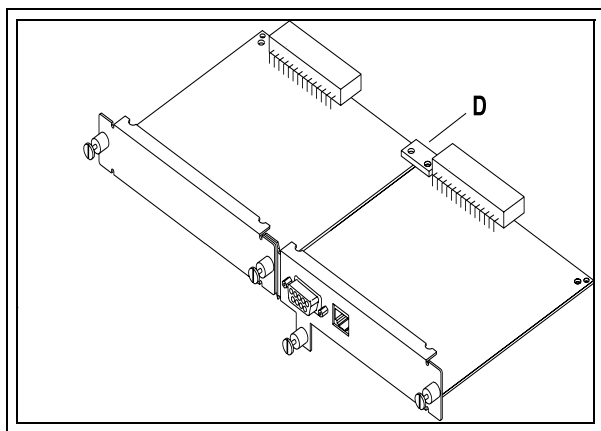
Attach plastic retaining clip

10. With the components facing the left edge of the printer, slide the card assembly into the printer. Align the top and bottom of the assembly with the top and bottom guide rails located inside the printer. Press the cards into the slot until the cards are firmly seated.

CAUTION   The assembly must fit into the guide rails correctly. Failure to install the assembly correctly may cause damage to the formatter board or to the MIO assembly.
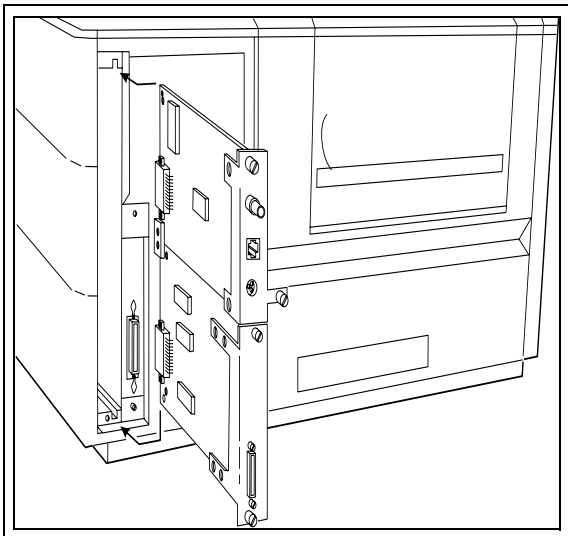
Insertion of two cards into HP LaserJet 4Si/4SiMX

11. Secure the assembly to the printer by tightening the remaining three thumbscrews a little at a time, alternating between each side until all of the screws are secure.

12. Connect the network cable.

13. Connect the power cord and turn on the printer.

| **NOTE**	For the HP J4100A JetDirect card (RJ-45 and BNC), you can connect to *one* of the Ethernet ports (only one Ethernet port is active at a time).
	For the HP J4105A JetDirect card (RJ-45 and DB9, you can connect to *only one* Token Ring port.

To install the card into HP 2500C/CM Professional Series and HP DesignJet ColorPro GA Printers

1. Turn the printer off and unplug the power cord.

2. Locate the HP modular I/O (MIO) slot at the back of the printer.

3. If the slot has a cover plate, remove it.

4. Insert the card. Align the card with the guide rails in the printer.

5. Press the card into the slot until firmly seated and tighten each thumbscrew a little at a time, alternating between each side until both screws are secure.

6. Connect the network cable to the card.

NOTE	For the HP J4100A JetDirect card (RJ-45 and BNC), you can connect to *one* of the Ethernet ports (only one Ethernet port is active at a time).
	For the HP J4105A JetDirect card (RJ-45 and DB9), you can connect to *only one* Token Ring port.

7. Connect the power cord.

8. Turn on the power switch.

To install the card into the HP DeskJet 1200C, 1200C/PS, 1600C, 1600CM, and 1600CN printers

1. Turn off the printer and unplug the power cord.

2. Locate the HP modular I/O (MIO) slot at the back of the printer (see the appropriate figure below).

Components face up for HP DeskJet 1200 and 1600 Series

3. If the slot has a cover plate, remove it.

4. Insert the card. Align the card with the guide rails in the printer.

5. Press the card into the slot until firmly seated and tighten each thumbscrew a little at a time, alternating between each side until both screws are secure.

6. Connect the network cable to the card.

7. Connect the power cord.

8. For the HP DeskJet 1200C, 1600C, 1600CM and 1600CN printers, turn on the power switch.

NOTE   For the HP J4100A JetDirect card (RJ-45 and BNC), you can connect to *one* of the Ethernet ports (only one Ethernet port is active at a time).

For the HP J4105A JetDirect card (RJ-45 and DB9), you can connect to *only one* Token Ring port.

2

Installation

To install the card into the HP DesignJet 600 Series, 700 Series, 2000/2500/3000/3500 Series large-format printers

1. Turn off the printer but *leave the power cord plugged in*.

2. Locate the HP modular I/O (MIO) slot located at the back of the printer (see the appropriate figure below).
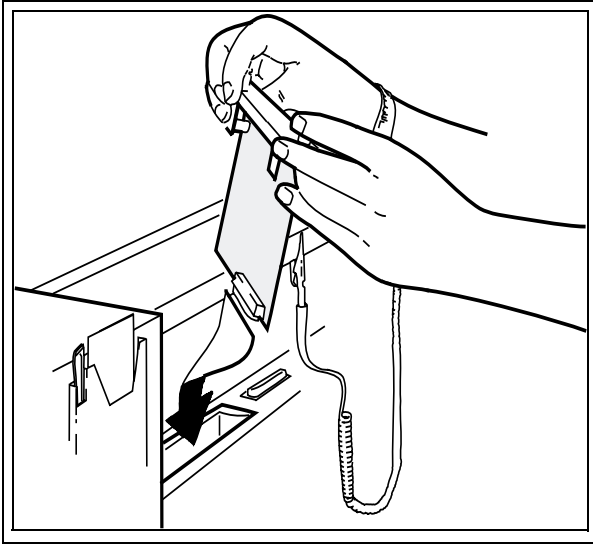
Components face toward front of DesignJet 600 & 650C
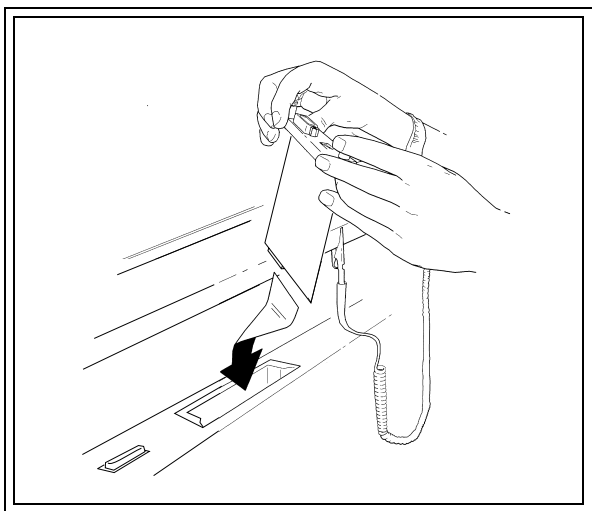
Components face toward back, DesignJet 700/2000/2500/3000/3500 Series

3. If the slot has a cover plate, remove it.

4. Insert the card. Align the card with the guide rails in the printer.

5. Press the card into the slot until the card is firmly seated.

6. Tighten each thumbscrew a little at a time, alternating between each side until both screws are secure.

7. Connect the network cable to the card and turn on the printer.

NOTE   For the HP J4100A JetDirect card (RJ-45 and BNC), you can connect to *one* of the Ethernet ports (only one Ethernet port is active at a time).

For the HP J4105A JetDirect card (RJ-45 and DB9), you can connect to *only one* Token Ring port.

To install the card into the HP CopyJet and CopyJet M color printer-copiers

1. Turn off the printer and unplug the power cord.

2. Locate the HP modular I/O (MIO) slot at the back of the printer (see the figure below).
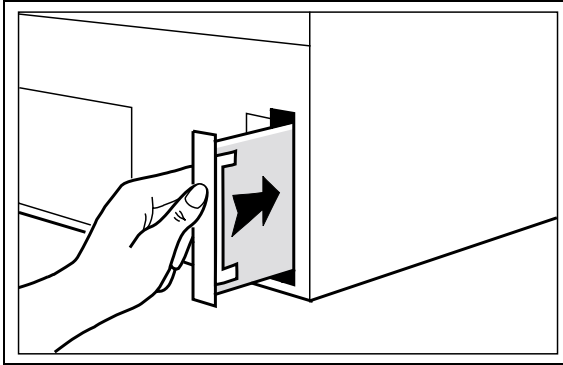
Components face right for CopyJet and CopyJet M printers

3. If the slot has a cover plate, remove it.

4. Insert the card. Align the card with the guide rails in the printer.

5. Press the card into the slot until the card is firmly seated.

6. Tighten each thumbscrew a little at a time, alternating between each side until both of the screws are secure.

7. Connect the network cable to the card.

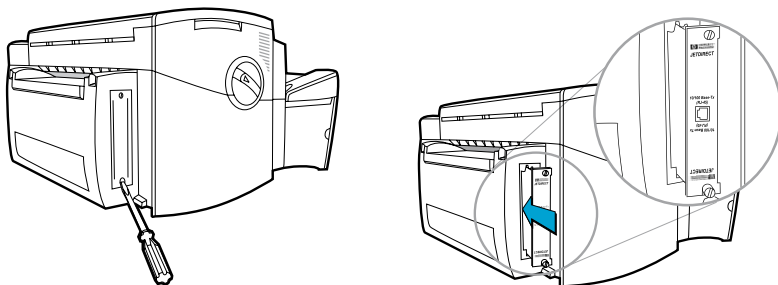8. Connect the power cord and turn on the printer.
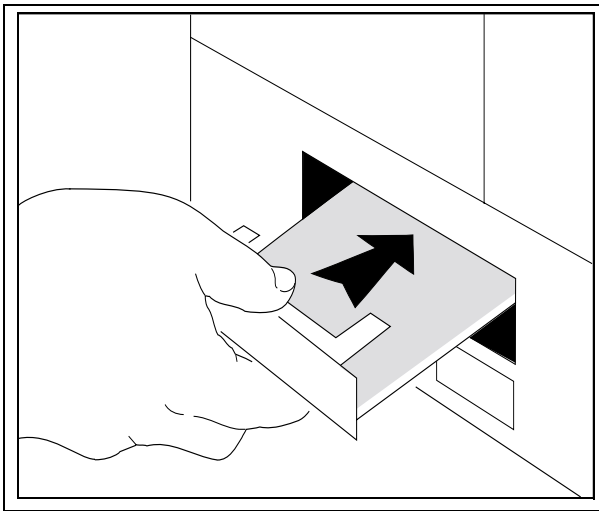
NOTE   For the HP J4100A JetDirect card (RJ-45 and BNC), you can connect to *one* of the Ethernet ports (only one Ethernet port is active at a time).

For the HP J4105A JetDirect card (RJ-45 and DB9), you can connect to *only one* Token Ring port.

Task 4. Verify the card was installed correctly

1. Print a new self-test page or configuration page.

2. Using the diagram on the following page as a guide, locate the phrase "I/O CARD READY" on the self-test page.

   The I/O CARD READY message is included in the MIO section of the self-test page, which also provides information about the following:

   • Product number

   • Firmware revision number

   • LAN hardware address

   • Port selection type

   • Manufacturing identification number

   • Network statistics

   • Network protocol messages

NOTE   For HP 2500C/CM Professional Series and HP DesignJet ColorPro GA printers, the MIO information is provided on a separate HP JetDirect self-test page, which prints immediately after the printer's diagnostic page.
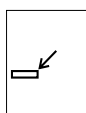
4, 4M
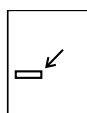
4 Plus/4M Plus, 4V/4MV
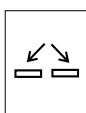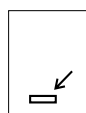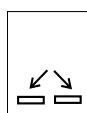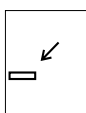
4Si & 4Si MX, Lower & Upper

5, 5M, 5N

5Si, 5Si MX/NX, 5Si Mopier

Color LaserJet Color LaserJet 5/5M

Lower & Upper
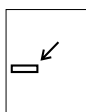
CopyJet & CopyJet M
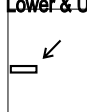
1200C, 1200C/PS
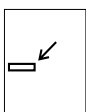
1600C, 1600CM 1600CN
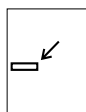
DesignJet 600/700/ 2000/2500/3000/3500 Series

Location of I/O CARD READY message on self-test pages

3. For more information about this section of the self-test page, see your HP JetDirect *Administrators Guide* on the HP JetDirect CD-ROM.

4. If the I/O CARD READY message appears, the card has been installed successfully. See "What To Do Next".

   If the message does not appear, check that you have:

   • installed the card correctly

   • reconnected the printer/plotter to the network

   • turned the printer off and on.

| NOTE | For HP J4100A 10/100Base-TX cards, see appendix B in this manual for special troubleshooting information. |

If the message still does not appear, contact HP Customer Care (see the *HP JetDirect 400N Quick Setup Guide* for phone numbers or Web access).

What To Do Next

You are now ready to configure the card. You can configure the card in various ways, including:

- Using the printer's control panel to configure basic network settings (if the printer supports this feature). See chapter 3 for HP LaserJet printers, HP Professional Series printers and HP DesignJet ColorPro GA printers. See chapter 4 for HP DesignJet large format printers.

- Using HP JetDirect software on the HP JetDirect CD-ROM, and other network utilities, for card and printer configuration. See the *HP JetDirect Quick Setup Guide* and the *HP JetDirect Administrator's Guide*.

2

Installation

3

Using the Control Panel To Configure HP JetDirect Cards in Printers

Introduction

If you have an HP DesignJet large-format printer (except DesignJet ColorPro GA), go to Chapter 4.

The printers listed below have control panels that let you configure certain network parameters manually.

- HP Color LaserJet and Color LaserJet Series (5, 5M)
- HP LaserJet 5Si Series (5Si, 5Si MX, 5Si NX, 5Si Mopier)
- HP LaserJet 5 Series (5, 5M, 5N)
- HP LaserJet 4Si Series (4Si, 4Si MX)
- HP LaserJet 4V Series (4V, 4MV)
- HP LaserJet 4 Plus Series (4 Plus, 4M Plus)
- HP LaserJet 4 Series (4, 4M)
- HP Professional Series (2500C, 2500CM)
- HP DesignJet ColorPro GA printer

You can use the printer control panels to do the following:

- enable or disable network protocols
- configure Novell NetWare frame types
- configure Novell NetWare source routing for Token Ring networks
- configure TCP/IP parameters
- configure Apple EtherTalk Phase parameters for Ethernet networks
- for the HP LaserJet 4, 4M printers, configure the timeout setting for sensing the end of a job

NOTE   The above parameters can also be configured using the HP JetDirect software.

Once you have configured these parameters using the control panel, you still need to install the appropriate print server software to complete the configuration process. Refer to your HP JetDirect software installation guide for instructions.

3 Printer Control Panel

Enabling and Disabling Network Protocols

When you first install the card from the factory, all supported network protocols are enabled (or turned on) when you turn the printer on. The card provides automatic network switching between network protocols for printers that do not support this function. If you reconfigure the card—for example, you disable a network protocol—your configuration is saved on the card and is maintained even after the printer is turned off.

If a network protocol is enabled, the card may actively transmit even when the protocol is not in use on the network. This may slightly increase network traffic. To eliminate unnecessary traffic, you can disable unused protocols. Disabling unused protocols lets you:

- reduce network traffic by eliminating broadcast messages from unused protocols (for example, NetWare and TCP/IP).

- provide better control over who prints to the printer by eliminating users from other networks who might accidentally route print jobs to this printer.

- eliminate unnecessary information on the self-test page or configuration plot, which displays status information for all enabled protocols.

- display protocol-specific error conditions on the printer control panel. These warning messages are displayed only if all enabled protocols are unable to print.

To restore configuration default values

You can restore default values by performing a cold reset on your printer. To perform a cold reset, turn off the printer and then hold down `On Line` (or `Go` on some printers) as you turn the printer back on. This restores your printer configuration to the factory default values.

To enable or disable network protocols

NOTE For HP 2500C/CM Professional Series and DesignJet ColorPro GA printers, see the "HP 2500C/CM Professional Series and DesignJet ColorPro GA Control Panel" instructions at the end of this chapter.

1. Take the printer offline by pressing `On Line` or `Go` to indicate offline.

2. Press `Menu` repeatedly until the following message is displayed on the control panel:

4 Series printers	AUX IO MENU
4 Plus and 4V Series printers	MIO MENU
Color LaserJet printers (*Proceed to Step 4*)	MIO CONFIG MENU CFG NETWORK=NO *
4Si Series printers (select the card slot being configured)	MIO MENU 1 or MIO MENU 2
5Si Series printers (select the card slot being configured)	HP MIO 1 MENU or HP MIO 2 MENU
5 Series printers	HP MIO MENU

3. Press `Item` until CFG NETWORK=NO* appears. This message *does not* mean that you must reconfigure your protocol. It means only that you do not intend to access the network configuration menus.

4. Change the message to CFG NETWORK=YES* using the following buttons:

5 Series and 5Si Series printers	Press `+`, then `Select`
Other printers	Press `+`, then `Enter`

5. Press `Item` to scroll through each network protocol until the one you want to change is displayed.

6. To maintain the status of the protocol, press `Item`.

7. To change the protocol status, press `+`, and then press `Select` or `Enter` depending on your printer model.

8. Press **Item** to continue to the next protocol.

    Example:

    To enable the DLC/LLC protocol, press **Item** until the control panel displays either `DLC/LLC=ON*` or `DLC/LLC=OFF*`.

    If `DLC/LLC=ON*` is displayed, press **Item** to retain that protocol and continue to the next protocol. This turns on the DLC/LLC protocol.

    If `DLC/LLC=OFF*` is displayed, press **+** and then press **Select** or **Enter** to change the protocol. Then press **Item** again to continue to the next protocol.

9. To activate the printer and save your changes, press **On Line** (for LaserJet 5 Series printers, press **Go**).

To complete the print server configuration, see the HP JetDirect software installation guide included with the product.

Configuring Novell NetWare Frame Types

If the NetWare protocol is enabled (`IPX/SPX=ON*`), you can set the NetWare frame type from the control panel. You can configure one of the following frame type settings:

Novell NetWare Frame Types
on an HP JetDirect Ethernet Card

Frame Type	Description
AUTO (default)	Automatically senses and limits the frame type to the one detected.
EN_8023	Limits the frame type to IPX over IEEE 802.3 frames. All others will be counted and discarded.
EN_II	Limits the frame type to IPX over Ethernet frames. All others will be counted and discarded.
EN_8022	Limits the frame type to IPX over IEEE 802.2 with IEEE 802.3 frames. All others will be counted and discarded.
EN_SNAP	Limits the frame type to IPX over SNAP with IEEE 802.3 frames. All others will be counted and discarded.

Novell NetWare Frame Types
on an HP JetDirect Token Ring Card

Frame Type	Description
AUTO (default)	Automatically senses and limits the frame type to the one detected.
TR_8022	Limits the frame type to IPX over IEEE 802.2 with IEEE 802.5 frames. All others will be counted and discarded.
TR_SNAP	Limits the frame type to IPX over SNAP with IEEE 802.5 frames. All others will be counted and discarded.

To configure a NetWare frame type

NOTE   For HP 2500C/CM Professional Series
and DesignJet ColorPro GA printers, see the
"HP 2500C/CM Professional Series and DesignJet
ColorPro GA Control Panel" instructions at the
end of this chapter.

If you have not already done so, enable Novell NetWare (IPX/
SPX=ON*) by following the instructions described in "To enable or
disable network protocols" in this chapter.

1. Take the printer offline by pressing `On Line` or `Go` to indicate
   offline.

2. Press `Menu` repeatedly until the following message is displayed
   on the control panel:

4 Series printers	`AUX IO MENU`
4 Plus and 4V Series printers	`MIO MENU`
Color LaserJet printers (*Proceed to Step 4*)	`MIO CONFIG MENU` `CFG NETWORK=NO *`
4Si Series printers (select the card slot being configured)	`MIO MENU 1` or `MIO MENU 2`
5Si Series printers (select the card slot being configured)	`HP MIO 1 MENU` or `HP MIO 2 MENU`
5 Series printers	`HP MIO MENU`

3. Press `Item` until CFG NETWORK=NO* appears.

4. Change the message to CFG NETWORK=YES* using the following buttons:

   5 Series and 5Si Series printers   Press `+`, then `Select`

   Other printers   Press `+`, then `Enter`

5. Press `Item` until CFG IPX/SPX=NO* appears.

6. Change this to CFG IPX/SPX=YES* by pressing `+`, and then pressing `Select` or `Enter` depending on your printer model.

7. Press `Item` until FRAME=<Frame Type>* appears.

   • The asterisk (*) indicates the active frame type selected.

   • To change frame type, press `+` until the frame type that you desire appears, then press `Select` or `Enter` depending on your printer model. Be sure "*" appears alongside your selection.

8. To activate the printer and save your changes, press `On Line` (for LaserJet 5 Series printers, press `Go`).

To complete the print server configuration, see the HP JetDirect software installation guide included with the product.

Configuring Novell NetWare Source Routing (Token Ring Cards Only)

You can select the method for Novell NetWare Token Ring source routing from the control panel. The possible routing methods are:

- **AUTO (default):** Source routing is enabled if necessary.

- **OFF:** All packets are sent without source routing—packets are received only if they originate from the same ring.

- **SINGLE R:** All packets are sent with source routing. The *Single Route* method is used for broadcasts and when the route is unknown.

- **ALL RT:** All packets are sent with source routing. The *All Routes* method is used for broadcasts and when the route is unknown.

You can configure the NetWare source routing if NetWare is enabled and you have installed a Token Ring print server.

To configure NetWare source routing

NOTE   For HP 2500C/CM Professional Series and DesignJet ColorPro GA printers, see the "HP 2500C/CM Professional Series and DesignJet ColorPro GA Control Panel" instructions at the end of this chapter.

If you have not already done so, enable Novell NetWare (IPX/SPX=ON*) by following the instructions described in "To enable or disable network protocols" in this chapter.

1. Take the printer offline by pressing On Line or Go to indicate offline.

2. Press Menu repeatedly until the following message is displayed on the control panel:

4 Series printers	AUX IO MENU
4 Plus and 4V Series printers	MIO MENU
Color LaserJet printers (*Proceed to Step 4*)	MIO CONFIG MENU CFG NETWORK=NO *

3

Printer Control Panel

4Si Series printers (select the card slot being configured)	`MIO MENU 1` or `MIO MENU 2`
5Si Series printers (select the card slot being configured)	`HP MIO 1 MENU` or `HP MIO 2 MENU`
5 Series printers	`HP MIO MENU`

3. Press **Item** until `CFG NETWORK=NO*` appears.

4. Change the message to `CFG NETWORK=YES*` using the following buttons:

5 Series and 5Si Series printers	Press **+**, then **Select**
Other printers	Press **+**, then **Enter**

5. Press **Item** until `CFG IPX/SPX=NO*` appears.

6. Change this to `CFG IPX/SPX=YES*` by pressing **+**, and then pressing **Select** or **Enter** depending on your printer model.

7. Press **Item** until `SRC RT=<Source Routing>*` appears.

   • The asterisk (`*`) indicates the active source-routing selection.

   • To change source routing, press **+** until the source routing that you desire appears, then press **Select** or **Enter** depending on your printer model. Be sure "`*`" appears alongside your selection.

8. To activate the printer and save your changes, press **On Line** (for LaserJet 5 Series printers, press **Go**).

To complete the print server configuration, see the HP JetDirect software installation guide included with the product.

Configuring TCP/IP Parameters

Using the control panel of your printer, you can manually configure these TCP/IP parameters:

- You can configure BOOTP, which automatically downloads configuration data over the network (this is the default setting), *or*

- You can enter these parameters individually:

    - IP address (4 bytes)

    - Subnet mask (4 bytes)

    - Syslog server IP address (4 bytes)

    - Default gateway (4 bytes)

    - TCP connection timeout (in seconds)

NOTE   A valid IP address is required for proper operation of the card on a TCP/IP network.

NOTE   For DHCP (Dynamic Host Configuration Protocol) operation, BOOTP must be enabled.

If an IP address is configured through DHCP and is subsequently changed through the control panel, the DHCP assigned address is released.

If a printer is configured through DHCP, and you manually change the subnet mask or default gateway through the control panel, you should also change the IP address.

3 **Printer Control Panel**

To configure TCP/IP parameters

NOTE   For HP 2500C/CM Professional Series
and DesignJet ColorPro GA printers, see the
"HP 2500C/CM Professional Series and DesignJet
ColorPro GA Control Panel" instructions at the
end of this chapter.

If you have not already done so, enable TCP/IP (TCP/IP=ON*)
by following the instructions described in "To enable or disable
network protocols" in this chapter.

CAUTION   Enter data carefully. If you make an incorrect entry,
you cannot change it without starting again from
step 1.

1. Take the printer offline by pressing `On Line` or `Go` to indicate
   offline.

2. Press `Menu` repeatedly until the following message is displayed
   on the control panel:

4 Series printers	`AUX IO MENU`
4 Plus and 4V Series printers	`MIO MENU`
Color LaserJet printers (*Proceed to Step 4*)	`MIO CONFIG MENU` `CFG NETWORK=NO *`
4Si Series printers (select the card slot being configured)	`MIO MENU 1` or `MIO MENU 2`
5Si Series printers (select the card slot being configured)	`HP MIO 1 MENU` or `HP MIO 2 MENU`
5 Series printers	`HP MIO MENU`

3. Press `Item` until `CFG NETWORK=NO*` appears.

4. Change the message to `CFG NETWORK=YES*` using the following
   buttons:

5 Series and 5Si Series printers	Press `+`, then `Select`
Other printers	Press `+`, then `Enter`

5. Press `Item` until `CFG TCP/IP=NO*` appears.

6. Change this to `CFG TCP/IP=YES*` by pressing ➕, and then pressing **Select** or **Enter** depending on your printer model.

7. Press **Item** until `BOOTP=YES*` or `BOOTP=NO*` appears.

   - The asterisk (`*`) indicates the active selection.

   - To change the BOOTP= setting, press ➕. Then press **Select** or **Enter** depending on your printer model. Be sure "`*`" appears alongside your selection.

     If `BOOTP=YES*`, the printer is configured to retrieve its TCP/IP parameters over the network using BOOTP or DHCP. No other TCP/IP prompts will be displayed on the printer's control panel. To activate the printer and save your changes, press **OnLine** or **Go** depending on your printer model.

     If `BOOTP=NO *`, the printer is configured to accept TCP/IP parameters from the printer's control panel. Press **Item** to configure each TCP/IP parameter. `IP BYTE 1=<value>*` should appear on the control panel first. Continue with step 8.

8. To enter the first byte of the IP address, use the ➕, ➖ or **Shift** ➖ keys. If you press and hold ➕, ➖, or **Shift** ➖, the values scroll rapidly. To save the value, press **Select** or **Enter**. Press **Item** to continue. (NOTE: the 5Si Series do not have ➖ or **Shift** ➖ keys.)

9. Configure the remaining bytes of the IP address in the same manner. Note that a valid IP address is required for proper operation of the card.

   You can configure the subnet mask bytes (SM), syslog server IP address (LG), default gateway (GW), and timeout (TIMEOUT) in the same manner.

   The TIMEOUT parameter default is 90 seconds. Up to 3600 seconds can be configured. If set to "0", the timeout feature of the HP JetDirect card is disabled—TCP/IP connections will remain open until closed by the server.

10. To activate the printer and save your changes, press **On Line** (for LaserJet 5 Series printers, press **Go**).

To configure the network operating system, see the HP JetDirect software installation guide included with the product.

3 Printer Control Panel

Configuring Apple EtherTalk Phase Parameters (Ethernet Cards Only)

You can configure Apple EtherTalk parameters if the Apple EtherTalk protocol is enabled (ETALK=ON*), and the PostScript printer language is enabled.

To ensure the PostScript printer language is enabled, check the Configuration Menu (for 5Si Series printers) or the JOB MENU (for other printers). PERSONALTY=PS* or PERSONALTY=AUTO* should be set.

To configure EtherTalk parameters

NOTE   For HP 2500C/CM Professional Series and DesignJet ColorPro GA printers, see the "HP 2500C/CM Professional Series and DesignJet ColorPro GA Control Panel" instructions at the end of this chapter.

If you haven't already done so, enable EtherTalk by following the instructions described in "To enable or disable network protocols" in this chapter.

1. Take the printer offline by pressing On Line or Go to indicate offline.

2. Press Menu repeatedly until the following message is displayed on the control panel:

4 Series printers	AUX IO MENU
4 Plus and 4V Series printers	MIO MENU
Color LaserJet printers (*Proceed to Step 4*)	MIO CONFIG MENU CFG NETWORK=NO *
4Si Series printers (select the card slot being configured)	MIO MENU 1 or MIO MENU 2
5Si Series printers (select the card slot being configured)	HP MIO 1 MENU or HP MIO 2 MENU
5 Series printers	HP MIO MENU

3. Press Item until CFG NETWORK=NO* appears.

4. Change the message to CFG NETWORK=YES* using the following buttons:

> 5 Series and 5Si Series printers   Press `+`, then `Select`
>
> Other printers   Press `+`, then `Enter`

5. Press `Item` until CFG ETALK=NO* appears.

6. Change this to CFG ETALK=YES* by pressing `+`, and then pressing `Select` or `Enter` depending on your printer model.

7. Press `Item`. ETALK PHASE=1* or ETALK PHASE=2* appears on the control panel.

    - The asterisk (*) indicates the active phase setting.

    - To change the phase setting, press `+` until the phase setting that you desire appears, then press `Select` or `Enter` depending on your printer model. Be sure "*" appears alongside your selection.

8. To activate the printer and save your changes, press `On Line` (for LaserJet 5 Series printers, press `Go`).

To complete the print server configuration, see the HP JetDirect software installation guide included with the product.

3

Printer Control Panel

Configuring the Timeout for End-of-Job Sensing

When installed in an HP LaserJet 4 or 4M printer, the HP JetDirect card provides a Job Timeout parameter. For networks with multiple network protocols, the Job Timeout parameter specifies the time that the HP JetDirect card remains connected to an active network protocol even though it is idle. After that time, the card allows access by another protocol.

To set the JOB TIMEOUT parameter for HP LaserJet 4, 4M printers

1. Take the printer offline by pressing **On Line** to indicate offline.

2. Press **Menu** until AUX IO MENU is displayed on the control panel.

3. Press **Item** until CFG NETWORK=NO* appears.

4. Change this to CFG NETWORK=YES* by pressing **+**, then **Enter**.

5. Press **Item** repeatedly until JOB TIMEOUT=<timeout>* appears.

6. Press **+** or **–** to scroll to the desired setting (30 through 99 seconds), then press **Enter** to save the new setting.

7. Press **Item** to continue or **On Line** to activate the printer and save your changes.

To complete the print server configuration, see the HP JetDirect software installation guide included with the product.

HP 2500C/CM Professional Series and DesignJet ColorPro GA Control Panel

To enable or disable network protocols

1. Take the printer offline by pressing the online/offline button ⟡.

2. Press `Menu` repeatedly until MIO MENU appears.

3. Press `Item`. CONFIGURE MIO appears.

4. Press `Select`. CFG NETWORK NO appears. This message *does not* mean that you must reconfigure your protocol. It means only that you do not intend to access the network configuration menus.

5. Press `Value` to display CFG NETWORK YES. Then press `Select`.

6. Press `Item` to scroll through each network protocol until the one you want to change is displayed.

7. To change the protocol status, press `Value` and then press `Select`.

8. Press `Item` to continue to the next protocol.

   Example:

   To enable the DLC/LLC protocol, press `Item` until the control panel displays either DLC/LLC ON or DLC/LLC OFF.

   If DLC/LLC ON is displayed, press `Item` to retain that protocol and continue to the next protocol.

   If DLC/LLC OFF is displayed, press `Value` to display DLC/LLC ON and then press `Select`. Then press `Item` again to continue to the next protocol.

9. To activate the printer and save your changes, press the online/offline button ⟡.

To complete the print server configuration, see the HP JetDirect software installation guide included with the product.

3

Printer Control Panel

To configure a NetWare frame type

If you have not already done so, enable the IPX/SPX protocol (`IPX/SPX ON`) by following the instructions above.

1. Take the printer offline by press the online/offline button ⬦.

2. Press **Menu** repeatedly until `MIO MENU` appears.

3. Press **Item**. `CONFIGURE MIO` appears.

4. Press **Select**. `CFG NETWORK NO` appears. This message *does not* mean that you must reconfigure your protocol. It means only that you do not intend to access the network configuration menus.

5. Press **Value** to display `CFG NETWORK YES`. Then press **Select**.

6. Press **Item** until `CFG IPX/SPX NO` appears.

7. Press **Value** to display `CFG IPX/SPX YES`. Then press **Select**.

8. Press **Item** until `FRAME <Frame Type>` appears.

    To change frame type, press **Value** until the frame type that you desire appears, then press **Select**.

9. To activate the printer and save your changes, press the online/offline button ⬦.

To complete the print server configuration, see the HP JetDirect software installation guide included with the product.

Configuring Novell NetWare Source Routing (Token Ring Cards Only)

To configure NetWare source routing

If you have not already done so, enable the IPX/SPX protocol (`IPX/SPX ON`) by following the instructions above.

1. Take the printer offline by press the online/offline button ⬦.

2. Press **Menu** repeatedly until `MIO MENU` appears.

3. Press **Item**. `CONFIGURE MIO` appears.

4. Press `Select`. CFG NETWORK NO appears. This message *does not* mean that you must reconfigure your protocol. It means only that you do not intend to access the network configuration menus.

5. Press `Value` to display CFG NETWORK YES. Then press `Select`.

6. Press `Item` until CFG IPX/SPX NO appears.

7. Press `Value` to display CFG IPX/SPX YES. Then press `Select`.

8. Press `Item` until SRC RT <Source Routing> appears.

   To change source routing, press `Value` until the source routing that you desire appears, then press `Select`.

9. To activate the printer and save your changes, press the online/offline button ◇.

To complete the print server configuration, see the HP JetDirect software installation guide included with the product.

Configuring TCP/IP Parameters

If you have not already done so, enable TCP/IP (TCP/IP ON) by following the instructions described above.

CAUTION   Enter data carefully. If you make an incorrect entry, you may need to restart the procedure.

1. Take the printer offline by press the online/offline button ◇.

2. Press `Menu` repeatedly until MIO MENU appears.

3. Press `Item`. CONFIGURE MIO appears.

4. Press `Select`. CFG NETWORK NO appears. This message *does not* mean that you must reconfigure your protocol. It means only that you do not intend to access the network configuration menus.

5. Press `Value` to display CFG NETWORK YES. Then press `Select`.

6. Press `Item` until CFG TCP/IP NO appears.

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7. Change this to CFG TCP/IP YES by pressing **Value**. Then press **Select**.

8. Press **Item** until BOOTP YES or BOOTP NO appears.

9. To change the BOOTP setting, press **Value**. Then press **Select**.

   - If BOOTP YES is set, the printer is configured to retrieve its TCP/IP parameters over the network using BOOTP or DHCP. No other TCP/IP prompts will be displayed on the printer's control panel.

   - If BOOTP NO is set, the printer is configured to accept TCP/IP parameters from the printer's control panel. Press **Item** to scroll through each TCP/IP parameter. Press **Value** and **Select** to assign the value of each parameter.

     Note that a valid IP address is required for proper operation of the card. When assigning an IP address, you must enter the value of each byte.

     You can configure the subnet mask bytes (SM), syslog server IP address (LG), default gateway (GW), and timeout (TIMEOUT) in the same manner.

     The TIMEOUT parameter default is 90 seconds. Up to 3600 seconds can be configured. If set to "0", the timeout feature of the HP JetDirect card is disabled—TCP/IP connections will remain open until closed by the server.

10. To activate the printer and save your changes, press the online/offline button ◇.

To configure the network operating system, see the HP JetDirect software installation guide included with the product.

To configure EtherTalk parameters

To ensure the PostScript printer language is enabled, check the
CONFIGURATION MENU. PERSONALITY=PS or PERSONALITY=AUTO
should be set.

If you haven't already done so, enable EtherTalk (ETALK ON) by
following the instructions described above.

1. Take the printer offline by press the online/offline button ◇.

2. Press Menu repeatedly until MIO MENU appears.

3. Press Item. CONFIGURE MIO appears.

4. Press Select. CFG NETWORK NO appears. This message *does
    not* mean that you must reconfigure your protocol. It means
    only that you do not intend to access the network configuration
    menus.

5. Press Value to display CFG NETWORK YES . Then press Select .

6. Press Item until CFG ETALK NO appears.

7. Change this to CFG ETALK YES by pressing Value , and then
    pressing Select .

8. Press Item . ETALK PHASE=1 or ETALK PHASE=2 appears on
    the control panel.

    •   To change the phase setting, press Value until the phase
        setting that you desire appears, then press Select .

9. To activate the printer and save your changes, press the online/
    offline button ◇.

To complete the print server configuration, see the HP JetDirect
software installation guide included with the product.

3
**Printer Control
Panel**

4

Using the Control Panel
To Configure HP JetDirect Cards
in Large-Format Printers

Introduction

If you have an HP DesignJet printer listed below, you can manually configure certain network parameters using the printer control panel:

- DesignJet 3000CP/3500CP
- DesignJet 2000CP/2500CP
- DesignJet 755CM
- DesignJet 750C Plus
- DesignJet 750C
- DesignJet 700
- DesignJet 650C
- DesignJet 600

NOTE   For HP DesignJet ColorPro GA printers, see chapter 3.

You can use the printer control panel to do the following:

- enable or disable network protocols

- configure Novell NetWare frame types

- configure Novell NetWare source routing for Token Ring networks

- configure TCP/IP parameters

- configure Apple EtherTalk Phase parameters for Ethernet networks

- configure timeout for sensing the end of a job

NOTE   The above parameters can also be configured using the HP JetDirect software.

Once you have configured these parameters using the control panel, you still need to install the appropriate print server software to complete the configuration process. Refer to your HP JetDirect software installation guide for instructions.

Supported Network Protocols

When you first install the card from the factory, all supported network protocols are enabled (or turned on) when you turn the printer on. The card provides automatic network switching between network protocols for printers that do not support this function. If you reconfigure the card—for example, you disable a network protocol—your configuration is saved on the card and is maintained even after the printer is turned off.

If a network protocol is enabled, the card may actively transmit even when the protocol is not in use on the network. This may slightly increase network traffic. To eliminate unnecessary traffic from unused protocols, you can set the card to operate with a single network protocol. When you enable a single network protocol, other protocols are turned off.

From the printer control panel you can configure these network protocols:

- **AUTO:** All supported network protocols are active. Automatic network switching is performed by the card. This is the default setting.

- **NOVELL:** Enable the Novell NetWare IPS/SPX network protocol and disable all other network protocols.

- **DLC/LLC:** Enable the DLC/LLC network protocol (IBM LAN Server, MS LAN Manager, Windows for Workgroups, Windows NT) and disable all other network protocols.

- **TCP/IP:** Enable the TCP/IP network protocol and disable all other network protocols.

- **ETALK (Ethernet cards only):** Enable the EtherTalk network protocol and disable all other network protocols.

NOTE   EtherTalk is supported on the HP DesignJet 650C, Series 700, Series 2500CP, and Series 3500CP printers with PostScript modules installed.

To enable or disable network protocols on the DesignJet 600 Series printers

1. Turn on the printer.

2. Verify that the printer displays STATUS and Ready to plot.

3. Press `Enter` until MENUS (FULL MENUS on the 650C printer) and Plot mgmt → appear.

4. Press ↑ repeatedly until MENUS and I/O setup→ appear.

5. Press `Enter` to access the MIO slot. I/O SETUP and Modular→ appear.

6. Press `Enter`. MIO SETUP and CFG NETWORK=NO→ appear.

7. To access the network configuration menu, press `Enter` to display CFG NETWORK and NO*.

8. Press ↑ to display: CFG NETWORK and YES.

9. Press `Enter`. MIO SETUP and CFG NETWORK=YES→ appear.

    You can now access the network configuration menu.

10. Press ↑ to display MIO SETUP and NETWORK=<Current network protocol>.

11. Press `Enter`. <Current network protocol>* appears. An* next to a protocol denotes the current value.

12. Press ↑ repeatedly to scroll through the configuration options. When the protocol you wish to select is displayed, press `Enter` to save it. MIO SETUP and NETWORK=<New network protocol> appear.

13. Press `Previous` until Ready to plot is displayed. The printer is configured for the selected protocol.

Remember, if you enable a single protocol on the 600 Series printers, other protocols are turned off. You can restore default values by performing a cold reset on your printer.

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HP DesignJet Control Panel

NOTE	You will see CFG NETWORK=NO whenever you enter the JetDirect configuration menu. The message only indicates that you do not intend to access the configuration menu. It *does not* mean that you must reconfigure your protocol.

To continue manually configuring protocol parameters, go to the appropriate sections that follow. To complete the print server configuration, see the HP JetDirect software installation guide included with the product.

To enable or disable network protocols on the DesignJet 700/2000/2500/3000/3500 Series printers

1. Turn on the printer.

2. Verify that the printer displays STATUS Ready.

3. On the control-panel display, change the Menu mode from Short to Full:

   a. Press **Enter**. If FULL MENUS is displayed, proceed to step 4.
   b. If SHORT MENUS Queueing & Nesting→ appears, press ↓ until UTILITIES Menu mode=short→ appears.
   c. Press **Enter**. MENU MODE Short* appears.
   d. Press ↓ to change to MENU MODE Full.
   e. Press **Enter**. UTILITIES Menu mode=Full→ appears. Then press **Previous**.

4. Go to the MIO SETUP menu:

   a. From FULL MENUS, Press ↓ until I/O setup appears.
   b. Press **Enter**. I/O SETUP Modular→ appears.
   c. Press **Enter** to display CFG NETWORK =NO.

NOTE	You will see CFG NETWORK=NO whenever you enter the JetDirect configuration menu. The message only indicates that you do not intend to access the configuration menu. It *does not* mean that you must reconfigure your protocol. Continue with step 5 to access the JetDirect configuration menu.

5. Press **Enter** to display CFG NETWORK NO*. (The "*" denotes the selected setting.)

6.   Press ↓ to change NO* to YES, then press `Enter` to display CFG NETWORK=YES.

7.   At the CFG NETWORK=YES message, press ↑ repeatedly to scroll through the configuration options.

   a. To change a network protocol setting (enable or disable), press `Enter`, ↓, `Enter`.

   b. To configure network protocol parameters press `Enter`, ↓ to select YES, then press `Enter` again.

   To continue configuring protocol parameters, go to the appropriate sections that follow.

8.   Press `Previous` and return to STATUS Ready.

9.   To save the configuration, print a configuration plot by pressing the two arrow keys simultaneously. Your printer configuration is now active.

To configure parameters using HP JetDirect printer management software and to complete the print server configuration, see the HP JetDirect software installation guide included with the product.

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**HP DesignJet
Control Panel**

Configuring Novell NetWare Frame Types

You can set the NetWare frame types if the NetWare protocol is enabled (NETWORK=NOVELL→ or NETWORK=AUTO→ was displayed on your control panel). You can configure one of the following frame-type settings:

Novell NetWare Frame Types on an HP JetDirect Ethernet Card

Frame Type	Description
AUTO (default)	Automatically senses and limits the frame type to the one detected.
EN_8023	Limit frame types to IPX over IEEE 802.3 frames. All others will be counted and discarded.
EN_II	Limit frame types to IPX over Ethernet frames. All others will be counted and discarded.
EN_8022	Limit frame types to IPX over IEEE 802.2 with IEEE 802.3 frames. All others will be counted and discarded.
EN_SNAP	Limit frame types to IPX over SNAP with IEEE 802.3 frames. All others will be counted and discarded.

Novell NetWare Frame Types on an HP JetDirect Token Ring Card

Frame Type	Description
AUTO (default)	Automatically senses and limits the frame type to the one detected.
TR_8022	Limit frame types to IPX over IEEE 802.2 LLC with IEEE 802.5 frames. All others will be counted and discarded.
TR_SNAP	Limit frame types to IPX over SNAP with IEEE 802.5 frames. All others will be counted and discarded.

To configure a NetWare frame type

If you haven't already done so, enable Novell NetWare by following the instructions described in "To enable or disable network protocols" in this chapter.

For the 600 Series Printers

1. Access the configuration menu (see "To enable or disable network protocols" in this chapter).

2. Press ↑ until `Novell→` or `Auto→` appears.

3. Press ↑. `MIO SETUP` and `FRAME=<current frame type>→` appear.

4. To maintain the current frame type, press ↑.

5. To change frame type, proceed as follows:

   a. Press `Enter` to display the current frame type.
   b. Press ↑ until the frame type you want appears.
   c. Press `Enter` to save the new frame type.

For the 700/2000/2500/3000/3500 Series Printers

1. Access the configuration menu (see "To enable or disable network protocols" in this chapter).

2. From the `CFG IPX/SPX=NO→` menu item, press `Enter`, ↓, `Enter` to display `CFG IPX/SPX=YES→` .

3. Press ↑ to display `FRAME=AUTO`.

4. To change the frame type, press `Enter` and ↓ until the frame type you want is displayed. Press `Enter` to select the frame type.

5. Press `Previous` and return to `STATUS Ready`.

6. To save the configuration, print a configuration plot by pressing the two arrow keys simultaneously. Your printer configuration is now active.

To manually configure other parameters, see the appropriate sections in this chapter.

To complete the print server configuration, see the HP JetDirect software installation guide included with the product.

Configuring Novell NetWare Source Routing (Token Ring Card Only)

You can select the method for Novell NetWare source routing from the control panel. The possible routing methods are:

- **AUTO (default):** Source routing will be enabled on a packet-by-packet basis.

- **OFF:** All packets are sent without source routing—that is, packets must be from the same ring.

- **SINGLE R:** Source routing used for all packets sent. The *Single Route* method is used for broadcasts and when the route is unknown.

- **ALL RT:** Source routing used for all packets sent. The *All Routes* method is used for broadcasts and when the route is unknown.

You can configure the NetWare source routing only if NetWare is enabled and you have installed a token ring network interface.

To configure NetWare source routing

If you haven't already done so, enable Novell NetWare by following the instructions described in "To enable or disable network protocols" in this chapter.

For the 600 Series Printers

1. Access the configuration menu (see "To enable or disable network protocols" in this chapter).

2. Access the Novell menu by pressing `Enter`, then ↑, then `Enter`. MIO SETUP and CFG IPX/SPX=YES→ appear.

3. Press ↑ until the current source routing appears. MIO SETUP and SRC RT=<current source routing>→ appear.

4. To maintain the current setting, press ↑.

5. To change source routing, proceed as follows:

   a. To display the current source routing, press `Enter`.
   b. Press ↑ until the source routing that you want appears.
   c. To save the new source routing, press `Enter`.

For the 700/2000/2500/3000/3500 Series Printers

1. Access the configuration menu (see "To enable or disable network protocols" in this chapter).

2. From the CFG IPX/SPX=NO→ menu item, press **Enter** , ↓, **Enter** to display CFG IPX/SPX=YES→ .

3. Press ↑ repeatedly until SRC RT=AUTO appears.

4. To change source routing, press **Enter** and ↓ until the source routing that you want appears.

5. To save the new source routing setting, press **Enter** . (Press **Enter** again to verify your selection with "∗".)

6. Press **Previous** and return to STATUS Ready.

7. To save the configuration, print a configuration plot by pressing the two arrow keys simultaneously. Your printer configuration is now active.

To continue manually configuring other parameters, see the appropriate sections in this chapter. To complete the print server configuration, see the HP JetDirect software installation guide included with the product.

Configuring TCP/IP Parameters

Using the control panel of your printer, you can manually configure these TCP/IP parameters:

*   You can configure BOOTP, which automatically downloads configuration data over the network (this is the default setting) *or*

*   You can enter these parameters individually:

    *   IP address (4 bytes)
    *   Subnet mask (4 bytes)
    *   Syslog server IP address (4 bytes)
    *   Default gateway (4 bytes)
    *   TCP connection timeout (in seconds)

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**HP DesignJet
Control Panel**

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NOTE   For DHCP (Dynamic Host Configuration Protocol) operation, BOOTP must be enabled.

If an IP address is configured through DHCP and is subsequently changed through the control panel, the DHCP assigned address is released.

If a printer is configured through DHCP, and you manually change the subnet mask or default gateway through the control panel, you should also change the IP address.

To configure TCP/IP parameters

If you haven't already done so, enable TCP/IP by following the instructions described in "To enable or disable network protocols" in this chapter.

For the 600 Series Printers

1. Access the configuration menu (see "To enable or disable network protocols" in this chapter).

2. Press `Enter`, then ↑, until `MIO SETUP` and `CFG TCP/IP=NO→` appear.

3. Press `Enter`, then ↑, then `Enter`. `MIO SETUP` and `CFG TCP/IP=YES→` appear.

4. Press ↑. `MIO SETUP` and `BOOTP=YES→` or `BOOTP=NO→` appear.

   a. To maintain the current "BOOTP=" setting, press ↑.
   b. To change the "BOOTP=" setting, press `Enter`, then ↑, then `Enter`.
      • If you select `BOOTP=YES→`, the printer is configured to retrieve its TCP/IP parameters over the network using BOOTP or DHCP.

        No other TCP/IP prompts are displayed on the printer's control panel. Press ↑ to continue with configuration of other network protocols, or press `Previous` until `Ready to Plot` is displayed.

      • If you select `BOOTP=NO→`, the printer is configured to accept TCP/IP parameters from the control panel.

5. Press ↑ to configure each TCP/IP parameter. For the first
    parameter, `MIO SETUP` and `IP BYTE 1=<value>`→ appear.

6. To maintain the current value, press ↑.

7. To change the value, proceed as follows:

    a. Press `Enter` to display the current value.
    b. Press ↑ until the value that you want appears.
    c. Press `Enter` to save the new value. `MIO SETUP` and
       `IP BYTE 1=<new value>`→ appear.
    d. Press ↑ to continue.

8. Configure the remaining bytes of the IP address in the same
    manner. Note that a valid IP address is required for proper
    operation.

9. If you want, configure the subnet mask bytes (`SM`), syslog server
    IP address (`LG`), default gateway (`GW`), and timeout (`TIMEOUT`)
    in the same manner.

    The `TIMEOUT` parameter default is 90 seconds. Up to
    3600 seconds can be configured. If set to "0", the timeout
    feature of the HP JetDirect card is disabled—TCP/IP
    connections remain open until closed by the server.

10. Press `Previous` until `Ready to plot` is displayed.

For the 700/2000/2500/3000/3500 Series Printers

1. Access the configuration menu (see "To enable or disable
    network protocols" in this chapter).

2. From the `CFG TCP/IP=NO`→ menu item, press `Enter`, ↓, `Enter`
    to display `CFG TCP/IP=YES`→ .

3. Press ↑ to display "`BOOTP=`".

    a. To maintain the current "`BOOTP=`" setting, press ↑ .
    b. To change the "`BOOTP=`" setting, press `Enter`, ↑ , `Enter`.
       • If you select `BOOTP=YES`→ , the printer is configured to
         retrieve its TCP/IP parameters over the network using
         BOOTP or DHCP.

         No other TCP/IP prompts are displayed on the printer's
         control panel. Press ↑ to continue with configuration of
         other network protocols, or press `Previous` until the
         `STATUS Ready` is displayed.

- If you select BOOTP=NO→, the printer is configured to accept TCP/IP parameters from the control panel. Continue with step 4.

4. If you selected BOOTP=NO→, press ↑ to configure each TCP/IP parameter. For example, to configure the IP address:

   a. Press ↑ until IP BYTE=0 is displayed. Press `Enter`.
   b. Press ↑ or ↓ to select the number (0-255) for that byte, then press `Enter`.
   c. Press ↑ to select the next byte.
   d. Continue the same process until all bytes are entered.

   Note that a valid IP address is required for proper operation.

5. If appropriate, configure the subnet mask bytes (SM), syslog server IP address (LG), default gateway (GW), and timeout (TIMEOUT) in the same manner.

   The TIMEOUT parameter default is 90 seconds. Up to 3600 seconds can be configured. If set to "0", the timeout feature of the HP JetDirect card is disabled—TCP/IP connections remain open until closed by the server.

6. To save the configuration, press the ↑ and ↓ keys simultaneously. A configuration page will print. Your configuration is now active.

7. Press `Previous` until the STATUS Ready is displayed.

To manually configure other parameters, see the appropriate sections in this chapter.

To complete the print server configuration, see the HP JetDirect software installation guide included with the product.

Configuring Apple EtherTalk Phase Parameters (Ethernet Cards Only)

NOTE   EtherTalk is supported by HP DesignJet 650C, Series 700, and 2500CP series printers with PostScript modules installed.

You can set Apple EtherTalk parameters if the Apple EtherTalk protocol and the PostScript printer language are enabled (Lang=Postscript→).

To configure EtherTalk parameters

If you haven't already done so, enable EtherTalk by following the instructions described in "To enable or disable network protocols" in this chapter.

For the 600 Series Printers

1. Access the configuration menu (see "To enable or disable network protocols" in this chapter).

2. To access the EtherTalk menu, press `Enter`, then ↑, then `Enter`. MIO SETUP and CFG ETALK=YES→ appear.

3. Press ↑. ETALK PHASE=<current value>→ appears.

4. To maintain the current value, press ↑.

5. To change value, proceed as follows:

    a. Press `Enter` to display the current value.
    b. Press ↑ until the value that you want appears.
    c. Press `Enter` to save the new value. MIO SETUP and ETALK PHASE=<new value>→ appear.
    d. Press ↑ to continue.

6. Press `Previous` until Ready to plot is displayed.

For the 700/2000/2500/3000/3500 Series Printers

1. Access the configuration menu (see "To enable or disable network protocols" in this chapter).

2. From the `CFG ETALK=NO→` menu item, press **Enter**, ↓, **Enter** to display `CFG ETALK=YES→` .

3. Press ↑ to display the current phase parameter. To change the setting, press **Enter**, ↓, **Enter**.

4. To save the configuration, print a configuration plot by pressing the two arrow keys simultaneously. Your printer configuration is now active.

To manually configure other parameters, see the appropriate sections in this chapter. To complete the print server configuration, see the HP JetDirect software installation guide included with the product.

Configuring the Timeout for End-of-Job Sensing for the HP DesignJet 600 Series

When installed in an HP DesignJet 600 Series printer, the HP JetDirect card provides a `JOB TIMEOUT` parameter. For networks with multiple network protocols, the `JOB TIMEOUT` parameter specifies the time that the HP JetDirect card remains connected to an active network protocol even though no print jobs are received on that protocol. After that time, the card allows access by another protocol.

To set the JOB TIMEOUT parameter

If you haven't already done so, access the network configuration menu following the instructions described in "To enable or disable network protocols" in this chapter.

1. Verify that your printer displays `STATUS` and `Ready to plot`.

2. Press **Enter** until `MENUS` (`FULL MENUS` on the 650C printer) and `Plot mgmt →` appear.

3. Press ↑ repeatedly until `MENUS` and `I/O setup→` appear.

4. Press **Enter** to access the MIO slot. `I/O SETUP` and `Modular→` appear.

5. Press **Enter**. `MIO SETUP` and `CFG NETWORK=NO→` appear.

6. To access the network configuration menu, press `Enter` to display `CFG NETWORK` and `NO *`.

7. Press ↑ to display: `CFG NETWORK` and `YES`.

8. Press `Enter`. `MIO SETUP` and `CFG NETWORK=YES→` appear. You can now access the network configuration menu.

9. Press ↑ repeatedly until `MIO SETUP` and `JOB TIMEOUT= <current value>→` appear.

10. To maintain the current value, press ↑.

11. To change value, proceed as follows:

    a. Press `Enter` to display the current value.
    b. Press ↑ or ↓ until the value that you want appears (30 to 99 seconds).
    c. Press `Enter` to save the new value.
       `JOB TIMEOUT=<new value>→` appears.
    d. Press ↑ to continue.

12. Press `Previous` until `Ready to plot` is displayed.

To manually configure other parameters, see the appropriate sections in this chapter.

To complete the print server configuration, see the HP JetDirect software installation guide.

4
HP DesignJet
Control Panel

A

Specifications and Regulatory Statements

Specifications for HP J4100A, J4105A, and J4106A Print Server Cards

Electrical

0.60 A @ 5 V typical; 1.25 A @ 5 V maximum

Environmental

	Operating	Non-Operating
Temperature	0°C to 55°C (32°F to 131°F)	-40°C to 70°C (-40°F to 158°F)
Relative humidity: (non-condensing)	15% to 95% at 40°C (104°F)	15% to 90% at 65°C (149°F)
Maximum altitude	4.6 km (15,000 ft)	4.6 km (15,000 ft)

Electromagnetic Emissions

FCC Title 47 CFR Part 15 Class A (USA)
ICES-003 Class A (Canada)
VCCI Class A (Japan)
AS/NZS3548 Class A (Australia, New Zealand)
CISPR-22 Class A (1993)* (International, Europe)
CNS 13438 Class A (Taiwan)
Korean EMI Law, No. 1996-98 Class A (Korea)

*For EU immunity compliance, see the Declaration of Conformity on page A-4.

Regulatory Statements

FCC Statements

General Information

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Pursuant to Part 15.21 of the FCC Rules, any changes or modifications to this equipment not expressly approved by the Hewlett-Packard Company may cause interference and void the FCC authorization to operate this equipment.

The Federal Communications Commission has prepared a booklet titled *Interference Handbook* (1986), which may be helpful to you. This booklet (stock number 004-000-004505-7) may be purchased from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

FCC Class A for HP J4105A Token Ring, and HP J4100A/J4106A with Ethernet or IEEE 802.3/802.3u

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against interference in a *commercial* environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause interference to radio communications.

Installing this equipment in an FCC Level B product results in an FCC Level A Composite System (as defined in the FCC Rules and Regulations) when attached to an Ethernet/IEEE 802.3 or Token Ring (IEEE 802.5) network.

If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

• Reorient or relocate the receiving antenna.
• Increase the separation between the equipment and receiver.

- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

European Community

When used with Ethernet, IEEE 802.3/802.3u 10/100Base-TX, or Token Ring configurations, this equipment complies with EN55022 Class A.

NOTE This is a class A product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

Declaration of Conformity

The following Declaration of Conformity complies with ISO/IEC Guide 22 and EN45014. It identifies the product, the manufacturer's name and address, and the applicable specifications that are recognized in the European community.

DECLARATION OF CONFORMITY
according to ISO/IEC Guide 22 and EN45014

Manufacturer's Name: Hewlett-Packard Company

Manufacturer's Address: 8000 Foothills Blvd.
Roseville, CA 95747
U.S.A.

declares that the product:

    Product Name: HP JetDirect 400N Print Servers

    Model Number: HP J4100A, J4105A, J4106A

conforms to the following Product Specifications:

    Safety: IEC 950 / EN60950

    EMC: EN 55022 (1994) / CISPR-22 (1993) class A
            EN50082-1 (1992)
            prEN 55024-2 (1992) / IEC 801-2 (1991) 4 kV CD, 8 kV AD
            prEN 55024-3 (1991) / IEC 801-3 (1984), 3 V/m
            prEN 55024-4 (1992) / IEC 801-4 (1988): 1 kV-(power line)
                                              0.5 kV-(signal line)

Supplementary Information:

The product herewith complies with the requirements of the Low Voltage Directive 73/23/EEC and the EMC Directive 89/336/EEC and carries the CE marking accordingly.

Roseville, October 9, 1998

Grant Marten, Quality Manager

European Contact: Your local Hewlett-Packard Sales and Service Office or Hewlett-Packard GmbH, Department TRE, Herrenberger Strasse 130, D-71034 Böblingen (FAX:+49-7031-14-3143)

Australia

This equipment complies with Australian EMC requirements.

Canada

This equipment complies with Canadian EMC Class-A requirements.

Japan: VCCI Class A.

この装置は、情報処理装置等電波障害自主規制協議会（ＶＣＣＩ）の基準に基づくクラスＡ情報技術装置です。この装置を家庭環境で使用すると電波妨害を引き起こすことがあります。この場合には使用者が適切な対策を講ずるよう要求されることがあります。

RRL Statement (Korea).

사용자 안내문 : A 급기기

이기기는 업무용으로 전자파 적합등록을 받은 기기이오니, 판매자 또는 사용자는 이점을 주의하시기바라며, 만약 잘못 구입하셨을 때에는 구입한 곳에서 비업무용으로 교환하시기 바랍니다.

Taiwan Class A.

警告使用者：這是甲類的資訊產品，在居住的環境中使用時，可能會造成射頻干擾，在這種情況下，使用者會被要求採取某些適當的對策。

Chinese Safety Statement

HP 网络产品使用安全手册

使用须知

欢迎使用惠普网络产品，为了您及仪器的安全，请您务必注意如下事项:

1. 仪器要和地线相接，要使用有正确接地插头的电源线，使用中国国家规定的220V电源。
2. 避免高温和尘土多的地方，否则易引起仪器内部部件的损坏。
3. 避免接近高温，避免接近直接热源，如直射太阳光、暖气等其它发热体。
4. 不要有异物或液体落入机内，以免部件短路。
5. 不要将磁体放置于仪器附近。

警告

为防止火灾或触电事故，请不要将该机放置于淋雨或潮湿处。

安装

安装辅助管理模块，请参看安装指南。

保修及技术支持

如果您按照以上步骤操作时遇到了困难，或想了解其它产品性能，请按以下方式与我们联络。

如是硬件故障:

1. 与售出单位或当地维修机构联系。
2. 中国惠普有限公司维修中心地址:
   北京市海淀区知春路49号希格玛大厦
   联系电话: 010-62623888 转 6101
   邮政编码: 100080

如是软件问题:

1. 惠普用户响应中心热线电话: 010-65645959
2. 传真自动回复系统: 010-65645735

B

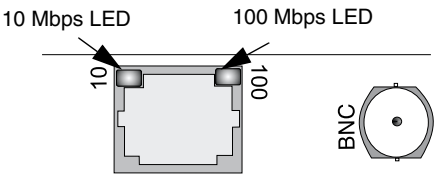# HP J4100A 10/100Base-TX Print Server

Supported Links

HP J4100A JetDirect 10/100 Base-TX print servers support 10 or 100 Mbps operation in full- or half-duplex modes. In most cases, full-duplex is supported when the connecting network device—such as a network switch or hub—supports IEEE 802.3u autonegotiation specifications.

When connecting to network devices that do not support auto-negotiation, or that implement non-conforming link negotiation, the print server will configure itself for *10-* or *100-Mbps half-duplex* operation. For example, when connected to a non-negotiating 10-Mbps hub, the print server card will be automatically set to operate at *10-Mbps half-duplex*.

If the card is not able to connect to the network through autonegotiation, you can manually set the link operating mode using *link configuration jumpers* on the card.
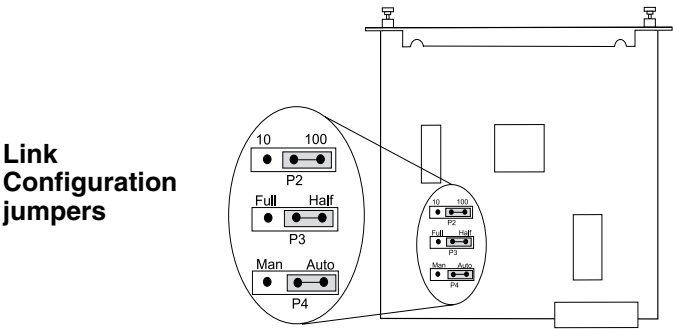
Link-Speed LEDs

The HP J4100A print server provides 2 light-emitting diodes (LEDs) near the RJ-45 connector. These LEDs indicate the operating link speed of the print server, either 10 or 100 Mbps.

LED State:	Off	On
Description:	Not linked	Link established at the indicated speed (Mbps)

Link Configuration Jumper Settings

The HP J4100A JetDirect 10/100Base-TX card provides link configuration jumpers that may be manually set if autonegotiation is not able to connect the card to the network. You can set the link operation for 100 Mbps Full Duplex, 100 Mbps Half Duplex, or 10 Mbps Half Duplex. (Note that reconfiguration of the hub or switch port may also be required.)

Link Configuration jumpers

For jumper setting definitions, refer to the following illustration.

Jumper P4	Jumper P3	Jumper P2	Description
Auto	--	--	Default setting. JetDirect autonegotiates link speed and duplex mode
Man	Half	100	JetDirect is manually set for 100 Mbps, Half-duplex
Man	Half	10	JetDirect is manually set for 10 Mbps, Half-duplex
Man	Full	100	JetDirect is manually set for 100 Mbps, Full-duplex
Man	Full	10	JetDirect is manually set for 10 Mbps, Full-duplex

Link Troubleshooting

If the HP J4100A JetDirect 10/100Base-TX print server does not successfully connect to the network, both LEDs will be off and a "LOSS OF CARRIER ERROR" will be indicated in the MIO section of the HP JetDirect self-test page.

NOTE	The HP J4100A JetDirect 10/100Base-TX print server may require up to *10 seconds* to establish a connection on the network. You should wait up to *30 seconds* before printing a configuration page to verify a network connection.

Try the following troubleshooting procedures:

• Verify cabling connections.

• At the network device (such as a switching hub) that connects the print server to the network, configure the port for half-duplex operation. Then power-cycle the printer.

• Manually set the link configuration both on the JetDirect print server and at the network device, ensuring that the link configurations are the same. (For example, if you set the HP JetDirect print server for 100TX Full-Duplex operation, the port on the network hub or switch must also be set to 100TX Full-Duplex operation.) Be sure to power-cycle the printer.

For additional assistance, contact your HP Customer Care center.

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