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**All contents are subject to change without prior notice.**



# ***Print Server User's Manual***

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# 1. Introduction

## Product Overview

Congratulations on your purchase of the mini-sized, single-port, and multi-protocol print server. During the design process, we have given much thought to making this device as convenient to use as possible. The end result is a print server that can be positioned anywhere on your Ethernet network and supports **Novell's NetWare** and **Microsoft Windows NT**, as well as **Windows 95/98 Peer-to-Peer networks**. The print server not only gives network users greater flexibility, but also takes the load off the file server. This enhances both printing performance as well as overall network performance. In addition, by using our Windows based installation program, configuration can be completed in minutes.

## Main Benefits of the Print Server

- ☐ **Easy to Install:** The print server offers "Plug and Play" installation. Users can network a printer in minutes.

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- ☐ **Flexible:** The print server allows you to attach a printer anywhere on a network. You are no longer confined to placing the printer next to the file server.
- ☐ **Powerful:** A built-in CPU relieves the processor burden off your file server thereby enhancing network performance.
- ☐ **Convenient:** The print server eliminates the need for a dedicated PC to serve as a print server. In addition, the network does not have to be taken down during installation.

### **About This Manual**

The instructions in this book describe how to connect and configure a print server to a network and a printer. It was written for network administrators and experienced users and makes a few assumptions about the readers. If you want to install the print server on your network you should be familiar with:

- ☐ Microsoft Windows 95/98
- ☐ Microsoft Windows NT
- ☐ Novell NetWare 3.12, 4.x, or 5.0 (*Bindery*)
- ☐ Basic functions in NetWare's PCONSOLE program

### **The Print Server Packing List**

The following items should be included in the print server package for installation:

- ☐ One print server unit
- ☐ One AC power adapter (*output: 9V, 300mA*)
- ☐ One Windows 95/98/ME/NT/2000/XP Setup CD
- ☐ One User's Manual

### **Network Software Requirements**

The print server requires the one of the following types of software:

- ☐ Windows 95/98/ME
- ☐ Windows NT/2000/XP
- ☐ Novell NetWare 3.12, 4.x, or 5.0 (*Bindery*)

### **Network Hardware Requirements**

The print server requires the following type of network hardware:

- ☐ 10BaseT, a RJ-45 cable and a 10BaseT hub.

### **Printer Requirements**

The print server requires a printer with the following type of port:

- ☐ Standard 36-pin female Centronics parallel port.

**Please note that the print server does not support printing with host-based printers, e.g. CAPT, GDI, PPA.**

## 2. Hardware Installation

### Overview

This chapter details the step-by-step procedures needed to properly install the print server hardware. Topics discussed in this chapter include connecting and disconnecting the print server to and from the printer, network, and power unit.

### Preparation

The following items are needed in order to install the print server unit:

- ☐ One print server unit.
- ☐ One external AC power adapter.
- ☐ One UTP cable and one 10BaseT Ethernet hub.
- ☐ Setup CD for Windows 95/98/ME/NT/2000/XP.

### **Connecting the Print Server to the Printer**

1. Turn off the printer's power.
2. Attach the print server directly to the printer's Centronics port.
3. Double-check to see that the print server unit is properly fastened to the printer's Centronics port.
4. Done.

### **Connecting the Print Server to the Network**

1. Connect one end of the UTP cable to the print server.
2. Connect the other end of the UTP cable to a 10BaseT hub.
3. Done.

**Note:** The cable length from the print server to the hub must not exceed 300 feet (approximately 100 meters).

### **Connecting the AC Power Adapter**

1. Connect the power adapter to the print server's AC power adapter jack.
2. Plug the AC power adapter into a power outlet.
3. Turn the printer power on.

4. Done.

**Note:** DO NOT use any other AC power adapter than the one shipped with the print server; using an incorrect AC power adapter may damage the device.

### **Power On Self Test (POST)**

The print server automatically performs a **Power On Self Test (POST)** when you power it on. Successful powering up of the print server is indicated by **three** flashes of the yellow LED. If the yellow LED does not flash **three** times, please contact your dealer for repair or replacement.

### **Disconnecting the Print Server**

When disconnecting the print server from the printer and from the network, follow the procedure detailed below to prevent possible damage:

1. Turn off the printer.
2. Disconnect the power adapter from the print server and remove it from the power outlet.
3. Disconnect the print server from the network cable.
4. Loosen the lobes of the printer and disconnect the print server.
5. Done.

# 3. Installation Overview

## **Overview**

To better meet users' network printing needs in today's heterogeneous and multiple protocol network environment, this print server supports today's most popular protocols, including **IPX** and **NetBEUI**. This means that the print server supports current popular network operating systems, including **Novell's NetWare**, **Microsoft Windows NT**, as well as **Windows 95/98 Peer-to-Peer**

**networks.** As such, there might be several approaches to set up the print server on your network.

We, therefore, recommend you read over this chapter through Chapter 6 so that you can then choose the best way to employ your print server on your network to meet your current network environment and printing requirements.

In addition, if you have problems when installing the print server, we recommend you read *Chapter 7 Troubleshooting* and you might find possible solutions to your problems.

### **Installing the Print Server**

Several possible installation methods are listed below:

1. *Installing the print server by using the **PSMANAGER** on NetWare.*
2. *Installing the print server through the **Network Print Port** on Windows NT (using either **IPX/SPX** or **NetBEUI** protocol).*
3. *Installing the print server through the **Network Print Port** on your Windows 95/98 computers (using either **IPX/SPX** or **NetBEUI** protocol).*

To best illustrate the concepts above, we will provide you below three different examples to let you know more about the print server installation.

### **Example 1 - Installing a print server on a NetWare LAN, with Windows 95/98 client computers**

We assume that you have a print server and a NetWare file server on your LAN. In addition, your client computers are Windows 95/98s.

#### ***Approach A***

1. Refer to Chapter 6 to install and configure your print server to connect to your NetWare file server.
2. From your Windows 95/98 computer, create a printer, which is then redirected to the print queue on your NetWare file server.
3. When you print jobs from your Windows based applications, the jobs will be sent to the print queue on your NetWare file server. Then, the print jobs will be serviced by the print server.

#### ***Approach B***

1. Refer to Chapter 4 to install and configure your print server on your (each) Windows 95/98 computer.
2. When you print jobs from your applications, the print jobs will be spooled on your local Windows 95/98 system, through the standard Windows printing

system and the print server's printing control component, the Network Print Port.

3. Next, the print jobs will be de-spoiled from your Windows 95/98, then are serviced by the print server.

### ***Approach C***

1. Combine Method A and B. You have to create two same printers on each Windows 95/98 computer. One is connected (redirected) to the print queue on the NetWare file server, and the other is connected to the print server, through the Network Print Port, directly.
2. With this configuration, you can select to print to the print server through NetWare or directly to the print server.
3. This method might be very useful while it is impossible to print your jobs through your NetWare, such as NetWare file server is down.
4. This method provides you with the certain degree of the fault tolerance to the network printing.

### **Example 2 – Installing a print server on a Windows NT LAN, with Windows 95/98 client computers**

We assume that you have a print server and a NT server on your LAN. In addition, your client computers are Windows 95/98s.

### ***Approach A***

1. Refer to Chapter 5 to install and configure the print server, through the Network Print Port on your NT server.
2. Share this printer to your NT domain users (i.e. Windows 95/98 clients).
3. When you print jobs from your Windows based applications, your jobs will be redirected to the NT computer first. Next, the print jobs are de-spoiled from NT and serviced by the print server.

### ***Approach B***

1. Refer to Chapter 4 to install and configure your print server on your (each) Windows 95/98 computer.
2. When you print jobs from the applications, the print jobs will be spooled on your local Windows 95/98 system, through the Network Print Port.
3. Next, the print jobs will be de-spoiled from your Windows 95/98, then are serviced by the print server.

### ***Approach C***

1. Combine Method A and B. You have to create two same printers on each Windows 95/98 computer. One is connected to the printer shared from NT, and the other is connected to the print server (through the Network Print Port) directly.
2. With this configuration, you can select to print to the print server through the NT or directly to the print server.

3. This method might be very useful while it is impossible to print your jobs through your NT, such as NT is down or not available.
4. This method might provide you with the certain degree of the fault tolerance to the network printing.

### **Example 3 – Installing a print server on a mixed network environment, with Windows 95/98 client computers**

We assume you have a NT server and a NetWare file server on your LAN. Your client computers are Windows 95/98s.

On this kind of heterogeneous network, you can integrate and apply the methods in the Example 1 and 2 to install and configure your print server to best meet users' printing requirements from different operating systems.

## 4. Windows 95/98 Installation

### **Preparation**

The print server supports **IPX** and **NetBEUI** protocols. Please make sure that the following steps have been completed before proceeding with installation under Windows 95/98:

***If IPX protocol is selected:***

- ☐ The IPX/SPX-compatible Protocol must be installed. For further information, please read "*IPX/SPX-compatible Protocol Installation*" in this chapter.

***If NetBEUI protocol is selected:***

- The NetBEUI protocol is installed. For further information, please read “*NetBEUI Protocol Installation*” in this chapter.

### **IPX/SPX-compatible Protocol Installation**

1. Click **Start**, point to **Settings**, and select **Control Panel**.
2. Double click the **Network** icon.
3. If the **IPX/SPX-compatible Protocol** is not already installed, click **Add**.
4. Select **Protocol** and click **Add**.
5. Select **Microsoft** from the *Manufacturers* list.
6. Select **IPX/SPX-compatible Protocol** from the *Network Protocols* box and follow the instructions on the screen.
7. **Restart your computer** for new settings to take effect.
8. Done.

### **NetBEUI Protocol Installation**

1. Click **Start**, point to **Settings**, and select **Control Panel**.
2. Double click the **Network** icon.
3. If the **NetBEUI** is not already installed, click **Add**.
4. Select **Protocol** and click **Add**.
5. Select **Microsoft** from the *Manufacturers* list.
6. Select **NetBEUI** from the *Network Protocols* box and follow the instructions on the screen.

7. **Restart your computer** for new settings to take effect. Done.

**Note:** For more detailed information, please refer to your Microsoft Windows 95/98 manuals.

### **Windows 95/98 Setup Procedure**

Please perform the steps as follows to ensure a smooth installation.

1. Run **Setup** from the print server's Setup CD.
2. The **Network Print Monitor Setup Welcome screen for Windows 95/98** will then appear. Click **Next**.
3. A message reading, "*Setup is complete. You may add the Network Print Port by using the Print Manager*" will appear. Click **OK**.
4. Click **Start**, point to **Settings**, and select **Printers**.
5. Double-click the **Add Printer** icon.
6. Select **Local Printer** and click **Next**.
7. Select the appropriate printer manufacturer and printer type and click **Next**.
8. Select **LPT1** and click **Next**.
9. Type the **Printer Name** and click **Next**.

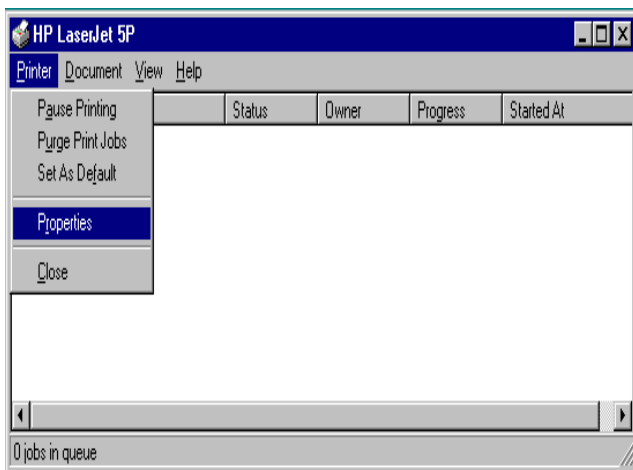
10. A message reading, "After your printer is installed, Windows can print a test page so you can confirm that the printer is set up properly." will appear. Select **No** and click **Finish**.
11. Double-click the **Printer Name** icon you just created above. For example, here, HP LaserJet 5P.



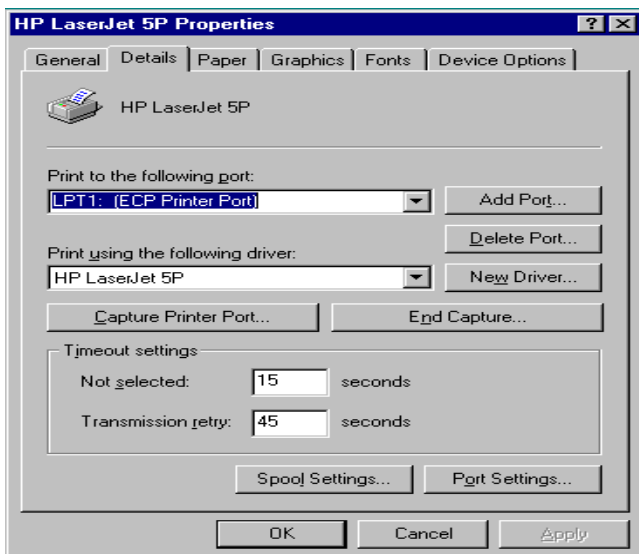
12. Select **Printer**, as shown in the following figure
13. Select **Properties**, as shown in the following figure.

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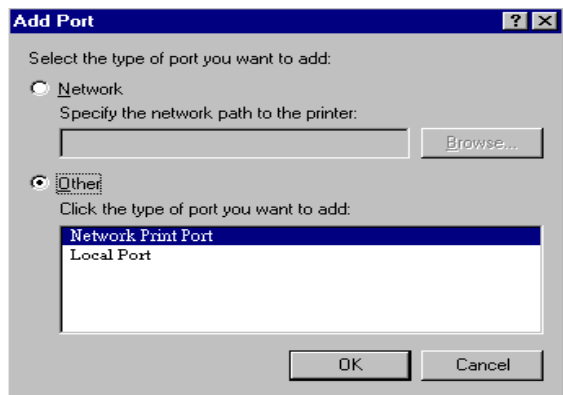
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14. Click **Details**, as shown in the following figure

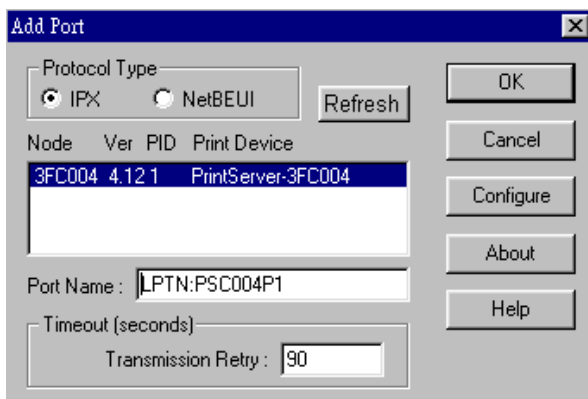


15. Click **Add Port** button.
16. In the Add Port dialog box, select **Other**, as shown in the following figure.



19. Select the **Network Print Port** and click **OK**.
20. The Add Port box will appear, as shown in the following figure
  - By default, the computer will first search for the print server on the network by using the IPX/SPX protocol.
  - If the IPX/SPX protocol *is* installed, the print server will be displayed along with its Node ID (*The last 6 characters located on the back of the print server unit*). Select a print server from the list.
  - If the IPX/SPX is *not* installed no print server will be shown in the display box.

- If the NetBEUI protocol is installed, rather than the IPX/SPX protocol, please click the **NetBEUI** option and it starts to search for the print server on the network using NetBEUI. When finished, the print server will be displayed along with the its Node ID *(The last 6 characters located on the back of the print server unit)*. Select a print server from the list.



21. Change the **Port Name** or leave it in default (**recommended**) and click **OK**. Done.

**Note:** *Don't change the default "Port Name" when using with an EPSON Stylus Color printer.* If you are using an EPSON Stylus Color series printer with the print server, please refer to page 61 for additional installation instructions.

### **Uninstalling Network Print Port**

To provide users with an easiest way to remove all installed software components from their computers, the Network Print Port software comes with an un-installation wizard program to help users remove the software components from their Windows 95/98 systems in minutes. Please follow the directions listed below to proceed with the un-installation procedure.

After the Network Print Port is removed, the print server is no longer accessible via the Network Print Port. You have to re-install the Network Print Port on your system in order to access the print server again.

#### **Procedure:**

1. Click "**Start**", point to "**Settings**", and select "**Control Panel**".
2. Double click the "**Add/Remove Programs**" icon.
3. Select "**Network Print Monitor for Windows 95/98**" and click "**Add/Remove**" button.
4. The un-installation wizard program will be launched.
5. Follow the directions on the screen to complete the un-installation procedure.

**Note:** We recommend you **restart** your computer after the un-installation is finished.

## 5. Windows NT Installation

### Preparation

The print server supports **IPX** and **NetBEUI** protocols. Please make sure that the following steps have been completed before proceeding with installation under Windows NT:

***If IPX protocol is selected:***

- ☐ The NWLink IPX/SPX Compatible Transport must be installed. For further information, please read "*NWLink IPX/SPX Compatible Transport Installation*" in this chapter.

***If NetBEUI protocol is selected:***

- ☐ The NetBEUI protocol must be installed. For further information, please read "*NetBEUI Installation*" in this chapter.

### **NWLink    IPX/SPX    Compatible    Transport Installation**

1. Select **Start**, point to **Settings**, and select **Control Panel**.
2. Double click the **Network** icon.
3. Select **Protocols**.
4. If the **NWLink IPX/SPX Compatible Transport** protocol is not already installed, click **Add**.
5. Select the **NWLink IPX/SPX Compatible Transport** protocol and follow the instructions on the screen.
6. Ensure the **IPX Internal Network Number** is not "00000000" by selecting the **NWLink IPX/SPX Compatible Transport protocol** and clicking its **Properties** button. If this is the case, please type in a unique 8-digit hexadecimal number, for example, 12345ABC.
7. **Restart your computer.**
8. Done.

### **NetBEUI Protocol Installation**

1. Select **Start**, point to **Settings**, and select **Control Panel**.
2. Double click the **Network** icon.
3. Select **Protocols**.
4. If the **NetBEUI** protocol is not already installed, click **Add**.
5. Select the **NetBEUI** protocol and follow the instructions on the screen.

6. Restart your computer.
7. Done.

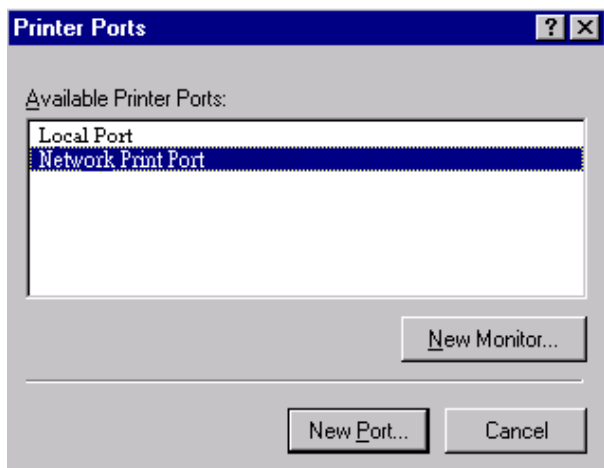
**Note:** For more detailed information, please refer to your Microsoft Windows NT manuals.

### **Windows NT Setup Procedure**

Please perform the steps as follows to ensure a smooth installation.

1. Run **Setup** from the print server's Setup CD.
2. The **Network Print Monitor Setup Welcome screen for Windows NT** will then appear. Click **Next**.
3. A message reading, "*Setup is complete. You may add the Network Print Port by using the Print Manager*" will appear. Click **OK**.
4. Click **Start**, point to **Settings**, and select **Printers**.
5. Double-click the **Add Printer** icon.
6. The Add Printer Wizard screen will appear as shown in the following figure.
7. Select **My Computer** and click **Next**.
8. Click **Add Port** button.

9. From the Printer Ports box as shown in the following picture. Select the **Network Print Port** and click **New Port**.

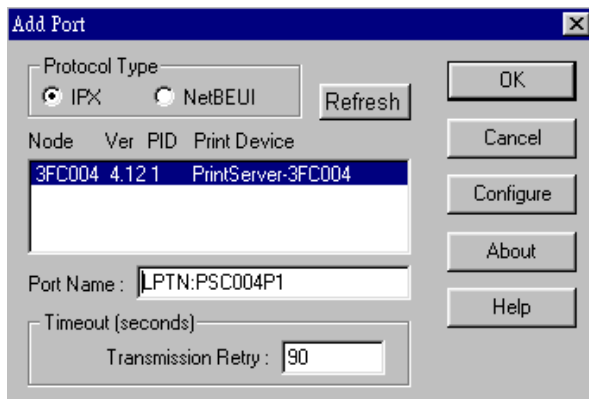


10. The Add Port box will then appear as shown in following picture.
- By default, the computer will first search for the print server on the network by using the NWLink IPX/SPX-compatible transport protocol.
  - If the NWLink IPX/SPX-compatible transport protocol is installed, the print server will be displayed along with the its Node ID (*The last 6*

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*characters located on the backside of the unit).*  
Select a print server from the list.

- If the NWLink IPX/SPX-compatible transport protocol is *not* installed no print server will be shown in the display box.
- If the NetBEUI protocol is installed, rather than the NWLink IPX/SPX-compatible transport protocol, please click the **NetBEUI** option and it starts to search for the print server on the network. When finished, the print server will be displayed along with the its Node ID (*The last 6 characters located on the back of the unit*). Select a print server from the list.



11. Change the **Port Name** or leave it in default (**recommended**) and click **OK**.

12. In the Printer Ports box, select **Close**.
13. Click **Next**.
14. Select the appropriate printer manufacturer and printer type and click **Next**.
15. Select **Shared**. Type in a new **Share Name** or leave it in default (**Not Shared**) *(This step is optional, if you don't want to share this printer resource to users. You may also share this printer to users by using the Print Manager after the installation completes)*. When done, click **Next**.
16. A message reading, "After your printer is installed, Windows can print a test page so you can confirm that the printer is set up properly." will appear. Select **Yes (Recommended)** and click **Finish**.
17. Done.

### Uninstalling Network Print Port

To help users easily remove all installed software components from Windows NT computers, the Network Print Port software comes with an un-installation wizard program that can automatically remove the software components from the systems in minutes. Please follow the directions listed below to proceed with the un-installation procedure.

After the Network Print Port is removed, the print server is no longer accessible via the Network Print Port. You have to re-install the Network Print Port on your system in order to access the print server again.

### **Procedure:**

1. Click "**Start**", point to "**Settings**", and select "**Control Panel**".
2. Double click the "**Add/Remove Programs**" icon.
3. Select "**Network Print Monitor for Windows NT**" and click "**Add/Remove**" button.
4. The un-installation wizard program will be launched.
5. Follow the directions on the screen to complete the un-installation procedure.

**Note:** We recommend you **restart** your computer after the un-installation is finished.

## 6. NetWare Installation

### PSMANAGER Overview

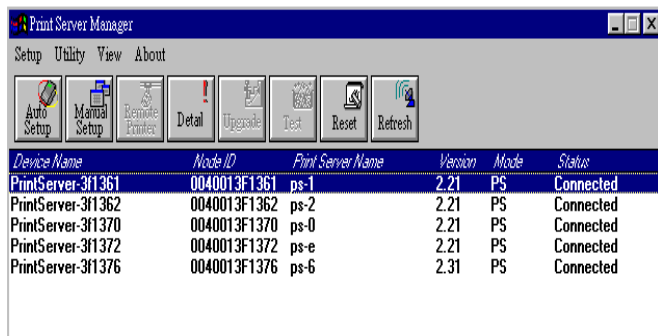
PSMANAGER is a proprietary Windows based management program that can assist you in configuring and managing your network print server in NetWare environments. The program can be run from any Windows PC that has the **IPX/SPX protocol** and **Client for NetWare Networks** installed.

### Installation

To install PSMANAGER, first insert the Setup CD into your CD-ROM driver and run the **Setup** program from a Windows 95/98. The program will automatically create the *Print Server Manager* program group for you. **The default installation directory is C:\EPWIN.**

### Using PSMANAGER

When PSMANAGER runs, the main screen will then appear as in the following figure.



All print servers featuring the NetWare function on the LAN will be displayed along with their current respective information. The terms are defined as follows:

**Device Name:** The name of the print server hardware used for identification purposes.

**Node ID:** The Ethernet (MAC) address of the print server.

**Print Server Name:** The print server to which the device is attached.

**Version:** The firmware version of the print server.

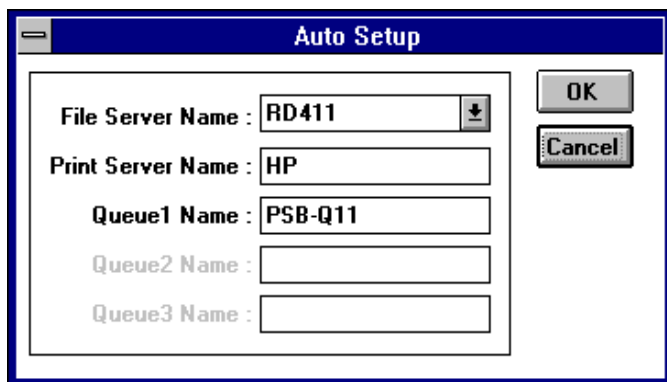
**Mode:** The print server mode which will be PS (Print Server).

**Status:** The status of the print server unit. A “**connected**” print server unit is ready to service print jobs.

### Auto Setup

**Auto Setup** is a configuration program that can assist you in setting up the necessary parameters for your print server device to function. To setup the print server by using Auto Setup follow the steps:

1. Log into your NetWare file server as a Supervisor (Admin.) or equivalent.
2. From your Windows 95/98, run PSMANAGER. Select the print server that you wish to configure by using your mouse.
3. Click the **Auto Setup** icon in the tool bar and the screen will appear as follows:



The screenshot shows a dialog box titled "Auto Setup" with a blue title bar. Inside the dialog, there are four text input fields with labels to their left: "File Server Name :", "Print Server Name :", "Queue1 Name :", and "Queue2 Name :". The "File Server Name" field contains the text "RD411" and has a small downward arrow icon on its right side. The "Print Server Name" field contains the text "HP". The "Queue1 Name" field contains the text "PSB-Q11". The "Queue2 Name" field is empty. Below the "Queue2 Name" field is another empty text input field labeled "Queue3 Name :". To the right of the input fields are two buttons: "OK" and "Cancel".

4. Select the NetWare File Server to which the print server device will be attached.
5. Type a Print Server Name or you may leave it in default.
6. Type a Queue Name or you may leave it in default.
7. Click OK button.
8. Click Yes after the message reading, "Are you sure you want to save this configuration?"
9. Done.

**Note:** If you are installing the print server under NetWare 4.x/5.0, please refer to page 43 for additional installation instructions.

### **Manual Setup**

Manual Setup is a configuration program designed for more experienced users of NetWare. To setup the print server by using Manual Setup follow the steps:

1. Log into your NetWare file server as a Supervisor (Admin.) or equivalent.
2. Run PCONSOLE in NetWare 3.12 or NetWare 4.x and create the necessary parameters (Refer to your

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Novell NetWare Print Server/Services manual for details).

**Note: On NetWare 4.x/5.0, you have to create a Bindery print server and a Bindery print queue and link these settings together. Do not create a NDS print server and a NDS print queue.** Please refer to NetWare's Print Services manual for details.

3. Run PSMANAGER from your Windows 95/98.
4. Select the print server that you wish to configure.
5. Click **Manual Setup** in the tool bar and the following screen will appear:

The screenshot shows a Windows-style dialog box titled "Manual Setup". It contains several input fields and dropdown menus for configuring a print server. The fields are arranged in two columns. On the right side of the dialog, there are "OK" and "Cancel" buttons.

Print Server	
Device Name :	Node ID :
PRINTSERVER-3F1361	00.40.01.3F.13.61
Print Server Name :	Novell Mode :
PS-1	Disable
File Server Name :	Encrypt Password :
FS-01RD-SE FS-01RD-ROOT FS-01RD-V410 FS-01RD-NDS	
Version :	Printer Mode :
2.21	Normal
	Polling Time : 2

6. (Optional) Type a Device Name for identification purposes.

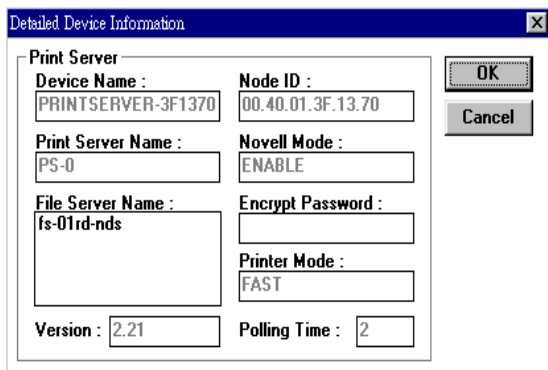
7. Type the Print Server Name that was created during PCONSOLE (in Step1).
8. Select the File Server on which the Print Server Name was created.
9. Make sure the Novell Mode option is **Enable**.
10. Type the login password for the Print Server Name, if the Password option is set during PCONSOLE.
11. Select the Printer Mode, **Fast**, **Normal (default)**, or **Slow**.
12. Click OK button.
13. Click Yes after the message reading, "Are you sure you want to save this configuration?"
14. Done.

### **Remote Printer**

*The Remote Printer feature is not available for the print server unit.*

### Detail

**Detail** provides users with the current configuration information about the print server device. The screen appears, as shown in following figure, after clicking the **Detail** icon:



The screenshot shows a window titled "Detailed Device Information" with a close button (X) in the top right corner. The window contains a form with the following fields and values:

Print Server	
Device Name :	PRINTSERVER-3F1370
Node ID :	00.40.01.3F.13.70
Print Server Name :	PS-0
Novell Mode :	ENABLE
File Server Name :	fs-01rd-nds
Encrypt Password :	
Printer Mode :	FAST
Version :	2.21
Polling Time :	2

On the right side of the form, there are two buttons: "OK" and "Cancel".

**Device Name:** The name of the print server hardware used for identification purposes.

**Print Server Name:** The print server to which the device is attached.

**File Server Name:** The file server to which the print server is attached.

**Version:** The firmware version of the print server.

**Node ID:** The Ethernet (MAC) address of the device.

**Polling Time:** The time interval, ranging from 3 seconds to 15 seconds, in which the print server unit polls the file server for servicing of print queues. **The default value is 3 seconds.**

**Novell Mode:** This will specify the Novell NetWare function of your print server. **The default value is *Enable*.**

**Encrypt Password:** This will specify the password the print server uses in logon process when it connects to the NetWare system.

**Note:** This encryption password must ***match*** the print server's password setting in the NetWare's PCONSOLE; otherwise the print server cannot log into the NetWare system and service print jobs.

**Printer Mode:** This option allows you to configure the printing speed of the print server. **The default value is *Normal*.**

### **Test**

*This feature is not available for the print server unit.*

### **Reset**

**Reset** allows the user to reset the print server device in order to establish a new connection or for new settings to take effect.

### Refresh

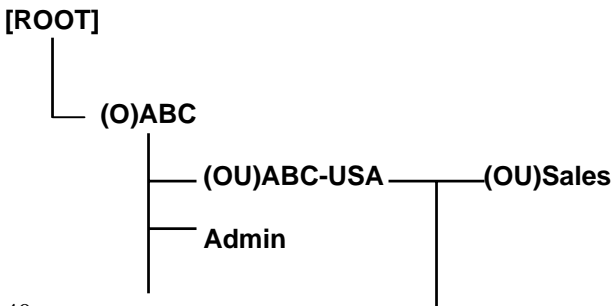
**Refresh** searches the network for all attached print servers.

### Installing the print server on NetWare 4.x/5.0 (NDS)

Due to its architecture and functionality, the print server must work under NetWare 4.x/5.0 NDS **Bindery Emulation**. When you install the NetWare file server for the first time, by default, the installation program will automatically set up the Bindery Emulation function for you by adding the "SET BINDERY CONTEXT =" command line in the AUTOEXEC.NCF file. By default, the bindery context will only be set on your organization (O) object.

*If you have ever modified this line, or if you have ever added any organization units (OU) to your NDS tree after the NetWare system was installed, please read the following section before you install the print server.*

For the purpose of illustration, we assume the NDS tree structure is as follows:



—— FileServer-1      ——(OU)Tech

### **Installation Procedure**

1. At your file server console, type "**load install**".
2. Select "**NCF files options**".
3. Select "**Edit AUTOEXEC.NCF file**".
4. Add or modify "**SET BINDERY CONTEXT =**" line to include the NDS organization (O) and all organization unit (OU) objects, where your users are located. For example: SET BINDERY CONTEXT = O=ABC; OU=SALES.O=ABC-SA.O=ABC;OU=TECH.OU=ABC-USA.O=ABC;...
5. When done, save the new AUTOEXEC.NCF file. Please restart your NetWare file server in order for new settings to take effect immediately.
6. Next, please refer to "**Auto Setup**" section in this chapter to finish installing your print server.
7. Log into your NetWare file server as a Supervisor (Admin.) or equivalent via a *Bindery* connection.
8. Run NetWare's PCONSOLE and add users to the "**Queue Users**" list.

9. From your NetWare client computer, create a printer that is connected (redirected) to the NetWare print queue associated with the print server. Done.

# **7. Troubleshooting**

## **General Troubleshooting Overview**

The most common problems, which cause the print server to perform incorrectly, are covered in this chapter. If a problem still exists after reading this chapter, please contact your dealer for technical support.

## **LED Light Indicators**

The print server is equipped with two LED lights to assist in diagnosing problems that are the result of the network and/or the print server hardware itself.

### **Power (Red)**

When this light is on, the print server unit is properly connected to the power adapter.

### **Status (Yellow)**

When the print server unit is powered on, the Yellow LED will flash **three** times as part of the unit's **Power On Self Test (POST)**. This indicates that the print server hardware is properly configured and initialized. This LED, however, may flicker whenever LAN data is being transmitted and the print server is printing.

**Note:** Make sure that the Yellow LED flashes **three** times (during the POST) upon connecting the power. If the unit does not flash **three** times, contact your dealer for a replacement or repair.

### **Cable Related Problems**

In most cases, the print server fails to send and receive network data due to incorrect use of the network cable and/or to connector problems.

Twisted-Pair cable is 10BaseT 8-wire Unshielded Twisted-Pair (UTP) cable. The pin assignments for the RJ-45 connector used for this cable must conform to the UTP cable specifications.

### **Power Related Problems**

The print server requires an *external* AC power adapter in order for it to function. If you have a power problem, check to see whether the power cord or its connectors are damaged. More importantly, check to see that the AC power adapter included with the print server matches the AC voltage in your country or area. Using an incorrect AC power adapter will damage your print server.

### **Print Port Related Problems**

Printing data failure may be caused by a loose connection of the print server to the Centronics parallel port of the printer. Check to see if any of the pins on the 36-pin connector are damaged. In addition, check the cable connection. If the pins are damaged, contact your dealer for a replacement connector.

### **Windows NT Troubleshooting**

#### **IPX Protocol Related Issues**

#### ***Multi-Segment LAN Environment Installation***

If your print server and Windows NT are located on two different segments, and your Windows NT server is used

as the router/gateway you will need to perform the following procedures in order for your print server to function properly:

- ☐ Add the RIP for NWLink IPX/SPX compatible transport. See “*RIP for NWLink IPX/SPX compatible transport Installation Procedure*” in the following section.
- ☐ Add the frame type 802.2 for both Ethernet adapters. See “*Multi-Segment Frame Type 802.2 Installation*” in the following section.

### ***RIP for NWLink IPX/SPX compatible transport Installation Procedure***

1. From your Windows NT server that is used as a router, click **Start**, point to **Settings**, and select **Control Panel**.
2. Double-click the **Network** icon.
3. Select **Services**.
4. Select **Add**.
5. In the Select Network Service list, select the **RIP for NWLink IPX/SPX compatible transport**. Click **OK**.
6. Follows the directions on the screen.

7. **Restart your computer.**
8. **Done.**

### ***Multi-Segment Frame Type 802.2 Installation***

1. From your Windows NT server that is used as a router, select **Start**, point to **Settings**, and select **Control Panel**.
2. Double-click the **Network** icon.
3. Select **Protocols**.
4. Select the **NWLink IPX/SPX Compatible Transport**.
5. Select **Properties**.
6. Ensure the **IPX Internal Network Number** is not 00000000 by selecting the **NWLink IPX/SPX Compatible Transport protocol** and clicking its **Properties** button. If this is the case, please type in an unique 8-digit hexadecimal number, for example, 12345ABC.
7. Select your (first) network interface card and select **Manual Frame Type Detection**.
8. Click **Add**.

9. In the **Frame Type** field, select **Ethernet 802.2**.
10. In the **Network Number** field, type in a unique 8-digit hexadecimal network number. For example: 12345ABC.
11. Select **Add**.
12. Repeat the Step 9-13 for the other Ethernet adapter.
13. **Restart the computer**.
14. Done.

### ***Moving the print server to A New Segment***

If the print server is moved from one network segment to the other after the initial installation through the Network Print Port, the print server must be reconfigured on the original Windows NT server or on each Windows 95/98 computer in order for the print server's driver on each computer to re-establish a new connection to the print server.

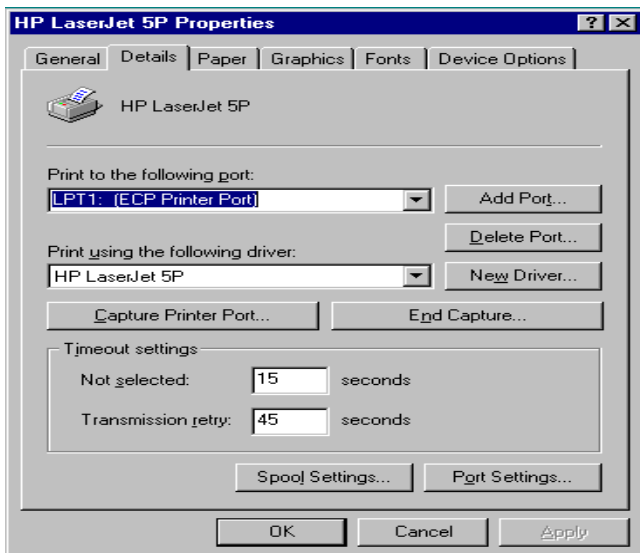
#### **print server Reconfiguration Procedure on Windows 95/98**

1. Click **Start**, point to **Settings**, and select **Printers**.
2. Select your printer which is connected to the print server, and right-click the printer icon. Select **Properties**.

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3. Click **Details** tab.
4. Click **Port Settings** as shown in the picture below. The print server will be displayed on the next configuration screen.



5. Select the protocol type by clicking on the "IPX/SPX" or "NetBEUI" button. Find your original print server according to its Port Name or other distinguished name and click this print server.
6. Click **OK** and it returns to the printer's Properties page.

7. Click **OK**.
8. Done.

### **Reconfiguration Procedure on Windows NT**

1. Click **Start**, point to **Settings**, and select **Printers**.
2. Select your printer which is connected to the print server, and right-click the printer icon. Select **Properties**.
3. Click **Ports** tab.
4. Click **Configure Port**. Select the protocol type by clicking on the "IPX/SPX" or "NetBEUI" button.
5. The print server will be shown on the next screen. Find your original print server according to its Port Name or other distinguished name and click this print server.
6. Click **OK** and it returns to the printer's Properties page.
7. Click **OK**.
8. Done.

### ***Moving Your Computer to A New Segment***

If you are using print server through the Network Print Port on your NT or Windows 95/98 computer and your computer is moved onto another segment after the initial installation, you have to reconfigure the print server on your computer. However, this situation is like moving the

print server to a new segment. Please refer to the “*Moving the print server to A New Segment*” section for more detailed reconfiguration instructions.

## **NetBEUI Protocol Issues**

The NetBEUI protocol was one of the earliest protocols available for use on networks composed of personal computers. In 1985, IBM introduced NetBEUI to provide a protocol that could be used with software programs designed around the Network Basic Input/Output System (NetBIOS) interface.

NetBEUI was designed as a small, efficient protocol for use in department-sized local area networks (LANs) of 20 to 200 computers that *do not need to be routed* to other subnets. Today, NetBEUI is used almost exclusively on **small, non-routed** networks composed of computers running under a variety of operating systems.

If the NetBEUI is selected when installing the print server on Windows 95/98/NT, the print server and the Windows computer should be on the same network segment.

## **Novell NetWare Troubleshooting**

Many printing problems can be traced back to incorrect or incomplete print server installations. *It is always wise to check the installation configurations first.*

In some cases, if necessary, delete the print server, print queue(s) or other setting(s). Next recreate the necessary parameters or reconfigure the print server by running PSMANAGER.

## **Frequently Asked Questions**

### **Question A**

*While running PSMANAGER, the "Disconnected" message is displayed under Status.*

Possible explanations

1. The print server is a new unit and has not yet been configured.
2. The file server is not powered on and therefore the print server cannot attach itself to it.
3. The Print Server Name of the print server has not yet been entered or specified in PCONSOLE. The print server cannot attach itself to the NetWare system.
4. The configuration saved in the print server is incorrect or does not match the PCONSOLE configuration.

Solutions

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1. Run PSMANAGER and configure the print server.
2. Power on the NetWare file server or check your network cabling.
3. Check to see that the configuration in PCONSOLE is correct, especially check the password if it is set.
4. Check to see the configuration is correct and matches the configuration in PCONSOLE, especially check the password if it is set.

### **Question B**

*Print jobs are sent to the print queue successfully, but fail to be sent to the printer.*

#### Possible explanations

1. The Print Server/Print Queue configuration in PCONSOLE is incorrect.
2. The print server name specified and stored in the print server memory doesn't match the same one set in PCONSOLE.
3. The network cable or power adapter connected to the print server is loose or disconnected.
4. The printer is off-line, jammed or out of paper.

#### Solutions

1. Check all the information in PCONSOLE.
2. Check all the information of the print server by running PSMANAGER.

3. Check to see that the network cabling and power adapter are properly connected.
4. Recheck the print server connection by running PSMANAGER. It should read "Connected."

### **Question C**

*Print jobs start printing, but print very slowly or print unknown characters.*

Possible explanation and solution

A printer driver is missing or is incompatible with that printer. Using a print driver that is not specific for the printer can cause printing errors. Install the proper printer driver. If these printer drivers are not available to you, please contact your printer manufacturer.

### **Question D**

*The upgrading process indication bar stops and does not seem to proceed again while upgrading the print server.*

Possible Explanation

There might be a network problem. This causes the upgrading procedure to fail.

Solutions

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1. Check the network cabling, especially from the workstation running PSMANAGER to the print server unit.
2. Run PSMANAGER and upgrade the print server again.

### **Question E**

*PSMANAGER reports "Create Print Server Error", "Create Printer Error", or "Create Queue Error" while using Auto Setup.*

#### Possible Explanation

The print server name, the printer name, or the queue name you specified in the **Auto Setup** dialogue box contains a space.

#### Solution

Check to see if there is a space in the print server name, the printer name, or the queue name. Type in a new name without a space between two characters or replace a space by a dash (-) or an underscore (\_).

### **Question F**

*PSMANAGER reports "Print Server Already Exists", "Printer Already Exists", or "Print Queue Already Exists" after specifying the print server name, or the print queue name in Auto Setup.*

### Possible Explanation

A same print server name or queue names exists in the specific NetWare file server as the one you specified in the **Auto Setup** dialogue box.

### Solution

Specify a new print server name or queue name in the **Auto Setup**.

## **Additional Installation Instructions**

### **A. EPSON Stylus Color series (inkjet printers)**

When using the print server with an EPSON Stylus Color series printer under Windows 95/98 system through the Network Print Port, you might encounter the problem as follows.

*"I connected a print server to my EPSON Stylus Color printer and followed every steps in the Chapter 4. No any problem happens during the installation. Besides, I have completely installed the printer driver specific to my EPSON Stylus Color printer. When I printed the test page, there was nothing come out from my printer. Printing from any application had the same result. However, when I changed the EPSON Stylus Color printer to a HP LaserJet printer or a dot-matrix printer, there was no any problem happened. This situation confused me ! What should I do ?"*

### **Explanation:**

When installing the printer driver of any EPSON Stylus Color series printer, there is an EPSON proprietary Spool Manager will also be installed into your Windows 95/98 computer. When you print jobs to this printer, this Spool Manager will be automatically launched and intercept the standard Windows 95/98 printing control flow. As a result, this Spool Manager overrides the print server's underlying printing control component, which is implemented as a standard Windows Print Monitor, and prevents the print jobs from being serviced by the print server on the network. Therefore, this is a special problem caused by vendor's proprietary printer software.

### **Solution:**

According to our intensive test, this problem happens only while printing to an EPSON Stylus Color series printer through the Network Print Port under Windows 95/98 systems. File server based printing, namely printing through NetWare or NT (from Windows 95/98 computers) causes no such a problem.

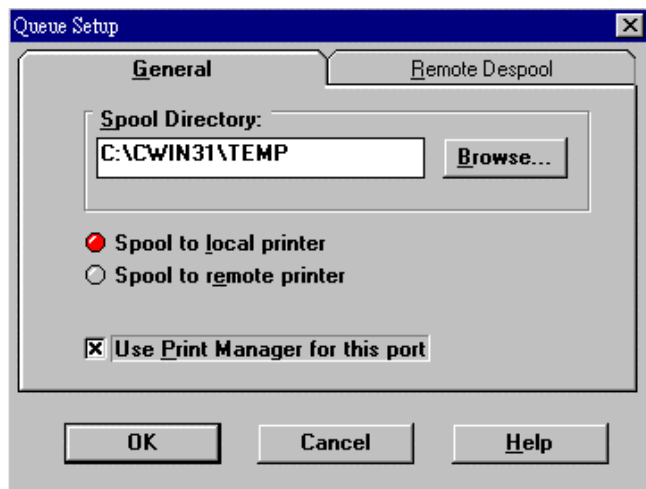
If it is the case, please follow the instructions below to solve this problem.

### **Procedures:**

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1. Follow the instructions in Chapter 4 to complete the installation. ***Don't change the default "Port Name" when using with an EPSON Stylus Color printer.***
2. Select and run "**Spool Manager**" from the EPSON program group and double-click your EPSON Stylus Color printer.
3. Check the "**Use Printer Manager for This Port**" option, as shown in the following picture, and click "**OK**".



4. Done.

### **B. Panasonic KX-P6100/6300/6500**

If you are using a Panasonic KX-P6100/6300/6500 laser printer with the print server through the Network Print Port under Windows 95/98, please redirect the printer named "***Panasonic KX-P6100 PCL***" or "***Panasonic KX-P6300 PCL***", or "***Panasonic KX-P6500 PCL***" to the print server through the Network Print Port.

*DO NOT redirect the printer named "Panasonic KX-P6100 GDI", "Panasonic KX-P6300 GDI", or "Panasonic KX-P6500 GDI" to the print server.*