

# WorkCentre M24 SA Guide

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Welcome to the WorkCentre M24 guide for System Administrator's.

This guide will help you install printing and other optional services on your network.

Click here



to begin.

Click here



for a Quick Install page.

(Use your browser's Print function to print it for reference.)

Click here



for instructions on using this guide.

# WorkCentre M24 Product Overview

[Standard Features](#)

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# Standard Features

- Printer engine with Integrated controller
  - Scanner with Stand
  - Duplex Automatic Document Feeder (DADF)
  - Standard High Capacity A4 Tray
  - Electronic Pre-Collation (EPC)
  - Face-Up Output Tray
  - Offset Catch Tray
  - Scan to mailbox
  - 600x600; 600x1200 & 1200x1200 printing resolution -  
200x200; 300x300 & 600x600 copying resolution
  - EA1 toner - No Oil Required! - No Streaks
  - SRA3 / 12x19", 64x220 gsm / 16-110 lb index media - Full Bleeds on A3/11x17"
  - Up to 3,140 sheet capacity
  - Excellent Reliability of 3 calls/year at 7K AMPV; 1.2 hours MSH
  - 45 sec warm-up; 7 sec color FCOT
  - Fuser Belt Module
- 
- Token Ring - Not Available



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Proceed to Options

# Options

- 1000 Sheet Finisher (stapler)
- Base Machine with stand (see below)
- Tandem Tray (see below)
- Three Tray Module (see below)



Base Machine with Stand  
(Shown with optional  
DADF and Finisher.)



Three Tray Module



Tandem Tray Module



[Return to Product Overview Menu](#)

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Click here  to begin.

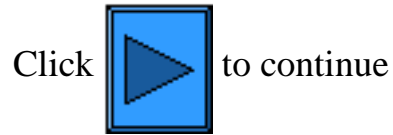
Click here  for a Quick Install page.

**(Use your browser's Print function to print it for reference.)**

Click here  for instructions on using this guide.

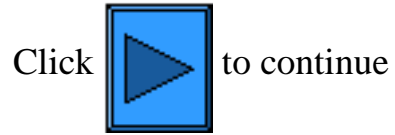
# Installation

**Step 1.** Connect one end of a Category 5 twisted pair cable to a live network drop. Connect the opposite end of the cable to the RJ-45 socket at the rear of the Printer.



# Installation

**Step 2.** Set the printer's **power switch** to **ON** and wait until the Main (multiple tabbed) screen is displayed.



### Step 3.

Follow the procedure outlined below to print a Settings List.

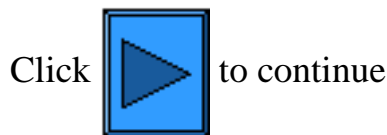
To print a copy of this procedure, go to the Network Connectivity tab of the guide and select Settings List.

You can then use your browser's Print function to print the procedure.

## Settings List

To print a Settings List, with the Printer switched ON, perform the following steps:

1. Press the **Machine Configuration (Confirmation) button**. This is the lowest of the three square buttons to the immediate left of the Control Panel's numeric keypad.
2. Press the **Billing Meter/Print Report Tab** on the Control Panel's touch screen. This is the second Tab from the left side of the screen.
3. Press the **Print Report/List button**. This is the lowest of the two buttons displayed vertically on the touch screen.
4. Press the **Copy Mode Settings button**. This is the center button in the upper row of three buttons displayed horizontally on the touch screen.
5. Press the **Square (Settings List) button** displayed by itself on the screen.
6. Press the large, green, **Start button**, located to the immediate right of the Control Panel's numeric keypad.
7. The printing process will be graphically displayed on the touch screen. Upon receipt of the Settings List, note that the three page print is formatted into two columns with horizontal ruled lines indicating four distinct data display areas on the print. **The first area displays System Settings. The second area displays Copy Settings. The third area displays Print Settings. The fourth area displays Communication Settings.**





## Step 4:

### Network Connectivity

All of the instructions referenced below are obtained by first opening the **Network Connectivity** Tab. Use the Back function of your browser to return to this step, should you go to any of the referenced procedures now.

Refer to the Settings List and verify that the appropriate ports and protocols are enabled for your Network environment.

### Verify the following:

- The TCP/IP protocol stack should be enabled to support communicating with the Printer's Internet Services. The Printer should also have a valid IP Address, Subnet Mask, and Gateway. If this is not the case, select [NOS Selection Menu](#), click **TCP/IP Protocol Configuration**, and follow the instructions supplied.
- If **Internet Services on the Printer** is shown as "disabled" on the Settings List, follow the instructions to **Enable Internet Services**.
- If you will be using SNMP Management software with this printer, select **SNMP Configuration** and follow the instructions supplied.
- If you will be using the Parallel Port and wish to view or change its configuration, select **Parallel Port Configuration** and follow the instructions supplied.

Follow the instructions referenced for performing necessary configurations.

Click



to continue

# Network Connectivity

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[Settings List A6](#)

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[Changing the Administrator Password A10](#)

# Installation Steps

A1

**Step 1.** Connect one end of a Category 5 twisted pair cable to a live network drop. Connect the opposite end of the cable to the RJ-45 socket at the rear of the Printer.

**Step 2.** Set the printer's power switch to ON and wait until the Main (multiple tabbed) screen is displayed.

**Step 3.** Select "Settings List" under the **Network Connectivity Tab** of this guide and print a Settings List using the instructions supplied.

**Step 4.** Referring to the Settings List, determine if the appropriate ports and protocols are enabled for your Network environment.

To support communicating with the Printer's Internet Services, a series of internal Web Pages that enable the configuration of operating settings, the TCP/IP protocol stack should be enabled. The Printer should also have a valid IP Address, Subnet Mask, and Gateway displayed. If this is not the case, select **NOS Selection** and click **TCP/IP Protocol Configuration** under the **Network Connectivity Tab** of this guide and follow the instructions supplied.

As some Network Environment settings can only be configured through use of Internet Services on the Printer, if this tool is shown as "disabled" on the Settings List, follow the instructions to **Enable Internet Services** under the **Network Connectivity Tab** of this guide.

If you will be using SNMP Management software with this printer, select **SNMP Configuration** under the Network Connectivity Tab of this guide and follow the instructions supplied.

If you will be using the Parallel Port and wish to view or change its configuration, select **Parallel Port Configuration** under the Network Connectivity Tab and follow the instructions supplied.

**Step 5.** Under the **Network Connectivity Tab**, select "NOS Selection," then select your Network Operating System for printer installation instructions specific to your network environment. If you will be installing the printer in a Client/Server environment, make sure to have your Server's Operating System Manual available to refer to when required.

**Step 6.** Select the **Print Drivers Tab** of this guide for the instructions required to set up individual desktop workstations to communicate with the printer.

**Step 7.** To enable a feature, such as Scanning to the Printer's Hard Drive, select the Enabling Scanning Tab and select the feature from the menu list for configuration instructions.

## Note:

For comprehensive information on the use of Internet Services as a browser-based, workstation tool for configuring your printer, select the **Internet Services Tab** of this guide and click on relevant topics from the menu list.

# Settings List

A6

To print a Settings List, with the Printer switched ON, perform the following steps:

1. Press the **Machine Status button**. This is the lowest of the three square buttons to the immediate left of the Control Panel's numeric keypad.
2. Press the **Billing Meter/Print Report Tab** on the Control Panel's touch screen. This is the second Tab from the left side of the screen.
3. Press the **Print Report/List button**. This is the lowest of the two buttons displayed vertically on the touch screen.
4. Press the **Copy Mode Settings button**. This is the center button in the upper row of three buttons displayed horizontally on the touch screen.
5. Press the **Square (Settings List) button** displayed by itself on the screen.
6. Press the large, green, **Start button**, located to the immediate right of the Control Panel's numeric keypad.
7. The printing process will be graphically displayed on the touch screen. Upon receipt of the Settings List, note that the three page print is formatted into two columns with horizontal ruled lines indicating four distinct data display areas on the print. **The first area displays System Settings. The second area displays Copy Mode Settings. The third area displays Print Mode Settings. The fourth area displays Communication Settings.**

# Ethernet Speed Setting

A2

The Printer's Ethernet Interface has speed settings of **10 BASE-T/100 BASE-TX (Auto sensing)**, **100 BASE-TX**, and **10 BASE-T**. By default the Ethernet Port Configuration will be set to **10 BASE-T/100 BASE-TX (Auto sensing)**.

## To Change the Network Speed

### Go to your Printer

1. Press the rectangular **Access button** on the Printer Control Panel, located directly above and slightly to the right of the numeric keypad.
2. Press the "**1**" **key** on the numeric keypad five consecutive times. (This is the factory default "password.")
3. Press the rectangular **Confirm button** on the touch screen.
4. Press the **System Settings button** (the right-hand button of the two buttons displayed on the touch screen). Note: If you press the left button by mistake, the Main menu will be displayed and you will have to start over at step one above.
5. Press the **System Settings button** (the top left button displayed on screen).
6. Press the **Network Settings button** (the top right button displayed on screen).
7. Press the **Protocol Settings button** (the right-hand button) to access the Protocols Menu display. Note: If you press the left-hand button by mistake you will be in the Ports Menu and will have to press the Close button to return to the two-button selection screen.
8. When the Protocol Settings Menu displays, press the horizontal line selection labeled **Ethernet Board Setting**.
9. Press the **Change Settings button** in the lower right corner of the touch screen.
10. On the Settings screen note which one of the three square buttons is highlighted as the current setting for Ethernet speed. The available settings are 10 BASE-T/100 BASE-TX (Auto sensing), 100 BASE-TX, and 10 BASE-T. The default setting is 10 BASE-T/100 BASE-TX (Auto sensing).
11. To change settings, press your setting of choice, then click the **Save** button (upper right-hand button) on the touch screen.
12. To exit the Settings screen, without making any changes, click the **Cancel** button (upper left-hand button) on the touch screen.
13. To exit the Protocol Settings Menu, returning to the Printer's Main screen, press the rectangular **Close** button in the upper right corner of the Protocol Settings Menu screen. Next, press the rectangular **Close** button in the upper right corner of the Ports and Protocols selection (two-button) screen. Press the rectangular **Close** button in the upper right corner of the five-button screen containing the Network Settings button. Finally, press the rectangular **Exit** button in the upper right corner of the four-button, System Settings screen.
14. Note that if you changed any settings in the Protocol Settings menu, the Printer will automatically reboot to register and enable your new settings.

# Enable Internet Services (HTTP)

A9

Internet Services are a series of Web (HTML) Pages located within the Printer enabling network communication settings to be conveniently configured from a web browser running on a remotely located workstation.

For further details on the many functions provided by the Internet Services Web Pages, click on the **Internet Services Tab** on the Main Page of this System Administrator's guide.

## To access Internet Services Settings at the Printer

1. Press the rectangular **Access button** on the Printer Control Panel, located directly above and slightly to the right of the numeric keypad.
2. Press the "**1**" key on the numeric keypad five consecutive times. (This is the factory default "password.")
3. Press the rectangular **Confirm button** on the touch screen.
4. Press the **System Settings button** (the right-hand button of the two buttons displayed on the touch screen). Note: If you press the left button by mistake, the Main menu will be displayed and you will have to start over at step one above.
5. Press the **System Settings button** (the top left button displayed on screen).
6. Press the **Network Settings button** (the top right button displayed on screen).
7. Press the **Port Settings button** (the left-hand button) to access the Port Settings Menu display. Note: If you press the right-hand button by mistake, you will be in the Protocol Settings Menu and will have to press the Close button to return to the two-button selection screen.
8. When the Port Settings menu displays, press the down arrow key to view additional selections.
9. Press the **Internet Services** selection line on the Port Settings menu screen.
10. Press the **Change Settings** button in the lower right corner of the Port Settings Menu screen.
11. When the Internet Service Selection Menu displays, note that you have only one setting selection on a single, numbered horizontal line, with the current status of this setting shown. The Close button in the upper right corner of the screen returns you to the Port Settings Menu. After pressing the horizontal line selection, to access available settings press the Change Settings button in the lower right corner of the touch screen.

## Internet Services (HTTP) Enablement

1. On the Internet Services Selection Menu, press the horizontal selection line labeled **Port Status**.
2. Press the **Change Settings** button.
3. On the Settings screen, note which of the two square buttons is highlighted as the current setting for Internet Services Enablement. The available settings are Enabled or Disabled. In order to use Internet Services, this setting **MUST** be enabled.
4. To change settings, press your setting of choice, then click the **Save** button (upper right-hand button) on the touch screen.
5. To exit the Settings screen, without making any changes, click the **Cancel** button (upper left-hand button) on the touch screen.

## Exiting the Internet Services Selection Menu

To exit the Internet Service Selection Menu, which returns you to the Port Settings menu, press the rectangular **Close** button in the upper right corner of the touch screen.

### **Exiting the Port Settings Menu and returning to the Printer's Main Menu**

1. To exit the Port Settings Menu, returning to the Printer's Main screen, press the rectangular **Close** button in the upper right corner of the Port Settings Menu screen.
2. Press the rectangular **Close** button in the upper right corner of the Ports and Protocols selection (two-button) screen.
3. Press the rectangular **Close** button in the upper right corner of the five-button screen containing the Network Settings button.
4. Finally, press the rectangular **Exit** button in the upper right corner of the four-button, System Settings screen.

Note: If you changed any settings in the Port Settings menu, the Printer will automatically reboot to register and enable your new settings.

# Parallel Port Configuration

A7

To view or change the settings of the Printer's parallel port, perform the following steps:

## To access Parallel Port Settings at the Printer

1. Press the rectangular **Access button** on the Printer Control Panel, located directly above and slightly to the right of the numeric keypad.
2. Press the "**1**" key on the numeric keypad five consecutive times. (This is the factory default "password.")
3. Press the rectangular **Confirm button** on the touch screen.
4. Press the **System Settings button** (the right-hand button of the two buttons displayed on the touch screen). Note: If you press the left button by mistake, the Main menu will be displayed and you will have to start over at step one above.
5. Press the **System Settings button** (the top left button displayed on screen).
6. Press the **Network Settings button** (the top right button displayed on screen).
7. Press the **Port Settings button** (the left-hand button) to access the Port Settings Menu display. Note: If you press the right-hand button by mistake, you will be in the Protocol Settings Menu and will have to press the Close button to return to the two-button selection screen.
8. Press the line labeled **Parallel** on the Port Settings Menu screen.
9. Press the **Change Settings button** in the lower right corner of the Port Settings Menu screen.
10. When the Parallel Port Selections Menu displays, note that you have a choice of setting selections by numbered horizontal lines, with the current status of each setting shown. The up and down arrow keys provide access to additional selections and return you to the current selections display. The Close button in the upper right corner of the screen returns you to the Port Settings Menu. After pressing a horizontal line selection, to access available settings press the Change Settings button in the lower right corner of the touch screen.

## Port Status (Parallel Port Enablement)

1. On the Parallel Port Selections Menu, press the horizontal selection line labeled **Port Status**.
2. Press the **Change Settings** button.
3. On the Settings screen, note which of the two square buttons is highlighted as the current setting for Parallel Port Enablement. The available settings are Enabled or Disabled.
4. To change settings, press your setting of choice, then click the **Save** button (upper right-hand button) on the touch screen.
5. To exit the Settings screen, without making any changes, click the **Cancel** button (upper left-hand button) on the touch screen.

## Print Mode

1. On the Parallel Port Selections Menu, press the horizontal selection line labeled **Print Mode**.
2. Press the **Change Settings** button.
3. On the Settings screen, note which one of the displayed buttons is highlighted as the current setting for Parallel Print Mode. This setting informs the Controller of the Page Description Language (PDL) being used by your print jobs. The available settings are Auto (default), PostScript, HP-GL/2, PCL, and TIFF. **Auto** enables the Controller to automatically detect and select the appropriate PDL.



4. To change settings, press your selection of choice, then click the **Save** button (upper right hand button) on the touch screen.
5. To exit the Settings Selection screen, without making any changes, click the **Cancel** button (upper left-hand button) on the touch screen.

## **PJL (Printer Job Language)Setting**

1. On the Parallel Port Selections Menu, press the horizontal selection line labeled **PJL**.
2. Press the **Change Settings** button.
3. On the Settings screen, note which of the two square buttons is highlighted as the current setting for Job Control Language. This is the setting that enables the Controller's job processing parameters to be modified by HP PJL. The available settings are Enabled or Disabled.
4. To change settings, press your setting of choice, then click the **Save** button (upper right-hand button) on the touch screen.
5. To exit the Settings screen, without making any changes, click the **Cancel** button (upper left-hand button) on the touch screen.

## **Auto Eject time (Parallel Port Timeout)**

1. On the Parallel Port Selections Menu, press the horizontal selection line labeled **Auto Eject Time**.
2. Press the **Change Settings** button.
3. On the Settings screen, note the current display in seconds for the Parallel Port Timeout. This is the length of time that the Controller will wait for an end of job command before printing the current job. Up and down selection arrows are provided for modification of the timeout value in the increments shown.
4. To change settings, use the up or down selection arrow, then click the **Save** button (upper right-hand button) on the touch screen.
5. To exit the Settings screen, without making any changes, click the **Cancel** button (upper left-hand button) on the touch screen.

## **Adobe Communication Protocol**

1. On the Parallel Port Selections Menu, press the horizontal selection line labeled **Adobe Communication Protocol**.
2. Press the **Change Settings** button.
3. On the Settings screen, note which button is highlighted as the current setting for Adobe Communication Protocol. The available settings are Standard, Binary, and TBCP.
4. To change settings, select the setting to, then click the **Save** button (upper right-hand button) on the touch screen.
5. To exit the Settings screen, without making any changes, click the **Cancel** button (upper left-hand button) on the touch screen.

## **Bi-directional Communications**

1. Select the down arrow on the screen to see this setting.
2. On the Parallel Port Selections Menu, press the horizontal selection line labeled **Bi-directional Communications**.
3. Press the **Change Settings** button.

4. On the Settings screen, note which of the two square buttons is highlighted as the current setting for Bi-directional Communications. The available settings are Enabled or Disabled. To support high speed, bi-directional parallel communications, select the Enabled setting.
5. To change settings, press your setting of choice, then click the **Save** button (upper right-hand button) on the touch screen.
6. To exit the Settings screen, without making any changes, click the **Cancel** button (upper left-hand button) on the touch screen.

## Input to Prime

1. Select the down arrow on the screen to see this selection.
2. On the Parallel Port Selections Menu, press the horizontal selection line labeled **Input Prime**.
3. On the Settings screen, note which of the two square buttons is highlighted as the current setting for Parallel Input to Prime. The available settings are Enabled or Disabled. In support of bi-directional communications, input to prime enables or disables the communication of a control signal over the parallel port (which is client (workstation) dependent). When in doubt, select the Enabled setting.
4. To change settings, press the setting of choice, then click the **Save** button (upper right-hand button) on the touch screen.
5. To exit the Settings screen, without making any changes, click the **Cancel** button (upper left-hand button) on the touch screen.

## Exiting the Parallel Port Selections Menu

To exit the Parallel Port Selections Menu, which returns you to the Port Settings Menu, press the rectangular **Close** button in the upper right corner of the touch screen.

## Exiting the Port Settings Menu and returning to the Printer's Main Menu

1. To exit the Port Settings Menu, returning to the Printer's Main screen, press the rectangular **Close** button in the upper right corner of the Ports Menu screen.
2. Press the rectangular **Close** button in the upper right corner of the Ports and Protocols selection (two-button) screen.
3. Press the rectangular **Close** button in the upper right corner of the five-button screen containing the Network Settings button.
4. Finally, press the rectangular **Exit** button in the upper right corner of the four-button, System Settings screen.

**Note:** If you changed any settings in the Port Settings menu, the Printer will automatically reboot to register and enable your new settings.

# SNMP Configuration

A8

SNMP (Simple Network Management Protocol) provides a method to remotely monitor and diagnose printer performance on the network. Once SNMP has been enabled at the printer, SNMP Management software, running on a host computer connected to the network, polls the printer's agents for operating information and responds to traps from the printer regarding specific events. Examples of such events might be notifications from the printer that it is low on toner, or low on paper.

To view or change the Printer's SNMP setting, perform the following steps:

## To access SNMP Settings at the Printer

1. Press the rectangular **Access button** on the Printer Control Panel, located directly above and slightly to the right of the numeric keypad.
2. Press the **"1" key** on the numeric keypad five consecutive times. (This is the factory default "password.")
3. Press the rectangular **Confirm button** on the touch screen.
4. Press the **System Settings button** (the right-hand button of the two buttons displayed on the touch screen). Note: If you press the left button by mistake, the Main menu will be displayed and you will have to start over at step one above.
5. Press the **System Settings button** (the top left button displayed on screen).
6. Press the **Network Settings button** (the top right button displayed on screen).
7. Press the **Port Settings button** (the left-hand button) to access the Port Settings Menu display. Note: If you press the right-hand button by mistake, you will be in the Protocol Settings Menu and will have to press the Close button to return to the two-button selection screen.
8. When the Port Settings menu displays, press the down arrow key to view additional selections.
9. Press the **SNMP** selection line on the Port Settings Menu screen.
10. Press the **Change Settings** button in the lower right corner of the Port Settings Menu screen.
11. When the SNMP Selection Menu displays, note that you have only one setting selection on a single, numbered horizontal line, with the current status of this setting shown. The Close button in the upper right corner of the screen returns you to the Port Settings Menu. After pressing the horizontal line selection, to access available settings press the Change Settings button in the lower right corner of the touch screen.

## Port Status (SNMP Enablement)

1. On the SNMP Selection Menu, press the horizontal selection line labeled **Port Status**.
2. Press the **Change Settings** button.
3. On the Settings screen, note which of the two square buttons is highlighted as the current setting for SNMP Enablement. The available settings are Enabled or Disabled. For SNMP to function, it must be set to Enabled.
4. To change settings, press your setting of choice, then click the **Save** button (upper right-hand button) on the touch screen.
5. To exit the Settings screen, without making any changes, click the **Cancel** button (upper left-hand button) on the touch screen.

## Exiting the SNMP Selection Menu

To exit the SNMP Selection Menu, which returns you to the Port Settings Menu, press the rectangular **Close** button in the upper right corner of the touch screen.

### Exiting the Port Settings Menu and returning to the Printer's Main Menu

1. To exit the Port Settings Menu, returning to the Printer's Main screen, press the rectangular **Close** button in the upper right corner of the Port Settings Menu screen.
2. Press the rectangular **Close** button in the upper right corner of the Ports and Protocols selection (two-button) screen.
3. Press the rectangular **Close** button in the upper right corner of the five-button screen containing the Network Settings button.
4. Finally, press the rectangular **Exit** button in the upper right corner of the four-button, System Settings screen.

Note: If you changed any settings in the Port Settings menu, the Printer will automatically reboot to register and enable your new settings.

### Configuring SNMP Community Names with Internet Services

1. Open your Web browser and enter the TCP/IP address of the Printer in the Address or Location field. Press **Enter**.
2. Click the **Properties** button or Tab.
3. Click the plus symbol (+) to the left of the **Protocol Settings** file folder.
4. Select **SNMP** in the directory tree.
5. Enter a name for the **Community Name (Read-Only)**. This is the password for SNMP GET requests from the SNMP Manager to the Agent in the Printer.
6. Enter a name for the **Community Name (Read-Write)**. This is the password for SNMP SET requests from the SNMP Manager to the Agent in the Printer.  
**Caution:** If you change the GET and/or SET Community Names, you must also change the names in all network applications that are communicating by SNMP with this Printer.
7. Enter a name for the **Community Name (Trap Notification)**. This is the default password for SNMP TRAPS sent from the device to the Manager by SNMP.
8. Optionally enter the System Administrator's name for packet identification purposes.
9. Click the **Apply New Settings** button to accept the changes, or the **Restore Settings** button to return the settings to their previous values.

Note: Changes to settings will not be applied until you restart the Printer.

## NOS Selection

### Select your Network Environment from this list.

[TCP/IP \(Protocol Configuration\) B1](#)

[TCP/IP \(LPD Enablement\) B13](#)

[TCP/IP \(Dynamic Addressing\) B15](#)

[TCP/IP \(Port 9100\) B8](#)

[Microsoft \(NetBEUI\) B5](#)

[Microsoft \(NetBIOS over IP\) B6](#)

[NetWare 4.x, 5.x \(NDS\) B3](#)

[NetWare 3.x \(Bindery\) B4](#)

[IPP \(Internet Printing Protocol\) B14](#)

[EtherTalk \(AppleTalk\) B7](#)

# TCP/IP Protocol Configuration

B1

To view or change the settings of the Printer's TCP/IP Protocol Configuration, perform the following steps:

## To access the TCP/IP Protocol Settings at the Printer

1. Press the rectangular **Access button** on the Printer Control Panel, located directly above and slightly to the right of the numeric keypad.
2. Press the "**1**" key on the numeric keypad five consecutive times. (This is the factory default "password.")
3. Press the rectangular **Confirm button** on the touch screen.
4. Press the **System Settings button** (the right-hand button of the two buttons displayed on the touch screen). Note: If you press the left button by mistake, the Main menu will be displayed and you will have to start over at step one above.
5. Press the **System Settings button** (the top left button displayed on screen).
6. Press the **Network Settings button** (the top right button displayed on screen).
7. Press the **Protocol Settings button** (the right-hand button) to access the Protocol Settings Menu display. Note: If you press the left-hand button by mistake, you will be in the Port Settings Menu and will have to press the Close button to return to the two-button selection screen.
8. When the Protocol Settings Menu displays, note that with the exception of selection one (Ethernet Speed), the five additional selections provide directions that are specific to TCP/IP address settings. Choose your setting of interest by pressing the numbered, horizontal selection line on the touch screen. Note that the current status of each setting is shown on the applicable line. The up and down arrow keys provide access to additional selections. After pressing a horizontal selection line, to access available settings press the **Change Settings** button in the lower right corner of the touch screen.

## Ethernet Board Settings (Ethernet Speed)

1. On the Protocol Settings Menu, press the horizontal selection line labeled **Ethernet Board Setting**.
2. Press the **Change Settings** button.
3. On the Settings screen, note which one of the three square buttons is highlighted as the current setting for Ethernet Speed. The available settings are 10 BASE-T/100 BASE-TX (Auto sensing), 100 BASE-TX, and 10 BASE-T. The default setting is 10 BASE-T/100 BASE-TX (Auto sensing).
4. To change settings, press your setting of choice, then click the **Save** button (upper right-hand button) on the touch screen.
5. To exit the Settings screen, without making any changes, click the **Cancel** button (upper left-hand button) on the touch screen.

## Get IP Address (TCP/IP Addressing Method)

1. On the Protocol Settings Menu, press the horizontal selection line labeled **Get IP Address**.
2. Press the **Change Settings** button.
3. On the Settings screen, note which one of the several available buttons is highlighted as the current setting for the TCP/IP Addressing method. The available settings are DHCP, BOOTP, RARP, and Manually Set. **DHCP** is the factory default setting.

4. To change settings, press your selection of choice, then click the **Save** button (upper right hand button) on the touch screen.
5. To exit the Settings Selection screen, without making any changes, click the **Cancel** button (upper left-hand button) on the touch screen.

## IP Address

1. Used for static IP Addressing (with "Manually Set" selected as your addressing method). On the Protocol Settings Menu, press the horizontal selection line labeled **TCP/IP Address**.
2. Press the **Change Settings** button.
3. On the Settings screen, use the rectangular **Next** key, in the center of the touch screen, together with the numeric keypad of the Control Panel, to enter in the appropriate IP Address.
4. To save settings, click the **Save** button (upper right-hand button) on the touch screen.
5. To exit the Settings screen, without making any changes, click the **Cancel** button (upper left-hand button) on the touch screen.

## Subnet Mask

1. Used for static IP Addressing (with "Manually Set" selected as your addressing method). On the Protocol Settings Menu, press the horizontal selection line labeled **TCP/IP Subnet Mask**.
2. Press the **Change Settings** button.
3. On the Settings screen, use the rectangular **Next** key, in the center of the touch screen, together with the numeric keypad of the Control Panel, to enter in the appropriate Subnet Mask.
4. To save settings, click the **Save** button (upper right-hand button) on the touch screen.
5. To exit the Settings screen, without making any changes, click the **Cancel** button (upper left-hand button) on the touch screen.

## Gateway

1. Used for static IP Addressing (with "Manually Set" selected as your addressing method). On the Protocol Settings Menu, press the horizontal selection line labeled **TCP/IP Gateway Address**.
2. Press the **Change Settings** button.
3. On the Settings screen, use the rectangular **Next** key, in the center of the touch screen, together with the numeric keypad of the Control Panel, to enter in the appropriate Gateway.
4. To save settings, click the **Save** button (upper right-hand button) on the touch screen.
5. To exit the Settings screen, without making any changes, click the **Cancel** button (upper left-hand button) on the touch screen.

## IP Address for Software Download

Note: In cases where DHCP is used to dynamically supply an IP Address to the Printer, by selecting this setting and supplying a static IP Address, the ability to communicate with the Printer is assured when required to support upgrading of the Printer's software (firmware).

1. Select the down arrow on the Protocol Settings Menu to see this selection.
2. Press the horizontal selection line labeled **TCP/IP - IP Add. For Download**.
3. On the Settings screen, use the rectangular **Next** key, in the center of the touch screen, together with



the numeric keypad of the Control Panel, to enter in the appropriate IP Address.

4. To save settings, click the **Save** button (upper right-hand button) on the touch screen.
5. To exit the Settings screen, without making any changes, click the **Cancel** button (upper left-hand button) on the touch screen.

## IP Filter (IP Address Restriction)

1. In the Protocol Settings Menu, press the horizontal selection line labeled IP Filter.
2. Press the **Change Settings** button
3. On the Settings screen, note which of the two square buttons is highlighted as the current setting for IP Address Restriction. The available settings are **On** or **Off**. Off is the factory default setting.
4. To change settings, press your setting of choice, then click the **Save** button (upper right-hand button) on the touch screen.
5. If you change the setting from Off to On, then press the **Save** button, you will have to use your workstation's web browser to access the Internet Services (web pages) residing on the Printer to set the IP Address or Addresses to restrict. For full instructions, select "Restricting Printer Access," under the Internet Services Tab of this guide. The following is a summary of this procedure:  
From Internet Services, select the TCP/IP Protocol on the Properties Tab. Under the Access Control List subject label verify that the check box is checked. Use the available List button to supply the IP Addresses of up to 10 hosts that are authorized to access the Printer's services.
6. To return to the Protocol Settings Menu after changing settings, click the **Save** button (upper right-hand button) on the touch screen.
7. If you prefer to exit the Settings screen, without making any changes, click the **Cancel** button (upper left-hand button) on the touch screen.

## Exiting the Protocol Settings Menu and returning to the Printer's Main Menu

1. To exit the Protocol Settings Menu, returning to the Printer's Main screen, press the rectangular **Close** button in the upper right corner of the Protocol Settings Menu screen.
2. Press the rectangular **Close** button in the upper right corner of the Ports and Protocols selection (two-button) screen.
3. Press the rectangular **Close** button in the upper right corner of the five-button screen containing the Network Settings button.
4. Finally, press the rectangular **Exit** button in the upper right corner of the four-button, System Settings screen.

Note: If you changed any settings in the Protocol Settings menu, the Printer will automatically reboot to register and enable your new settings.



# TCP/IP LPD Enablement

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To support TCP/IP printing through the workstation's LPR port in the case of Windows NT4, 2000, or XP, or through a print utility in the case of Windows 95/98/ME, the LPD (Line Printer Daemon) **MUST** be enabled at the printer.

To view or change the Printer's LPD setting, perform the following steps:

## To access LPD Settings at the Printer

1. Press the rectangular **Access button** on the Printer Control Panel, located directly above and slightly to the right of the numeric keypad.
2. Press the "**1**" **key** on the numeric keypad five consecutive times. (This is the factory default "password.")
3. Press the rectangular **Confirm button** on the touch screen.
4. Press the **System Settings button** (the right-hand button of the two buttons displayed on the touch screen). Note: If you press the left button by mistake, the Main menu will be displayed and you will have to start over at step one above.
5. Press the **System Settings button** (the top left button displayed on screen).
6. Press the **Network Settings button** (the top right button displayed on screen).
7. Press the **Port Settings button** (the left-hand button) to access the Port Settings Menu display. Note: If you press the right-hand button by mistake, you will be in the Protocol Settings Menu and will have to press the Close button to return to the two-button selection screen.
8. When the Port Settings menu displays, press the horizontal selection line labeled **LPD**.
9. Press the **Change Settings** button in the lower right corner of the Port Settings Menu screen.
10. When the LPD Selections Menu displays, note that you have a choice of setting selections by numbered horizontal lines, with the current status of each setting shown. The Close button in the upper right corner of the screen returns you to the Port Settings Menu. After pressing the horizontal line selection, to access available settings press the Change Settings button in the lower right corner of the touch screen.

## Port Status (LPD Enablement)

1. On the LPD Selections Menu, press the horizontal selection line labeled **Port Status**.
2. Press the **Change Settings** button.
3. On the Settings screen, note which of the two square buttons is highlighted as the current setting for LPD Enablement. The available settings are Enabled or Disabled. For the LPD to function, it must be set to Enabled.
4. To change settings, press your setting of choice, then click the **Save** button (upper right-hand button) on the touch screen.
5. To exit the Settings screen, without making any changes, click the **Cancel** button (upper left-hand button) on the touch screen.

## Exiting the LPD Selections Menu

To exit the LPD Selections Menu, which returns you to the Port Settings Menu, press the rectangular **Close** button in the upper right corner of the touch screen.

## Exiting the Port Settings Menu and returning to the Printer's Main Menu

1. To exit the Port Settings Menu, returning to the Printer's Main screen, press the rectangular **Close** button in the upper right corner of the Port Settings Menu screen.
2. Press the rectangular **Close** button in the upper right corner of the Ports and Protocols selection (two-button) screen.
3. Press the rectangular **Close** button in the upper right corner of the five-button screen containing the Network Settings button.
4. Finally, press the rectangular **Exit** button in the upper right corner of the four-button, System Settings screen.

Note: If you changed any settings in the Port Settings menu, the Printer will automatically reboot to register and enable your new settings.

# TCP/IP Dynamic Addressing

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1. Open your Web browser and enter the TCP/IP address of the Printer in the Address or Location field. Press **Enter**.
2. Click the **Properties** button or Tab.
3. Click the plus symbol (+) to the left of the **Protocol Settings** file folder.
4. Select **TCP/IP** in the directory tree.
5. Review the available selections as displayed on your screen and explained in the **TCP/IP Configuration Selection List**, below.
6. Accept the default Host Name, or type in your own unique Host Name for this Printer.
7. Select DHCP or BOOTP as your method for obtaining an IP Address.

CAUTION: Changing the IP address for the Printer will affect NetBIOS/IP, LPR/LPD, FTP, SNMP, and Port 9100 printing. It will also interrupt the ability to communicate with the printer using the Internet Services (series of web pages on the Printer). When you change the Printer's IP Address, make sure to print out a **Settings List** (as stated in this guide) so that you have a record of the TCP/IP addresses for use with workstations that need to communicate with the Printer using TCP/IP.

DHCP TIP: When using DHCP, set a reasonably long Lease Time for the IP Address so that the Printer can be restarted, as required when changing operating parameters, without being continuously assigned a new IP Address.

8. Determine the method to use to supply the DNS Server IP Addresses (to resolve Host Names with IP Addresses).
9. Determine whether or not Dynamic DNS should be enabled.
10. Determine the method to use to supply the SMTP Server IP Address.
11. Determine the method to use to supply the WINS Server IP Address (to resolve Host Names with IP Addresses exclusively in an NT environment).

## TCP/IP Configuration Selection List

As displayed on your screen, the following selections are available for TCP/IP Configuration.

### Under the TCP/IP Subject Label

Host Name. The default entry assures a name that is unique to this device on the network.

Get IP Address. Use this drop-down menu to select the method to use to assign IP Addresses. Select Manual, DHCP, RARP, or BOOTP.

IP Address entry box. To be filled in manually ONLY when Manual addressing is selected.

Subnet Mask entry box. To be filled in manually ONLY when Manual addressing is selected.

Gateway entry box. To be filled in manually ONLY when Manual addressing is selected.

### Under the DNS Subject Label

Get DNS Address check box. If enabled with a check mark, the Printer will contact the DHCP Server for the IP Addresses of up to three DNS Servers. If unchecked, this information must be entered manually. Three DNS Address boxes are supplied for the manual entry of DNS Server addresses.

DNS Name. A text entry box is supplied for the entry of a DNS Domain Name.

Generate Domain Search List Automatically. A check box is provided for enabling automatic Domain

searches.

Domain Names 1,2,3. Three text boxes are provided for the entry of Domains to search (for example, Xerox.com).

Connect Timeout. An entry box is provided for entering a Timeout for searches of Domains.

Dynamic DNS Update Box. If your DNS Server does not support dynamic IP address updates there is no need to enable this checkbox.

### **Under the SMTP Subject Label**

Get SMTP Server Address check box. If enabled with a check mark, the Printer will contact the DHCP Server for the IP Address of the SMTP (Mail) Server.

SMTP Server Address Line. An IP Address line, with entry boxes, is provided for manual entry of the SMTP Server Address (when DHCP is not selected).

### **Under the WINS Server Subject Label**

Get WINS Server Address check box. If enabled with a check mark, the Printer will contact the DHCP Server for the IP Addresses of the Primary and Secondary WINS (Windows Internet Naming Service) Servers.

WINS Primary/Secondary Server IP Address Lines. Two IP Address lines, with entry boxes, are provided for manual entry of the WINS Primary and Secondary Server Addresses (when DHCP is not selected).

### **Under the IP Address List Subject Label**

IP Filter Enablement Check box. If enabled with a check mark, access to the Printer's services will be restricted to the list of IP Addresses and Subnet Masks specified by clicking the available list button. If disabled (unchecked), host access to the Printer is universal (unrestricted).

Edit button. When this button is clicked, a list of ten lines of IP Address and Subnet Mask entry boxes is displayed. Sometimes referred to as a "restriction list," this list is used to supply the IP Addresses and Subnet Masks of up to ten hosts (individual workstations) that are authorized to access the Printer's services. All other hosts, not specified in this list, will be prevented from accessing the Printer's services.

Note: Changes to TCP/IP settings will not be applied until you restart (reboot) the Printer.

# Configure Port 9100 (Raw Printing)

B8

1. Open your Web browser and enter the TCP/IP address of the Printer in the Address or Location field. Press **Enter**.
2. Click the **Properties** button or Tab.
3. Click the plus (+) symbol to the left of the **Protocol Settings** file folder.
4. Select **Port 9100** in the directory tree. (1)
5. The available selections include:

Port Number, with a default value of 9100. This does not need to be changed.  
A TBCP Filter checkbox (displayed when PostScript is enabled).  
Connect Time-out Entry Box.

6. Enter a **Time Out** value for jobs being sent to the Printer through this Port. This is the length of time that the Controller will wait for an end of job command before printing the current job.
7. Click the **Apply New Settings** button to accept changes, or the **Restore Settings** button to return settings to their previous values. Note: Setting changes are not applied until you restart the Printer.

(1) Note:

If Port 9100 is NOT displayed in the Properties Tab directory tree, click the **Port Status** hot link in the beginning list of hot links in the tree. In the Table of Ports, use your mouse to place a check mark in the checkbox on the Port 9100 line. Click the **Apply New Settings** button, then click the **Reboot** button (always available on the Status Tab) to remotely reboot the Printer.

# Microsoft (NetBEUI) Networks

B5

## Before You Start

1. Print a **Settings List** as stated under the **Network Connectivity Tab** of this guide.
2. On the Settings List, **verify that "SMB" is enabled**. Also, verify that the default name of the NetBEUI workgroup is "Workgroup" and that the Printer has a unique name (that is, a name not the same as any other device in your workgroup). To enable "SMB," if required, follow the procedure below. To modify the name of your Workgroup, or a Printer's name within your workgroup, use your workstation's Web browser to access the Internet Services (Web Pages) residing in the Printer as described below.

## Enabling the SMB Setting at the Printer, if required

1. Press the rectangular **Access button** on the Printer Control Panel, located directly above and slightly to the right of the numeric keypad.
2. Press the **"1" key** on the numeric keypad five consecutive times. (This is the factory default "password.")
3. Press the rectangular **Confirm button** on the touch screen.
4. Press the **System Settings button** (the right-hand button of the two buttons displayed on the touch screen). Note: If you press the left button by mistake, the Main menu will be displayed and you will have to start over at step one above.
5. Press the **System Settings button** (the top left button displayed on screen).
6. Press the **Network Settings button** (the top right button displayed on screen).
7. Press the **Port Settings button** (the left-hand button) to access the Port Settings Menu display. Note: If you press the right-hand button by mistake, you will be in the Protocol Settings Menu and will have to press the Close button to return to the two-button selection screen.
8. When the Port Settings menu displays, press the **SMB** selection line.
9. Press the **Change Settings button** in the lower right corner of the Port Settings Menu screen.
10. When the SMB Selection Menu displays, note that you have only one setting selection on a single, numbered horizontal line. Press this selection line.
11. Press the **Change Settings** button.
12. On the Settings screen, note which of the two square buttons is highlighted as the current setting for SMB Enablement. The available settings are Enabled or Disabled. To enable SMB at the printer, select the **Enabled** setting.
13. Click the **Save** button on the touch screen, which returns you to the SMB Selection menu. (To exit the Settings screen, without making changes, click the Cancel button.)
14. Exit the SMB Selection Menu and return to the Port Settings Menu by pressing the rectangular **Close** button in the upper right corner of the touch screen.
15. Exit the Port Settings Menu by pressing the rectangular **Close** button in the upper right corner of the Ports Menu screen.
16. Exit the Ports and Protocols selection screen by pressing the rectangular **Close** button in the upper right corner of the screen.
17. Exit the screen containing the Network Settings button by pressing the rectangular **Close** button in the upper right corner of the screen.
18. Finally, press the rectangular **Exit** button in the upper right corner of the four-button, System Settings

screen to have the printer reboot and enable your SMB setting.

## Configuring Workgroup Name or Printer Name with Internet Services

1. Open your Web browser and enter the TCP/IP address of the Printer in the Address or Location field. Press **Enter**.
2. Click the **Properties** button or Tab.
3. Click the plus symbol (+) to the left of the **Protocol Settings** file folder.
4. Select **SMB** in the directory tree
5. The available selections include:

A text box indicating Workgroup name.

A text box indicating the SMB Host name.

A text box indicating the Administrator name.

A text box indicating the Administrator Password.

A text box confirming the Administrator password.

An entry box for the maximum number of connections allowed, labeled Maximum Sessions.

A TBCP Filter checkbox (displayed when PostScript is enabled).

An enabling checkbox for Auto Driver Download, enabling the Printer to push a driver to a client.

An enabling checkbox for supporting Unicode (supplying the Host name and Workgroup name in Unicode characters during SMB transmission).

An enabling checkbox for Auto Master Mode. An enabling checkbox for Encrypt Password (during SMB transmission).

6. Accept the default value, or enter a value from 3 to 10, for maximum number of connections allowed in **Maximum Sessions**.
7. Accept the **Workgroup name** shown, or enter in your own workgroup name.
8. Type the **SMB Host Name** or accept the name shown.
9. Enter in the appropriate Administrator name and password if desired (such as for password-protected access in a NetBEUI workgroup).
10. Click the **Apply New Settings** button, then click the **Reboot** button to reboot the printer and apply setting changes.



# Microsoft (NetBIOS over IP) Networks

## Before You Start

1. Print a **Settings List** as stated under the **Network Connectivity Tab** of this guide.
2. Referring to the Settings List, **verify that "SMB" is enabled**. To enable "SMB" at the Printer, if required, follow the procedure below.
3. Referring to the Settings List, **verify that DNS (or WINS, if using only a Windows NT network) is enabled**. The use of Naming Servers is REQUIRED to resolve NetBIOS device names to IP addresses for packet routing over the TCP/IP network.
4. To enable the Printer to communicate with the Naming Servers, refer to the instructions supplied under the selection "TCP/IP Dynamic Addressing", located in the **NOS Selection** menu, under the **Network Connectivity Tab** of this guide.
5. When using WINS or DNS, be sure to refer to the Server Operating System documentation for the appropriate procedure to use to enable NetBIOS name to IP address resolution on the Server.

## Enabling the SMB Setting at the Printer, if required

1. Press the rectangular **Access button** on the Printer Control Panel, located directly above and slightly to the right of the numeric keypad.
2. Press the **"1" key** on the numeric keypad five consecutive times. (This is the factory default "password.")
3. Press the rectangular **Confirm button** on the touch screen.
4. Press the **System Settings button** (the right-hand button of the two buttons displayed on the touch screen). Note: If you press the left button by mistake, the Main menu will be displayed and you will have to start over at step one above.
5. Press the **System Settings button** (the top left button displayed on screen).
6. Press the **Network Settings button** (the top right button displayed on screen).
7. Press the **Port Settings button** (the left-hand button) to access the Port Settings Menu display. Note: If you press the right-hand button by mistake, you will be in the Protocol Settings Menu and will have to press the Close button to return to the two-button selection screen.
8. When the Port Settings menu displays, press the **SMB** selection line.
9. Press the **Change Settings button** in the lower right corner of the Port Settings Menu screen.
10. When the SMB Selection Menu displays, note that you have only one setting selection on a single, numbered horizontal line. Press this selection line.
11. Press the **Change Settings** button.
12. On the Settings screen, note which of the two square buttons is highlighted as the current setting for SMB Enablement. The available settings are Enabled or Disabled. To enable SMB at the printer, select the **Enabled** setting.
13. Click the **Save** button on the touch screen, which returns you to the SMB Selection menu. (To exit the Settings screen, without making changes, click the Cancel button.)
14. Exit the SMB Selection Menu and return to the Port Settings Menu by pressing the rectangular **Close** button in the upper right corner of the touch screen.
15. Exit the Port Settings Menu by pressing the rectangular **Close** button in the upper right corner of the Ports Menu screen.



16. Exit the Ports and Protocols selection screen by pressing the rectangular **Close** button in the upper right corner of the screen.
17. Exit the screen containing the Network Settings button by pressing the rectangular **Close** button in the upper right corner of the screen.
18. Finally, press the rectangular **Exit** button in the upper right corner of the four-button, System Settings screen to have the printer reboot and enable your SMB setting.

## Viewing or Configuring the SMB Host Name with Internet Services

1. Open your Web browser and enter the TCP/IP address of the Printer in the Address or Location field. Press **Enter**.
2. Click the **Properties** button or Tab.
3. Click the plus symbol (+) to the left of the **Protocol Settings** file folder.
4. Select **SMB** in the directory tree.
5. The available selections include:

A text box indicating Workgroup name.

A text box indicating the SMB Host name.

A text box indicating the Administrator name.

A text box indicating the Administrator Password.

A text box confirming the Administrator Password.

An entry box for the maximum number of connections allowed, labeled Maximum Sessions.

A TBCP Filter checkbox (displayed when PostScript is enabled).

An enabling checkbox for Auto Driver Download, enabling the Printer to push a driver to a client.

An enabling checkbox for supporting Unicode (supplying the Host name and Workgroup name in Unicode characters during SMB transmission).

An enabling checkbox for Auto Master Mode.

An enabling checkbox for Encrypt Password (during SMB transmission).

6. Either accept the default **SMB Host Name**, which is automatically built by the Printer to assure the name's uniqueness, or enter in your preferred name. Note that this will be the NetBIOS name that is resolved by the Naming Server (DNS or WINS) to an IP Address for the Printer.
7. To apply setting changes, click the **Apply New Settings** button, then click the **Reboot** button to reboot the printer. To exit without making any changes, click the **Restore Settings** button.

## DNS/WINS NetBIOS Name Resolution

To use the Printer's NetBIOS name over the TCP/IP Network, the DNS and WINS Servers **MUST** be configured for NetBIOS name to IP address resolution. Also, make sure that the Printer is informed of the addresses of the DNS/WINS Servers, using the instructions supplied under the **Configure TCP/IP Settings** procedure in the **Internet Services** section of this guide.

## To Set Up a Workstation to Print Directly to the Printer

Refer to the setup instructions supplied for **NetBIOS over IP Peer to Peer Printing** under the **Print Drivers Tab** of this guide or, if you are an EXPERIENCED SYSTEM ADMINISTRATOR, perform the following steps:

1. On NT4 workstations, verify that the **TCP/IP protocol** is installed and that it is configured for **DNS resolution** of the NetBIOS Host Name. Verify that BOTH Microsoft **TCP/IP Printing Services** and **Workstation** (SMB client) Services are installed.
2. On 95/98/Me workstations, verify that the **TCP/IP protocol** is installed and that it is configured for **DNS resolution** of the NetBIOS Host Name. Verify that the **Client for Microsoft Networks** is installed and that the workstation has a Computer (NetBIOS) Name and is a member of a Workgroup.
3. Create an **LPR port** on your NT4 Operating System. Use a Print Utility (Spooler) program (such as ACITS) to create an LPR port on the Windows 95/98/Me workstation.
4. When prompted for the "Name or address of server providing lpd" enter in the Printer's **SMB Host Name** as seen on the Printer's Settings List.
5. When prompted for a queue name, enter in your preference of an easily-identified name for this Printer.
6. Install the Print driver on your workstation and, when prompted to select a port to print through, select the LPR port that you just created.
7. Print a Test Print to verify successful communications with the printer.

## To Set Up an NT Server to Queue Jobs to the Printer

1. Make sure that the TCP/IP protocol and Microsoft TCP/IP Printing Services are enabled.
2. Install the Print Driver, select **Local Port** and create an **LPR port**.
3. When prompted for the port name, enter in the Printer's **SMB Host Name** (WINS environment), or **fully qualified domain name** (SMB Host Name.Domain Name, in a DNS environment), or **IP Address** (if static). The Queue text box can be left blank.
4. Turn on **Sharing** and enter in a Share Name that can be used by network users to identify the printer in the Server's list of available network printers.
5. To set up the individual workstations, use "Add printer," "Network Printer," and select the Server and Printer's Share Name from the list.
6. Print a Test Print to verify that you are successfully communicating with the printer through the Server.

# Novell NetWare 4.x, 5.x (NDS) Networks

## Enable the NetWare Port at the Printer

1. Press the rectangular **Access button** on the Printer Control Panel, located directly above and slightly to the right of the numeric keypad.
2. Press the "**1**" key on the numeric keypad five consecutive times. (This is the factory default "password.")
3. Press the rectangular **Confirm button** on the touch screen.
4. Press the **System Settings button** (the right-hand button of the two buttons displayed on the touch screen). Note: If you press the left button by mistake, the Main menu will be displayed and you will have to start over at step one above.
5. Press the **System Settings button** (the top left button displayed on screen).
6. Press the **Network Settings button** (the top right button displayed on screen).
7. Press the **Port Settings button** (the left-hand button) to access the Port Settings Menu. Note: If you press the right-hand button by mistake, you will be in the Protocol Settings Menu and will have to press the Close button to return to the two-button selection screen.
8. Press the **NetWare** selection line on the Port Settings Menu screen.
9. Press the **Change Settings button** in the lower right corner of the Port Settings Menu screen.
10. When the NetWare Port Selection Menu displays, note that you have only one selection on a single, numbered horizontal line. Press this selection labeled **Port Status**.
11. Press the **Change Settings** button.
12. On the Settings screen, note which of the two square buttons is highlighted as the current setting for NetWare Port Enablement. The available settings are Enabled or Disabled. To enable NetWare at the Printer, select the Enabled setting.
13. Press the **Save** button (upper right-hand button) on the touch screen, which returns you to the NetWare Port Selection Menu.
14. Exit the NetWare Port Selection Menu and return to the Port Settings Menu by pressing the rectangular **Close** button in the upper right corner of the touch screen.
15. Exit the Port Settings Menu by pressing the rectangular **Close** button in the upper right corner of the Port Settings Menu screen.
16. Exit the Ports and Protocols selection screen by pressing the rectangular **Close** button in the upper right corner of the screen.
17. Exit the screen containing the Network Settings button by pressing the rectangular **Close** button in the upper right corner of the screen.
18. Finally, press the rectangular **Exit** button in the upper right corner of the four-button, System Settings screen to have the printer reboot and enable your NetWare setting.

## Set Up Printer Objects on the Server

1. Set up a Print Server, Print Queue, and Printer in the appropriate Context (NDS Tree) using NWADMIN or PCONSOLE. Refer to the documentation supplied by Novell ([www.novell.com](http://www.novell.com)) to complete this task.

Note: Record precisely (observe upper and lower case, dot notation etc.) the following: the **NDS Tree**, **NDS Context Name**, **frame type**, **Print Server Name**, and the **Print Server password** that was

assigned. If your printer services queues on multiple file servers, the Print Server name must be the same on all file servers and the Print Server password must be the same on all file servers.

## Configure NetWare Settings using Internet Services

1. Open your Web browser and enter the TCP/IP address of the Printer in the Address or Location field. Press **Enter**.
2. Click the **Properties** button or Tab.
3. Click the plus symbol (+) to the left of the **Protocol Settings** file folder.
4. Select **NetWare** in the directory tree.
5. The available selections include:
  - A Host Name (Print Server) Text box. (Use this name to create the Print Server on the NetWare Server.)
  - An Active Mode selection box for Directory (NDS) or Bindery.
  - A Primary File Server name entry box (Bindery).
  - A Poll Interval Entry box for Queue Polling Interval (1 - 1000 seconds).
  - A Number of Search Entry box for SAP frequency (1 - 100 seconds, with the ability to set to zero, which is off).
  - Two Password text boxes for logging into the NetWare Server.  
(A TBCP Filter checkbox (displayed when PostScript is enabled).
  - Under the NDS Subject Label there is a text box for NDS Tree, followed by one for NDS Context.
  - A Frame Selection box, with a default of Auto sensing. Other selections include Ethernet II (used when running TCP/IP on your network), Ethernet 802.3 (used for NetWare versions up to 3.11), Ethernet 802.2 (the default for NetWare 3.12 and later), and Ethernet SNAP (used on networks running TCP/IP and/or AppleTalk).
  - A display of the Printer's Network (MAC) address.
  - A Service Location Protocol (SLP Active Search) Enablement box. For use with NetWare 5 and newer versions, this protocol helps to reduce service advertising network traffic.
6. Either accept the default Host (Print Server) Name or type in a new name that matches the name used on the Server.
7. Select Directory (NDS) as your Mode.
8. Enter in a polling rate for **Queue Polling Interval**.
9. Enter in a SAP (service advertising protocol) frequency, or set **SAP frequency** to zero (off).
10. Type a **Password** for the Printer to log into the NetWare Server, and type it a second time for confirmation.
11. For NetWare NDS (NetWare Directory Services), type a directory tree and context (typeful name for the Printer in the NDS environment). Note: Since there is no Browse function, you **MUST** manually enter in this information. For example: O=xerox.OU=engineering.
12. For Frame Selection, if in doubt, leave the setting at its Auto sensing default value.
13. Click the **Apply New Settings** button, then click the **Reboot button** to reboot the Printer and apply setting changes.

# Novell NetWare 3.1x (Bindery) Networks

## Enable the NetWare Port at the Printer

1. Press the rectangular **Access button** on the Printer Control Panel, located directly above and slightly to the right of the numeric keypad.
2. Press the "**1**" **key** on the numeric keypad five consecutive times. (This is the factory default "password.")
3. Press the rectangular **Confirm button** on the touch screen.
4. Press the **System Settings button** (the right-hand button of the two buttons displayed on the touch screen). Note: If you press the left button by mistake, the Main menu will be displayed and you will have to start over at step one above.
5. Press the **System Settings button** (the top left button displayed on screen).
6. Press the **Network Settings button** (the top right button displayed on screen).
7. Press the **Port Settings button** (the left-hand button) to access the Port Settings Menu. Note: If you press the right-hand button by mistake, you will be in the Protocol Settings Menu and will have to press the Close button to return to the two-button selection screen.
8. Press the **NetWare** selection line on the Port Settings Menu screen.
9. Press the **Change Settings button** in the lower right corner of the Port Settings Menu screen.
10. When the NetWare Port Selection Menu displays, note that you have only one selection on a single, numbered horizontal line. Press this selection labeled **Port Status**.
11. Press the **Change Settings** button.
12. On the Settings screen, note which of the two square buttons is highlighted as the current setting for NetWare Port Enablement. The available settings are Enabled or Disabled. To enable NetWare at the Printer, select the Enabled setting.
13. Press the **Save** button (upper right-hand button) on the touch screen, which returns you to the NetWare Port Selection Menu.
14. Exit the NetWare Port Selection Menu and return to the Port Settings Menu by pressing the rectangular **Close** button in the upper right corner of the touch screen.
15. Exit the Port Settings Menu by pressing the rectangular **Close** button in the upper right corner of the Port Settings Menu screen.
16. Exit the Ports and Protocols selection screen by pressing the rectangular **Close** button in the upper right corner of the screen.
17. Exit the screen containing the Network Settings button by pressing the rectangular **Close** button in the upper right corner of the screen.
18. Finally, press the rectangular **Exit** button in the upper right corner of the four-button, System Settings screen to have the printer reboot and enable your NetWare setting.

## Set Up a Print Server, Queue, and Name on the Primary Server

1. Set up a Print Server, Queue, and Printer Configuration on the Primary Server using PCONSOLE. Refer to the documentation supplied by Novell ([www.novell.com](http://www.novell.com)) to complete this task.

Note: Record precisely (observe upper and lower case, punctuation etc.) the following: the **Primary Server name**, **Frame type** used, **Print Server name**, **Print Server password**, and the **Queue name** assigned. If your



printer services queues on multiple file servers, the Print Server name must be the same on all file servers and the Print Server password must be the same on all file servers.

Note regarding NetWare 4 (bindery): You can set up the printer on the NetWare 4 Server by performing the following steps:

1. Create a Bindery Queue
2. Create a Bindery Print Server Name
3. Assign Print Server to Queue.
4. Access Quick setup and change Printer Location from Manual Load to Auto Load (Local).
6. Continue following setup instructions for Internet Services.

## Configure NetWare Settings using Internet Services

1. Open your Web browser and enter the TCP/IP address of the Printer in the Address or Location field. Press **Enter**.
2. Click the **Properties** button or Tab.
3. Click the plus symbol (+) to the left of the **Protocol Settings** file folder.
4. Select **NetWare** in the directory tree.
5. The available selections include:

A Host Name (Print Server Name) Text box. Use this name in the Server setup of the Print Server using PCONSOLE.

An Active Mode selection box for Directory (NDS) or Bindery.

A Primary File Server name entry box (Bindery).

A Poll Interval Entry box for Queue Polling Interval (1 - 1000 seconds).

A Number of Search Entry box for SAP frequency (1 - 100 seconds, with the ability to set to zero, which is off).

Two Password text boxes for logging into the NetWare Server.

A TBCP Filter checkbox (displayed when PostScript is enabled.)

Under the NDS Subject Label there is a text box for NDS Tree, followed by one for NDS Context.

A Frame Selection box, with a default of Auto sensing. Other selections include Ethernet II (used when running TCP/IP on your network), Ethernet 802.3 (used for NetWare versions up to 3.11), Ethernet 802.2 (the default for NetWare 3.12 and later), and Ethernet SNAP (used on networks running TCP/IP and/or AppleTalk).

A display of the Printer's Network (MAC) address.

A Service Location Protocol (SLP) Active Search Enablement box. For use with NetWare 5 and newer versions, this protocol helps to reduce service advertising network traffic.

6. Either accept the default Device (Print Server) Name or type in a new name that matches the name used on the Server.
7. Select Bindery as your network Mode.
8. Provide the name of the Primary Server.
9. Enter in a polling rate for **Queue Polling Interval**.
10. Enter in a SAP (service advertising protocol) frequency, or set **SAP frequency** to zero (off).
11. Type a **Password** for the Printer to log into the NetWare Server, and type it a second time for confirmation.
12. For Frame Selection, if in doubt, leave the setting at its Auto sensing default value.
13. Click the **Apply New Settings** button, then click the **Reboot button** to reboot the Printer and apply setting changes.



# IPP Configuration

B14

The Internet Printing Protocol provides a convenient way to print over the Internet or Intranet using the printer's IP address. To support this type of printing, make sure that Port 9100 is enabled at the printer as stated in the Note at the bottom of the **Configure Port 9100** procedure, under the **Internet Services Tab** of this guide. Specifically, click the Port Status hot link on the Properties Tab of Internet Services and make sure that the check box on the Port 9100 line is checked. The Internet Printing Protocol must also be enabled at the printer, and the Internet Print Service must be available and installed on the individual desktop workstation's version of Windows. IPP support is already built into Windows 2000 and XP. For other desktop operating systems it is available as a download from Microsoft at [www.microsoft.com](http://www.microsoft.com). The final step is to install the IPP print driver, which is covered in this guide under the **Print Drivers Tab**.

## To access IPP Settings at the Printer

1. Press the rectangular **Access button** on the Printer Control Panel, located directly above and slightly to the right of the numeric keypad.
2. Press the "**1**" key on the numeric keypad five consecutive times. (This is the factory default "password.")
3. Press the rectangular **Confirm button** on the touch screen.
4. Press the **System Settings button** (the right-hand button of the two buttons displayed on the touch screen). Note: If you press the left button by mistake, the Main menu will be displayed and you will have to start over at step one above.
5. Press the **System Settings button** (the top left button displayed on screen).
6. Press the **Network Settings button** (the top right button displayed on screen).
7. Press the **Port Settings button** (the left-hand button) to access the Port Settings Menu display. Note: If you press the right-hand button by mistake, you will be in the Protocol Settings Menu and will have to press the Close button to return to the two-button selection screen.
8. Press the **IPP** selection line on the Port Settings menu.
9. Press the **Change Settings button** in the lower right corner of the Port Settings Menu screen.
10. When the IPP Selection Menu displays, note that you have only one setting selection on a single, numbered horizontal line, with the current status of this setting shown. The Close button in the upper right corner of the screen returns you to the Port Settings Menu. After pressing the horizontal line selection, to access available settings press the Change Settings button in the lower right corner of the touch screen.

## Port Status (IPP Enablement)

1. On the IPP Selection Menu, press the horizontal selection line labeled **Port Status**.
2. Press the **Change Settings** button.
3. On the Settings screen, note which of the two square buttons is highlighted as the current setting for IPP Enablement. The available settings are Enabled or Disabled. To print with IPP, this setting must be Enabled.
4. To change settings, press your setting of choice, then press the **Save** button (upper right-hand button) on the touch screen.
5. To exit the Settings screen, without making any changes, press the **Cancel** button (upper left-hand button) on the touch screen.



## Exiting the IPP Selection Menu

To exit the IPP Selection Menu, which returns you to the Port Settings Menu, press the rectangular **Close** button in the upper right corner of the touch screen.

## Exiting the Port Settings Menu and returning to the Printer's Main Menu

1. To exit the Port Settings Menu, returning to the Printer's Main screen, press the rectangular **Close** button in the upper right corner of the Port Settings Menu screen.
2. Press the rectangular **Close** button in the upper right corner of the Ports and Protocols selection (two-button) screen.
3. Press the rectangular **Close** button in the upper right corner of the five-button screen containing the Network Settings button.
4. Finally, press the rectangular **Exit** button in the upper right corner of the four-button, System Settings screen.

Note: If you changed any settings in the Port Settings menu, the Printer will automatically reboot to register and enable your new settings.

## Configuring IPP Settings with Internet Services

1. Open your Web browser and enter the TCP/IP address of the Printer in the Address or Location field. Press **Enter**.
2. Click the **Properties** button or Tab.
3. Click the plus (+) symbol to the left of the **Protocol Settings** file folder.
4. Select **IPP** in the directory tree.
5. The available selections include  
Port Number, with a default value of 631. This is the port number assigned by IANA (Internet Assigned Numbers Authority). It does not need to be changed.  
Additional Port Number Entry box.  
A TBCP Filter checkbox (displayed when PostScript is enabled).  
Administrator Mode Checkbox. This is disabled by default. Consult the On-Line Help for use of this feature.  
DNS Enablement Checkbox.  
Connect Timeout Entry Box.
6. Verify that the **DNS Enablement** Checkbox is checked (enabled) by default. If enabled, the DNS Server will be available to resolve Host Names to IP Addresses, in support of printing with IPP.
7. Enter a **Time Out** value for jobs being sent to the Printer through this Port. This is the length of time that the Controller will wait for an end of job command before printing the current job.
8. Click the **Apply New Settings** button to accept changes, or the **Restore Settings** button to return settings to their previous values. Note: Setting changes are not applied until you restart the Printer.

# EtherTalk (AppleTalk) Configuration

The EtherTalk Protocol enables workstation to Printer communications over the EtherTalk (AppleTalk) network.

## To access EtherTalk Settings at the Printer

1. Press the rectangular **Access button** on the Printer Control Panel, located directly above and slightly to the right of the numeric keypad.
2. Press the "**1**" key on the numeric keypad five consecutive times. (This is the factory default "password.")
3. Press the rectangular **Confirm button** on the touch screen.
4. Press the **System Settings button** (the right-hand button of the two buttons displayed on the touch screen). Note: If you press the left button by mistake, the Main menu will be displayed and you will have to start over at step one above.
5. Press the **System Settings button** (the top left button displayed on screen).
6. Press the **Network Settings button** (the top right button displayed on screen).
7. Press the **Port Settings button** (the left-hand button) to access the Port Settings Menu. Note: If you press the right-hand button by mistake, you will be in the Protocol Settings Menu and will have to press the Close button to return to the two-button selection screen.
8. Press the **EtherTalk** selection line on the Port Settings menu.
9. Press the **Change Settings button** in the lower right corner of the Port Settings Menu screen.
10. When the EtherTalk Menu displays, note that you have only one setting selection on a single, numbered horizontal line, with the current status of this setting shown. The Close button in the upper right corner of the screen returns you to the Port Settings Menu. After pressing the horizontal line selection, to access available settings press the Change Settings button in the lower right corner of the touch screen.

## Port Status (EtherTalk Enablement)

1. On the EtherTalk Selection Menu, press the first horizontal selection line labeled **Port Status**.
2. Press the **Change Settings** button.
3. On the Settings screen, note which of the two square buttons is highlighted as the current setting for EtherTalk Enablement. The available settings are Enabled or Disabled. To print with EtherTalk, this setting must be Enabled.
4. To change settings, press your setting of choice, then press the **Save** button (upper right-hand button) on the touch screen.
5. To exit the Settings screen, without making any changes, press the **Cancel** button (upper left-hand button) on the touch screen.

## Exiting the EtherTalk Selection Menu

To exit the EtherTalk Selection Menu, which returns you to the Port Settings Menu, press the rectangular **Close** button in the upper right corner of the touch screen.

## Exiting the Port Settings Menu and returning to the Printer's Main Menu

1. To exit the Port Settings Menu, returning to the Printer's Main screen, press the rectangular **Close** button in the upper right corner of the Port Settings Menu screen.
2. Press the rectangular **Close** button in the upper right corner of the Ports and Protocols selection (two-button) screen.
3. Press the rectangular **Close** button in the upper right corner of the five-button screen containing the Network Settings button.
4. Finally, press the rectangular **Exit** button in the upper right corner of the four-button, System Settings screen.

Note: If you changed any settings in the Port Settings menu, the Printer will automatically reboot to register and enable your new settings.

## Configuring EtherTalk Settings with Internet Services

1. Open your Web browser and enter the TCP/IP address of the Printer in the Address or Location field. Press **Enter**.
2. Click the **Properties** button or Tab.
3. Click the plus (+) symbol to the left of the **Protocol Settings** file folder.
4. Select **AppleTalk** in the directory tree.
5. The available selections include:

Printer Name.

Zone Name.

6. Enter the name that you wish to assign to this Printer. This is the name that will appear in the Chooser.
7. Either accept the default zone of \* which lets the closest router assign the Printer to a zone, or assign the Printer to a zone (with a 32 character naming limit).
8. Click the **Apply New Settings** button to accept changes, or the **Restore Settings** button to return settings to their previous values.

Note: Setting changes are not applied until you restart (reboot) the Printer.

# Changing the Administrator Password

There are two Administrator Passwords that control access to the Printer's feature settings. One password is a numeric password that controls access through the Printer's Control Panel. The other password is an alphanumeric password that controls access through the Printer's Internet Services (embedded HTTP server application residing in the Printer).

## To Change the Numeric Password on the Printer's Control Panel

1. Press the rectangular **Access** button on the Printer Control Panel, located directly above and slightly to the right of the numeric keypad.
2. Press the "**1**" key on the numeric keypad five consecutive times. This is the factory default "password."
3. Press the rectangular **Confirm** button on the touch screen.
4. Press the **System Settings** button (the right-hand button of the two buttons displayed on the touch screen). Note: If you press the left button by mistake, the Main menu will be displayed and you will have to start over at step one above.
5. Press the **System Administrator Password** button (the top right button displayed on screen).
6. On the Password Setting screen, select the **On** button, which is the lower of the two vertically-aligned buttons on the left side of the screen.  
Note: If you select the upper Off button, you cannot access the password setting or password changing functions.
7. Using the Printer's numeric keypad, enter in a new numeric "password" ranging from 4 to 12 characters in length.
8. Press the **Enter** button (the lower right button) on the touch screen. Note: If you make a mistake, press the **Reset** button located to the immediate left of the Enter button.
9. Using the Printer's numeric keypad, enter in your new numeric "password" a second time and press the **Enter** button again.
10. To exit the Password Setting screen, press the rectangular **Close** button in the upper right corner of the screen.
11. To exit the System Settings screen, press the rectangular **Exit** button in the upper right corner of the screen. The Printer's Main Screen should now be displayed.

## To Change the Alphanumeric Password used by Internet Services

1. Open your Web browser and enter the TCP/IP address of the Printer in the Address or Location field. Press **Enter**.
2. Click the **Properties** button or Tab.
3. In the beginning list of Hot Links in the Directory Tree on the left side of the Properties screen, click the **Internet Services settings** hot link.
4. In the Administrator Name Text Box use your workstation's keyboard to enter in your desired **Administrator Name**. The factory default setting is "admin" (without the quotation marks).
5. In the **Administrator Password** Text box, enter in a **password** of up to 15 alphanumeric characters. The factory default setting is "admin" (without the quotation marks).
6. In the **Confirm Password** Text box, confirm your desired password by retyping it in the available box.
7. To enable password protection for Internet Services, make sure that the Administrator Mode check box is checked (enabled).
8. Click the rectangular **Apply New Settings** button to have the Printer register your changes, or the

**Restore Settings** button to return the settings to their previous values.

## Step 5:

### Network Connectivity

The **Network Connectivity Tab** of the guide has a selection referred to as "NOS Selection Menu." From this menu, you can select your network connectivity protocol and obtain printer installation instructions specific to your network environment.

If you will be installing the printer in a Client/Server environment, make sure to have your Server's Operating System Manual available to refer to when required.



Click  to see the list of Connectivity Protocols

**Step 5**  
**...continued**

**NOS Selection**  
**Menu**

You must select the connectivity protocol for the network environment in which you will be working before you can proceed with your installation. Select your connectivity protocol from the following list:

TCP/IP (Protocol Configuration) — already performed in Step 4

[TCP/IP \(LPD Enablement\)](#)

[TCP/IP \(Dynamic Addressing\)](#)

[TCP/IP \(Port 9100\)](#)

[Microsoft \(NetBEUI\)](#)

[Microsoft \(NetBIOS over IP\)](#)

[NetWare 4.x, 5.x \(NDS\)](#)

[NetWare 3.x \(Bindery\)](#)

[IPP \(Internet Printing Protocol\)](#)

[EtherTalk \(AppleTalk\)](#)

**Step 5 ...continued**

# TCP/IP LPD Enablement

To support TCP/IP printing through the workstation's LPR port in the case of Windows NT4, 2000, or XP, or through a print utility in the case of Windows 95/98/ME, the LPD (Line Printer Daemon) MUST be enabled at the printer.

Quick jumps to the procedures on this page:

[To access LPD Settings at the Printer](#)  
[Port Status \(LPD Enablement\)](#)  
[Exiting the LPD Selections Menu](#)

**To access LPD Settings at the Printer**

1. Press the rectangular **Access button** on the Printer Control Panel, located directly above and slightly to the right of the numeric keypad.
2. Press the "**1**" **key** on the numeric keypad five consecutive times. (This is the factory default "password.")
3. Press the rectangular **Confirm button** on the touch screen.
4. Press the **System Settings button** (the right-hand button of the two buttons displayed on the touch screen). Note: If you press the left button by mistake, the Main menu will be displayed and you will have to start over at step one above.
5. Press the **System Settings button** (the top left button displayed on screen).
6. Press the **Network Settings button** (the top right button displayed on screen).
7. Press the **Port Settings button** (the left-hand button) to access the Port Settings Menu display. Note: If you press the right-hand button by mistake, you will be in the Protocol Settings Menu and will have to press the Close button to return to the two-button selection screen.
8. When the Port Settings menu displays, press the horizontal selection line labeled **LPD**.
9. Press the **Change Settings** button in the lower right corner of the Port Settings Menu screen.
10. When the LPD Selections Menu displays, note that you have a choice of setting selections by numbered horizontal lines, with the current status of each setting shown. The Close button in the upper right corner of the screen returns you to the Port Settings Menu. After pressing the horizontal line selection, to access available settings press the Change Settings button in the lower right corner of the touch screen.

**Port Status (LPD Enablement)**

1. On the LPD Selections Menu, press the horizontal selection line labeled **Port Status**.
2. Press the **Change Settings** button.
3. On the Settings screen, note which of the two square buttons is highlighted as the current setting for LPD Enablement. The available settings are Enabled or Disabled. For the LPD to function, it must be set to Enabled.
4. To change settings, press your setting of choice, then click the **Save** button (upper right-hand button) on the touch screen.



5. To exit the Settings screen, without making any changes, click the **Cancel** button (upper left-hand button) on the touch screen.

### Exiting the LPD Selections Menu

To exit the LPD Selections Menu, which returns you to the Port Settings Menu, press the rectangular **Close** button in the upper right corner of the touch screen.

### Exiting the Port Settings Menu and returning to the Printer's Main Menu

1. To exit the Port Settings Menu, returning to the Printer's Main screen, press the rectangular **Close** button in the upper right corner of the Port Settings Menu screen.
2. Press the rectangular **Close** button in the upper right corner of the Ports and Protocols selection (two-button) screen.
3. Press the rectangular **Close** button in the upper right corner of the five-button screen containing the Network Settings button.
4. Finally, press the rectangular **Exit** button in the upper right corner of the four-button, System Settings screen.

Note: If you changed any settings in the Port Settings menu, the Printer will automatically reboot to register and enable your new settings.



Select another Protocol



Go on to Step 6

**Step 5 ...continued**

# TCP/IP Dynamic Addressing

1. Open your Web browser and enter the TCP/IP address of the Printer in the Address or Location field. Press **Enter**.
2. Click the **Properties** button or Tab.
3. Click the plus symbol (+) to the left of the **Protocol Settings** file folder.
4. Select **TCP/IP** in the directory tree.
5. Review the available selections as displayed on your screen and explained in the **TCP/IP Configuration Selection List**, below.
6. Accept the default Host Name, or type in your own unique Host Name for this Printer.
7. Select DHCP or BOOTP as your method for obtaining an IP Address.

CAUTION: Changing the IP address for the Printer will affect NetBIOS/IP, LPR/LPD, FTP, SNMP, and Port 9100 printing. It will also interrupt the ability to communicate with the printer using the Internet Services (series of web pages on the Printer). When you change the Printer's IP Address, make sure to print out a **Settings List** (as stated in this guide) so that you have a record of the TCP/IP addresses for use with workstations that need to communicate with the Printer using TCP/IP.

DHCP TIP: When using DHCP, set a reasonably long Lease Time for the IP Address so that the Printer can be restarted, as required when changing operating parameters, without being continuously assigned a new IP Address.

8. Determine the method to use to supply the DNS Server IP Addresses (to resolve Host Names with IP Addresses).
9. Determine whether or not Dynamic DNS should be enabled.
10. Determine the method to use to supply the SMTP Server IP Address.
11. Determine the method to use to supply the WINS Server IP Address (to resolve Host Names with IP Addresses exclusively in an NT environment).

## TCP/IP Configuration Selection List

As displayed on your screen, the following selections are available for TCP/IP Configuration. Click jumps are provided to each selection.

[Under the TCP/IP Subject Label](#)

[Under the DNS Subject Label](#)

[Under the SMTP Subject Label](#)

[Under the WINS Server Subject Label](#)

[Under the IP Address List Subject Label](#)

### **Under the TCP/IP Subject Label**

Host Name. The default entry assures a name that is unique to this device on the network.

Get IP Address. Use this drop-down menu to select the method to use to assign IP Addresses. Select Manual, DHCP, RARP, or BOOTP.

IP Address entry box. To be filled in manually ONLY when Manual addressing is selected.

Subnet Mask entry box. To be filled in manually ONLY when Manual addressing is selected.

Gateway entry box. To be filled in manually ONLY when Manual addressing is selected.

### **Under the DNS Subject Label**

Get DNS Address check box. If enabled with a check mark, the Printer will contact the DHCP Server for the IP Addresses of up to three DNS Servers. If unchecked, this information must be entered manually. Three DNS Address boxes are supplied for the manual entry of DNS Server addresses.

DNS Name. A text entry box is supplied for the entry of a DNS Domain Name.

Generate Domain Search List Automatically. A check box is provided for enabling automatic Domain searches.

Domain Names 1,2,3. Three text boxes are provided for the entry of Domains to search (for example, Xerox.com).

Connect Timeout. An entry box is provided for entering a Timeout for searches of Domains.

Dynamic DNS Update Box. If your DNS Server does not support dynamic IP address updates there is no need to enable this checkbox.

### **Under the SMTP Subject Label**

Get SMTP Server Address check box. If enabled with a check mark, the Printer will contact the DHCP Server for the IP Address of the SMTP (Mail) Server.

SMTP Server Address Line. An IP Address line, with entry boxes, is provided for manual entry of the SMTP Server Address (when DHCP is not selected).

### **Under the WINS Server Subject Label**

Get WINS Server Address check box. If enabled with a check mark, the Printer will contact the DHCP Server for the IP Addresses of the Primary and Secondary WINS (Windows Internet Naming Service) Servers.

WINS Primary/Secondary Server IP Address Lines. Two IP Address lines, with entry boxes, are provided for manual entry of the WINS Primary and Secondary Server Addresses (when DHCP is not selected).

### **Under the IP Address List Subject Label**

IP Filter Enablement Check box. If enabled with a check mark, access to the Printer's services will be restricted to the list of IP Addresses and Subnet Masks specified by clicking the available list button. If disabled (unchecked), host access to the Printer is universal (unrestricted).

Edit button. When this button is clicked, a list of ten lines of IP Address and Subnet Mask entry boxes is displayed. Sometimes referred to as a "restriction list," this list is used to supply the IP Addresses and Subnet Masks of up to ten hosts (individual workstations) that are authorized to access the Printer's services. All other hosts, not specified in this list, will be prevented from accessing the Printer's services.

Note: Changes to TCP/IP settings will not be applied until you restart (reboot) the Printer.

---



Select another Protocol




Go on to Step 6

**Step 6:**



The **Print Drivers Tab** of the guide has a selection menu from which you can select your printing environment.

Click  to see the list of printing environments.

## Step 6

...continued

**Print Environment Selection Menu** Select your Printing Environment from the list below:

[TCP/IP Peer to Peer \(LPR\) Printing](#)

[NetBEUI Peer to Peer Printing](#)

[NetBIOS over IP Peer to Peer Printing](#)

[NetBIOS over IP Client/Server Printing](#)

[IPP Printing \(Windows 2000\)](#)

[NetWare 3.12 and 4.x/5.x \(Bindery\) Printing](#)

[NetWare 4.xx \(NDS\) Printing](#)

[EtherTalk Peer to Peer Printing](#)

## Step 6

...continued

# TCP/IP Peer to Peer (LPR) Printing

Quick find Print Driver Installation for:

[Windows 2000 Server\Professional & XP Professional](#)

[Windows NT4 Workstation/Server](#)

[Windows 95/98/Me Workstation](#)

## Windows 2000 Server\Professional & XP Professional Print Driver Installation

### Before you start

Obtain the Print Driver for your workstation's operating system. Drivers are available on one of the CD-ROMs that came with your Printer. They are also typically available for downloading in self-extracting Zip file format from the Internet at [www.xerox.com](http://www.xerox.com).

### Verify that TCP/IP is installed in the workstation

On the Windows 2000 Desktop, right mouse click the **My Network Places** icon and select **Properties**. Right mouse click on the **Local Area Connection** icon and select **Properties**. On the Windows XP desktop, click **Start, Control Panel**, and double click **Network Connections**. Right mouse click on the **Local Area Connection** icon and select **Properties**. Verify that the **Internet Protocol (TCP/IP)** has been loaded. If it has, click on (highlight) this item with your mouse and click the **Properties** button to verify that this workstation is using either a dynamic or static method to obtain a valid TCP/IP address. If the TCP/IP protocol is NOT loaded, click the **Install...** button, then select **Protocol** as the type of network component that you wish to install. Click the **Add...** button and select **Internet Protocol (TCP/IP)**. With your Operating System Installer Disk readily available, click the **Have Disk...** button and follow any remaining instructions. Once the protocol has been installed, you can click on (highlight) the item with your mouse and click the **Properties** button to verify or set up the method being used for TCP/IP addressing.

### Verify that Print Services for Unix is installed in the workstation (see Note below)

Note: You can skip this step and proceed directly to "Adding the Printer to the Desktop," if you prefer printing through the "Standard TCP/IP Port" (Port 9100), rather than through an LPR port.

1. On the Windows 2000 desktop, from the **Start** menu, select **Settings, Control Panel**, then double-click **Add/Remove Programs**. On the Windows XP desktop, click **Start, Control Panel**, then double click **Add or Remove Programs**.
2. Select **Add/Remove Windows Components**. On Windows 2000 Professional you will need to be

logged in with Administrator rights to perform this function.

3. Select **Other Network File and Print Services** and click **Details**.
4. Check the box to select **Print Services for Unix**. Click **OK** and **Next**. You will need to supply the Operating System Installer disk, when prompted. Close the Add/Remove Programs window.

## Add the Printer to the Windows 2000 or Windows XP Desktop

1. On the Windows 2000 desktop, from the **Start** menu, select **Settings**, then **Printers**. On the Windows XP desktop, from **Start**, select **Printers and Faxes**.
2. On Windows 2000, double-click **Add Printer**. On Windows XP, from **Printer Tasks**, select **Add a printer**.
3. When the "Add Printer Wizard" screen displays, click **Next**.
4. Select **Local Printer** and deselect "Automatically detect and install my Plug and Play printer." Click **Next**.
5. Select **Create a new port** and choose **LPR** from the **Type** drop-down menu. (LPR becomes available when Print Services for Unix is installed, as above). Note: If you prefer to print raw data to Port 9100 on the Printer, you can alternatively choose **Standard TCP/IP Port**. Click **Next**.
6. When the "Add a Port Wizard" displays, click **Next**.
7. Enter the **IP address** of the printer.
8. Enter a name for the print queue (such as **raw**). If you selected the Standard TCP/IP port, you can accept the default name provided by Windows. Click **Next**.
9. Review the "Port characteristics" displayed on the Port Wizard's summary screen and click **Finish**.
10. You will be prompted for a print driver. Select **Have Disk** and browse to the location of your print driver.
11. Select the **.INF** file, then click **Open**.
12. When the "Install from Disk" screen displays, verify that the path and file name are correct and click **OK**.
13. Select the model that corresponds to your Printer and click **Next**.
14. Enter a name for your Printer and select either Yes or No for making this printer your default Windows printer. Select **Yes** if you will be printing primarily to this printer from your Windows applications. Click **Next**.
15. If the Printer Sharing Screen displays in Windows 2000, select "Do not share this printer," unless the Printer is directly connected to your workstation and you wish to Share it with other network users. Click **Next**.
16. Select **Yes** to print a test page. Click **Next**.
17. Click **Finish**.

## Configure the Print Driver

1. On the Windows 2000 desktop, from the **Start** menu, select **Settings**, then **Printers**. On the Windows XP desktop, from **Start**, select **Printers and Faxes**.
2. Right click on the Printer's icon and select **Properties**. Use the available Tabs to set the Printer's job processing defaults. Additional settings may be accessed by clicking the **Printing Preferences** button on the General Tab.

## Windows NT4 Workstation/Server Print Driver Installation

### Before you start



Obtain the Print Driver for your workstation's operating system. Drivers are available on one of the CD-ROMs that came with your Printer. They are also typically available for downloading in self-extracting Zip file format from the Internet at [www.xerox.com](http://www.xerox.com).

### Verify that the TCP/IP Protocol and Printing Services are installed in the workstation

1. At the Desktop, right mouse click the **Network Neighborhood** icon and select **Properties**. Click on the **Protocols** tab and verify that the **TCP/IP** protocol has been loaded on the workstation.

Note: If the TCP/IP Protocol is not present in the Protocol list, click the **Add** button, select **TCP/IP Protocol** from the available list, and click **OK**. If the setup program fails to find the required files, you will have to click **Have Disk...** to load the protocol from the Operating System installer disk for this workstation.

2. After verifying that the TCP/IP Protocol is present, click on **TCP/IP Protocol** to highlight it, and click on the **Properties** button of the Protocols window. If using Dynamic TCP/IP Addressing, select the radio button for Obtaining an IP Address Automatically from the DHCP Server. If using Static TCP/IP Addressing, select the radio button marked Specify an IP Address, and enter in the required IP Address, Subnet Mask, and Gateway addresses for this workstation. Click **OK** when done.
3. Select the **Services** tab and verify that **Microsoft TCP/IP Printing** is loaded.

Note: If Microsoft TCP/IP Printing services are NOT loaded, click the **Add** button, select **Microsoft TCP/IP Printing** from the available list, and click **OK**. If the setup program fails to find the required files, you will have to click **Have Disk...** to load the service from the Operating System installer disk for this workstation.

### Add the Printer to the Windows NT4 Desktop

1. From the **Start** menu, select **Settings** and then **Printers**.
2. Double-click **Add Printer**.
3. Verify that **My Computer** is selected and click **Next**.
4. Click **Add Port**.
5. From the list that appears select **LPR Port**.
6. Click **New Port**.
7. Type in the IP address of the Printer for the "Name or address of server providing lpd." Type in the case-sensitive name of your Printer, or enter in the word **raw** for "Name of printer or print queue on that server." Select **OK**.
8. Select **Close**. The Wizard will return you to the previous dialog. Verify the new IP address you entered is in the list and correct.
9. The Port check box to the left of the address must be checked. If it is not, check it, then select **Next**.
10. You will be prompted for a print driver. Select **Have Disk** and browse to the location of your print drivers.
11. Select the **.INF** file, then click **Open**.
12. When the "Install from Disk" screen displays, verify that the path and file name are correct and click **OK**.
13. Select the model that corresponds to your Printer and click **Next**.
14. At the next dialog, enter a name for your Printer and select either Yes or No for making this printer your default Windows printer. Select **Yes** if you will be printing primarily to this printer from your Windows applications. Click **Next**.

15. Select **Not Shared** unless the Printer is directly connected to your workstation and you wish to share it with other network users. Click **Next**.
16. Select **Yes** to print a Test Page.
17. Select **Finish** and verify that the Test Page printed out at the Printer.

## Configure the Print Driver

1. From the **Start** menu, select **Settings** and then **Printers**.
2. Right click on the Printer's icon and select **Document Defaults**.
3. Select the correct paper size and any other default settings you wish to set for the printer.

## Windows 95/98/Me Workstation Print Driver Installation

### Before you start

Obtain the Print Driver for your workstation's operating system. Drivers are available on one of the CD-ROMs that came with your Printer. They are also typically available for downloading in self-extracting Zip file format from the Internet at [www.xerox.com](http://www.xerox.com).

### Verify that the TCP/IP Protocol is installed in the workstation

1. At the Desktop, right mouse click the Network Neighborhood icon ("My Network Places" in Windows Me).
2. Left mouse click on **Properties**.
3. Click on the **Configuration** TAB and verify that the TCP/IP Protocol has been loaded.

Note: If the TCP/IP Protocol has NOT been loaded, click the **Add** button, select **TCP/IP Protocol** from the available list and click **OK**. If the setup program fails to find the required files, you will have to click **Have Disk...** to load the protocol from the Operating System installer disk for this workstation.

4. Click on **TCP/IP Protocol** to highlight it, and click on the **Properties** button of the Configuration window.
5. If using Dynamic TCP/IP Addressing, select the radio button for Obtaining an IP Address Automatically, and supply the appropriate Server address information.
6. If using Static TCP/IP Addressing, left mouse click on the radio button marked "Specify an IP Address" to enable the manual configuration option.
7. Enter in the required IP Address, Subnet Mask, and Gateway information for this workstation. For smaller networks, the Windows default values for Subnet Mask and Default Gateway may be applicable. Check with a QUALIFIED Network Administrator for Subnet Mask and Default Gateway requirements.
8. Click **OK**.

### Add the Printer to the Windows 95/98/Me Desktop

### LPR Port Creation

Note: As the ability to create an LPR Port is not included with Windows 95/98/Me Operating Systems, in order to create an LPR Port with these Operating Systems you need to install a Print Utility (Spooler) program on your workstation. One example of such a program is "DigiLPR." A second example is "ACITS LPR Remote Printing."

1. Install a Print Utility (Spooler) program on your workstation following the instructions that accompany the program.

Note: Depending upon the Print Utility you use, you may need to add a local printer and then "Add Port," or you may create the printer and port in one continuous installation process. Make sure to know the location of your driver files in case the Print Utility (Spooler) program calls for them. If the driver files are called for, the installation procedure will be very similar to that described below.

2. Use the Print Utility (Spooler) program to create an LPR Port on your workstation. Type in the IP address of the Printer for the "Name or address of server providing lpd." Type in the case-sensitive name of your Printer, or enter in the word **raw** for "Name of printer or print queue on that server."
3. Click the appropriate button (for example, Apply or OK) in your Print Utility (Spooler) program to save your settings and create the LPR Port.

## Driver Installation

1. On the Windows desktop, use your mouse to select "Start," "Settings," and "Printers."
2. In the "Printers" Window, double click on **Add Printer**.
3. When the "Add Printer Wizard" Introductory screen displays, click **Next**.
4. Select the **Local Printer** radio button. Click **Next**.
5. When the "Manufacturers and Printers" window displays, select **Have Disk...** and enter in the path to your driver files. Note that you can also use the **Browse** button to locate the required **.INF** file.
6. Click **OK** on the "Open" screen, if you used the Browse button.
7. Click **OK** on the "Install From Disk" screen.
8. When the "Printers" list is displayed on screen, select your Printer. Click **Next**.
9. Select the Port that you previously created for use with this driver. Click **Next**.
10. When prompted, accept the default printer name, or give your printer a more descriptive name. Select either Yes or No to make this printer your default Windows printer. Choose **Yes** if you will be printing primarily to this printer from your Windows applications. Click **Next**.
11. Select **Yes** to print a Test Page.
12. Select **Finish** and verify that the Test Page printed out at the Printer.

## Configure the Print Driver

1. From the **Start** menu, select **Settings** and then **Printers**.
2. Right click on the Printer's icon and select **Properties**.
3. Select the correct paper size and any other default settings you wish to set for the printer.



Select another Protocol



Go on to Step 7



**Step 6**

...continued

# NetBEUI Peer to Peer Printing

## Windows 95/98/Me and NT4 Workstation Print Driver Installation

### Before You Start

1. Obtain the Print Driver for your workstation's operating system. Drivers are available on one of the CD-ROMs that came with your Printer. They are also typically available for downloading in self-extracting Zip file format from the Internet at [www.xerox.com](http://www.xerox.com).
2. Print a **Settings List** as stated under the **Network Connectivity Tab** of this guide.
3. On the Settings List, **verify that "SMB" is enabled**. Also, **verify that NetBEUI is enabled** as one of the supported protocols (TCP/IP may also be displayed). Verify that the **NetBEUI workgroup's default name is Workgroup**, or a valid, 15 character maximum, workgroup name. Also note the **Printer's SMB Host Name** (which assures the uniqueness of the Printer's name within the Workgroup). To enable "SMB," if required, follow the procedure stated under the Microsoft (NetBEUI) item of the NOS Selection menu, accessed from the **Network Connectivity Tab** of this guide. To modify the name of the Printer's Workgroup, or Printer's name (SMB Host name) within the workgroup, use your workstation's Web browser to access the Internet Services (Web Pages) residing in the Printer, as described under the Configure SMB menu item, under the **Internet Services Tab** of this guide.

### Verify that the NetBEUI Protocol and Services are installed in the workstation

1. At the Workstation's Desktop, right-click the **Network Neighborhood** icon ("My Network Places" in Windows Me) and select **Properties**.
2. Click the **Configuration Tab (95/98/Me)** or the **Protocols Tab (Windows NT4)** and verify that the NetBEUI protocol is loaded. If it is, click the **Identification Tab (95/98/Me/NT4)** to determine if the name of your workstation's Workgroup is the same as the name of the printer's Workgroup. If it is, you can exit the Properties screen. If it is NOT, either modify the name of the Printer's workgroup to match your own, or type in the name of the Printer's workgroup here. Click **OK**.

#### Notes:

If the NetBEUI Protocol is not present in the Protocol list, click the **Add** button, select **NetBEUI** from the available list and click **OK**. If the setup program fails to find the required files, you will have to click **Have Disk...** to load the protocol from the Operating System installer disk for this workstation.

If the Printer will be directly attached to a networked workstation, you need to enable **Sharing** on the workstation that the Printer is attached to. At the workstation sharing the Printer, right mouse click the **Network Neighborhood** icon ("My Network Places" in Windows Me) and select **Properties**. Click the **Configuration Tab (95/98/Me)** and verify that **File and Printer Sharing services** is installed. If it isn't, with your Windows installer disk available, click the **Add** button to install the required service. In Windows 95/98/Me, click the **File and Print Sharing** button and verify that the checkbox labeled "I want to be able to allow others to print to my printer(s)" is enabled (checked). In Windows 95/98/Me and NT4, from the Printers folder on the desktop, right mouse click on the Printer's icon and select **Properties (95/98/Me)** or **Document Defaults (NT4)**. Select the **Sharing Tab** and verify that sharing is enabled for

this printer.

## Add the Printer to the Windows 95/98/Me & NT4 Desktop

1. From the **Start** menu, select **Settings** and then **Printers**.
2. Double click the **Add Printer** button and click **Next**.
3. When the Add Printer Wizard displays, select **Network Printer**.
4. Select **Browse** to search for the printer over the network.
5. Select the plus symbol (+) to the left of **Entire Network** to expand it if necessary.
6. Double click the name of the **WorkGroup** for the printer as shown on the Settings List. Select the **SMB Host Name** as shown on the Settings List. Click **OK**, then click **Next**.
7. You will be prompted for a print driver. Select **Have Disk...** and browse to the location of your print drivers. Select the relevant print driver (**.INF** file), then click **OK**.
8. Click **OK** on the "Install From Disk" screen, if it displays.
9. When prompted, accept the default printer name, or give your printer a more descriptive name. Select either Yes or No to make this printer your default Windows printer. Choose Yes if you will be printing primarily to this printer from your Windows applications. Click **Next**.
10. **Print a Test Page**. Verify that it prints at the Printer.
11. Click **Finish**.

## Configure the Print Driver in Windows 95/98/Me

1. From the **Start** menu, select **Settings** and then **Printers**.
2. Right click on the Printer's icon and select **Properties**.
3. Select the correct paper size and any other default settings you wish to set for the printer.

## Configure the Print Driver from Windows NT4

1. From the **Start** menu, select **Settings** and then **Printers**.
2. Right click on the Printer's icon and select **Document Defaults**.
3. Select the correct paper size and any other default settings you wish to set for the printer.



Select another Protocol



Go on to Step 7

## Step 7:

### Enabling Scanning

The **Enabling Scanning Tab** of the guide provides information on setting the machine to scan to its hard disk. Follow the configuration instructions provided.

### Internet Services

Note: For comprehensive information on the use of Internet Services as a browser-based, workstation tool for configuring your printer, select the **Internet Services Tab** of this guide and click on relevant topics from the menu list.

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## This concludes the Installation Steps.

**Step 6**

...continued

# NetBIOS over IP Peer to Peer Printing

**Before You Start**

1. Obtain the Print Driver for your workstation's operating system. Drivers are available on one of the CD-ROMs that came with your Printer. They are also typically available for downloading in self-extracting Zip file format from the Internet at [www.xerox.com](http://www.xerox.com).
2. Print a **Settings List** as stated under the **Network Connectivity Tab** of this guide.
3. On the Settings List, **verify that "SMB" is enabled**. Also, **verify that TCP/IP is enabled** as one of the supported protocols (NetBEUI may also be displayed). Verify that the **workgroup's default name is Workgroup**, or a valid, 15 character maximum, workgroup name. Also note the **Printer's SMB Host Name** (which assures the uniqueness of the Printer's name within the Workgroup). To enable "SMB," if required, follow the procedure stated under the Microsoft (NetBIOS over IP) item of the NOS Selection menu, accessed from the **Network Connectivity Tab** of this guide. To modify the name of the Workgroup, or Printer's name (SMB Host name) within the workgroup, use your workstation's Web browser to access the Internet Services (Web Pages) residing in the Printer, as described under the Configure SMB menu item, under the **Internet Services Tab** of this guide.
4. Make sure to configure the DNS/WINS Server(s) for NetBIOS name to IP address resolution. Then provide the Printer with the addresses of the Servers as stated in the **Configure TCP/IP Settings** procedure of the Internet Services section of this guide.

Quick Find Printer Driver Installation for:

[Windows 95/98/Me Workstation](#)

[Windows NT4 Workstation](#)

## Windows 95/98/Me Workstation Print Driver Installation

**Verify that the Correct Protocols and Services are installed in the workstation**

1. At the Workstation's Desktop, right-click the **Network Neighborhood** icon ("My Network Places" in Windows Me) and select **Properties**.
2. On the **Configuration Tab**, verify that **Client for Microsoft Networks** is installed. If it is NOT, click the **Add** button, select **Client**, select **Add**, select **Client for Microsoft Networks**, and click **OK**. If the setup program fails to find the required files, you will have to click **Have Disk...** to load the client from the Operating System installer disk for this workstation.
3. On the **Configuration Tab**, verify that the TCP/IP protocol is installed. If it is NOT, click the **Add** button, select **Protocol**, select **Add**, select **TCP/IP Protocol**, and click **OK**. If the setup program fails to find the required files, you will have to click **Have Disk...** to load the protocol from the Operating System



installer disk for this workstation.

4. Click the **Identification Tab** and verify that this workstation has a UNIQUE Computer Name (15 characters maximum) and is a member of a workgroup (Workgroup is the default Windows workgroup name).
5. Click the **Configuration Tab** and select (highlight) the **TCP/IP Protocol**. Click the **Properties** button and select the **NetBIOS Tab**. Verify that the checkbox labeled "I want to enable NetBIOS over TCP/IP" is checked. Next, click the **DNS Configuration Tab** and make sure that the "Enable DNS" radio button is selected. Enter in this workstation's Computer Name (from the Identification Tab) into the "Host" text box. Enter the Domain in which this Host (Computer Name) resides into the "Domain" text box (xerox.com, for example). In the boxes provided, enter the IP address of the DNS (Domain Name Service) Server. Finally, click the **IP Address Tab** and verify that this workstation is using either a dynamic or static method to obtain a valid TCP/IP Address.

Note: If you are operating a Windows Internet Naming Service Server on an NT only network, you may wish to configure WINS instead of DNS by selecting the WINS Configuration Tab.

### Add the Printer to the Windows 95/98/Me Desktop

1. From the **Start** menu, select **Settings** and then **Printers**.
2. Double click the **Add Printer** button and click **Next**.
3. When the Add Printer Wizard displays, select **Network Printer**.
4. Select **Browse** to search for the printer's **Workgroup** over the Microsoft network.
5. Select the plus symbol (+) to the left of **Entire Network** to expand it if necessary.
6. Double click the name of the **Workgroup** for the printer as shown on the Settings List. Select the **SMB Host Name** as shown on the Settings List. Click **OK**, then click **Next**.
7. When the Manufacturers and Printers window displays, select **Have Disk...** and enter in the path to your driver files. Note that you can also use the **Browse** button to locate the required **.INF** file.
8. Click **OK** on the "Open" screen, if you used the Browse button.
9. Click **OK** on the "Install From Disk" screen.
10. When the "Printers" list is displayed on screen, select your Printer. Click **Next**.
11. When prompted, accept the default printer name, or give your printer a more descriptive name. Select either Yes or No to make this printer your default Windows printer. Choose **Yes** if you will be printing primarily to this printer from your Windows applications. Click **Next**.
12. **Print a Test Page**. Verify that it prints at the Printer.
13. Click **Finish**.

### Configure the Print Driver in Windows 95/98/Me

1. From the **Start** menu, select **Settings** and then **Printers**.
2. Right click on the Printer's icon and select **Properties**.
3. Select the correct paper size and any other default settings you wish to set for the printer.

# Windows NT4 Workstation/Server Print Driver Installation

Verify that the Correct Protocols and Services are installed in the workstation

1. At the Desktop, right mouse click the **Network Neighborhood** icon and select **Properties**. Click on the **Protocols** tab and verify that the **TCP/IP** protocol has been installed in the workstation.  
Note: If the TCP/IP Protocol is not present in the Protocol list, click the **Add** button, select **TCP/IP Protocol** from the available list, and click **OK**. If the setup program fails to find the required files, you will have to click **Have Disk...** to load the protocol from the Operating System installer disk for this workstation.
2. After verifying that the TCP/IP Protocol is present, click on **TCP/IP Protocol** to highlight it, and click on the **Properties** button of the Protocols window. If using Dynamic TCP/IP Addressing, select the radio button for Obtaining an IP Address Automatically from the DHCP Server. If using Static TCP/IP Addressing, select the radio button marked Specify an IP Address, and enter in the required IP Address, Subnet Mask, and Gateway addresses for this workstation. Click **OK** when done.
3. Select the **Services** tab and verify that the **Workstation** service is installed. This is the NT workstation's client for communicating on Microsoft Networks using the SMB protocol.  
Note: If the Workstation service is NOT loaded, click the **Add** button, select **Workstation** from the available list, and click **OK**. If the setup program fails to find the required files, you will have to click **Have Disk...** to load the service from the Operating System installer disk for this workstation.
4. Click the **DNS Tab** and make sure that the workstation has a **Host Name** entered into the Host Name text entry box. Optionally enter in the Domain in which this Host resides into the Domain text box (xerox.com, for example). Optionally use the Add... button to enter in DNS Server IP Addresses for the DNS Service Search Order.
5. Click on the **WINS Address Tab** and verify that the "Enable DNS for Windows Resolution" checkbox is checked (the preferred method for resolving host names to IP addresses on TCP/IP networks).  
Note: If you are operating a Windows Internet Naming Service (WINS) Server on an NT only network, you might alternatively wish to deselect the "Enable DNS for Windows Resolution" checkbox and supply the IP addresses of a Primary (and Secondary, if used) WINS Server.

### Add the Printer to the Windows NT4 Desktop

1. From the **Start** menu, select **Settings** and then **Printers**.
2. Double-click **Add Printer**.
3. When the Add Printer Wizard displays, select **Network Printer**.
4. Select **Browse** to search for the printer's **Workgroup** over the Microsoft network.
5. Select the plus symbol (+) to the left of **Entire Network** to expand it if necessary.
6. Double click the name of the **Workgroup** for the printer as shown on the Settings List. Select the **SMB Host Name** as shown on the Settings List. Click **OK**, then click **Next**.
7. You will be prompted for a print driver. Select **Have Disk** and browse to the location of your print drivers.
8. Select the **.INF** file and click **Open**.
9. When the "Install from Disk" screen displays, verify that the path and file name are correct and click **OK**.
10. Select the model that corresponds to your Printer and click **Next**.
11. At the next dialog, enter a name for your Printer and select either Yes or No for making this printer your default Windows printer. Select **Yes** if you will be printing primarily to this printer from your Windows applications. Click **Next**.
12. Select **Yes** to print a Test Page.
13. Select **Finish** and verify that the Test Page printed out at the Printer.

### Configure the Print Driver

1. From the **Start** menu, select **Settings** and then **Printers**.
2. Right click on the Printer's icon and select **Document Defaults**.
3. Select the correct paper size and any other default settings you wish to set for the printer.

## An Alternate Procedure for Setting up NetBIOS over IP Peer to Peer Printing

EXPERIENCED SYSTEMS ADMINISTRATORS can use the following procedure:

1. **On NT4 workstations**, verify that the **TCP/IP protocol** is installed and that it is configured for **DNS resolution** of the NetBIOS Host Name. Verify that BOTH Microsoft **TCP/IP Printing Services** and **Workstation** (SMB client) Services are installed.
2. **On Windows 2000 and XP workstations**, from the "Properties selection" of the "Local Area Connection" icon, verify that the **Internet Protocol (TCP/IP)** is installed. Select the protocol and click **Properties**. Verify that TCP/IP is configured for use of the DNS Server. Click the **Advanced** button and select the **DNS** Tab. Verify that the checkbox labeled "Register this connection's addresses in DNS" is checked. Select the **WINS** Tab and verify that the NetBIOS setting is set to either "Use NetBIOS Setting from the DHCP Server," or that "NetBIOS is enabled over TCP/IP." Click Cancel twice and verify that the **Client for Microsoft Networks** is installed. Finally, with your Operating System Installer Disk readily available, through **Add/Remove Programs** and **Add/Remove Windows Components**, select Other Network File and Print Services. Click Details, check the box for **Print Services for Unix**, and click OK and Next.
3. **On 95/98/Me workstations**, verify that the **TCP/IP protocol** is installed and that it is configured for **DNS resolution** of the NetBIOS Host Name. Verify that the **Client for Microsoft Networks** is installed and that the workstation has a Computer (NetBIOS) Name and is a member of a Workgroup.
4. Create an **LPR port** on your NT4, Windows 2000, or Windows XP Operating System. Use a Print Utility (Spooler) program to create an LPR port on the Windows 95/98/Me workstation.
5. When prompted for the "Name or address of server providing lpd" enter in the Printer's **SMB Host Name** as seen on the Printer's Settings List.
6. When prompted for a queue name, enter in your preference of an easily-identified name for this Printer.
7. Install the Print driver on your workstation and, when prompted to select a port to print through, select the LPR port that you just created.
8. Print a Test Print to verify successful communications with the printer.



Select another Protocol



Go on to Step 7

## Step 6 ...continued

# NetBIOS over IP Client/Server Printing

## Before You Start

1. Obtain the Print Driver for your workstation's operating system. Drivers are available on one of the CD-ROMs that came with your Printer. They are also typically available for downloading in self-extracting Zip file format from the Internet at [www.xerox.com](http://www.xerox.com).
2. Print a **Settings List** as stated under the **Network Connectivity Tab** of this guide.
3. On the Settings List, **verify that "SMB" is enabled**. Also, **verify that TCP/IP is enabled** as one of the supported protocols (NetBEUI may also be displayed). To enable "SMB," if required, follow the procedure stated under the Microsoft (NetBIOS over IP) item of the NOS Selection menu, accessed from the **Network Connectivity Tab** of this guide.
4. The Workstation Print Driver Installation Procedures below ASSUME that you have already **Set Up an NT Server to Queue Jobs to the Printer**. If you have NOT already set up the NT Server, for a quick-step set up procedure, refer to the instructions supplied under the selection "Microsoft (NetBIOS over IP)," located in the **NOS Selection** menu, under the **Network Connectivity Tab** of this guide.

Quick Find Printer Driver Installation for:

[Windows 95/98/Me Workstation](#)

[Windows NT4 Workstation](#)

[Windows 2000 & XP Professional Workstation](#)

## Windows 95/98/Me Workstation Print Driver Installation

### Verify that the Correct Protocols and Services are installed in the workstation

1. At the Workstation's Desktop, right-click the **Network Neighborhood** icon ("My Network Places" in Windows Me) and select **Properties**.
2. On the **Configuration Tab**, verify that **Client for Microsoft Networks** is installed. If it is NOT, click the **Add** button, select **Client**, select **Add**, select **Client for Microsoft Networks**, and click **OK**. If the setup program fails to find the required files, you will have to click **Have Disk...** to load the client from the Operating System installer disk for this workstation.
3. On the **Configuration Tab**, verify that the TCP/IP protocol is installed. If it is NOT, click the **Add** button, select **Protocol**, select **Add**, select **TCP/IP Protocol**, and click **OK**. If the setup program fails to find the required files, you will have to click **Have Disk...** to load the protocol from the Operating System installer disk for this workstation.
4. Click the **Identification Tab** and verify that this workstation has a UNIQUE Computer Name (15 characters maximum) and is a member of a workgroup (Workgroup is the default Windows workgroup name).
5. Click the **Configuration Tab** and select (highlight) the **TCP/IP Protocol**. Click the **Properties** button and select the **NetBIOS Tab**. Verify that the checkbox labeled "I want to enable NetBIOS over TCP/IP"

is checked. Next, click the **DNS Configuration Tab** and make sure that the "Enable DNS" radio button is selected. Enter in this workstation's Computer Name (from the Identification Tab) into the "Host" text box. Enter the Domain that this Host (Computer Name) resides in into the "Domain" text box (xerox.com, for example). In the boxes provided, enter the IP address of the DNS (Domain Name Service) Server. Finally, click the **IP Address Tab** and verify that this workstation is using either a dynamic or static method to obtain a valid TCP/IP Address.

Note: If you are operating a Windows Internet Naming Service Server on an NT only network, you may wish to configure WINS instead of DNS by selecting the WINS Configuration Tab.

## Add the Printer to the Windows 95/98/Me Desktop

1. From the **Start** menu, select **Settings** and then **Printers**.
2. Double click the **Add Printer** button and click **Next**.
3. When the Add Printer Wizard displays, select **Network Printer**.
4. Select **Browse** to search for the printer's **Server** over the Microsoft network.
5. Select the plus symbol (+) to the left of **Entire Network** to expand it if necessary.
6. When the Server is located, double click on the Server's name.
7. Select the name of your Printer from the list of available network printers on the Server and click the **OK** button.
8. Click **Next** to open the Manufacturers and Printers window.
9. When the Manufacturers and Printers window displays, select **Have Disk...** and enter in the path to your driver files. Note that you can also use the **Browse** button to locate the required **.INF** file.
10. Click **OK** on the "Open" screen, if you used the Browse button.
11. Click **OK** on the "Install From Disk" screen.
12. When the "Printers" list is displayed on screen, select your Printer. Click **Next**.
13. When prompted, accept the default printer name, or give your printer a more descriptive name. Select either Yes or No to make this printer your default Windows printer. Choose **Yes** if you will be printing primarily to this printer from your Windows applications. Click **Next**.
14. **Print a Test Page**. Verify that it prints at the Printer.
15. Click **Finish**.

## Configure the Print Driver in Windows 95/98/Me

1. From the **Start** menu, select **Settings** and then **Printers**.
2. Right click on the Printer's icon and select **Properties**.
3. Select the correct paper size and any other default settings you wish to set for the printer.

# Windows NT4 Workstation Print Driver Installation

## Verify that the Correct Protocols and Services are installed in the workstation

1. At the Desktop, right mouse click the **Network Neighborhood** icon and select **Properties**. Click on the **Protocols** tab and verify that the **TCP/IP** protocol has been installed in the workstation.  
Note: If the TCP/IP Protocol is not present in the Protocol list, click the **Add** button, select **TCP/IP Protocol** from the available list, and click **OK**. If the setup program fails to find the required files, you will have to click **Have Disk...** to load the protocol from the Operating System installer disk for this workstation.

2. After verifying that the TCP/IP Protocol is present, click on **TCP/IP Protocol** to highlight it, and click on the **Properties** button of the Protocols window. If using Dynamic TCP/IP Addressing, select the radio button for Obtaining an IP Address Automatically from the DHCP Server. If using Static TCP/IP Addressing, select the radio button marked Specify an IP Address, and enter in the required IP Address, Subnet Mask, and Gateway addresses for this workstation. Click **OK** when done.
3. Select the **Services** tab and verify that the **Workstation** service is installed. This is the NT workstation's client for communicating on Microsoft Networks using the SMB protocol.  
Note: If the Workstation service is NOT loaded, click the **Add** button, select **Workstation** from the available list, and click **OK**. If the setup program fails to find the required files, you will have to click **Have Disk...** to load the service from the Operating System installer disk for this workstation.
4. Click the **DNS Tab** and make sure that the workstation has a **Host Name** entered into the Host Name text entry box. Optionally enter in the Domain in which this Host resides into the Domain text box (xerox.com, for example). Optionally use the Add... button to enter in DNS Server IP Addresses for the DNS Service Search Order.
5. Click on the **WINS Address Tab** and verify that the "Enable DNS for Windows Resolution" checkbox is checked (the preferred method for resolving host names to IP addresses on TCP/IP networks).  
Note: If you are operating a Windows Internet Naming Service (WINS) Server on an NT only network, you might alternatively wish to deselect the "Enable DNS for Windows Resolution" checkbox and supply the IP addresses of a Primary (and Secondary, if used) WINS Server.

## Add the Printer to the Windows NT4 Desktop

1. From the **Start** menu, select **Settings** and then **Printers**.
2. Double-click **Add Printer**.
3. When the Add Printer Wizard displays, select **Network Printer**.
4. Select **Browse** to search for the printer's **Server** over the Microsoft network.
5. Select the plus symbol (+) to the left of **Entire Network** to expand it if necessary.
6. When the Server is located, double click on the Server's name.
7. Select the name of your Printer from the list of available network printers on the Server and click the **OK** button.
8. Click **Next** to open the Manufacturers and Printers window.
9. When the Manufacturers and Printers window displays, select **Have Disk** and browse to the location of your print drivers.
10. Select the **.INF** file and click **Open**.
11. When the "Install from Disk" screen displays, verify that the path and file name are correct and click **OK**.
12. Select the model that corresponds to your Printer and click **Next**.
13. At the next dialog, enter a name for your Printer and select either Yes or No for making this printer your default Windows printer. Select **Yes** if you will be printing primarily to this printer from your Windows applications. Click **Next**.
14. Select **Yes** to print a Test Page.
15. Select **Finish** and verify that the Test Page printed out at the Printer.

## Configure the Print Driver

1. From the **Start** menu, select **Settings** and then **Printers**.
2. Right click on the Printer's icon and select **Document Defaults**.
3. Select the correct paper size and any other default settings you wish to set for the printer.

# Windows 2000 & XP Professional Workstation Print Driver Installation

## Verify that the Correct Protocols and Services are installed in the workstation

1. Verify that the **Internet protocol (TCP/IP)** is installed in the Workstation. On the Windows 2000 Desktop, right mouse click the **My Network Places** icon and select **Properties**. Right mouse click on the **Local Area Connection** icon and select **Properties**. On the Windows XP desktop, click **Start, Control Panel**, and double click **Network Connections**. Right mouse click on the **Local Area Connection** icon and select **Properties**. Verify that the **Internet Protocol (TCP/IP)** has been loaded. If it has, click on (highlight) this item with your mouse and click the **Properties** button to verify that this workstation is using either a dynamic or static method to obtain a valid TCP/IP address. Also verify that this workstation is using a **DNS (or WINS) Server** for resolution of the NetBIOS Host name (typically the same name as the computer's Internet host name). If the TCP/IP protocol is NOT loaded, click the **Install...** button, then select **Protocol** as the type of network component that you wish to install. Click the **Add...** button and select **Internet Protocol (TCP/IP)**. With your Operating System Installer Disk readily available, click the **Have Disk...** button and follow any remaining instructions.
2. Verify that the **Client for Microsoft Networks** is installed in the Workstation. On the Windows 2000 Desktop, right mouse click the **My Network Places** icon and select **Properties**. Right mouse click on the **Local Area Connection** icon and select **Properties**. On the Windows XP desktop, click **Start, Control Panel**, and double click **Network Connections**. Right mouse click on the **Local Area Connection** icon and select **Properties**. If the Client for Microsoft Networks is NOT loaded, click the **Install...** button, then select **Client** as the type of network component that you wish to install. Click the **Add...** button and select **Client for Microsoft Networks**. With your Operating System Installer Disk readily available, click the **Have Disk...** button and follow any remaining instructions.

## Add the Printer to the Windows 2000 or Windows XP Desktop

1. On the Windows 2000 desktop, from the **Start** menu, select **Settings**, then **Printers**. On the Windows XP desktop, from **Start**, select **Printers and Faxes**.
2. On Windows 2000, double-click **Add Printer**. On Windows XP, from **Printer Tasks**, select **Add a printer**.
3. When the "Add Printer Wizard" displays, click **Next**.
4. Select **Network Printer** and click **Next**.
5. In Windows 2000, on the "Locate Your Printer" screen, select the radio button labeled "Type the printer name or click next to browse for a printer." Click **Next**.  
In Windows XP, on the "Specify a Printer" screen, select the radio button labeled "Connect to this printer (or to browse for a printer, select this option and click Next)." As a shortcut, if you know the UNC (Universal Naming Convention) of the Printer, enter it in the text box. Click **Next**.
6. When the "Browse for Printer" screen displays, wait for the screen to finish loading its list of **Shared Printers**. Note that the displayed format for many of these Shared Printers is the UNC of the Printer (for example, \\computer (i.e. Server) name\share (i.e. Printer) name).
7. On the "Browse for Printer" screen, either click on (select with your mouse) one of the displayed Servers or UNC's, or enter into the text box the UNC of your Server and its Shared printer, if you know it. Click **Next**.
8. When prompted for the driver files, select **Have Disk** and browse to the location of your print driver.

9. Select the **.INF** file, then click **Open**.
10. When the "Install from Disk" screen displays, verify the path and file name are correct and click **OK**.
11. Select the model that corresponds to your Printer and click **Next**.
12. Enter a name for your Printer and select either Yes or No for making this printer your default Windows printer. Select **Yes** if you will be printing primarily to this printer from your Windows applications. Click **Next**.
13. Select **Yes** to print a test page. Click **Next**.
14. Click **Finish**.

## Configure the Print Driver

1. On the Windows 2000 desktop, from the **Start** menu, select **Settings**, then **Printers**. On the Windows XP desktop, from **Start**, select **Printers and Faxes**.
  2. Right click on the Printer's icon and select **Properties**. Use the available Tabs to set the Printer's job processing defaults. Additional settings may be accessed by clicking the **Printing Preferences** button on the General Tab.
- 



Select another Protocol



Go on to Step 7



**Step 6**

...continued

# IPP Printing (Windows 2000 & XP)

Note: Supported by all Windows 2000 and XP workstations, IPP (the Internet Printing Protocol) enables the convenience of printing over the Internet or Intranet through the creation of an IPP network port. This printing "service" is available for other workstation operating systems through downloads from the Microsoft web site. Follow the instructions provided by Microsoft, or other trusted sources on the Internet, to install the IPP service on operating systems other than Windows 2000 and XP.

**Before You Start**

1. Obtain the Print Driver for your workstation's operating system. Drivers are available on one of the CD-ROMs that came with your Printer. They are also typically available for downloading in self-extracting Zip file format from the Internet at [www.xerox.com](http://www.xerox.com).
2. Print a **Settings List** as stated under the **Network Connectivity Tab** of this guide.
3. On the Settings List, under the TCP/IP data label, verify that the Printer has a **valid IP Address, Subnet Mask, and Gateway** displayed. If it does NOT, assign these addresses to the Printer following the procedure stated under the **TCP/IP Protocol Configuration** item of the NOS Selection menu, accessed from the **Network Connectivity Tab** of this guide.
4. On the Settings List, verify that **Port 9100** is displayed with a Port Status of **Enabled**. If it is NOT, enable Port 9100 as stated in the Note at the bottom of the **Configure Port 9100** procedure, under the **Internet Services Tab** of this guide. Specifically, click the Port Status hot link on the Properties Tab of Internet Services and make sure that the check box on the Port 9100 line is checked.
5. On the Settings List, **verify that IPP is enabled**. If it is NOT, enable the protocol following the procedure stated under the **IPP (Internet Printing Protocol)** item of the NOS Selection menu, accessed from the **Network Connectivity Tab** of this guide.
6. **Verify that IPP is using DNS** to resolve Host Names to IP Addresses in support of IPP printing. Using your workstation's Web browser, enter the TCP/IP Address of the Printer in the Address or Location field and press **Enter**. Click the **Properties** button or Tab. Click the plus (+) symbol to the left of the **Protocol Settings** file folder and **select IPP** in the directory tree. Verify that the DNS Enablement Checkbox is checked. If it is NOT checked, check it with your mouse and click **Apply**.

**Verify that TCP/IP is installed in the workstation**

On the Windows 2000 Desktop, right mouse click the **My Network Places** icon and select **Properties**. Right mouse click on the **Local Area Connection** icon and select **Properties**. On the Windows XP desktop, click **Start, Control Panel**, and double click **Network Connections**. Right mouse click on the **Local Area Connection** icon and select **Properties**. Verify that the **Internet Protocol (TCP/IP)** has been loaded. If it has, click on (highlight) this item with your mouse and click the **Properties** button to verify that this workstation is using either a dynamic or static method to obtain a valid TCP/IP address. If the TCP/IP protocol is NOT loaded, click the **Install...** button, then select **Protocol** as the type of network component that you wish to install. Click the **Add...** button and select **Internet Protocol (TCP/IP)**. With your Operating System Installer Disk readily available, click the **Have Disk...** button and follow any remaining instructions. Once the protocol has been installed, you can click on (highlight) the item with your mouse and click the Properties button to verify or set up the method being used for TCP/IP addressing.

## Add the Printer to the Windows 2000 or Windows XP Desktop

1. On the Windows 2000 desktop, from the **Start** menu, select **Settings**, then **Printers**. On the Windows XP desktop, from **Start**, select **Printers and Faxes**.
2. On Windows 2000, double-click **Add Printer**. On Windows XP, from **Printer Tasks**, select **Add a printer**.
3. When the "Add Printer Wizard" displays, click **Next**.
4. Select **Network Printer** and click **Next**.
5. To create an IPP printer select **Connect to a printer on the Internet.....**
6. Type **http://** followed by the printer's fully qualified Domain name or IP address in the URL field. Note that you may have to type **/ipp** after the Printer's name or IP address. The Printer's Name can be either the Internet Host Name or the SMB Host Name as shown on the Printer's Settings List, depending on the name resolution used by your network (DNS or WINS).
7. Click **Next**.
8. When prompted for the driver files, select **Have Disk** and browse to the location of your print driver.
9. Select the **.INF** file, then click **Open**.
10. When the "Install from Disk" screen displays, verify the path and file name are correct and click **OK**.
11. Select the model that corresponds to your Printer and click **Next**.
12. Enter a name for your Printer and select either Yes or No for making this printer your default Windows printer. Select **Yes** if you will be printing primarily to this printer from your Windows applications. Click **Next**.
13. Select **Yes** to print a test page. Click **Next**.
14. Click **Finish**.

## Configure the Print Driver

1. On the Windows 2000 desktop, from the **Start** menu, select **Settings**, then **Printers**. On the Windows XP desktop, from **Start**, select **Printers and Faxes**.
2. Right click on the Printer's icon and select **Properties**. Use the available Tabs to set the Printer's job processing defaults. Additional settings may be accessed by clicking the **Printing Preferences** button on the General Tab.



Select another Protocol



Go on to Step 7

## Step 6

...continued

# NetWare 3.12 and 4.x/5.x (Bindery) Printing

## Before You Start

1. Obtain the Print Driver for your workstation's operating system. Drivers are available on one of the CD-ROMs that came with your Printer. They are also typically available for downloading in self-extracting Zip file format from the Internet at [www.xerox.com](http://www.xerox.com).

Quick Find Printer Driver Installation for:

[Windows 95/98/Me/NT4 Workstation](#)

[Windows 2000 & XP Professional Workstation](#)

## Windows 95/98/Me/NT4 Workstation Print Driver Installation

### Verify that the Correct Protocol and Service is installed in the workstation

1. At the Desktop, right mouse click the Network Neighborhood icon ("My Network Places" in Windows Me).
2. Left mouse click on **Properties**.
3. Click on the **Protocols** TAB (in Win. NT) or the **Configuration** TAB (in Win. 95/98/Me) to verify that the IPX/SPX Protocol has been loaded. It should appear in the displayed list.  
Note: If the IPX/SPX Protocol has NOT been loaded, click the **Add** button, select **IPX/SPX Protocol** from the available list and click **OK**. If the setup program fails to find the required files, you will have to click **Have Disk...** to load the protocol from the Operating System installer disk for this workstation.
4. Left mouse click on the **Services** TAB (in Win. NT) or the **Configuration** TAB (in Win. 95/98/Me) to verify that the Microsoft Client for NetWare is loaded.  
Note: If the Microsoft Client for NetWare is NOT loaded, click the **Add** button, select the **Microsoft Client Service (or Microsoft Network Service) for NetWare** from the available list and click **OK**. If the setup program fails to find the required files, you will have to click **Have Disk...** to load the service from the Operating System installer disk for this workstation.

### Add the Printer to the Windows 95/98/Me/NT desktop

1. On the Windows desktop, use your mouse to select "Start," "Settings," "Printers," and "Add Printer."
2. Select the **Network Printer** radio button and click **Next**.
3. When the Network directory window displays (immediately in Win. NT, or by clicking Browse in Win. 95/98/Me), double click on the network icons (or the + sign in front of the icons) to open up Network subdirectories and locate the printer's server (the primary server), then locate the printer's queue. Click

- on the printer's queue to highlight it and click the **OK** button.
4. Click **Next** to open the Manufacturers and Printers window.
  5. When the Manufacturers and Printers window displays, select **Have Disk...** and enter in the path to your driver files. Note that you can also use the **Browse** button to locate the required **.INF** file.
  6. Click **OK** on the "Open" screen, if you used the Browse button.
  7. Click **OK** on the "Install From Disk" screen.
  8. When the "Printers" list is displayed on screen, select your Printer. Click **Next**.
  9. When prompted, accept the default printer name, or give your printer a more descriptive name. Select either Yes or No to make this printer your default Windows printer. Choose **Yes** if you will be printing primarily to this printer from your Windows applications. Click **Next**.
  10. **Print a Test Page**. Verify that it prints at the Printer.
  11. Click **Finish**.

### Configure the Print Driver in Windows 95/98/Me

1. From the **Start** menu, select **Settings** and then **Printers**.
2. Right click on the Printer's icon and select **Properties**.
3. Select the correct paper size and any other default settings you wish to set for the printer.

### Configure the Print Driver in Windows NT4

1. From the **Start** menu, select **Settings** and then **Printers**.
2. Right click on the Printer's icon and select **Document Defaults**.
3. Select the correct paper size and any other default settings you wish to set for the printer.

# Windows 2000 and XP Professional Workstation Print Driver Installation

## Verify that the Correct Protocols and Services are installed in the workstation

1. Verify that the **NW Link/IPX/SPX/NetBIOS Compatible Transport Protocol** is installed in the Workstation. On the Windows 2000 Desktop, right mouse click the **My Network Places** icon and select **Properties**. Right mouse click on the **Local Area Connection** icon and select **Properties**. On the Windows XP desktop, click **Start, Control Panel**, and double click **Network Connections**. Right mouse click on the **Local Area Connection** icon and select **Properties**. Verify that the Protocol has been loaded. If the protocol is NOT loaded, click the **Install...** button, then select **Protocol** as the type of network component that you wish to install. Click the **Add...** button and select **NW Link/IPX/SPX/NetBIOS Compatible Transport Protocol**. With your Operating System Installer Disk readily available, click the **Have Disk...** button and follow any remaining instructions.
2. Verify that the **Client Service for NetWare** is installed in the Workstation. On the Windows 2000 Desktop, right mouse click the **My Network Places** icon and select **Properties**. Right mouse click on the **Local Area Connection** icon and select **Properties**. On the Windows XP desktop, click **Start, Control Panel**, and double click **Network Connections**. Right mouse click on the **Local Area Connection** icon and select **Properties**. If the Client Service for NetWare is NOT loaded, click the **Install...** button, then select **Client** as the type of network component that you wish to install. Click the

**Add...** button and select **Client Service for NetWare**. With your Operating System Installer Disk readily available, click the **Have Disk...** button and follow any remaining instructions.

## Add the Printer to the Windows 2000 and XP Desktop

1. On the Windows 2000 desktop, from the **Start** menu, select **Settings**, then **Printers**. On the Windows XP desktop, from **Start**, select **Printers and Faxes**.
2. On Windows 2000, double-click **Add Printer**. On Windows XP, from **Printer Tasks**, select **Add a printer**.
3. When the "Add Printer Wizard" displays, click **Next**.
4. Select **Network Printer** and click **Next**.
5. In Windows 2000, on the "Locate Your Printer" screen, select the radio button labeled "Type the printer name or click next to browse for a printer." Click **Next**. In Windows XP, on the "Specify a Printer" screen, select the radio button labeled "Connect to this printer (or to browse for a printer, select this option and click Next)."
6. When the "Browse for Printer" screen displays, wait for the screen to finish loading its list of Servers and Print Queues. Note: Make sure that you are browsing the NetWare network and NOT the Microsoft Windows Network.
7. On the "Browse for Printer" screen, click on (select with your mouse) your **Primary Server** and **Print Queue**. Click **Next**.
8. When prompted for the driver files, select **Have Disk** and browse to the location of your print drivers.
9. Select the **.INF** file then click **Open**.
10. When the "Install from Disk" screen displays, verify that the path and file name are correct and click **OK**.
11. Select the model that corresponds to your Printer and click **Next**.
12. Enter a name for your Printer and select either Yes or No for making this printer your default Windows printer. Select **Yes** if you will be printing primarily to this printer from your Windows applications. Click **Next**.
13. Select **Yes** to print a test page. Click **Next**.
14. Click **Finish**.

## Configure the Print Driver

1. On the Windows 2000 desktop, from the **Start** menu, select **Settings**, then **Printers**. On the Windows XP desktop, from **Start**, select **Printers and Faxes**.
2. Right click on the Printer's icon and select **Properties**. Use the available Tabs to set the Printer's job processing defaults. Additional settings may be accessed by clicking the **Printing Preferences** button on the General Tab.



Select another Protocol



Go on to Step 7

**Step 6**  
**...continued**

# NetWare 4.xx (NDS) Printing

## Before You Start

1. Obtain the Print Driver for your workstation's operating system. Drivers are available on one of the CD-ROMs that came with your Printer. They are also typically available for downloading in self-extracting Zip file format from the Internet at [www.xerox.com](http://www.xerox.com).

Quick Find Printer Driver Installation for:

[Windows 95/98/Me/NT4 Workstation](#)

[Windows 2000 & XP Professional Workstation](#)

## Windows 95/98/Me/NT4 Workstation Print Driver Installation

### Verify that the Correct Protocol and Service is installed in the workstation

1. At the Desktop, right mouse click the Network Neighborhood icon ("My Network Places" in Windows Me).
2. Left mouse click on **Properties**.
3. Click on the **Protocols** Tab (in Win. NT) or the **Configuration** Tab (in Win. 95/98/Me) to verify that the IPX/SPX Protocol has been loaded. It should appear in the displayed list.  
Note: If the IPX/SPX Protocol has NOT been loaded, click the **Add** button, select **IPX/SPX Protocol** from the available list and click **OK**. If the setup program fails to find the required files, you will have to click **Have Disk...** to load the protocol from the Operating System installer disk for this workstation.
4. Left mouse click on the **Services** Tab (in Win. NT) or the **Configuration** Tab (in Win. 95/98/Me) to verify that the **Novell Client for NetWare** (such as IntranetWare Client for Windows NT or Novell Client 32) is loaded. Do NOT use the Microsoft Client for NetWare because it is NOT NDS enabled.  
Note: If the Novell Client is not loaded you will need to load the Novell Client Service from the Novell Server Install CD ROM. Get the CD ROM, insert it in your ROM drive, and use Windows Explorer to locate the Read Me file for your NetWare version. Follow the Read Me instructions to install the client. When finished with the install, unless otherwise instructed by the Read Me file, you may still have to click on the Services Tab (NT) or Configuration Tab (95/98/Me), click the Add button, select the Novell client service, and click OK.

### Add the Printer to the Windows 95/98/Me/NT desktop

1. On the Windows desktop, use your mouse to select "Start," "Settings," "Printers," and "Add Printer."
2. Select the **Network Printer** radio button and click **Next**.

3. When the Network directory window displays (immediately in Win. NT, or by clicking Browse in Win. 95/98Me), double click on the network icons (or the + sign in front of the icons) to open up the Network tree and context (country, organization, and organizational unit) to locate your printer's queue and name. Click on the printer's queue/name to highlight it and click the **OK** button.
4. Click **Next** to open the Manufacturers and Printers window.
5. When the Manufacturers and Printers window displays, select **Have Disk...** and enter in the path to your driver files. Note that you can also use the **Browse** button to locate the required **.INF** file.
6. Click **OK** on the "Open" screen, if you used the Browse button.
7. Click **OK** on the "Install From Disk" screen.
8. When the "Printers" list is displayed on screen, select your Printer. Click **Next**.
9. When prompted, accept the default printer name, or give your printer a more descriptive name. Select either Yes or No to make this printer your default Windows printer. Choose **Yes** if you will be printing primarily to this printer from your Windows applications. Click **Next**.
10. **Print a Test Page**. Verify that it prints at the Printer.
11. Click **Finish**.

### Configure the Print Driver in Windows 95/98/Me

1. From the **Start** menu, select **Settings** and then **Printers**.
2. Right click on the Printer's icon and select **Properties**.
3. Select the correct paper size and any other default settings you wish to set for the printer.

### Configure the Print Driver in Windows NT4

1. From the **Start** menu, select **Settings** and then **Printers**.
2. Right click on the Printer's icon and select **Document Defaults**.
3. Select the correct paper size and any other default settings you wish to set for the printer.

# Windows 2000 and XP Professional Workstation Print Driver Installation

## Verify that the Correct Protocols and Services are installed in the workstation

1. Verify that the **NW Link/IPX/SPX/NetBIOS Compatible Transport Protocol** is installed in the Workstation. On the Windows 2000 Desktop, right mouse click the **My Network Places** icon and select **Properties**. Right mouse click on the **Local Area Connection** icon and select **Properties**. On the Windows XP desktop, click **Start, Control Panel**, and double click **Network Connections**. Right mouse click on the **Local Area Connection** icon and select **Properties**. Verify that the Protocol has been loaded. If the protocol is NOT loaded, click the **Install...** button, then select **Protocol** as the type of network component that you wish to install. Click the **Add...** button and select **NW Link/IPX/SPX/NetBIOS Compatible Transport Protocol**. With your Operating System Installer Disk readily available, click the **Have Disk...** button and follow any remaining instructions.
2. Verify that the **Client Service for NetWare** is installed in the Workstation. On the Windows 2000 Desktop, right mouse click the **My Network Places** icon and select **Properties**. Right mouse click on the **Local Area Connection** icon and select **Properties**. On the Windows XP desktop, click **Start, Control Panel**, and double click **Network Connections**. Right mouse click on the **Local Area**



**Connection** icon and select **Properties**. If the Client Service for NetWare is NOT loaded, click the **Install...** button, then select **Client** as the type of network component that you wish to install. Click the **Add...** button and select **Client Service for NetWare**. With your Operating System Installer Disk readily available, click the **Have Disk...** button and follow any remaining instructions.

## Add the Printer to the Windows 2000 and XP Desktop

1. On the Windows 2000 desktop, from the **Start** menu, select **Settings**, then **Printers**. On the Windows XP desktop, from **Start**, select **Printers and Faxes**.
2. On Windows 2000, double-click **Add Printer**. On Windows XP, from **Printer Tasks**, select **Add a printer**.
3. When the "Add Printer Wizard" displays, click **Next**.
4. Select **Network Printer** and click **Next**.
5. In Windows 2000, on the "Locate Your Printer" screen, select the radio button labeled "Type the printer name or click next to browse for a printer." Click **Next**. In Windows XP, on the "Specify a Printer" screen, select the radio button labeled "Connect to this printer (or to browse for a printer, select this option and click Next)."
6. When the "Browse for Printer" screen displays, wait for the screen to finish loading its list of Servers and Print Queues.
7. On the "Browse for Printer" screen, double click on the network icons (or the + sign in front of the icons) to open up the Network tree and context (country, organization, and organizational unit) to locate your printer's queue and name. Click on the printer's queue/name to highlight it. Click **Next**.
8. When prompted for the driver files, select **Have Disk** and browse to the location of your print drivers.
9. Select the **.INF** file then click **Open**.
10. When the "Install from Disk" screen displays, verify that the path and file name are correct and click **OK**.
11. Select the model that corresponds to your Printer and click **Next**.
12. Enter a name for your Printer and select either Yes or No for making this printer your default Windows printer. Select **Yes** if you will be printing primarily to this printer from your Windows applications. Click **Next**.
13. Select **Yes** to print a test page. Click **Next**.
14. Click **Finish**.

## Configure the Print Driver

1. On the Windows 2000 desktop, from the **Start** menu, select **Settings**, then **Printers**. On the Windows XP desktop, from **Start**, select **Printers and Faxes**.
2. Right click on the Printer's icon and select **Properties**. Use the available Tabs to set the Printer's job processing defaults. Additional settings may be accessed by clicking the **Printing Preferences** button on the General Tab.



Select another Protocol



Go on to Step 7



**Step 6**

...continued

# EtherTalk (AppleTalk) Peer to Peer Printing

**Before You Start**

1. Obtain the Adobe PostScript Print Driver for your Macintosh (OS 9.x) workstation. Drivers are available on one of the CD-ROMs that came with your Printer. They are also typically available for downloading in self-extracting file format from the Internet at [www.xerox.com](http://www.xerox.com).
2. Print a **Settings List** as stated under the **Network Connectivity Tab** of this guide.
3. On the Settings List, under the **EtherTalk** data label, verify that the EtherTalk protocol is enabled, and that Printer has been assigned an EtherTalk name and an EtherTalk zone. If one or more of these parameters needs to be configured, follow the instructions supplied under the **EtherTalk** item of the NOS Selection menu, accessed from the **Network Connectivity Tab** of this guide.

**Install the Adobe PostScript Print Driver and PPD on your Macintosh workstation**

1. Locate the Adobe PostScript Print Driver file.
2. Double click the **Adobe PS Installer** icon. Click **Continue** on the introduction screen.
3. On the licensing screen, click **Accept**.
4. Read the "Read Me" file, then click **Continue**.
5. Click **Install**.
6. When the installation completes, click **Restart** to reboot your workstation.

**Configure the PPD File**

1. In the Apple **Chooser**, select the Adobe PS printer.
2. Locate your printer in the list displayed on screen.
3. Select the printer name and the appropriate **AppleTalk zone** (if applicable).
4. Click **Create** (for initial installations.).
5. Click **Setup** (for all subsequent installations).
6. On the PPD screen, click **Select PPD**.
7. If it is not already selected, highlight the Printer's PPD in the list and click **Select**.
8. Click **Configure** to make setting changes, if desired.
9. Click **OK**.
10. Close the **Chooser**..

**Send a Test File to the Printer to verify successful Driver installation**

Select another Protocol



Go on to Step 7



## Step 5 ...continued

# Configure Port 9100 (Raw Printing)

1. Open your Web browser and enter the TCP/IP address of the Printer in the Address or Location field. Press **Enter**.
2. Click the **Properties** button or Tab.
3. Click the plus (+) symbol to the left of the **Protocol Settings** file folder.
4. Select **Port 9100** in the directory tree. (1)
5. The available selections include:

**Port Number**, with a default value of 9100. This does not need to be changed.

A **TBCP Filter checkbox** (displayed when PostScript is enabled).

**Timeout Entry Box**.

6. Enter a **Time Out** value for jobs being sent to the Printer through this Port. This is the length of time that the Controller will wait for an end of job command before printing the current job.
7. Click the **Apply New Settings** button to accept changes, or the **Restore Settings** button to return settings to their previous values. Note: Setting changes are not applied until you restart the Printer.

(1) Note:

If Port 9100 is NOT displayed in the Properties Tab directory tree, click the **Port Status** hot link in the beginning list of hot links in the tree. In the Table of Ports, use your mouse to place a check mark in the checkbox on the Port 9100 line. Click the **Apply New Settings** button, then click the **Reboot** button (always available on the Status Tab) to remotely reboot the Printer



Select another Protocol



Go on to Step 6

**Step 5 ...continued**

# Microsoft (NetBEUI) Networks

**Before You Start**

1. Print a **Settings List** as stated under the **Network Connectivity Tab** of this guide.
2. On the Settings List, **verify that "SMB" is enabled**. Also, verify that the default name of the NetBEUI workgroup is "Workgroup" and that the Printer has a unique name (that is, a name not the same as any other device in your workgroup). To enable "SMB," if required, follow the procedure below. To modify the name of your Workgroup, or a Printer's name within your workgroup, use your workstation's Web browser to access the Internet Services (Web Pages) residing in the Printer as described below.

**Enabling the SMB Setting at the Printer, if required**

1. Press the rectangular **Access button** on the Printer Control Panel, located directly above and slightly to the right of the numeric keypad.
2. Press the **"1" key** on the numeric keypad five consecutive times. (This is the factory default "password.")
3. Press the rectangular **Confirm button** on the touch screen.
4. Press the **System Settings button** (the right-hand button of the two buttons displayed on the touch screen). Note: If you press the left button by mistake, the Main menu will be displayed and you will have to start over at step one above.
5. Press the **System Settings button** (the top left button displayed on screen).
6. Press the **Network Settings button** (the top right button displayed on screen).
7. Press the **Port Settings button** (the left-hand button) to access the Port Settings Menu display. Note: If you press the right-hand button by mistake, you will be in the Protocol Settings Menu and will have to press the Close button to return to the two-button selection screen.
8. When the Port Settings menu displays, press the **SMB** selection line.
9. Press the **Change Settings button** in the lower right corner of the Port Settings Menu screen.
10. When the SMB Selection Menu displays, note that you have only one setting selection on a single, numbered horizontal line. Press this selection line.
11. Press the **Change Settings** button.
12. On the Settings screen, note which of the two square buttons is highlighted as the current setting for SMB Enablement. The available settings are Enabled or Disabled. To enable SMB at the printer, select the **Enabled** setting.
13. Click the **Save** button on the touch screen, which returns you to the SMB Selection menu. (To exit the Settings screen, without making changes, click the Cancel button.)
14. Exit the SMB Selection Menu and return to the Port Settings Menu by pressing the rectangular **Close** button in the upper right corner of the touch screen.
15. Exit the Port Settings Menu by pressing the rectangular **Close** button in the upper right corner of the Ports Menu screen.
16. Exit the Ports and Protocols selection screen by pressing the rectangular **Close** button in the upper right corner of the screen.
17. Exit the screen containing the Network Settings button by pressing the rectangular **Close** button in the upper right corner of the screen.
18. Finally, press the rectangular **Exit** button in the upper right corner of the four-button, System Settings

screen to have the printer reboot and enable your SMB setting.

## Configuring Workgroup Name or Printer Name with Internet Services

1. Open your Web browser and enter the TCP/IP address of the Printer in the Address or Location field. Press **Enter**.
2. Click the **Properties** button or Tab.
3. Click the plus symbol (+) to the left of the **Protocol Settings** file folder.
4. Select **SMB** in the directory tree
5. The available selections include:

A text box indicating Workgroup name.

A text box indicating the SMB Host name.

A text box indicating the Administrator name.

A text box indicating the Administrator Password.

A text box confirming the Administrator password.

An entry box for the maximum number of connections allowed, labeled Maximum Sessions.

A TBCP Filter checkbox (displayed when PostScript is enabled).

An enabling checkbox for Auto Driver Download, enabling the Printer to push a driver to a client.

An enabling checkbox for supporting Unicode (supplying the Host name and Workgroup name in Unicode characters during SMB transmission).

An enabling checkbox for Auto Master Mode. An enabling checkbox for Encrypt Password (during SMB transmission).

6. Accept the default value, or enter a value from 3 to 10, for maximum number of connections allowed in **Maximum Sessions**.
7. Accept the **Workgroup name** shown, or enter in your own workgroup name.
8. Type the **SMB Host Name** or accept the name shown.
9. Enter in the appropriate Administrator name and password if desired (such as for password-protected access in a NetBEUI workgroup).
10. Click the **Apply New Settings** button, then click the **Reboot** button to reboot the printer and apply setting changes.



Select another Protocol



Go on to Step 6

## Step 5 ...continued

# Microsoft (NetBIOS over IP) Networks

## Before You Start

1. Print a **Settings List** as stated under the **Network Connectivity Tab** of this guide.
2. Referring to the Settings List, **verify that "SMB" is enabled**. To enable "SMB" at the Printer, if required, follow the procedure below.
3. Referring to the Settings List, **verify that DNS (or WINS, if using only a Windows NT network) is enabled**. The use of Naming Servers is REQUIRED to resolve NetBIOS device names to IP addresses for packet routing over the TCP/IP network.
4. To enable the Printer to communicate with the Naming Servers, refer to the instructions supplied under the selection "TCP/IP Dynamic Addressing", located in the **NOS Selection** menu, under the **Network Connectivity Tab** of this guide.
5. When using WINS or DNS, be sure to refer to the Server Operating System documentation for the appropriate procedure to use to enable NetBIOS name to IP address resolution on the Server.

## Enabling the SMB Setting at the Printer, if required

1. Press the rectangular **Access button** on the Printer Control Panel, located directly above and slightly to the right of the numeric keypad.
2. Press the **"1" key** on the numeric keypad five consecutive times. (This is the factory default "password.")
3. Press the rectangular **Confirm button** on the touch screen.
4. Press the **System Settings button** (the right-hand button of the two buttons displayed on the touch screen). Note: If you press the left button by mistake, the Main menu will be displayed and you will have to start over at step one above.
5. Press the **System Settings button** (the top left button displayed on screen).
6. Press the **Network Settings button** (the top right button displayed on screen).
7. Press the **Port Settings button** (the left-hand button) to access the Port Settings Menu display. Note: If you press the right-hand button by mistake, you will be in the Protocol Settings Menu and will have to press the Close button to return to the two-button selection screen.
8. When the Port Settings menu displays, press the **SMB** selection line.
9. Press the **Change Settings button** in the lower right corner of the Port Settings Menu screen.
10. When the SMB Selection Menu displays, note that you have only one setting selection on a single, numbered horizontal line. Press this selection line.
11. Press the **Change Settings** button.
12. On the Settings screen, note which of the two square buttons is highlighted as the current setting for SMB Enablement. The available settings are Enabled or Disabled. To enable SMB at the printer, select the **Enabled** setting.
13. Click the **Save** button on the touch screen, which returns you to the SMB Selection menu. (To exit the Settings screen, without making changes, click the Cancel button.)
14. Exit the SMB Selection Menu and return to the Port Settings Menu by pressing the rectangular **Close** button in the upper right corner of the touch screen.
15. Exit the Port Settings Menu by pressing the rectangular **Close** button in the upper right corner of the Ports Menu screen.

16. Exit the Ports and Protocols selection screen by pressing the rectangular **Close** button in the upper right corner of the screen.
17. Exit the screen containing the Network Settings button by pressing the rectangular **Close** button in the upper right corner of the screen.
18. Finally, press the rectangular **Exit** button in the upper right corner of the four-button, System Settings screen to have the printer reboot and enable your SMB setting.

## Viewing or Configuring the SMB Host Name with Internet Services

1. Open your Web browser and enter the TCP/IP address of the Printer in the Address or Location field. Press **Enter**.
2. Click the **Properties** button or Tab.
3. Click the plus symbol (+) to the left of the **Protocol Settings** file folder.
4. Select **SMB** in the directory tree.
5. The available selections include:

A text box indicating Workgroup name.

A text box indicating the SMB Host name.

A text box indicating the Administrator name.

A text box indicating the Administrator Password.

A text box confirming the Administrator Password.

An entry box for the maximum number of connections allowed, labeled Maximum Sessions.

A TBCP Filter checkbox (displayed when PostScript is enabled).

An enabling checkbox for Auto Driver Download, enabling the Printer to push a driver to a client.

An enabling checkbox for supporting Unicode (supplying the Host name and Workgroup name in Unicode characters during SMB transmission).

An enabling checkbox for Auto Master Mode.

An enabling checkbox for Encrypt Password (during SMB transmission).

6. Either accept the default **SMB Host Name**, which is automatically built by the Printer to assure the name's uniqueness, or enter in your preferred name. Note that this will be the NetBIOS name that is resolved by the Naming Server (DNS or WINS) to an IP Address for the Printer.
7. To apply setting changes, click the **Apply New Settings** button, then click the **Reboot** button to reboot the printer. To exit without making any changes, click the **Restore Settings** button.

## DNS/WINS NetBIOS Name Resolution

To use the Printer's NetBIOS name over the TCP/IP Network, the DNS and WINS Servers **MUST** be configured for NetBIOS name to IP address resolution. Also, make sure that the Printer is informed of the addresses of the DNS/WINS Servers, using the instructions supplied under the **Configure TCP/IP Settings** procedure in the **Internet Services** section of this guide.

## To Set Up a Workstation to Print Directly to the Printer

Refer to the setup instructions supplied for **NetBIOS over IP Peer to Peer Printing** under the **Print Drivers Tab** of this guide or, if you are an EXPERIENCED SYSTEM ADMINISTRATOR, perform the following steps:

1. On NT4 workstations, verify that the **TCP/IP protocol** is installed and that it is configured for **DNS resolution** of the NetBIOS Host Name. Verify that BOTH Microsoft **TCP/IP Printing Services** and **Workstation** (SMB client) Services are installed.
2. On 95/98/Me workstations, verify that the **TCP/IP protocol** is installed and that it is configured for **DNS resolution** of the NetBIOS Host Name. Verify that the **Client for Microsoft Networks** is installed and that the workstation has a Computer (NetBIOS) Name and is a member of a Workgroup.
3. Create an **LPR port** on your NT4 Operating System. Use a Print Utility (Spooler) program to create an LPR port on the Windows 95/98/Me workstation.
4. When prompted for the "Name or address of server providing lpd" enter in the Printer's **SMB Host Name** as seen on the Printer's Settings List.
5. When prompted for a queue name, enter in your preference of an easily-identified name for this Printer.
6. Install the Print driver on your workstation and, when prompted to select a port to print through, select the LPR port that you just created.
7. Print a Test Print to verify successful communications with the printer.

### To Set Up an NT Server to Queue Jobs to the Printer

1. Make sure that the TCP/IP protocol and Microsoft TCP/IP Printing Services are enabled.
2. Install the Print Driver, select **Local Port** and create an **LPR port**.
3. When prompted for the port name, enter in the Printer's **SMB Host Name** (WINS environment), or **fully qualified domain name** (SMB Host Name.Domain Name, in a DNS environment), or **IP Address** (if static). The Queue text box can be left blank.
4. Turn on **Sharing** and enter in a Share Name that can be used by network users to identify the printer in the Server's list of available network printers.
5. To set up the individual workstations, use "Add printer," "Network Printer," and select the Server and Printer's Share Name from the list.
6. Print a Test Print to verify that you are successfully communicating with the printer through the Server.



Select another Protocol



Go on to Step 6



**Step 5 ...continued**

# Novell NetWare 4.x, 5.x (NDS) Networks

## Enable the NetWare Port at the Printer

1. Press the rectangular **Access button** on the Printer Control Panel, located directly above and slightly to the right of the numeric keypad.
2. Press the "**1**" key on the numeric keypad five consecutive times. (This is the factory default "password.")
3. Press the rectangular **Confirm button** on the touch screen.
4. Press the **System Settings button** (the right-hand button of the two buttons displayed on the touch screen). Note: If you press the left button by mistake, the Main menu will be displayed and you will have to start over at step one above.
5. Press the **System Settings button** (the top left button displayed on screen).
6. Press the **Network Settings button** (the top right button displayed on screen).
7. Press the **Port Settings button** (the left-hand button) to access the Port Settings Menu. Note: If you press the right-hand button by mistake, you will be in the Protocol Settings Menu and will have to press the Close button to return to the two-button selection screen.
8. Press the **NetWare** selection line on the Port Settings Menu screen.
9. Press the **Change Settings button** in the lower right corner of the Port Settings Menu screen.
10. When the NetWare Port Selection Menu displays, note that you have only one selection on a single, numbered horizontal line. Press this selection labeled **Port Status**.
11. Press the **Change Settings** button.
12. On the Settings screen, note which of the two square buttons is highlighted as the current setting for NetWare Port Enablement. The available settings are Enabled or Disabled. To enable NetWare at the Printer, select the Enabled setting.
13. Press the **Save** button (upper right-hand button) on the touch screen, which returns you to the NetWare Port Selection Menu.
14. Exit the NetWare Port Selection Menu and return to the Port Settings Menu by pressing the rectangular **Close** button in the upper right corner of the touch screen.
15. Exit the Port Settings Menu by pressing the rectangular **Close** button in the upper right corner of the Port Settings Menu screen.
16. Exit the Ports and Protocols selection screen by pressing the rectangular **Close** button in the upper right corner of the screen.
17. Exit the screen containing the Network Settings button by pressing the rectangular **Close** button in the upper right corner of the screen.
18. Finally, press the rectangular **Exit** button in the upper right corner of the four-button, System Settings screen to have the printer reboot and enable your NetWare setting.

## Set Up Printer Objects on the Server

1. Set up a Print Server, Print Queue, and Printer in the appropriate Context (NDS Tree) using NWADMIN or PCONSOLE. Refer to the documentation supplied by Novell ([www.novell.com](http://www.novell.com)) to complete this task.

Note: Record precisely (observe upper and lower case, dot notation etc.) the following: the **NDS Tree**, **NDS Context Name**, **frame type**, **Print Server Name**, and the **Print Server password** that was

assigned. If your printer services queues on multiple file servers, the Print Server name must be the same on all file servers and the Print Server password must be the same on all file servers.

## Configure NetWare Settings using Internet Services

1. Open your Web browser and enter the TCP/IP address of the Printer in the Address or Location field. Press **Enter**.
2. Click the **Properties** button or Tab.
3. Click the plus symbol (+) to the left of the **Protocol Settings** file folder.
4. Select **NetWare** in the directory tree.
5. The available selections include:
  - A Host Name (Print Server) Text box. (Use this name to create the Print Server on the NetWare Server.)
  - A Mode selection box for Directory (NDS) or Bindery.
  - A Primary File Server name entry box (Bindery).
  - A Language Selection box (Japanese or English).
  - An Entry box for Queue Polling Interval (1 - 1000 seconds).
  - An Entry box for SAP frequency (1 - 100 seconds, with the ability to set to zero, which is off).
  - Two Password text boxes for logging into the NetWare Server.
  - Under the NDS Subject Label there is a text box for NDS Tree, followed by one for NDS Context.
  - A Frame Selection box, with a default of Auto sensing. Other selections include Ethernet II (used when running TCP/IP on your network), Ethernet 802.3 (used for NetWare versions up to 3.11), Ethernet 802.2 (the default for NetWare 3.12 and later), and Ethernet SNAP (used on networks running TCP/IP and/or AppleTalk).
  - A display of the Printer's Network (MAC) address.
  - A Service Location Protocol Enablement box. For use with NetWare 5 and newer versions, this protocol helps to reduce service advertising network traffic.
6. Either accept the default Host Name (Print Server) or type in a new name that matches the name used on the Server.
7. Select Directory (NDS) as your Mode.
8. Enter in a polling rate for **Queue Polling Interval**.
9. Enter in a SAP (service advertising protocol) frequency, or set **SAP frequency** to zero (off).
10. Type a **Password** for the Printer to log into the NetWare Server, and type it a second time for confirmation.
11. For NetWare NDS (NetWare Directory Services), type a directory tree and context (typeful name for the Printer in the NDS environment). **Note:** Since there is no Browse function, you **MUST** manually enter in this information. For example: O=xerox.OU=engineering.
12. For Frame Selection, if in doubt, leave the setting at its Auto sensing default value.
13. Click the **Apply New Settings** button, then click the **Reboot button** to reboot the Printer and apply setting changes.



Select another Protocol



Go on to Step 6

## Step 5 ...continued

# Novell NetWare 3.1x (Bindery) Networks

### Enable the NetWare Port at the Printer

1. Press the rectangular **Access button** on the Printer Control Panel, located directly above and slightly to the right of the numeric keypad.
2. Press the "**1**" key on the numeric keypad five consecutive times. (This is the factory default "password.")
3. Press the rectangular **Confirm button** on the touch screen.
4. Press the **System Settings button** (the right-hand button of the two buttons displayed on the touch screen). Note: If you press the left button by mistake, the Main menu will be displayed and you will have to start over at step one above.
5. Press the **System Settings button** (the top left button displayed on screen).
6. Press the **Network Settings button** (the top right button displayed on screen).
7. Press the **Port Settings button** (the left-hand button) to access the Port Settings Menu. Note: If you press the right-hand button by mistake, you will be in the Protocol Settings Menu and will have to press the Close button to return to the two-button selection screen.
8. Press the **NetWare** selection line on the Port Settings Menu screen.
9. Press the **Change Settings button** in the lower right corner of the Port Settings Menu screen.
10. When the NetWare Port Selection Menu displays, note that you have only one selection on a single, numbered horizontal line. Press this selection labeled **Port Status**.
11. Press the **Change Settings** button.
12. On the Settings screen, note which of the two square buttons is highlighted as the current setting for NetWare Port Enablement. The available settings are Enabled or Disabled. To enable NetWare at the Printer, select the Enabled setting.
13. Press the **Save** button (upper right-hand button) on the touch screen, which returns you to the NetWare Port Selection Menu.
14. Exit the NetWare Port Selection Menu and return to the Port Settings Menu by pressing the rectangular **Close** button in the upper right corner of the touch screen.
15. Exit the Port Settings Menu by pressing the rectangular **Close** button in the upper right corner of the Port Settings Menu screen.
16. Exit the Ports and Protocols selection screen by pressing the rectangular **Close** button in the upper right corner of the screen.
17. Exit the screen containing the Network Settings button by pressing the rectangular **Close** button in the upper right corner of the screen.
18. Finally, press the rectangular **Exit** button in the upper right corner of the four-button, System Settings screen to have the printer reboot and enable your NetWare setting.

### Set Up a Print Server, Queue, and Name on the Primary Server

1. Set up a Print Server, Queue, and Printer Configuration on the Primary Server using PCONSOLE. Refer to the documentation supplied by Novell ([www.novell.com](http://www.novell.com)) to complete this task.  
**Note:** Record precisely (observe upper and lower case, punctuation etc.) the following: the **Primary Server name**, **Frame type** used, **Print Server name**, **Print Server password**, and the **Queue name** assigned. If your printer services queues on multiple file servers, the Print Server name must be the

same on all file servers and the Print Server password must be the same on all file servers.

Note regarding NetWare 4 (bindery): You can set up the printer on the NetWare 4 Server by performing the following steps:

1. Create a Bindery Queue
2. Create a Bindery Print Server Name
3. Assign Print Server to Queue.
4. Access Quick setup and change Printer Location from Manual Load to Auto Load (Local).
6. Continue following setup instructions for Internet Services.

## Configure NetWare Settings using Internet Services

1. Open your Web browser and enter the TCP/IP address of the Printer in the Address or Location field. Press **Enter**.
2. Click the **Properties** button or Tab.
3. Click the plus symbol (+) to the left of the **Protocol Settings** file folder.
4. Select **NetWare** in the directory tree.
5. The available selections include:

A Host Name (Print Server) Text box. Use this name in the Server setup of the Print Server using PCONSOLE.

A Mode selection box for Directory (NDS) or Bindery.

A Primary File Server name entry box (Bindery).

A Language Selection box (Japanese or English).

An Entry box for Queue Polling Interval (1 - 1000 seconds).

An Entry box for SAP frequency (1 - 100 seconds, with the ability to set to zero, which is off).

Two Password text boxes for logging into the NetWare Server.

Under the NDS Subject Label there is a text box for NDS Tree, followed by one for NDS Context.

A Frame Selection box, with a default of Auto sensing. Other selections include Ethernet II (used when running TCP/IP on your network), Ethernet 802.3 (used for NetWare versions up to 3.11), Ethernet 802.2 (the default for NetWare 3.12 and later), and Ethernet SNAP (used on networks running TCP/IP and/or AppleTalk).

A display of the Printer's Network (MAC) address.

A Service Location Protocol Enablement box. For use with NetWare 5 and newer versions, this protocol helps to reduce service advertising network traffic.

6. Either accept the default Print Server Name or type in a new name that matches the name used on the Server.
7. Select Bindery as your network Mode.
8. Provide the name of the Primary Server.
9. Enter in a polling rate for **Queue Polling Interval**.
10. Enter in a SAP (service advertising protocol) frequency, or set **SAP frequency** to zero (off).
11. Type a **Password** for the Printer to log into the NetWare Server, and type it a second time for confirmation.
12. For Frame Selection, if in doubt, leave the setting at its Auto sensing default value.
13. Click the **Apply New Settings** button, then click the **Reboot button** to reboot the Printer and apply setting changes.



Select another Protocol



Go on to Step 6

**Step 5 ...continued**

# IPP Configuration

The Internet Printing Protocol provides a convenient way to print over the Internet or Intranet using the printer's IP address. To support this type of printing, make sure that Port 9100 is enabled at the printer as stated in the Note at the bottom of the **Configure Port 9100** procedure, under the **Internet Services Tab** of this guide. Specifically, click the Port Status hot link on the Properties Tab of Internet Services and make sure that the check box on the Port 9100 line is checked. The Internet Printing Protocol must also be enabled at the printer, and the Internet Print Service must be available and installed on the individual desktop workstation's version of Windows. IPP support is already built into Windows 2000 and XP. For other desktop operating systems it is available as a download from Microsoft at [www.microsoft.com](http://www.microsoft.com). The final step is to install the IPP print driver, which is covered in this guide under the **Print Drivers Tab**.

**To access IPP Settings at the Printer**

1. Press the rectangular **Access button** on the Printer Control Panel, located directly above and slightly to the right of the numeric keypad.
2. Press the "**1**" **key** on the numeric keypad five consecutive times. (This is the factory default "password.")
3. Press the rectangular **Confirm button** on the touch screen.
4. Press the **System Settings button** (the right-hand button of the two buttons displayed on the touch screen). Note: If you press the left button by mistake, the Main menu will be displayed and you will have to start over at step one above.
5. Press the **System Settings button** (the top left button displayed on screen).
6. Press the **Network Settings button** (the top right button displayed on screen).
7. Press the **Port Settings button** (the left-hand button) to access the Port Settings Menu display. Note: If you press the right-hand button by mistake, you will be in the Protocol Settings Menu and will have to press the Close button to return to the two-button selection screen.
8. Press the **IPP** selection line on the Port Settings menu.
9. Press the **Change Settings button** in the lower right corner of the Port Settings Menu screen.
10. When the IPP Selection Menu displays, note that you have only one setting selection on a single, numbered horizontal line, with the current status of this setting shown. The Close button in the upper right corner of the screen returns you to the Port Settings Menu. After pressing the horizontal line selection, to access available settings press the Change Settings button in the lower right corner of the touch screen.

**Port Status (IPP Enablement)**

1. On the IPP Selection Menu, press the horizontal selection line labeled **Port Status**.
2. Press the **Change Settings** button.
3. On the Settings screen, note which of the two square buttons is highlighted as the current setting for IPP Enablement. The available settings are Enabled or Disabled. To print with IPP, this setting must be Enabled.
4. To change settings, press your setting of choice, then press the **Save** button (upper right-hand button) on the touch screen.
5. To exit the Settings screen, without making any changes, press the **Cancel** button (upper left-hand

button) on the touch screen.

## Exiting the IPP Selection Menu

To exit the IPP Selection Menu, which returns you to the Port Settings Menu, press the rectangular **Close** button in the upper right corner of the touch screen.

## Exiting the Port Settings Menu and returning to the Printer's Main Menu

1. To exit the Port Settings Menu, returning to the Printer's Main screen, press the rectangular **Close** button in the upper right corner of the Port Settings Menu screen.
2. Press the rectangular **Close** button in the upper right corner of the Ports and Protocols selection (two-button) screen.
3. Press the rectangular **Close** button in the upper right corner of the five-button screen containing the Network Settings button.
4. Finally, press the rectangular **Exit** button in the upper right corner of the four-button, System Settings screen.

Note: If you changed any settings in the Port Settings menu, the Printer will automatically reboot to register and enable your new settings.

## Configuring IPP Settings with Internet Services

1. Open your Web browser and enter the TCP/IP address of the Printer in the Address or Location field. Press **Enter**.
  2. Click the **Properties** button or Tab.
  3. Click the plus (+) symbol to the left of the **Protocol Settings** file folder.
  4. Select **IPP** in the directory tree.
  5. The available selections include
    - Port Number, with a default value of 631. This is the port number assigned by IANA (Internet Assigned Numbers Authority). It does not need to be changed.
    - Additional Port Number Entry box.
    - A TBCP Filter checkbox (displayed when PostScript is enabled).
    - Administrator Mode Checkbox. This is disabled by default. Consult the On-Line Help for use of this feature.
    - DNS Enablement Checkbox.
    - Timeout Entry Box.
  6. Verify that the **DNS Enablement** Checkbox is checked (enabled) by default. If enabled, the DNS Server will be available to resolve Host Names to IP Addresses, in support of printing with IPP.
  7. Enter a **Time Out** value for jobs being sent to the Printer through this Port. This is the length of time that the Controller will wait for an end of job command before printing the current job.
  8. Click the **Apply New Settings** button to accept changes, or the **Restore Settings** button to return settings to their previous values. Note: Setting changes are not applied until you restart the Printer.
-



Select another Protocol



Go on to Step 6



## Step 5 ...continued

# EtherTalk Configuration

The EtherTalk Protocol enables workstation to Printer communications over the EtherTalk (AppleTalk) network.

### To access EtherTalk Settings at the Printer

1. Press the rectangular **Access button** on the Printer Control Panel, located directly above and slightly to the right of the numeric keypad.
2. Press the "**1**" key on the numeric keypad five consecutive times. (This is the factory default "password.")
3. Press the rectangular **Confirm button** on the touch screen.
4. Press the **System Settings button** (the right-hand button of the two buttons displayed on the touch screen). Note: If you press the left button by mistake, the Main menu will be displayed and you will have to start over at step one above.
5. Press the **System Settings button** (the top left button displayed on screen).
6. Press the **Network Settings button** (the top right button displayed on screen).
7. Press the **Port Settings button** (the left-hand button) to access the Port Settings Menu. Note: If you press the right-hand button by mistake, you will be in the Protocol Settings Menu and will have to press the Close button to return to the two-button selection screen.
8. Press the **EtherTalk** selection line on the Port Settings menu.
9. Press the **Change Settings button** in the lower right corner of the Port Settings Menu screen.
10. When the EtherTalk Menu displays, note that you have only one setting selection on a single, numbered horizontal line, with the current status of this setting shown. The Close button in the upper right corner of the screen returns you to the Port Settings Menu. After pressing the horizontal line selection, to access available settings press the Change Settings button in the lower right corner of the touch screen.

### Port Status (EtherTalk Enablement)

1. On the EtherTalk Selection Menu, press the first horizontal selection line labeled **Port Status**.
2. Press the **Change Settings** button.
3. On the Settings screen, note which of the two square buttons is highlighted as the current setting for EtherTalk Enablement. The available settings are Enabled or Disabled. To print with EtherTalk, this setting must be Enabled.
4. To change settings, press your setting of choice, then press the **Save** button (upper right-hand button) on the touch screen.
5. To exit the Settings screen, without making any changes, press the **Cancel** button (upper left-hand button) on the touch screen.

### Exiting the EtherTalk Selection Menu

To exit the EtherTalk Selection Menu, which returns you to the Port Settings Menu, press the rectangular **Close** button in the upper right corner of the touch screen.

## Exiting the Port Settings Menu and returning to the Printer's Main Menu

1. To exit the Port Settings Menu, returning to the Printer's Main screen, press the rectangular **Close** button in the upper right corner of the Port Settings Menu screen.
2. Press the rectangular **Close** button in the upper right corner of the Ports and Protocols selection (two-button) screen.
3. Press the rectangular **Close** button in the upper right corner of the five-button screen containing the Network Settings button.
4. Finally, press the rectangular **Exit** button in the upper right corner of the four-button, System Settings screen.

Note: If you changed any settings in the Port Settings menu, the Printer will automatically reboot to register and enable your new settings.

## Configuring EtherTalk Settings with Internet Services

1. Open your Web browser and enter the TCP/IP address of the Printer in the Address or Location field. Press **Enter**.
2. Click the **Properties** button or Tab.
3. Click the plus (+) symbol to the left of the **Protocol Settings** file folder.
4. Select **EtherTalk** in the directory tree.
5. The available selections include:

Printer Name.

Zone Name.

6. Enter the name that you wish to assign to this Printer. This is the name that will appear in the Chooser.
7. Either accept the default zone of \* which lets the closest router assign the Printer to a zone, or assign the Printer to a zone (with a 32 character naming limit).
8. Click the **Apply New Settings** button to accept changes, or the **Restore Settings** button to return settings to their previous values.

Note: Setting changes are not applied until you restart (reboot) the Printer.





Select another Protocol




Go on to Step 6

# Help In Using this Guide

This electronic System Administrator's Guide is designed to assist you in successfully installing the Xerox WorkCentre M24 on your network.

By following the pathways indicated by the  and  buttons, you will be guided through typical installation and configuration steps.

For further reference at any time, you can access the entire SA Guide by clicking on the labeled tabs  at the top of the screen, and choosing topics from the displayed menus.

To restart the installation instructions from the beginning, select **Start Install Steps** from the sidebar at the left of your screen.

To **Print** an individual procedure, use the guide's **Tabs** and **Menus** to locate the procedure, and then use your browser's print function.

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Click here  to return to Start Page

## Install Printer Drivers

### Select your Printing Environment from this menu

[TCP/IP Peer to Peer \(LPR\) Printing D1](#)

[NetBEUI Peer to Peer Printing D6](#)

[NetBIOS over IP Peer to Peer Printing D7](#)

[NetBIOS over IP Client/Server Printing D4](#)

[IPP Printing \(Windows 2000\) D13](#)

[NetWare 3.12 and 4.x/5.x \(Bindery\) Printing  
D16](#)

[NetWare 4.xx \(NDS\) Printing D17](#)

[EtherTalk Peer to Peer Printing D8](#)

## Windows 2000 Server\Professional & XP Professional Print Driver Installation

### Before you start

Obtain the Print Driver for your workstation's operating system. Drivers are available on one of the CD-ROMs that came with your Printer. They are also typically available for downloading in self-extracting Zip file format from the Internet at [www.xerox.com](http://www.xerox.com).

### Verify that TCP/IP is installed in the workstation

On the Windows 2000 Desktop, right mouse click the **My Network Places** icon and select **Properties**. Right mouse click on the **Local Area Connection** icon and select **Properties**. On the Windows XP desktop, click **Start, Control Panel**, and double click **Network Connections**. Right mouse click on the **Local Area Connection** icon and select **Properties**. Verify that the **Internet Protocol (TCP/IP)** has been loaded. If it has, click on (highlight) this item with your mouse and click the **Properties** button to verify that this workstation is using either a dynamic or static method to obtain a valid TCP/IP address. If the TCP/IP protocol is NOT loaded, click the **Install...** button, then select **Protocol** as the type of network component that you wish to install. Click the **Add...** button and select **Internet Protocol (TCP/IP)**. With your Operating System Installer Disk readily available, click the **Have Disk...** button and follow any remaining instructions. Once the protocol has been installed, you can click on (highlight) the item with your mouse and click the Properties button to verify or set up the method being used for TCP/IP addressing.

### Verify that Print Services for Unix is installed in the workstation (see Note below)

Note: You can skip this step and proceed directly to "Adding the Printer to the Desktop," if you prefer printing through the "Standard TCP/IP Port" (Port 9100), rather than through an LPR port.

1. On the Windows 2000 desktop, from the **Start** menu, select **Settings, Control Panel**, then double-click **Add/Remove Programs**. On the Windows XP desktop, click **Start, Control Panel**, then double click **Add or Remove Programs**.
2. Select **Add/Remove Windows Components**. On Windows 2000 Professional you will need to be logged in with Administrator rights to perform this function.
3. Select **Other Network File and Print Services** and click **Details**.
4. Check the box to select **Print Services for Unix**. Click **OK** and **Next**. You will need to supply the Operating System Installer disk, when prompted. Close the Add/Remove Programs window.

## Add the Printer to the Windows 2000 or Windows XP Desktop

1. On the Windows 2000 desktop, from the **Start** menu, select **Settings**, then **Printers**. On the Windows XP desktop, from **Start**, select **Printers and Faxes**.
2. On Windows 2000, double-click **Add Printer**. On Windows XP, from **Printer Tasks**, select **Add a printer**.
3. When the "Add Printer Wizard" screen displays, click **Next**.
4. Select **Local Printer** and deselect "Automatically detect and install my Plug and Play printer." Click **Next**.
5. Select **Create a new port** and choose **LPR** from the **Type** drop-down menu. (LPR becomes available when Print Services for Unix is installed, as above). Note: If you prefer to print raw data to Port 9100 on the Printer, you can alternatively choose **Standard TCP/IP Port**. Click **Next**.
6. When the "Add a Port Wizard" displays, click **Next**.
7. Enter the **IP address** of the printer.
8. Enter a name for the print queue (such as **raw**). If you selected the Standard TCP/IP port, you can accept the default name provided by Windows. Click **Next**.
9. Review the "Port characteristics" displayed on the Port Wizard's summary screen and click **Finish**.
10. You will be prompted for a print driver. Select **Have Disk** and browse to the location of your print driver.
11. Select the **.INF** file, then click **Open**.
12. When the "Install from Disk" screen displays, verify that the path and file name are correct and click **OK**.
13. Select the model that corresponds to your Printer and click **Next**.
14. Enter a name for your Printer and select either Yes or No for making this printer your default Windows printer. Select **Yes** if you will be printing primarily to this printer from your Windows applications. Click **Next**.
15. If the Printer Sharing Screen displays in Windows 2000, select "Do not share this printer," unless the Printer is directly connected to your workstation and you wish to Share it with other network users. Click **Next**.
16. Select **Yes** to print a test page. Click **Next**.
17. Click **Finish**.

## Configure the Print Driver

1. On the Windows 2000 desktop, from the **Start** menu, select **Settings**, then **Printers**. On the Windows XP desktop, from **Start**, select **Printers and Faxes**.
2. Right click on the Printer's icon and select **Properties**. Use the available Tabs to set the Printer's job processing defaults. Additional settings may be accessed by clicking the **Printing Preferences** button on the General Tab.

## Windows NT4 Workstation/Server Print Driver Installation

### Before you start

Obtain the Print Driver for your workstation's operating system. Drivers are available on one of the CD-ROMs that came with your Printer. They are also typically available for downloading in self-extracting Zip file format from the Internet at [www.xerox.com](http://www.xerox.com).

## Verify that the TCP/IP Protocol and Printing Services are installed in the workstation

1. At the Desktop, right mouse click the **Network Neighborhood** icon and select **Properties**. Click on the **Protocols** tab and verify that the **TCP/IP** protocol has been loaded on the workstation.

Note: If the TCP/IP Protocol is not present in the Protocol list, click the **Add** button, select **TCP/IP Protocol** from the available list, and click **OK**. If the setup program fails to find the required files, you will have to click **Have Disk...** to load the protocol from the Operating System installer disk for this workstation.

2. After verifying that the TCP/IP Protocol is present, click on **TCP/IP Protocol** to highlight it, and click on the **Properties** button of the Protocols window. If using Dynamic TCP/IP Addressing, select the radio button for Obtaining an IP Address Automatically from the DHCP Server. If using Static TCP/IP Addressing, select the radio button marked Specify an IP Address, and enter in the required IP Address, Subnet Mask, and Gateway addresses for this workstation. Click **OK** when done.
3. Select the **Services** tab and verify that **Microsoft TCP/IP Printing** is loaded.

Note: If Microsoft TCP/IP Printing services are NOT loaded, click the **Add** button, select **Microsoft TCP/IP Printing** from the available list, and click **OK**. If the setup program fails to find the required files, you will have to click **Have Disk...** to load the service from the Operating System installer disk for this workstation.

## Add the Printer to the Windows NT4 Desktop

1. From the **Start** menu, select **Settings** and then **Printers**.
2. Double-click **Add Printer**.
3. Verify that **My Computer** is selected and click **Next**.
4. Click **Add Port**.
5. From the list that appears select **LPR Port**.
6. Click **New Port**.
7. Type in the IP address of the Printer for the "Name or address of server providing lpd." Type in the case-sensitive name of your Printer, or enter in the word **raw** for "Name of printer or print queue on that server." Select **OK**.
8. Select **Close**. The Wizard will return you to the previous dialog. Verify the new IP address you entered is in the list and correct.
9. The Port check box to the left of the address must be checked. If it is not, check it, then select **Next**.
10. You will be prompted for a print driver. Select **Have Disk** and browse to the location of your print drivers.
11. Select the **.INF** file, then click **Open**.
12. When the "Install from Disk" screen displays, verify that the path and file name are correct and click **OK**.
13. Select the model that corresponds to your Printer and click **Next**.
14. At the next dialog, enter a name for your Printer and select either Yes or No for making this printer your default Windows printer. Select **Yes** if you will be printing primarily to this printer from your Windows applications. Click **Next**.
15. Select **Not Shared** unless the Printer is directly connected to your workstation and you wish to share it with other network users. Click **Next**.
16. Select **Yes** to print a Test Page.
17. Select **Finish** and verify that the Test Page printed out at the Printer.

## Configure the Print Driver

1. From the **Start** menu, select **Settings** and then **Printers**.
2. Right click on the Printer's icon and select **Document Defaults**.
3. Select the correct paper size and any other default settings you wish to set for the printer.

## Windows 95/98/Me Workstation Print Driver Installation

### Before you start

Obtain the Print Driver for your workstation's operating system. Drivers are available on one of the CD-ROMs that came with your Printer. They are also typically available for downloading in self-extracting Zip file format from the Internet at [www.xerox.com](http://www.xerox.com).

### Verify that the TCP/IP Protocol is installed in the workstation

1. At the Desktop, right mouse click the Network Neighborhood icon ("My Network Places" in Windows Me).
2. Left mouse click on **Properties**.
3. Click on the **Configuration** TAB and verify that the TCP/IP Protocol has been loaded.

Note: If the TCP/IP Protocol has NOT been loaded, click the **Add** button, select **TCP/IP Protocol** from the available list and click **OK**. If the setup program fails to find the required files, you will have to click **Have Disk...** to load the protocol from the Operating System installer disk for this workstation.

4. Click on **TCP/IP Protocol** to highlight it, and click on the **Properties** button of the Configuration window.
5. If using Dynamic TCP/IP Addressing, select the radio button for Obtaining an IP Address Automatically, and supply the appropriate Server address information.
6. If using Static TCP/IP Addressing, left mouse click on the radio button marked "Specify an IP Address" to enable the manual configuration option.
7. Enter in the required IP Address, Subnet Mask, and Gateway information for this workstation. For smaller networks, the Windows default values for Subnet Mask and Default Gateway may be applicable. Check with a QUALIFIED Network Administrator for Subnet Mask and Default Gateway requirements.
8. Click **OK**.

### Add the Printer to the Windows 95/98/Me Desktop

### LPR Port Creation

Note: As the ability to create an LPR Port is not included with Windows 95/98/Me Operating Systems, in order to create an LPR Port with these Operating Systems you need to install a Print Utility (Spooler) program on your



workstation. One example of such a program is "DigiLPR." A second example is "ACITS LPR Remote Printing."

1. Install a Print Utility (Spooler) program on your workstation following the instructions that accompany the program.

Note: Depending upon the Print Utility you use, you may need to add a local printer and then "Add Port," or you may create the printer and port in one continuous installation process. Make sure to know the location of your driver files in case the Print Utility (Spooler) program calls for them. If the driver files are called for, the installation procedure will be very similar to that described below.

2. Use the Print Utility (Spooler) program to create an LPR Port on your workstation. Type in the IP address of the Printer for the "Name or address of server providing lpd." Type in the case-sensitive name of your Printer, or enter in the word **raw** for "Name of printer or print queue on that server."
3. Click the appropriate button (for example, Apply or OK) in your Print Utility (Spooler) program to save your settings and create the LPR Port.

## Driver Installation

1. On the Windows desktop, use your mouse to select "Start," "Settings," and "Printers."
2. In the "Printers" Window, double click on **Add Printer**.
3. When the "Add Printer Wizard" Introductory screen displays, click **Next**.
4. Select the **Local Printer** radio button. Click **Next**.
5. When the "Manufacturers and Printers" window displays, select **Have Disk...** and enter in the path to your driver files. Note that you can also use the **Browse** button to locate the required **.INF** file.
6. Click **OK** on the "Open" screen, if you used the Browse button.
7. Click **OK** on the "Install From Disk" screen.
8. When the "Printers" list is displayed on screen, select your Printer. Click **Next**.
9. Select the Port that you previously created for use with this driver. Click **Next**.
10. When prompted, accept the default printer name, or give your printer a more descriptive name. Select either Yes or No to make this printer your default Windows printer. Choose **Yes** if you will be printing primarily to this printer from your Windows applications. Click **Next**.
11. Select **Yes** to print a Test Page.
12. Select **Finish** and verify that the Test Page printed out at the Printer.

## Configure the Print Driver

1. From the **Start** menu, select **Settings** and then **Printers**.
2. Right click on the Printer's icon and select **Properties**.
3. Select the correct paper size and any other default settings you wish to set for the printer.

# NetBEUI Peer to Peer Printing

D6

## Windows 95/98/Me and NT4 Workstation Print Driver Installation

### Before You Start

1. Obtain the Print Driver for your workstation's operating system. Drivers are available on one of the CD-ROMs that came with your Printer. They are also typically available for downloading in self-extracting Zip file format from the Internet at [www.xerox.com](http://www.xerox.com).
2. Print a **Settings List** as stated under the **Network Connectivity Tab** of this guide.
3. On the Settings List, **verify that "SMB" is enabled**. Also, **verify that NetBEUI is enabled** as one of the supported protocols (TCP/IP may also be displayed). Verify that the **NetBEUI workgroup's default name is Workgroup**, or a valid, 15 character maximum, workgroup name. Also note the **Printer's SMB Host Name** (which assures the uniqueness of the Printer's name within the Workgroup). To enable "SMB," if required, follow the procedure stated under the Microsoft (NetBEUI) item of the NOS Selection menu, accessed from the **Network Connectivity Tab** of this guide. To modify the name of the Printer's Workgroup, or Printer's name (SMB Host name) within the workgroup, use your workstation's Web browser to access the Internet Services (Web Pages) residing in the Printer, as described under the Configure SMB menu item, under the **Internet Services Tab** of this guide.

### Verify that the NetBEUI Protocol and Services are installed in the workstation

1. At the Workstation's Desktop, right-click the **Network Neighborhood** icon ("My Network Places" in Windows Me) and select **Properties**.
2. Click the **Configuration Tab (95/98/Me)** or the **Protocols Tab (Windows NT4)** and verify that the NetBEUI protocol is loaded. If it is, click the **Identification Tab (95/98/Me/NT4)** to determine if the name of your workstation's Workgroup is the same as the name of the printer's Workgroup. If it is, you can exit the Properties screen. If it is NOT, either modify the name of the Printer's workgroup to match your own, or type in the name of the Printer's workgroup here. Click **OK**.

#### Notes:

If the NetBEUI Protocol is not present in the Protocol list, click the **Add** button, select **NetBEUI** from the available list and click **OK**. If the setup program fails to find the required files, you will have to click **Have Disk...** to load the protocol from the Operating System installer disk for this workstation.

If the Printer will be directly attached to a networked workstation, you need to enable **Sharing** on the workstation that the Printer is attached to. At the workstation sharing the Printer, right mouse click the **Network Neighborhood** icon ("My Network Places" in Windows Me) and select **Properties**. Click the **Configuration Tab (95/98/Me)** and verify that **File and Printer Sharing services** is installed. If it isn't, with your Windows installer disk available, click the **Add** button to install the required service. In Windows 95/98/Me, click the **File and Print Sharing** button and verify that the checkbox labeled "I want to be able to allow others to print to my printer(s)" is enabled (checked). In Windows 95/98/Me and NT4, from the Printers folder on the desktop, right mouse click on the Printer's icon and select **Properties (95/98/Me)** or **Document Defaults (NT4)**. Select the **Sharing Tab** and verify that sharing is enabled for this printer.

## Add the Printer to the Windows 95/98/Me & NT4 Desktop

1. From the **Start** menu, select **Settings** and then **Printers**.
2. Double click the **Add Printer** button and click **Next**.
3. When the Add Printer Wizard displays, select **Network Printer**.
4. Select **Browse** to search for the printer over the network.
5. Select the plus symbol (+) to the left of **Entire Network** to expand it if necessary.
6. Double click the name of the **WorkGroup** for the printer as shown on the Settings List. Select the **SMB Host Name** as shown on the Settings List. Click **OK**, then click **Next**.
7. You will be prompted for a print driver. Select **Have Disk...** and browse to the location of your print drivers. Select the relevant print driver (**.INF** file), then click **OK**.
8. Click **OK** on the "Install From Disk" screen, if it displays.
9. When prompted, accept the default printer name, or give your printer a more descriptive name. Select either Yes or No to make this printer your default Windows printer. Choose Yes if you will be printing primarily to this printer from your Windows applications. Click **Next**.
10. **Print a Test Page**. Verify that it prints at the Printer.
11. Click **Finish**.

## Configure the Print Driver in Windows 95/98/Me

1. From the **Start** menu, select **Settings** and then **Printers**.
2. Right click on the Printer's icon and select **Properties**.
3. Select the correct paper size and any other default settings you wish to set for the printer.

## Configure the Print Driver from Windows NT4

1. From the **Start** menu, select **Settings** and then **Printers**.
2. Right click on the Printer's icon and select **Document Defaults**.
3. Select the correct paper size and any other default settings you wish to set for the printer.

# NetBIOS over IP Peer to Peer Printing

D7

## Before You Start

1. Obtain the Print Driver for your workstation's operating system. Drivers are available on one of the CD-ROMs that came with your Printer. They are also typically available for downloading in self-extracting Zip file format from the Internet at [www.xerox.com](http://www.xerox.com).
2. Print a **Settings List** as stated under the **Network Connectivity Tab** of this guide.
3. On the Settings List, **verify that "SMB" is enabled**. Also, **verify that TCP/IP is enabled** as one of the supported protocols (NetBEUI may also be displayed). Verify that the **workgroup's default name is Workgroup**, or a valid, 15 character maximum, workgroup name. Also note the **Printer's SMB Host Name** (which assures the uniqueness of the Printer's name within the Workgroup). To enable "SMB," if required, follow the procedure stated under the Microsoft (NetBIOS over IP) item of the NOS Selection menu, accessed from the **Network Connectivity Tab** of this guide. To modify the name of the Workgroup, or Printer's name (SMB Host name) within the workgroup, use your workstation's Web browser to access the Internet Services (Web Pages) residing in the Printer, as described under the Configure SMB menu item, under the **Internet Services Tab** of this guide.
4. Make sure to configure the DNS/WINS Server(s) for NetBIOS name to IP address resolution. Then provide the Printer with the addresses of the Servers as stated in the **Configure TCP/IP Settings** procedure of the Internet Services section of this guide.

## Windows 95/98/Me Workstation Print Driver Installation

### Verify that the Correct Protocols and Services are installed in the workstation

1. At the Workstation's Desktop, right-click the **Network Neighborhood** icon ("My Network Places" in Windows Me) and select **Properties**.
2. On the **Configuration Tab**, verify that **Client for Microsoft Networks** is installed. If it is NOT, click the **Add** button, select **Client**, select **Add**, select **Client for Microsoft Networks**, and click **OK**. If the setup program fails to find the required files, you will have to click **Have Disk...** to load the client from the Operating System installer disk for this workstation.
3. On the **Configuration Tab**, verify that the TCP/IP protocol is installed. If it is NOT, click the **Add** button, select **Protocol**, select **Add**, select **TCP/IP Protocol**, and click **OK**. If the setup program fails to find the required files, you will have to click **Have Disk...** to load the protocol from the Operating System installer disk for this workstation.
4. Click the **Identification Tab** and verify that this workstation has a UNIQUE Computer Name (15 characters maximum) and is a member of a workgroup (Workgroup is the default Windows workgroup name).
5. Click the **Configuration Tab** and select (highlight) the **TCP/IP Protocol**. Click the **Properties** button and select the **NetBIOS Tab**. Verify that the checkbox labeled "I want to enable NetBIOS over TCP/IP" is checked. Next, click the **DNS Configuration Tab** and make sure that the "Enable DNS" radio button is selected. Enter in this workstation's Computer Name (from the Identification Tab) into the "Host" text

box. Enter the Domain in which this Host (Computer Name) resides into the "Domain" text box (xerox.com, for example). In the boxes provided, enter the IP address of the DNS (Domain Name Service) Server. Finally, click the **IP Address Tab** and verify that this workstation is using either a dynamic or static method to obtain a valid TCP/IP Address.

Note: If you are operating a Windows Internet Naming Service Server on an NT only network, you may wish to configure WINS instead of DNS by selecting the WINS Configuration Tab.

## Add the Printer to the Windows 95/98/Me Desktop

1. From the **Start** menu, select **Settings** and then **Printers**.
2. Double click the **Add Printer** button and click **Next**.
3. When the Add Printer Wizard displays, select **Network Printer**.
4. Select **Browse** to search for the printer's **Workgroup** over the Microsoft network.
5. Select the plus symbol (+) to the left of **Entire Network** to expand it if necessary.
6. Double click the name of the **Workgroup** for the printer as shown on the Settings List. Select the **SMB Host Name** as shown on the Settings List. Click **OK**, then click **Next**.
7. When the Manufacturers and Printers window displays, select **Have Disk...** and enter in the path to your driver files. Note that you can also use the **Browse** button to locate the required **.INF** file.
8. Click **OK** on the "Open" screen, if you used the Browse button.
9. Click **OK** on the "Install From Disk" screen.
10. When the "Printers" list is displayed on screen, select your Printer. Click **Next**.
11. When prompted, accept the default printer name, or give your printer a more descriptive name. Select either Yes or No to make this printer your default Windows printer. Choose **Yes** if you will be printing primarily to this printer from your Windows applications. Click **Next**.
12. **Print a Test Page**. Verify that it prints at the Printer.
13. Click **Finish**.

## Configure the Print Driver in Windows 95/98/Me

1. From the **Start** menu, select **Settings** and then **Printers**.
2. Right click on the Printer's icon and select **Properties**.
3. Select the correct paper size and any other default settings you wish to set for the printer.

# Windows NT4 Workstation/Server Print Driver Installation

## Verify that the Correct Protocols and Services are installed in the workstation

1. At the Desktop, right mouse click the **Network Neighborhood** icon and select **Properties**. Click on the **Protocols** tab and verify that the **TCP/IP** protocol has been installed in the workstation.  
Note: If the TCP/IP Protocol is not present in the Protocol list, click the **Add** button, select **TCP/IP Protocol** from the available list, and click **OK**. If the setup program fails to find the required files, you will have to click **Have Disk...** to load the protocol from the Operating System installer disk for this workstation.
2. After verifying that the TCP/IP Protocol is present, click on **TCP/IP Protocol** to highlight it, and click on the **Properties** button of the Protocols window. If using Dynamic TCP/IP Addressing, select the radio



button for Obtaining an IP Address Automatically from the DHCP Server. If using Static TCP/IP Addressing, select the radio button marked Specify an IP Address, and enter in the required IP Address, Subnet Mask, and Gateway addresses for this workstation. Click **OK** when done.

3. Select the **Services** tab and verify that the **Workstation** service is installed. This is the NT workstation's client for communicating on Microsoft Networks using the SMB protocol.

Note: If the Workstation service is NOT loaded, click the **Add** button, select **Workstation** from the available list, and click **OK**. If the setup program fails to find the required files, you will have to click **Have Disk...** to load the service from the Operating System installer disk for this workstation.

4. Click the **DNS Tab** and make sure that the workstation has a **Host Name** entered into the Host Name text entry box. Optionally enter in the Domain in which this Host resides into the Domain text box (xerox.com, for example). Optionally use the Add... button to enter in DNS Server IP Addresses for the DNS Service Search Order.
5. Click on the **WINS Address Tab** and verify that the "Enable DNS for Windows Resolution" checkbox is checked (the preferred method for resolving host names to IP addresses on TCP/IP networks).  
Note: If you are operating a Windows Internet Naming Service (WINS) Server on an NT only network, you might alternatively wish to deselect the "Enable DNS for Windows Resolution" checkbox and supply the IP addresses of a Primary (and Secondary, if used) WINS Server.

## Add the Printer to the Windows NT4 Desktop

1. From the **Start** menu, select **Settings** and then **Printers**.
2. Double-click **Add Printer**.
3. When the Add Printer Wizard displays, select **Network Printer**.
4. Select **Browse** to search for the printer's **Workgroup** over the Microsoft network.
5. Select the plus symbol (+) to the left of **Entire Network** to expand it if necessary.
6. Double click the name of the **Workgroup** for the printer as shown on the Settings List. Select the **SMB Host Name** as shown on the Settings List. Click **OK**, then click **Next**.
7. You will be prompted for a print driver. Select **Have Disk** and browse to the location of your print drivers.
8. Select the **.INF** file and click **Open**.
9. When the "Install from Disk" screen displays, verify that the path and file name are correct and click **OK**.
10. Select the model that corresponds to your Printer and click **Next**.
11. At the next dialog, enter a name for your Printer and select either Yes or No for making this printer your default Windows printer. Select **Yes** if you will be printing primarily to this printer from your Windows applications. Click **Next**.
12. Select **Yes** to print a Test Page.
13. Select **Finish** and verify that the Test Page printed out at the Printer.

## Configure the Print Driver

1. From the **Start** menu, select **Settings** and then **Printers**.
2. Right click on the Printer's icon and select **Document Defaults**.
3. Select the correct paper size and any other default settings you wish to set for the printer.

## An Alternate Procedure for Setting up NetBIOS over IP Peer to Peer Printing

EXPERIENCED SYSTEMS ADMINISTRATORS can use the following procedure:

1. **On NT4 workstations**, verify that the **TCP/IP protocol** is installed and that it is configured for **DNS resolution** of the NetBIOS Host Name. Verify that BOTH Microsoft **TCP/IP Printing Services** and **Workstation** (SMB client) Services are installed.
2. **On Windows 2000 and XP workstations**, from the "Properties selection" of the "Local Area Connection" icon, verify that the **Internet Protocol (TCP/IP)** is installed. Select the protocol and click **Properties**. Verify that TCP/IP is configured for use of the DNS Server. Click the **Advanced** button and select the **DNS** Tab. Verify that the checkbox labeled "Register this connection's addresses in DNS" is checked. Select the **WINS** Tab and verify that the NetBIOS setting is set to either "Use NetBIOS Setting from the DHCP Server," or that "NetBIOS is enabled over TCP/IP." Click Cancel twice and verify that the **Client for Microsoft Networks** is installed. Finally, with your Operating System Installer Disk readily available, through **Add/Remove Programs** and **Add/Remove Windows Components**, select Other Network File and Print Services. Click Details, check the box for **Print Services for Unix**, and click OK and Next.
3. **On 95/98/Me workstations**, verify that the **TCP/IP protocol** is installed and that it is configured for **DNS resolution** of the NetBIOS Host Name. Verify that the **Client for Microsoft Networks** is installed and that the workstation has a Computer (NetBIOS) Name and is a member of a Workgroup.
4. Create an **LPR port** on your NT4, Windows 2000, or Windows XP Operating System. Use a Print Utility (Spooler) program to create an LPR port on the Windows 95/98/Me workstation.
5. When prompted for the "Name or address of server providing lpd" enter in the Printer's **SMB Host Name** as seen on the Printer's Settings List.
6. When prompted for a queue name, enter in your preference of an easily-identified name for this Printer.
7. Install the Print driver on your workstation and, when prompted to select a port to print through, select the LPR port that you just created.
8. Print a Test Print to verify successful communications with the printer.

# NetBIOS over IP Client/Server Printing

D4

## Before You Start

1. Obtain the Print Driver for your workstation's operating system. Drivers are available on one of the CD-ROMs that came with your Printer. They are also typically available for downloading in self-extracting Zip file format from the Internet at [www.xerox.com](http://www.xerox.com).
2. Print a **Settings List** as stated under the **Network Connectivity Tab** of this guide.
3. On the Settings List, **verify that "SMB" is enabled**. Also, **verify that TCP/IP is enabled** as one of the supported protocols (NetBEUI may also be displayed). To enable "SMB," if required, follow the procedure stated under the Microsoft (NetBIOS over IP) item of the NOS Selection menu, accessed from the **Network Connectivity Tab** of this guide.
4. The Workstation Print Driver Installation Procedures below ASSUME that you have already **Set Up an NT Server to Queue Jobs to the Printer**. If you have NOT already set up the NT Server, for a quick-step set up procedure, refer to the instructions supplied under the selection "Microsoft (NetBIOS over IP)," located in the **NOS Selection** menu, under the **Network Connectivity Tab** of this guide.

Quick Find Printer Driver Installation for:

[Windows 95/98/Me Workstation](#)

[Windows NT4 Workstation](#)

[Windows 2000 & XP Professional Workstation](#)

## Windows 95/98/Me Workstation Print Driver Installation

### Verify that the Correct Protocols and Services are installed in the workstation

1. At the Workstation's Desktop, right-click the **Network Neighborhood** icon ("My Network Places" in Windows Me) and select **Properties**.
2. On the **Configuration Tab**, verify that **Client for Microsoft Networks** is installed. If it is NOT, click the **Add** button, select **Client**, select **Add**, select **Client for Microsoft Networks**, and click **OK**. If the setup program fails to find the required files, you will have to click **Have Disk...** to load the client from the Operating System installer disk for this workstation.
3. On the **Configuration Tab**, verify that the TCP/IP protocol is installed. If it is NOT, click the **Add** button, select **Protocol**, select **Add**, select **TCP/IP Protocol**, and click **OK**. If the setup program fails to find the required files, you will have to click **Have Disk...** to load the protocol from the Operating System installer disk for this workstation.
4. Click the **Identification Tab** and verify that this workstation has a UNIQUE Computer Name (15 characters maximum) and is a member of a workgroup (Workgroup is the default Windows workgroup name).
5. Click the **Configuration Tab** and select (highlight) the **TCP/IP Protocol**. Click the **Properties** button and select the **NetBIOS Tab**. Verify that the checkbox labeled "I want to enable NetBIOS over TCP/IP" is checked. Next, click the **DNS Configuration Tab** and make sure that the "Enable DNS" radio button is selected. Enter in this workstation's Computer Name (from the Identification Tab) into the "Host" text box. Enter the Domain that this Host (Computer Name) resides in into the "Domain" text box



(xerox.com, for example). In the boxes provided, enter the IP address of the DNS (Domain Name Service) Server. Finally, click the **IP Address Tab** and verify that this workstation is using either a dynamic or static method to obtain a valid TCP/IP Address.

Note: If you are operating a Windows Internet Naming Service Server on an NT only network, you may wish to configure WINS instead of DNS by selecting the WINS Configuration Tab.

## Add the Printer to the Windows 95/98/Me Desktop

1. From the **Start** menu, select **Settings** and then **Printers**.
2. Double click the **Add Printer** button and click **Next**.
3. When the Add Printer Wizard displays, select **Network Printer**.
4. Select **Browse** to search for the printer's **Server** over the Microsoft network.
5. Select the plus symbol (+) to the left of **Entire Network** to expand it if necessary.
6. When the Server is located, double click on the Server's name.
7. Select the name of your Printer from the list of available network printers on the Server and click the **OK** button.
8. Click **Next** to open the Manufacturers and Printers window.
9. When the Manufacturers and Printers window displays, select **Have Disk...** and enter in the path to your driver files. Note that you can also use the **Browse** button to locate the required **.INF** file.
10. Click **OK** on the "Open" screen, if you used the Browse button.
11. Click **OK** on the "Install From Disk" screen.
12. When the "Printers" list is displayed on screen, select your Printer. Click **Next**.
13. When prompted, accept the default printer name, or give your printer a more descriptive name. Select either Yes or No to make this printer your default Windows printer. Choose **Yes** if you will be printing primarily to this printer from your Windows applications. Click **Next**.
14. **Print a Test Page**. Verify that it prints at the Printer.
15. Click **Finish**.

## Configure the Print Driver in Windows 95/98/Me

1. From the **Start** menu, select **Settings** and then **Printers**.
2. Right click on the Printer's icon and select **Properties**.
3. Select the correct paper size and any other default settings you wish to set for the printer.

# Windows NT4 Workstation Print Driver Installation

## Verify that the Correct Protocols and Services are installed in the workstation

1. At the Desktop, right mouse click the **Network Neighborhood** icon and select **Properties**. Click on the **Protocols** tab and verify that the **TCP/IP** protocol has been installed in the workstation.  
Note: If the TCP/IP Protocol is not present in the Protocol list, click the **Add** button, select **TCP/IP Protocol** from the available list, and click **OK**. If the setup program fails to find the required files, you will have to click **Have Disk...** to load the protocol from the Operating System installer disk for this workstation.
2. After verifying that the TCP/IP Protocol is present, click on **TCP/IP Protocol** to highlight it, and click on the **Properties** button of the Protocols window. If using Dynamic TCP/IP Addressing, select the radio button for Obtaining an IP Address Automatically from the DHCP Server. If using Static TCP/IP

Addressing, select the radio button marked **Specify an IP Address**, and enter in the required IP Address, Subnet Mask, and Gateway addresses for this workstation. Click **OK** when done.

3. Select the **Services** tab and verify that the **Workstation** service is installed. This is the NT workstation's client for communicating on Microsoft Networks using the SMB protocol.

Note: If the Workstation service is NOT loaded, click the **Add** button, select **Workstation** from the available list, and click **OK**. If the setup program fails to find the required files, you will have to click **Have Disk...** to load the service from the Operating System installer disk for this workstation.

4. Click the **DNS Tab** and make sure that the workstation has a **Host Name** entered into the Host Name text entry box. Optionally enter in the Domain in which this Host resides into the Domain text box (xerox.com, for example). Optionally use the Add... button to enter in DNS Server IP Addresses for the DNS Service Search Order.
5. Click on the **WINS Address Tab** and verify that the "Enable DNS for Windows Resolution" checkbox is checked (the preferred method for resolving host names to IP addresses on TCP/IP networks).  
Note: If you are operating a Windows Internet Naming Service (WINS) Server on an NT only network, you might alternatively wish to deselect the "Enable DNS for Windows Resolution" checkbox and supply the IP addresses of a Primary (and Secondary, if used) WINS Server.

### Add the Printer to the Windows NT4 Desktop

1. From the **Start** menu, select **Settings** and then **Printers**.
2. Double-click **Add Printer**.
3. When the Add Printer Wizard displays, select **Network Printer**.
4. Select **Browse** to search for the printer's **Server** over the Microsoft network.
5. Select the plus symbol (+) to the left of **Entire Network** to expand it if necessary.
6. When the Server is located, double click on the Server's name.
7. Select the name of your Printer from the list of available network printers on the Server and click the **OK** button.
8. Click **Next** to open the Manufacturers and Printers window.
9. When the Manufacturers and Printers window displays, select **Have Disk** and browse to the location of your print drivers.
10. Select the **.INF** file and click **Open**.
11. When the "Install from Disk" screen displays, verify that the path and file name are correct and click **OK**.
12. Select the model that corresponds to your Printer and click **Next**.
13. At the next dialog, enter a name for your Printer and select either Yes or No for making this printer your default Windows printer. Select **Yes** if you will be printing primarily to this printer from your Windows applications. Click **Next**.
14. Select **Yes** to print a Test Page.
15. Select **Finish** and verify that the Test Page printed out at the Printer.

### Configure the Print Driver

1. From the **Start** menu, select **Settings** and then **Printers**.
2. Right click on the Printer's icon and select **Document Defaults**.
3. Select the correct paper size and any other default settings you wish to set for the printer.

# Windows 2000 & XP Professional Workstation Print

# Driver Installation

## Verify that the Correct Protocols and Services are installed in the workstation

1. Verify that the **Internet protocol (TCP/IP)** is installed in the Workstation. On the Windows 2000 Desktop, right mouse click the **My Network Places** icon and select **Properties**. Right mouse click on the **Local Area Connection** icon and select **Properties**. On the Windows XP desktop, click **Start**, **Control Panel**, and double click **Network Connections**. Right mouse click on the **Local Area Connection** icon and select **Properties**. Verify that the **Internet Protocol (TCP/IP)** has been loaded. If it has, click on (highlight) this item with your mouse and click the **Properties** button to verify that this workstation is using either a dynamic or static method to obtain a valid TCP/IP address. Also verify that this workstation is using a **DNS (or WINS) Server** for resolution of the NetBIOS Host name (typically the same name as the computer's Internet host name). If the TCP/IP protocol is NOT loaded, click the **Install...** button, then select **Protocol** as the type of network component that you wish to install. Click the **Add...** button and select **Internet Protocol (TCP/IP)**. With your Operating System Installer Disk readily available, click the **Have Disk...** button and follow any remaining instructions.
2. Verify that the **Client for Microsoft Networks** is installed in the Workstation. On the Windows 2000 Desktop, right mouse click the **My Network Places** icon and select **Properties**. Right mouse click on the **Local Area Connection** icon and select **Properties**. On the Windows XP desktop, click **Start**, **Control Panel**, and double click **Network Connections**. Right mouse click on the **Local Area Connection** icon and select **Properties**. If the Client for Microsoft Networks is NOT loaded, click the **Install...** button, then select **Client** as the type of network component that you wish to install. Click the **Add...** button and select **Client for Microsoft Networks**. With your Operating System Installer Disk readily available, click the **Have Disk...** button and follow any remaining instructions.

## Add the Printer to the Windows 2000 or Windows XP Desktop

1. On the Windows 2000 desktop, from the **Start** menu, select **Settings**, then **Printers**. On the Windows XP desktop, from **Start**, select **Printers and Faxes**.
2. On Windows 2000, double-click **Add Printer**. On Windows XP, from **Printer Tasks**, select **Add a printer**.
3. When the "Add Printer Wizard" displays, click **Next**.
4. Select **Network Printer** and click **Next**.
5. In Windows 2000, on the "Locate Your Printer" screen, select the radio button labeled "Type the printer name or click next to browse for a printer." Click **Next**.  
In Windows XP, on the "Specify a Printer" screen, select the radio button labeled "Connect to this printer (or to browse for a printer, select this option and click Next)." As a shortcut, if you know the UNC (Universal Naming Convention) of the Printer, enter it in the text box. Click **Next**.
6. When the "Browse for Printer" screen displays, wait for the screen to finish loading its list of **Shared Printers**. Note that the displayed format for many of these Shared Printers is the UNC of the Printer (for example, \\computer (i.e. Server) name\share (i.e. Printer) name).
7. On the "Browse for Printer" screen, either click on (select with your mouse) one of the displayed Servers or UNC's, or enter into the text box the UNC of your Server and its Shared printer, if you know it. Click **Next**.
8. When prompted for the driver files, select **Have Disk** and browse to the location of your print driver.
9. Select the **.INF** file, then click **Open**.
10. When the "Install from Disk" screen displays, verify the path and file name are correct and click **OK**.

11. Select the model that corresponds to your Printer and click **Next**.
12. Enter a name for your Printer and select either Yes or No for making this printer your default Windows printer. Select **Yes** if you will be printing primarily to this printer from your Windows applications. Click **Next**.
13. Select **Yes** to print a test page. Click **Next**.
14. Click **Finish**.

## Configure the Print Driver

1. On the Windows 2000 desktop, from the **Start** menu, select **Settings**, then **Printers**. On the Windows XP desktop, from **Start**, select **Printers and Faxes**.
2. Right click on the Printer's icon and select **Properties**. Use the available Tabs to set the Printer's job processing defaults. Additional settings may be accessed by clicking the **Printing Preferences** button on the General Tab.

# IPP Printing (Windows 2000 & XP)

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Note: Supported by all Windows 2000 and XP workstations, IPP (the Internet Printing Protocol) enables the convenience of printing over the Internet or Intranet through the creation of an IPP network port. This printing "service" is available for other workstation operating systems through downloads from the Microsoft web site. Follow the instructions provided by Microsoft, or other trusted sources on the Internet, to install the IPP service on operating systems other than Windows 2000 and XP.

## Before You Start

1. Obtain the Print Driver for your workstation's operating system. Drivers are available on one of the CD-ROMs that came with your Printer. They are also typically available for downloading in self-extracting Zip file format from the Internet at [www.xerox.com](http://www.xerox.com).
2. Print a **Settings List** as stated under the **Network Connectivity Tab** of this guide.
3. On the Settings List, under the TCP/IP data label, verify that the Printer has a **valid IP Address, Subnet Mask, and Gateway** displayed. If it does NOT, assign these addresses to the Printer following the procedure stated under the **TCP/IP Protocol Configuration** item of the NOS Selection menu, accessed from the **Network Connectivity Tab** of this guide.
4. On the Settings List, verify that **Port 9100** is displayed with a Port Status of **Enabled**. If it is NOT, enable Port 9100 as stated in the Note at the bottom of the **Configure Port 9100** procedure, under the **Internet Services Tab** of this guide. Specifically, click the Port Status hot link on the Properties Tab of Internet Services and make sure that the check box on the Port 9100 line is checked.
5. On the Settings List, **verify that IPP is enabled**. If it is NOT, enable the protocol following the procedure stated under the **IPP (Internet Printing Protocol)** item of the NOS Selection menu, accessed from the **Network Connectivity Tab** of this guide.
6. **Verify that IPP is using DNS** to resolve Host Names to IP Addresses in support of IPP printing. Using your workstation's Web browser, enter the TCP/IP Address of the Printer in the Address or Location field and press **Enter**. Click the **Properties** button or Tab. Click the plus (+) symbol to the left of the **Protocol Settings** file folder and **select IPP** in the directory tree. Verify that the DNS Enablement Checkbox is checked. If it is NOT checked, check it with your mouse and click **Apply**.

## Verify that TCP/IP is installed in the workstation

On the Windows 2000 Desktop, right mouse click the **My Network Places** icon and select **Properties**. Right mouse click on the **Local Area Connection** icon and select **Properties**. On the Windows XP desktop, click **Start, Control Panel**, and double click **Network Connections**. Right mouse click on the **Local Area Connection** icon and select **Properties**. Verify that the **Internet Protocol (TCP/IP)** has been loaded. If it has, click on (highlight) this item with your mouse and click the **Properties** button to verify that this workstation is using either a dynamic or static method to obtain a valid TCP/IP address. If the TCP/IP protocol is NOT loaded, click the **Install...** button, then select **Protocol** as the type of network component that you wish to install. Click the **Add...** button and select **Internet Protocol (TCP/IP)**. With your Operating System Installer Disk readily available, click the **Have Disk...** button and follow any remaining instructions. Once the protocol has been installed, you can click on (highlight) the item with your mouse and click the Properties button to verify or set up the method being used for TCP/IP addressing.

## Add the Printer to the Windows 2000 or Windows XP Desktop

1. On the Windows 2000 desktop, from the **Start** menu, select **Settings**, then **Printers**. On the Windows XP desktop, from **Start**, select **Printers and Faxes**.
2. On Windows 2000, double-click **Add Printer**. On Windows XP, from **Printer Tasks**, select **Add a printer**.
3. When the "Add Printer Wizard" displays, click **Next**.
4. Select **Network Printer** and click **Next**.
5. To create an IPP printer select **Connect to a printer on the Internet.....**
6. Type **http://** followed by the printer's fully qualified Domain name or IP address in the URL field. Note that you may have to type **/ipp** after the Printer's name or IP address. The Printer's Name can be either the Internet Host Name or the SMB Host Name as shown on the Printer's Settings List, depending on the name resolution used by your network (DNS or WINS).
7. Click **Next**.
8. When prompted for the driver files, select **Have Disk** and browse to the location of your print driver.
9. Select the **.INF** file, then click **Open**.
10. When the "Install from Disk" screen displays, verify the path and file name are correct and click **OK**.
11. Select the model that corresponds to your Printer and click **Next**.
12. Enter a name for your Printer and select either Yes or No for making this printer your default Windows printer. Select **Yes** if you will be printing primarily to this printer from your Windows applications. Click **Next**.
13. Select **Yes** to print a test page. Click **Next**.
14. Click **Finish**.

## Configure the Print Driver

1. On the Windows 2000 desktop, from the **Start** menu, select **Settings**, then **Printers**. On the Windows XP desktop, from **Start**, select **Printers and Faxes**.
2. Right click on the Printer's icon and select **Properties**. Use the available Tabs to set the Printer's job processing defaults. Additional settings may be accessed by clicking the **Printing Preferences** button on the General Tab.



# NetWare 3.12 and 4.x/5.x (Bindery) Printing

## Before You Start

1. Obtain the Print Driver for your workstation's operating system. Drivers are available on one of the CD-ROMs that came with your Printer. They are also typically available for downloading in self-extracting Zip file format from the Internet at [www.xerox.com](http://www.xerox.com).

## Windows 95/98/Me/NT4 Workstation Print Driver Installation

### Verify that the Correct Protocol and Service is installed in the workstation

1. At the Desktop, right mouse click the Network Neighborhood icon ("My Network Places" in Windows Me).
2. Left mouse click on **Properties**.
3. Click on the **Protocols** TAB (in Win. NT) or the **Configuration** TAB (in Win. 95/98/Me) to verify that the IPX/SPX Protocol has been loaded. It should appear in the displayed list.  
Note: If the IPX/SPX Protocol has NOT been loaded, click the **Add** button, select **IPX/SPX Protocol** from the available list and click **OK**. If the setup program fails to find the required files, you will have to click **Have Disk...** to load the protocol from the Operating System installer disk for this workstation.
4. Left mouse click on the **Services** TAB (in Win. NT) or the **Configuration** TAB (in Win. 95/98/Me) to verify that the Microsoft Client for NetWare is loaded.  
Note: If the Microsoft Client for NetWare is NOT loaded, click the **Add** button, select the **Microsoft Client Service (or Microsoft Network Service) for NetWare** from the available list and click **OK**. If the setup program fails to find the required files, you will have to click **Have Disk...** to load the service from the Operating System installer disk for this workstation.

### Add the Printer to the Windows 95/98/Me/NT desktop

1. On the Windows desktop, use your mouse to select "Start," "Settings," "Printers," and "Add Printer."
2. Select the **Network Printer** radio button and click **Next**.
3. When the Network directory window displays (immediately in Win. NT, or by clicking Browse in Win. 95/98/Me), double click on the network icons (or the + sign in front of the icons) to open up Network subdirectories and locate the printer's server (the primary server), then locate the printer's queue. Click on the printer's queue to highlight it and click the **OK** button.
4. Click **Next** to open the Manufacturers and Printers window.
5. When the Manufacturers and Printers window displays, select **Have Disk...** and enter in the path to your driver files. Note that you can also use the **Browse** button to locate the required **.INF** file.
6. Click **OK** on the "Open" screen, if you used the Browse button.
7. Click **OK** on the "Install From Disk" screen.
8. When the "Printers" list is displayed on screen, select your Printer. Click **Next**.
9. When prompted, accept the default printer name, or give your printer a more descriptive name. Select either Yes or No to make this printer your default Windows printer. Choose **Yes** if you will be printing primarily to this printer from your Windows applications. Click **Next**.

10. **Print a Test Page.** Verify that it prints at the Printer.
11. Click **Finish**.

### **Configure the Print Driver in Windows 95/98/Me**

1. From the **Start** menu, select **Settings** and then **Printers**.
2. Right click on the Printer's icon and select **Properties**.
3. Select the correct paper size and any other default settings you wish to set for the printer.

### **Configure the Print Driver in Windows NT4**

1. From the **Start** menu, select **Settings** and then **Printers**.
2. Right click on the Printer's icon and select **Document Defaults**.
3. Select the correct paper size and any other default settings you wish to set for the printer.

# **Windows 2000 and XP Professional Workstation Print Driver Installation**

### **Verify that the Correct Protocols and Services are installed in the workstation**

1. Verify that the **NW Link/IPX/SPX/NetBIOS Compatible Transport Protocol** is installed in the Workstation. On the Windows 2000 Desktop, right mouse click the **My Network Places** icon and select **Properties**. Right mouse click on the **Local Area Connection** icon and select **Properties**. On the Windows XP desktop, click **Start, Control Panel**, and double click **Network Connections**. Right mouse click on the **Local Area Connection** icon and select **Properties**. Verify that the Protocol has been loaded. If the protocol is NOT loaded, click the **Install...** button, then select **Protocol** as the type of network component that you wish to install. Click the **Add...** button and select **NW Link/IPX/SPX/NetBIOS Compatible Transport Protocol**. With your Operating System Installer Disk readily available, click the **Have Disk...** button and follow any remaining instructions.
2. Verify that the **Client Service for NetWare** is installed in the Workstation. On the Windows 2000 Desktop, right mouse click the **My Network Places** icon and select **Properties**. Right mouse click on the **Local Area Connection** icon and select **Properties**. On the Windows XP desktop, click **Start, Control Panel**, and double click **Network Connections**. Right mouse click on the **Local Area Connection** icon and select **Properties**. If the Client Service for NetWare is NOT loaded, click the **Install...** button, then select **Client** as the type of network component that you wish to install. Click the **Add...** button and select **Client Service for NetWare**. With your Operating System Installer Disk readily available, click the **Have Disk...** button and follow any remaining instructions.

### **Add the Printer to the Windows 2000 and XP Desktop**

1. On the Windows 2000 desktop, from the **Start** menu, select **Settings**, then **Printers**. On the Windows XP desktop, from **Start**, select **Printers and Faxes**.
2. On Windows 2000, double-click **Add Printer**. On Windows XP, from **Printer Tasks**, select **Add a printer**.
3. When the "Add Printer Wizard" displays, click **Next**.



4. Select **Network Printer** and click **Next**.
5. In Windows 2000, on the "Locate Your Printer" screen, select the radio button labeled "Type the printer name or click next to browse for a printer." Click **Next**. In Windows XP, on the "Specify a Printer" screen, select the radio button labeled "Connect to this printer (or to browse for a printer, select this option and click Next)."
6. When the "Browse for Printer" screen displays, wait for the screen to finish loading its list of Servers and Print Queues. Note: Make sure that you are browsing the NetWare network and NOT the Microsoft Windows Network.
7. On the "Browse for Printer" screen, click on (select with your mouse) your **Primary Server** and **Print Queue**. Click **Next**.
8. When prompted for the driver files, select **Have Disk** and browse to the location of your print drivers.
9. Select the **.INF** file then click **Open**.
10. When the "Install from Disk" screen displays, verify that the path and file name are correct and click **OK**.
11. Select the model that corresponds to your Printer and click **Next**.
12. Enter a name for your Printer and select either Yes or No for making this printer your default Windows printer. Select **Yes** if you will be printing primarily to this printer from your Windows applications. Click **Next**.
13. Select **Yes** to print a test page. Click **Next**.
14. Click **Finish**.

## Configure the Print Driver

1. On the Windows 2000 desktop, from the **Start** menu, select **Settings**, then **Printers**. On the Windows XP desktop, from **Start**, select **Printers and Faxes**.
2. Right click on the Printer's icon and select **Properties**. Use the available Tabs to set the Printer's job processing defaults. Additional settings may be accessed by clicking the **Printing Preferences** button on the General Tab.

# NetWare 4.xx (NDS) Printing

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## Before You Start

1. Obtain the Print Driver for your workstation's operating system. Drivers are available on one of the CD-ROMs that came with your Printer. They are also typically available for downloading in self-extracting Zip file format from the Internet at [www.xerox.com](http://www.xerox.com).

## Windows 95/98/Me/NT4 Workstation Print Driver Installation

### Verify that the Correct Protocol and Service is installed in the workstation

1. At the Desktop, right mouse click the Network Neighborhood icon ("My Network Places" in Windows Me).
2. Left mouse click on **Properties**.
3. Click on the **Protocols** Tab (in Win. NT) or the **Configuration** Tab (in Win. 95/98/Me) to verify that the IPX/SPX Protocol has been loaded. It should appear in the displayed list.  
Note: If the IPX/SPX Protocol has NOT been loaded, click the **Add** button, select **IPX/SPX Protocol** from the available list and click **OK**. If the setup program fails to find the required files, you will have to click **Have Disk...** to load the protocol from the Operating System installer disk for this workstation.
4. Left mouse click on the **Services** Tab (in Win. NT) or the **Configuration** Tab (in Win. 95/98/Me) to verify that the **Novell Client for NetWare** (such as IntranetWare Client for Windows NT or Novell Client 32) is loaded. Do NOT use the Microsoft Client for NetWare because it is NOT NDS enabled.  
Note: If the Novell Client is not loaded you will need to load the Novell Client Service from the Novell Server Install CD ROM. Get the CD ROM, insert it in your ROM drive, and use Windows Explorer to locate the Read Me file for your NetWare version. Follow the Read Me instructions to install the client. When finished with the install, unless otherwise instructed by the Read Me file, you may still have to click on the Services Tab (NT) or Configuration Tab (95/98/Me), click the Add button, select the Novell client service, and click OK.

### Add the Printer to the Windows 95/98/Me/NT desktop

1. On the Windows desktop, use your mouse to select "Start," "Settings," "Printers," and "Add Printer."
2. Select the **Network Printer** radio button and click **Next**.
3. When the Network directory window displays (immediately in Win. NT, or by clicking Browse in Win. 95/98Me), double click on the network icons (or the + sign in front of the icons) to open up the Network tree and context (country, organization, and organizational unit) to locate your printer's queue and name. Click on the printer's queue/name to highlight it and click the **OK** button.
4. Click **Next** to open the Manufacturers and Printers window.
5. When the Manufacturers and Printers window displays, select **Have Disk...** and enter in the path to your driver files. Note that you can also use the **Browse** button to locate the required **.INF** file.
6. Click **OK** on the "Open" screen, if you used the Browse button.
7. Click **OK** on the "Install From Disk" screen.
8. When the "Printers" list is displayed on screen, select your Printer. Click **Next**.

9. When prompted, accept the default printer name, or give your printer a more descriptive name. Select either Yes or No to make this printer your default Windows printer. Choose **Yes** if you will be printing primarily to this printer from your Windows applications. Click **Next**.
10. **Print a Test Page**. Verify that it prints at the Printer.
11. Click **Finish**.

## Configure the Print Driver in Windows 95/98/Me

1. From the **Start** menu, select **Settings** and then **Printers**.
2. Right click on the Printer's icon and select **Properties**.
3. Select the correct paper size and any other default settings you wish to set for the printer.

## Configure the Print Driver in Windows NT4

1. From the **Start** menu, select **Settings** and then **Printers**.
2. Right click on the Printer's icon and select **Document Defaults**.
3. Select the correct paper size and any other default settings you wish to set for the printer.

# Windows 2000 and XP Professional Workstation Print Driver Installation

## Verify that the Correct Protocols and Services are installed in the workstation

1. Verify that the **NW Link/IPX/SPX/NetBIOS Compatible Transport Protocol** is installed in the Workstation. On the Windows 2000 Desktop, right mouse click the **My Network Places** icon and select **Properties**. Right mouse click on the **Local Area Connection** icon and select **Properties**. On the Windows XP desktop, click **Start, Control Panel**, and double click **Network Connections**. Right mouse click on the **Local Area Connection** icon and select **Properties**. Verify that the Protocol has been loaded. If the protocol is NOT loaded, click the **Install...** button, then select **Protocol** as the type of network component that you wish to install. Click the **Add...** button and select **NW Link/IPX/SPX/NetBIOS Compatible Transport Protocol**. With your Operating System Installer Disk readily available, click the **Have Disk...** button and follow any remaining instructions.
2. Verify that the **Client Service for NetWare** is installed in the Workstation. On the Windows 2000 Desktop, right mouse click the **My Network Places** icon and select **Properties**. Right mouse click on the **Local Area Connection** icon and select **Properties**. On the Windows XP desktop, click **Start, Control Panel**, and double click **Network Connections**. Right mouse click on the **Local Area Connection** icon and select **Properties**. If the Client Service for NetWare is NOT loaded, click the **Install...** button, then select **Client** as the type of network component that you wish to install. Click the **Add...** button and select **Client Service for NetWare**. With your Operating System Installer Disk readily available, click the **Have Disk...** button and follow any remaining instructions.

## Add the Printer to the Windows 2000 and XP Desktop

1. On the Windows 2000 desktop, from the **Start** menu, select **Settings**, then **Printers**. On the Windows XP desktop, from **Start**, select **Printers and Faxes**.

2. On Windows 2000, double-click **Add Printer**. On Windows XP, from **Printer Tasks**, select **Add a printer**.
3. When the "Add Printer Wizard" displays, click **Next**.
4. Select **Network Printer** and click **Next**.
5. In Windows 2000, on the "Locate Your Printer" screen, select the radio button labeled "Type the printer name or click next to browse for a printer." Click **Next**. In Windows XP, on the "Specify a Printer" screen, select the radio button labeled "Connect to this printer (or to browse for a printer, select this option and click Next)."
6. When the "Browse for Printer" screen displays, wait for the screen to finish loading its list of Servers and Print Queues.
7. On the "Browse for Printer" screen, double click on the network icons (or the + sign in front of the icons) to open up the Network tree and context (country, organization, and organizational unit) to locate your printer's queue and name. Click on the printer's queue/name to highlight it. Click **Next**.
8. When prompted for the driver files, select **Have Disk** and browse to the location of your print drivers.
9. Select the **.INF** file then click **Open**.
10. When the "Install from Disk" screen displays, verify that the path and file name are correct and click **OK**.
11. Select the model that corresponds to your Printer and click **Next**.
12. Enter a name for your Printer and select either Yes or No for making this printer your default Windows printer. Select **Yes** if you will be printing primarily to this printer from your Windows applications. Click **Next**.
13. Select **Yes** to print a test page. Click **Next**.
14. Click **Finish**.

## Configure the Print Driver

1. On the Windows 2000 desktop, from the **Start** menu, select **Settings**, then **Printers**. On the Windows XP desktop, from **Start**, select **Printers and Faxes**.
2. Right click on the Printer's icon and select **Properties**. Use the available Tabs to set the Printer's job processing defaults. Additional settings may be accessed by clicking the **Printing Preferences** button on the General Tab.

# EtherTalk (AppleTalk) Peer to Peer Printing

## Before You Start

1. Obtain the Adobe PostScript Print Driver for your Macintosh (OS 9.x) workstation. Drivers are available on one of the CD-ROMs that came with your Printer. They are also typically available for downloading in self-extracting file format from the Internet at [www.xerox.com](http://www.xerox.com).
2. Print a **Settings List** as stated under the **Network Connectivity Tab** of this guide.
3. On the Settings List, under the **EtherTalk** data label, verify that the EtherTalk protocol is enabled, and that Printer has been assigned an EtherTalk name and an EtherTalk zone. If one or more of these parameters needs to be configured, follow the instructions supplied under the **EtherTalk** item of the NOS Selection menu, accessed from the **Network Connectivity Tab** of this guide.

## Install the Adobe PostScript Print Driver and PPD on your Macintosh workstation

1. Locate the Adobe PostScript Print Driver file.
2. Double click the **Adobe PS Installer** icon. Click **Continue** on the introduction screen.
3. On the licensing screen, click **Accept**.
4. Read the "Read Me" file, then click **Continue**.
5. Click **Install**.
6. When the installation completes, click **Restart** to reboot your workstation.

## Configure the PPD File

1. In the Apple **Chooser**, select the Adobe PS printer.
2. Locate your printer in the list displayed on screen.
3. Select the the printer name and the appropriate **AppleTalk zone**.
4. Click **Create** (for initial installations).
5. Click **Setup** for all subsequent installations.
6. On the PPD screen, click **Select PPD**.
7. If it is not already selected, highlight the Printer's PPD in the list and click **Select**.
8. Click **Configure** to make setting changes, if desired.
9. Click **OK**.
10. Close the **Chooser**..

## Send a Test File to the Printer to verify successful Driver installation

## Scanning to the Printer's Hard Drive

Click [Before You Start](#) to begin.

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[Setting Up Mail Boxes](#) E13

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# Before You Start

E1

To support retrieval of scanned documents from the Printer's "Mailboxes" to your workstation's desktop, **make sure that the protocol known as "Salutation" is enabled**, either from the Printer's Control Panel or through the use of Internet Services.

## Print a Settings List to verify that Salutation is enabled

1. Press the **Machine Status button**. This is the lowest of the three square buttons to the immediate left of the Control Panel's numeric keypad.
2. Press the **Billing Meter/Print Report Tab** on the Control Panel's touch screen. This is the second Tab from the left side of the screen.
3. Press the **Print Report/List button**. This is the lowest of the two buttons displayed vertically on the touch screen.
4. Press the **Copy Mode Settings button**. This is the center button in the upper row of three buttons displayed horizontally on the touch screen.
5. Press the Square (**Settings List**) **button** displayed by itself on the screen.
6. Press the large, green, **Start button**, located to the immediate right of the Control Panel's numeric keypad.
7. The printing process will be graphically displayed on the touch screen. Upon receipt of the Settings List, note that the three page print is formatted into two columns with horizontal ruled lines indicating four distinct data display areas on the print. **The first area displays System Settings. The second area displays Copy Mode Settings. The third area displays Print Mode Settings. The fourth area displays Communication Settings.** THIS IS THE AREA THAT SHOULD SHOW SALUTATION AS ENABLED.

## To enable Salutation from Internet Services, if necessary, perform the following steps:

1. From the **Printer's Settings List**, verify that **TCP/IP is enabled** and that the Printer has an IP address displayed on the Report. If it doesn't, select the Network Connectivity Tab of this guide, choose NOS Selection, and click the TCP/IP (Protocol Configuration) hot link for TCP/IP setup instructions.
2. Assuming that TCP/IP is enabled and the Printer has an assigned IP address, open your Web browser at your networked workstation and enter the **TCP/IP address of the Printer** in the Address or Location field. Press **Enter**.
3. Click the **Properties** button or Tab.
4. Click the **Port Status hot link** in the beginning list of hot links in the Directory Tree.
5. In the displayed **Table of Ports**, make sure that the check box next to **Salutation** is enabled with a check mark in the box. If it isn't, use your mouse to place a check mark in the box.
6. To have the Printer register changes made to this Table, click the rectangular **Apply New Settings** button, then click the **Reboot** button (always available on the Status Tab) to remotely reboot the Printer.

## To enable Salutation from the Printer's Control Panel, if necessary, perform the following steps:

1. Press the rectangular **Access button** on the Printer Control Panel, located directly above and slightly to the right of the numeric keypad.
2. Press the **"1" key** on the numeric keypad five consecutive times.
3. Press the rectangular **Confirm button** on the touch screen.
4. Press the **System Settings button** (the right-hand button of the two buttons displayed on the touch



screen). Note: If you press the left button by mistake, the Main menu will be displayed and you will have to start over at step one above.

5. Press the **System Settings button** (the top left button displayed on screen).
6. Press the **Network Settings button** (the top right button displayed on screen).
7. Press the **Port Settings button** (the left-hand button) to access the Port Settings Menu. Note: If you press the right-hand button by mistake, you will be in the Protocol Settings Menu and will have to press the Close button to return to the two-button selection screen.
8. Press the **Salutation** selection line on the Port Settings menu.
9. Press the **Change Settings button** in the lower right corner of the Port Settings Menu screen.
10. When the **Salutation** selection menu displays, note that you have only one setting selection on a single, numbered horizontal line, with the current status of this setting shown.
11. Press the horizontal selection line labeled **Port Status**.
12. Press the **Change Settings** button.
13. On the settings screen, note which of the two square buttons is highlighted as the current setting for Salutation enablement. The available settings are Enabled or Disabled. To support the retrieval of scanned files from the Printer's Mailboxes to individual desktops, this setting must be **Enabled**.
14. To change settings, press the setting of choice (Enabled), then press the **Save** button (upper right-hand button) on the touch screen. To exit the Settings screen, without making any changes, press the Cancel button (upper left-hand button) on the touch screen.
15. To exit the Salutation Selection Menu, which returns you to the Port Settings Menu, press the rectangular **Close** button in the upper right corner of the touch screen.
16. To exit the Port Settings Menu, press the rectangular **Close** button in the upper right corner of the Port Settings Menu screen.
17. Press the rectangular **Close** button in the upper right corner of the Ports and Protocols selection (two-button) screen.
18. Press the rectangular **Close** button in the upper right corner of the five-button screen containing the Network Settings button.
19. Finally, press the rectangular **Exit** button in the upper right corner of the four-button, system Settings screen.

Note: If you changed any settings in the Port Settings menu, the Printer will automatically reboot to register and enable your new settings.



# Setting Up Mailboxes

Note: Scanning to the Printer's hard drive requires the set up of individual Mailboxes to receive scanned files. Up to 200 Mailboxes can be set up to support this type of scanning. To set up Mailboxes, perform the following steps:

1. Press the rectangular **Access button** on the Printer Control Panel, located directly above and slightly to the right of the numeric keypad.
2. Press the "**1**" key on the numeric keypad five consecutive times.
3. Press the rectangular **Confirm button** on the Touch screen.
4. Press the **System Settings button** (the right-hand button of the two buttons displayed on the Touch screen). Note: If you press the left button by mistake, the Main menu will be displayed and you will have to start over at step one above.
5. Press the **Setup Menu** button (the center button in the top row of buttons displayed on screen).
6. Press the **Mailbox** button displayed by itself on the screen.
7. When the numbered list of horizontally displayed Mailboxes is shown on screen, use the supplied arrow keys to scroll through the list to locate an unassigned Mailbox number.
8. Select an unassigned Mailbox number from the displayed list.
9. Press the rectangular **Create & Delete** button in the lower right corner of the Mailbox selection screen.
10. When the **Assign Password** screen displays, use the **On** and **Off** buttons on the left-hand side of the screen to determine whether or not a password will be required to access the Mailbox. If **On** is selected, use the Printer's numeric keypad to enter in a numbered password.
11. Press the **Save** button to save your settings. (To exit the screen, without saving settings, press the Cancel button.)
12. When the Mailbox Settings Screen displays (after assigning a password), note that you have four setting selections displayed on four numbered horizontal lines. The available selections include: Mailbox Name, Password, Check Password, and Delete/Save Documents (upon image retrieval).
13. To assign a name to the Mailbox, press the **Mailbox Name** selection line.
14. Press the rectangular **Change Settings** button, which is the bottom of the two buttons located on the right-hand side of the screen. Note: Do NOT press the upper button as this is a Delete button used to delete the settings for this box.
15. When the keyboard displays on screen, use the vertically aligned buttons on the screen's left side to select your desired language or symbology (such as Alphanumeric, for example).
16. Use the Touch screen keyboard, in your selected language to enter in a name for your Mailbox.
17. When finished entering in a name, press the **Save** button in the upper right corner of the screen. (To exit the screen, without saving changes, press the Cancel button.)
18. On the Mailbox settings screen, press any other selection lines of interest (such as Check Password or Delete/Save Documents) and use the **Change Settings** button, as previously described, to access and make setting changes. Use the **Save** button to save your changes.
19. To exit the Mailbox settings screen, press the rectangular **Close** button in the upper right corner of the screen.
20. To exit the screen that lists all assigned and unassigned Mailboxes, press the rectangular **Close** button in the upper right corner of the screen.
21. To exit the screen displaying only the Mailbox button, press the rectangular **Close** button in the upper right corner of the screen.
22. To exit the screen containing the System Settings button, press the rectangular **Close** button in the

upper right corner of the screen.

23. The Main (Copy) Screen will now be displayed.

# Scanning to Mailboxes

E14

Note: Scanning to the Printer's hard drive requires the setup of individual Mailboxes to receive scanned files. Up to 200 Mailboxes can be set up to support this type of scanning. To learn how to set up an individual Mailbox, click **Setting Up Mailboxes** in the **Scanning to the Printer's Hard Drive** menu of this guide, and follow the instructions supplied.

To scan to a Mailbox, perform the following steps:

1. From the Printer's Main (Copy) Screen, press the right-hand corner **Menu button**.
2. On the two-button selection screen, press the right-hand **Scan/E-mail button**.
3. When the Scan Screen displays, press the **Mailbox button**, located on the left-hand side of the **Basic Scanning Tab** (the first Tab on the left of the Scan screen).
4. When the Mailbox screen displays, a number of File Folder icons will be shown. Use the supplied arrow to scroll through the icons to locate your Mailbox.
5. Select your Mailbox by pressing its icon on the Touch Screen.
6. When the **Password** Screen displays, enter your password (series of numbers) using the Printer Control Panel's numeric keypad.
7. Press the **Confirm** button on the Touch Screen.
8. Press the **Close** button in the upper right corner of the Mailbox screen.
9. When the Scan Screen displays, notice that your Mailbox number and name are now indicated in the upper left corner of the screen.
10. Scan your document and it will now be stored in your Mailbox.

# Retrieving Images from Mailboxes

E15

1. Images are retrieved from Mailboxes using the Printer's Internet Services. To access the Internet Services from your workstation, with your Internet Browser program running on your workstation enter the Printer's IP Address (as seen on the Settings List) into the Address or Location field of the browser. Press the **Enter** key on your keyboard.
2. Click the **Properties Button** on the Internet Services Main screen to access the **Properties Tab**.
3. In the **Directory Tree** on the left side of the Properties Tab screen, in the beginning list of Hot Links click the **Mailbox** hot link.
4. The screen displays Box Number (1 - 200), Password, List Order (selectable between Descending and Ascending) and offers a selection of retrieval method by pages. Enter in a box number and password, and click the rectangular, **Document List** button.
5. A list of all the scanned jobs contained in the Mailbox, will be shown on screen.
6. Use your mouse to place a check mark in the box in front of the file that you wish to retrieve.
7. After selecting individual options on this page, click the **Retrieve** button.
8. Click on the hot link (URL) provided on the next screen displayed to begin the image downloading process.

# Scan Settings Overview

E12

The following information provides an Overview of the Printer's available Scan Settings.

1. To enter the Scan mode, from the Printer's Main (Copy) Screen press the **Menu** button.
2. On the two-button selection screen, press the right-hand **Scan/E-mail** button. Note: If you press the left-hand "Copy" button by mistake you will be returned to the Main (Copy) Screen. You will then have to press the Menu button again to return to the two-button selection screen.
3. The Scan screen consists of three Tabs, with each Tab displaying a number of feature settings. From left to right, the three Tabs are labeled: **Basic Scanning**, **Scan Options**, and **Image Quality/File Format**.
4. When the **Basic Scanning Tab** is selected, three columns of settings are displayed.

The first (left-hand) column of settings contains four "Output Color" selections, including: Auto, Full Color, Grayscale (256G), and Black.

The second (center) column of settings displays four scan resolutions. The available selections include: 200 dpi, 300 dpi, 400 dpi, and 600 dpi.

The third (right-hand) column of settings displays "2 Sided Original" selections including: 1 Sided, 2 Sided (H to H), 2 Sided (H to T), and More.... If you press **More...**, a screen displays with two setting selection buttons on the left, enabling you to select either 1 Sided or 2 Sided. If you choose 1 Sided, you can select an original orientation of Head to Top, or Head to Left. If you choose 2 Sided, two additional orientation buttons (Head to Head, and Head to Toe) become available for your selection. Note: To support "2 Sided" (Duplex) Scanning you will need to use the Printer's Duplex Automatic Document Feeder.

When changing or viewing **More...** settings, press the **Save** button to save setting changes, or the **Cancel** button to exit the current screen without saving changes.

5. After an Output Color is selected from the first column of the Basic Scanning Tab, and the **Image Quality/File Format Tab** is pressed, a screen is displayed allowing you to choose and configure the settings for Original Type (Text & Photo, Text, Photo), Image Compression (High, Normal, Low), Contrast, File Format, and Auto Exposure.
  - Press the **Original Type** button to select the most effective scanning for your original image type. Options are Text & Photo, Text, and Photo.
  - Press the **File Format** button to select your scanned file format. Options are TIFF/JPEG, JPEG, DocuWorks, and PDF.
  - Press the **Lighter/Darker/Contrast** button to adjust scanned image density (lightness and darkness) and contrast. Use the supplied arrows to make the desired setting adjustments.
  - Press the **Image Compression** button to set the degree of data compression, used especially with JPEG scans. Options are High, Normal (default), and Low.
  - Press the **Auto Exposure** button to enable or disable this scanning feature with the ON or OFF buttons.

When changing or viewing settings, press the **Save** button to save setting changes, or the

**Cancel** button to exit the current screen without saving changes.

6. When the **Scan Options** is selected, two horizontal rows of three buttons each are displayed (a total of six buttons).
  - Pressing the **2 Sided Originals button** opens an Image Orientation Screen with two setting selection buttons on the left and two setting selection buttons on the right. The two left-hand buttons enable you to select either **1 Sided** or **2 Sided**. The two buttons on the right enable you to select either **Head to Top** or **Head to Left** orientation. If you select the 2 Sided button on the left side of the screen, two additional orientation buttons (Head to Head, and Head to Toe) become available for your selection. Note: To support "2 Sided" (Duplex) Scanning you will need to use the Printer's Duplex Automatic Document Feeder. When changing or viewing settings, click the right-hand, rectangular **Close** button to save setting changes, or the left-hand, rectangular **Cancel and Close** button to exit the current screen without saving changes.
  - Pressing the **Scan Size button** opens a screen with twelve image size pre-sets (including Auto Detect), and available selection arrows for setting custom sizes. When changing or viewing settings, press the **Save** button to save setting changes, or the **Cancel** button to exit the current screen without saving changes.
  - Pressing the **Mixed Size Originals button** opens a screen displaying **On** and **Off** buttons used to enable or disable the scanning of mixed size originals. When changing or viewing settings, press the **Save** button to save setting changes, or the **Cancel** button to exit the current screen without saving changes.
  - Pressing the **Reduce/Enlarge button** opens an Enlargement and Reduction Screen. A vertical row of three buttons on the screen's left-hand side enables you to select image scaling to pre-set percentages, select variable scaling to user-determined percentages, or select image scaling to pre-set page sizes (such as to A4, or 11" x 17", for example). When changing or viewing settings, press the **Save** button to save setting changes, or the **Cancel** button to exit the current screen without saving changes.
  - Pressing the **Bound Originals button** opens a Book Mode Screen with a vertical row of four selection buttons on the screen's left side.

To scan a two-page spread of a book, for example, place the open book face down on the scanner's platen and select the second button in the vertical row of displayed buttons. When the settings screen displays, use the available icons to select the type of two-page scanning that you require.

When changing or viewing settings, press the **Save** button to save setting changes, or the **Cancel** button to exit the current screen without saving changes.

- Pressing the **Border Erase button** opens a border erase, margin-setting screen. Use this screen, as shown in the displayed icons, to eliminate the scanning of unwanted marks ("noise") in the margins of scanned documents or in the gutter areas of scanned books. This feature is also sometimes referred to as "edge erase." Two vertically-aligned buttons on the left-hand side of the screen enable fixed margin selections (top button) or user-variable, margin selections (bottom button). When changing or viewing settings, press the **Save** button to save setting changes, or the **Cancel** button to exit the current screen without saving changes.

## Exiting the Scan Screen

To exit the Scan Screen and return to the Main (Copy) Screen, perform the following steps:

1. Press the **Menu** button in the upper right corner of the three-Tabbed Scan screen.
2. On the two-button Selection screen, press the left-hand **Copy** button.
3. The Main (Copy) Screen will now be displayed.

# Installing and Using the Network Scanner Utility

E16

To retrieve scanned documents directly from the Printer's mailbox(es) into an image-editing application such as Adobe® Photoshop®, you need to install the Network Scanner Utility (scan driver) on your workstation.

By installing the Network Scanner Utility on your workstation, you can additionally use an application known as Mailbox Viewer to view and import scanned files.

## Before Installing the Network Scanner Utility

Before installing the Network Scanner Utility, make sure that your workstation meets the following requirements:

- You must be running Windows 95, 98, Me, NT4, 2000, or XP. Windows NT 4.0 Server TSE (Terminal Server Edition) and Windows 2000 Server/Advanced Server Terminal Service are NOT compatible with this feature.
- Your workstation must be operating with a i486DX4/100 MHz processor or faster, have 32 MB RAM or greater, and have 40 MB or more of free hard drive space (not including space for storing scanned data).
- Your workstation must be connected to a network using the TCP/IP protocol.
- Your image-editing application must be compatible with the TWAIN interface to import scanned data.

## Installing the Network Scanner Utility

1. Insert the Driver/Network Utility (Windows) CD ROM into your workstation's ROM drive.
2. Open Windows Explorer (NOT Internet Explorer), click the drive letter for your CD ROM drive, and open **Drivers\Scan\Disk1**.
3. Double click **Setup.exe** and follow the instructions displayed on screen.

## Uninstalling the Network Scanner Utility

1. In Windows 95, 98, and Me, double click My Computer, Control Panel, then **Add/Remove Programs**. From the Windows 2000 desktop, from the Start menu, select Settings, Control Panel, then double click **Add/Remove programs**. On the Windows XP desktop, click Start, Control Panel, then double click **Add or Remove Programs**.
2. Select Fuji Xerox Network Scanner Utility, then click **Add Remove**.
3. Click **Yes**.

## Importing Scanned Data from the Mailbox to an Image-Editing Application

1. Start a TWAIN-compatible application program, such as Photoshop.
2. From the File menu, select the command for selecting the scan source (Import/Twain Source, in Photoshop).
3. Select WorkCentre M24 from the displayed list and click OK.



4. From the File menu, select the command to import the image from the scanner. In Photoshop, for example, this would be Import/Twain.
5. If the scanner doesn't automatically display on screen allowing its selection with the Select Scanner button, perform the next six steps.
6. Click Display.
7. Select Use Network.
8. Click Display other network scanners.
9. Click Add.
10. Supply the IP Address of the Scanner and a name if desired. Click OK.
11. Click OK again.
12. Select the scanner for connection from the displayed list, then click Select Scanner. Note that you could also just double click the displayed scanner's name.
13. Enter the mailbox number and password when prompted.
14. Click Open Mailbox.
15. From the displayed document list, select the document you wish to import and click Import.

### **Importing Scanned Data from the Mailbox using Mailbox Viewer**

1. On your Windows desktop, select Start\Programs\Xerox\Utility\Mailbox Viewer.
2. Select the scanner for connection from the displayed list, then click Select Scanner.
3. Enter the mailbox number and password when prompted.
4. Click Open Mailbox.
5. From the displayed document list, select the document you wish to import and click Import.

### **Changing Network Utility Settings**

Consult the on-line Help for help in changing any of the Network Utility Settings.

NOTE: Scan to E-mail and Internet Fax have similar setup procedures. The information you need to start setup, SMTP setup, and POP3 setup are common.

## Scan to E-mail



## Internet Fax

## Phone Fax


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# What is Scan to E-mail FE

## Scan to E-mail:

- enables the creation of an electronic image file by scanning an original hard copy document. The scanned image is sent as an e-mail attachment, to the specified e-mail recipient or recipients.
  - Enter a SMTP (Simple Mail Transfer Protocol) e-mail addresses for your e-mail. An SMTP compliant e-mail address format must be used. For example, anyone@anycompany.com.
  - Choose from the Address book an address that has been completed in the proper E-mail format.



Click  to continue on to Before You Start Scan to E-mail / Internet Fax:

# Before You Start FE1

## Internet Fax / Scan to E-mail

Before starting the setup:

1. Ensure the machine is fully functioning in its existing configuration.
2. Ensure the machine has access to a Network with Intranet or Internet connection, is communicating through TCP/IP, and HTTP is enabled.
3. To configure the system for Internet Fax or Scan to E-mail (SMTP or POP3) you must first obtain the following information:


Note: POP3 is required for Internet Fax.

SMTP	POP3
IP address	IP address
Subnet mask	Subnet mask
Gateway address	Gateway address
Host name	SMTP Server address
DNS server address	Machine E-mail address
DNS domain name	POP3 server address
SMTP server address	POP3 user name
Machine E-mail address	POP3 user password

Note: The device may already be configured with some of the above information. Complete a Print Report/List for Fax Mode Settings.

- A. Press **Machine Status**.
- B. Touch **Billing Meter / Print Report** tab.
- C. Touch **Print Report/List**.
- D. Touch **Fax Mode Settings**.
- E. Touch **Settings List**.
- F. Touch **Settings List - Common Items**.
- G. Press **Start**.

4. On the report check the Communications Settings. If TCP/IP is not setup please refer to Network Connectivity Tab above and setup the environment.
5. Touch **Close**, or wait one minute for report list to close.

Click  to continue on to POP3 and SMTP Setup:

# POP3 and SMTP Setup FE5

## Internet Fax / Scan to E-mail

From a Workstation (With the information you obtained in the Before You Start section):

1. Open a Web Browser and enter the TCP/IP address of the machine.
2. Select **Properties**.
3. Select **Machine Details**.
4. Enter **Machine E-mail Address**.
5. Verify Date and Time are correct.
6. Select **Apply New settings**. (Note: this requires the Admin Password.)
7. Select **Reboot** to have the new settings take effect.
8. Wait until the machine has returned to Ready to Copy.
9. Select **Port Status**.
10. Verify the following are enabled.
  - Receive E-mail
  - Send E-mail
  - Mail Notice Service
11. Select **Apply New settings**. (Note: this requires the Admin Password.)
12. Wait until the machine has returned to Ready to Copy.
13. Select the plus symbol to the left of **Protocol Settings**.
14. Select **E-mail**.
15. Fill in the appropriate information (POP3 or SMTP) based on local E-mail settings
  - Receiving protocol
    - POP3 (Required for Internet Fax)
    - SMTP
  - Print Mail Headers and Contents
    - None
    - Auto Mail Contents
    - Basic Headers and Contents
    - All Headers and Contents
  - Print iFax Headers and Contents
    - None
    - Auto Mail Contents
    - Basic Headers and Contents
    - All Headers and Contents
  - Print Error Mail
  - Split Size of Outgoing Mail (1-999)
  - POP3 Server Address
  - POP3 Server Check Interval
  - POP3 User Name
  - POP3 User Password
  - Confirm Password
  - SMTP Sending Authentication (POP3 before SMTP)
  - SMTP Server Address
16. Select **Apply New settings**. (Note: this requires the Admin Password.)
17. Select **Reboot** to have the new settings take effect.

18. Wait until the machine has returned to Ready to Copy.



to continue on to Scan to E-mail specific: ...OR... Click



to continue on to


Internet Fax specific:

# Address Book FE3

## Scan to E-mail

1. Press the **Access** button to enter System Administration Mode.
2. On the keypad enter [11111] or current password. Touch **Confirm** when finished.
3. Touch **System Settings**.
4. Touch **Setup Menu**.
5. Touch **Address Book**.
6. Select a Address Number.
7. Touch **Create/Delete**.
8. Touch **E-mail**.
9. Touch **Detailed Settings**.
10. Select the items to enter information and touch **Change Settings**.
  - E-mail Address, enter an address, up to 128 characters, then touch **Save**.
  - Recipient, up to 18 characters, then touch **Save**.
  - Index, only 1 digit (used for a quick find), then touch **Save**.
11. When complete, touch **Close** until the System Settings screen is displayed.

**Complete a Test scan. Follow the User Guide or Quick Connect Guide for instructions.**

Click  to continue on to Troubleshooting:




# Troubleshooting FE15

## Scan to E-mail

To avoid the most common mistakes, verify the following information (SMTP or POP3).

SMTP	POP3
IP address	IP address
Subnet mask	Subnet mask
Gateway address	Gateway address
Host name	SMTP Server address
DNS server address	Machine E-mail address
DNS domain name	POP3 server address
SMTP server address	POP3 user name
Machine E-mail address	POP3 user password


Click  to continue on to Scan to E-mail / Fax home page.

# What is Internet Fax FI

## Internet Fax:

- can send and receive the data that is scanned by the machine as attachments via the Intranet or Internet, unlike a facsimile that transmits the data via the telephone line.
- allows you to send documents that are scanned by the machine as attachments in the TIFF format of electronic mail.
- also allows you to receive E-mail's that are sent from machines equipped with Internet Fax.
- the feature will forward a received Internet fax to a local facsimile. This can save long distance telephone charges.




Click  to continue on to Before You Start Scan to E-mail / Internet Fax:

# What is Fax (Phone) FP

## Fax (Phone):

- works much the same as a standard facsimile machine.

Click  to continue on to Before You Start Fax (Phone):

# Before You Start FP1

## Fax (Phone)

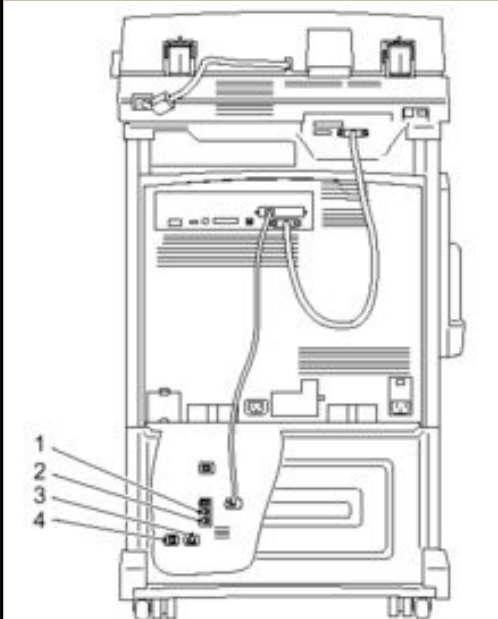
### Before starting the setup:


- You cannot use this machine with a call waiting service.
- A facsimile located close to a main unit of a cordless phone can cause distorted images or interrupted transmission. This machine should be installed at least five meters away from the main unit of the cordless phone.
- If the digital line leased for your company network is multiplexed, facsimile communication may be restricted as follows:
  - The features using our unique transmission method, such as Recipient Print Sets, Relay Broadcast and Remote Mailbox, are not available.
  - The transmission speed is limited.
  - Super G3 cannot be used.

### Communications modes:

- G3 (Auto) - Normal Fax communications, the machine automatically switches modes in the following order of priority: Unique SG3 - Unique ECM - Unique G3 - ITU-T SG3 - ITU-T ECM - ITU-TG3 depending on the capabilities of the remote terminal.
- F4800 - Select this mode when transmitting over noisy or bad telephone lines, as can be the case with overseas calls.

### Connecting the phone line:


			
	1	LINE 1	Connect the fax to a public switched telephone network (PSTN). An external telephone cannot be connected.
	2	TEL	An external telephone is connected here.
	3	LINE 2 (Line 2)	Connect to a public line.
	4	LINE 4 (Line 4)	Connect to a public line.

Click  to continue on to System Settings:

# System Settings FP1

## Fax (Phone)


1. Press the **Access** button to enter System Administration Mode.
2. On the keypad enter [11111] or current password. Touch **Confirm** when finished.
3. Touch **System Settings**.
4. Touch **System Settings**, again.
5. Touch **Fax Mode Settings**.
6. Touch **Local Terminal Information**.
7. Select the items to enter information and touch **Change Settings**.
  - Enter in a Local Name, up to 20 characters, then touch **Save**.
  - Enter a Company Logo, up to 30 characters, then touch **Save**.
  - Enter a Machine Password, up to 20 digits, then touch **Save**.
  - Enter G3 Fax ID, up to 20 digits, then touch **Save**.
  - Enter G3 Dial Type, PB or 10pps, then touch **Save**.
  - Enter G3 Line Type, PSTN or PBX, then touch **Save**.
8. When complete touch **Close** until the System Settings screen is displayed.
9. Touch **Exit**.

Click  to continue on to Address Book:

# Address Book FP3

## Fax (Phone)


1. Press the **Access** button to enter System Administration Mode.
2. On the keypad enter [11111] or current password. Touch **Confirm** when finished.
3. Touch **System Settings**.
4. Touch **Setup Menu**.
5. Touch **Address Book**.
6. Select a Address Number.
7. Touch **Create/Delete**.
8. Touch **FAX**.
9. Touch **Detailed Settings**.
10. Select the items to enter information and touch **Change Settings**.
  - Fax Number, up to 128 characters, then touch **Save**.
  - Recipient, up to 18 characters, then touch **Save**.
  - Index, only 1 digit (used for a quick find), then touch **Save**.
  - Extension/Outside Line, then touch **Save**.
  - Relay Station setup, On or Off, then touch **Save**.
  - Communication Mode, G3 Auto or F4800, then touch **Save**.
  - Resolution, Choose one, then touch **Save**.
  - Cover Note, On or Off, then touch **Save**.
    - If On select Comment (Recipient Comment) then touch **Save**.
  - Maximum Image Size, Choose one then touch **Save**.
  - Delayed Start, On or Off, then touch **Save**.
    - If On choose Start Time, then touch **Save**.
  - Remote Mailbox, On of Off.
    - If On, enter Mailbox number, then touch **Next**, and password if required.
  - F Code, On or Off
    - If On, enter F Code and password, then touch **Next**.
  - Relay Broadcast, On or Off
    - If On, enter 2 digit Relay Station ID, touch **Enter/Change Recipients**.
    - Enter Address Number or the Group Number and touch **Add**.
    - Print at Relay Station, On or Off, then Touch Save.
11. When complete touch **Close** until the System Settings screen is displayed.
12. Touch **Close** to exit System Settings.

Click  to continue on to Group Dial:

# Group Dial FP5

## Fax (Phone)

1. Press the **Access** button to enter System Administration Mode.
2. On the keypad enter [11111] or current password. Touch **Confirm** when finished.
3. Touch **System Settings**.
4. Touch **Setup Menu**.
5. Touch **Group Send**.
6. Select a Group number, using the keypad.
7. Touch **Create/Delete**.
8. Use the numeric keypad enter the three-digit Address Number, touch **Add**.
9. When complete, touch **Save**.
10. Touch **Close** until the System Settings screen is displayed.


Click  to continue on to Comment:

# Comment FP7

## Fax (Phone)

Comments for use on a Cover note:

1. Press the **Access** button to enter System Administration Mode.
2. On the keypad enter [11111] or current password. Touch **Confirm** when finished.
3. Touch **System Settings**.
4. Touch **Setup Menu**.
5. Touch **Comment**.
6. Select a Comment number.
7. Touch **Create/Delete**.
8. Enter a Comment, up to 18 characters, touch **Save**.
9. When complete, touch **Close** until the System Settings screen is displayed.

Click  to continue on to Create a Mailbox:




# Create a Mailbox FP9

## Fax (Phone)

The machine has 200 mailboxes available.

A mailbox must be created before you can use Remote Mailbox or sort received documents into mailboxes. Documents of the Mailbox Fax Receive or Private Polling are stored in the Mailbox. This is convenient for differentiating between received documents and documents to be transmitted (Private Polling). You can program a Password and a Mailbox Name and processing method for stored documents (Mailbox Options).

1. Press the **Access** button to enter System Administration Mode.
2. On the keypad enter [11111] or current password. Touch **Confirm** when finished.
3. Touch **Setup Menu**.
4. Touch **Mailbox**.
5. Select a Mailbox number.
6. Touch **Create/Delete**.
  - Password, On or Off, then touch **Save**.
    - If On enter a password, up to 20 characters, touch **Save**.
    - If Off, touch **Save**.
  - Mailbox Name, up to 10 characters, touch **Save**.
  - Check Password:
    - Save (Write) - A password is required in selecting a mailbox.
    - Print/Delete (Read) - A password is required to print and delete mailbox documents.
    - Always - A password is required for both operations described above.
  - Mailbox Options:
    - Save in Mailbox - Saves documents
    - Print - Prints documents automatically. To store Private Polling documents, set the Save button for 5. Delete/Save Documents.
    - Forward - Forwards documents to the specified recipient (one Address Number) automatically. Use the numeric keypad to enter Address Numbers.
  - Delete/Save Documents after retrieving or printing:
    - Save - Saves documents
    - Delete - Deletes documents.
7. When complete, touch **Close** until the System Settings screen is displayed.


Click  to continue on to Sort to Mailbox:

# Sort Mailbox FP11

## Fax (Phone)

Received documents are stored in the mailbox specified by the incoming line.

1. Press the **Access** button to enter System Administration Mode.
2. On the keypad enter [11111] or current password. Touch **Confirm** when finished.
3. Touch **System Settings**.
4. Touch **System Settings**, again.
5. Touch **Fax Mode Settings**.
6. Select a **Output Destination/File Destination**
7. Select **File Destination- Line Setup**.
8. Select the Line to enter, touch **Change Settings**.
9. Select, On or Off:
  - If On, enter a Mailbox number for storing documents, touch **Save**.
10. When complete, touch **Close** until the System Settings screen is displayed.
11. To Activate File Destination- Line Setup, see Fax Control Section..

Click  to continue on to Settings/Defaults:

# Settings / Defaults FP13

## Fax (Phone)

**Common Settings:** Audio Tones, Printing Priority, Reports.

1. Press the **Access** button to enter System Administration Mode.
2. On the keypad enter [11111] or current password. Touch **Confirm** when finished.
3. Touch **System Settings**.
4. Touch **System Settings**, again.
5. Touch **Common Settings**.
6. Touch **Audio Tones**.
  - Select item to change (Tone, Volume, etc...), set item, touch **Save**.
7. Touch **Close** until the Common Settings Screen is Displayed.
8. Touch **Printing Priority**.
  - Select item to change (Copy Job, Print Job, Received Fax, iFax, Promoted Job), Touch **Change Settings**.
  - Enter Priority Value.


18	Take Priority
28	Second in order of priority
38	Third in order of priority
48	No priority

- Touch **Save**.
9. Touch **Close** until the Common Settings Screen is Displayed.
  10. Touch **Reports**.
    - Select Item to Change - Current Settings:
      - Job History Report - Automatically print every 50 print operations. Default is 0=Off.
      - Activity Report - Automatically print every 100 transactions. Default is 0=Off.
      - Transmission Report-undeliver - Automatically print. Default is 0=Off.
      - Transmission Report-Canceled - Automatically print. Default is 0=Off.
      - Mailbox Documents Report - Automatically print. Default is 1=On
      - Broadcast/Multi-poll Report - Automatically print. Default is 1=On
      - Relay Broadcast Report - Automatically print. Default is 1=On (see below).
        - 0=Off
        - 1=Transmission to initiating station
        - 2=Printed on this machine
        - 3=Both
      - 2 Sided Report - Default is 0=Off.
      - Recipient on Activity Report - How many digits from other party is printed on Activity Report. - Default is 0.
        - 0=First 40 digits.
        - 1=Last 40 digits.
  11. Touch **Close** until the System Settings Screen is displayed.

**Fax Mode Settings:** Screen and Feature Defaults, Fax Control, Output Destination-Line Setup, Reduce

Enlarge Presets, Scan Size default.

1. Touch a **Fax Mode Settings**.
2. Touch **Screen Defaults**.
3. Select the Line to enter or change, touch **Change Settings**. (See [Fax Setting Defaults](#) section for values.)
  - Fax Screen Default
  - Address Book Default
  - Transmission Screen
4. Touch **Close** until Fax Mode Settings is displayed.
5. Touch **Feature Defaults**.
6. Select the Line to enter or change, touch **Change Settings**. (See [Fax Setting Defaults](#) section for values.)
  - Resolution
  - Original Type
  - Lighter/Darker
  - Mixed Size Originals
  - Communication Mode
  - Send Header
  - Transmission Report
  - iFax Profile
7. Touch **Close** until Fax Mode Settings is displayed.
8. Touch **Fax Control**.
9. Select the Line to enter or change, touch **Change Settings**. (See [Fax Setting Defaults](#) section for values.)
  - Send-Header
  - Document for Polling
  - Rotate 90
  - Sender ID
  - Transmission Interval
  - Batch Send
  - Fax Receiving Mode
  - Border Limit
  - Auto Reduce on Receipt
  - 2 up on Receipt
  - 2 sided Printing
  - Doc Feeder method
  - Reduce 8.5x11 Original to A4
  - Pseudo-Photo Gradation Mode
  - Selector - Line Setup
  - Memory Full Procedure
  - Maximum Stored Pages
10. When complete, touch **Close** until the System Settings screen is displayed.

Click  to continue on to Direct Fax:

# Unique Fax Mode Settings F199

## Screen Defaults

### 1. Fax Screen Defaults (default is 0)

Setting Value	Description
0	Basic Feature screen
1	Address Book

### 2. Address Book Default (default is 001)

Setting Value	Description
001 to 500	The recipient of the specified number is displayed first.

### 3. Transmission Screen (default is 0)

Setting Value	Description
0	Off
1	On

## Feature Defaults

### 1. Resolution (default is 0)

Setting Value	Description
0	Standard
1	Fine
2	Super-fine (400 dpi)
3	Superfine (600 dpi)

### 2. Original Type (default is 0)

Setting Value	Description
0	Text

## Fax Control

### 1. Send Header-Polling (default is 1)

Setting Value	Description
0	Off
1	On

### 2. Document for Polling (default is 0)

Setting Value	Description
0	Auto Delete Off
1	The document is automatically deleted after retrieval.

### 3. Rotate 90° (default is 1)

Setting Value	Description
0	Off
1	On

### 4. Sender ID (default is 1)

Setting Value	Description
0	Off
1	On

### 5. Transmission Interval (default is 8)

Setting Value	Description
3 to 500	Next transmission will be started after the programmed re-dial interval (seconds).

### 6. Batch Send (default is 1)

1	Photo
2	Text & Photo

**3. Lighter/Darker (default is 3)**

Setting Value	Description
0	Lighter (-3)
1	Lighter (-2)
2	Lighter (-1)
3	Normal ( 0)
4	Darker (+1)
5	Darker (+2)
6	Darker (+3)

**4. Mixed Size Originals (default is 0)**

Setting Value	Description
0	Off
1	On

**5. Communication Mode (default is 2)**

Setting Value	Description
2	G3 Auto
3	F4800

**6. Send Header (default is 1)**

Setting Value	Description
0	Off
1	On

**7. Transmission Report (default is 0)**

Setting Value	Description
0	Off

Setting Value	Description
0	Batch Send Off
1	Batch Send On

**7. Fax Receiving Mode (default is 0)**

Setting Value	Description
0	Auto Receive
1	Manual Receive

**8. Border Limit (default is 16)**

Setting Value	Description
0	No division
1 to 127	Pages are divided according to the set value.

**9. Auto Reduce on Receipt (default is 1)**

Setting Value	Description
0	Off (100%)
1	Auto Reduce

**10. 2 Up on Receipt (default is 0)**

Setting Value	Description
0	Off
1	On

**11. 2 Sided Printing (default is 0)**

Setting Value	Description
0	Off
1	On

**12. Doc. Feeder Detect Method (default is 0)**

1	On
---	----

### 8. iFax Profile (default is 0)

Setting Value	Description
0	TIFF-S
1	TIFF-F
2	TIFF-J

This item is displayed when the optional Internet Fax is available.

## Reduce/Enlarge Presets

### 1. R/E Presets 1 to 7

The default settings are as follows in order from R/E Presets:

50.0% in 3

70.7% in 7

81.6% in 8

86.6% in 9

115.4% in 10

122.5% in 11

141.4% in 13

Setting Value	Description
3	50.0%
4	57.7%
5	61.2%
6	64.7%
7	70.7%
8	81.6%
9	86.6%
10	115.4%
11	122.5%
12	129.4%
13	141.4%
14	163.2%
15	173.2%
16	200.0%
17	282.8%

Setting Value	Description
0	A/B System
1	Inch System

### 13. Reduce 8.5 x11 Original to A4 (default is 0)

Setting Value	Description
0	Same Size
1	Reduce to A4 size

### 14. Pseudo-Photo Gradation Mode (default is 0)

Setting Value	Description
0	Error Diffusion
1	Dithering

### 15. Selector - Line Setup (default is 0)

Setting Value	Description
0	Off
1	On

### 16. Memory Full Procedure (default is 0)

Setting Value	Description
0	Off (Stored documents are deleted.)
1	Stored data is intact.

### 17. Maximum Stored Pages default is 999)

Setting Value	Description
1 to 99	The number of pages that are specified can be stored.

Unique Fax settings

18	400.0%
50 to 400	50% to 400% range in 1% increments





# Direct Fax FP15

## Fax (Phone)

You can facsimile documents created in a computer program directly from your PC in the same way you would print a document. This is known as the Direct Fax.

### Recipient List

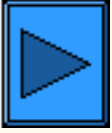
1. From the File menu of the application program, select **Print** to display the Print dialog box.
2. Check that the correct printer is selected, and then click **Properties** to display the printer properties dialog box.
3. Click the **Paper/Output** tab, then select **Fax** for Job Type. The options on the Fax tab will then be available for your selection.
4. Select the necessary settings on the Fax and other tabs, and then click **OK** to close the printer properties dialog box.
5. The Print dialog box is displayed and click **OK**.
6. On the Fax Recipient box, enter the fax recipient to Recipient List.
  - If you do not have a ready list of fax recipients, enter the respective information of each fax recipient at Name and Fax Number, then click **To**.
  - You can also enter the recipient by clicking **Import To List** to import from a fax recipient data or Look Up Phonebook to import from fax phonebook entries.
7. After the recipient has been added to Recipient List, the four buttons below it will become available.
  - Recipient Info. - Enter Name, Company, Fax #, Tel #, E-mail, and/or Memo.
  - Comm Settings. - Communications Settings
  - Delete From List - Use to delete recipient
  - Add To Phonebook - Use to add recipient
8. Click **Close**.
9. Click **OK**.
10. The Fax Job Confirmation dialog box appears. Check that the Recipient Information is correct and then click **OK** to send the fax job.
  - To cancel the job, click **Abort**.
  - If you wish to send the fax at a later time, check the check box, **Delayed Send**, and enter the required hour and minute at Time. Click **OK**.

### Direct Entry

1. From the File menu of the application program, select **Print** to display the Print dialog box.
2. Check that the correct printer is selected, and then click **Properties** to display the printer properties dialog box.
3. Click the **Paper/Output** tab, then select **Fax** for Job Type. The options on the Fax tab will then be available for your selection.
4. Select the necessary settings on the Fax and other tabs, and then click **OK** to close the printer properties dialog box.
5. The Print dialog box is displayed and click **OK**.
6. On the Fax Recipient box
  - Enter a **Name** up to 30 characters.

- Enter a **Fax Number** or **Address Number** fax recipient to Recipient List.
- Click **To**.
- Click **OK**.

Click




to continue on to Troubleshooting:

# Troubleshooting FP17

## Fax (Phone)

Telephone line connection	Check that the phone line is connected correctly.
Phone line settings	Print an "Expanded Features Settings List" to check that the dial is appropriate. Correct the settings if necessary.
Phone number of remote machine	Check the number displayed on the screen. If you are using speed dialing, print an Address Book to check the number.
An error message displayed?	Take the necessary measures described in the message.
Set to Manual Receive?	Carry out a Manual Receive operation or select Auto Receive.
Is the System Administration Mode on?	The machine cannot receive documents in the System Administration Mode. Exit the System Administration Mode.




Click  to continue on to Fax Mode Defaults:

# Address Book FI3

## Internet Fax

1. Press the **Access** button to enter System Administration Mode.
2. On the keypad enter [11111] or current password. Touch **Confirm** when finished.
3. Touch **System Settings**.
4. Touch **Setup Menu**.
5. Touch **Address Book**.
6. Select a Address Number.
7. Touch **Create/Delete**.
8. Touch **iFax**.
9. Touch **Detailed Settings**.
10. Select the items to enter information and touch **Change Settings**.
  - E-mail Address, enter a Local Name, up to 128 characters, then touch **Save**.
  - Recipient, up to 18 characters, then touch **Save**.
  - Index, only 1 digit (used for a quick find), then touch **Save**.
  - Communication Mode, G3 Auto or F4800, then touch **Save**.
  - Resolution, Choose one, then touch **Save**.
  - Maximum Image Size, Choose one then touch **Save**.
  - iFax Profile, TIFF-S, TIFF-F or TIFF-J, then touch **Save**.
11. When complete, touch **Close** until the System Settings screen is displayed.

**Complete a Test of Internet Fax. Follow the User Guide or Quick Connect Guide for instructions.**

Click  to continue on to Troubleshooting:

# Troubleshooting FI15

## Internet Fax

To avoid the most common mistakes, verify the following information (SMTP or POP3).

SMTP	POP3
IP address	IP address
Subnet mask	Subnet mask
Gateway address	Gateway address
Host name	SMTP Server address
DNS server address	Machine E-mail address
DNS domain name	POP3 server address
SMTP server address	POP3 user name
Machine E-mail address	POP3 user password

### Transmission


Items to check	Solution
Is the transmission procedure correct?	Check your sending procedure and re-send.
Is the network correctly connected?	Verify the network connection and configurations.
Is the mail address for your machine specified correctly?	<p>Check the E-mail address of the recipient as displayed on the screen.</p> <p>If you have specified your recipient with the Address Number feature (Address Book, Address Number or One Touch button), check that the correct E-mail address has been registered. If it is incorrect, make a correction.</p>
Is the profile correctly configured?	Check the type of profile supported by the machine of the recipient and re-send your data.
Are too many pages included in one transmission session?	Reduce the number of pages for one transmission and re-send them or change the settings for Split Size of Outgoing E-mail in Internet Service.
Did you try to receive an E-mail with a size exceeding the restriction of the mail server?	Large size E-mail's may not be sent or received depending on the system environment, such as the mail server limitation. Check the mail server environment.

### Receiving

Is the network correctly connected?	Verify the network connection and configurations.
-------------------------------------	---

Is the mail address for your machine specified correctly?	Check that the E-mail address of your machine (Machine Mail Address and SMTP Server Address) has been correctly set up.
Is the method for receiving E-mail appropriate for your environment?	Depending on your environment, the settings for the method of receiving E-mail's (SMTP or POP) differ. Check that the method for receiving E-mail's is appropriate for your environment.
Is the profile correct?	Inform the sender of the supported profile and request to send the data again.
Did you try to receive documents in a format that your machine cannot process?	When documents are received in a format that the machine cannot process, "Re-reception required" will appear in the Job History Report.
Did you try to receive an E-mail with a size exceeding the restriction of the mail server?	Large size E-mail's may not be sent or received depending on the system environment, such as the mail server limitation. Check the mail server environment.



Click  to continue on to Scan to E-mail / Fax home page

## Internet Services

Click [Enable HTTP](#) first, then click any item of interest.

[Enable HTTP C3](#)

[Overview N1.0](#)

[Services Tab N1.01](#)

[Jobs Tab N1.1](#)

[Status Tab N1.2](#)

[Properties Tab N1.3](#)

[Maintenance Tab N1.4](#)

[Support Tab N1.5](#)

[Setting TIFF Processing Properties N3.2](#)

[Setting PDL Emulations N3.3](#)

[Setting Ethernet Speed N5.0](#)

[Configure TCP/IP Settings N5.3](#)

[Configure LPD N5.6](#)

[Restricting Printer Access N5.8.2](#)

[Configure Port 9100 N5.9](#)

[Configure SMB N5.5](#)

[Configure NetWare Settings N5.2](#)

[Configure IPP N5.7](#)

[Configure SNMP N5.4](#)

[Modify HTTP Settings N5.8](#)

[Configure EtherTalk N5.10](#)

# Enable Internet Services (HTTP)

C3

Internet Services are a series of Web (HTML) Pages located within the Printer enabling network communication settings to be conveniently configured from a web browser running on a remotely located workstation.

For further details on the many functions provided by the Internet Services Web Pages, click on the **Internet Services Tab** on the Main Page of this System Administrator's guide.

## To access Internet Services Settings at the Printer

1. Press the rectangular **Access button** on the Printer Control Panel, located directly above and slightly to the right of the numeric keypad.
2. Press the "**1**" **key** on the numeric keypad five consecutive times. (This is the factory default "password.")
3. Press the rectangular **Confirm button** on the touch screen.
4. Press the **System Settings button** (the right-hand button of the two buttons displayed on the touch screen). Note: If you press the left button by mistake, the Main menu will be displayed and you will have to start over at step one above.
5. Press the **System Settings button** (the top left button displayed on screen).
6. Press the **Network Settings button** (the top right button displayed on screen).
7. Press the **Port Settings button** (the left-hand button) to access the Port Settings Menu display. Note: If you press the right-hand button by mistake, you will be in the Protocol Settings Menu and will have to press the Close button to return to the two-button selection screen.
8. When the Port Settings menu displays, press the down arrow key to view additional selections.
9. Press the **Internet Service** selection line on the Port Settings menu screen.
10. Press the **Change Settings** button in the lower right corner of the Port Settings Menu screen.
11. When the Internet Service Selection Menu displays, note that you have only one setting selection on a single, numbered horizontal line, with the current status of this setting shown. The Close button in the upper right corner of the screen returns you to the Port Settings Menu. After pressing the horizontal line selection, to access available settings press the Change Settings button in the lower right corner of the touch screen.

## Internet Services (HTTP) Enablement

1. On the Internet Services Selection Menu, press the horizontal selection line labeled **Port Status**.
2. Press the **Change Settings** button.
3. On the Settings screen, note which of the two square buttons is highlighted as the current setting for Internet Services Enablement. The available settings are Enabled or Disabled. In order to use Internet Services, this setting **MUST** be enabled.
4. To change settings, press your setting of choice, then click the **Save** button (upper right-hand button) on the touch screen.
5. To exit the Settings screen, without making any changes, click the **Cancel** button (upper left-hand button) on the touch screen.

## Exiting the Internet Services Selection Menu



To exit the Internet Service Selection Menu, which returns you to the Port Settings menu, press the rectangular **Close** button in the upper right corner of the touch screen.

### **Exiting the Port Settings Menu and returning to the Printer's Main Menu**

1. To exit the Port Settings Menu, returning to the Printer's Main screen, press the rectangular **Close** button in the upper right corner of the Port Settings Menu screen.
2. Press the rectangular **Close** button in the upper right corner of the Ports and Protocols selection (two-button) screen.
3. Press the rectangular **Close** button in the upper right corner of the five-button screen containing the Network Settings button.
4. Finally, press the rectangular **Exit** button in the upper right corner of the four-button, System Settings screen.

**Note:** If you changed any settings in the Port Settings menu, the Printer will automatically reboot to register and enable your new settings.

# Overview

N1.0

**Internet Services** is the embedded HTTP server application that resides in the Printer. Internet Services allows you to access Printer configuration and connectivity tools using a web browser.

To access the Printer's Internet Services from your workstation, **set your browser so that it will not try to access the Printer through a proxy server.**

With your Internet Browser program running on your workstation, enter the Printer's **IP Address** (as seen on the Settings List) into the Address or Location field of the browser. Press the **Enter** key on your keyboard.

Internet Services contains the following main menu buttons:

- **Services:** Use this feature to send print-ready jobs to the Printer. Note: The print-ready jobs must be in a file format that the Printer recognizes (PostScript files with a **.ps** file extension, for example).
- **Jobs:** Allows you to view the processed Job history list.
- **Status:** Allows you to review the status of the Printer's Trays and Consumables.
- **Properties:** Allows you to configure the Printer for job processing and network communications, as well as to download scanned jobs from the Printer to your desktop.
- **Maintenance:** Displays the Printer's error history.
- **Support:** Provides an editable, Internet hot link to an external Customer Support Site.
- **Job Templates:** Enables the creation and editing of Job Templates, used to direct scanned jobs to Network Servers.

Note: The rectangular button, containing a semi-circular arrow, is meant to be used to Refresh the current screen.

# Services Tab

**N1.01**

The Services Tab allows you to browse for print jobs, then send the print jobs directly to the Printer by clicking a **Start** button.

**Warning:** Make sure to send jobs with file formats that the Printer recognizes (PostScript files with a **.ps** file extension, for example). If jobs are sent to the printer with unrecognizable file extensions, the Printer will stall and require a reboot. After rebooting, you will have to use the Printer's Control Panel to access the print queue and delete the offending job from the queue.

# Jobs Tab

N1.1

Clicking the **Jobs Button** on the Main screen takes you to the **Jobs Tab**.

At the Jobs Tab, by clicking the plus (+) sign in front of the file folder in the directory tree, you can view the processed job "History."

If you click on the hot link labeled **Job History Report** you will see a list of jobs that have been processed from the dates indicated on the screen. The list includes jobs that have been printed, copied, and scanned.

# Status Tab

N1.2

Clicking the **Status Button** on the Main screen takes you to the **Status Tab**.

This Tab displays General information such as the Printer's name, IP Address, Product Name, and Status.

This Tab also contains a handy **Reboot button**, enabling remote rebooting of the Printer when needed.

The first file folder in the directory tree, labeled **Trays**, includes two selections: a Paper Tray and an Output Tray.

The **Paper Tray** list includes four source trays and a bypass tray (depending upon how you are equipped), and supplies the status of media in each tray, the media size, the media type, and the order of the tray to select media from.

The **Output Tray** shows the status of as many destination trays as are installed in the Printer.

The second file folder in the directory tree displays the status of **Consumables**, including:

- Drum Cartridge, also known as the Photoreceptor, with status information shown for Cyan, Magenta, Yellow, and Black.
- Waste Toner Container.
- Toner Cartridge, with status information shown for Cyan, Magenta, Yellow, and Black.
- Fuser.
- Transfer Belt Cleaner.
- 2<sup>nd</sup> Bias Transfer Roll.
- Transfer Belt.

# Properties Tab

N1.3

Clicking the **Properties Button** on the Main screen takes you to the **Properties Tab**.

This Tab allows you to configure the Printer's numerous job processing and network communications settings, as well as to download scanned jobs from the Printer to your desktop.

The **Directory Tree** on the left side of the screen begins with a list of **hot links**, followed by **three file folders**, and concludes with **one last hot link**.

## The Beginning List of Hot Links in the Directory Tree includes:

1. The **Machine Details** hot link displays basic Printer identification information and enables the setting of Date and Time.
2. The **Configuration** hot link provides coverage of such subjects as Memory allocation; available Page Description Languages and their version numbers; Firmware versions for the Controller and Printer; Hard Drive partition information; and Hardware information (indicating the availability of the Ethernet Port and Hard Drive, for example).
3. The **Counters** hot link displays a tally of the total number of printed pages.
4. The **Paper Tray Attributes** hot link provides a display of the available Trays (including bypass), their media settings, and tray selection order. To have the Printer register changes made to any settings, click the rectangular Apply New Settings button.
5. The **Paper Settings** hot link displays Paper Settings, which can be manipulated and set for installed trays, per the Printer's User Guide. To have the Printer register changes made to any settings, click the rectangular Apply New Settings button.
6. The **Power Saver Settings** hot link displays the settings for low power mode and sleep mode. Low Power Mode is selectable from 6 to 240 minutes. Sleep Mode is selectable from 15 to 240 minutes. To have the Printer register changes made to any settings, click the rectangular Apply New Settings button.
7. The **Mailbox** hot link provides Mailbox information that is directly related to Scanning to the Printer's Hard Drive. The screen displays Box Number (1 - 200), Password, List Order (selectable between Descending and Ascending) and offers a selection of retrieval method by pages. By entering in a box number and password, and clicking the rectangular button, a list of all the scanned jobs contained in the Mailbox, is shown.  
**Note:** Mailboxes and Passwords are assigned individually at the Printer's User Interface (Control Panel) ONLY. Fax jobs will also be displayed if the Printer has been equipped with the optional fax module.  
**Downloading Scanned Jobs to your Desktop:** After selecting individual options on this page, by clicking the **Retrieve** button, you can download your scanned job from the Printer's Mailbox to your workstation. Click on the hot link (URL) provided on the next screen displayed to begin the downloading process.
8. **Auditron Settings** provides a checkbox to enable the use of this device in a User Account environment.
9. The **Internet Services settings** hot link displays such Internet Services settings as the Refresh Cycle in seconds, Administrator Mode, Administrator Name, and Administrator Password. To have the Printer register changes made to any settings, click the rectangular Apply New Settings button.
10. The **Port Status** hot link displays a Table of Ports and check boxes to enable or disable same. Note that if any selections, such as Port 9100 for example, are unavailable for setting using the Printer's Control Panel, they can be set here. To have the Printer register changes made to any settings on this

Table, click the rectangular **Apply New Settings** button, then click the **Reboot** button (always available on the Status Tab) to remotely reboot the Printer.

Note: It is possible to have additional hot links displayed in this beginning hot links list in the Properties Tab directory. For example, if "Mail Notice" is selected in the Table of Ports (through the Port Status hot link), and the Printer is restarted, a hot link will be displayed in the list for configuring individual notification that the Printer has just printed incoming e-mail. Note that the ability to print incoming e-mail is set from the E-mail hot link in the Protocol Settings file folder of the directory tree.

## The Three Folders of the Directory Tree

1. The first File Folder in the Properties Tab directory tree, labeled **Port Settings**, contains Ethernet and Parallel Port hot links. Note that TokenRing requires the installation of a separate kit to be supported. Click on the **Ethernet** hot link to view or change Ethernet **speed settings** from a drop-down selection list. Selections include: Autosensing, 10 Base-T, and 100 Base-TX. To have the Printer register changes made to any settings, click the rectangular Apply New Settings button. Click on the **Parallel** hot link to view or change the enablement settings for **Bi-Directional Communications** (a check box) and **Parallel Port Timeout** (Auto Eject Time), with a range of 5 to 1275 seconds. To have the Printer register changes made to any settings, click the rectangular Apply New Settings button.
2. The second File Folder in the Properties Tab directory tree, labeled **Protocol Settings**, contains a list of hot links for viewing or modifying the settings for the Protocols supported by the Printer. To have the Printer register changes made to any settings, click the rectangular Apply New Settings button.
3. The third File folder in the Properties Tab directory tree, labeled **Emulation Settings**, contains a hot link labeled **Print Mode**, and several Page Description Language links. Click on the **Print Mode** hot link to set the Page Description Language emulation used by the Printer's Input Ports displayed on the screen. Depending upon the Ports enabled at the Printer, the list of Ports will include: Parallel, AppleTalk (with PostScript), SMB, NetWare, LPD, IPP and Port 9100. Typical Page Description selections for each Port include: Autoselect, PostScript, HP-GL/2, PCL, and TIFF. To have the Printer register changes made to any settings, click the rectangular Apply New Settings button. Click on a Page Description Language hot link and the **Edit** button to access the Printer's default preferences for processing that Page Description Language. To have the Printer register changes made to any settings, click the rectangular Apply New Settings button.

## The Last Hot Link in the Directory Tree

The last hot link in the Properties Tab directory, labeled **Memory Settings**, enables the viewing or changing of the amount of memory allocated on the hard drive for spooling incoming jobs into buffers dedicated to specific protocols. To have the Printer register changes made to any settings, click the rectangular Apply New Settings button.

Note: When making setting changes, you may be prompted for the Administrator password.

# Maintenance Tab

N1.4

Clicking the **Maintenance Button** on the Main screen takes you to the **Maintenance Tab**. There is only one item in this Tab's Directory Tree, which when clicked displays an Error History Report.



# Support Tab

N1.5

Clicking the **Support Button** on the Main screen takes you to the **Support Tab**, which displays a hot link (a URL). Clicking on the URL takes you to an external web site providing additional Customer support. Note that if you click the rectangular button labeled **Change Settings**, it is possible to change the URL used to supply additional Customer support. To have the Printer register changes made to any settings, click the rectangular **Apply New Settings** button.

# Setting TIFF (and other PDL) Processing Properties

## N3.2

To set the Printer's default TIFF, PostScript, PCL, or HP-GL/2 processing properties, perform the following steps:

1. Open your Web browser and enter the TCP/IP address of the Printer in the Address or Location field. Press **Enter**.
2. Click the **Properties** button or Tab.
3. Click the third File folder in the Properties Tab directory tree, labeled **Emulation Settings**.
4. Click on the **TIFF**, or **PostScript**, or **PCL**, or **HP-GL/2** hot link to access the Printer's list of default settings for processing the selected Page Description Language.
5. Select a Printer number and click the **Edit** button on the right side of the selection box to access a list of numerous processing settings.
6. Click the rectangular **Apply New Settings** button to have the printer register changes made to any settings. To return settings to their previous values, without making changes, click the **Restore Settings** button.

# Setting PDL Emulations

N3.3

To set the PDL (Page Description Language) Emulations, used by the Printer's Input Ports, perform the following steps:

1. Open your Web browser and enter the TCP/IP address of the Printer in the Address or Location field. Press **Enter**.
2. Click the **Properties** button or Tab.
3. Click the third File folder in the Properties Tab directory tree, labeled **Emulation Settings**.
4. Click on the **Print Mode** hot link to access a List of the Printer's Input Ports, displaying the Page Description Language emulations they are currently using.
5. Depending upon the Ports enabled at the Printer, the list of displayed Ports includes: Parallel, AppleTalk (with PostScript), SMB, NetWare, LPD, IPP and Port 9100. Typical Page Description selections for each Port include: Autoselect, PostScript, HP-GL/2, PCL and TIFF.
6. Make your required setting changes, and click the rectangular **Apply New Settings** button to have the printer register the changes. To return settings to their previous values, without making changes, click the **Restore Settings** button.

# Set the Ethernet Speed

N5.0

1. Open your Web browser and enter the TCP/IP address of the Printer in the Address or Location field. Press **Enter**.
2. Click the **Properties** button or Tab.
3. Click the first file folder in the Directory Tree labeled **Port Settings**.
4. Click the **Ethernet** hot link.
5. Select your network speed from the drop-down list.
6. Click the **Apply New Settings button** to accept the changes, or the **Restore Settings button** to return the settings to their previous values.

NOTE: Changes to settings are not applied until you restart the Printer. A remote **Reboot** button is available on the **Status Tab** of Internet Services.

# Configure TCP/IP Settings

N5.3

1. Open your Web browser and enter the TCP/IP address of the Printer in the Address or Location field. Press **Enter**.
2. Click the **Properties** button or Tab.
3. Click the plus symbol (+) to the left of the **Protocol Settings** file folder.
4. Select **TCP/IP** in the directory tree.
5. Review the available selections as displayed on your screen and explained in the **TCP/IP Configuration Selection List**, below.
6. Accept the default Host Name, or type in your own unique Host Name for this Printer.
7. Select the desired method for obtaining an IP Address.
8. If **Manual** is selected, type in the addresses that apply for **IP Address**, **Subnet Mask**, and **Gateway**.

NOTE: If DHCP or BOOTP addressing method is selected, you cannot manually change the IP Address, Subnet Mask, or Gateway. Select **Manual** if you wish to manually enter in these addresses.

CAUTION: Changing the IP address for the Printer will affect NetBIOS/IP, LPR/LPD, FTP, SNMP, and Port 9100 printing. It will also interrupt the ability to communicate with the printer using the Internet Services (series of web pages on the Printer). When you change the Printer's IP Address, make sure to print out a **Settings List** (as stated in this guide) so that you have a record of the TCP/IP addresses for use with workstations that need to communicate with the Printer using TCP/IP.

DHCP TIP: When using DHCP, set a reasonably long Lease Time for the IP Address so that the Printer can be restarted, as required when changing operating parameters, without being continuously assigned a new IP Address.

9. Determine the method to use to supply the DNS Server IP Addresses (to resolve Host Names with IP Addresses).
10. Determine whether or not Dynamic DNS should be enabled.
11. Determine the method to use to supply the SMTP Server IP Address.
12. Determine the method to use to supply the WINS Server IP Address (to resolve Host Names with IP Addresses exclusively in an NT environment).
13. Determine whether or not IP Filter should be enabled (to restrict access to the Printer). For more information, see Restricting Printer Access in this guide.
14. When finished modifying settings, click the **Apply New Settings** button. To exit the settings screen without making changes, click the **Restore Settings** button.

Note: Changes to TCP/IP settings will not be applied until you restart the Printer. A remote **Reboot** button is available on the **Status Tab** of Internet Services.

## TCP/IP Configuration Selection List

As displayed on your screen, the following selections are available for TCP/IP Configuration.

## Under the TCP/IP Subject Label

Host Name. The default entry assures a name that is unique to this device on the network.

Get IP Address. Use this drop-down menu to select the method to use to assign IP Addresses. Select Manual, DHCP, RARP, or BOOTP.

IP Address entry box. To be filled in manually when Manual addressing is selected.

Subnet Mask entry box. To be filled in manually when Manual addressing is selected.

Gateway entry box. To be filled in manually when Manual addressing is selected.

## Under the DNS Subject Label

Get DNS Address check box. If enabled with a check mark, the Printer will contact the DHCP Server for the IP Addresses of up to three DNS Servers. If unchecked, this information must be entered manually. Three DNS Address boxes are supplied for the manual entry of DNS Server addresses.

DNS Name. A text entry box is supplied for the entry of a DNS Domain Name.

Generate Domain Search List Automatically. A check box is provided for enabling automatic Domain searches.

Domain Names 1,2,3. Three text boxes are provided for the entry of Domains to search (for example, Xerox.com).

Connect Timeout. An entry box is provided for entering a Timeout for searches of Domains.

Dynamic DNS Update Box. If your DNS Server does not support dynamic IP address updates there is no need to enable this checkbox.

## Under the SMTP Subject Label

Get SMTP Server Address check box. If enabled with a check mark, the Printer will contact the DHCP Server for the IP Address of the SMTP (Mail) Server.

SMTP Server Address Line. An IP Address line, with entry boxes, is provided for manual entry of the SMTP Server Address (when DHCP is not selected).

## Under the WINS Server Subject Label

Get WINS Server Address check box. If enabled with a check mark, the Printer will contact the DHCP Server for the IP Addresses of the Primary and Secondary WINS (Windows Internet Naming Service) Servers.

WINS Primary/Secondary Server IP Address Lines. Two IP Address lines, with entry boxes, are provided for manual entry of the WINS Primary and Secondary Server Addresses (when DHCP is not selected).

## Under the IP Address List Subject Label

IP Filter Enablement Check box. If enabled with a check mark, access to the Printer's services will be restricted to the list of IP Addresses and Subnet Masks specified by clicking the available list button. If disabled (unchecked), host access to the Printer is universal (unrestricted).

Edit button. When this button is clicked, a list of ten lines of IP Address and Subnet Mask entry boxes is displayed. Sometimes referred to as a "restriction list," this list is used to supply the IP Addresses and Subnet Masks of up to ten hosts (individual workstations) that are authorized to access the Printer's

services. All other hosts not specified in this list will be prevented from accessing the Printer's services.

# Configure LPD

## N5.6

1. Open your Web browser and enter the TCP/IP address of the Printer in the Address or Location field. Press **Enter**.
2. Click the **Properties** button or Tab.
3. Click the plus symbol (+) to the left of the **Protocol Settings** file folder.
4. Select **LPD** in the directory tree.
5. The available selections include:

Port Number, with a default value of 515. As this is the port for the TCP Spooler assigned by the IANA (Internet Assigned Numbers Authority), the default value should not need to be changed.

A TBCP Filter checkbox (displayed when PostScript is enabled).

Connect Time-out Entry Box.

6. Enter a **Time Out** value for jobs being sent to the Printer through this Port. This is the length of time that the Controller will wait for an end of job command before printing the current job.
7. Click the **Apply New Settings** button to accept the changes, or the **Restore Settings** button to return the settings to their previous values.

**NOTE:** Changes to settings are not applied until you restart the Printer. A remote **Reboot** button is available on the **Status Tab** of Internet Services.



# Restricting Printer Access

N.5.8.2

Using Internet Services, access to the Printer's Services can be restricted by Host IP Address.

To restrict printer access, perform the following steps:

1. Open your Web browser and enter the TCP/IP address of the Printer in the Address or Location field. Press **Enter**.
2. Click the **Properties** button or Tab.
3. Click the plus symbol (+) to the left of the **Protocol Settings** file folder.
4. Select **TCP/IP** in the directory tree.
5. Scroll down the page to reveal the **IP Address List** subject label.
6. Enable (with a check mark) the **IP Filter** check box.
7. Click the available **Edit** button.
8. When the list of ten lines of IP Address and Subnet Mask entry boxes is displayed, supply the IP Addresses and Subnet Masks of up to ten hosts (individual workstations) that are authorized to access the Printer's services. **Caution:** All other hosts not specified in this list will be prevented from accessing the Printer's services.
9. Click the **Apply New Settings** button to accept the changes. To exit the settings screen without making changes, click the **Restore Settings** button.

Note: Changes to settings are not applied until you restart the Printer. A remote **Reboot** button is available on the Status Tab of Internet Services.

# Configure Port 9100 (Raw Printing)

N5.9

1. Open your Web browser and enter the TCP/IP address of the Printer in the Address or Location field. Press **Enter**.
2. Click the **Properties** button or Tab.
3. Click the plus (+) symbol to the left of the **Protocol Settings** file folder.
4. Select **Port 9100** in the directory tree. (1)
5. The available selections include:

Port Number, with a default value of 9100. This does not need to be changed.  
A TBCP Filter checkbox (displayed when PostScript is enabled).  
Connect Time-out Entry Box.

6. Enter a **Time Out** value for jobs being sent to the Printer through this Port. This is the length of time that the Controller will wait for an end of job command before printing the current job.
7. Click the **Apply New Settings** button to accept changes, or the **Restore Settings** button to return settings to their previous values. Note: Setting changes are not applied until you restart the Printer.

(1) Note: If Port 9100 is NOT displayed in the Properties Tab directory tree, click the **Port Status** hot link in the beginning list of hot links in the tree. In the Table of Ports, use your mouse to place a check mark in the checkbox on the Port 9100 line. Click the **Apply New Settings** button, then click the **Reboot** button (always available on the Status Tab) to remotely reboot the Printer.

# Configure SMB

## N5.5

1. Open your Web browser and enter the TCP/IP address of the Printer in the Address or Location field. Press **Enter**.
2. Click the **Properties** button or Tab.
3. Click the plus symbol (+) to the left of the **Protocol Settings** file folder.
4. Select **SMB** in the directory tree.
5. The available selections include:

A text box indicating Workgroup name.

A text box indicating the SMB Host name.

A text box indicating the Administrator name.

A text box indicating the Administrator Password.

A text box confirming the Administrator Password.

An entry box for the maximum number of connections allowed, labeled Maximum Sessions.

A TBCP Filter checkbox (displayed when PostScript is enabled).

An enabling checkbox for Auto Driver Download, enabling the Printer to push a driver to a client.

An enabling checkbox for supporting Unicode (supplying the Host name and Workgroup name in Unicode characters during SMB transmission).

An enabling checkbox for Auto Master Mode.

An enabling checkbox for Encrypt Password (during SMB transmission).

6. Accept the default value, or enter a value from 3 to 10, for maximum number of connections allowed in **Maximum Sessions**.
7. Accept the **Workgroup name** shown, or enter in your own workgroup name.
8. Type the **SMB Host Name** or accept the name shown.
9. Enter in the appropriate Administrator name and password if desired (such as for password-protected access in a NetBEUI workgroup).
10. Click the **Apply New Settings** button to apply setting changes, or the Restore Settings button to return settings to their previous values.

Note: Setting changes are not applied until you restart the Printer. There is a convenient **Reboot** button on the **Status Tab** of Internet Services.

# Configure NetWare Settings

N5.2

1. Open your Web browser and enter the TCP/IP address of the Printer in the Address or Location field. Press **Enter**.
2. Click the **Properties** button or Tab.
3. Click the plus symbol (+) to the left of the **Protocol Settings** file folder.
4. Select **NetWare** in the directory tree.
5. The available selections include:

A Host Name (Print Server) Text box. Use this name to create the Print Server (in Bindery) and Print Server object (in NDS).

An Active Mode selection box for Directory (NDS) or Bindery.

A Primary File Server name entry box (Bindery).

A Poll Interval entry box for Queue Polling Interval (1 - 1000 seconds).

A Number of Search entry box for SAP frequency (1 - 100 seconds, with the ability to set to zero, which is off).

Two Password text boxes for logging into the NetWare Server.

A TBCP Filter checkbox (displayed when PostScript is enabled).

Under the NDS Subject Label there is a text box for NDS Tree, followed by one for NDS Context.

A Frame Selection box, with a default of Auto sensing. Other selections include Ethernet II (used when running TCP/IP on your network), Ethernet 802.3 (used for NetWare versions up to 3.11), Ethernet 802.2 (the default for NetWare 3.12 and later), and Ethernet SNAP (used on networks running TCP/IP and/or AppleTalk).

A display of the Printer's Network (MAC) address.

A Service Location Protocol (SLP) Active Search Enablement box. For use with NetWare 5 and newer versions, this protocol helps to reduce service advertising network traffic.

6. Either accept the default Host (Print Server) Name or type in a new name that matches the name used on the Server.
7. Select the type of NetWare network (Mode) that applies to your situation.
8. If setting up this printer in a Bindery environment, provide the name of the Primary Server.
9. Enter in a polling rate for **Poll Interval** (Queue Polling Interval).
10. Enter in a SAP (service advertising protocol) frequency, or set **Number of Search** (SAP frequency) to zero (off).
11. Type a **Password** for the Printer to log into the NetWare Server, and type it a second time for confirmation.
12. For NetWare NDS (NetWare Directory Services), type a directory tree and context (typeful name for the Printer in the NDS environment). **Note:** Since there is no Browse function, you **MUST** manually enter in this information. For example: O=xerox.OU=engineering.
13. For Frame Selection, if in doubt, leave the setting at its Auto sensing default value.
14. Click the **Apply New Settings** button, then click the **Reboot** button to reboot the Printer and apply setting changes.

# Configure IPP

## N5.7

1. Open your Web browser and enter the TCP/IP address of the Printer in the Address or Location field. Press **Enter**.
2. Click the **Properties** button or Tab.
3. Click the plus (+) symbol to the left of the **Protocol Settings** file folder.
4. Select **IPP** in the directory tree.
5. The available selections include:

Port Number, with a default value of 631. This is the port number assigned by IANA (Internet Assigned Numbers Authority). It does not need to be changed.

Additional Port Number Entry box.

A TBCP Filter checkbox (displayed when PostScript is enabled).

Administrator Mode Checkbox. This is disabled by default. Consult the On-Line Help for use of this feature.

DNS Enablement Checkbox.

Timeout Entry Box.

6. Verify that the **DNS Enablement** Checkbox is checked (enabled) by default. If enabled, the DNS Server will be available to resolve Host Names to IP Addresses, in support of printing with IPP.
7. Enter a **Time Out** value for jobs being sent to the Printer through this Port. This is the length of time that the Controller will wait for an end of job command before printing the current job.
8. Click the **Apply New Settings** button to accept changes, or the **Restore Settings** button to return settings to their previous values. Note: Setting changes are not applied until you restart the Printer.

# Configure SNMP

## N5.4

It is possible to remotely define and modify GET (Read Only), SET (Read/Write), and Trap SNMP (Simple Network Management Protocol) community names for the Printer. You can also enter the System Administrator's Name here for packet identification purposes.

### SNMP Community Name properties that can be configured are:

**Community Name (Read Only)** — This is the password for SNMP GET requests from the SNMP Manager to the Agent in the Printer. Applications, such as Xerox Printer Map or CentreWare Conductor, obtaining information from the device by SNMP, use this password.

**Community Name (Read/Write)** — This is the password for SNMP SET requests from the SNMP Manager to the Agent in the Printer. Applications, such as Xerox Printer Map or CentreWare Conductor, which set information on the device by SNMP, use this password.

**Community Name (Trap Notification)** — This is the default password for SNMP TRAPS sent from the device to the Manager by SNMP.

### Configuring SNMP Community Names with Internet Services

1. Open your Web browser and enter the TCP/IP address of the Printer in the Address or Location field. Press **Enter**.
2. Click the **Properties** button or Tab.
3. Click the plus symbol (+) to the left of the **Protocol Settings** file folder.
4. Select **SNMP** in the directory tree.
5. Enter a name for **Community Name (Read Only)**, also known as GET.
6. Enter a name for **Community Name (Read/Write)**, also known as SET.  
**Caution:** If you change the GET and/or SET Community Names, you must also change the names in all network applications that are communicating by SNMP with this Printer.
7. Enter a name for the default **Community Name (Trap Notification)**.
8. Optionally enter the System Administrator's name for packet identification purposes.
9. Click the **Apply New Settings** button to accept the changes, or the **Restore Settings** button to return the settings to their previous values.

Note: Changes to settings will not be applied until you restart the Printer. A remote **Reboot** button is available on the **Status Tab** of Internet Services.

# Modify the HTTP (Internet Services) Settings

## N5.8

1. Open your Web browser and enter the TCP/IP address of the Printer in the Address or Location field. Press **Enter**.
2. Click the **Properties** button or Tab.
3. Click the plus symbol (+) to the left of the **Protocol Settings** file folder.
4. Select **HTTP** in the directory tree.
5. The available selections include:

Port Number Entry Box. The default value is Port 80, which is the HTTP Port number assigned by the IANA (Internet Assigned Numbers Authority). This default value should not need to be changed.

Maximum Sessions Entry Box.

Connect Time-out Entry Box.

6. In the **Maximum Sessions Entry Box**, accept the default value, or enter a number for the maximum number of hosts (workstations) that can be connected to the Printer's HTTP Server (Internet Services web pages) at one time.
7. In the **Timeout Entry Box**, accept the default value, or enter the number of seconds that a browser connection can remain open without any activity.
8. Click the **Apply New Settings button** to apply setting changes, or the **Restore Settings** button to return settings to their previous values.

Note: Setting changes are not applied until you restart the Printer. There is a convenient **Reboot** button on the **Status Tab** of Internet Services.

# Configure EtherTalk (AppleTalk)

N5.10

1. Open your Web browser and enter the TCP/IP address of the Printer in the Address or Location field. Press **Enter**.
2. Click the **Properties** button or Tab.
3. Click the plus (+) symbol to the left of the **Protocol Settings** file folder.
4. Select **AppleTalk** in the directory tree.
5. The available selections include:
  - Printer Name.
  - Zone Name.
6. Enter the name that you wish to assign to this Printer. This is the name that will appear in the Chooser.
7. Either accept the default zone of \* which lets the closest router assign the Printer to a zone, or assign the Printer to a zone (with a 32 character naming limit).
8. Click the **Apply New Settings** button to accept changes, or the **Restore Settings** button to return settings to their previous values.

NOTE: Changes to settings are not applied until you restart the Printer. A remote **Reboot** button is available on the **Status Tab** of Internet Services.



# Troubleshooting

**Select one of the available options for troubleshooting information.**

[TCP/IP Troubleshooting T1](#)

[NetBEUI Troubleshooting T2](#)

[NetBIOS over IP Troubleshooting T3](#)

[IPP Troubleshooting T4](#)

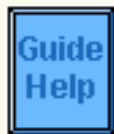
[NetWare 3.1x Troubleshooting T5](#)

[NetWare 4.x, 5.x \(NDS\) Troubleshooting T6](#)

[EtherTalk Troubleshooting T7](#)

[Scanning to Hard Drive Troubleshooting T8](#)

Click here for



help using this Guide

# TCP/IP Troubleshooting

T1

Use the following check list to troubleshoot your network communication problem.

## Check Physical Media and Network Interface Cards

1. Verify that the Printer is powered ON.
2. Verify that the Printer and Workstation are using the correct cabling to communicate over the network. Use category 3 UTP patch (NOT crossover) cable for 10 Base T communications, category 5 UTP patch (NOT crossover) cable for 10 Base T / 100 Base TX communications, and Token Ring cabling for Token Ring networks.
3. Verify that the cable at both the Printer and Workstation is fully plugged into the Network Interface Card (NIC). Check the link light, which is typically a green LED, to make sure that it is lit. Typically, but not always, a second light on the Network Interface Card will be intermittently flashing, indicating the presence of network traffic. If neither of these lights is lit, there is a problem with the NIC.

## Print a Settings List at the Printer and perform these tasks:

1. Under the **Ethernet** data label on the Report, verify that your communications speed is correctly set for your network and that you have a MAC address listed. The driver for your NIC works at the Media Access Control (MAC) layer of the protocol stack. If no MAC address is shown, you have either a bad NIC or no NIC at all. Replace or install the Network Interface Card.
2. Under the **TCP/IP** data label, determine the method being used to assign TCP/IP addressing to the Printer. Verify that the IP Address, Subnet Mask, and Gateway addresses are correct for your network and have NOT changed from their previous settings. Note: The use of DHCP (the DHCP Server) with a short "lease" time can cause the Printer to be assigned a new IP Address when it is powered off for an extended period of time. This will interrupt communications with workstations using the "old" IP address. If you do not want the IP address to be subject to constant changes, either increase the lease time at the DHCP Server, or use the Static IP Addressing method as described in the **TCP/IP Protocol Configuration** procedure in this guide.
3. Under the **LPD** data label, if you are communicating with the Printer through an LPR port, make sure that LPD is Enabled. If it is NOT, enable it following the instructions supplied in this guide under **TCP/IP LPD Enablement**. Also verify that the displayed port number is "515." If it is NOT, set it to "515" using the instructions supplied in the **Configure LPD** procedure in the Internet Services section of this guide.
4. Under the **Port 9100** data label, to enable the Printer to automatically determine the Page Description Language to use in processing jobs sent over the workstation's LPR port, make sure that this Port is enabled. This is the meaning of the word "raw" when used to name the queue during LPR port creation. Follow the instructions supplied in the **TCP/IP (Configure) Port 9100** procedure in the NOS Selection section of this guide.
5. Under the **Internet Services** data label, verify that this feature is Enabled. If it is NOT, enable it following the instructions supplied under the **Network Connectivity Tab** of this guide.

**At the workstation, experiencing the communication problem, perform these tasks:**

1. Open your Web browser and enter the TCP/IP address of the Printer in the Address or Location field. Press ENTER. If the Printer's Internet Services (web pages) begin to display on the workstation, you are communicating with the Printer. If NOT, make sure that your web browser is not set to use a proxy server and repeat the procedure. If unsuccessful, perform the next step.
2. Verify that the workstation has been assigned an IP address, subnet mask, and gateway address by running a Command (DOS) prompt, typing **ipconfig/all** (Windows NT) or **winipcfg** (Windows 95/98/Me), and pressing ENTER. If any of the addresses are incorrect or missing, right mouse click on the Network Neighborhood icon (My Network Places in Windows Me and 2000) and make sure that the **TCP/IP protocol** is installed and properly configured for IP addressing.
3. Run a Command (DOS) prompt on the workstation and perform **ping** tests to verify successful packet transmission first to the workstation's NIC, then to the Gateway (if being used), then to the Printer's NIC. To run Ping Tests, at the Command (DOS) prompt, type: ping xxx.xxx.xxx.xxx and press ENTER. Note that there is a space between the word "ping" and the first xxx. Let xxx.xxx.xxx.xxx first represent the workstation's IP address, then the IP address of the default gateway, and finally the IP address of the Printer. If successful, you will receive a reply such as: "Reply from xxx.xxx.xxx.xxx: bytes=32 time<10ms TTL=128." If you receive "Time Out" or "0 bytes received" notifications, the device being pinged is incorrectly configured or malfunctioning.
4. If Web browser and Ping Tests are successful but you are still unable to print to the Printer, verify that the driver is using the correct LPR Port to print through. On Windows desktops, select **Start, Settings, Printers**, right click on the Printer's icon, and select **Properties**. Select the Ports Tab (NT4 and 2000) or the Details Tab (95/98/Me) and verify that the LPR Port being printed through matches the IP Address of the Printer. If the IP address does NOT match, you are printing to the wrong device on the network. Either select the correct port from the displayed list, or use the **Add Port** button to create a new port with an IP Address matching that of your Printer.

Note: When you select a port from the list in Windows NT4, make sure that the checkbox next to the Port name is selected with a check mark.

5. If the correct Port is being used by the driver but you are still unable to print, perform the following procedure. In Windows NT 4, right mouse click on the Network Neighborhood icon and verify that **Microsoft TCP/IP Printing services** are installed in the workstation. In Windows 2000, follow the instructions for TCP/IP Peer to Peer (LPR) Printing, under the Print Drivers Tab of this guide, to verify that **Print Services for Unix** are installed in the workstation. For Windows 95/98/Me, verify that you have properly installed an **LPR Print Utility** (spooler) on the workstation and that it is currently running.
6. Note that access to this Printer's Services can be restricted by Host IP addresses. As this feature could cause communications to appear to fail in certain instances, see the **Restricting Printer Access** procedure under the Internet Services Tab of this guide for further details.
7. To assure successful printing, make sure that the Printer is configured to support the Page Description Language (PDL) being used by your driver. To check the PDL being used by the driver, print a test job "to file." Open and view the job in a program such as Notepad. The PDL being used by the driver will be displayed in the first few lines of Printer Language. Next, check the Page Description Languages being supported by the Printer's ports by following the instructions supplied under the **Setting PDL Emulations** procedure in the Internet Services section of this guide. The PDL being used by the driver, and the PDL supported by the Port you are printing to, **MUST** match for successful printing to occur.

# NetBEUI Troubleshooting

T2

Use the following checklist to troubleshoot your network communication problem.

## Check Physical Media and Network Interface Cards

1. Verify that the Printer is powered ON.
2. Verify that the Printer and Workstation are using the correct cabling to communicate over the network. Use category 3 UTP patch (NOT crossover) cable for 10 Base T communications, category 5 UTP patch (NOT crossover) cable for 10 Base T / 100 Base TX communications, and Token Ring cabling for Token Ring networks.
3. Verify that the cable at both the Printer and Workstation is fully plugged into the Network Interface Card (NIC). Check the link light, which is typically a green LED, to make sure that it is lit. Typically, but not always, a second light on the Network Interface Card will be intermittently flashing, indicating the presence of network traffic. If neither of these lights is lit, there is a problem with the NIC.

## Print a Settings List at the Printer and perform these tasks:

1. On the Settings List, verify that **SMB** is enabled. If it is NOT enabled you will NOT be able to see the Printer in your NetBEUI workgroup when you search for it in Network Neighborhood ("My Network Places" in Windows Me) on your workstation. To enable SMB, follow the instructions supplied in the **Microsoft (NetBEUI)** procedure in the NOS Selection section of this guide.
2. On the Settings List, verify that the default name of the NetBEUI workgroup is **Workgroup** and that the Printer has a unique (**SMB Host**) name that is NOT the same as any other device in your workgroup. Note that the SMB Host name will be the name of the Printer that you searched for in Network Neighborhood ("My Network Places" in Windows Me) when you installed the print driver on your workstation.
3. On the Settings List, note the **Administrator name** (factory default of "admin"), for possible use in password-protected access to the Printer within the NetBEUI Workgroup. Using the Printer's Internet Services you can change this name, as well as an associated password (also with a factory default setting of "admin"). To change these names you have to be running the TCP/IP protocol on at least one workstation on your network and have the TCP/IP protocol enabled and a static IP address set at both the workstation and the Printer. Verify that **Internet Services** is enabled at the Printer. If it isn't, follow the instructions supplied under the **Network Connectivity Tab** of this guide to enable it. Change the names, if needed, by following the instructions supplied in the **Configure SMB** procedure in the **Internet Services** section of this guide.

## At the workstation, experiencing the communication problem, perform these tasks:

1. At the Workstation's Desktop, verify that the NetBEUI protocol is installed. Right mouse click the

**Network Neighborhood** icon ("My Network Places" in Windows Me) and select **Properties**. Click the **Configuration Tab (95/98/Me)** or the **Protocols Tab (Windows NT4)** and verify that the NetBEUI protocol is loaded. If it is, click the **Identification Tab (95/98/Me/NT4)** to determine if the name of your workstation's Workgroup is the same as the name of the printer's Workgroup. If it is, you can exit the Properties screen. If it is NOT, either type in the Printer's factory default name of "Workgroup" here, or use Internet Services to change the Printer's workgroup name to match your own. Click **OK**.

#### Notes:

If the NetBEUI Protocol is not present in the Protocol list, click the **Add** button, select **NetBEUI** from the available list and click **OK**. If the setup program fails to find the required files, you will have to click **Have Disk...** to load the protocol from the Operating System installer disk for this workstation.

If you wish to use Internet Services to change the Printer's factory default name of "Workgroup," you have to be running the TCP/IP protocol on at least one workstation on your network and have the TCP/IP protocol enabled and a static IP address set at both the workstation and the Printer. Verify that **Internet Services** is enabled at the Printer. If it isn't, follow the instructions supplied under the **Network Connectivity Tab** of this guide to enable it. Change the Printer's workgroup name by following the instructions supplied in the **Configure SMB** procedure in the **Internet Services** section of this guide.

2. At the Workstation's Desktop, double click the **Network Neighborhood** icon ("My Network Places" in Windows Me) and see if the Printer's (SMB Host) name appears in your Workgroup. If it does NOT, SMB may not be enabled at the Printer. Check the Settings List to verify that SMB is enabled. If it is NOT, enable SMB following the instructions supplied in the **Microsoft (NetBEUI)** procedure in the NOS Selection section of this guide.
3. Another reason that the Printer's (SMB Host) name may fail to appear in Network Neighborhood ("My Network Places" in Windows Me) could be that the printer is directly attached to a workstation that does NOT have **Sharing** enabled. AT THE WORKSTATION SHARING THE PRINTER, right mouse click the **Network Neighborhood** icon ("My Network Places" in Windows Me) and select **Properties**. Click the **Configuration Tab (95/98/Me)** and verify that **File and Printer Sharing services** is installed. In Windows 95/98/Me, click the **File and Print Sharing** button and verify that the checkbox labeled "I want to be able to allow others to print to my printer(s)" is enabled (checked). In Windows 95/98/Me and NT4, from the Printers folder on the desktop, right mouse click on the Printer's icon and select **Properties (95/98/Me)** or **Document Defaults (NT4)**. Select the **Sharing Tab** and verify that sharing is enabled for this printer.
4. If the Printer's (SMB Host) name appears twice in Network Neighborhood ("My Network Places" in Windows Me), you need to use Internet Services to change the Printer's (SMB Host) name. To change this name you have to be running the TCP/IP protocol on at least one workstation on your network and have the TCP/IP protocol enabled and a static IP address set at both the workstation and the Printer. Verify that **Internet Services** is enabled at the Printer. If it isn't, follow the instructions supplied under the **Network Connectivity Tab** of this guide to enable Internet Services. Change the Printer's (SMB Host) name following the instructions supplied in the **Configure SMB** procedure in the **Internet Services** section of this guide.
5. To assure successful printing, make sure that the Printer is configured to support the Page Description Language (PDL) being used by your driver. To check the PDL being used by the driver, print a test job "to file." Open and view the job in a program such as Notepad. The PDL being used by the driver will be displayed in the first few lines of Printer Language. Next, check the Page Description Languages being supported by the Printer's ports by following the instructions supplied under the **Setting PDL Emulations** procedure in the Internet Services section of this guide. The PDL being used by the driver, and the PDL supported by the Port you are printing to, **MUST** match for successful printing to occur.



# NetBIOS over IP Troubleshooting

T3

Use the following check list to troubleshoot your network communication problem.

## Check Physical Media and Network Interface Cards

1. Verify that the Printer is powered ON.
2. Verify that the Printer and Workstation are using the correct cabling to communicate over the network. Use category 3 UTP patch (NOT crossover) cable for 10 Base T communications, category 5 UTP patch (NOT crossover) cable for 10 Base T / 100 Base TX communications, and Token Ring cabling for Token Ring networks.
3. Verify that the cable at both the Printer and Workstation is fully plugged into the Network Interface Card (NIC). Check the link light, which is typically a green LED, to make sure that it is lit. Typically, but not always, a second light on the Network Interface Card will be intermittently flashing, indicating the presence of network traffic. If neither of these lights is lit, there is a problem with the NIC.

## Print a Settings List at the Printer and perform these tasks:

1. On the Settings List, verify that "**SMB**" is enabled. If it is NOT enabled, to enable SMB, follow the instructions supplied in the **Microsoft (NetBIOS over IP)** procedure in the NOS Selection section of this guide.
2. On the Settings List, note that the default name of the Printer's workgroup is **Workgroup** and that the Printer has a unique (**SMB Host**) name. To modify the Printer's Workgroup or SMB Host names, if required, use your workstation's Web browser to access the Internet Services (Web Pages) residing in the Printer as described in the **Configure SMB** procedure in the Internet Services section of this guide.
3. On the Settings List, under the **TCP/IP** data label, note what method the Printer is using to acquire its TCP/IP addresses. If the method shown is **Static**, make sure that the Printer has a valid IP address, Subnet Mask, and Gateway address for the network.
4. On the Settings List, verify that **DNS (or WINS, if using only a Windows NT network) is enabled**. The use of Naming Servers is REQUIRED to resolve NetBIOS device names to IP addresses for packet routing over the TCP/IP network. If in doubt as to whether DNS and WINS are enabled, verify the settings following the instructions supplied in the **TCP/IP Dynamic Addressing** procedure in the **NOS Selection** section of this guide. **WARNING:** If the Printer is NOT informed of the addresses of the DNS/WINS Servers, you may not be able to see or use the Printer's NetBIOS name on the network. Make sure that the Printer is informed of the addresses of the DNS/WINS Servers, using the instructions supplied in the **Configure TCP/IP Settings** procedure in the **Internet Services** section of this guide.
5. Under the **Internet Services** data label, verify that this feature is Enabled. If it is NOT, enable it following the instructions supplied under the **Network Connectivity Tab** of this guide. You **MUST** use this tool at your workstation if you need to change the Printer's Workgroup name, the SMB Host Name, the TCP/IP (internet) Host Name, or DNS settings. Note that when using DNS to resolve host names to IP addresses, the NetBIOS name (SMB Host) and the TCP/IP Host Name **MUST** be the same.

## At the DNS or WINS Server

Refer to the Server Operating System documentation for the appropriate procedure to use to enable Host name to IP address resolution on the Server. Make sure that the Printer's TCP/IP (internet) Host Name and NetBIOS (SMB Host) Name (which should be identical for DNS) is being mapped to an IP Address on the Server. Refer to the Printer's Settings List and verify that the Printer's TCP/IP Host and NetBIOS (SMB Host) Names continue to match the entries in the Server's database. Also verify that the IP Address shown on the Report matches the IP address in the Server's database. If the information is incorrect on the Server, NetBIOS communications from the workstations to the Printer WILL be disrupted.

## At the NT Server, if being used to Queue Jobs to the Printer

1. Verify that the **TCP/IP** protocol is installed and configured for **DNS** (or WINS) use.
2. Verify that **Microsoft TCP/IP Printing Services** are installed.
3. From the Printers window on the Server, verify the presence of the Printer's icon (driver).
4. Right mouse click on the Printer's icon and select **Properties**. From the **Ports** Tab, verify the presence of an LPR port with a port name comprised of the Printer's **SMB Host Name** (WINS environment), or **fully qualified domain name** (SMB Host Name.Domain Name, in a DNS environment), or **IP Address** (if static).
5. From the **Sharing** Tab, verify that **Sharing** is enabled for the Printer and that a **Share name** has been assigned.
6. To determine if communications between the Server and the Printer are good, click the **Print Test Page button** on the **General** Tab.

## At the workstation experiencing the communication problem, perform these tasks:

1. Open your Web browser and enter the TCP/IP address of the Printer in the Address or Location field. Press ENTER. If the Printer's Internet Services (web pages) begin to display on the workstation, you are communicating with the Printer. If NOT, make sure that your web browser is not set to use a proxy server and repeat the procedure. If unsuccessful, perform the next step.
2. On NT4 workstations, verify that the **TCP/IP protocol** is installed and that it is configured for **DNS resolution** of the NetBIOS Host Name. Verify that BOTH Microsoft **TCP/IP Printing Services** and **Workstation** (SMB client) Services are installed.

On Windows 2000 workstations, verify that the **Internet protocol (TCP/IP)** is installed and that it is configured for **DNS resolution** of the NetBIOS Host Name. Also verify that the **Client for Microsoft Networks** is installed. Finally, through Add/Remove Programs and Add/Remove Windows Components, select Other Network File and Print Services, click Details, check the box for **Print Services for Unix**, and click OK and Next.

On 95/98/Me workstations, verify that the **TCP/IP protocol** is installed and that it is configured for **DNS resolution** of the NetBIOS Host Name. Verify that the **Client for Microsoft Networks** is installed and that the workstation has a Computer (NetBIOS) Name and is a member of a Workgroup. From the **Configuration Tab** of Network Neighborhood ("My Network Places" in Me), select the **TCP/IP**

**Protocol**, click **Properties**, select the **NetBIOS Tab** and verify that the checkbox labeled "I want to enable NetBIOS over TCP/IP" is checked.

3. Run a **Command (DOS) prompt** on the workstation and perform **ping** tests to verify successful packet transmission first to the workstation's NIC, then to the Gateway (if being used), then to the Printer's NIC. To run Ping Tests, at the Command (DOS) prompt, type: ping xxx.xxx.xxx.xxx and press ENTER. Note that there is a space between the word "ping" and the first xxx. Let xxx.xxx.xxx.xxx first represent the workstation's IP address, then the IP address of the default gateway, and finally the IP address of the Printer (as shown on the Settings List). If you are printing to the printer through an NT Server and know the Server's IP address, you can also ping the Server. If successful, you will receive a reply such as: "Reply from xxx.xxx.xxx.xxx: bytes=32 time<10ms TTL=128." If you receive "Time Out" or "0 bytes received" notifications, the device being pinged is incorrectly configured or malfunctioning.

Note: To obtain IP address information for your workstation, at the Command Prompt type **ipconfig/all** (NT4) or **wಿನಿಪcfɡ** (95/98/Me) and press Enter.

4. If communicating with the printer in a Peer to Peer environment, at the Workstation's Desktop double click the **Network Neighborhood** icon ("My Network Places" in Windows Me) and see if the Printer's **SMB Host Name** appears in the **Workgroup** indicated on the Settings List. If it does NOT, SMB may not be enabled at the Printer. Check the Settings List to verify that SMB is enabled. If it is NOT, enable SMB following the instructions supplied in the **Microsoft (NetBIOS over IP)** procedure in the NOS Selection section of this guide.
5. From your Workstation's Desktop, click **Start/Settings/Printers**, right mouse click on the Printer's icon and select **Properties**. From the **Details** Tab (95/98/Me) or the **Ports** Tab (NT4 and 2000) determine the Port that the driver is using to print through. For peer to peer communications, the port name should match the **SMB Host name** of the Printer as shown on the Settings List. If it doesn't you are printing to the wrong port and either need to select the correct port or use the **Add Port** button to create a new port for the driver to print through. Follow the instructions supplied in the **NetBIOS over IP Peer to Peer Printing** procedure in the Print Drivers section of this guide. If the name matches, use the **General** Tab of the driver to print a test page to determine the status of communications between the Workstation and the Printer.
6. If communicating with the printer in a Client/Server environment, at the Workstation's Desktop double click the **Network Neighborhood** icon ("My Network Places" in Windows Me) and see if the Printer's **Server** is displayed. If you double click on the Server's name, a list of **Shared printers** should be displayed, with the Printer being one of the devices shown. Note that since the Printer is identified as a Share name on the Server, it may NOT have the same name as the SMB Host name on the Settings List. If you do not recognize your Server or Printer's name in the list, perform the following step.
7. From your Workstation's Desktop, click **Start/Settings/Printers**, right mouse click on the Printer's icon and select **Properties**. From the **Details** Tab (95/98/Me) or the **Ports** Tab (NT4 and 2000) determine the Port that the driver is using to print through. For Client/Server communications, the port name should be in the form of a UNC (universal naming convention) such as \\Computer\_name\Share\_name. If it isn't you are printing to the wrong port and either need to select the correct port or use the **Add Port** button to create a new port for the driver to print through. If the name looks correct, use the **General** Tab of the driver to print a test page to determine the status of communications between the Workstation and the Printer.
8. Note that if you have the "UNC" of the Printer, you can enter this into the text box of the **Run** command on your workstation. When you press **Enter**, the workstation will attempt to reconnect to the network Server and Printer Share that was specified by the UNC. Depending upon how the Server was configured you can then either manually or automatically reinstall the driver.



9. To assure successful printing, make sure that the Printer is configured to support the Page Description Language (PDL) being used by your driver. To check the PDL being used by the driver, print a test job "to file." Open and view the job in a program such as Notepad. The PDL being used by the driver will be displayed in the first few lines of Printer Language. Next, check the Page Description Languages being supported by the Printer's ports by following the instructions supplied under the **Setting PDL Emulations** procedure in the Internet Services section of this guide. The PDL being used by the driver, and the PDL supported by the Port you are printing to, **MUST** match for successful printing to occur.

# IPP Troubleshooting

T4

Use the following check list to troubleshoot your network communication problem.

## Check Physical Media and Network Interface Cards

1. Verify that the Printer is powered ON.
2. Verify that the Printer and Workstation are using the correct cabling to communicate over the network. Use category 3 UTP patch (NOT crossover) cable for 10 Base T communications, category 5 UTP patch (NOT crossover) cable for 10 Base T / 100 Base TX communications, and Token Ring cabling for Token Ring networks.
3. Verify that the cable at both the Printer and Workstation is fully plugged into the Network Interface Card (NIC). Check the link light, which is typically a green LED, to make sure that it is lit. Typically, but not always, a second light on the Network Interface Card will be intermittently flashing, indicating the presence of network traffic. If neither of these lights is lit, there is a problem with the NIC.

## Print a Settings List at the Printer and perform these tasks:

1. Under the **Ethernet** data label on the Report, verify that your communications speed is correctly set for your network and that you have a MAC address listed. The driver for your NIC works at the Media Access Control (MAC) layer of the protocol stack. If no MAC address is shown, you have either a bad NIC or no NIC at all. Replace or install the Network Interface Card.
2. Under the **Internet Services** data label, verify that this feature is Enabled. If it is NOT, enable it following the instructions supplied under the **Network Connectivity Tab** of this guide.
3. Under the **TCP/IP** data label, determine the method being used to assign TCP/IP addressing to the Printer. Verify that the IP Address, Subnet Mask, and Gateway addresses are correct for your network and have NOT changed from their previous settings. Note: The use of DHCP (the DHCP Server) with a short "lease" time can cause the Printer to be assigned a new IP Address when it is powered off for an extended period of time. This will interrupt communications with workstations using the "old" IP address. If you do not want the IP address to be subject to constant changes, either increase the lease time at the DHCP Server, or use the Static IP Addressing method as described in the **TCP/IP Protocol Configuration** procedure in the NOS selection section of this guide.
4. Under the **IPP** data label, verify that IPP is Enabled. If it is NOT, enable the protocol following the procedure stated under the **IPP (Internet Printing Protocol)** item of the NOS Selection menu, accessed from the Network Connectivity Tab of this guide.
5. Under the **IPP** data label, verify that IPP is using **DNS** to resolve Host Names to IP Addresses in support of IPP printing. If it is NOT, using your workstation's Web browser enter the TCP/IP Address of the Printer in the Address or Location field. Press **Enter**. Click the **Properties** button or Tab. Click the plus (+) symbol to the left of the **Protocol Settings** file folder and **select IPP** in the directory tree. Verify that the DNS Enablement Checkbox is checked. If it is NOT checked, check it with your mouse and click **Apply New Settings**.
6. Under the **IPP** data label, verify that the Port number associated with IPP is **631**. This is the port number assigned to IPP by the Internet Assigned Numbers Authority. If the number is not 631, set it to 631 following the instructions supplied in the **Configure IPP** procedure in the Internet Services section of this guide.

## At the Windows 2000 workstation, experiencing the communication problem, perform these tasks:

Note: As IPP (the Internet Printing Protocol) is supported by all Windows 2000 workstations, the following procedure is written specifically for Windows 2000. The IPP printing "service" is available for other workstation operating systems through downloads from the Microsoft web site. In general, troubleshooting procedures for other operating systems will be similar to this one.

1. Open your Web browser and enter the TCP/IP address of the Printer in the Address or Location field. Press ENTER. If the Printer's Internet Services (web pages) begin to display on the workstation, you are communicating with the Printer. If NOT, make sure that your web browser is not set to use a proxy server and repeat the procedure. If unsuccessful, perform the next step.
2. Verify that the **Internet protocol (TCP/IP)** is installed in the Windows 2000 Workstation. At the Desktop, right mouse click the **My Network Places** icon and select **Properties**. Right mouse click on the **Local Area Connection** icon and select **Properties**. Verify that the **Internet Protocol (TCP/IP)** has been loaded. If it has, click on (highlight) this item with your mouse and click the **Properties** button to verify that this workstation is using either a dynamic or static method to obtain a valid TCP/IP address. Also verify that this workstation is using a **DNS Server** for resolution of the Internet Host Name (typically also the same name as the NetBIOS Host name). If the TCP/IP protocol is NOT loaded, click the **Install...** button, then select **Protocol** as the type of network component that you wish to install. Click the **Add...** button and select **Internet Protocol (TCP/IP)**. With your Windows 2000 Installer Disk readily available, click the **Have Disk...** button and follow any remaining instructions. Once the protocol has been installed, you can click on (highlight) the item with your mouse and click the Properties button to verify or set up the method being used for TCP/IP addressing.
3. Run a Command (DOS) prompt on the workstation and perform **ping** tests to verify successful packet transmission first to the workstation's NIC, then to the Gateway (if being used), then to the Printer's NIC. To run Ping Tests, at the Command (DOS) prompt, type: ping xxx.xxx.xxx.xxx and press ENTER. Note that there is a space between the word "ping" and the first xxx. Let xxx.xxx.xxx.xxx first represent the workstation's IP address, then the IP address of the default gateway, and finally the IP address of the Printer. If successful, you will receive a reply such as: "Reply from xxx.xxx.xxx.xxx: bytes=32 time<10ms TTL=128." If you receive "Time Out" or "0 bytes received" notifications, the device being pinged is incorrectly configured or malfunctioning.
4. If Web browser and Ping Tests are successful but you are still unable to print to the Printer, verify that the driver is using an IPP Port to print through. From the Windows desktop, select **Start, Settings, Printers**, right click on the Printer's icon, and select **Properties**. Select the Ports Tab and verify that the IPP Port being printed through matches the IP Address, or fully qualified Domain Name, of the Printer. If the IP address (or fully qualified Domain Name) does NOT match, you are printing to the wrong device on the network. Either select the correct port from the displayed list, or use the **Add Port** button to create a new IPP port with an IP Address (or fully qualified Domain Name) matching that of your Printer.

Note: A fully qualified Domain Name consists of the Printer's internet Host Name, followed by its internet domain name, separated by periods.

5. Note that access to this Printer's Services can be restricted by Host IP addresses. As this feature could cause communications to appear to fail in certain instances, see the **Restricting Printer Access** procedure under the Internet Services Tab of this guide for further details.
6. To assure successful printing, make sure that the Printer is configured to support the Page Description

Language (PDL) being used by your driver. To check the PDL being used by the driver, print a test job "to file." Open and view the job in a program such as Notepad. The PDL being used by the driver will be displayed in the first few lines of Printer Language. Next, check the Page Description Languages being supported by the Printer's ports by following the instructions supplied under the **Setting PDL Emulations** procedure in the Internet Services section of this guide. The PDL being used by the driver, and the PDL supported by the Port you are printing to, **MUST** match for successful printing to occur.

Use the following check list to troubleshoot your network communication problem.

## Check Physical Media and Network Interface Cards

1. Verify that the Printer is powered ON.
2. Verify that the Printer and Workstation are using the correct cabling to communicate over the network. Use category 3 UTP patch (NOT crossover) cable for 10 Base T communications, category 5 UTP patch (NOT crossover) cable for 10 Base T / 100 Base TX communications, and Token Ring cabling for Token Ring networks.
3. Verify that the cable at both the Printer and Workstation is fully plugged into the Network Interface Card (NIC). Check the link light, which is typically a green LED, to make sure that it is lit. Typically, but not always, a second light on the Network Interface Card will be intermittently flashing, indicating the presence of network traffic. If neither of these lights is lit, there is a problem with the NIC.

## Print a Settings List at the Printer and perform these tasks:

1. Under the **Ethernet** data label on the Report, verify that your communications speed is correctly set for your network and that you have a MAC address listed. The driver for your NIC works at the Media Access Control (MAC) layer of the protocol stack. If no MAC address is shown, you have either a bad NIC or no NIC at all. Replace or install the Network Interface Card.
2. Under the **Internet Services** data label, verify that this feature is Enabled. If it is NOT, enable it following the instructions supplied under the **Network Connectivity Tab** of this guide.
3. Under the **NetWare** data label, verify that NetWare (and its IPX/SPX protocol) is Enabled. If it is NOT, enable NetWare following the instructions supplied in the **Novell NetWare 3.1x (Bindery) Networks** procedure in the NOS selection menu, accessed through the Network Connectivity Tab of this guide.
4. Under the NetWare data label, if a **Mode** is shown make sure that it is set to **Bindery**. Set the Mode to Bindery following the instructions supplied in the **Configure NetWare Settings** procedure in the Internet Services section of this guide.
5. Under the **NetWare** data label, verify that you have a **Primary Server** name displayed. If a Primary Server is not shown, you are NOT properly set up for Bindery communications. Provide the Printer with the name of the Primary Server following the instructions supplied in the **Configure NetWare Settings** procedure in the Internet Services section of this guide.
6. Under the **NetWare** data label, notice the **Print Server name** that is displayed. This name should be identical to the name of the Print Server used in the Primary Server's LOGIN Configuration File, as well as in the set up of the Print Server, in the Primary Server's PUBLIC directory, using PCONSOLE. Log in passwords may also be set following the instructions supplied in the **Configure NetWare Settings** procedure in the Internet Services section of this guide.
7. Under the **NetWare** data label, determine if the **IPX Frame Type** is set for **Auto** sensing (the factory default). Other selections include Ethernet II (used when running TCP/IP on your network), Ethernet 802.3 (used for NetWare versions up to 3.11), Ethernet 802.2 (the default for NetWare 3.12 and later), and Ethernet SNAP (used on networks running TCP/IP and/or AppleTalk). If the Frame Type is not set

to **Auto** sensing, or to the specific frame type used by the Primary Server, configure the Printer with the correct Frame Type following the instructions supplied in the **Configure NetWare Settings** procedure in the Internet Services section of this guide.

**At the Windows workstation, experiencing the communication problem, perform these tasks:**

1. At your 95/98/Me/NT workstation verify that the correct protocol and service is installed.

At the Desktop, right mouse click the Network Neighborhood icon ("My Network Places" in Windows Me).

Left mouse click on **Properties**.

Click on the **Protocols Tab** (in Win. NT) or the **Configuration Tab** (in Win. 95/98/Me) to verify that the **IPX/SPX Protocol** has been installed. It should appear in the displayed list.

Note: If the IPX/SPX Protocol has NOT been installed, click the **Add** button, select IPX/SPX Protocol from the available list and click OK. If the setup program fails to find the required files, you will have to click Have Disk... to load the protocol from the Operating System installer disk for this workstation.

Left mouse click on the **Services Tab** (in Win. NT) or the **Configuration Tab** (in Win. 95/98/Me) to verify that the **Microsoft Client for NetWare** is installed.

Note: If the Microsoft Client for NetWare is NOT installed, click the **Add** button, select the Microsoft Client Service (or Microsoft Network Service) for NetWare from the available list and click OK. If the setup program fails to find the required files, you will have to click Have Disk... to load the service from the Operating System installer disk for this workstation.

2. At your Windows 2000 workstation, verify that the correct protocol and service is installed.

Verify that the **NW Link/IPX/SPX/NetBIOS Compatible Transport Protocol** is installed in the Workstation. At the Desktop, right mouse click the **My Network Places** icon and select **Properties**. Right mouse click on the **Local Area Connection** icon and select **Properties**. Verify that the Protocol has been installed. If the protocol is NOT loaded, click the **Install...** button, then select **Protocol** as the type of network component that you wish to install. Click the **Add...** button and select **NW Link/IPX/SPX/NetBIOS Compatible Transport Protocol**. With your Windows 2000 Installer Disk readily available, click the **Have Disk...** button and follow any remaining instructions.

Verify that the **Client Service for NetWare** is installed in the Workstation. At the Desktop, right mouse click the **My Network Places** icon and select **Properties**. Right mouse click on the **Local Area Connection** icon and select **Properties**. If the Client Service for NetWare is NOT loaded, click the **Install...** button, then select **Client** as the type of network component that you wish to install. Click the **Add...** button and select **Client Service for NetWare**. With your Windows 2000 Installer Disk readily available, click the **Have Disk...** button and follow any remaining instructions.



3. Verify that the driver is using the correct Network Port to print through. On Windows desktops, select **Start, Settings, Printers**, right click on the Printer's icon, and select **Properties**. Select the Ports Tab (NT4 and 2000) or the Details Tab (95/98/Me) and verify that the Network Port being printed through includes the name of the **Primary Server** and **Print Queue**. If the Primary Server name does NOT match the name shown on the Printer's Settings List, you are printing to the wrong Server on the network. Either select the correct port from the displayed list, or use the **Add Port** button to create a new Network Port.
4. To assure successful printing, make sure that the Printer is configured to support the Page Description Language (PDL) being used by your driver. To check the PDL being used by the driver, print a test job "to file." Open and view the job in a program such as Notepad. The PDL being used by the driver will be displayed in the first few lines of Printer Language. Next, check the Page Description Languages being supported by the Printer's ports by following the instructions supplied under the **Setting PDL Emulations** procedure in the Internet Services section of this guide. The PDL being used by the driver, and the PDL supported by the Port you are printing to, **MUST** match for successful printing to occur.

### At the Primary Server, perform these tasks:

1. Check the Printer's Log In Using PCONSOLE

From a workstation with a network connection, log in (with System Administrator Privileges) to the Primary Server.

Note: While the use of PCONSOLE described below does NOT require System Administrator privileges, if you will be making modifications or changing the Printer Configuration file on the Server, you WILL need to be logged in as System Administrator.

Make sure that you have a drive mapped to the SYS volume. This is the volume that contains the LOGIN and PUBLIC directories.

At the command prompt, if not already in the PUBLIC directory, change to the PUBLIC directory by typing **cd public** and press ENTER.

At the PUBLIC prompt, type **pconsole** and press ENTER.

When the PCONSOLE screen displays, observe the information at the top of the screen to verify that you are connected to the correct Primary File Server. If correct, the Server's name will match the Primary Server name shown on the Printer's Settings List.

Note: If you are NOT connected to the correct file server you will be checking for the Printer's login in the WRONG place.

Under **Available Options**, highlight **Print Queue Information** and press ENTER. The **Print Queues** will be displayed in a list. Select the name of your printer's Print Queue from the list and press ENTER.

Under **Print Queue Information**, highlight **Currently Attached Servers** and press ENTER. If a Print Server is shown, the printer logged into the network properly. If nothing is shown, the printer did NOT log in to the network correctly. Check to see if the Printer logged into another Server, or reboot the Printer to see if it logs into this file server properly.

Press the ESCAPE key as many times as required to back out of displayed menus and screens, until the **Exit Pconsole** prompt is displayed. Highlight **Yes** and press ENTER.

2. If the Printer did NOT log in, check to see if it logged in to another Server

To find out how many File Servers are on the network, at the PUBLIC prompt, type **slist** and press ENTER.

If you suspect that another File Server contains the Printer Configuration File (with the Print Queue and Print Server names), log in to the server of interest. To log in to one of the displayed servers, type **login (the server's name)(your login name)** and press ENTER. Note: add a space between login and the server's name.

Check the Printer's Log In using PCONSOLE, as previously described.

3. Verify the existence of a Login Configuration File for the Printer

On the known Primary File Server, after logging in to the server, make sure that you have a drive mapped to the SYS volume containing the LOGIN and PUBLIC directories.

The printer configuration file is required to be located on the Primary Server, *TYPICALLY* using the following directory structure: SYS/LOGIN/XEROX. Go to the XEROX directory (by typing **cd (directory)** ENTER), and verify the existence of the printer configuration file (by typing **dir**).

If you have a Printer Configuration file for your printer, you should *TYPICALLY* see a file named x(plus the last 6 digits of the printer's NIC address as shown on the Settings List). If this file is missing, you will have to create it or the printer will NOT be able to communicate over the Novell network. Refer to your Novell documentation for the steps to follow to create this type of file. To edit an existing file, see "Editing the Printer Configuration File" below.

If the Printer Configuration file is present and has the correct name, perform the following step:

4. Check for the Print Server and Print Queue Names

Switch to the PUBLIC directory (if not already there) by typing **cd public** [ENTER], and type **pconsole**, and press ENTER.

In PCONSOLE, from the **Available Options** screen select **Print Queue Information**.

From the list of displayed **Print Queues**, look for the queue for your printer and write down its name



(RHINO2\_Q, for example).

From the **Available Options** screen select **Print Server Information**.

From the list of displayed **Print Servers**, look for the server for your printer and write down its name (RHINO2\_PS, for example).

Press the ESCAPE key as many times as required to back out of displayed menus and screens, until the **Exit Pconsole** prompt is displayed. Highlight **Yes** and press ENTER.

## 5. Editing the Printer Configuration File

Note: This procedure REQUIRES System Administrator privileges.

Change directories (**cd login, cd xerox**) to display the LOGIN\XEROX prompt and *TYPICALLY* type EDIT **x**(plus the last 6 digits of the printer's NIC address) and press ENTER.

Your screen should now display a text string *SIMILAR* to the following:

```
PQA1_312:FHINO2_Q:RHINO2_PS:Parallel::
```

The first entry in this file is the Primary Server name (in this case PQA1\_312), which, if correct, matches the Primary Server name displayed on the Printer's Settings List. The next entry is the Queue Name (FHINO2\_Q) WHICH SHOULD MATCH the Queue (RHINO2\_Q) that was displayed in PCONSOLE. **(This example is showing an INCORRECT entry so you know what to look for.)**

The next entry is the Print Server (RHINO2\_PS) which should (and in this case does) match the Print Server that was displayed in PCONSOLE.

The last entry **:Parallel::** appears in all correct Printer Configuration files. Note the colon before and 2 colons after "Parallel." If this is NOT exactly as shown, your file will need to be recreated.

To correct the incorrectly shown entry for Print Queue, type in **RHINO2\_Q** in place of **FHINO2\_Q**.

From the File menu, select **New** and press ENTER.

When prompted to save the loaded file, select **Yes** and press ENTER.

## 6. Power Cycle (Reboot) the Printer

After making a change in the Printer Configuration file in the Primary Server (that the printer refers to when logging into the network) power cycle the printer (off, then on), to enable the printer to freshly log into the Novell network. WAIT FOR TWO TO THREE MINUTES for the printer to log in.

## 7. Check to See If the Printer Is Now Logged Into the Network

**Using USERLIST** - At the PUBLIC prompt (**cd public**), type **userlist** and press ENTER. If the printer logged into the network correctly, its Print Server name (RHINO2\_PS, for example) should be displayed in the list along with the time of log in.

Note: As the printer logs into the server as a user, you must NOT exceed your maximum number of Novell user licenses or the printer will fail to log in.

**Using PCONSOLE**- See the previously described procedure for "Checking the Printer's Log In to the Network Using PCONSOLE."

#### 8. Check to see if a Lack of Novell Licenses is Preventing the Printer from Logging In

Performed by a QUALIFIED NETWORK ADMINISTRATOR at the Server Console, with monitor.nlm running, type version to display the number of user licenses installed. For comparison, from the "Monitor Screen" in the window labeled "Information for Server," the total number of licenses in use is displayed.

#### 9. Suspecting a Problem with the Server

If all of the previous troubleshooting steps have been taken and the printer still fails to log into the network correctly, the problem might be with the Server. In this case, it is recommended that you delete the current Printer Configuration file and all associated Server entries, and set up the Configuration File, and Install a Print Server (create Queue, create print server, define printer), as stated in Novell's documentation.

# NetWare 4.x, 5.x (NDS) Troubleshooting

Use the following check list to troubleshoot your network communication problem.

## Check Physical Media and Network Interface Cards

1. Verify that the Printer is powered ON.
2. Verify that the Printer and Workstation are using the correct cabling to communicate over the network. Use category 3 UTP patch (NOT crossover) cable for 10 Base T communications, category 5 UTP patch (NOT crossover) cable for 10 Base T / 100 Base TX communications, and Token Ring cabling for Token Ring networks.
3. Verify that the cable at both the Printer and Workstation is fully plugged into the Network Interface Card (NIC). Check the link light, which is typically a green LED, to make sure that it is lit. Typically, but not always, a second light on the Network Interface Card will be intermittently flashing, indicating the presence of network traffic. If neither of these lights is lit, there is a problem with the NIC.

## Print a Settings List at the Printer and perform these tasks:

1. Under the **Ethernet** data label on the Report, verify that your communications speed is correctly set for your network and that you have a MAC address listed. The driver for your NIC works at the Media Access Control (MAC) layer of the protocol stack. If no MAC address is shown, you have either a bad NIC or no NIC at all. Replace or install the Network Interface Card.
2. Under the **Internet Services** data label, verify that this feature is Enabled. If it is NOT, enable it following the instructions supplied under the **Network Connectivity Tab** of this guide.
3. Under the **NetWare** data label, verify that NetWare (and its IPX/SPX protocol) is Enabled. If it is NOT, enable NetWare following the instructions supplied in the **Novell NetWare 4.x, 5.x (NDS) Networks** procedure in the NOS selection menu, accessed through the Network Connectivity Tab of this guide.
4. Under the NetWare data label, if a **Mode** is shown make sure that it is set to **Directory (NDS)**. Set the Mode to Directory (NDS) following the instructions supplied in the **Configure NetWare Settings** procedure in the Internet Services section of this guide.
5. Under the **NetWare** data label, verify that you have **Tree** and **Context** names displayed. If these names are not shown, you are NOT properly set up for NDS communications. Provide the Printer with the name of the Directory Tree and Context (typeful name for the Printer in the NDS environment) following the instructions supplied in the **Configure NetWare Settings** procedure in the Internet Services section of this guide.
6. Under the **NetWare** data label, notice the **Print Server name** that is displayed. Use this name to create the Print Server on the NetWare Server. Log in passwords may also be set following the instructions supplied in the **Configure NetWare Settings** procedure in the Internet Services section of this guide.
7. Under the **NetWare** data label, determine if the **IPX Frame Type** is set for **Auto** sensing (the factory default). Other selections include Ethernet II (used when running TCP/IP on your network), Ethernet 802.3 (used for NetWare versions up to 3.11), Ethernet 802.2 (the default for NetWare 3.12 and later), and Ethernet SNAP (used on networks running TCP/IP and/or AppleTalk). If the Frame Type is not set to **Auto** sensing, or to the specific frame type used by the Primary Server, configure the Printer with the correct Frame Type following the instructions supplied in the **Configure NetWare Settings** procedure in the Internet Services section of this guide.

**At the Windows workstation, experiencing the communication problem, perform these tasks:**

1. At your 95/98/Me/NT workstation verify that the correct protocol and service is installed.

At the Desktop, right mouse click the Network Neighborhood icon ("My Network Places" in Windows Me).

Left mouse click on **Properties**.

Click on the **Protocols Tab** (in Win. NT) or the **Configuration Tab** (in Win. 95/98/Me) to verify that the **IPX/SPX Protocol** has been installed. It should appear in the displayed list.

Note: If the IPX/SPX Protocol has NOT been installed, click the **Add** button, select IPX/SPX Protocol from the available list and click OK. If the setup program fails to find the required files, you will have to click Have Disk... to load the protocol from the Operating System installer disk for this workstation.

Left mouse click on the **Services Tab** (in Win. NT) or the **Configuration Tab** (in Win. 95/98/Me) to verify that the **Novell Client for NetWare** (such as IntranetWare Client for Windows NT or Novell Client 32) is loaded. Do NOT use the Microsoft Client for NetWare because it is NOT NDS enabled.

Note: If the Novell Client is not loaded you will need to load the Novell Client Service from the Novell Server Install CD ROM. Get the CD ROM, insert it in your ROM drive, and use Windows Explorer to locate the Read Me file for your NetWare version. Follow the Read Me instructions to install the client. When finished with the install, unless otherwise instructed by the Read Me file, you may still have to click on the Services Tab (NT) or Configuration Tab (95/98/Me), click the Add button, select the Novell client service, and click OK.

2. At your Windows 2000 workstation, verify that the correct protocol and service is installed.

Verify that the **NW Link/IPX/SPX/NetBIOS Compatible Transport Protocol** is installed in the Workstation. At the Desktop, right mouse click the **My Network Places** icon and select **Properties**. Right mouse click on the **Local Area Connection** icon and select **Properties**. Verify that the Protocol has been installed. If the protocol is NOT loaded, click the **Install...** button, then select **Protocol** as the type of network component that you wish to install. Click the **Add...** button and select **NW Link/IPX/SPX/NetBIOS Compatible Transport Protocol**. With your Windows 2000 Installer Disk readily available, click the **Have Disk...** button and follow any remaining instructions.

Verify that the **Client Service for NetWare** is installed in the Workstation. At the Desktop, right mouse click the **My Network Places** icon and select **Properties**. Right mouse click on the **Local Area Connection** icon and select **Properties**. If the Client Service for NetWare is NOT loaded, click the **Install...** button, then select **Client** as the type of network component that you wish to install. Click the **Add...** button and select **Client Service for NetWare**. With your Windows 2000 Installer Disk readily available, click the **Have Disk...** button and follow any remaining instructions.

3. Verify that the driver is using the correct Network Port to print through. On Windows desktops, select

**Start, Settings, Printers**, right click on the Printer's icon, and select **Properties**. Select the Ports Tab (NT4 and 2000) or the Details Tab (95/98/Me) and verify that you are printing to the correct **NDS Network** and **Print Queue**. If the displayed information is incorrect, you are printing to the **WRONG** device on the network. Either select the correct port from the displayed list, or use the **Add Port** button to create a new Network Port, selecting the Print Queue from the appropriate NDS network.

- To assure successful printing, make sure that the Printer is configured to support the Page Description Language (PDL) being used by your driver. To check the PDL being used by the driver, print a test job "to file." Open and view the job in a program such as Notepad. The PDL being used by the driver will be displayed in the first few lines of Printer Language. Next, check the Page Description Languages being supported by the Printer's ports by following the instructions supplied under the **Setting PDL Emulations** procedure in the Internet Services section of this guide. The PDL being used by the driver, and the PDL supported by the Port you are printing to, **MUST** match for successful printing to occur.

### At the Server, perform these tasks:

1. Check the Printer's Log In using PCONSOLE

Log into the Novell Server as System Administrator **using a workstation running Novell Client services** (such as IntranetWare Client for Windows NT or Novell Client 32).

Check the context displayed on screen to make sure that the current context is the same as the context of the file server that was used when setting up the print server and print queue.

Note: If necessary, to change context, type **cx** and the correct context name, separated by a space, and press ENTER.

At the drive prompt (if your search path is set for the PUBLIC directory) or by first typing **cd public** [ENTER], type **pconsole** and press ENTER.

From PCONSOLE's **Available Options** window, select **Print Queues** and press ENTER.

In the **Print Queues** window, select the printer's queue and press ENTER.

In the **Print Queue Information** window, scroll down to **Attached Print Servers** and press ENTER.

If the printer logged into the server correctly, the **Print Servers Currently Servicing Print Queues** window should show the name of the Printer's Print Server. If nothing is shown, the printer did NOT log in correctly and, referring to your Novell documentation, you should follow the instructions to set up a Print Server, Print Queue, and Printer using NWADMIN or PCONSOLE. When following these instructions, if you find that the print server name was incorrect, correct it, save the new setup, and power off/power on the printer to log back into the network correctly.

Press your Escape key to exit PCONSOLE.

2. Check the Printer's Log In with NLIST USER

At the PUBLIC prompt (**cd public**), type **nlist user** and press ENTER. If the printer logged into the network correctly, its Print Server name should be displayed in the list along with the time of log in.

**WARNING:** The NLIST can be misleading if the display is not refreshed frequently, or the printer has been left on for an extended period of time. It can be used as a guide, however, by powering the printer off, then on, to see if the time of login shown in the NLIST updates. If it does, you know that the printer is logging into the network.

### 3. Check to see if a lack of available Novell Licenses is Preventing the Printer from Logging In

Performed by a QUALIFIED NETWORK ADMINISTRATOR at the Server Console, with **monitor.nlm** running, type **version** to display the number of user licenses installed. For comparison, from the "NetWare 4.x Console Monitor," in the "General Information" window, the total number of licenses in use is displayed.

### 4. Print a Test File using NPRINT

At the client workstation, with an appropriate print file (mydraw.ps, for example) in the boot drive of the workstation, change to the boot drive (by typing **C:** if necessary), and type the following *TYPICAL* **nprint** command. If the Server's set up is correct, the file should print.

```
C:\>nprint mydraw.pS /q=8830_Q1 /nobanner
```

*Note: 1) mydraw.ps is just a file example. Substitute your own file for this one. 2) Q= your printer queue. 3) Insert a space after nprint and before all forward slash marks (/) of this command.*



# EtherTalk Troubleshooting

T7

Use the following check list to troubleshoot your network communication problem.

## Check Physical Media and Network Interface Cards

1. Verify that the Printer is powered ON.
2. Verify that the Printer and Workstation are using the correct cabling to communicate over the network. Use category 3 UTP patch (NOT crossover) cable for 10 Base T communications, category 5 UTP patch (NOT crossover) cable for 10 Base T / 100 Base TX communications, and Token Ring cabling for Token Ring networks.
3. Verify that the cable at both the Printer and Workstation is fully plugged into the Network Interface Card (NIC). Check the link light, which is typically a green LED, to make sure that it is lit. Typically, but not always, a second light on the Network Interface Card will be intermittently flashing, indicating the presence of network traffic. If neither of these lights is lit, there is a problem with the NIC.

## Print a Settings List at the Printer and perform these tasks:

1. Under the **Ethernet** data label on the Report, verify that your communications speed is correctly set for your network and that you have a MAC address listed. The driver for your NIC works at the Media Access Control (MAC) layer of the protocol stack. If no MAC address is shown, you have either a bad NIC or no NIC at all. Replace or install the Network Interface Card.
2. Under the **Internet Services** data label, verify that this feature is Enabled. If it is NOT, enable it following the instructions supplied under the **Network Connectivity Tab** of this guide.
3. Under the **EtherTalk** data label, verify that the EtherTalk protocol is enabled, and that Printer has been assigned an EtherTalk name and an EtherTalk zone. If one or more of these parameters needs to be configured, follow the instructions supplied under the **EtherTalk** item of the NOS Selection menu, accessed from the **Network Connectivity Tab** of this guide.
4. Under the **EtherTalk** data label and at the bottom of the Settings List, verify that **PostScript** is installed in the Printer. If a PostScript license is installed in the Printer, the PostScript logo will be clearly displayed at the bottom of the Settings List. NOTE: If a PostScript license is NOT installed in the Printer, EtherTalk will NOT be displayed on the Settings List, and will be unavailable for configuration using Internet Services. Consult your Xerox Representative for assistance.

## At the Macintosh workstation

Verify that the Printer is visible in the **Chooser**. If it is NOT, install the Driver and PPD file as follows:

## Install the Adobe PostScript Print Driver and PPD on your Macintosh workstation

1. Locate the **PPD** (PostScript Printer Description) file on your hard drive, on your mapped network drive, or on the driver CD-ROM.
2. Copy the PPD to the **System Folder\Extensions\Printer Descriptions** folder on your workstation.
3. Locate the Adobe PostScript Print Driver file.
4. Double click the **Adobe PS Installer** icon. Click **Continue** on the introduction screen.
5. On the licensing screen, click **Accept**.
6. Verify the location for the print driver file and click **Install**.
7. When the installation completes, click **Restart** to reboot your workstation.

## Configure the PPD File

1. In the Apple **Chooser**, select the Adobe PostScript or Apple LaserWriter printer.
2. Select the appropriate **AppleTalk zone** (if applicable) and the printer name.
3. Click **Create** (for the initial installation) or **Setup** (for all subsequent installations) and select the PPD file for the Printer. The PPD screen will display.
4. On the PPD screen, click **Select PPD**.
5. If it is not already selected, highlight the Printer's PPD in the list and click **Select**.
6. Click **OK**.
7. Optionally, on the PPD screen, click **Configuration** to modify the memory configuration and default output tray for the Printer. Click **Printer Info** to view a listing of the current settings, such as printer name and PostScript level.



# Scanning to Hard Drive Troubleshooting

Use the following check list to troubleshoot your network communication problem.

## Before you start

It is assumed that you purchased the Scanning option to enable Scanning to the Hard Drive with your Printer. If you did not, contact your Xerox Representative to purchase this option.

## Check Physical Media and Network Interface Cards

1. Verify that the Printer is powered ON.
2. Verify that the Printer and Workstation are using the correct cabling to communicate over the network. Use category 3 UTP patch (NOT crossover) cable for 10 Base T / 100 TX communications, category 5 UTP patch (NOT crossover) cable for 100 Base TX communications, and Token Ring cabling for Token Ring networks.
3. Verify that the cable at both the Printer and Workstation is fully plugged into the Network Interface Card (NIC). Check the link light, which is typically a green LED, to make sure that it is lit. Typically, but not always, a second light on the Network Interface Card will be intermittently flashing, indicating the presence of network traffic. If neither of these lights is lit, there is a problem with the NIC.

## Print a Settings List at the Printer and perform these tasks:

1. Under the **Ethernet** data label on the Report, verify that your communications speed is correctly set for your network and that you have a MAC address listed. The driver for your NIC works at the Media Access Control (MAC) layer of the protocol stack. If no MAC address is shown, you have either a bad NIC or no NIC at all. Replace or install the Network Interface Card.
2. Under the **Internet Services** data label, verify that this feature is enabled. If it is NOT, enable it following the instructions supplied under the **Network Connectivity Tab** of this guide.
3. Under the **TCP/IP** data label, determine the method being used to assign TCP/IP addressing to the Printer. Verify that the IP Address, Subnet Mask, and Gateway addresses are correct for your network and have NOT changed from their previous settings. Note: The use of DHCP (the DHCP Server) with a short "lease" time can cause the Printer to be assigned a new IP Address when it is powered off for an extended period of time. This will interrupt communications with workstations using the "old" IP address. If you do not want the IP address to be subject to constant changes, either increase the lease time at the DHCP Server, or use the Static IP Addressing method as described in the **TCP/IP Protocol Configuration** procedure in the NOS selection section of this guide.
4. Under the **Salutation** data label, verify that Salutation is enabled. If this protocol is NOT enabled, you will not be able to retrieve your scanned jobs from the Printer's Hard Drive. To enable the protocol, follow the instructions supplied in the **Before You Start** document, in the **Scanning to the Printer's Hard Drive** item, under the **Enabling Scanning** Tab of this guide.

## At the Printer

1. Verify that you have correctly set up your Mailbox as stated in the **Setting Up Mailboxes** procedure, in the **Scanning to the Printer's Hard Drive** item, under the **Enabling Scanning** Tab of this guide.
2. Scan a test document to your Mailbox as stated in the **Scanning to Mailboxes** procedure, in the **Scanning to the Printer's Hard Drive** item, under the **Enabling Scanning** Tab of this guide.

## At the Workstation

1. Open your Web browser and enter the TCP/IP address of the Printer in the Address or Location field. Press ENTER. If the Printer's Internet Services (web pages) begin to display on the workstation, you are communicating with the Printer. If NOT, make sure that your web browser is not set to use a proxy server and repeat the procedure. If unsuccessful, perform the next step.
2. Verify that the workstation has been assigned an IP address, subnet mask, and gateway address by running a Command (DOS) prompt, typing **ipconfig/all** (Windows NT) or **winipcfg** (Windows 95/98/Me), and pressing ENTER. If any of the addresses are incorrect or missing, right mouse click on the Network Neighborhood icon (My Network Places in Windows Me and 2000) and make sure that the **TCP/IP protocol** is installed and properly configured for IP addressing.
3. Run a Command (DOS) prompt on the workstation and perform **ping** tests to verify successful packet transmission first to the workstation's NIC, then to the Gateway (if being used), then to the Printer's NIC. To run Ping Tests, at the Command (DOS) prompt, type: ping xxx.xxx.xxx.xxx and press ENTER. Note that there is a space between the word "ping" and the first xxx. Let xxx.xxx.xxx.xxx first represent the workstation's IP address, then the IP address of the default gateway, and finally the IP address of the Printer. If successful, you will receive a reply such as: "Reply from xxx.xxx.xxx.xxx: bytes=32 time<10ms TTL=128." If you receive "Time Out" or "0 bytes received" notifications, the device being pinged is incorrectly configured or malfunctioning.
4. When Internet Services are successfully displayed on your monitor, retrieve your scanned test document as stated in the **Retrieving Images from Mailboxes** procedure, in the **Scanning to the Printer's Hard Drive** item, under the **Enabling Scanning** Tab of this guide.

**Trademarks  
&  
Notices**

[Trademark Acknowledgements R1](#)

[Notices R2](#)

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# Trademark Acknowledgments

R1

Microsoft® is a registered trademark of Microsoft Corporation.

Windows NT®, Windows® 95, Windows® 98, Windows® Me, Windows® 2000, and Windows® XP are registered trademarks of Microsoft Corporation.

Internet Explorer is a copyright protected program of Microsoft Corporation.

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PCL® and HP-GL® are registered trademarks of Hewlett-Packard Corporation.

WinZip® is a registered trademark of Nico Mak Computing, Incorporated.

Digi is a trademark of Digi International.

ACITS LPR Printing for Windows 95 is a copyright of the University of Texas at Austin.

XEROX®, The Document Company®, the digital X® and "Keep the Conversation Going. Share the Knowledge." are trademarks of XEROX CORPORATION.

# Notices

R2

## Radio Frequency Emissions

### FCC

The following applies to the product when equipped with the Token Ring or Banyan Vines connectivity options:

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 harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his/her own expense.

Changes or modifications to this equipment not specifically approved by the Xerox Corporation may void the user's authority to operate this equipment.

Shielded cables must be used with this equipment to maintain compliance with FCC regulations.

### In Canada

This digital apparatus does not exceed the Class A limits for radio noise emissions from digital apparatus as defined in the Radio Interference Regulations of Industry Canada.

## Safety Extra Low Voltage Approval

This copier/printer is in compliance with various governmental agencies and national safety regulations. All system ports meet the Safety Extra Low Voltage (SELV) circuits for connection to customer-owned devices and networks. Additions of customer-owned or third-party accessories that are attached to the copier/printer must meet or exceed the requirements listed above. All modules that require external connection must be installed per the Printer's installation procedure.

### Certifications . . . in Europe

The **CE** marking that is applied to this product symbolizes Xerox Europe's Declaration of Conformity with the following applicable Directives of the European Union as of the dates indicated:

January 1, 1995: - Council Directive 73/23/EEC amended by Council Directive 93/68/EEC, approximation of the laws of the member states related to low voltage equipment.

January 1, 1996: - Council Directive 89/336/EEC, approximation of the laws of the member states related to electromagnetic compatibility.

Changes or modifications to this equipment not specifically approved by Xerox Europe may void the user's authority to operate the equipment.

Shielded cables must be used with this equipment to maintain compliance with the EMC Directive 89/336/EEC.

This equipment is not primarily intended for use in a domestic environment.

A full declaration, defining the relevant Directives and referenced standards, can be obtained from your Xerox Europe representative.



**WARNING:** In order to allow this equipment to operate in proximity to Industrial, Scientific and Medical (ISM) equipment, the external radiation from ISM equipment may have to be limited or special mitigation measures taken.



**WARNING:** 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.

## It's Illegal . . . in the USA

Congress, by statute, has forbidden the copying of the following subjects under certain circumstances. Penalties of fine or imprisonment may be imposed on those guilty of making such copies.

1. Obligations or Securities of the United States Government, such as:

- Certificates of Indebtedness
- National Bank Currency
- Coupons from Bonds
- Federal Reserve Bank Notes
- Silver Certificates
- Gold Certificates
- United States Bonds
- Treasury Notes
- Federal Reserve Notes
- Fractional Notes
- Certificates of Deposit

## Paper Money

Bonds and Obligations of certain agencies of the government, such as FHA, etc.

Bonds. (U.S. Savings Bonds may be photographed only for publicity purposes in connection with the campaign for the sale of such bonds.)

Internal Revenue Stamps. (If necessary to copy a legal document on which there is a canceled revenue stamp, this may be done, provided the reproduction of the document is performed for legal purposes.)

Postage Stamps, canceled or uncanceled.

(For philatelic purposes, Postage Stamps may be photographed, provided the reproduction is in black and white and is less than 75% or more than 150% of the linear dimensions of the original.)

Postal Money Orders.

Bills, Checks, or Drafts of money drawn by or upon authorized officers of the United States.

Stamps and other representatives of value, of whatever denomination, which have been or may be issued under any Act of Congress.

2. Adjusted Compensation Certificates for Veterans of the World Wars.
3. Obligations or Securities of any Foreign Government, Bank, or Corporation.
4. Copyrighted material, unless permission of the copyright owner has been obtained or the copying falls within the "fair use" or library reproduction rights provisions of the copyright law. Further information of these provisions may be obtained from the Copyright Office, Library of Congress, Washington, D.C. 20559. Ask for Circular R21.
5. Certificates of Citizenship or Naturalization. (Foreign Naturalization Certificates may be photographed.)
6. Passports. (Foreign Passports may be photographed.)
7. Immigration Papers.
8. Draft Registration Cards.
9. Selective Service Induction Papers that bear any of the following Registrant's information:
  - Earnings or Income
  - Dependency Status
  - Court Record
  - Previous military service
  - Physical or mental conditionException: U.S. Army and Navy discharge certificates may be photographed.
10. Badges, Identification Cards, Passes, or Insignia carried by Military or Naval personnel, or by members of the various Federal Departments, such as FBI, Treasury, etc. (unless photograph is ordered by the head of such department or bureau).

Copying the following is also prohibited in certain states:

Automobile Licenses - Drivers' Licenses - Automobile Certificates of Title.

The above list is not all inclusive, and no liability is assumed for its completeness or accuracy. In case of doubt, consult your attorney.

## **It's Illegal . . . in Canada**

Parliament, by statute, has forbidden the copying of the following subjects under certain circumstances. Penalties of fines or imprisonment may be imposed on those guilty of making such copies.

1. Current bank notes or current paper money.
2. Obligations or securities of a government or bank.
3. Exchequer bill paper or revenue paper.
4. The public seal of Canada or of a province, or the seal of a public body or authority in Canada, or of a court of law.
5. Proclamations, orders, regulations or appointments, or notices thereof (with intent to falsely cause same to purport to have been printed by the Queen's Printer for Canada, or the equivalent printer for a province).
6. Marks, brands, seals, wrappers or designs used by or on behalf of the Government of Canada or of a province, the government of a state other than Canada or a department, board, Commission or agency established by the Government of Canada or of a province or of a government of a state other than Canada.
7. Impressed or adhesive stamps used for the purpose of revenue by the Government of Canada or of a province or by the government of a state other than Canada.
8. Documents, registers or records kept by public officials charged with the duty of making or issuing certified copies thereof, where the copy falsely purports to be a certified copy thereof.
9. Copyrighted material or trademarks of any manner or kind without the consent of the copyright or trademark owner.
10. The above list is provided for your convenience and assistance, but it is not all inclusive, and no liability is assumed for its completeness or accuracy. In case of doubt, consult your solicitor.

## **Environmental Notices . . . in the USA**

As an ENERGY STAR® partner, Xerox Corporation has determined that this copier/printer model meets the ENERGY STAR® guidelines for energy efficiency.

ENERGY STAR® is a US registered trademark.

The ENERGY STAR program is a team effort between the Environmental Protection Agency and the office equipment industry to promote energy-efficient personal computers, monitors, printers, fax machines and copiers. Reducing the energy consumption of this equipment will help combat smog, acid rain and long-term changes to the climate by decreasing the emissions that result from generating electricity.



## **Environmental Notices . . . in Canada**

Terra Choice Environmental Services, Inc. of Canada has verified that this Xerox product conforms to all applicable Environmental Choice EcoLogo requirements for minimized impact to the environment.

Environment Canada established the Environmental Choice program in 1988 to help consumers identify environmentally responsible products and services. Copier, printer and fax products must meet energy efficiency and emissions criteria, and exhibit compatibility with recycled supplies. Currently, Environmental Choice has more than 1600 approved products and 140 licensees. Xerox has been a leader in offering EcoLogo approved products. In 1996, Xerox became the first company licensed to use the Environmental Choice EcoLogo for its copiers, printers, and fax machines.

# Safety Notes

R3

This copier/printer and the recommended maintenance supplies have been designed and tested to meet strict safety requirements. Attention to the following notes will ensure the continued safe operation of your copier/printer.

## Electrical safety

- Use only the power cord supplied with this equipment.
- Plug the power cord directly into a correctly grounded electrical outlet. Do *not* use an extension cord. If you do not know whether or not an outlet is grounded, consult a qualified electrician.
- Do not use a ground adapter plug to connect this equipment to an electrical outlet that lacks a ground connection terminal.



**WARNING:** You may get a severe electrical shock if the outlet is not correctly grounded.

- Do not place the copier/printer where people may step on or trip on the power cord. Do not place objects on the power cord.
- Do not override or disable electrical or mechanical interlocks.
- Do not obstruct the ventilation openings. These openings are provided to prevent overheating of the machine.



**WARNING:** Never push objects of any kind into slots or openings on this equipment. Making a contact with a voltage point or shorting out a part could result in fire or electrical shock.

If any of the following conditions occur, switch off the power to the machine immediately and disconnect the power cord from the electrical outlet. Call an authorized Xerox service representative to correct the problem.

- The machine emits unusual noises or odors.
- The power cord is damaged or frayed.
- A wall panel circuit breaker, fuse, or other safety device has been tripped.
- Liquid is spilled into the copier/printer.
- The machine is exposed to water.
- Any part of the machine is damaged.

## Disconnect Device

The power cable is the disconnect device for this equipment. It is attached to the back of the machine as a plug-in device. To remove all electrical power from the machine, disconnect the power cable from the electrical outlet.

## Laser safety



**CAUTION:** Use of controls, adjustments, or procedures other than those specified in this documentation may result in a hazardous exposure to laser radiation.

This equipment complies with international safety standards. With specific regard to laser safety, the equipment complies with performance standards for laser products set by government, national, and international agencies as a Class 1 laser product. It does not emit hazardous light, as the beam is totally enclosed during all phases of customer operation and maintenance.

## Maintenance safety

- Do not attempt any maintenance procedure that is not specifically described in the documentation that is supplied with your copier/printer.
- Do not use aerosol cleaners. The use of supplies that are not approved may cause poor performance of the copier/printer, and could create a dangerous condition.
- Use the supplies and cleaning materials only as directed in the documentation that is supplied with your copier/printer. Keep all of these materials out of the reach of children.
- Do not remove the covers or guards that are fastened with screws. There are no parts behind these covers that you can maintain or service.
- Do not perform any maintenance procedures unless you have been trained to do them by a Xerox representative or unless a procedure is specifically described in one of the copier/printer Manuals.

## Operational safety

Your Xerox equipment and supplies were designed and tested to meet strict safety requirements. These include safety agency examination, approval, and compliance with established environmental standards.

Your attention to the following safety guidelines will help ensure the continued safe operation of your copier/printer:

- Use the materials and supplies specifically designed for your copier/printer. The use of unsuitable materials may result in poor performance of the machine and possibly a hazardous situation.
- Follow all warnings and instructions that are marked on or supplied with the machine.
- Place the machine in a room that provides adequate space for ventilation and servicing.
- Place the machine on a level, solid surface (not on a thick pile carpet) that has adequate strength to support the weight of the machine.
- Do not attempt to move the machine. A leveling device that was lowered when your machine was installed may damage the carpet or floor.
- Do not locate the machine near a heat source.
- Do not locate the machine in direct sunlight.
- Do not locate the machine in line with the cold air flow from an air conditioning system.
- Do not place containers of coffee or other liquid on the machine.
- Do not block or cover the slots and openings on the machine. Without adequate ventilation, the machine

may overheat.

- Do not attempt to override any electrical or mechanical interlock devices.



**WARNING:** Be careful when working in areas identified with this warning symbol. These areas may be very hot and could cause personal injury.

If you need any additional safety information concerning the machine or materials, contact your Xerox representative.

## Ozone safety

This product produces ozone during normal operation. The ozone is heavier than air, and the quantity is dependent on copy volume. Providing the correct environmental parameters, as specified in the Xerox installation procedures, ensures that concentration levels meet safe limits.

If you need additional information about ozone, request the Xerox publication, *OZONE*, 600P83222, by calling 1-800-828-6571 in the USA. For a French language version, call 1-800-828-6571 in the USA, then press 2.