



EpsonNet 802.11b Wireless Ext. Print Server

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User's Guide

FCC Compliance Statement For United States Users

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio or television reception. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio and television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures.

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio/TV technician for help.

WARNING

The connection of a non-shielded equipment interface cable to this equipment will invalidate the FCC Certification of this device and may cause interference levels which exceed the limits established by the FCC for this equipment. It is the responsibility of the user to obtain and use a shielded equipment interface cable with this device. If this equipment has more than one interface connector, do not leave cables connected to unused interfaces.

Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

For Canadian Users

The term "IC:" before the certification/registration number only signifies that the Industry Canada technical specifications were met. Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device. To prevent radio interference to the licensed service, this device is intended to be operated indoors and away from windows to provide maximum shielding. Equipment (or its transmit antenna) that is installed outdoors is subject to licensing.

This Class B digital apparatus complies with Canadian ICES-003.
Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

For European Users

This device complies with EU directives, 1999/5/EC.

AC Adapter model A191H conforms to CE marking requirements in accordance with EC Directives 73/23/EEC.

DECLARATION of CONFORMITY

According to 47CFR, Part 2 and 15 for Class B Personal Computers and Peripherals; and/or CPU Boards and Power Supplies used with Class B Personal Computers:

We: EPSON AMERICA, INC.

Located at: MS 6-43
3840 Kilroy Airport Way
Long Beach, CA 90806-2469
Telephone: (562)290-5254

Declare under sole responsibility that the product identified herein, complies with 47CFR Part 2 and 15 of the FCC rules as a Class B digital device. Each product marketed, is identical to the representative unit tested and found to be compliant with the standards. Records maintained continue to reflect the equipment being produced can be expected to be within the variation accepted, due to quantity production and testing on a statistical basis as required by 47CFR §2.909 Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Trade Name: EPSON

Type of Product: EpsonNet 802.11b Wireless Ext. Print Server

Model: EU-60

DECLARATION of CONFORMITY

according to ISO/IEC Guide 22 and EN 45014

Manufacturer: SEIKO EPSON CORPORATION

Address: 3-5, Owa 3-chome, Suwa-shi
Nagano-Ken 392-8502 Japan

Representative: EPSON EUROPE B.V.

Address: Entrada 701, 1096 EJ Amsterdam
The Netherlands

Declares that the Product:

Product Name: EpsonNet 802.11b Wireless Ext. Print Server

Model: EU-60

Conforms to the following Directive(s) and Norm(s):

Directive 1999/5/EC:

EN 300 328-2 (2000)
EN 301 489-01 (2000)
EN 301 489-17 (2000)
EN 55022 (1998) Class B
EN 61000-3-2 (2000)
EN 61000-3-3 (1995+A1:2001)
EN 55024 (1998)
EN 60950
(1992+A1:1993+A2:1993+A3:1995+A4:1997+A11:1997)



R. Olle
President of EPSON EUROPE B.V.

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Introduction

About Your Print Server

The EpsonNet 802.11b Wireless Ext. Print Server is a wireless print server that connects to the USB port of EPSON printers. With this print server, you can create a wireless connection between an EPSON printer and a local area network using the IEEE 802.11b communication standard.

A radio signal is transmitted over the wireless network when you send a print job to the printer. Then the printer prints the file when the print server receives the radio signal directly from a computer or from an access point.

This print server is Wi-Fi certified for interoperability with other 802.11-compliant products.

Because the print server supports multiple protocols and automatically detects protocols on your network, you can print from Microsoft® Windows®, Apple® Macintosh®, UNIX®, and IBM® OS/2 applications.

Use EpsonNet WinAssist/MacAssist/WebAssist, the configuration utilities provided with your printer, to quickly and easily configure the print server to use protocols such as TCP/IP, NetWare, NetBEUI, AppleTalk®, IPP, and SNMP.

Note:

The EpsonNet WinAssist/MacAssist/WebAssist utility configures the print server to work only with protocols that exist on your network. This does not imply that you can use all of the above-mentioned protocols on your network or operating system. The protocols that the print server can use may vary depending on the operating system and the network configuration.

Important Safety Instructions

Read all of these instructions and save them for later reference.

- ❑ Do not install or uninstall the print server with wet hands.
- ❑ Be careful not to drop or crush the print server when installing.
- ❑ Keep the print server away from humidity and dust.
- ❑ Do not allow children to handle the print server.
- ❑ When installing or uninstalling the print server, be sure to remove the USB cable, turn off your printer, and then unplug the AC adapter to avoid electric shock.
- ❑ Avoid using the print server if there is smoke, strange smell, or strange sound; otherwise this could cause fire or electric shock. Instead, immediately turn off the printer, unplug the AC adapter, and then contact your EPSON dealer. Do not repair it yourself because this is dangerous.
- ❑ Do not disassemble or modify the print server unless specifically instructed in the guide. This could cause injury, electric shock, or fire.

Instructions on Using the Print Server

Notes on powering on and off

- ❑ Do not turn off the print server while it is still initializing (red Status light and green Data light are both on); otherwise, you may need to configure the print server again.
- ❑ Do not turn off the printer and the print server when changing the settings. This may damage the printer and the print server.
- ❑ Do not turn off the printer and the print server while printing is in progress. This may cause operational trouble to the computer sending the print data and suspend the printing process.
- ❑ The print server needs to be turned off and on as you turn the printer off and on for maintenance work such as clearing paper jam. In this case, first turn off the printer and the print server, and clear the problem. Then turn on the print server and wait until the red Status light and green Data light go on. Finally, turn on the printer.
- ❑ The print server must be turned off when you change the DIP switch setting. After changing the DIP switch setting, turn on the print server.

Notes on USB connection

- ❑ You need at least one USB cable, which connects the printer and the print server.
- ❑ Only supported printers can connect to a USB downstream connector of the print server. Do not use a USB hub.
- ❑ Only IBM compatible computer or Macintosh equipped with USB can connect to a USB upstream connector of the print server.

Notes on security

- ❑ **WEP Key**
Set a WEP Key to prevent wireless interception by unauthorized persons. The wireless transmission speed is reduced when WEP is enabled because time is required for encryption and decryption.
- ❑ **Security lock**
Insert a commercially available theft-prevention cable through the security lock, which is located on the back panel of the print server, to secure the device to a table or pillar. This print server is compatible with the Microsaver Security System manufactured by Kensington.

Notes on radio waves

- ❑ Radio wave interference may occur when there are devices that use radio waves within the 2.4 GHz ISM band near the print server. Therefore, separate the print server from these devices as much as possible to prevent radio wave interference.
- ❑ When using the print server in the Ad Hoc mode, radio wave interference may occur if the channel of the print server and the other devices are close to each other. Therefore, separate a few channels from the channel used near the print server.
- ❑ Shorten the distance of the print server and devices that communicate with the print server.

Where to locate the print server

- ❑ The location of the print server must be considered to improve the wireless communication. The rotary stand can provide a good position. The condition of radio wave can be checked using EpsonNet WinAssist/MacAssist, LEDs of the print server, and the status sheet.

About This Guide

This *User's Guide* contains information about using the print server on a network. It includes how to set up the print server, install the configuration software, and modify network settings of your printer and computers.

For information about your printer, see the manual shipped with your printer.

Note:

- ❑ *This guide is written for network administrators, and many of the steps included here require detailed network knowledge and administrator rights.*
- ❑ *The term network administrator refers to the person responsible for maintaining the network. "Administrator" is synonymous with "Supervisor" in this guide.*
- ❑ *The term "print server" refers to the EpsonNet 802.11b Wireless Ext. Print Server in this guide.*
- ❑ *Some screen shots in this guide list a printer name other than your printer. This difference does not alter the instructions.*

Warnings, Cautions, and Notes



Warnings must be followed carefully to avoid bodily injury.



Cautions must be observed to avoid damage to your equipment.

Notes contain important information and useful tips on the operation of the print server.

Package Contents

Your print server package includes the following items:

- ❑ Wireless print server (The utility EpsonNet WebAssist is pre-installed.)
- ❑ AC adapter and AC cable



Caution:

Only use the AC adapter shipped with this package to supply power to the print server.

- ❑ Software CD-ROM containing:
 - EpsonNet WinAssist
 - EpsonNet MacAssist
 - EpsonNet WebAssist
 - EpsonNet Direct Print
 - EpsonNet Internet Print
 - EpsonNet WebManager
 - User's Guide (PDF-format manual)
 - Acrobat Reader
- ❑ Setup sheet

Note:

You need to supply items such as a computer with an 802.11b WLAN compliant network interface card installed, an EPSON printer with a USB port, a USB cable, and an access point (required for infrastructure mode only).

Operating Environment

The print server supports the following environments.

OS	Version	Protocol
Windows 98 Windows 98 SE Windows 95	-	TCP/IP (using EpsonNet Direct Print)
		IPP (EpsonNet Internet Print)
		NetBEUI
Windows Me	-	TCP/IP (using EpsonNet Direct Print)
		IPP
		NetBEUI
Windows XP (Home, Professional)	-	TCP/IP (using LPR, Standard TCP/IP Port, or EpsonNet Direct Print)
		IPP
Windows 2000 (Professional, Server)	-	TCP/IP (using LPR, Standard TCP/IP Port, or EpsonNet Direct Print)
		IPP
Windows NT 4.0 with Support Pack 5 or higher	-	TCP/IP (using LRP or EpsonNet Direct Print)
		IPP (EpsonNet Internet Print)
		NetBEUI
Macintosh	Mac OS X 10.x, 9.x, 8.x	AppleTalk
NetWare	3.x	Bindery mode
	4.x/IntranetWare	NDS mode Bindery emulation mode
	5.x/6.0	NDS Queue-based print system NDPS

OS	Version	Protocol
OS/2 (OS/2 Warp Connect, OS/2 Warp Server)	V3 V4	TCP/IP (lprportd) NetBEUI
UNIX	Sun OS 4.1.4 or later: SPARC	lpr, ftp
	SunSoft Solaris 2.4 or later: SPARC and x86 SCO UNIX 4.2 or later	
	SCO UnixWare 2.01 or later	
	HP/UX 9.05 or later	
	IBM AIX 3.2.5 or later and 4.1.3 or later	

Note:

- ❑ *Only the Intel version of Windows NT is supported.*
- ❑ *The multi-user environment of Mac OS 9 is not supported.*
- ❑ *Only the Classic mode of Mac OS X 10.x is supported.*
- ❑ *If you use the printer in a dial-up router environment, you must set an IP address for the printer. Make sure the IP address is suitable for the segment; incorrect IP address may generate unexpected dial-up.*
- ❑ *Windows 98 or later and MacOS 8.6 or later (except OS X native environment) support USB connection, which makes it easier to modify the default print server settings.*

Supported EPSON Printers

The print server can be installed for the following EPSON printers (as of July, 2002).

❑ **Ink Jet Printer:**

Stylus C80/C82

Stylus COLOR 760/880/980/1160

Stylus Photo

870/890/950/1270/1280/1290/2000P/2100/2200

❑ **Laser Printer:**

EPL-5900/6100

AL-C1900/C4000/C8600

❑ **Impact Dot Matrix Printer:**

FX-880+/1180+

DLQ-3500

❑ **All in One Product:**

Stylus CX 3100/3200/5100/5200

Note:

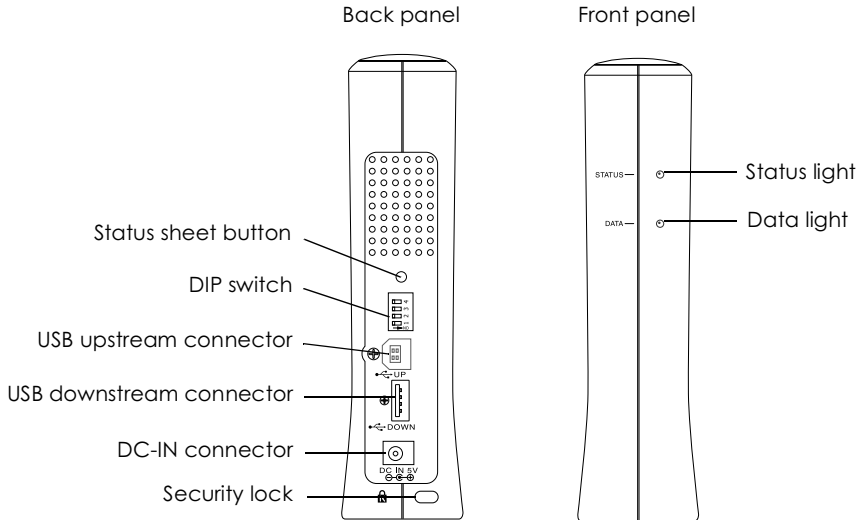
- ❑ *The PostScript 3 Kit is not supported.*
- ❑ *For All in One Product, only network printing is supported. USB local printing is not supported.*

Features of the Print Server

- ❑ Meets the IEEE 802.11b (2.4 GHz) communication standard.
- ❑ Supports both the Infrastructure mode and the Ad Hoc mode.
- ❑ Supports the roaming function.
- ❑ Supports 64-bit and 128-bit WEP Key.
- ❑ Communicates with up to 11 or 13 channels.
- ❑ Uses communication speeds at 11Mbps, 5.5Mbps, 2Mbps, or 1Mbps; or automatically changes the speed according to the radio waves.
- ❑ Supports USB local printing.
- ❑ Supports DHCP.
- ❑ Supports SNMP and MIB.
- ❑ Supports the Dynamic DNS function.
- ❑ Supports Automatic Private IP Addressing (APIPA) that assigns an IP address automatically to the print server even if there is no DHCP server on your network.
- ❑ Supports multiple protocols, such as TCP/IP, NetWare, NetBEUI, AppleTalk, and IPP.
- ❑ Communicates with any Wi-Fi certified products.

Print Server Operation

The status lights and status sheet can provide you with important information about the operation and configuration of the print server.



Status and Data lights

The print server has two lights (Status and Data), which indicates the current operating status of the print server when you first turn on the printer, during normal operation, and when errors occur. The Status light has two colors (red and green); when both colors are turned on, they produce the orange color. The Data light is green.

The status lights indicate the print server status, as follows:

Status light	Data light	Print server status
Red	On	Initializing
Red flashing	On	Error status

Red flashing	Off	Operational error of peripheral devices
Red Status light and green Data light flashing alternately		Firmware update mode
Red and green flashing alternately	Off	The print server is not connected to the printer, or the printer's power is off.
Red Status light and green Data light flashing simultaneously		The default settings are being restored (wireless setting is not changed).
Green flashing	Off	There is no longer any wireless connection in the Infrastructure mode.
Green	Flashing when receiving data	- Communication in Ad Hoc mode - Excellent communication at 11 Mbps in Infrastructure mode
Orange	Flashing when receiving data	Communication at below 5.5 Mbps in Infrastructure mode

Status sheet button

The first time you use the print server after installing or reinstalling it, plug the power cord of the print server into a wall outlet while holding down the status sheet button for about twenty seconds to initialize the print server. The length of time necessary to hold down the status sheet button varies depending on the printer model.

Before you start configuring the print server, be sure to press and hold down the status sheet button on the print server to print a status sheet. A status sheet provides important information about the print server, such as MAC address, SSID, printer settings, and printer's current status. You cannot print a status sheet when the printer has already started printing, or when it is offline or not ready to print.

Note:

If the printer does not print a status sheet, make sure the printer is online and no print jobs are being processed, then wait a minute. If it still does not print a status sheet, turn the printer off, wait until the Data light goes out while the Status light (red and green) flashes alternately, and then turn it back on again. The status sheet can be printed one minute after the printer finishes warming up.

**Caution:**

After turning off the printer, wait until the Data light goes out before turning it back on; otherwise the print server may not work correctly.

DIP switch

DIP switches 1 to 4 are off by default. You can configure the print server using a USB connection, but cannot use the USB local printing function.

To use the USB local printing function, move DIP switch 1 to the right (to turn it on). In this case, configuring the print server using a USB connection is not available.

USB upstream connector

This connector is used to connect a USB cable to a computer, so that the default print server settings can be modified by using the configuration utility.

USB downstream connector

This connector is used to connect a USB cable to the printer to enable communication with the printer.

DC-IN connector

This is an external power supply connector for the AC adapter shipped with the print server. Plug or unplug the power cord of the print server from a wall outlet to turn the print server on or off.

Security lock

You can pass a commercially available theft-prevention cable through the security lock hole to secure the print server to a table or pillar. This print server is compatible with the Microsaver Security System manufactured by Kensington.

Rotary stand

The rotary stand is located at the bottom of the print server. Rotate the rotary stand counterclockwise by 90 degrees to provide an auxiliary stand for stability. The stand can be screwed to a location or on the wall for hanging.

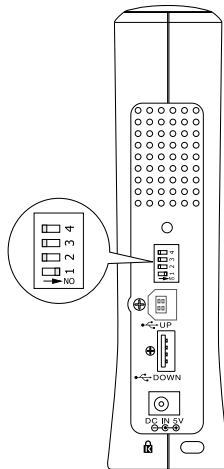
USB Local Printing Feature

The print server supports USB local printing. You can print a file via a USB connection while other users can print theirs via a wireless connection.

Suppose you want to print via a USB connection using the printer attached to the print server on the wireless network. If you connect the computer to the print server with a USB cable, you can print a file via the USB connection. In this case, printing via the USB connection and the wireless connection are enabled.

Follow the steps below for USB local printing.

1. Make sure the power cord of the print server is unplugged from the wall outlet, and the printer is turned off.
2. Move DIP switch 1 to the right (to turn it on).



3. Plug the AC adapter into the print server's DC-IN connector.

4. Connect the square connector on a USB cable to the USB upstream connector on the print server. Then connect the other end to the USB port on the computer.
5. Connect the square connector on the USB cable to the USB port on the printer. Then connect the other end to the USB downstream connector on the print server.
6. Plug the power cord of the print server into the wall outlet.
7. Install the printer driver shipped with the printer.
8. Turn on the printer.

Note:

- ❑ *See the printer's Reference Guide for information on installing the printer driver.*
- ❑ *If the "Found New Hardware Wizard" dialog box appears to prompt you to install the USB driver, install it from the printer's CD-ROM.*

Restrictions on using USB local printing

- ❑ Stylus CX 3100/3200 and Stylus CX 5100/5200 do not support USB local printing. Do not use a USB cable to connect the print server attached with these printers to the computer.
- ❑ USB local printing requires slightly longer time for printing to start.

The IEEE 802.11b Communication Standard

The print server supports the IEEE 802.11b communication standard. It is compatible with other IEEE 802.11b supported products.

An IEEE 802.11b WLAN (wireless local area network) operates within the 2.4 GHz ISM band. It divides the 2.4 GHz into 11 or 13 channels using Direct-Sequence Spread Spectrum (DSSS), and uses Carrier Sense Multiple Access with Collision Avoidance (CSMA/CA) to avoid packet collision. Both CSMA/CA with ACK and CSMA/CA with RTS/CTS are supported.

Wi-Fi certification



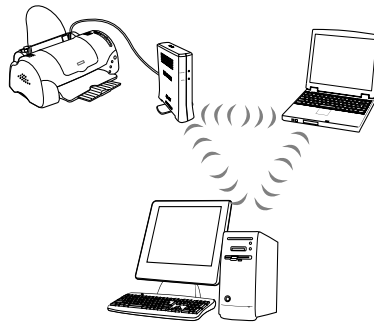
This wireless print server is Wi-Fi certified by the Wireless Ethernet Compatibility Alliance (WECA). The WECA certification ensures full product interoperability with other Wi-Fi certified products. For more information on other Wi-Fi certified products, go to <http://www.wi-fi.org>.

Wireless Environment

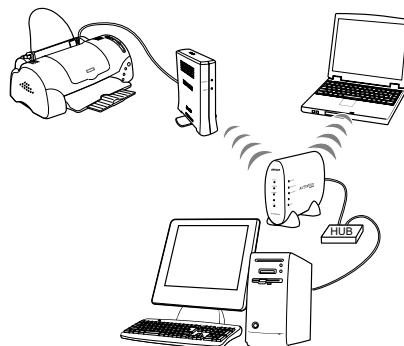
Operating modes

You can configure the print server for the Ad Hoc or Infrastructure mode.

In the **Ad Hoc mode**, a print server and computers wirelessly communicate directly with each other, without using an access point.



In the **Infrastructure mode**, both wireless and wired computers can communicate through an access point to send print jobs to the print server.



Security

WEP (Wired Equivalent Privacy) is a security protocol for wireless network. Data is encrypted using the WEP Key providing the security of your wireless network. You must set the same WEP Key to the print server and the access point.

The print server supports a 64-bit or 128-bit encryption key, and you can use either hexadecimal or ASCII characters.

Note:

The wireless transmission speed is reduced when WEP is enabled because time is required for encryption and decryption.

SSID is a unique identifier to specify a wireless LAN. All devices and access points connected to a specific wireless LAN must use the same SSID to communicate with devices on the wireless LAN.

Radio signal range

The print server provides a data transfer rate of 11Mbps within a range of 25 meters (approx. 83 feet) for indoors and 50 meters (approx. 165 feet) for outdoors, depending on the environment where the print server is located.

Note:

The wireless transmission speed decreases as the distance between the print server and the computer or the access point increases.

About the Software

- ❑ **EpsonNet WinAssist** is a Windows-based configuration utility for administrators that allows you to configure the print server for TCP/IP, NetWare, MS Network, AppleTalk, IPP, SNMP, and Wireless. See “About EpsonNet WinAssist” on page 74.
- ❑ **EpsonNet MacAssist** is a Macintosh-based configuration utility for administrators that allows you to configure the print server for TCP/IP, AppleTalk, and Wireless. See “About EpsonNet MacAssist” on page 112.
- ❑ **EpsonNet WebAssist** is a web-based configuration utility that allows you to configure the print server for TCP/IP, NetWare, MS Network, AppleTalk, IPP, and SNMP. The wireless settings cannot be modified with EpsonNet WebAssist. You can start EpsonNet WebAssist from EpsonNet WinAssist or MacAssist, or by typing the IP address of the print server as the URL in your browser. See “About EpsonNet WebAssist” on page 228.
- ❑ **EpsonNet Direct Print** is a utility that enables TCP/IP printing for Windows Me/98/95/XP/2000/NT 4.0. (Windows XP/2000/NT 4.0 also support OS standard LPR printing.) See “About EpsonNet Direct Print” on page 203.
- ❑ **EpsonNet Internet Print** is a utility that supports printing across the Internet using Internet Printing Protocol for Windows 98/95/NT 4.0. See “About EpsonNet Internet Print” on page 217.
- ❑ **EpsonNet WebManager** is a web-based utility that helps network administrators to easily manage network devices. See “About EpsonNet WebManager” on page 245.

Terms and Concepts

2.4 GHz range -- the frequency spectrum assigned by the FCC to WLAN systems

Access point -- a device that acts as a communication hub linking a wireless LAN to a wired LAN

Ad Hoc mode -- a wireless network mode. It allows devices to communicate directly without being wired to a network.

Configuration -- a prepared set of conditions for proper operation of a device. Configuring the print server is to prepare it to work with protocols available on a network.

DHCP -- a dynamic host configuration protocol. It is a protocol that assigns dynamic IP addresses to devices on a network.

EtherTalk -- the communication protocol of AppleTalk governing Ethernet transmissions

ftp -- a TCP/IP application protocol for file transfer

IEEE 802.11b -- an IEEE standard for the 2.4 GHz range of WLANs

Infrastructure mode -- a wireless network mode. It allows both wireless and wired computers to send print jobs to the printer through an access point.

lpd -- a TCP/IP remote printing protocol application

Print queue -- a location where a print job is stored as a file, until the print server sends the job to the assigned printer

Protocol -- a rule that controls how data or information is exchanged through a network. Computers and software cannot communicate with each other using different protocols.

Remote printer -- a shared printer connected elsewhere on the network, but under the control of a NetWare print server

Roaming -- the ability to move the wireless station from one access point to another without losing the connection or interrupting the service

SSID (or ESSID) -- Service Set Identifier (or Extended Service Set Identifier), a unique identifier to specify a WLAN

TCP/IP -- Transmission Control Protocol/Internet Protocol, a layer of protocols that provides communications between nodes on a network

WEP -- Wired Equivalent Privacy, a security protocol for WLANs defined in the IEEE 802.11b standard. WEP provides security by encrypting data over radio waves.

WEP key -- a shared key algorithm for encrypting data

WLAN -- Wireless Local Area Network

Overview

This section describes the general procedure on how to set up the print server for use on a wireless network.

1. Check the print server operation.

Check the functions and operations of the print server, such as status lights, status sheet button, USB connector, power supply connector, and security lock. See “Print Server Operation” on page 22 for details.

2. Install the necessary components on the computer.

Make sure the necessary components (such as TCP/IP, NetBEUI, etc.) are installed on the computer, and network settings (such as the IP address, subnet mask, etc.) of your computer is set. See “Installing Components on Your Computer” on page 36 for details.

3. Install EpsonNet WinAssist/MacAssist on the computer.

Install EpsonNet WinAssist or MacAssist on the computer to configure the print server for the wireless network. You must install these utilities, before connecting the print server and the computer with a USB cable, to configure the print server. See “Installing EpsonNet WinAssist/MacAssist” on page 50 for details.

4. Prepare your computer to communicate with the print server.

If your operating system supports USB

Connect the print server and the computer with a USB cable. You do not need to change the current wireless settings of the computer.

If your operating system does not support USB

You need to change the wireless settings of the computer to match the print server's default settings.

See "Preparing Your Computer" on page 53 for details.

5. *Configure the print server using EpsonNet Win/MacAssist.*

Configure the print server for the wireless network, using EpsonNet WinAssist or MacAssist. For Windows users, see "Configuring the Print Server Using EpsonNet WinAssist" on page 59. For Macintosh users, see "Configuring the Print Server Using EpsonNet MacAssist" on page 65 for details.

6. *Connect the print server to your printer.*

Use a USB cable to connect the print server and the printer. See "Connecting the Print Server to the Printer" on page 72 for details.

7. *Configure the network settings of the print server using EpsonNet Win/MacAssist.*

Configure the print server for TCP/IP, AppleTalk, NetBEUI, etc. using EpsonNet WinAssist or MacAssist. For Windows users, see "EpsonNet WinAssist Configuration Utility" on page 74. For Macintosh users, see "EpsonNet MacAssist Configuration Utility" on page 112.

8. *Select a printing method.*

Select a printing method appropriate for your network environment and operating system. If you are not sure, see "Selecting a Printing Method" on page 267 for details.

9. *Install the printer driver.*

Install the printer driver from the CD-ROM that comes with the printer. See "Installing the Printer Driver" on page 138 for details.

Installing Components on Your Computer

About Installing Components on Your Computer

Before configuring the print server and printing from the computer, you need to install the necessary components (such as TCP/IP, NetBEUI, etc.) and assign an IP address and subnet mask for your computer, depending on the printing method you want to use. See the section in this chapter appropriate for your operating system.

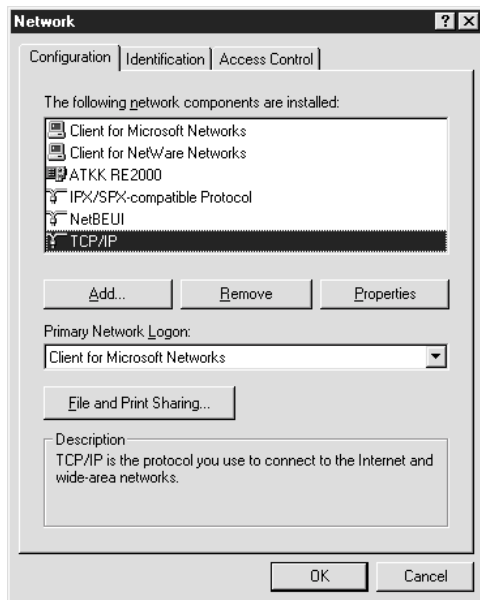
Windows Me/98/95

For Windows Me/98/95, use the following procedure to install the necessary components.

Note:

- ❑ *The Windows Me/98/95 CD-ROM may be required during the installation.*
 - ❑ *When using TCP/IP or IPP for printing, you need to set the IP address, the subnet mask, and the default gateway of the computer.*
1. Click Start, point to Settings, and then select Control Panel.

2. Double-click the Network icon. Check if the following necessary components are in the list of installed network components on the Configuration menu. If they are already installed, go to the next chapter.



The following table lists the components required for configuring the print server with EpsonNet WinAssist.

EpsonNet WinAssist's setting screens	Necessary components
TCP/IP, AppleTalk, IPP, SNMP (IP trap)	TCP/IP
MS Network	NetBEUI or TCP/IP
NetWare, SNMP (IPX trap)	Latest Novell Client downloaded from the Novell Web site

Note:

Do not use Novell Client for Windows 95/98 version 3.00 and Novell Client for Windows NT version 4.50 when using the following modes: NetWare 3.x/4.x Bindery Print Server mode, NetWare 3.x Remote Printer mode, NetWare 4.x Bindery Remote Printer mode, and NetWare 4.x/5.x NDS Remote Printer mode.

The following table lists the components required for network printing.

Printing method	Necessary components
LPR or Internet printing	TCP/IP
Microsoft Network Shared printing	TCP/IP or NetBEUI Client for Microsoft Networks
Printing via NetWare server	Latest Novell Client downloaded from the Novell Web site

3. If the necessary components are not in the list, click Add to install them, as described below.

For LPR or Internet printing:

Select Protocol and then click Add. Select Microsoft from the Manufacturers list and TCP/IP from the Network Protocols list. Then click OK.

For Microsoft Network Shared printing:

To use TCP/IP, see the description described earlier to install TCP/IP.

To use NetBEUI, select Protocol and then click Add. Select Microsoft from the Manufacturers list and NetBEUI from the Network Protocols list. Then click OK.

Select Client and then click Add. Select Microsoft from the Manufacturers list and Client for Microsoft Networks from the Network Clients list. Then click OK.

For printing via NetWare server:

Download the latest Novell Client from the Novell Web site and install it on the computer. Also, be sure to install IPX. See the Novell Web site for detailed information.

4. **For LPR, Internet, Microsoft Network Shared printing:**
Double-click TCP/IP on the Configuration menu to open the TCP/IP Properties dialog box. Set the IP address, the subnet mask, etc. and then click OK.
5. Restart the computer.

The necessary components are now installed. Go to the next chapter “How to Set Up the Wireless Print Server” on page 50.

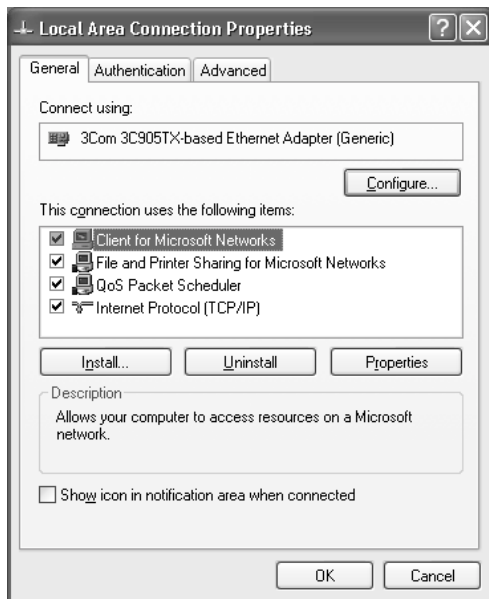
Windows XP

For Windows XP, use the following procedure to install the necessary components.

Note:

- The Windows XP CD-ROM may be required during the installation.*
 - When using TCP/IP or IPP for printing, you need to set the IP address, the subnet mask, and the default gateway of the computer.*
1. Click Start, highlight Control Panel, and then click Network and Internet Connections. Select Network Connections.
 2. Under LAN or High-Speed Internet, click the Local Area Connection icon.
 3. Under Network Tasks, click Change settings of this connection.

4. Check if the following necessary components are in the list. If they are already installed, go to the next chapter.



The following table lists the components required for configuring the print server with EpsonNet WinAssist.

EpsonNet WinAssist's setting screens	Necessary components
TCP/IP, AppleTalk, IPP, SNMP (IP trap)	Internet Protocol (TCP/IP)
MS Network	Internet Protocol (TCP/IP)
NetWare, SNMP (IPX trap)	Latest Novell Client downloaded from the Novell Web site

The following table lists the components required for network printing.

Printing method	Necessary components
LPR or Internet printing	Internet Protocol (TCP/IP)
Microsoft Network Shared printing	Internet Protocol (TCP/IP) Client for Microsoft Networks
Printing via NetWare server	Latest Novell Client downloaded from the Novell Web site

5. If the necessary components are not in the list, click Install to install them, as described below.

For LPR or Internet printing:

Internet Protocol (TCP/IP) is installed by default. You cannot add or delete it.

For Microsoft Network Shared printing:

Select Client and then click Add. Select Client for Microsoft Networks and then click OK.

For printing via NetWare server:

Download the latest Novell Client from the Novell Web site and install it on the computer. Also, be sure to install IPX. See the Novell Web site for detailed information.

6. **For LPR, Internet, Microsoft Network Shared printing:**
Double-click Internet Protocol (TCP/IP) on the Local Area Connection Properties dialog box to open the Internet Protocols (TCP/IP) Properties dialog box. Set the IP address, the subnet mask, etc. and then click OK.
7. Restart the computer.

The necessary components are now installed. Go to the next chapter “How to Set Up the Wireless Print Server” on page 50.

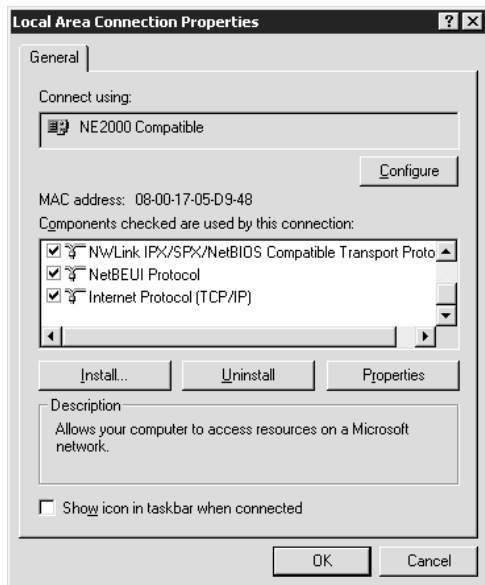
Windows 2000

For Windows 2000, use the following procedure to install the necessary components.

Note:

- ❑ *The Windows 2000 CD-ROM may be required during the installation.*
 - ❑ *When using TCP/IP or IPP for printing, you need to set the IP address, the subnet mask, and the default gateway of the computer.*
1. Click Start, point to Settings, and then select Network and Dial-up Connections. The Network and Dial-up Connections screen appears.
 2. Right-click the desired network connection and then select Properties.

3. Check if the following necessary components are in the list. If they are already installed, go to the next chapter.



The following table lists the components required for configuring the print server with EpsonNet WinAssist.

EpsonNet WinAssist's setting screens	Necessary components
TCP/IP, AppleTalk, IPP, SNMP (IP trap)	Internet Protocol (TCP/IP)
MS Network	NetBEUI or Internet Protocol (TCP/IP)
NetWare, SNMP (IPX trap)	Latest Novell Client downloaded from the Novell Web site

Note:

Do not use Novell Client for Windows 95/98 version 3.00 and Novell Client for Windows NT version 4.50 when using the following modes: NetWare 3.x/4.x Bindery Print Server mode, NetWare 3.x Remote Printer mode, NetWare 4.x Bindery Remote Printer mode, and NetWare 4.x/5.x NDS Remote Printer mode.

The following table lists the components required for network printing.

Printing method	Necessary components
LPR or Internet printing	Internet Protocol (TCP/IP)
Microsoft Network Shared printing	Internet Protocol (TCP/IP) or NetBEUI Client for Microsoft Networks
Printing via NetWare server	Latest Novell Client downloaded from the Novell Web site

4. If the necessary components are not in the list, click Install to install them, as described below.

For LPR or Internet printing:

Select Protocol and then click Add. In the Select Network Protocol dialog box, select Internet Protocol (TCP/IP) and then click OK.

For Microsoft Network Shared printing:

To use Internet Protocol, see the description described earlier to install Internet Protocol (TCP/IP).

To use NetBEUI, select Protocol and then click Add. Select NetBEUI Protocol and then click OK.

Select Client and then click Add. Select Client for Microsoft Networks and then click OK.

For printing via NetWare server:

Download the latest Novell Client from the Novell Web site and install it on the computer. Also, be sure to install IPX. See the Novell Web site for detailed information.

5. **For LPR, Internet, Microsoft Network Shared printing:**
Double-click Internet Protocol (TCP/IP) on the Configuration menu to open the TCP/IP Properties dialog box. Set the IP address, the subnet mask, etc. and then click OK.
6. Restart the computer.

The necessary components are now installed. Go to the next chapter “How to Set Up the Wireless Print Server” on page 50.

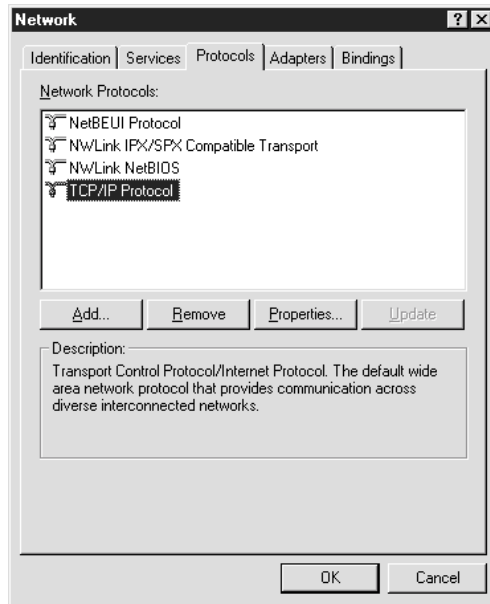
Windows NT 4.0

For Windows NT 4.0, use the following procedure to install the necessary components.

Note:

- ❑ *The Windows NT 4.0 CD-ROM may be required during the installation.*
 - ❑ *When using TCP/IP or IPP for printing, you need to set the IP address, the subnet mask, and the default gateway of the computer.*
1. Click Start, point to Settings, and then select Control Panel.
 2. Double-click the Network icon in the Control Panel.

3. Check if the following necessary components are in the list. If they are already installed, go to the next chapter.



The following table lists the components required for configuring the print server with EpsonNet WinAssist.

EpsonNet WinAssist's setting screens	Necessary components
TCP/IP, AppleTalk, IPP, SNMP (IP trap)	TCP/IP
MS Network	NetBEUI or TCP/IP
NetWare, SNMP (IPX trap)	Latest Novell Client downloaded from the Novell Web site

Note:

Do not use Novell Client for Windows 95/98 version 3.00 and Novell Client for Windows NT version 4.50 when using the following modes: NetWare 3.x/4.x Bindery Print Server mode, NetWare 3.x Remote Printer mode, NetWare 4.x Bindery Remote Printer mode, and NetWare 4.x/5.x NDS Remote Printer mode.

The following table lists the components required for network printing.

Printing method	Necessary components
LPR or Internet printing	Protocols menu: TCP/IP Services menu: Microsoft TCP/IP Printing
Microsoft Network Shared printing	Protocols menu: TCP/IP or NetBEUI Services menu: Workstation
Printing via NetWare server	Latest Novell Client downloaded from the Novell Web site

4. If the necessary components are not in the list, click Add to install them, as described below.

For LPR or Internet printing:

Select the Protocols tab and then click Add. Select TCP/IP from the list and then click OK. Set the IP address, the subnet mask, etc. and then click OK.

Select the Services tab and then click Add. Select Microsoft TCP/IP Printing from the list and then click OK.

For Microsoft Network Shared printing:

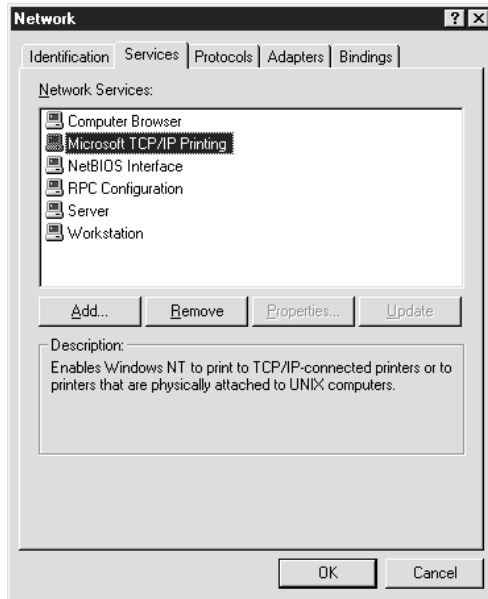
To use TCP/IP, see the description described earlier to install TCP/IP.

To use NetBEUI, select the Protocols tab and then click Add. Select NetBEUI from the list and then click OK.

Select the Services tab and then click Add. Select Workstation from the list and then click OK.

For printing via NetWare server:

Download the latest Novell Client from the Novell Web site and install it on the computer. Also, be sure to install IPX. See the Novell Web site for detailed information.



5. Restart the computer.

The necessary components are now installed. Go to the next chapter "How to Set Up the Wireless Print Server" on page 50.

Macintosh

To assign an IP address, subnet mask, etc. to your Macintosh, follow the steps below.

1. From the Apple menu, select Control Panel, and then TCP/IP.
2. Set Connect via to AirPort.
3. Assign an IP address, and change other settings if necessary.
4. Close the dialog box to save the settings.

To print using the AppleTalk protocol and configure the print server with EpsonNet MacAssist, select AirPort or Ethernet built-in in the AppleTalk Control Panel. Then configure the print server with EpsonNet MacAssist.

Go to the next chapter “How to Set Up the Wireless Print Server” on page 50.

Chapter 2

How to Set Up the Wireless Print Server

This chapter explains how to set up the print server. This includes installing the EpsonNet WinAssist/MacAssist, preparing your computer for configuration, using EpsonNet WinAssist/MacAssist to configure the print server, and connecting the print server and the printer with a USB cable.

Installing EpsonNet WinAssist/MacAssist

You need to install EpsonNet WinAssist or MacAssist to configure the print server. Be sure to install EpsonNet WinAssist or MacAssist before going to the next section.

Note:

Be sure to use EpsonNet WinAssist/MacAssist included on the software CD-ROM shipped with this product.

For Windows

Install EpsonNet WinAssist on the computer to configure the print server.

System requirements

The following table lists the system requirements of EpsonNet WinAssist.

Operating systems	Windows Me/98/95 Windows XP Professional/Home Edition Windows 2000 Server/Professional Windows NT 4.0 Server/Workstation with Service Pack 5.0 or higher
Hard disk drive space	4 MB


Installing EpsonNet WinAssist

Follow the steps below to install EpsonNet WinAssist.

Note:

If you add or delete protocols or services from your operating system after installing EpsonNet WinAssist, EpsonNet WinAssist may not work correctly. If this happens, uninstall EpsonNet WinAssist and then install it again.

1. Insert the software CD-ROM in the CD-ROM drive.
2. The EPSON Installation Program starts automatically.

If the Installer dialog box does not appear, double-click SETUP.EXE on the CD-ROM.
3. Select Install EpsonNet WinAssist, and then click .
4. Follow the on-screen instructions to complete the installation.

After installing EpsonNet WinAssist, go to “Preparing Your Computer” on page 53.

For Macintosh

Install EpsonNet MacAssist on your Macintosh to configure the print server.

System requirements

The following table lists the system requirements of EpsonNet MacAssist.

Operating systems	Mac OS 10.x, 9.x, 8.x
Models	PowerPC Macintosh
Hard disk drive space	4 MB

Installing EpsonNet MacAssist

Follow the steps below to install EpsonNet MacAssist.

1. Insert the software CD-ROM in the CD-ROM drive.
2. Double-click the EpsonNet MacAssist folder and then the EpsonNet MacAssist Installer icon.
3. Follow the on-screen instructions to install the software.
4. Restart your computer.

The MacAssistXXX folder, which contains the EpsonNet MacAssist icon and the EpsonNet MacAssist EasySetup icon, is created in the Applications folder.

After installing EpsonNet MacAssist, go to “Preparing Your Computer” on page 53.

Preparing Your Computer

After installing EpsonNet WinAssist or MacAssist, prepare your computer so that you can use EpsonNet WinAssist/MacAssist to configure the print server.

If your operating system supports USB, we recommend you connect the print server and the computer with a USB cable. In this case, you do not need to change your current wireless environment to match the print server's default setting. See "For operating systems supporting USB" on page 54.

If your operating system does not support USB, you need to change your wireless environment to wirelessly communicate with the print server. See "For operating systems not supporting USB" on page 56.

The following table lists the default settings of the print server:

Mode:	Infrastructure
SSID:	EpsonNetAP
WEP Key:	Disable

Note:

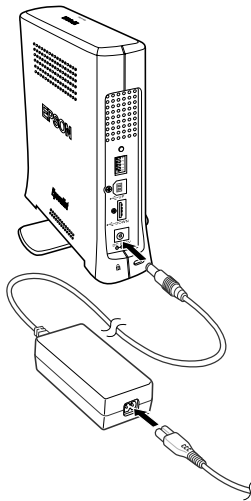
If there is a wireless network having "EpsonNet" as an SSID, the SSID of the print server becomes "EpsonNet".

For operating systems supporting USB

Follow the steps below to connect the print server and the computer with a USB cable.

Note:

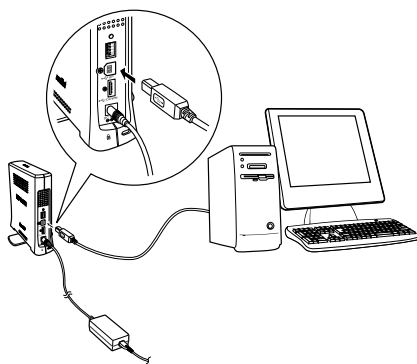
- Windows 98/98SE/Me/XP/2000, and Macintosh OS 8.6 or later (except OS X native environment) support USB.*
 - Use the Type A port (USB 1.1 or later) on the computer for the installation.*
 - Make sure DIP switch 1 is off (by default).*
1. Plug the AC adapter into the print server's DC-IN connector. Be sure to use the AC adapter shipped with this package.



Warning:

When you install or uninstall the print server, be sure to turn off the printer and then unplug the AC adapter from the wall outlet to prevent electric shock.

2. Plug the power cord into a properly grounded wall outlet. The print server automatically turns on when the power cord is connected to a power source.
3. Check the LEDs. The red Status light and the green Data light go on. After a while, the red and green Status light flashes alternately.
4. Connect the square connector on the USB cable to the USB upstream connector on the print server. Then connect the other end to the USB port on the computer.



Note:

If the “Found New Hardware Wizard” appears to prompt you to install the print server driver, click Cancel. Unplug the USB cable from the print server and then install EpsonNet WinAssist or MacAssist. Then connect the print server and the computer with a USB cable again.

5. Now, you can configure the print server for the wireless network using EpsonNet WinAssist/MacAssist. See “Configuring the Print Server Using EpsonNet WinAssist” on page 59 or “Configuring the Print Server Using EpsonNet MacAssist” on page 65.
6. Unplug the USB cable from the print server and the computer after configuring the print server for wireless connection.

For operating systems not supporting USB

Windows 95/NT 4.0, and Macintosh OS X/ 8.5/8.1 do not support USB. You need to change the wireless settings of the computer to match the print server's default settings, such as mode being Infrastructure, SSID being EpsonNetAP, and WEP Key being disabled.

Before going the steps below, see "For operating systems supporting USB" on page 54 to plug the AC adapter into the print server's DC-IN connector and plug the power cord into a wall outlet.

For Windows

1. Using the computer's wireless configuration software, make sure the computer is set to the Infrastructure mode.
2. Set the SSID of the computer to EpsonNetAP and make sure the WEP Key is disabled.
3. Run EpsonNet WinAssist (click Start, point to Programs, select EpsonNet WinAssist V4, and then select EpsonNet WinAssist). Check that the print server is displayed in the list of EpsonNet WinAssist, which indicates the print server is connected to the wireless LAN.
4. Click the Configuration button to configure the wireless settings of the print server. See "Configuring the Print Server Using EpsonNet WinAssist" on page 59.
5. Reconfigure the wireless settings of the computer to match the settings (such as mode, SSID, and WEP Key) of the print server, and access the wireless network. If you are in the Ad Hoc mode, be sure the computer is also set to the Ad Hoc mode.
6. Run EpsonNet WinAssist and select Refresh from the view menu.

Note:

If the print server is not listed in the window, it is not connected to the wireless network. Reset the print server to the factory default settings, and then configure it again. To revert to the factory default settings, follow the steps below.

- 1. Unplug the AC adapter from the print server's DC-IN connector.*
 - 2. While pressing and holding down the status sheet button on the print server, plug the AC adapter into the print server's DC-IN connector.*
7. Click the Configuration button and configure the network settings, such as TCP/IP. See “Details of the Configuration Dialog Box” on page 81.

For Macintosh

1. From the Apple menu, select Control Panel and then AppleTalk. Set Connect via to AirPort.
2. From the Apple menu, select Control Panel and then TCP/IP. Set Connect via to AirPort.
3. From the Apple menu, select AirPort. Set Choose network to EpsonNetAP.
4. Run EpsonNet MacAssist and check that the print server is displayed in the list of EpsonNet MacAssist, which indicates the print server is connected to the wireless LAN.
5. Click the Configure button to configure the wireless settings of the print server. See “Configuring the Print Server Using EpsonNet MacAssist” on page 65.
6. Reconfigure the wireless settings of the computer to match the settings of the print server, such as mode, SSID, and WEP.

7. Run EpsonNet MacAssist and select Refresh from the Device menu.

Note:

If the print server is not listed in the window, it is not connected to the wireless network. Reset the print server to the factory default settings, and then configure it again. To revert to the factory default settings, follow the steps below.

1. *Unplug the AC adapter from the print server's DC-IN connector.*
 2. *While pressing and holding down the status sheet button on the print server, plug the AC adapter into the print server's DC-IN connector.*
8. Click the Configure button and configure the network settings, such as TCP/IP. See "Details of the Configuration Dialog Box" on page 117.

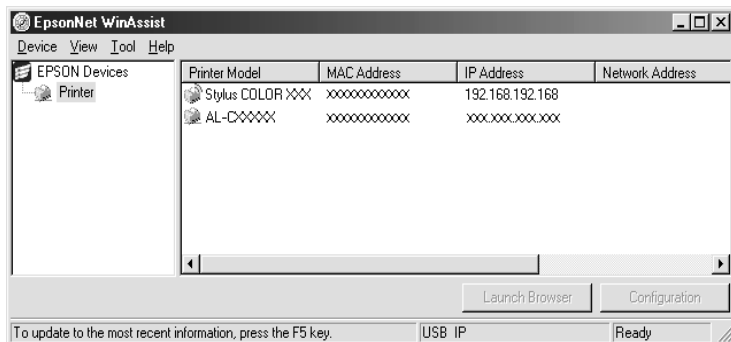
Configuring the Print Server Using EpsonNet WinAssist

This section explains how to use EpsonNet WinAssist to configure the print server for wireless network.

Note:

- ❑ *Check that the necessary protocols are installed on the computer.*
 - ❑ *Make sure the power cord of the print server is plugged into a properly grounded wall outlet.*
 - ❑ *Make sure the print server and the computer are connected with a USB cable, or the computer's wireless settings match the print server's default settings. See the "Preparing Your Computer" on page 53.*
 - ❑ *The sample screens are taken from Windows 2000 using EpsonNet WinAssist. Other systems may differ in appearance, but the instructions are the same, except as noted.*
1. Click Start, point to Programs or All Programs (Windows XP), and then select EpsonNet WinAssist V4. Click EpsonNet WinAssist to start it.

2. Select the printer you want to configure, and then click Configuration or double-click the printer icon.

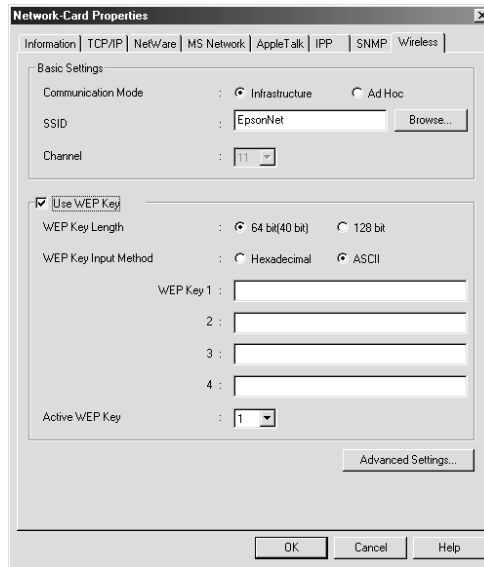


Note:

- ❑ If the print server is not connected to the printer with a USB cable, "Printer" appears for the Printer Model. You can configure the print server without connecting the print server to the printer.
 - ❑ If the same printer model name appears several times in the list, you can identify the printers by checking their MAC address, which are found on a status sheet.
 - ❑ You can search printers in other segments by using Search Options from the Tool menu. See "Search options" on page 78 for more information.
 - ❑ The Launch Browser button can be used only if a valid IP address is assigned to the printer.
 - ❑ The print server does not have a default IP address. Be sure to assign a valid IP address manually or by using the DHCP server.
3. Click the Wireless tab.

Note:

For information on other menus, see “Details of the Configuration Dialog Box” on page 81.



4. Select a network mode: Infrastructure or Ad Hoc.
5. **For Infrastructure mode:**
Enter the SSID of the access point, or click Browse to select the SSID from the list.

For Ad Hoc mode:
Enter the SSID of the wireless LAN and select the channel number. Or you can click Browse to select the SSID and channel from the list.
6. Select the Use the WEP Key check box if you want to set the WEP Key for wireless communication.

You can set up 4 encryption keys but choose one key to encrypt your data in the Active WEP Key.

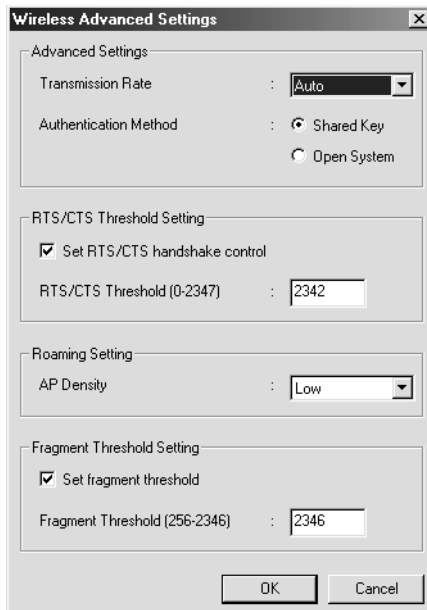
For 64 bit and ASCII, enter 5 characters.

For 64 bit and Hexadecimal, enter 10 digit values.

For 128 bit and ASCII, enter 13 characters.

For 128 bit and Hexadecimal, enter 26 digit values.

7. Click the Advanced Settings button to modify the advanced settings. Perform this task only if you want to improve the current wireless communication performance.



8. Select a transmission speed: Auto, 11 Mbps, 5.5 Mbps, 2 Mbps, or 1 Mbps. We recommend that you select Auto to communicate using the best speed for your environment.
9. Leave Authentication Method as it is because it changes automatically as you enable or disable the WEP Key setting. You can choose either Shared Key or Open System setting when WEP is enabled.

10. Select the Set RTS/CTS handshake control check box to avoid the “Hidden Station” problem. The threshold is set to the maximum length of 2347 bits.
11. To get the continuous connection of the same access point, select Low for AP Density. When you select High, roaming around access points is made easy.
12. If you plan to send large files, select the Set fragment threshold check box and then specify the packet size between 256 and 2346. The fragmentation mechanism is used for improving the efficiency when there is high traffic within the wireless network. Click OK.
13. After changing the settings, click OK. The Password dialog box appears.
14. Enter your password (up to 20 characters) and then click OK to save the settings. If you are entering a password for the first time, click Change and set the password. See “About Password” on page 103 for more information.

Follow the on-screen instructions. After the update is complete, refresh the configuration by selecting Refresh from the View menu.



Caution:

Since it takes 2 or 3 minutes to send new settings to the print server, wait until an on-screen message appears to indicate that you can turn off your printer. Do not turn off the print server while the red Status light and green Data light are on.

Verifying the connection

After configuring the print server for wireless using EpsonNet WinAssist, verify the connection by using the steps below.

1. **For OS supporting USB:**

Unplug the USB cable connecting the print server and the computer.

For OS not supporting USB:

Reconfigure the wireless settings of the computer to match the settings (such as mode, SSID, and WEP Key) of the print server, and access the wireless network. If you are in the Ad Hoc mode, be sure the computer is also set to the Ad Hoc mode.

2. Use a USB cable to connect the print server and the printer. See “Connecting the Print Server to the Printer” on page 72.
3. Run EpsonNet WinAssist and select Refresh from the View menu.

Note:

If the print server is not listed in the window, it is not connected to the wireless network. Reset the print server to the factory default settings, and then configure it again. To revert to the factory default settings, follow the steps below.

1. *Unplug the AC adapter from the print server’s DC-IN connector.*
2. *While pressing and holding down the status sheet button on the print server, plug the AC adapter into the print server’s DC-IN connector.*
4. Click the Configuration button and configure the network settings, such as TCP/IP. See “About EpsonNet WinAssist” on page 74.

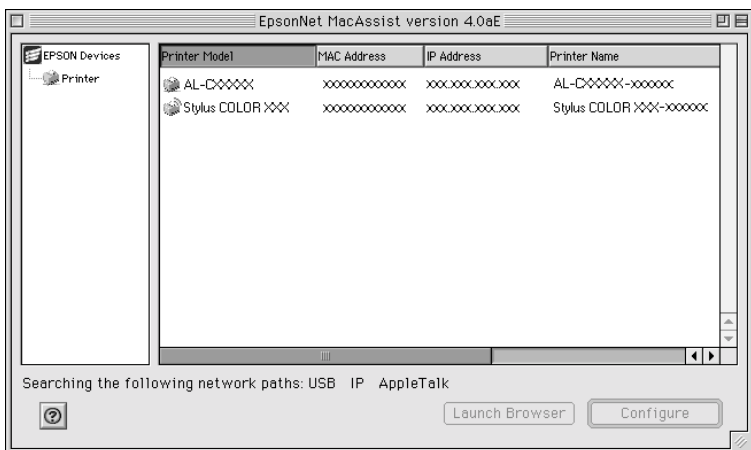
Configuring the Print Server Using EpsonNet MacAssist

This section explains how to use EpsonNet MacAssist to configure the print server for wireless network.

Note:

- ❑ *Make sure the power cord of the print server is plugged into a properly grounded wall outlet.*
- ❑ *Make sure the print server and the computer is connected with a USB cable, or the computer's wireless settings match the print server's default settings. See the "Preparing Your Computer" on page 53.*
- ❑ *Make sure that AirPort is selected for Connect via in the AppleTalk and TCP/IP control panels according to your network environment.*

1. Double-click the EpsonNet MacAssist icon.
2. Select the printer you want to configure from the list and click Configure.



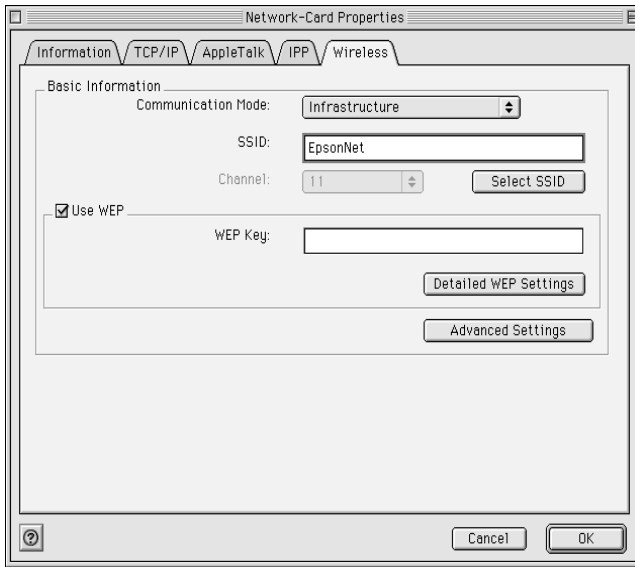
Note:

- ❑ *If the print server is not connected to the printer with a USB cable, “Printer” appears for the Printer Model. You can configure the print server without connecting the print server to the printer.*
- ❑ *If the same printer model name appears several times in the list, you can identify the printers by checking their MAC addresses, which are found on the status sheet.*
- ❑ *You can search printers in other zones just like computers by changing the zone setting. See “Search options” on page 115 for more information.*
- ❑ *The Launch Browser button can be used only if a valid IP address is assigned to the printer.*
- ❑ *The print server does not have a default IP address. Be sure to assign a valid IP address manually or by using the DHCP server.*

3. Click the Wireless tab.

Note:

For information on other menus, see “Details of the Configuration Dialog Box” on page 117.



4. Select a network mode: Infrastructure or Ad Hoc.
5. **For Infrastructure mode:**
Enter the SSID of the access point, or click Select SSID to select the SSID from the list.

For Ad Hoc mode:

Enter the SSID of the wireless LAN and select the channel number. Or you can click Select SSID to select the SSID and channel from the list.

6. Select the Use WEP check box if you want to set the WEP Key for wireless communication. Enter the WEP Key. The default is 10 characters in hexadecimal.

Note:

Because ASCII characters set for the WEP Key with the AirPort utility and the wireless LAN utilities for Windows are not compatible, by default hexadecimal is used.

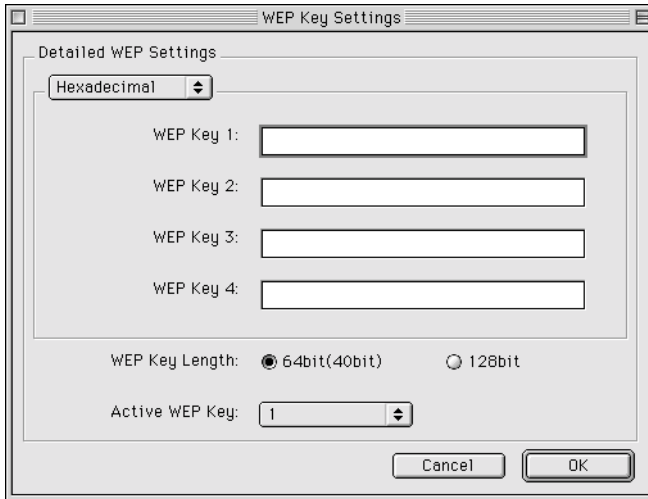
7. If you want to modify the detailed WEP Key settings, click Detailed WEP Settings.

For 64 bit and Hexadecimal, enter 10 digit values.

For 64 bit and ASCII, enter 5 characters.

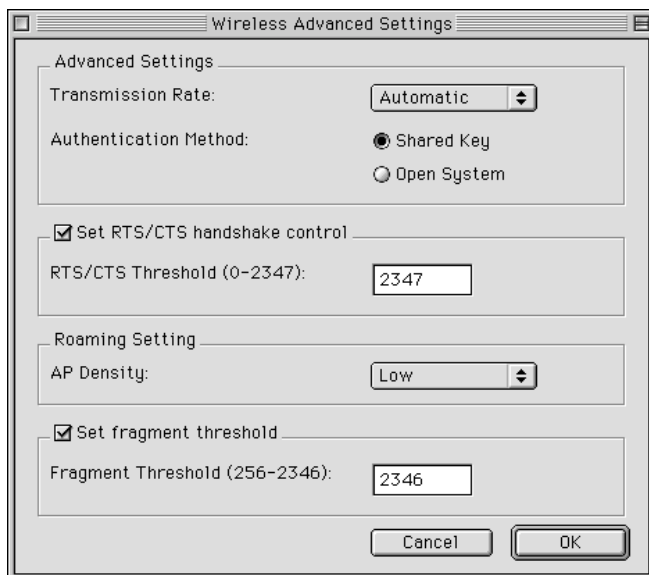
For 128 bit and Hexadecimal, enter 26 digit values.

For 128 bit and ASCII, enter 13 characters.



8. In Active WEP Key, select a key to encrypt your data, and then click OK.

9. Click the Advanced Settings button to modify the advanced settings. Perform this task only if you want to improve the current wireless communication performance.



10. Select a transmission speed: Automatic, 11 Mbps, 5.5 Mbps, 2 Mbps, or 1 Mbps. We recommend that you select Automatic to communicate using the best speed for your environment.
11. Leave Authentication Method as it is because it changes automatically as you set or clear the WEP Key setting. You can choose either Shared Key or Open System when WEP is enabled.
12. Select the Set RTS/CTS handshake control check box to avoid the "Hidden Station" problem. Specify a value between 0 and 2347 bits.
13. To get the continuous connection of the same access point, select Low for AP Density. When you select High, roaming around access points is made easy.

14. If you plan to send large files, select the Set fragment threshold check box and specify the packet size between 256 and 2346. The fragmentation mechanism is used for improving the efficiency when there is high traffic within the wireless network. Click OK.
15. After changing the settings, click OK. The Password dialog box appears.
16. Enter your password (up to 20 characters) and then click OK to save the settings. If you are entering a password for the first time, click Change Password and set the password. For more information on passwords, see “About Password” on page 129.

Follow the on-screen instructions. After the update is complete, refresh the configuration by selecting Refresh from the Device menu.



Caution:

Since it takes 2 or 3 minutes to send new settings to the print server, wait until an on-screen message appears to indicate that you can turn off your printer. Do not turn off the print server while the red Status light and green Data light are on.

Verifying the connection

After configuring the print server for wireless using EpsonNet MacAssist, verify the connection by using the steps below.

1. For OS supporting USB:

Unplug the USB cable connecting the print server and the computer.

For OS not supporting USB:

Reconfigure the wireless settings of the computer to match the settings (such as mode, SSID, and WEP Key) of the print server, and access the wireless network. If you are in the Ad Hoc mode, be sure the computer is also set to the Ad Hoc mode.

2. Use a USB cable to connect the print server and the printer. See “Connecting the Print Server to the Printer” on page 72.
3. Run EpsonNet MacAssist and select Refresh from the Device menu.

Note:

If the print server is not listed in the window, it is not connected to the wireless network. Reset the print server to the factory default settings, and then configure it again. To revert to the factory default settings, follow the steps below.

- 1. Unplug the AC adapter from the print server’s DC-IN connector.*
- 2. While pressing and holding down the status sheet button on the print server, plug the AC adapter into the print server’s DC-IN connector.*
4. Click the Configure button and configure the network settings, such as TCP/IP. See “About EpsonNet MacAssist” on page 112.

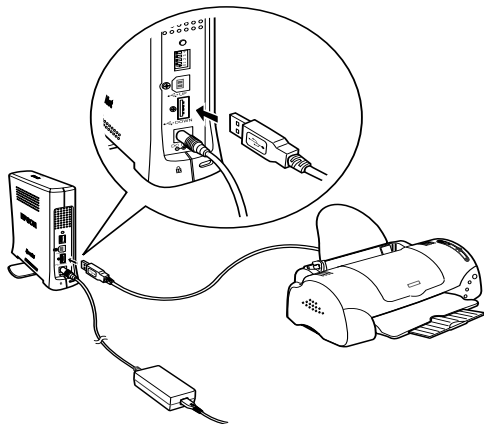
Connecting the Print Server to the Printer

After the print server is connected to the wireless network, use the following steps to connect the print server to the printer with a USB cable.

Note:

Do not use the USB hub to connect the print server and the printer. Use a USB cable instead.

1. Make sure the printer and the print server are turned off.
2. Connect the square connector on the USB cable to the USB port on the printer. Then connect the other end to the USB downstream connector on the print server.



3. Turn on the printer and the print server.
4. Check the LEDs. Since the print server has been configured for the wireless network, the green or orange Status light is on and the Data light flashes.
5. To print a status sheet, press and hold down the status sheet button on the back panel of the print server.

If the status sheet prints, this indicates the print server has been set correctly.



Caution:

After turning off the printer, wait until the Data light goes out before turning it back on or before unplugging the print server from the wall outlet; otherwise the print server may not work correctly.

Initializing the print server

To initialize your print server, turn on the printer, and then plug the power cord of the print server into a wall outlet while holding down the status sheet button of the print server for twenty seconds. The length of time necessary to hold down the status sheet button varies depending on the printer model. The red Status light and green Data light both turn on, indicating the print server is being initialized.

After the initialization is complete, press the status sheet button to print a status sheet. Check the information on the status sheet.

Note:

You can also initialize the print server using EpsonNet WinAssist, MacAssist, or WebAssist by clicking the Return to Default button.

EpsonNet WinAssist Configuration Utility

About EpsonNet WinAssist

EpsonNet WinAssist is a Windows-based configuration software for administrators to configure the print server for TCP/IP, NetWare, MS Network, AppleTalk, IPP, SNMP, and Wireless.

Note:

- ❑ *Be sure to use EpsonNet WinAssist included on the software CD-ROM shipped with this product.*
- ❑ *EpsonNet WinAssist installed on Windows XP does not support NetBEUI as a search protocol because officially the NetBEUI protocol is not supported on Windows XP.*
- ❑ *To set the IP address for OS/2 and UNIX, use the arp and ping commands. For more information, see “Setting an IP Address Using the arp/ping Command” on page 270.*
- ❑ *If you are using the printer in a dial-up environment not running NetWare, clear the Use NetWare check box on the NetWare screen. If this check box is selected, the extra account may be charged when you use the dial-up router.*
- ❑ *When configuring the print server for NetWare, use the IPX protocol and log in to the NetWare server or the NDS context with supervisor privileges.*
- ❑ *When you configure the print server for NetWare 5.x, you must log in to the NetWare server using an IPX connection. If you log in to the NetWare server using an IP connection, the NetWare screen and the IPX trap setting of SNMP are not available.*

Menu Bar

EpsonNet WinAssist provides the following menus and sub-menus.

Device menu:

- Configuration
Configures the print server you have selected.
- Launch Browser
Starts EpsonNet WebAssist to configure the print server you have selected. EpsonNet WebAssist is a utility that runs on a browser.
- Quit
Quits EpsonNet WinAssist.

View menu:

- Refresh
Updates to the latest information by searching for the available printers again.

Tool menu:

- Timeout
Set the timeout value between 2 and 120 seconds. See “Timeout option” on page 76 for more information.
- Search Method
Select the connections and protocols to use to search for a print server. See “Search method” on page 77 for more information.
- Search Options
Configures the options for a search with IP or IPX. See “Search options” on page 78 for more information.

- ❑ **Firmware Update**
You can update the firmware and EpsonNet WebAssist. See the EpsonNet WinAssist online help for detailed information.

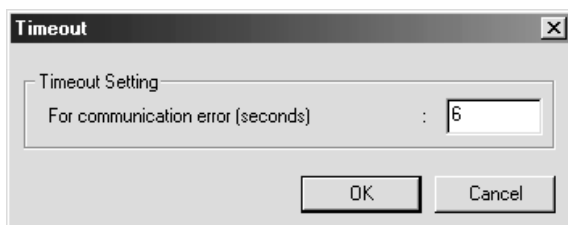
Help menu:

- ❑ **Help Topic**
Opens EpsonNet WinAssist help.
- ❑ **About EpsonNet WinAssist**
Displays the copyright and version information for EpsonNet WinAssist.

Timeout option

Set the length of time before a timeout occurs (between 2 and 120 seconds). The default value is 6 seconds. A communication error occurs if this time is exceeded. If you set a larger value, it takes more time to search for the network printers. Therefore, change this value only if you prefer.

Select Refresh from the View menu or restart EpsonNet WinAssist for the settings to take effect.



Search method

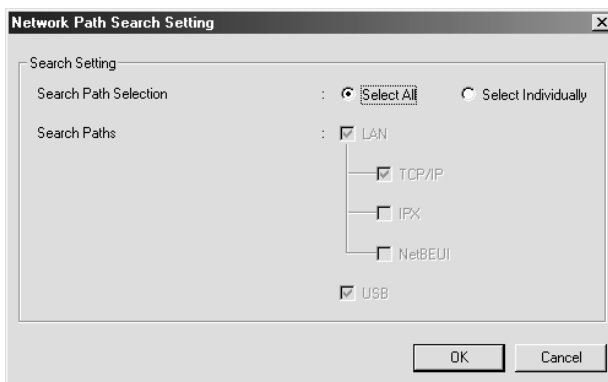
You can select the connections and protocols to search for a print server. You can select from the following: LAN connection using TCP/IP, IPX, and NetBEUI protocols, or USB connection.

Select the Select All radio button to search for print servers with all the available connections and protocols, or select the Select Individually radio button to select the preferred connections and protocols.

Select Refresh from the View menu or restart EpsonNet WinAssist for the settings to take effect.

Note:

EpsonNet WinAssist installed on Windows XP does not support NetBEUI as a search protocol because officially the NetBEUI protocol is not supported on Windows XP.

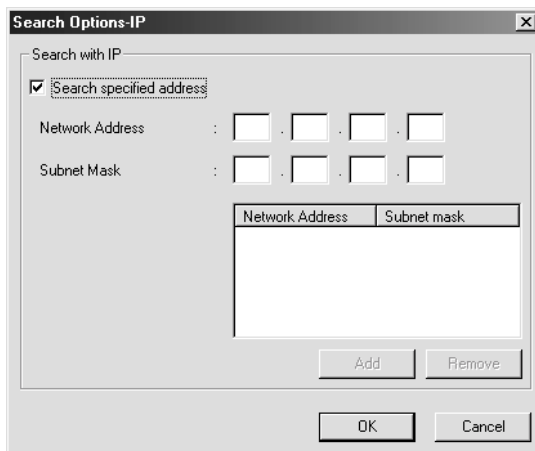


Search options

Search Options-IP

To search for print servers in other segments, set the specific network address and the subnet mask. The settings you modified on this screen do not affect the search parameters used for EpsonNet WinAssist EasySetup.

Select Refresh from the View menu or restart EpsonNet WinAssist for the settings to take effect.



Item	Explanation
Search specified address	Select this check box to search for a print server located outside the router.
Network Address	Enter the network address (valid range 0 to 255) of the print server you want to find. Enter 0 for the local address.
Subnet Mask	Enter the subnet mask of the IP address.

List box	Displays network addresses and subnet masks that have been registered.
Add button	Registers a network address (up to 20 addresses). Do not add the network address if it is in the same segment.
Remove button	Removes a network address and its subnet mask from the List box.

Note:

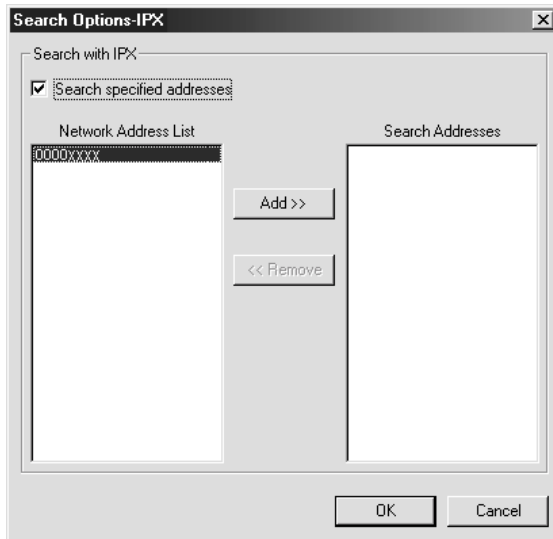
- ❑ *If you try to add an incorrect network address, the “The network address XXX.XXX.XXX.XXX that you entered will be added to the list as XXX.XXX.XXX.X. Add this address?” message appears. Check the correct network address and then click OK to add it.*
- ❑ *If you try to add the same network address, the “This network address has already been registered” message appears, which indicates this address cannot be added.*

Search Options-IPX

When you manage the print server with IPX (NetWare), and when you want to configure the print server outside of the local network, set the network address of the print server. Select Refresh from the View menu or restart EsponNet WinAssist for the settings to take effect.

Note:

- ❑ *To use this option, you need to log in to the NetWare server as a supervisor.*
- ❑ *When using a dial-up network, delete any unnecessary addresses from the Search Addresses list to prevent charges for any extra accounts.*



Item	Explanation
Search specified addresses	The display time can be reduced by selecting this check box and choosing the target networks; any unnecessary or unwanted information is then not obtained.
Network Address List	Displays all current network addresses.
Search Addresses	Displays the network address to be searched.
Add button	Select an address in Network Address List, and then click Add to add the address to Search Addresses (up to 256 address).
Remove button	Removes the selected address from the Search Addresses list.

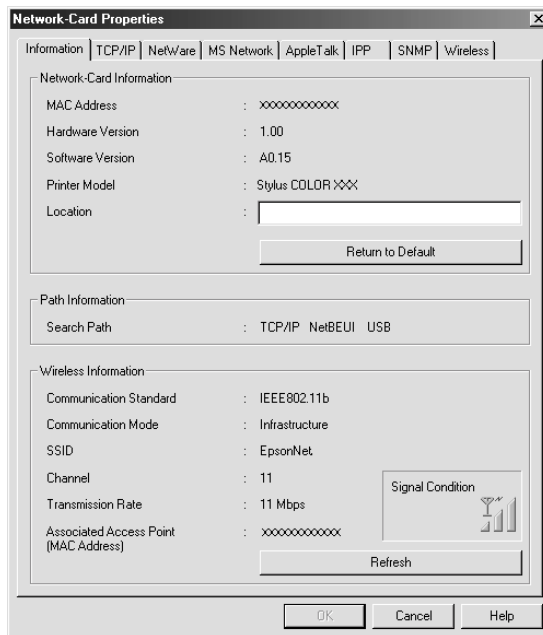
Firmware update

You can update the firmware and EpsonNet WebAssist. Since the firmware update function is for the support purpose, usually you do not need to use this function. See the EpsonNet WinAssist online help for detailed information.

Details of the Configuration Dialog Box

Information

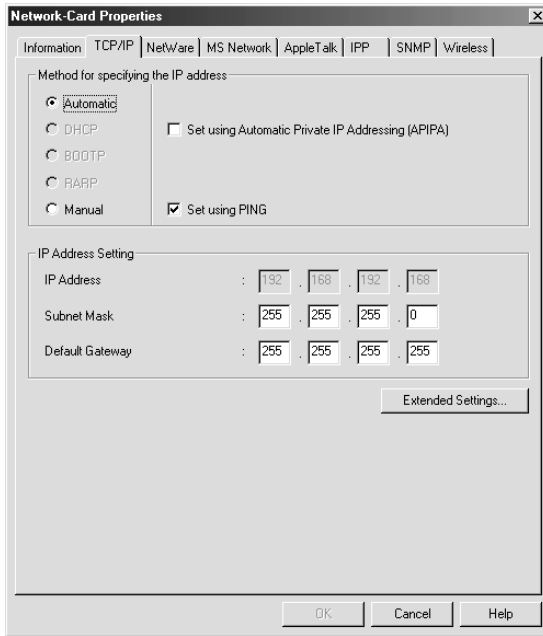
The Information menu shows the various print server parameters as described below.



Parameters	Explanations
MAC Address	Unique hardware address of the print server. You can check the MAC address on a status sheet.
Hardware Version	Hardware version of the print server
Software Version	Software version of the print server
Printer Model	Product name of the printer attached to the print server
Location	Enter the location of the print server.
Return to Default button	Reverts to the factory default settings.
Search Path	Protocol used to search for the print server
Communication Standard	Communication standard for wireless LAN
Communication Mode	Wireless network mode
SSID	SSID of the access point or wireless LAN
Channel	Channel used for wireless communication
Transmission Rate	Communication speed
Associated Access Point (MAC Address)	Access Point used for wireless LAN in the Infrastructure mode. In the Ad Hoc mode, this item does not appear.
Signal Condition	Condition of the radio wave, as follows: Three antennas: Excellent Two antennas: Good One antenna: Poor None: No connection Question mark: Unknown
Refresh button	Updates to the latest wireless information.
OK	Updates the settings.
Cancel	Cancels any changes.
Help	Accesses help.

TCP/IP

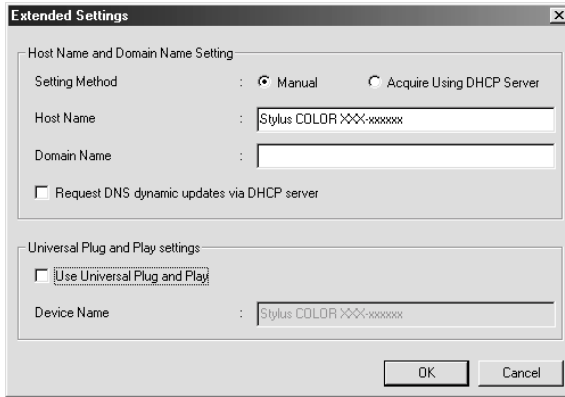
To use the printer in the TCP/IP environment, configure the print server using the following screen.



Items	Explanations
Method for specifying the IP address	<p>Select a method for specifying an IP address. When you select Automatic, an IP address, subnet mask, and default gateway are automatically assigned by the DHCP server.</p> <p>Note: If the Dynamic DNS function is not supported, we recommend that you select Manual and then enter an IP address. This is because if you select Automatic, the IP address of the print server changes every time you turn on the printer so that you need to change the printer port setting accordingly.</p>
Set using Automatic Private IP Addressing (APIPA)	Assigns a private IP address automatically even when there is no DHCP server on your network. It is dimmed if this function is not supported.
Set using PING	<p>Select this check box when setting an IP address using the ping command. When not using the ping command, clear this check box.</p> <p>Note: Be sure to clear the check box when not using ping; this prevents any unexpected change of the IP address by EpsonNet WebManager.</p>
IP Address	Enter an IP address for the print server. Be sure that the IP address is unique and does not conflict with any other device on the network.
Subnet Mask	Enter the subnet mask of the IP address.
Default Gateway	Enter the gateway address.
Extended Settings button	Click this button for extended settings such as Dynamic DNS and Universal Plug and Play. If both functions are not supported, this button is dimmed.

Extended Settings dialog box

When you click the Extended Settings button on the TCP/IP menu, the following dialog box appears.



Items	Explanations
Setting Method	Select a setting method: Manual or Acquire Using DHCP Server. If you want to get a host name and domain name from the DHCP server, select Acquire Using DHCP Server.
Host Name	Enter the host name supported by the Dynamic DNS (between 2 and 63 characters). The total number of characters of the host name and the domain name must not exceed 251.
Domain Name	Leave it blank or enter two or more characters of the domain name supported by Dynamic DNS. The total number of characters of the host name and the domain name must not exceed 251.
Request DNS dynamic updates via DHCP server	Select this check box to send the host name and domain name to the DHCP server that supports Dynamic DNS update to request for DNS dynamic updates.

Use Universal Plug and Play	Enables or disables Universal Plug and Play. It is dimmed if this function is not supported.
Device Name	Enter the device name for Universal Plug and Play (between 2 and 63 characters).

NetWare

To use the printer in the NetWare environment, configure the print server using the following screen. You can configure the print server either in the Print Server mode or the Remote Printer mode.

Note:

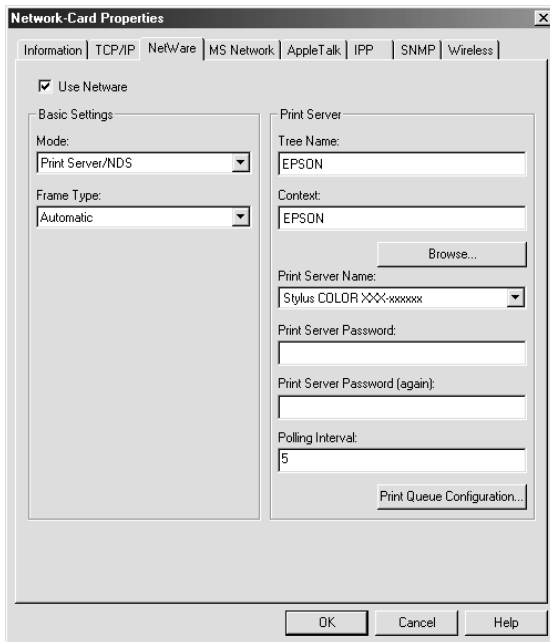
- When you are not using NetWare, be sure to select the Standby mode.*
- Log in to the NetWare server or the NDS context with supervisor privileges.*
- You cannot assign the print queue if you have not logged in to the bindery or NDS in the same mode you have selected for Mode.*

Print Server mode

To use the printer in the Print Server mode, configure the print server using the following screen.

Note:

When you save the settings, the Printer Objects, named PRO for the Bindery mode or print server name_PO for the NDS mode, are automatically created. To change the printer name, use PCONSOLE or NWADMIN.



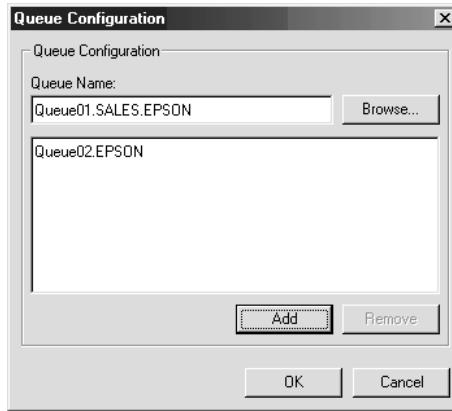
Items	Explanations
Use NetWare	Select this check box when using NetWare. When you use the printer only in the NetWare environment, it turns on automatically.
Mode	Select a mode: Print Server/Bindery or Print Server/NDS.
Frame Type	Leave the default frame type as it is.
Tree Name	For the NDS mode only: Click the Browse button and select the NDS context so the Tree name is also selected.
Context	For the NDS mode only: Click the Browse button and select the NDS context.
Browse button	Browse the NDS context.
Primary File Server Name	For the Bindery mode only: Select the server where the print server logs in.
Print Server Name	Select or enter the print server name (up to 47 characters).
Print Server Password	Enter the password to log in to the print server (up to 20 characters). See the NetWare documentation for more details. Usually you do not need to set it.
Print Server Password (again)	Enter the password again.
Polling Interval	Set the polling interval between 5 to 90 seconds. See the NetWare documentation for more details. Usually you do not need to set it.
Print Queue Configuration button	Configure the print queue settings. If you have assigned the queue with PCONSOLE, NWAdmin, or EpsonNet!2 for Windows (an older version of the configuration utility), reassign the print queue here.

Print Queue Configuration dialog box

When you click the Print Queue Configuration button on the Print server menu, the following dialog box appears.

Note:

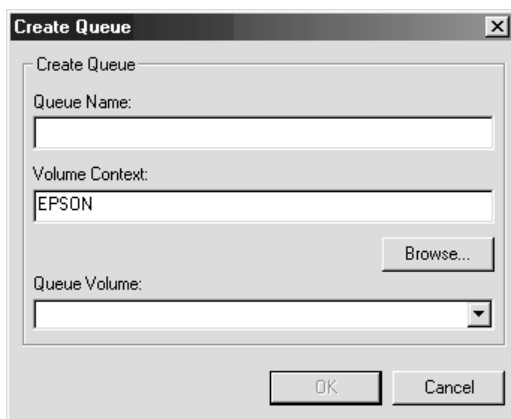
You can configure queue settings for a higher context than the one you specified in the NDS context box. In this case, you must have the supervisor privileges for the context in which you set the queue.



Items	Explanations
Queue Name	Displays the queue name that is assigned to the print server by browsing the queue.
Browse button	Click the Browse button to select a queue. You can also create or delete a queue.
Queue list box	Lists the print queues.
Add button	Adds a print queue.
Remove button	Removes a print queue.

- ❑ **Selecting a queue**
Click the queue and click OK to select it.
- ❑ **Creating a queue**
For Bindery mode: Click the file server where you want to create a queue. Right-click it, and then select Create Queue. Enter the queue name (up to 47 characters).

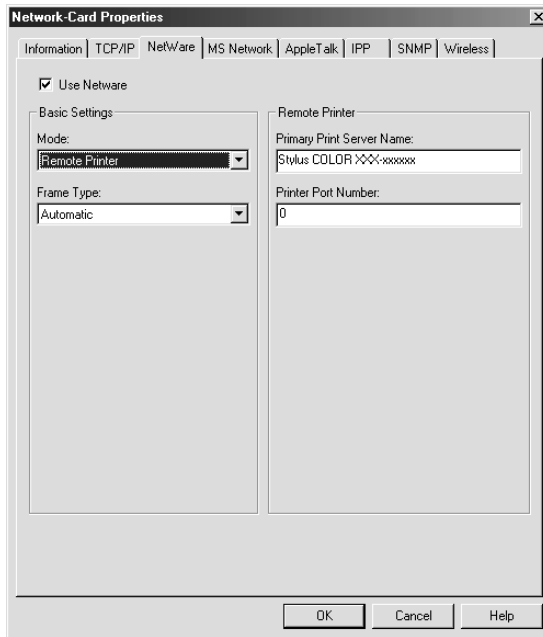
For NDS mode: Select the context where you want to create a queue. Right-click it, and then select Create Queue. Type a queue name (up to 47 characters). Browse the context, and then select the volume name from the drop-down list. The queue will be created under the SYS volume of the file server. If you want to create a queue in another volume, use PCONSOLE or NWAdmin.



- ❑ **Deleting a queue**
Select the print queue you want to delete. Right-click it, and then select Delete Queue.

Remote Printer mode

To use the printer in the Remote Printer mode, configure the print server using the following screen.

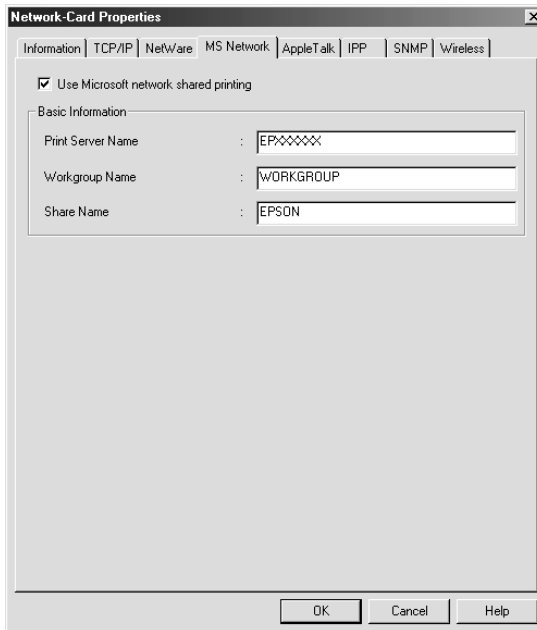


Items	Explanations
Use NetWare	Select this check box when using NetWare. When you use the printer only in the NetWare environment, it turns on automatically.
Mode	Select Remote Printer.
Frame Type	Leave the default frame type as it is.

Primary Print Server Name	Enter the primary print server name (up to 47 characters), which is created by PCONSOLE or NWAdmin. For NDPS Gateway, enter the SAP name you have set for NetWare (up to 47 characters).
Printer Port Number	Enter the printer port number. For NDPS Gateway, enter the same printer number you have set for NetWare (between 0 and 254).

MS Network

To use the printer in the Microsoft network environment, configure the print server using the following screen.



Items	Explanations
Use Microsoft networkshared printing	Select this check box when using Microsoft Shared Network printing. This check box is selected but dimmed when the print server's information is acquired by the NetBEUI protocol.
Print Server Name	Enter the print server name (up to 15 characters). Be sure to give a unique name that does not cause conflicts with any other device on the network.
Workgroup Name	Enter the workgroup name or domain name used for the Windows network environment (up to 15 characters).
Share Name	Enter the printer's shared name on the network (up to 12 characters). Do not use LPT1, LPT2, LPT3, or COM.

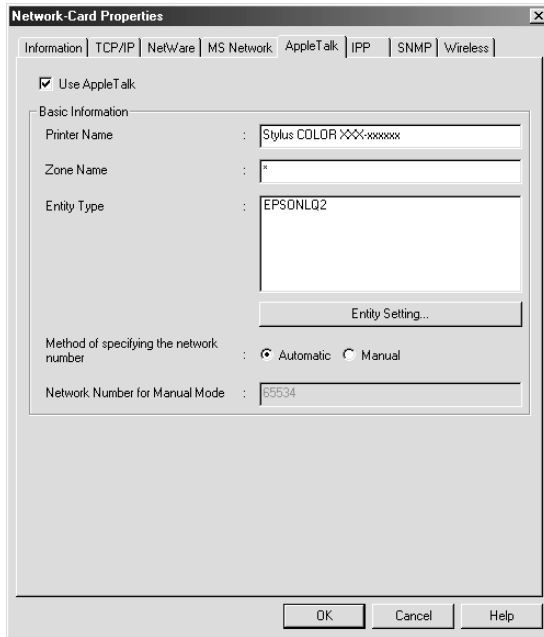
AppleTalk

To use the printer in the AppleTalk environment, configure the print server using the following screen.

Note:

To configure AppleTalk settings using EpsonNet WinAssist, the following conditions must be maintained;

- The print server must be assigned a valid IP address.*
- You have logged in to the NetWare server or the NDS context with supervisor privileges.*
- The shared service is installed on the computer.*

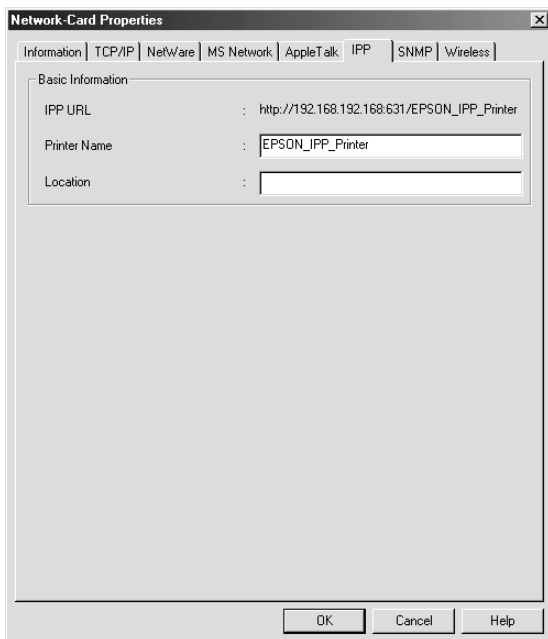


Items	Explanations
Use AppleTalk	Select this check box when using AppleTalk.
Printer Name	Enter the name of the printer (up to 32 characters).
Zone Name	Enter the network zone name (up to 32 characters). To have the zone selected automatically, select Automatic to specify the network number and enter an asterisk (*) in this text box.

Entity Type	<p>The default entity type is EPSONLQ2. Select the entity type by clicking the Entity Setting button to match your printer. For Impact Dot Matrix printers, enter the entity type manually.</p> <p>InkJet, All in One Product: EPSONLQ2 Laser (mono): EPSONPAGE4 Laser (color): EPSONPAGECOLOR1 Impact Dot Matrix (except 9 pin and DFX series): EPSONFX Impact Dot Matrix (24 pin): EPSONLQ</p>
Entity Setting button	Click this button and select the appropriate entity type.
Method of specifying the network number	Select a method for acquiring the network number. Automatic is usually preferred.
Network Number for Manual Mode	Enter a value between 0 and 65534 to specify the network number, if you have selected Manual.

IPP

To use the printer in the IPP environment, configure the print server using the following screen. If the print server does not support the SNMP, all of the items are dimmed.

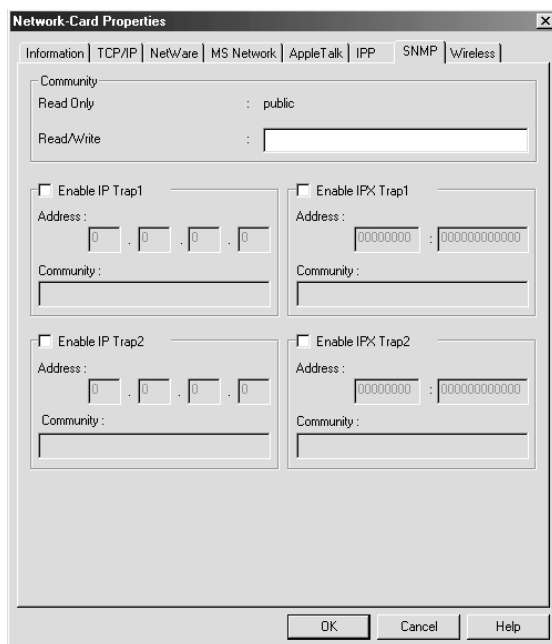


Items	Explanations
IPP URL	Displays the printer's URL for Internet Printing. Format: http://IP address of print server:631/ printer name set below Example: http://192.168.100.201:631/EPSON_IPP_Printer

Items	Explanations
Printer Name	Enter the name of the printer to use for Internet Printing (up to 127 characters). <i>Example:</i> EPSON_IPP_Printer
Location	Enter the name of the printer's physical location (up to 64 characters).

SNMP

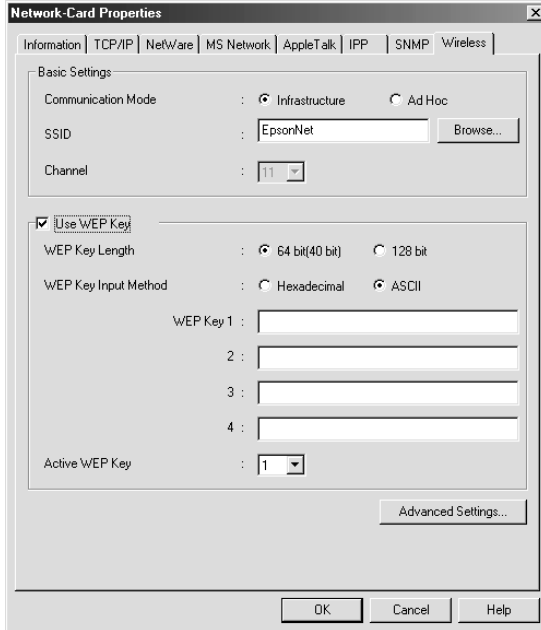
You can use the SNMP menu to set the SNMP information.



Items	Explanations
Read Only	The word "public" always appears.
Read/Write	Enter the Read/Write community name (up to 32 characters).
Enable IP Trap 1 or/and 2	Enable or Disable IP trap 1, 2, or both.
Address	Enter the IP address of the server to which the trap is transmitted.
Community	Enter the community name (up to 32 characters).
Enable IPX Trap 1 or/and 2	Enable or Disable IPX trap 1, 2, or both.
Address	<p>Enter Network Address and Node Number (MAC Address) of the server to which the trap is transmitted.</p> <p>Format: Network Address: Node Number</p> <p>Suppose Network Address is A7E00BB0 (hexadecimal) and Node Number is 000048930000 (hexadecimal). In this case, the address is A7E00BB0:000048930000.</p>
Community	Enter the community name (up to 32 characters).

Wireless

To use the printer in the wireless environment, configure the print server using the following screen. If the print server does not support the wireless network, this tab does not appear.

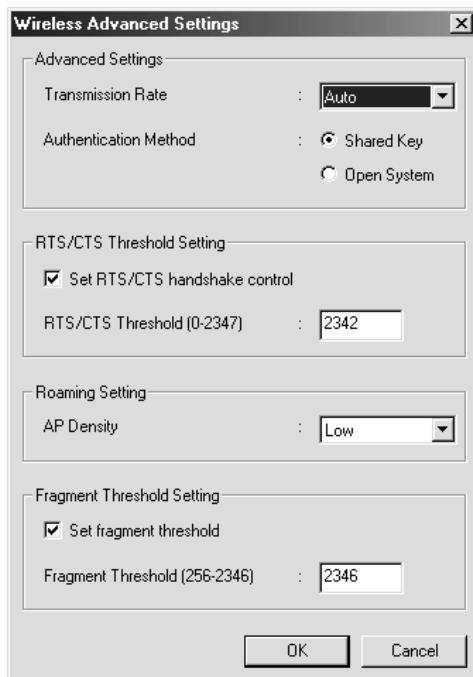


Items	Explanations
Communication Mode	Select a wireless LAN mode: Infrastructure or Ad Hoc.
SSID	Enter or select the SSID (or ESSID) of the access point or wireless LAN. The default value is "EpsonNet" or "EpsonNetAP".
Browse button	Click this button to browse the SSID (or ESSID) of the access point or wireless LAN.

Channel	When the mode is Ad Hoc, select the channel used on the print server. If the mode is Infrastructure, this item is dimmed.
Use WEP Key	This is disabled by default. Select this check box when using the WEP Key. If this function is disabled, all stations must have the WEP Key disabled. If this function is enabled, each station must have the WEP Key enabled and use the compatible WEP Keys.
WEP Key Length	Select either 64 bit(40 bit) or 128 bit.
WEP Key Input Method	Select either Hexadecimal or ASCII.
WEP Key (1 to 4)	When you select 64 bit(40 bit) for the length, you can set up to 4 WEP Keys. When you select 128 bit, you can set only one WEP Key. For 64bit and ASCII, enter 5 characters. For 64bit and Hex, enter 10 digit values. For 128bit and ASCII, enter 13 characters. For 128bit and Hex, enter 26 digit value. Note: The WEP Key disappears after the print server is configured. Do not forget the WEP Key you have set.
Active WEP Key	Select one WEP Key as an active key before enabling use of encryption.
Advanced Settings button	Select this button to configure advanced settings only if you want to improve the current wireless communication performance.

Wireless Advanced Settings dialog box

When you click the Advanced Settings button, the following dialog box appears.



The image shows a dialog box titled "Wireless Advanced Settings" with a close button (X) in the top right corner. The dialog is divided into four sections:

- Advanced Settings:** Contains "Transmission Rate" with a dropdown menu set to "Auto", and "Authentication Method" with two radio buttons: "Shared Key" (selected) and "Open System".
- RTS/CTS Threshold Setting:** Contains a checked checkbox "Set RTS/CTS handshake control" and "RTS/CTS Threshold (0-2347)" with a text input field containing "2342".
- Roaming Setting:** Contains "AP Density" with a dropdown menu set to "Low".
- Fragment Threshold Setting:** Contains a checked checkbox "Set fragment threshold" and "Fragment Threshold (256-2346)" with a text input field containing "2346".

At the bottom of the dialog are "OK" and "Cancel" buttons.

Items	Explanations
Transmission Rate	Select the transmission speed: Auto, 11, 5.5, 2, or 1. Select Auto to communicate using the best speed for your environment.
Authentication Method	Select the authentication algorithms: Shared Key or Open System.

Set RTS/CTS handshake control	Select this check box to avoid data collisions, known as "Hidden Station" problem. When this check box is selected, the station and its access point use a RTS/CTS protocol. The station sends an RTS to the access point, notifying that it is going to transmit the data. When it receives the RTS signal, the access point responds with a CTS signal to all stations within its range to notify all other stations to delay transmission.
RTS/CTS Threshold	Specify the threshold (number of bytes) between 0 and 2347. Data with its frame size larger than this value performs the RTS/CTS handshake.
AP Density	To get the continuous connection of the same access point, select Low. When you select High, roaming around access points is made easy. The print server switches to the other access point if it has a better radio wave condition.
Set fragment threshold	Select this check box and specify the packet size when you send large files. It improves the efficiency when there is high traffic within the wireless network. The data is divided into packets of size you have set in the Fragment Threshold. If you clear the check box, the data is transmitted as a whole.
Fragment Threshold	Specify the threshold for the fragmentation boundary between 256 and 2346. Data is transmitted in pieces so that its size does not exceed this value.

About Password

A password is required to configure the print server. When you click OK in the setting dialog box or click the Return to Default button, the Password dialog box appears.

1. To set a password or to change the current password, click Change. The Administrator password dialog box appears.
2. When you set a password for the first time, leave the Old Password box blank, and enter a password in the New Password box and in the New Password (again) box (up to 20 characters). Then click OK. Passwords are case sensitive.

Note:

- ❑ *The same password is used for EpsonNet WinAssist, MacAssist, and WebAssist.*
- ❑ *Since the new password becomes effective after the data is sent to the print server, enter the old password immediately after changing the password.*
- ❑ *If you forget your password, you need to initialize the print server. See “Initializing the print server” on page 73 for instructions.*

Configuring the Print Server Using EpsonNet WinAssist EasySetup

You can also use EpsonNet WinAssist EasySetup to easily configure the print server ready for Wireless, TCP/IP, and Microsoft Network printing in just a short time.

Note:

- The configuration screens may differ depending on whether the connection to the print server is wired or wireless. This manual explains only the wireless connection.*
- The computer to use for the following steps must be in the same segment as the print server.*
- When you assign an IP address manually, we recommend you use EpsonNet WinAssist to set the subnet mask and default gateway.*

Follow the steps below to configure the print server using EpsonNet WinAssist EasySetup.

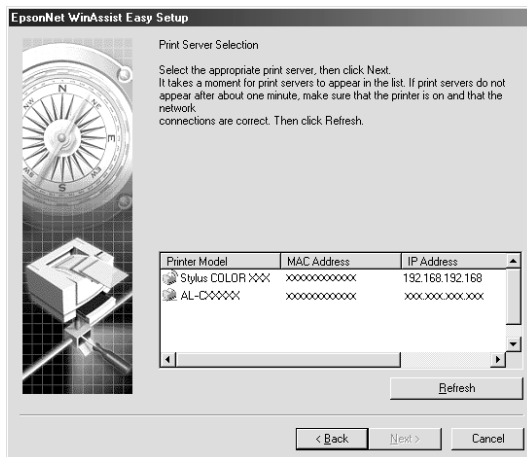
Note:

- Make sure the power cord of the print server is plugged into a properly grounded wall outlet.*
 - Make sure the print server and the computer is connected with a USB cable; or the computer's wireless settings match the print server's default settings.*
1. Click Start, point to Programs or All Programs (Windows XP), and then select EpsonNet WinAssist V4. Click EpsonNet EasySetup to start it.
 2. In the EpsonNet WinAssist EasySetup dialog box, click Next.
 3. Read the Usage Agreement and then click Next.
 4. Select the target printer and then click Next.

Note:

- ❑ *If the same printer model name appears several times on the list, you can identify the printers by checking their MAC addresses, which are found on the status sheet.*

- ❑ *If the print server is not connected to the printer with a USB cable, “Printer” appears for the Printer Model. You can configure the print server without connecting the print server to the printer.*

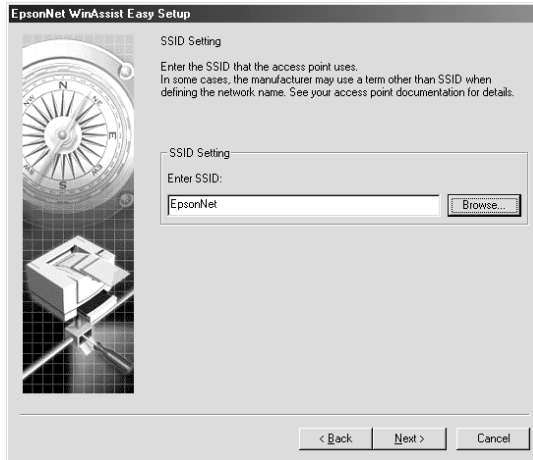


5. Specify the wireless network mode: Infrastructure or Ad Hoc. Then click Next.

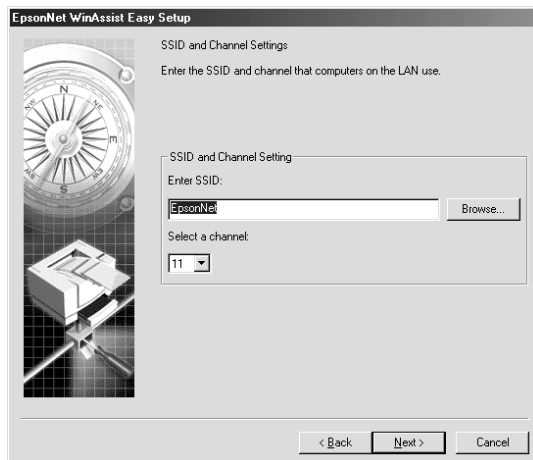


6. Enter the SSID, or select it from the list. If you selected the Ad Hoc mode in step 5, specify the channel here. Then click Next.

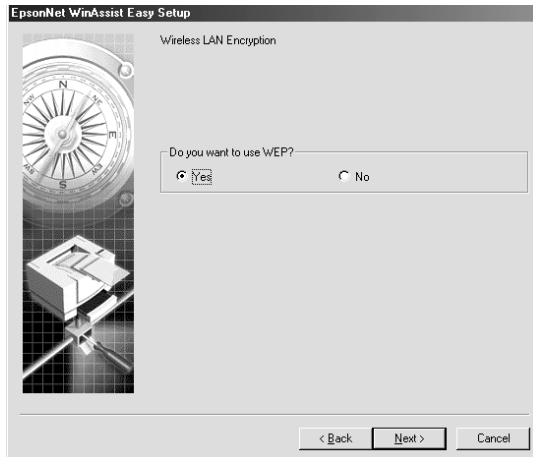
Infrastructure mode



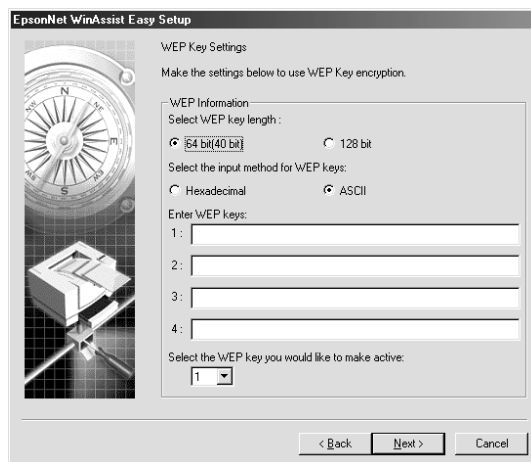
Ad Hoc mode



7. If you want to set the WEP Key, select Yes and then click Next. (If you select NO, proceed to step 9.)



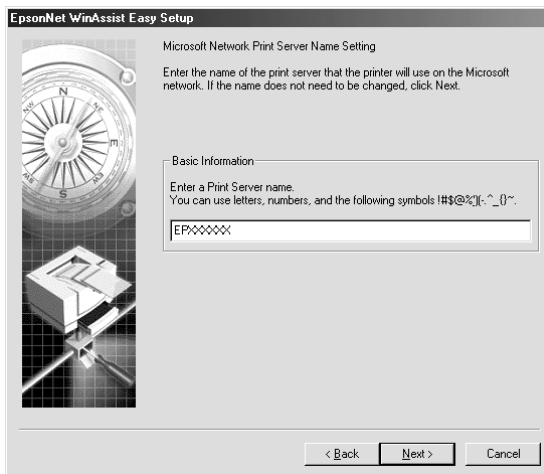
8. You can set up 4 encryption keys but choose one key to encrypt your data.
For 64 bit and ASCII, enter 5 characters.
For 64 bit and Hexadecimal, enter 10 digit values.
For 128 bit and ASCII, enter 13 characters.
For 128 bit and Hexadecimal, enter 26 digit values.



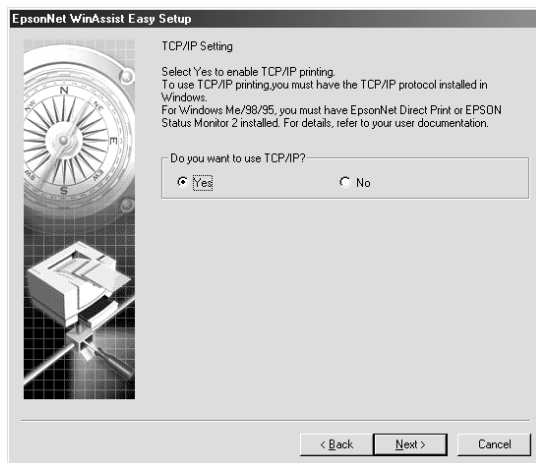
- Specify whether to use the Microsoft network sharing service, and then click Next. If you select NO, proceed to step 12.



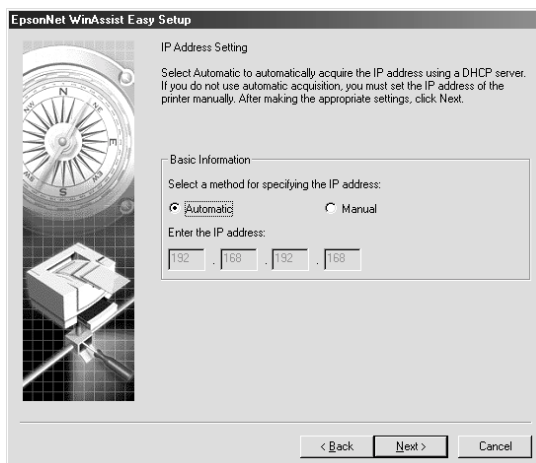
- Check the print server name. Change it if necessary. Click Next.



11. Specify whether to use TCP/IP, and then click Next. (If you select No, proceed to step 13.)



12. Select Automatic or Manual. If you select Automatic, DHCP becomes available and assigns an IP address automatically. If you select Manual, enter the IP address. Click Next.



Note:

- ❑ *The print server does not have a default IP address. Be sure to assign a valid IP address manually or by using the DHCP server.*

- ❑ *If the Dynamic DNS function is not supported, we recommend that you select Manual and enter an IP address. This is because if you select Automatic, the IP address of the print server changes every time you turn on the printer so that you need to change the printer port setting accordingly.*

- ❑ *To use the DHCP server, make sure it is installed on your computer and configured correctly. See your operating system's online help for detailed instructions.*

13. Check the settings and then click Send.

If you have set a password for the print server, the Password dialog box appears. Enter your password (up to 20 characters) and then click OK. Follow the on-screen instructions.



Caution:

It takes two or three minutes to send new settings to the print server. Do not turn off your printer until an on-screen message prompts you to do so.

After configuring the print server for wireless using EpsonNet WinAssist EasySetup, unplug the USB cable connecting the print server and the computer. Check that the print server is displayed in the list of EpsonNet WinAssist or WinAssist EasySetup, which indicates the print server is connected to the wireless LAN.

EpsonNet MacAssist Configuration Utility

About EpsonNet MacAssist

EpsonNet MacAssist is a Macintosh-based configuration software for administrators that allows you to configure the print server for TCP/IP, AppleTalk, IPP, and Wireless.

Note:

- ❑ *Be sure to use EpsonNet MacAssist included on the software CD-ROM shipped with this product.*

- ❑ *The setting screens may differ depending on whether the connection to the print server is wired or wireless. This manual explains only the wireless connection.*

Menu Bar

EpsonNet MacAssist provides the following menus and sub-menus.

File menu:

- ❑ Close
Closes EpsonNet MacAssist.

- ❑ Quit
Quits EpsonNet MacAssist.

Edit menu:

Use it when you edit the contents of the configuration menus.

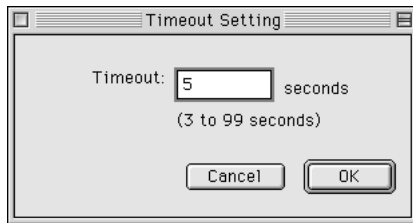
Device menu:

- ❑ **Configuration**
Configures the print server you have selected.
- ❑ **Launch Browser**
Starts EpsonNet WebAssist to configure the print server you have selected. EpsonNet WebAssist is a utility that runs on a browser.
- ❑ **Refresh**
Updates to the latest information by searching for the available printers again.
- ❑ **Timeout Setting**
Set the timeout value between 3 and 99 seconds. See “Timeout” on page 114 for more information.
- ❑ **Network Path Search Setting**
Select connections and protocols to use to search for a print server. See “Network path search setting” on page 114 for more information.
- ❑ **Search Options**
Configures the options for a search with AppleTalk or IP. See “Search options” on page 115 for more information.

Timeout

Set the length of time before a timeout occurs (between 3 and 99 seconds). The default value is 5 seconds. A communication error occurs if this time is exceeded. If you set a larger value, it takes more time to search for the network printers. Therefore, change this value only if you prefer.

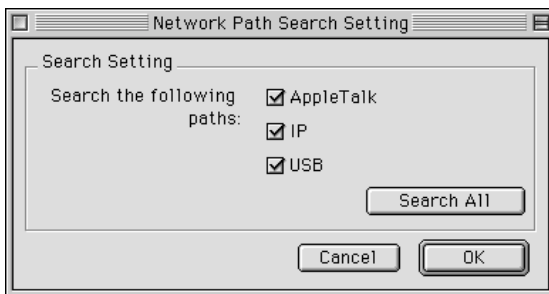
Select Refresh from the Device menu or restart EpsonNet MacAssist for the settings to take effect.



Network path search setting

You can select the connection and protocols to use to search for a print server. You can either use all the connection and protocols such as AppleTalk, IP, or USB, or select the favorable ones.

Select Refresh from the Device menu or restart EpsonNet MacAssist for the settings to take effect.



Search options

Search options-AppleTalk

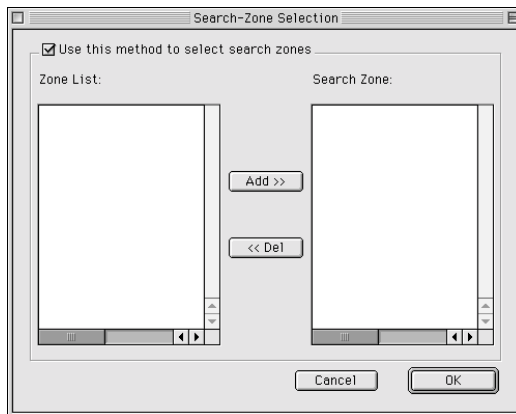
To search for the print servers in other zones, set the specific zones in this option.

Select the Use this method to select search zones check box to search for a print server in a specific zone. Clear the check box if the print server is in the same zone; this saves time in searching.

The zones obtained from the network environment are displayed on the Zone list. The zones to be searched are displayed on the Search Zone list. The maximum number of zones that can be displayed on the Zone and Search Zone lists is 2000.

To add the zone to the Search Zone list, select the zone and then click the Add button. To delete the zone from the Search Zone list, select the zone and then click the Del button.

Select Refresh from the Device menu or restart EpsonNet MacAssist for the settings to take effect.



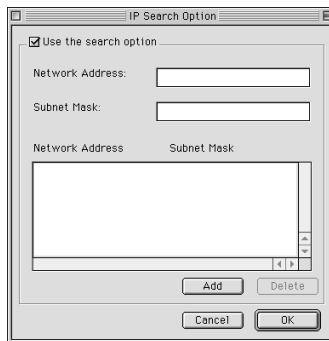
Search options-IP

To search for the print servers in other segments, set the specific network address and subnet mask. The settings you modified on this screen do not affect the search parameters used for EpsonNet MacAssist EasySetup.

Select the Use the search option check box to search for a print server in another segment. Do not select it if the print server you want to configure is located in the same segment.

Enter the network address and subnet mask (valid range 0 to 255). Ask your network administrator for the address. Then click Add. You can add up to 20 addresses. To remove the address from the list, select the address and click Delete.

Select Refresh from the Device menu or restart EpsonNet MacAssist for the settings to take effect.



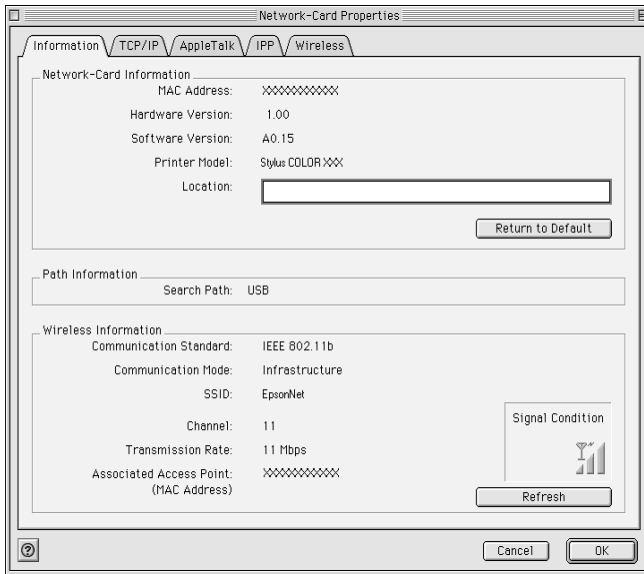
Note:

- ❑ If you try to add an incorrect network address, the "The network address XXX.XXX.XXX.XXX that you entered will be added to the list as XXX.XXX.XXX.X. Add this address?" message appears. Check the correct network address and then click OK to add it.
- ❑ If you try to add the same network address, the "This network address has already been registered" message appears, which indicates this address cannot be added.

Details of the Configuration Dialog Box

Information

The Information menu shows the various print server parameters as described below.

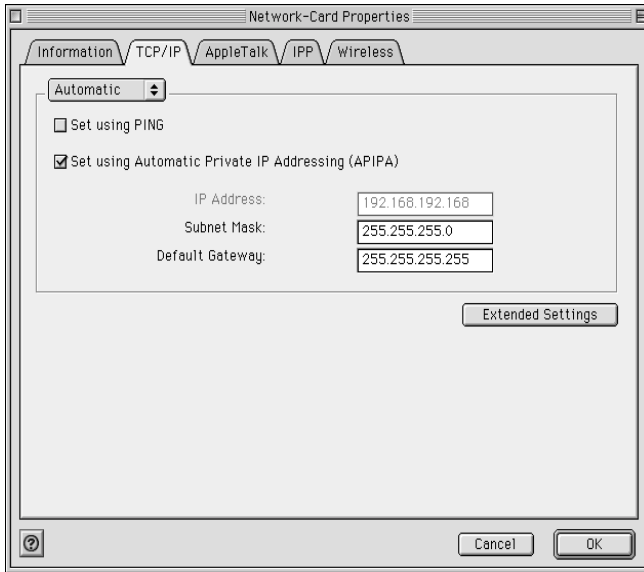


Parameters	Explanations
MAC Address	Unique hardware address of the print server. You can check the MAC address on a status sheet.
Hardware Version	Hardware version of the print server
Software Version	Software version of the print server

Printer Model	Product name of the printer attached to the print server
Location	Enter the location of the print server.
Return to Default button	Resets all configuration settings of the print server to their defaults.
Search Path	Protocol used to search for the print server
Communication Standard	Communication standard for wireless LAN
Communication Mode	Wireless network mode
SSID	SSID of the access point or wireless LAN
Channel	Channel used for wireless communication
Transmission Rate	Communication speed
Associated Access Point (MAC Address)	Access Point used for wireless LAN in the Infrastructure mode. In the Ad Hoc mode, this item does not appear.
Signal Condition	Condition of the radio wave, as follows: Three antennas: Excellent Two antennas: Good One antenna: Poor None: No connection Question mark: Unknown
Refresh button	Updates to the latest wireless information.
OK	Updates the settings.
Cancel	Cancels any changes.

TCP/IP

To use the printer in the TCP/IP environment, configure the print server using the following screen.

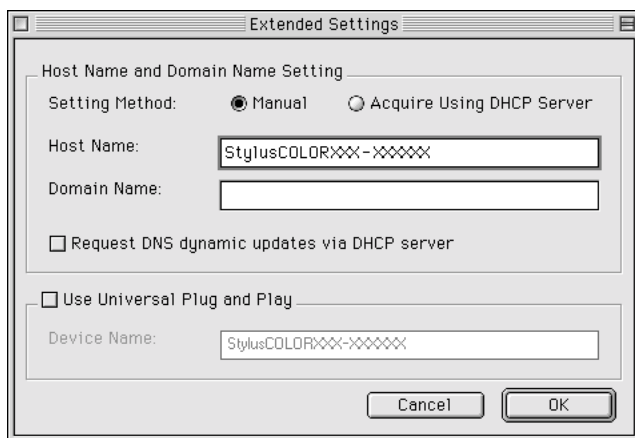


Items	Explanations
Method for specifying the IP address	<p>Select a method for specifying an IP address. When you select Automatic, an IP address, subnet mask, and default gateway are automatically assigned by the DHCP server.</p> <p>Note: If the Dynamic DNS function is not supported, we recommend that you select Manual and then enter an IP address. This is because if you select Automatic, the IP address of the print server changes every time you turn on the printer so that you need to change the printer port setting accordingly.</p>

Set using PING	Select this check box when setting the IP address using the ping command. When not using the ping command, clear this check box.
Set using Automatic Private IP Addressing (APIPA)	Assigns a private IP address automatically even there is no DHCP server on your network. It is dimmed if this function is not supported.
IP Address	Enter an IP address for the print server. Be sure that the IP address is unique and does not conflict with any other device on the network.
Subnet Mask	Enter the subnet mask of the IP address.
Default Gateway	Enter the gateway address. If there is a server or a router that functions as a gateway, enter the IP address of the server or the router. If there is no gateway, leave the default values.
Extended Settings	Click this button for extended settings such as Dynamic DNS and Universal Plug and Play. If both functions are not supported, this button is dimmed.

Extended Settings dialog box

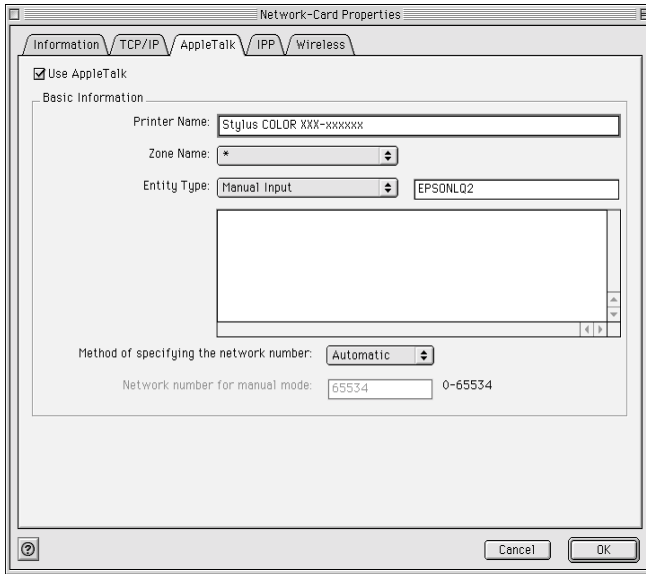
When you click the Extended Settings button on the TCP/IP menu, the following dialog box appears.



Items	Explanations
Setting Method	Select a setting method: Manual or Acquire Using DHCP Server. If you want to get a host name and domain name from the DHCP server, select Acquire Using DHCP Server.
Host Name	Enter the host name supported by the Dynamic DNS (between 2 and 63 characters). The total number of characters of the host name and the domain name must not exceed 251.
Domain Name	Leave it blank or enter two or more characters of the domain name supported by Dynamic DNS. The total number of characters of the host name and the domain name must not exceed 251.
Request DNS dynamic updates via DHCP server	Select this check box to send the host name and domain name to the DHCP server that supports Dynamic DNS update to request for DNS dynamic updates.
Use Universal Plug and Play	Enables or disables Universal Plug and Play. It is dimmed if this function is not supported.
Device Name	Enter the device name for Universal Plug and Play (between 2 and 63 characters).

AppleTalk

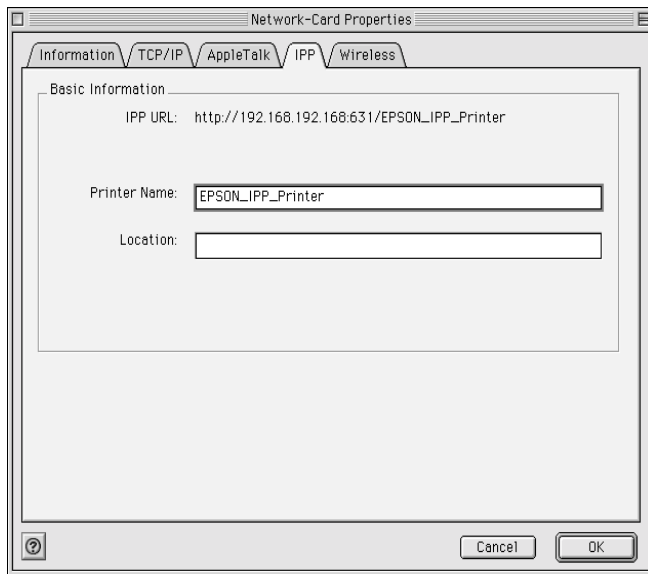
To use the printer in the AppleTalk environment, configure the print server using the following screen.



Items	Explanations
Use AppleTalk	Select this box when using AppleTalk.
Printer Name	Enter the name of the printer (up to 32 characters).
Zone Name	<p>Select or enter the network zone name (up to 32 characters).</p> <p>To have the zone selected automatically, select Automatic to specify the network number and select an asterisk (*) in this text box.</p> <p>To enter manually, select Manual Input and then enter the zone name in the text box.</p>
Entity Type	<p>The default entity type is EPSONLQ2. Select the entity type to match your printer. For Impact Dot Matrix printers, select Manual Input and enter the entity type manually.</p> <p>InkJet, All in One Product: EPSONLQ2 Laser (mono): EPSONPAGE4 Laser (color): EPSONPAGECOLOR1 Impact Dot Matrix (except 9 pin and DFX series): EPSONFX Impact Dot Matrix (24 pin): EPSONLQ</p>
Method of specifying the network number	Select the method for acquiring the network number. Automatic is usually preferred.
Network number for manual mode	Enter a value between 0 and 65534 to specify the network number, if you have selected Manual.

IPP

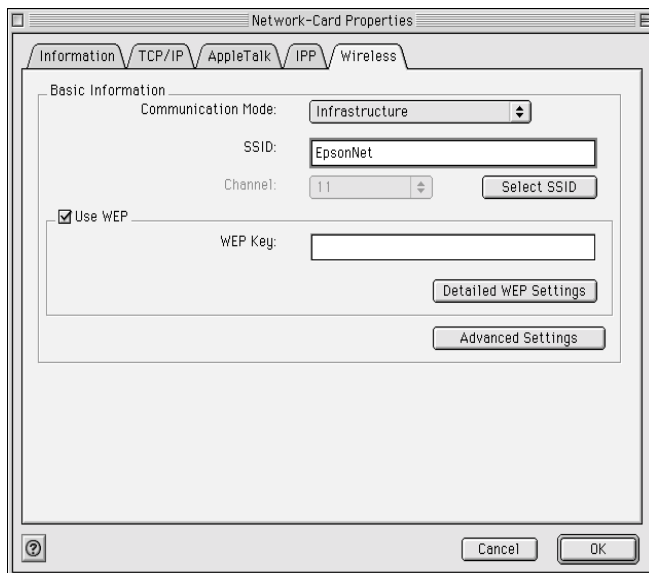
To use the printer in the IPP environment, configure the print server using the following screen.



Items	Explanations
IPP URL	Displays the printer's URL for Internet Printing. Format: http://IP address of print server:631/ printer name set below Example: http://192.168.100.201:631/EPSON_IPP_Printer
Printer Name	Enter the name of the printer to use for Internet Printing (up to 127 characters). Example: EPSON_IPP_Printer
Location	Enter the name of the printer's physical location (up to 64 characters).

Wireless

To use the printer in the wireless environment, configure the print server using the following screen.

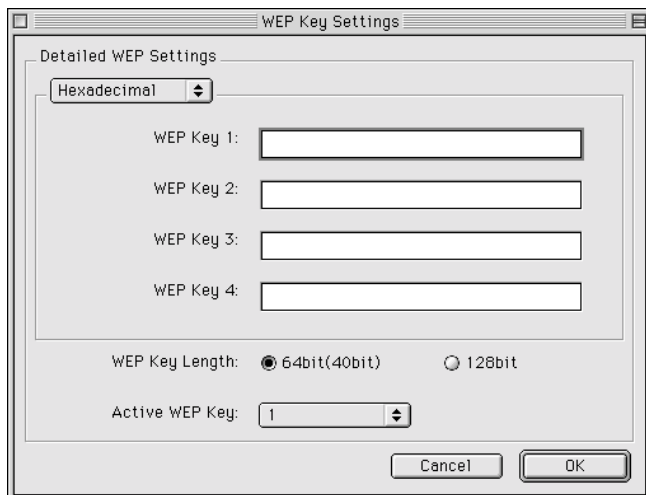


Items	Explanations
Communication Mode	Select a wireless LAN mode: Infrastructure or Ad Hoc.
SSID	Enter or select the SSID (or ESSID) of the access point or wireless LAN. The default value is "EpsonNet" or "EpsonNetAP".
Select SSID	Click this button to browse the SSID (or ESSID) of the access point or wireless LAN.
Channel	When the mode is Ad Hoc, select the channel used on the print server. If the mode is Infrastructure, this item is dimmed.

Use WEP	This is disabled by default. Select this check box when using the WEP Key. If this function is disabled, all stations must have the WEP Key disabled. If this function is enabled, each station must have the WEP Key enabled and use the compatible WEP keys.
WEP Key	Enter the WEP Key. The default is 10 characters in hexadecimal. You can change this in the WEP Key Settings dialog box.
Detailed WEP Settings button	Click this button to make detailed WEP settings.
Advanced Settings button	Select this button to configure advanced settings only if you want to improve the current wireless communication performance.

WEP Key Settings dialog box

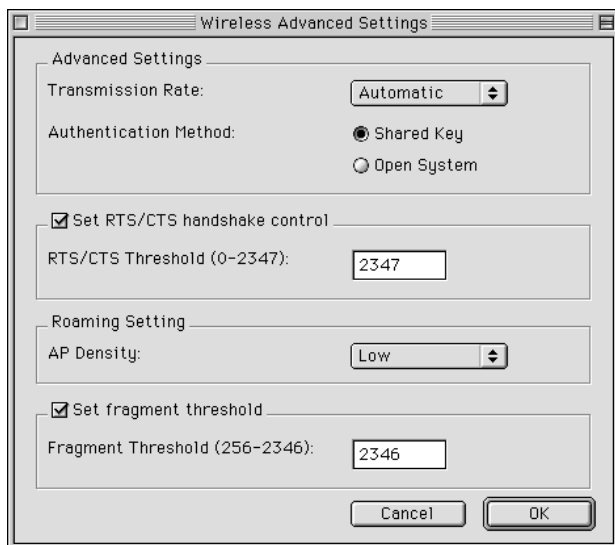
Click the Detailed WEP Settings button, and then make the WEP Key settings in the following dialog box.



Items	Explanations
Hexadecimal, ASCII	Select the WEP Key input method: Hexadecimal or ASCII.
WEP Key (1 to 4)	When you select 64 bit(40 bit) for the length, you can set up to 4 WEP Keys. When you select 128 bit, you can set only one WEP Key. For 64 bit and ASCII, enter 5 characters. For 64 bit and Hexadecimal, enter 10 characters. For 128 bit and ASCII, enter 13 characters. For 128 bit and Hexadecimal, enter 26 characters.
WEP Key Length	Select either 64 bit(40 bit) or 128 bit.
Active WEP Key	Select the WEP Key number you want to use.

Wireless Advanced Settings dialog box

When you click the Advanced Settings button, the following dialog box appears.



Items	Explanations
Transmission Rate	Select the transmission speed: Automatic, 11, 5.5, 2, or 1. Select Automatic to communicate using the highest speed.
Authentication Method	Select the authentication algorithms: Shared Key or Open System.
Set RTS/CTS handshake control	Select this check box to avoid data collisions, knowing as "Hidden Station" problem. When this check box is selected, the station and its access point use a RTS/CTS protocol. The station sends an RTS to the access point, notifying that it is going to transmit the data. When it receives the RTS signal, the access point responds with a CTS signal to all stations within its range to notify all other stations to delay transmission.
RTS/CTS Threshold	Specify the threshold (number of bytes) between 0 and 2347. Data with its frame size larger than this value performs the RTS/CTS handshake.
AP Density	To get the continuous connection of the same access point, select Low. When you select High, roaming around access points is made easy. The print server switches to the other access point if it has a better radio wave condition.
Set fragment threshold	<p>Select this check box and specify the packet size when you send large files. It improves the efficiency when there is high traffic within the wireless network. The data is divided into packets of size you have set in the Fragment Threshold.</p> <p>If you clear the check box, the data is transmitted as a whole.</p>
Fragment Threshold	Specify the threshold for the fragmentation boundary between 256 and 2346. Data is transmitted in pieces so that its size does not exceed this value.

About Password

A password is required to configure the print server. When you click OK in the setting dialog box or click Return to Default, the Password dialog box appears.

1. To set the password or to change the current password, click Change Password. The Change Password dialog box appears.
2. When you set a password for the first time, leave the Current Password box blank, and enter a password in the New Password box and in the New Password (again) box (up to 20 characters). Then click OK. Passwords are case sensitive.

Note:

- ❑ *The same password is used for EpsonNet WinAssist, MacAssist, and WebAssist.*
- ❑ *Since the new password takes effect after the data is sent to the print server, enter the old password immediately after changing the password.*
- ❑ *If you forget your password, you need to initialize the print server. See “Initializing the print server” on page 73 for instructions.*

Configuring the Print Server Using EpsonNet MacAssist EasySetup

You can also use EpsonNet MacAssist EasySetup to easily configure the print server ready for Wireless, TCP/IP, and AppleTalk printing in just a short time.

Note:

- ❑ *The setting screens may differ depending on whether the connection to the print server is wired or wireless. This manual explains only the wireless connection.*
- ❑ *The computer to use for the following steps must be in the same segment as the print server.*
- ❑ *When you assign an IP address manually, we recommend you use EpsonNet MacAssist to set the subnet mask and default gateway.*

Follow the steps below to configure the print server using EpsonNet MacAssist EasySetup.

Note:

- ❑ *Make sure the power cord of the print server is plugged into a properly grounded wall outlet.*
 - ❑ *Make sure the print server and the computer is connected with a USB cable; or the computer's wireless settings match the print server's default settings.*
1. Double-click EpsonNet MacAssist EasySetup. Click Next.
 2. Read the Usage Agreement and then click Next.
 3. Select the target printer and then click Next.

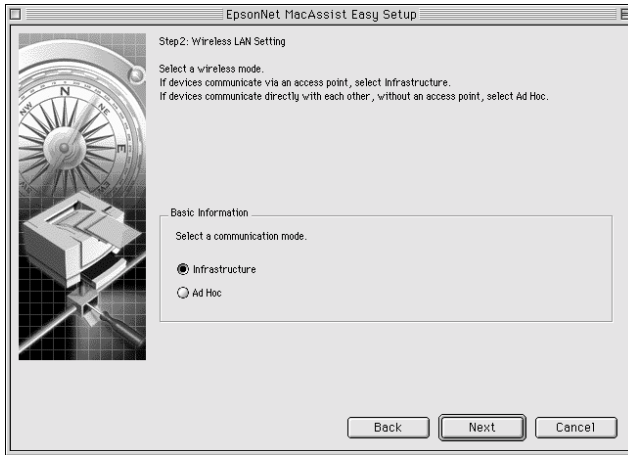
Note:

- ❑ *If the same printer model name appears several times on the list, you can identify the printers by checking their MAC addresses, which are found on the status sheet.*

- ❑ *If the print server is not connected to the printer with a USB cable, “Printer” appears for the Printer Model. You can configure the print server without connecting the print server to the printer.*

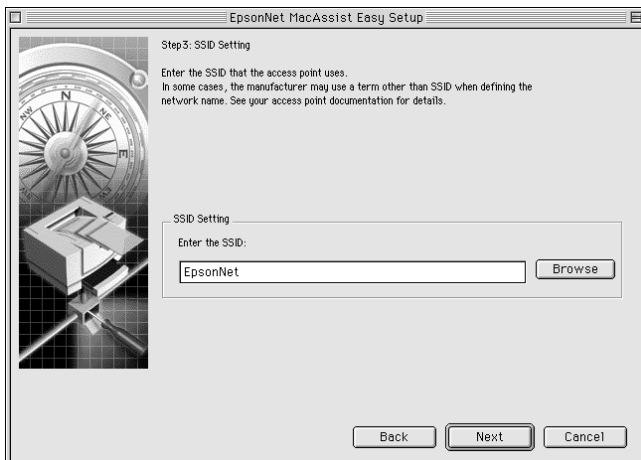


4. Specify the wireless network mode: Infrastructure or Ad Hoc. Then click Next.

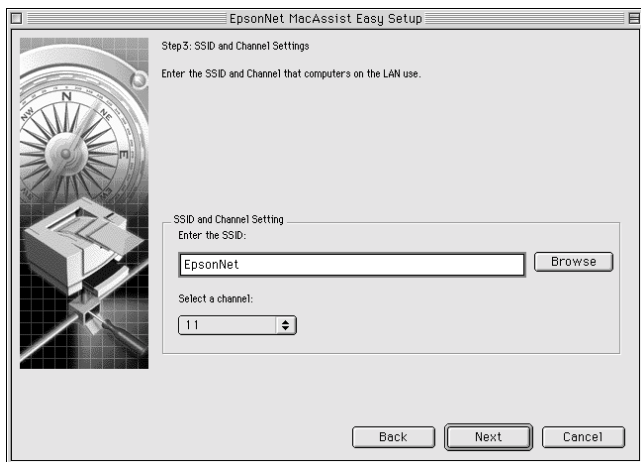


5. Enter the SSID, or click **Browse** to select it from the list. If you selected the Ad Hoc mode in step 4, specify the channel to use. Then click **Next**.

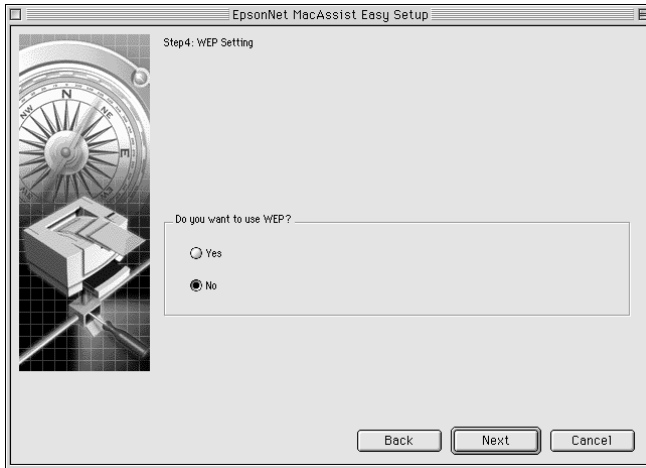
Infrastructure mode



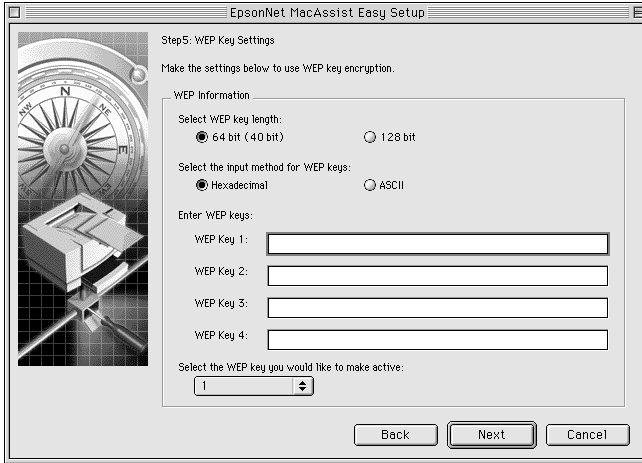
Ad Hoc mode



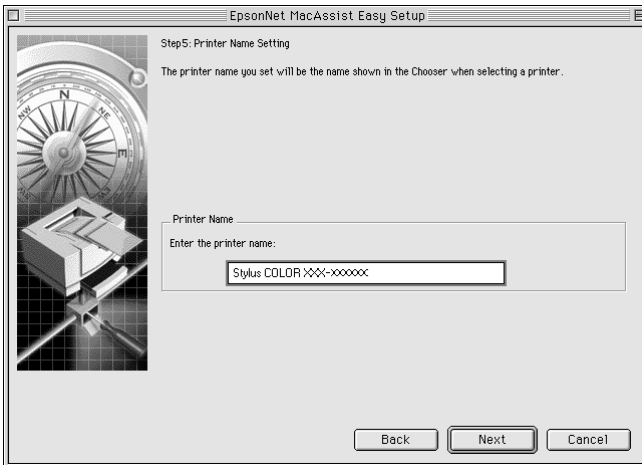
6. If you want to set the WEP Key, select Yes and then click Next. (If you select NO, proceed to step 8.)



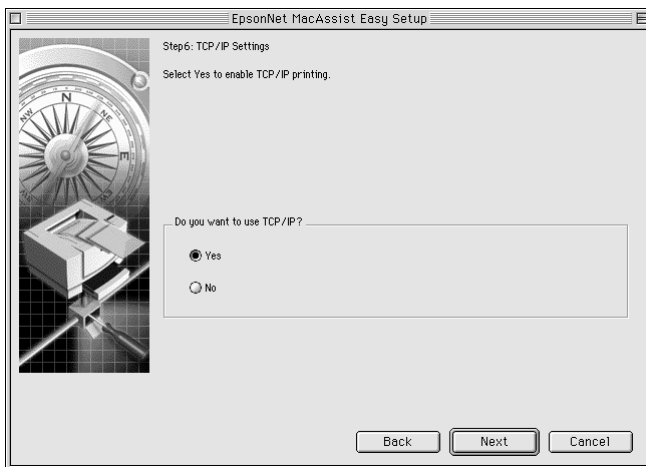
- You can set up 4 encryption keys but choose one key to encrypt your data.
For 64 bit and Hexadecimal, enter 10 digit values.
For 64 bit and ASCII, enter 5 characters.
For 128 bit and Hexadecimal, enter 26 digit values.
For 128 bit and ASCII, enter 13 characters.



- Change the printer name if necessary. Click Next.



- Specify whether to use TCP/IP, and then click Next. (If you select No, proceed to step 11.)



- Select a method for specifying the IP address. If you select Automatic, DHCP becomes available and assigns an IP address automatically. If you select Manual, enter the IP address. Click Next.



Note:

- ❑ *The print server does not have a default IP address. Be sure to assign a valid IP address manually or by using the DHCP server.*

- ❑ *If the Dynamic DNS function is not supported, we recommend that you select Manual and enter an IP address. This is because if you select Automatic, the IP address of the print server changes every time you turn on the printer so that you need to change the printer port setting accordingly.*

- ❑ *To use the DHCP server, make sure it is installed on your computer and configured correctly. See your operating system's online help for detailed instructions.*

11. Check the settings and then click Send.

If you have set a password for the print server, the Password dialog box appears. Enter your password (up to 20 characters) and then click OK. Follow the on-screen instructions.



Caution:

It takes two or three minutes to send new settings to the print server. Do not turn off your printer until an on-screen message prompts you to do so.

After configuring the print server for wireless using EpsonNet MacAssist EasySetup, unplug the USB cable connecting the print server and the computer. Check that the print server is displayed in the list of EpsonNet MacAssist or MacAssist EasySetup, which indicates the print server is connected to the wireless LAN.

Chapter 5

Installing the Printer Driver

To print to the network printer, you need to install the printer driver on the computer. See the section in this chapter appropriate for your operating system.

Checking the Wireless LAN Settings

Make sure that the wireless LAN settings, such as communication mode, SSID, channel (for Ad Hoc mode), and WEP, of the wireless LAN adapter or the access point match the print server's wireless settings.

See your wireless LAN adapter or access point manual to modify these settings.

To set the print server's wireless settings, see "Configuring the Print Server Using EpsonNet WinAssist" on page 59 or "Configuring the Print Server Using EpsonNet MacAssist" on page 65.

Windows Me/98/95

For Windows Me/98/95, the printer driver installation procedure differs depending on the printing method you prefer.

LPR printing

Since Windows Me/98/95 does not support LPR, standard TCP/IP printing cannot be used. However, you can print via TCP/IP using the EpsonNet Direct Print utility included on the software CD-ROM. First, install EpsonNet Direct Print. Then, install the printer driver. See “About EpsonNet Direct Print” on page 203 for more details.

Internet printing (Windows 98/95)

Internet printing is possible by using the EpsonNet Internet Print utility included on the software CD-ROM. First, install EpsonNet Internet Print. Then, install the printer driver and set the printer port. See “About EpsonNet Internet Print” on page 217 for more details.

Internet printing (Windows Me)

Installing the IPP client

The IPP client must be installed on your computer. Follow the steps below to install it.

1. Insert the Windows Me CD-ROM.
2. Select the add-ons folder, and then select the IPP folder.
3. Double-click wppnpins.exe. Then follow the on-screen instructions.
4. Click OK to restart your computer.

Setting up the printer

Connect your computer to a printer through IPP.

1. Click Start, point to Settings, and then select Printers.
2. Click Add Printer, and then click Next.
3. Click Network Printer, and then click Next.
4. Type the URL of the printer, and then click Next.

http://*IP address of print server:631/printer name*

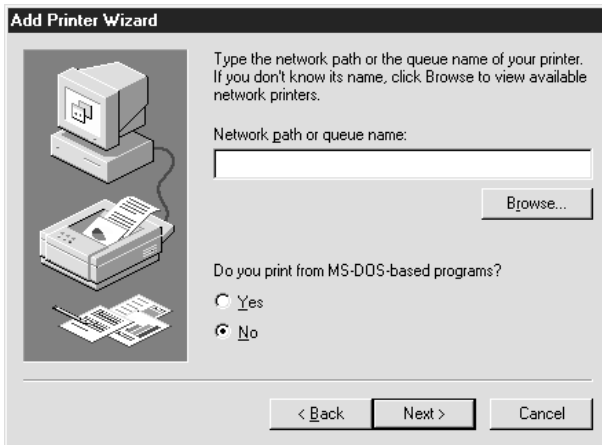
Example: **http://192.168.100.201:631/EPSON_IPP_Printer**

5. See “Installing a printer driver” on page 142 to install the printer driver.

Microsoft Network Shared printing

1. Click Start, point to Settings, and then select Printers.
2. Double-click Add Printer in the Printer window.
3. Select the Network Printer radio button and then click Next.
4. Click Browse, and then select the network path from the list. If you cannot browse, enter the following in the Network path or queue name box.

\\NetBIOS name of print server\
Device name of print server



5. The Add Printer wizard appears. Click Next.
6. See "Installing a printer driver" on page 142 to install the printer driver.

Installing a printer driver

1. Insert the software CD-ROM shipped with the printer.
2. Click Finish if the EPSON Installation Program screen appears.
3. Click the Have Disk button. The Install From Disk dialog box appears.
4. Click Browse.
5. Select the CD-ROM drive for Drives, and then double-click the folder named after your operating system. Click OK.
6. Click OK in the Install From Disk dialog box.
7. Select the model name of the printer, and then click Next.

Note:

If the Add Printer wizard prompts you to select either Keep existing driver or Replace existing driver, be sure to select the Replace existing driver radio button.

8. Click Finish and follow the on-screen instructions to complete the setup.

When you print using Microsoft Network Shared printing in the Windows 2000/NT/XP environment, see “Using the NET USE command” on page 142 for more details.

Using the NET USE command

If you are running Windows 2000/NT/XP and using NetBIOS to connect to the printer, we recommend that you use the NET USE command, as follows:

1. Right-click the Network Neighborhood icon or My Network Places icon and then select Properties.
2. Check that Client for Microsoft Networks is in the Components list. If it is not installed, click Add to install it.
3. Run the command prompt and enter the following command.

NET USE *printer port*: \\NetBIOS name of print server\Device name of print server

Selecting the port

1. Click Start, point to Settings, and then select Printers.
2. Right-click the printer icon and select Properties.
3. Click the Details tab and select the port you have set with the NET USE command.

Windows XP

For Windows XP, the printer driver installation procedure differs depending on the printing method you prefer.

LPR printing

Note:

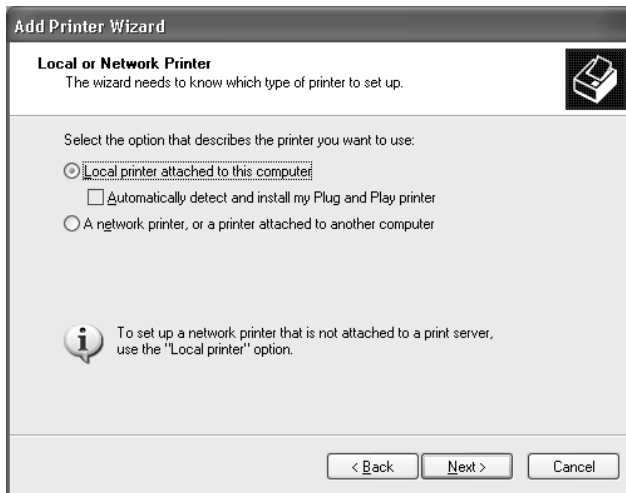
If you are using EpsonNet Direct Print, the setup procedure is different. See "About EpsonNet Direct Print" on page 203 for details.

1. Click Start, click Control Panel, click Printers and Other Hardware, and then click Printers and Faxes.

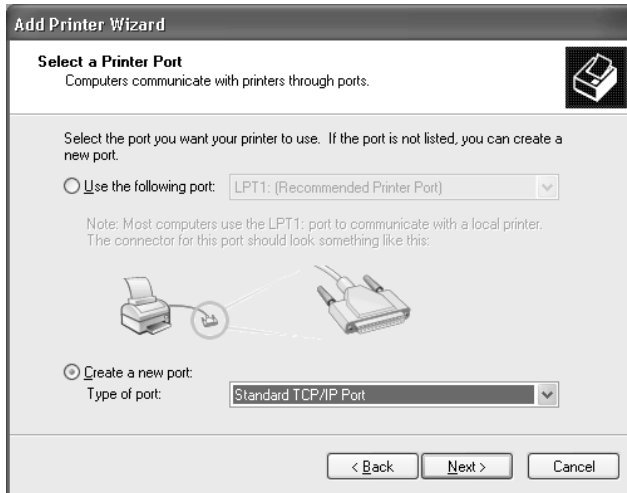
2. Under Printer Tasks, click Add a printer to start the Add Printer wizard, and then click Next.
3. Click Local printer attached to this computer, clear the Automatically detect and install my Plug and Play printer check box, and then click Next.

Note:

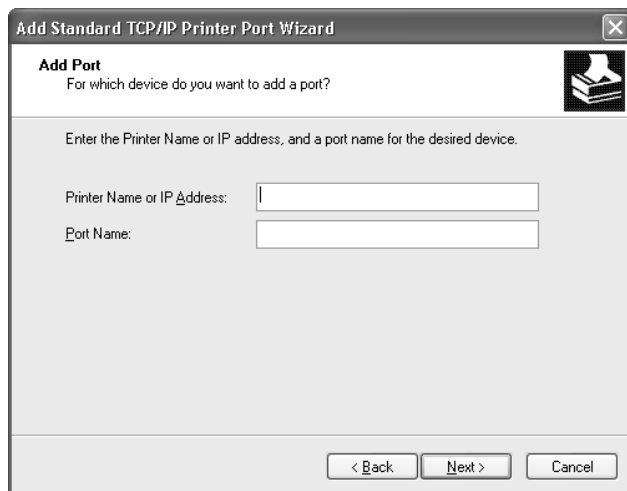
You must clear the Automatically detect and install my Plug and Play printer check box because the printer is attached directly to the network, not to a Windows XP computer.



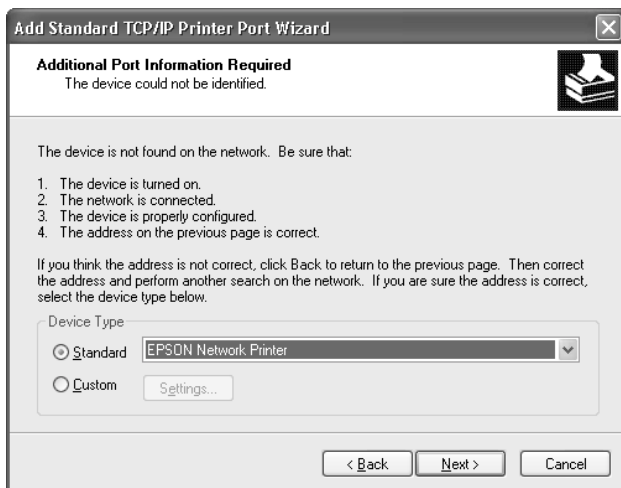
4. Select the Create a new port radio button, and then select Standard TCP/IP Port from the list. Then click Next.



5. Enter the IP address of the print server and then click Next.



6. If an error occurs, the following dialog box appears. Select the Standard radio button and then select EPSON Network Printer. Click Next.



7. Click Finish.
8. See “Installing a printer driver” on page 148 to install the printer driver.

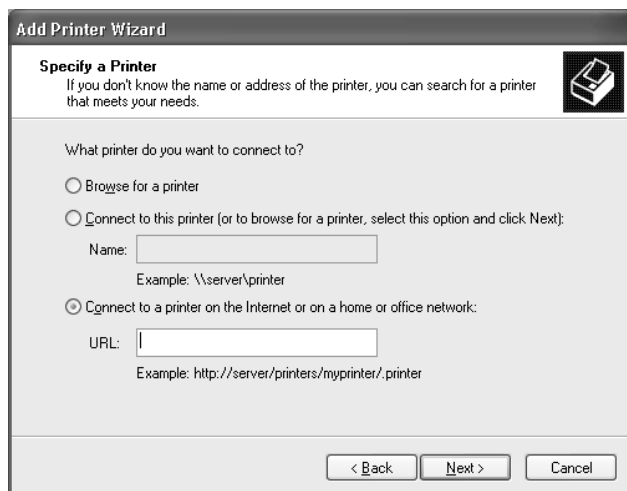
Internet printing

1. Click Start, click Control Panel, click Printers and Other Hardware, and then click Printers and Faxes.
2. Under Printer Tasks, click Add a printer to start the Add Printer wizard, and then click Next.
3. Click A network printer, or a printer attached to another computer, and then click Next.

4. Select the Connect to a printer on the Internet or on a home or office network radio button.
5. Enter the URL of the target printer using the format below. The URL should be same as the URL you set on EpsonNet WinAssist/WebAssist's IPP configuration page.

http://IP address of printer:631/Printer name

Example: **http://192.168.100.201:631/EPSON_IPP_Printer**



6. Follow the on-screen instructions to set up the printer. See "Installing a printer driver" on page 148 if necessary.

Microsoft Network Shared printing

1. Click Start, click Control Panel, click Printers and Other Hardware, and then click Printers and Faxes.
2. Under Printer Tasks, click Add a printer to start the Add Printer wizard, and then click Next.

3. Click A network printer, or a printer attached to another computer, and then click Next.
4. Select the Browse for a printer radio button, and then click Next.
5. Enter the following in the Printer box or select the printer you want to use from the Shared printers list box, and then click Next.

\\NetBIOS name of print server\Device name of print server

6. Follow the on-screen instructions to set up the printer. See “Installing a printer driver” on page 148 if necessary.

Installing a printer driver

1. Insert the software CD-ROM shipped with the printer.
2. Click Finish if the EPSON Installation Program screen appears.
3. Click the Have Disk button. The Install From Disk dialog box appears.
4. Click Browse.
5. Select the CD-ROM drive for Drives, and double-click the WIN2000 folder. Click Open.
6. Click OK in the Install From Disk dialog box.
7. Select the model name of the printer, and then click Next.

Note:

If the Add Printer wizard prompts you to select either Keep existing driver or Replace existing driver, be sure to select the Replace existing driver radio button.

8. Click Finish and follow the on-screen instructions to complete the setup.

When you print using Microsoft Network Shared printing in the Windows 2000/NT/XP environment, see “Using the NET USE command” on page 149 for more details.

Using the NET USE command

If you are running Windows 2000/NT/XP and using NetBIOS to connect to the printer, we recommend that you use the NET USE command, as follows:

1. Click Start, click Control Panel, click Network and Internet Connections, and then select Network Connections.
2. Under LAN or High-Speed Internet, click the Local Area Connection icon.
3. Under Network Tasks, click Change settings of this connection.
4. Check that Client for Microsoft Networks is installed. If it is not installed, click Install to install it.
5. Run the command prompt and enter the following command.

NET USE *printer port:* \\NetBIOS name of print server\Device name of print server

Selecting the port

1. Click Start, click Control Panel, click Printers and Other Hardware, and then click Printers and Faxes.
2. Right-click the printer icon and then select Properties.
3. Click the Ports tab and then select the port you have set with the NET USE command.

Windows 2000

For Windows 2000, the printer driver installation procedure differs depending on the printing method you prefer.

LPR printing

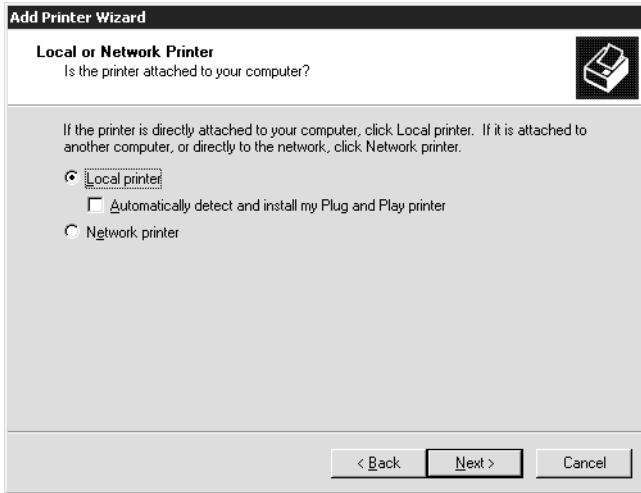
Note:

If you are using EpsonNet Direct Print, the setup procedure is different. See "About EpsonNet Direct Print" on page 203 for details.

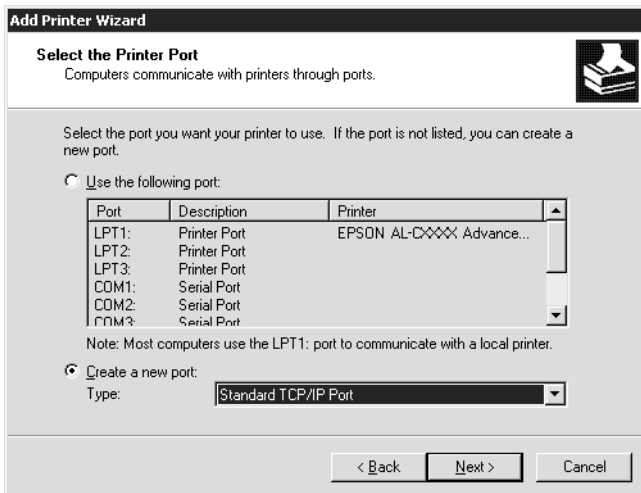
1. Click Start, point to Settings, and then select Printers.
2. Double-click Add Printer to start the Add Printer wizard, and then click Next.
3. Click Local printer, clear the Automatically detect and install my Plug and Play printer check box, and then click Next.

Note:

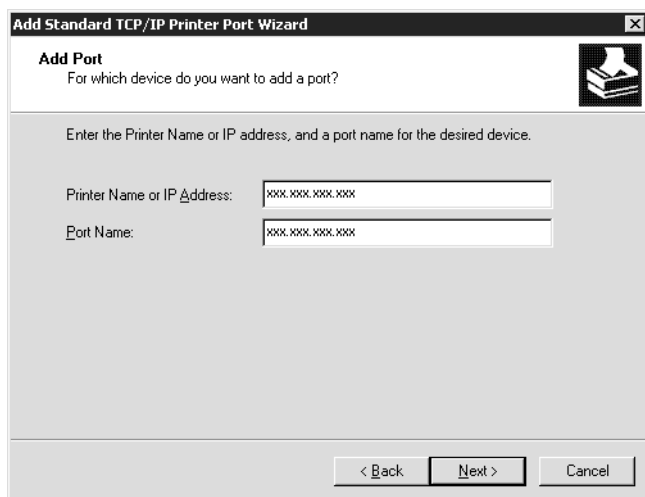
You must clear the Automatically detect and install my Plug and Play printer check box because the printer is attached directly to the network, not to a Windows 2000 computer.



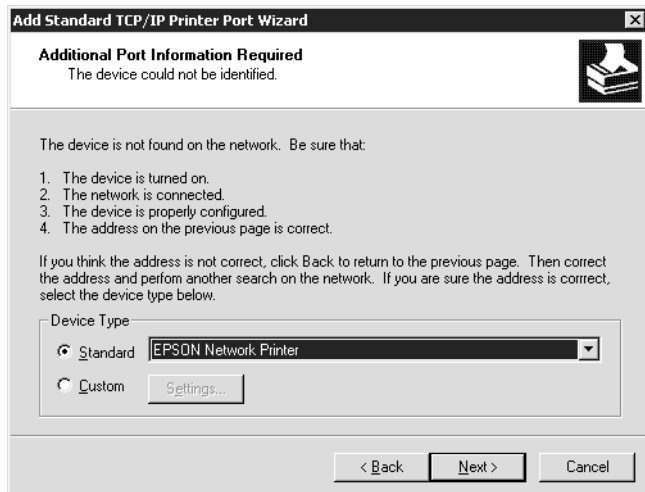
4. Select the Create a new port radio button, and then select Standard TCP/IP Port from the list. Then click Next.



5. Enter the IP address of the print server and then click Next.



6. If an error occurs, the following dialog box appears. Select the Standard radio button and then select EPSON Network Printer. Click Next.



7. Click Finish.

8. See “Installing a printer driver” on page 154 to install the printer driver.

Internet printing

1. Click Start, point to Settings, and then select Printers.
2. Double-click Add Printer to start the Add Printer wizard, and then click Next.
3. Select the Network printer radio button and then click Next.
4. Select the Connect to a printer on the Internet or on your intranet radio button.
5. Enter the URL of the target printer using the format below. The URL should be same as the URL you set on EpsonNet WinAssist/WebAssist’s IPP configuration page.

http://IP address of printer:631/Printer name

Example: **http://192.168.100.201:631/EPSON_IPP_Printer**

6. Follow the on-screen instructions to set up the printer. See “Installing a printer driver” on page 154 if necessary.

Microsoft Network Shared printing

1. Click Start, point to Settings, and then select Printers.
2. Double-click Add Printer to start the Add Printer wizard, and then click Next.
3. Select the Network printer radio button and then click Next.
4. Select the Type the printer name, or click Next to browse for a printer radio button.

5. Enter the following in the Name box or click Next to browse for a printer.

\\NetBIOS name of print server\Device name of print server

6. Follow the on-screen instructions to set up the printer. See “Installing a printer driver” on page 154 if necessary.

Installing a printer driver

1. Insert the software CD-ROM shipped with the printer.
2. Click Finish if the EPSON Installation Program screen appears.
3. Click the Have Disk button. The Install From Disk dialog box appears.
4. Click Browse.
5. Select the CD-ROM drive for Drives, and double-click the WIN2000 folder. Click Open.
6. Click OK in the Install From Disk dialog box.
7. Select the model name of the printer, and then click Next.

Note:

If the Add Printer wizard prompts you to select either Keep existing driver or Replace existing driver, be sure to select the Replace existing driver radio button.

8. Click Finish and follow the on-screen instructions to complete the setup.

When you print using Microsoft Network Shared printing in the Windows 2000/NT/XP environment, see “Using the NET USE command” on page 155 for more details.

Using the NET USE command

If you are running Windows 2000/NT/XP and using NetBIOS to connect to the printer, we recommend that you use the NET USE command, as follows:

1. Right-click the My Network Places icon and then select Properties.
2. Right-click the Local Area Connections icon and then select Properties.
3. Check that Client for Microsoft Networks is in the Components list. If it is not installed, click Install to install it.
4. Run the command prompt and enter the following command.

NET USE *printer port: \\NetBIOS name of print server\Device name of print server*

Selecting the port

1. Click Start, point to Settings, and then select Printers.
2. Right-click the printer icon and then select Properties.
3. Click the Ports tab and then select the port you have set with the NET USE command.

Windows NT 4.0

For Windows NT 4.0, the printer driver installation procedure differs depending on the printing method you prefer.

LPR printing

Note:

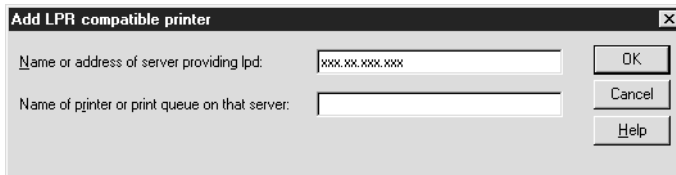
If you are using EpsonNet Direct Print, the setup procedure is different. See “About EpsonNet Direct Print” on page 203 for details.

1. Click Start, point to Settings, and then select Printers.
2. Double-click the Add Printers icon.
3. Select the My Computer radio button, and then click Next.
4. Click Add Port in the Add Printer wizard dialog box.
5. Select LPR Port from the Available Printer Port list, and then click New Port.

Note:

You cannot use the Lexmark TCP/IP Network Port with this print server.

6. Enter the IP address of the print server in the first text box and the printer name in the second text box. Click OK.



7. In the Printer Ports dialog box, click Close.
8. In the Add Printer Wizard dialog box, click Next.
9. See “Installing a printer driver” on page 157 to install the printer driver.

Internet printing

Internet printing is possible by using the EpsonNet Internet Print utility included on the software CD-ROM. First, install EpsonNet Internet Print. Then, install the printer driver and set the printer port. See “About EpsonNet Internet Print” on page 217 for more details.

Microsoft Network Shared printing

1. Click Start, point to Settings, and then select Printers.
2. Double-click Add Printer.
3. Select the Network printer server radio button and then click Next. The Connect to Printer dialog box appears.
4. Select the printer you want to configure from the Shared Printers list. If you cannot select the printer, enter the following in the Printer box:

\\NetBIOS name of print server\Device name of print server

5. Click OK.
6. Follow the on-screen instructions to set up the printer. See “Installing a printer driver” on page 157 if necessary.

Installing a printer driver

1. Insert the software CD-ROM shipped with the printer.
2. Click Finish if the EPSON Installation Program screen appears.

3. Click the Have Disk button. The Install From Disk dialog box appears.
4. Click Browse.
5. Select the CD-ROM drive for Drives, and then double-click the WINNT40 folder. Click Open.
6. Click OK in the Install From Disk dialog box.
7. Select the model name of the printer, and then click Next.

Note:

- Announce the share name to your clients so that they know the share name of the printer they want to use.*
 - If the Add Printer wizard prompts you to select either Keep existing driver or Replace existing driver, be sure to select the Replace existing driver radio button.*
8. Click Finish and follow the on-screen instructions to complete the setup.

When you print using Microsoft Network Shared printing in the Windows 2000/NT/XP environment, see "Using the NET USE command" on page 159 for more details.

Using the NET USE command

If you are running Windows 2000/NT/XP and using NetBIOS to connect to the print server, we recommend that you use the NET USE command, as follows:

1. Check that the following services are installed.
Right-click the Network Neighborhood icon on the desktop and select Properties. Click the Services tab and check that Server or Workstation is listed.
2. If it is not installed, click Add.
3. Run the command prompt and enter the following command.

NET USE *printer port*: *NetBIOS name of print server*\Device
name of print server

Selecting the port

1. Click Start, point to Settings, and then select Printers.
2. Right-click the printer icon and then select Properties.
3. Click the Ports tab and then select the port you have set with the NET USE command.

Macintosh

AppleTalk printing

Follow the steps below to select a printer for AppleTalk printing.

Note:

Make sure that the printer driver is installed on your Macintosh before following the steps below. See the manual shipped with your printer for instruction on how to install the printer driver.

1. From the Apple menu, select AirPort. For Choose network, specify the SSID that you have selected for the print server using EpsonNet MacAssist. Close the AirPort dialog box.
2. Open Chooser from the Apple menu.
3. Click the printer icon.
4. Select the zone containing the printer.
5. Select the printer name from the list.
6. Make sure AppleTalk is active.
7. Close Chooser.

OS/2

This section explains how to configure and use the print server with an IBM OS/2 System, which includes OS/2 Warp3 and 4 (OS/2 Warp Connect and OS/2 Warp Server).

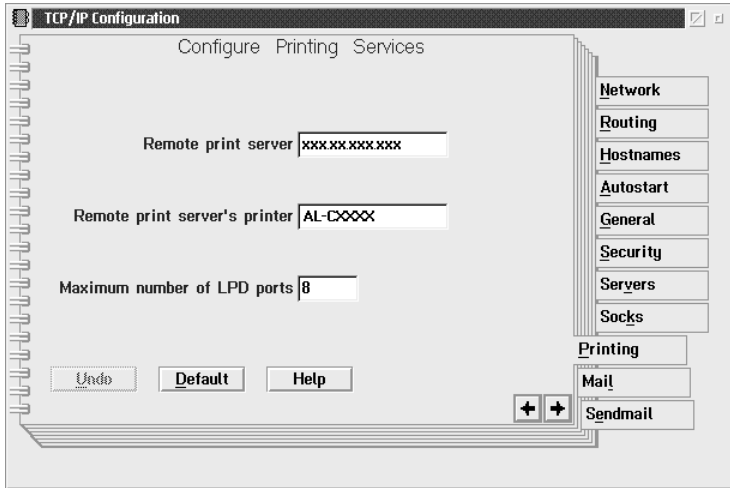
LPR printing

1. Double-click the OS/2 system folder, then the System Setup folder, and then double-click the TCP/IP Configuration icon.



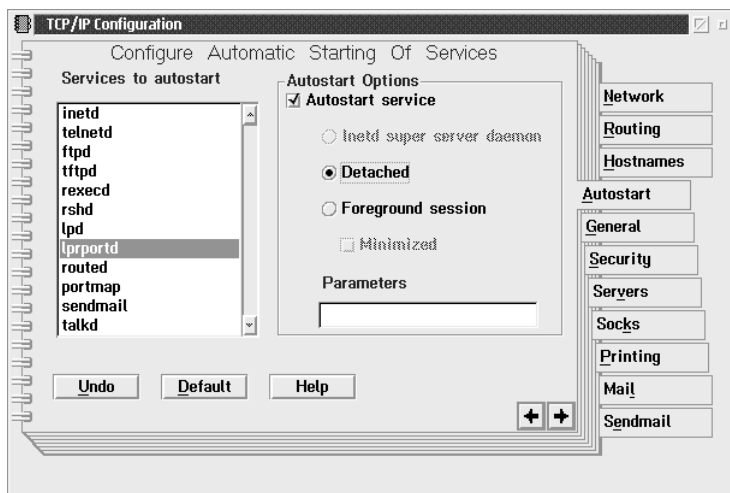
2. Click the Printing tab.

3. Enter the IP address of the print server in the Remote print server box and the name of the remote print server's printer in the second text box. Enter a value of 1 or greater in the Maximum number of LPD ports box.



4. Click the Autostart tab.

5. Select `lprportd` from the Services to autostart list. Check the Autostart service check box, and select the Detached radio button.

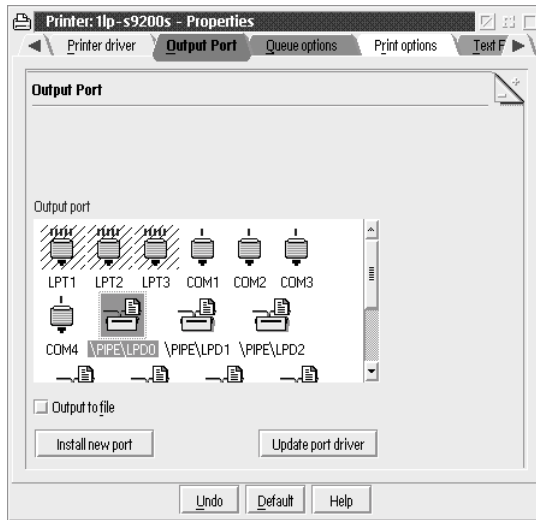


6. Save the settings you made in the TCP/IP Configuration dialog box, and restart your computer.

Setting up your printer

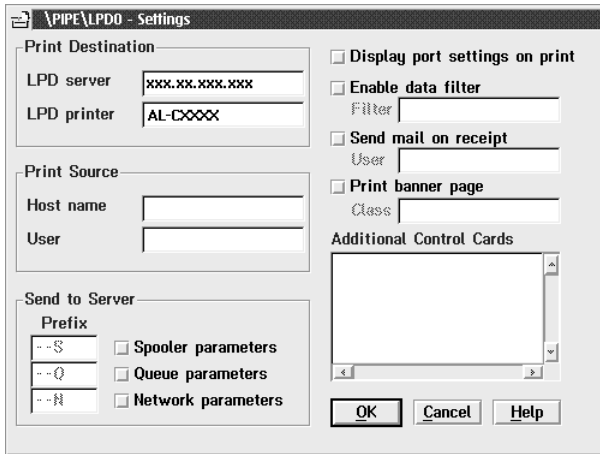
1. Double-click Template from the OS/2 System folder.
2. Drag Printer to your desktop to create a printer.
3. Double-click the Printer icon.

4. Select Properties from the control menu, then click the Output Port tab.



5. From the Output Port list box, select one from \PIPE\LPD0 to \PIPE\LPDn (where n is the maximum number of LPD ports). The \PIPE\LPD -Settings dialog box will appear.

- Enter the IP address of the print server in the LPD server box. Enter the printer name set in step 2 in the LPD printer box.



- Close the Printer icon to exit printer configuration.

NetBEUI printing

- Be sure that IBM OS/2 NetBIOS is installed on your computer.
- To create a printer, double-click the target printer icon to open the Properties dialog box. Then click the Output Port tab.
- Select the port.
- Connect to the printer from the command line.

Example: Connect the printer to LPT1.

net use LPT1: \\ *NetBIOS name of print server* \ *Device name of print server*

Note:

To change the NetBIOS name and device name, use *EpsonNet WinAssist* or *WebAssist* running on Windows Me/98/95/2000/NT.

Settings for NetWare Server

Introduction to NetWare Settings

This chapter explains how to configure the print server for NetWare. First, you need to set up the printer in a NetWare environment, and then configure the print server using EpsonNet WinAssist.

Supported systems

Server environment

NetWare 3.1/3.11/3.12/3.2 (Bindery)
NetWare 4.1/4.11/4.2 (NDS, Bindery emulation)
IntranetWare (NDS, Bindery emulation)
NetWare 5.0/5.1 (NDS, NDPS)
NetWare 6.0 (NDS, NDPS)

Client environment

The client environment must be supported by NetWare. The clients are able to use the printer driver mounted on the print server.

The following Novell Client is supported.

- For Windows Me/98/95:
Novell Client 3.3 or higher for Windows 95/98
- For Windows XP/2000/NT 4.0:
Novell Client 4.8 or higher for Windows NT/2000/XP

About modes

You can choose either the Print Server, Remote Printer, or Standby mode. We recommend that you use the Print Server mode unless the number of users exceeds the limit.

Features of these modes are described below.

Print Server mode (NDS/Bindery Print Server):

- High-speed printing with direct printing
- Uses the NetWare user account
- Can connect up to 8 file servers simultaneously
- Can register up to 32 print queues

Remote Printer mode:

- A NetWare user account is not required.
- A print server is needed to control the remote printer.
- Can attach up to 16 printers for NetWare 3.x, and up to 255 for NetWare 4.x or later.

Note:

When you turn on the printer, the user account is temporarily accessed in the Remote Printer mode. If there is no user account available, turn on the printer before connecting the client to the network.

Standby mode (factory default mode):

The Standby mode is the default mode. This mode disables all NetWare related functions. Use the Standby mode when you are not using the print server in a NetWare environment.

Instructions for Using NetWare

Printing a text file

When you print a text file using the NPRINT command of NetWare or DOS, redirection, misconversion or a gap in characters may occur depending on the client environment.

IPX routing protocol “NLSP”

It is possible to set the IPX routing protocol “NLSP” from NetWare 4.x or later; however, the print server does not support NLSP. RIP/SAP controls the communication.

You can select the routing protocol from a) NLSP with RIP/SAP Compatibility, or b) RIP/SAP Only. If you remove the bind of RIP or SAP when NLSP with RIP/SAP Compatibility is specified, the print server then cannot communicate with the file server and NDS. (See “Protocols” and “Bindings” in NetWare’s INETCFG utility.)

Bindery and NDS

- ❑ You can check the bindery context path from the server console by using the SET BINDERY CONTEXT command.
- ❑ If the bindery context path has not been set, or if you want to use the printing environment of another context from a non-NDS client, you need to specify the context for the bindery context. Use the SET BINDERY CONTEXT command to set the context in the AUTOEXEC.NCF file.
- ❑ You cannot use the bindery print server mode with EpsonNet WinAssist if you are running Novell Client for Windows 95/98 version 3.00 or Novell Client for Windows NT version 4.50. To configure the print server for bindery mode, use Novell IntranetWare Client or EpsonNet WebAssist.

See your NetWare documentation for more information.

Time required to recognize the print server

It takes up to two minutes for the NetWare server to recognize the print server, after the printer is turned on. During this start-up time, the status sheet does not show the correct information.

Frame type

The same frame type should be used for the NetWare server and IPX router on the same network. If more than one frame type is used on the same network, bind all the frame types to the NetWare servers and IPX routers.

For NetWare 5.x

The IPX protocol must be installed (bound) on the NetWare 5.x server.

About modes

If the mode you have logged in is different from the mode you set for the print server, a message appears when you try to configure the print server for NetWare. If you do not want to change the current settings, click **Cancel** and log in again using the same mode set for the print server.

Using Bindery Print Server (NetWare 3.x/4.x)

This section contains instructions on using the print server in the Print Server mode on NetWare 3.x/4.x/IntranetWare with Bindery emulation.

Note:

The print server in the Print Server mode of NetWare 3.x does not allow you to use the Print Server status display control with PCONSOLE.

1. Turn on your printer.

2. From any NetWare client, log in to the target NetWare server with supervisor privileges. You must log in with the bindery connection.
3. Configure the print server using EpsonNet WinAssist. See “NetWare” on page 86 for details.

If NetWare objects are already created, you can also use EpsonNet WebAssist. See “NetWare” on page 238 for details.

Using NDS Print Server (NetWare 4.x/5.x/6.0)

This section contains instructions for using the print server in the Print Server mode on NetWare 4.x, IntranetWare, NetWare 5.x, or NetWare 6.0 with NDS mode.

1. Turn on your printer.
2. From any NetWare client, log in to the target context of the NDS tree as an ADMIN.
3. Configure the print server using EpsonNet WinAssist. See “NetWare” on page 86 for details.

If NetWare objects are already created, you can also use EpsonNet WebAssist. See “NetWare” on page 238 for details.

Using Remote Printer Mode (NetWare 3.x)

For NetWare 3.x users, follow the steps below to make the printer environment with PCONSOLE.

Creating print queues in a file server

1. From any NetWare client, log in to the network with supervisor privileges.
2. Run PCONSOLE. From the Available Options screen, select Print Queue Information and press Enter.



3. Press the Insert key on your keyboard and enter the print queue name. Press Enter.

Note:

Since your clients need the print queue name you set here when they use the printer, announce the print queue name to your clients.

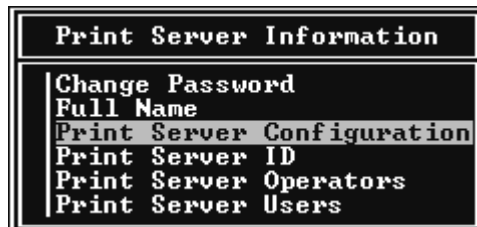
4. From the Print Queue list, select the print queue name that you just entered and press Enter. From the Print Queue Information list, select Queue Users and press Enter. Next, select EVERYONE from the list. If EVERYONE is not in the list, press Insert and select EVERYONE from the queue user list.

Creating a print server

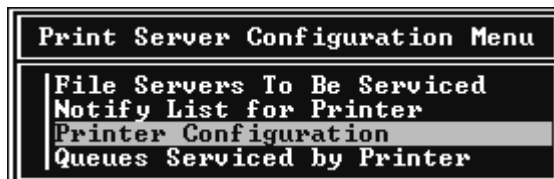
1. From the Available Options screen, select Print Server Information and press Enter.



2. Press the Insert key on your keyboard and type the print server name. Press Enter. It is a good idea to write down the print server name for later use.
3. From the Print Server list, select the print server name that you just typed and press Enter. From the Print Server Information list, select Print Server Configuration and press Enter.



4. Select Printer Configuration from the Print Server Configuration Menu and press Enter.



- From the Configured Printers list, select Not Installed (port number = 0) and press Enter.

Configured Printers	
Not Installed	0
Not Installed	1
Not Installed	2
Not Installed	3
Not Installed	4
Not Installed	5
Not Installed	6
Not Installed	7
Not Installed	8
Not Installed	9
Not Installed	10
Not Installed	11
Not Installed	12
Not Installed	13
Not Installed	14
Not Installed	15

- From the Printer configuration screen, type the printer name. Highlight Type and press Enter. Select Remote Parallel, LPT1 for Remote Printer mode.

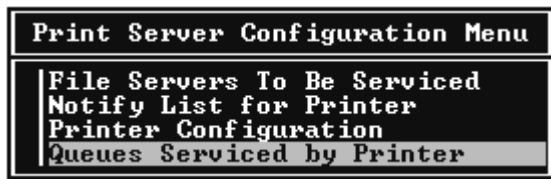
Printer 0 configuration	
Name:	Printer 0
Type:	Local Parallel, LPT1
Use interrupts:	Yes
IRQ:	7
Buffer size in K:	3
Starting form:	0
Queue service mode:	Change forms as needed
Baud rate:	
Data bits:	
Stop bits:	
Parity:	
Use X-On/X-Off:	

Note:

Be sure to select Remote Parallel, LPT1 for Remote Printer mode.

- Press Esc; then press Enter to save your changes.

8. Press Esc.
9. Select Queues Serviced by Printer from the Print Server Configuration menu and press Enter.



10. Select the printer that you want to use from the Defined Printers list and press Enter.
11. Press the Insert key and assign a queue to the print server port from the Available Queues list.
12. Specify a priority level between 1 to 10. One is top priority.
13. Press Esc to exit PCONSOLE.

Configuring for NetWare using EpsonNet WinAssist

1. Turn on your printer.
2. Load the print server from the file server's system console which the print queue volume is set.
>LOAD PSERVER print server name you set using
PCONSOLE
3. Configure the print server using EpsonNet WinAssist. See "NetWare" on page 86 for details.

If NetWare objects are already created, you can also use EpsonNet WebAssist. See "NetWare" on page 238 for details.

Using Bindery Remote Printer Mode (NetWare 4.x)

Follow the steps below to make the printer environment on NetWare 4.x and IntranetWare with Bindery emulation.

Note:

- ❑ *Assign Trusteeships for users if necessary.*
- ❑ *Be sure to use PCONSOLE to set the print queue and print server instead of using NWAdmin.*

Creating objects

1. From any NetWare client, log in to the server as an ADMIN. Make sure to log in with Bindery connection.

Note:

If the client using for this setting has been logged in with NDS mode, press F4 key while PCONSOLE is starting to switch to the bindery mode.

2. Run PCONSOLE. From the Available Options screen, select Print Queues and press Enter. Press Insert and type the print queue name. Press Enter.

Note:

Since your clients need the print queue name you set here when they use the printer, announce the print queue name to your clients.

3. From the Print Queue list, select the print queue name that you just entered and press Enter. From the Print Queue Information list, select Queue Users and press Enter. Next, select EVERYONE from the list. If EVERYONE is not in the list, press Insert and select EVERYONE from the queue user list.

4. From the Available Options screen, select Print Servers and press Enter. Press Insert and type the print server name. Press Enter.
5. Press Esc to exit PCONSOLE, and log out from the server.
6. Log in to the server as an ADMIN. Be sure to log in with NDS connection.
7. Start NWAdmin.
8. To create the Printer Object, click the container specified as the Bindery context and select Create from the Object menu, then Printer. Type the printer name and click Create.
9. To assign the print queue, double-click the Printer object icon (created in step 8). The Printer dialog box appears.
10. Click Assignments and then click Add. From the print queue list, select the queue (created in step 2) and click OK.
11. Click Configuration in the Printer dialog box, and select Parallel from the Printer type pull-down menu.
12. Click Communication. The Parallel Communication dialog box appears.
13. Select LPT1 for Port; check Polled for Interrupts; and check Manual load (Remote from Print Server) for Connection type, then click OK.
14. Click OK in the Printer dialog box.
15. To assign the printer, double-click the Print Server object icon (created in step 4). The Print Server dialog box appears.
16. Click Assignments and then click Add. From the printer object list, select the printer object (created in step 8) and click OK.

17. In the Print Server dialog box, select the assigned printer from the printer object list, and click the Printer Number button to set the printer number from 0 to 15, then click OK.
18. To confirm the objects you have assigned, double-click the Print Server object icon. Click Print Layout, and check that the print server, printer, and print queue are connected.

Configuring for NetWare using EpsonNet WinAssist

1. Turn on your printer.
2. Load the print server from the file server's system console which the print queue volume is set.
>LOAD PSERVER print server name you set using
PCONSOLE
3. Configure the print server using EpsonNet WinAssist. See "NetWare" on page 86 for details.

If NetWare objects are already created, you can also use EpsonNet WebAssist. See "NetWare" on page 238 for details.

Using NDS Remote Printer Mode (NetWare 4.x/5.x/6.0)

Follow the steps below to make the printer environment using NWAdmin under NetWare 4.x, IntranetWare, NetWare 5.x, or NetWare 6.0 with NDS mode.

Creating objects

1. From any NetWare client, log in to the target context of the NDS tree as an ADMIN.
2. Run the Administrator tool (NWAdmin).

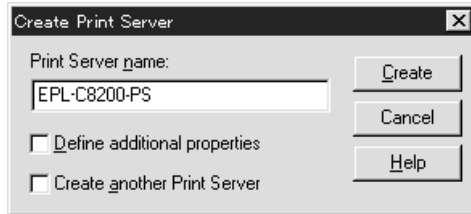
3. Create a printer:

Click the directory context icon, and select Create from the Object menu, then Printer. Type the Printer name and click Create.



4. Create a print server:

Click the directory context icon, and select Create from the Object menu, then Print Server. Type the Print Server name and click Create.

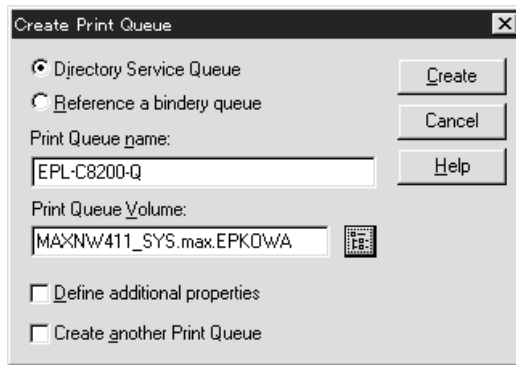


5. Create a print queue:

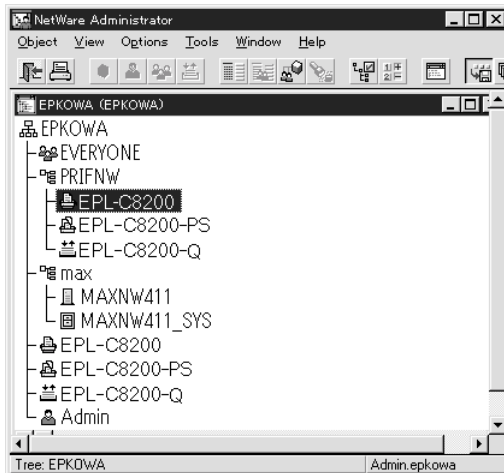
Click the directory context icon, and select Create from the Object menu, then Print Queue. Type the Print Queue name and select the Print Queue Volume, then click Create. Double-click the print queue object, and register the user.

Note:

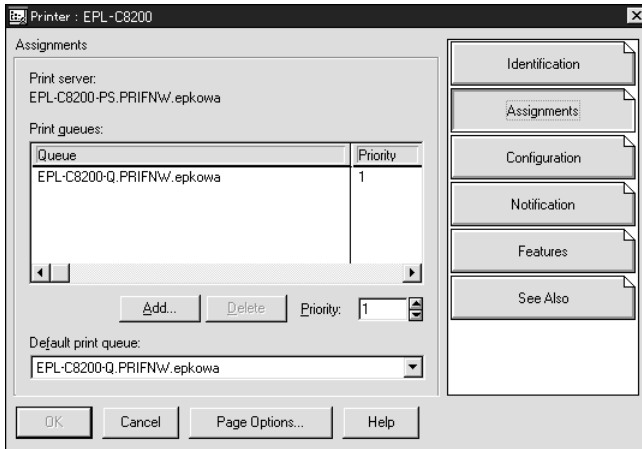
Since your clients need the print queue name you set here when they use the printer, announce the print queue name to your clients.



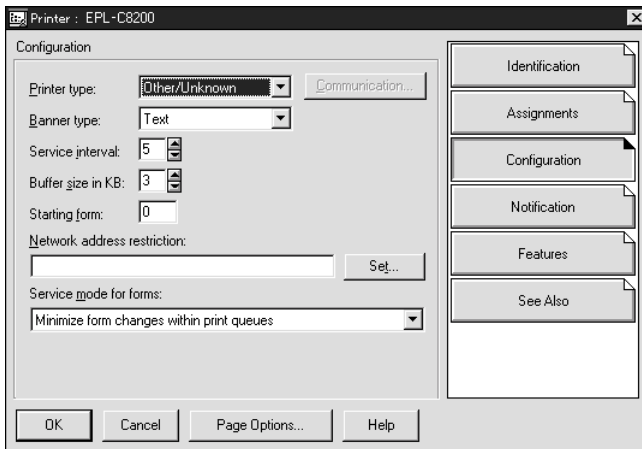
6. Double-click the Printer Object icon in the NetWare Administrator screen.



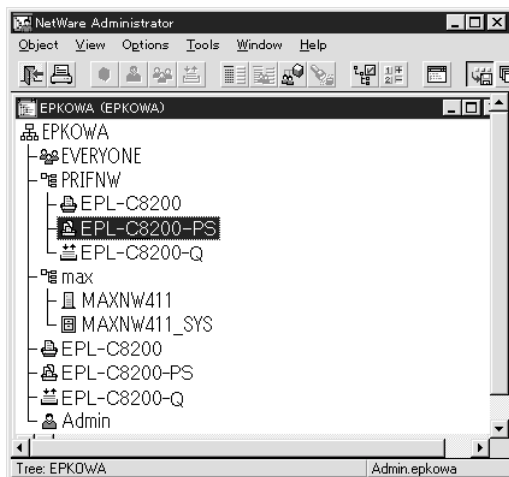
7. In the Printer dialog box appears, click Assignments and then click Add.



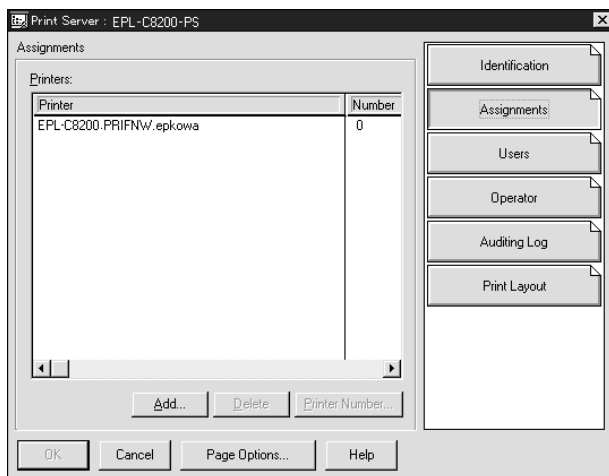
8. From the print queue list, select the queue you created in step 5 and click OK.
9. Click Configuration, and select Other/Unknown for the Printer type list box and click OK.



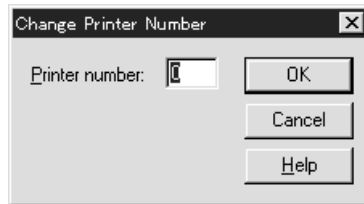
10. Double-click the Print Server Object icon in the NetWare Administrator screen.



11. In the Print Server dialog box that appears, click Assignments and then click Add.



12. From the printer object list, select the printer object you want to assign and click OK.
13. Go back to the screen in step 11, and click the Printer Number button to set the printer number from 0 to 254.



14. To confirm the objects you have assigned, double-click the Print Server object icon. Click Print Layout, and check that the print server, printer, and print queue are connected.

Configuring for NetWare using EpsonNet WinAssist

1. Turn on your printer.
2. Load the print server from the file server's system console which the print queue volume is set.
>LOAD PSERVER print server name you set using
NWAdmin
3. Configure the print server using EpsonNet WinAssist. See "NetWare" on page 86 for details.

If you use the NetWare objects that are already created, you can use EpsonNet WebAssist too. See "NetWare" on page 238 for details.

Using the NDPS Gateway

This section contains instructions on printing using Novell Distributed Print Services® (NDPS®) with Novell® NetWare® 5.x/6.0. Novell Distributed Print Services (NDPS) is the new generation print services of NetWare.

Note:

- Banners cannot be printed with NDPS.*
- The Status Monitor 3 utility cannot be used with NDPS.*
- Bind the IP or both IP or IPX protocols on the NetWare server that runs NDPSM.NLM and EPSONGW.NLM.*

Check the following points before starting.

- Install the appropriate client software, such as Novell Client 3.3 or higher for Windows 95/98/Me or Novell Client 4.8 or higher for Windows NT/2000, on client workstations. Make sure they install NDPS.
- When you use the print server with Bindery (either in the Print Server mode or the Remote Printer mode), you need PCONSOLE.EXE to create bindery objects such as Print Server and Print Queue objects. Since PCONSOLE.EXE does not come with NetWare 5.x/6.0, you need to get the file from Novell.

Outline of settings

The followings are basic steps to use the print server with the NDPS printing system. Detailed procedures are described in the subsequent sections.

1. Select the Connection Type and make the printer environment on the Server and Clients.

2. Create an NDPS Manager object in NetWare Administrator.
3. Create a Printer Agent in NetWare Administrator.
4. Configure the print server using EpsonNet WinAssist.
5. Set the printer on the client workstations.

The environment to use, the settings you make, and the tools to use differ depending on the printer type and connection type you choose. You can create an NDPS Manager and Printer Agent in NetWare Administrator or partially via the Server Console. See the Novell online documentation for more details.

Making printer environment

1. Select the Connection Type from the following: Remote (rprinter on IPX), Remote (LPR on IP), or Forward jobs to a Queue (via the current legacy queue-based print services).
2. Install (bind) the following protocols on the server depending on the connection type you use.
 - For Remote (rprinter on IPX) connection, install IPX
 - For Remote (LPR on IP) connection, install TCP/IP
 - For Forward jobs to a Queue connection, install IPX
3. Install the appropriate Client Software on client workstations. Make sure they install NDPS.
4. Install printer drivers on client workstations. See the printer manual for the installation.

Note:

- ❑ *Do not install the printer drivers via the NetWare server.*
- ❑ *Do not add printers and do not install printer drivers using Novell Print Manager (NWPMW32.EXE).*

Creating an NDPS Manager

1. Run NetWare Administrator (NWADMIN32.EXE) on the client machine. The main browser window appears.
2. To create an NDPS Manager, click the Directory context icon, and then select Create from the Object menu.
3. Select NDPS Manager from the list.
4. Enter the NDPS Manager name in the NDPS Manager Name field.
5. Browse the Resident Server and select where you want the NDPS Manager assigned.
6. Browse the Database Volume and select where you want the NDPS Manager database assigned.
7. Click Create. The NDPS Manager icon appears in the main browser window.
8. Type LOAD NDPSM at the server console, and then select the NDPS Manager you have created.

Creating a Printer Agent

After creating an NDPS Manager, you can create Printer Agents, either public access printers or controlled access printers. The way to create a Printer Agent differs depending on the printer type you choose. The following are the features of public access printers and controlled access printers.

- ❑ **Public Access Printers:**
NDPS printers that are available to all network users and not associated with an NDS object. Users can select and print to any public access printer they can view from their workstations. However, these printers do not take full advantage of services such as security and job event notification.
 - ❑ **Controlled Access Printers:**
NDPS printers that are added to the NDS tree by NetWare Administrator. They are only available to the workstation user through the NDS object list. These printers can take full advantage of the security and management features provided by NDS.
1. Select the printer type either public access printer or controlled access printer.
 2. Create a public access printer. If you want to create a controlled access printer, go to step 3.

In NetWare Administrator, double-click the NDPS Manager you have created. Click Printer Agent List, then click New. Enter the Printer Agent name, and select Novell Printer Gateway for the Gateway Type. Click OK. Go step 4.

3. Create a controlled access printer.

In NetWare Administrator, select the Directory context icon. Select Create from the Object menu, then select NDPS Printer. Enter the Printer Agent name, select Create a new Printer Agent, then click Create. Select the NDPS Manager you have created, and select Novell Printer Gateway for the Gateway Type. Click OK.

4. Select None for the Printer Type, and Novell Port Handler for the Port Handler Type, then click OK.
5. Select the Connection type, and configure it as follows.
 - For Remote (rpinter on IPX) connection
Print a status sheet of the print server and configure the corresponding items.
Port Type: Select LPT1.
SAP Name: Enter the Primary Print Server Name.
Printer Number: Enter the Printer Port Number.
Network: Enter the Network Address.
Node: Enter the MAC Address.
Interrupt: Select None.
 - For Remote (LPR on IP) connection
IP Address: Enter the IP address of the print server. You can confirm the IP address on a status sheet.
 - For Forward jobs to Queue connection
Queue Name: Enter the queue name that the print server uses in legacy queue-based print services (either in Print Server mode or Remote Printer mode).
Queue User Name: Type a user name who has rights for the above queue.
Password: Enter the password that the Queue User uses to login to the server.
6. Select None for the Printer Driver.
7. Confirm the Printer Agent that you have just created.

In NetWare Administrator, double-click the NDPS Manager object and click the Printer Agent List button. Check that the status of the Printer Agent you have just created is “Idle”.

Note:

If you have selected Remote (rprinter on IPX), configure the print server using EpsonNet WinAssist, as described in the next section, and then print a status sheet.

Go to the next section if you select Remote (rpinter on IPX). Go to “Setting the printer on client workstations” on page 189 if you select Remote (LPR on IP) or Forward jobs to Queue.

Configuring for NetWare using EpsonNet WinAssist

Follow the steps below if you want to use the printer in IPX network.

Note:

Be sure that the one of the following clients is installed on your computer: Novell Client 32, Novell IntranetWare Client, or Novell Client.

1. Turn on your printer.
2. From any NetWare client, log in to the target NetWare server as an ADMIN.
3. Run EpsonNet WinAssist from the Start menu. See “NetWare” on page 86 for details.

If the IP address of the printer is already assigned, you can use EpsonNet WebAssist too. See “NetWare” on page 238 for details.

Setting the printer on client workstations

After configuring the print server, set up the printer on client workstations.

Installing printers automatically

1. Run the Novell Printer Manager from Windows. If you are running Windows Me/98/95/2000/NT, run:
`\PUBLIC\WIN32\NWPMW32.EXE`
2. In the Novell Printer Manager dialog, select **New** from the **Printer** menu.
3. Click **Add**. A list of available printers appears.
4. Select the printer you want and click **Install**.

The Novell Printers---Install dialog appears. You may modify the printer name that appears and select a pre-defined configuration.

5. Click **OK**. The printer driver for that printer model is installed automatically from the Resource Management Service.
6. Click **Close**. The printer appears in the main Printer Manager window and is available for print jobs.

Installing printers manually

1. Install the printer driver.
2. Change the **Ports** on the printer's properties dialog box. Specify the following objects for the port.

For Public Access Printers:

The Printer Agent you have created in "NDPS Public Access Printers" under Entire Network.

❑ **For Controlled Access Printers:**

The Printer Agent you have created in the NDS tree.

See the Novell online documentation for details.

Instructions for Using a Dial-Up Network

This section explains about using a dial-up network.

Note:

The primary server described in this manual indicates a primary time server which offers time to the workstations on the network.

Using a dial-up network in each mode

Print Server mode

You must use a dedicated dial-up line.

Since polling is performed on the file server in the print server mode, no vicarious response by the router is possible.

Therefore, no dial-up connection is possible in this case.

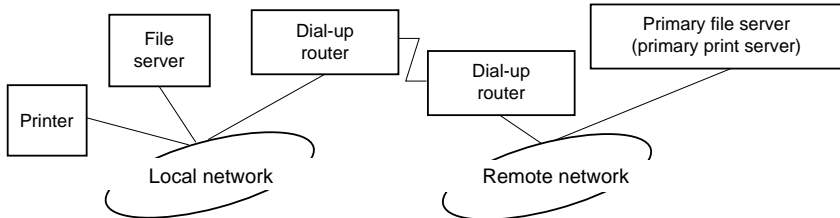
Remote Printer mode

In Remote Printer mode, use of a router with a vicarious response function allows the primary server to be installed at the dial-up destination. However, an extra account might be generated when the primary server is down. To avoid that, it is recommend to use connections via a dedicated dial-up line.

Follow the instructions for using a dial-up line.

When there is a primary server at the dial-up destination

For local networks with file servers:



- ❑ When the power is turned on

A dial-up is generated because access is made to a local file server first and then to a primary server. There is no problem since this dial-up only occurs at startup.

- ❑ When the print server is not correctly set

A dial-up is generated because access is made to a local file server first and then to a primary server. This dial-up is repeated at intervals of approximately 5 minutes. Make the print server settings correctly to avoid this problem.

- ❑ During normal operation (standby)

An SPX Watchdog packet is sent according to the NetWare protocol convention. Use a router with a vicarious response function to avoid a dial-up.

- ❑ During normal operation (printing)

A dial-up is generated while the printing data is being transferred. This is not a problem because it is a dial-up specific to the dial-up network.

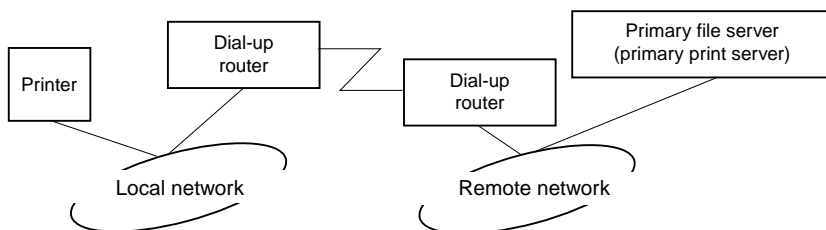
- ❑ When the primary server is down during operation

A dial-up is generated because a connection to the primary server is attempted periodically. Since this is attributable to the automatic re-connection function, turn off the printer once.

- ❑ When the file server on the local network is down

When there is no file server on the local network, NetWare cannot be used on the local network. In this case, the NetWare protocol for the print server is also not available. No dial-up is generated under this condition. When the file server on the local network is restored, the print server is also automatically restored.

For local networks with no file server:

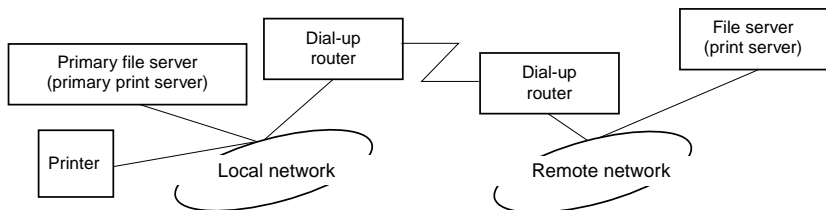


Depending on the router settings, the NetWare protocol can be used without a file server on a local network. This setup follows the same pattern as that described above.

When there is a primary server in the local network

Even if a primary server is installed on the local network, an unnecessary dial-up may be generated depending on the configuration.

The following problems are common to both Print Server mode and Remote Printer mode.



- ❑ When the power is turned on

Since access is made only to the primary server, no dial-up is generated.

- ❑ When the print server is not correctly set

Since access is made only to the primary server, no dial-up is generated. However, if the file server/print server of the remote network is erroneously set as the primary server, an unnecessary dial-up might be generated. Correct the settings to avoid this problem.

- ❑ During normal operation (standby/printing)

Since access is made only to the primary server, no dial-up is generated.

- ❑ When the primary server is down during operation

Connection to the primary server is periodically attempted, but no dial-up is generated. However, if the router is set to pass SAP packets (Find Nearest Server), an unnecessary dial-up might be generated. To avoid this, turn off the printer once, or do not allow the router to pass SAP packets (Find Nearest Server).

Settings for UNIX

Introduction to UNIX Settings

This chapter explains how to set up the printer for different UNIX systems using the `lpr` command.

Your printer supports many standard UNIX commands and can be configured from a host computer without using a special setup utility.

Your printer is able to function as a remote printer on systems using TCP/IP Ethernet transfer with `lpr` remote printing protocol, or standard ftp (file transfer protocol).

Note:

Because this printer does not convert data into the printer control language, a printer driver and filter are necessary for each system.

`lpr` filters

Filters for `lpr` are controlled by the name given to the remote printer. When setting up an `lpr` printer entry, a name is entered for:

- the local printer name to be redirected
- the host name of the station to which the print is sent
- the remote printer name (name of the printer port on the remote station)

Many different remote printer names may be set up, all directed to the same Ethernet remote host, and each is given a different local printer name to be redirected. Different types of print jobs may be sent to different printer names, which will then all print out on the same printer, through the same Ethernet interface, but using different filters.

The remote printer name options used to invoke the different filters are as follows:

lpb	Binary files (no filters)
lpa	ASCII files (carriage returns at line ends)
lpbf	Binary file with form feed at file end
lpaf	ASCII file with form feed at file end

All other remote printer name options will be treated the same as lpb.

The following is an example of sending a text file, "txtfile", via lpr with a form feed appended:

```
% lpr -plpaf txtfile
```

Setting Up Different UNIX Systems Using the lpr Command

The following UNIX systems can print using the standard lpr command.

- SunSoft Solaris 2.4 or later
- SunOS 4.1.4 or later
- IBM AIX 3.2.5 or later and 4.1.3 or later
- HP-UX 9.05 or later
- SCO UNIX 4.2 or later

Setting up for SunSoft Solaris 2.4 or later

In the following steps, substitute the name that your printer will be known by for HOSTNAME, and the name by which you want your printer to be known for Rprinter.

1. Add the IP address and printer host name to the `\etc\hosts` file.

For example:

```
22.33.44.55 HOSTNAME
```

2. Define the host name as a print server.

For example:

```
lpsystem -t bsd HOSTNAME
```

3. Create the printer.

For example:

```
lpadmin -p Rprinter -s HOSTNAME\aux-T unknown-l  
any
```

4. Enable the printer for use.

For example:

```
accept Rprinter  
enable Rprinter
```

5. To print, use the `lp` command.

For example:

```
lp -d RPrinter Print-File-Name
```

Setting up for SunOS 4.1.4 or later

In the following steps, substitute the name that your printer will be known by for `HOSTNAME`, and the name by which you want your printer to be known for `Rprinter`.

1. Add the IP address and printer host name to the `\etc\hosts` file.

For example:

```
22.33.44.55 HOSTNAME
```

2. Create a spool directory.

For example:

```
mkdir\var\spool\lpd\PRIFx
```

3. Add the printer entry to the `\etc\printcap` file.

For example:

```
Rprinter |  
ALCXXXX:lp=:rm=HOSTNAME:rp=aux:sd=/var/spool/lpd  
/PRIFx
```

4. To print, use the `lpr` command.

For example:

```
lpt -s -PRPrinter Print-File-Name
```



Caution:

Files that exceed 1 MB may not be printed unless the `-s` option is used.

Setting up for IBM AIX 3.2.5 or later and 4.1.3 or later

In the following steps, substitute the name that your printer will be known by for `HOSTNAME`, and the name by which you want your printer to be known for `Rprinter`.

1. Add the IP address and printer host name to the `/etc/hosts` file.

For example:

```
22.33.44.55 HOSTNAME
```

2. Run `smit`.

For example:

```
smit printer
```

3. Set the printer name (for example: `Rprinter`) in:

"Manage Remote Printer"

"Client Services"

"Remote Printer Queues"

"NAME of queue to add".

Set the host name (for example: `HOSTNAME`) in:

"DESTINATION HOST for remote jobs".

Set the port name (for example: `aux`) in:

"Name of QUEUE on remote printer".

4. To print, use the `lpr` command.

For example:

```
lpr -PRPrinter Print-File-Name
```

Setting up for HP-UX 9.05 or later

In the following steps, substitute the name that your printer will be known by for HOSTNAME, and the name by which you want your printer to be known for Rprinter.

1. Add the IP address and host name to the /etc/hosts file.

For example:

```
22.33.44.55 HOSTNAME
```

2. Terminate the printer service.

For example:

```
lpshut
```

3. Create a printer.

For example:

```
lpadmin -pRPrinter -v/dev/null -mrmmodel  
-ormHOSTNAME -orpaux
```

4. Restart the print service.

For example:

```
lpshed
```

5. Enable the printer for use.

For example:

```
accept Rprinter  
enable Rprinter
```

6. To print, use the lp command.

For example:

```
lp -DRPrinter Print-File-Name
```

Setting up for SCO UNIX 4.2 or later (Open Server)

In the following steps, substitute the name that your printer will be known by for `HOSTNAME`, and the name by which you want your printer to be known for `Rprinter`.

1. Add the IP address and host name to the `/etc/hosts` file.

For example:

```
22.33.44.55 HOSTNAME
```

2. Execute `rlpconf` to register the printer.

For example:

```
rlpconf
```

3. Enter the name of the printer.

For example:

```
Please enter the printer name (q to quit):RPrinter
```

4. Specify the remote printer as the printer type.

For example:

```
Is Rprinter a remote printer or a local printer (r/l)? r
```

5. Enter the name of the remote printer's host.

For example:

```
Please enter the name of the remote host that  
Rprinter  
is attached to:  
HOSTNAME  
Printer RPrinter is connected to host HOSTNAME
```

6. Confirm that the entries are correct.

For example:

```
Is this correct?(y/n)y
```


7. Specify that the RLP extended function (valid when the print server is SCO-UNIX) will not be used.

For example:

If HOSTNAME currently runs SCO OpenServer Release 5 or above, it can support the extended remote line printer protocol. Do you want to turn on the "extended RLP protocol" support flag?
If you are not sure, answer "n"? (y/n)[n]n

8. Specify whether the created printer is to become the default printer.

For example:

Would you like this to be the system default printer?
(y/n)y

9. To print, use the lpr command.

For example:

lpr -d RPrinter Print-File-Name

Using the ftp Command

ftp commands are common to all UNIX systems.

ftp programs use interfaces that are common for all unix systems.

The following is an example of printing using the ftp command (the entry operations are underlined).

```
ftp> open 22.33.44.55
```

```
Connected to 22.33.44.55
```

```
220 PR-Ifx(22.33.44.55) ftp server ready.
```

```
Name: __
```

```
331 Password Required for (No Name).
```

```
Password:___
```

```
230 User logged in.
```

```
200 Type set to I.
```

```
ftp> put binary file
```

```
200 PORT command successful.
```

```
150 Opening data connection for binary_file
```

```
226 Transfer complete
```

```
ftp> bye
```

EpsonNet Direct Print

About EpsonNet Direct Print

EpsonNet Direct Print is a utility program that supports TCP/IP (LPR) printing for Windows Me/98/95/XP/2000/NT 4.0.

By using EpsonNet Direct Print, you can search both a printer located in the same segment and one located beyond a router. You can select from LPR standard printing, LPR extension printing, or High-speed printing.

Note:

Since Windows XP/2000/NT support standard LPR printing, EpsonNet Direct Print is not necessary on these operating systems. We recommend that you use the LPR printing system provided by the operating system rather than using EpsonNet Direct Print.

System Requirements

Operating systems	Windows Me, 98, 95 Windows XP Professional/Home Edition Windows 2000 Server/Professional Windows NT 4.0 Server/Workstation with Service Pack 3.0 or higher
CPU	Pentium 200 MHz (Pentium II or better recommended)
Memory	32 MB or more
Hard disk space	20 MB or more

Installing EpsonNet Direct Print


Follow the steps below to install EpsonNet Direct Print. Be sure to install EpsonNet Direct Print on a computer connected to the network.

Note:

If EpsonNet Direct Print version 1 is installed on your computer, you need to uninstall it before installing EpsonNet Direct Print version 2.x (the installation program will lead you through uninstalling the older version of EpsonNet Direct Print).

1. Insert the software CD-ROM in the CD-ROM drive.
2. The EPSON Installation Program screen opens automatically.

If the Installer dialog box does not appear, double-click SETUP.EXE on the CD-ROM.

3. Select Install EpsonNet Direct Print, and then click .
4. Follow the on-screen instructions to complete the installation.
5. Restart the computer after installation is complete.

Your computer is now set up to print with LPR via EpsonNet Direct Print. See the next section to set up your printer.

Setting Up Your Printer Using EpsonNet Direct Print

When setting up a printer to print with LPR, you can add both a printer located in the same segment and one located beyond a router.

Note:

- ❑ *Be sure that the computer is connected to the network and TCP/IP is correctly set.*
- ❑ *The valid IP address must be set; otherwise the printer does not appear under the Epson_lpr group icon.*
- ❑ *The EPSON Status Monitor 2 utility shipped with the interface card models C82362*/C82363*/C82364* with software version 1.x and EPL-N2700/N4000 printers enables EPSON TCP/IP printers. These EPSON TCP/IP printers can coexist with lpr printers added by EpsonNet Direct Print.*
- ❑ *The job control functions such as Cancel Printing and Purge Print Jobs are available when you double-click the target printer icon in the Printers folder. However, if the printer has already started printing a document, the print job may not be cancelled completely.*

Adding a printer located in the same segment

Follow the steps below to add a printer located in the same segment.

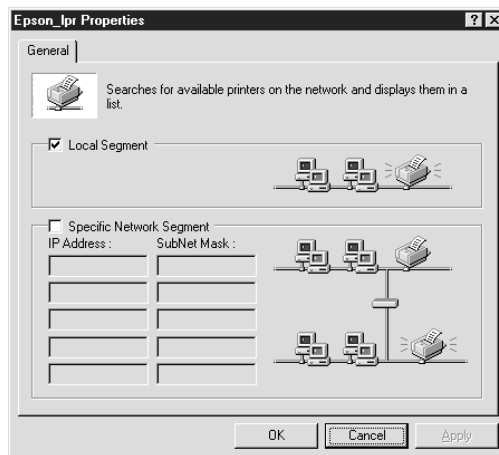
1. **Windows Me:** Double-click the My Network Places icon.

Windows 98/95/NT 4.0: Double-click the Network Neighborhood icon.

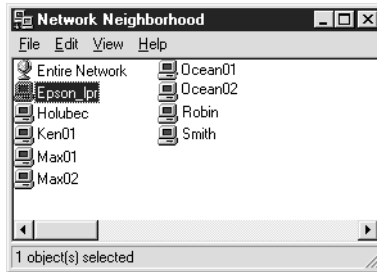
Windows XP: Click Start and then My Network Places. Under Network Tasks, click View workgroup computers. Under Other Places, click Microsoft Windows Network and then Entire Network. Then double-click the EpsonPeripheralNetwork icon.

Windows 2000: Double-click the My Network Places icon and then double-click the Entire Network icon. Click entire contents, and then double-click the EpsonPeripheralNetwork icon.

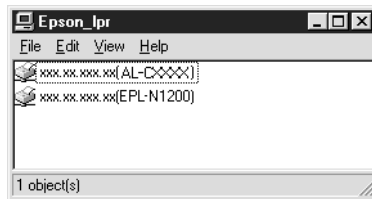
2. Right-click the Epson_lpr icon and select Properties.
3. Select the Local Segment check box and click OK.



4. Double-click the Epson_lpr icon to display available printers in the same segment as your computer on the screen.



5. Double-click the target printer.



6. Follow the on-screen instructions provided by the Add Printer wizard. If you are required to install the printer driver, see "Installing the printer driver" on page 212.

Adding a printer beyond a router

Follow the steps below to add a printer beyond a router.

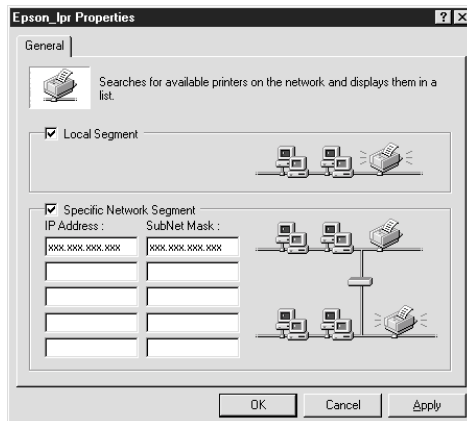
1. **Windows Me:** Double-click the My Network Places icon.

Windows 98/95/NT 4.0: Double-click the Network Neighborhood icon.

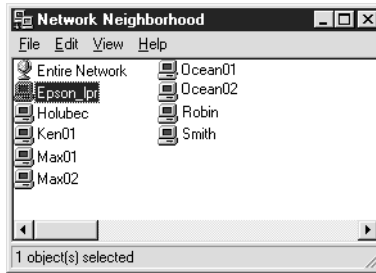
Windows XP: Click Start and then My Network Places. Under Network Tasks, click View workgroup computers. Under Other Places, click Microsoft Windows Network and then Entire Network. Then double-click the EpsonPeripheralNetwork icon.

Windows 2000: Double-click the My Network Places icon and then double-click the Entire Network icon. Click entire contents, and then double-click the EpsonPeripheralNetwork icon.

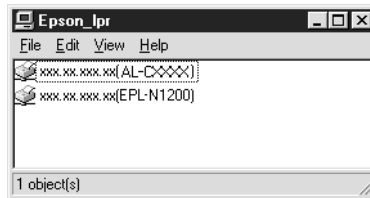
2. Right-click the Epson_lpr icon and select Properties.
3. Select the Specific Network Segment check box and enter the IP address and subnet mask of the printer you want to find. Click OK.



4. Double-click the Epson_lpr icon to view the available printers.



5. Double-click the target printer.



6. Follow the on-screen instructions provided by the Add Printer wizard. If you are required to install the printer driver, see “Installing the printer driver” on page 212.

Adding a printer from the Printers folder

Follow the steps below to add a printer from the Printers folder.

1. **Windows Me:** Double-click the My Network Places icon.

Windows 98/95/NT 4.0: Double-click the Network Neighborhood icon.

Windows XP: Click Start and then My Network Places. Under Network Tasks, click View workgroup computers. Under Other Places, click Microsoft Windows Network and then Entire Network. Then double-click the EpsonPeripheralNetwork icon.

Windows 2000: Double-click the My Network Places icon and then double-click the Entire Network icon. Click entire contents, and then double-click the EpsonPeripheralNetwork icon.

2. Right-click the Epson_lpr icon and select Properties. The Epson_lpr Properties dialog box appears.
3. Select Local Segment to search a printer in the same segment, or select Specific Network Segment and enter the IP address and subnet mask of the printer to find a printer located beyond the router. Click OK.
4. **Windows Me/98/95/2000/NT 4.0:** Click Start, point to Settings, and then select Printers. Double-click Add Printer in the Printers folder to start the Add Printer Wizard.

Windows XP: Click Start and then Printers and Faxes. Under Printer Tasks, click Add a printer to start the Add Printer Wizard.

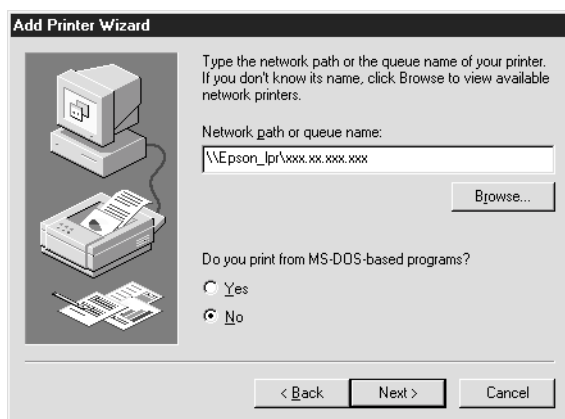
5. Select Network printer (Windows Me/98/95/2000), A network printer, or a printer attached to another computer (Windows XP), or Network print server (Windows NT 4.0). Then click Next.
6. **Windows Me/98/95:** Click Browse and then double-click Epson_lpr.

Windows XP: Click Browse for a printer. In the Shared Printers list, double-click EpsonPeripheralNetwork.

Windows 2000: Select the Type the printer name, or click Next to browse for a printer radio button and click Next. Double-click EpsonPeripheralNetwork.

Windows NT 4.0: In the Shared Printers list, double-click EpsonPeripheralNetwork.

7. Select the target printer listed under Epson_lpr or EpsonPeripheralNetwork and click OK.



8. Click Next. Follow the on-screen instructions to install the printer driver. If you are required to install the printer driver, see “Installing the printer driver” on page 212.

Installing the printer driver

Install the printer driver which comes with your printer.

1. Insert the software CD-ROM shipped with the printer.
2. Click Finish if the EPSON Installation Program screen appears.
3. Click the Have Disk button. The Install From Disk dialog box appears.
4. Click Browse.
5. Select the CD-ROM drive for Drives, and double-click the appropriate folder for your operating system. Click OK.
6. Click OK in the Install From Disk dialog box.
7. Select the model name of the printer, and click Next.

Note:

If the Add Printer wizard asks you to select either Keep existing driver or Replace existing driver, be sure to select the Replace existing driver radio button.

8. Click Finish and follow the on-screen instructions to complete setup.

Configuring the Printer Port

Follow the steps in the appropriate section below to configure the printer port. The printing speed will differ depending on the selections that you make.

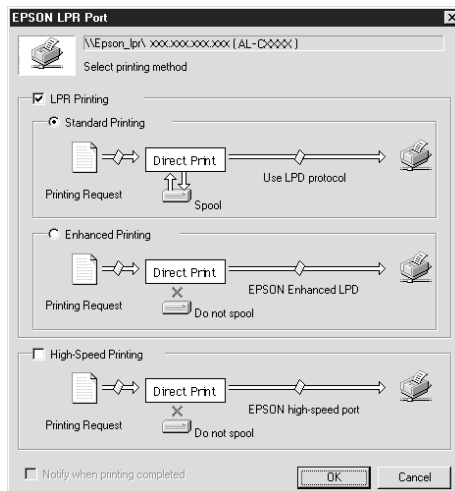
Windows Me/98/95/NT 4.0

1. Click Start, point to Settings, and then select Printers.
2. Right-click the target printer and click Properties.
3. **Windows Me/98/95:** Click the Details tab and then Port Settings. The EPSON LPR Port dialog box appears.

Note:

If the message “There is nothing to configure for this port” appears when you click Port Settings, click OK.

Windows NT 4.0: Click the Ports tab and then Configure Port. The EPSON LPR Port dialog box appears.



4. Make the appropriate settings for the desired port.

LPR standard printing:

Select the LPR Printing check box and then the Standard Printing radio button. Print data is spooled by the computer before sending the print job to the target network printer.

LPR enhanced printing:

Select the LPR Printing check box and then the Enhanced Printing radio button. LPR enhanced printing sends the print job to the target network printer without spooling all of the print data. LPR enhanced printing is faster than LPR standard printing.

High-speed printing:

Select the High-Speed Printing radio button. High-speed printing sends the print job to the target network printer without spooling all of the print data. High-speed printing is faster than the other two printing methods. If the printer does not support this function, this check box is unavailable.

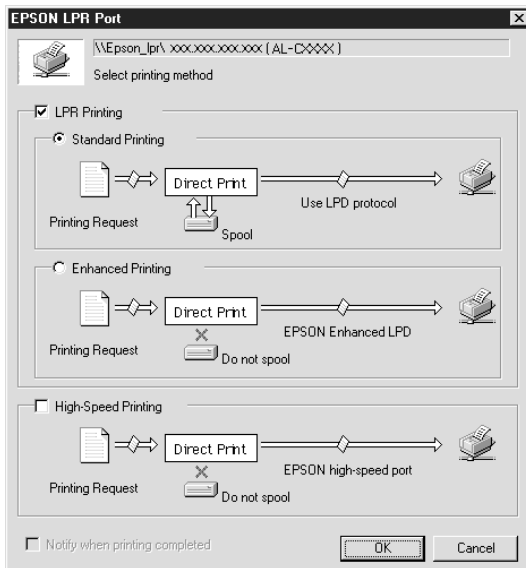
5. Select the Notify when printing completed check box if you want to receive an on-screen notification when printing is complete.
6. Click OK.

Windows XP/2000

1. **Windows XP:** Click Start and then click My Network Places. Under Network Tasks, click View workgroup computers. Under Other Places, click Microsoft Windows Network, and then click Entire Network. Then double-click the EpsonPeripheralNetwork icon.

Windows 2000: Double-click the My Network Places icon. Double-click the Entire Network icon, click entire contents, and then double-click the EpsonPeripheralNetwork icon.

2. Double-click the Epson_lpr icon.
3. Right-click the icon for the target printer and click Properties. The EPSON LPR Port dialog box appears.



4. Make the appropriate settings for the desired port.

LPR standard printing:

Select the LPR Printing check box and then the Standard Printing radio button. Print data is spooled by the computer before sending the print job to the target network printer.

LPR enhanced printing:

Select the LPR Printing check box and then the Enhanced Printing radio button. LPR enhanced printing sends the print job to the target network printer without spooling all of the print data. LPR enhanced printing is faster than LPR standard printing.

High-speed printing:

Select the High-Speed Printing radio button. High-speed printing sends the print job to the target network printer without spooling all of the print data. High-speed printing is faster than the other two printing methods. If the printer does not support this function, this check box is unavailable.

5. Select the Notify when printing completed check box if you want to receive an on-screen notification when printing is complete.
6. Click OK.

EpsonNet Internet Print

About EpsonNet Internet Print

EpsonNet Internet Print is a utility program that supports printing across the Internet using Internet Printing Protocol (IPP). Since the print server supports IPP, Internet printing is possible using this utility. You can print or make printer settings from Windows 98/95/NT 4.0 systems that can access the Internet. You can also print via a proxy server using this utility.

Before using the EpsonNet Internet Print utility, be sure to read the README file found in the EpsonNet Internet Print folder. This file contains the latest information on the EpsonNet Internet Print.

Note:

- EPSON Status Monitor is a utility program that monitors your printer and gives you information about its current status. Because this utility does not support IPP, printers connected to the Internet cannot be monitored with EPSON Status Monitor. If you use EpsonNet Internet Print on a computer which has EPSON Status Monitor installed, a communication error message may appear when you view printer properties. To avoid this, click the Optional Settings tab in the target printer's properties dialog box and click the Update the Printer Option Information Manually radio button.*

- For Windows Me, XP, 2000, use the OS standard IPP client for the Internet printing.*

System Requirements

Operating systems

- ❑ Windows 98, Windows 95, or Windows NT 4.0 Server and Workstation
- ❑ An Intel x86 series or compatible processor

Supported products


- ❑ EPSON print servers that support IPP (EpsonNet Internet Print comes with EPSON network interface products that support IPP)

Installing EpsonNet Internet Print

Follow the steps below to install EpsonNet Internet Print.

1. Insert the software CD-ROM in the CD-ROM drive.
2. The EPSON Installation Program screen opens automatically.

If the Installer dialog box does not appear, double-click SETUP.EXE on the CD-ROM.

3. Select Install EpsonNet Internet Print, and then click .
4. Follow the on-screen instructions to complete the installation.
5. Restart the computer after installation is complete.

Setting Up Your Printer Using EpsonNet Internet Print

EpsonNet Internet Print supports printing across the Internet using Internet Printing Protocol. Follow the steps below to set up the printer.

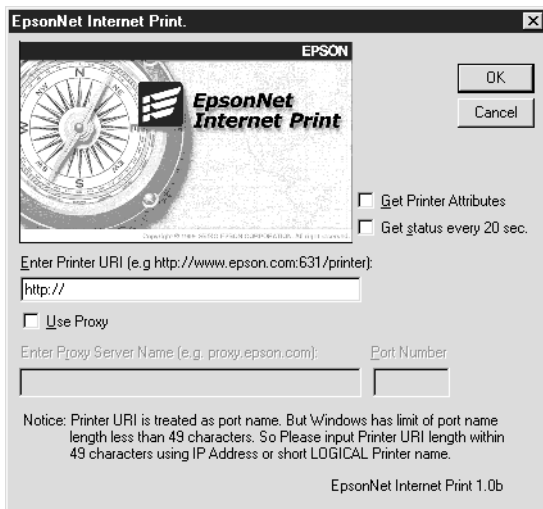
Note:

Before following the steps below, you must make the appropriate IPP settings in EpsonNet WinAssist/WebAssist. See "IPP" on page 96 or "IPP" on page 241 for instructions on setting up IPP. In the steps below, you will be asked for the IPP URL you set in the IPP setting screen in EpsonNet WinAssist/WebAssist.

Windows 98/95

1. Make sure that TCP/IP is correctly installed and setup in the computer and a valid IP address is set for the computer and printer.
2. Make sure that the IPP settings in EpsonNet WinAssist or EpsonNet WebAssist are correct. See "IPP" on page 96 or "IPP" on page 241 for instructions on settings for IPP.
3. To start EpsonNet Internet Print, click Start, point to Programs and then EpsonNet Internet Print, then click Add EpsonNet Internet Print Port.

4. The following screen appears. The address you set here becomes the port for Internet printing. Make the settings described below.



Enter Printer URI:

Enter the target printer's URI up to 49 characters. The URI you set here must be same as the IPP URL you have set for the IPP setting screen in EpsonNet WinAssist/WebAssist. Do not use the following characters; | \ [] { } < > # " `

Format: **http://**IP address of printer:**631/**printer name

Example: **http://192.168.100.201:631/EPSON_IPP_Printer**

Use Proxy:

When using the proxy server, select this box and enter the Proxy Server Name and Port Number. All communication is done via the proxy server.

Enter Proxy Server Name:

Enter the proxy server name or the IP address of the proxy server. You can enter up to 256 characters, but only 127 characters are valid. Do not use the following characters; | \ [] { } < > # " `

Port Number:

Enter the port number of the proxy server (from 0 to 65535).

Get Printer Attributes:

When you select this box and click OK, EpsonNet Internet Print communicates with the printer and acquires information, so it may take a few minutes before a message appears. This setting is available only when creating a port.

Get status every 20 sec.:

Select this box when you want to receive printer status updates at regular intervals (every 5 seconds during printing and every 20 seconds when idle). If you select this box, a message will appear if an error occurs during printing. You can also check the printer status by double-clicking the printer icon.

OK button:

Saves the settings.

Cancel button:

Cancels any changes.

Note:

- The settings you make above can be changed from the printer driver. In the printer Properties dialog box, click the Details tab, and click the Port Settings button to change the settings.*
- Be aware that when connecting to the Internet using a dial-up router and selecting the Get status every 20 sec check box, you may be charged for the extra line connection.*
- When you check the Get Printer Attributes check box and click OK, an error message may appear. Be sure that the printer power is on, and the printer is correctly connected on the network.*

- ❑ *If the printer power is off or there is a problem on the network, the Get status every 20 sec check box is automatically cleared. If this happens, make sure that the printer power is on and the printer is correctly connected on the network, and then select the Get status every 20 sec check box again.*

5. Click OK to save settings.
6. When a message appears saying the settings are correctly configured, click OK to start the Add Printer Wizard. Click Next.

Note:

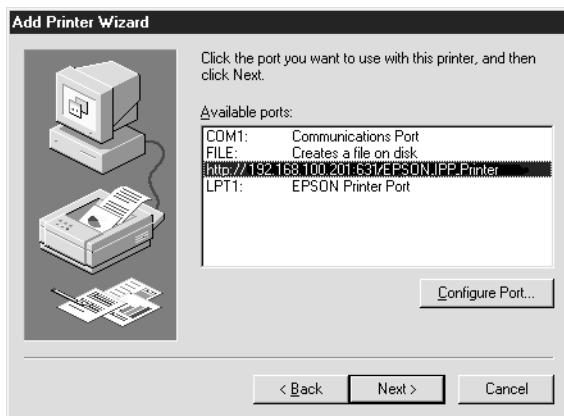
If you click Cancel and then later want to add the printer, start the Add Printer Wizard and follow the steps below.

7. Click the Local printer radio button and click Next.
8. Select the printer driver and click Next.

If the following dialog box appears, select Replace existing driver and click Next.



9. Select the port added by EpsonNet Internet Print in the previous section. Click Next.



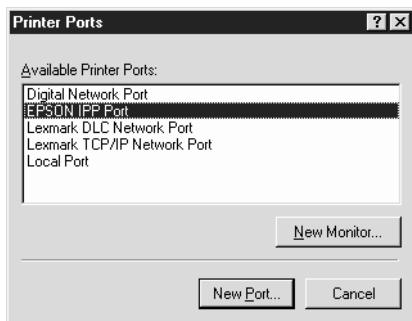
10. Follow the on-screen instructions to install the printer driver.
11. If a dialog box instructing you to install EPSON Status Monitor 2 or EPSON Status Monitor 3 appears, click Cancel and terminate the installation.

Note:

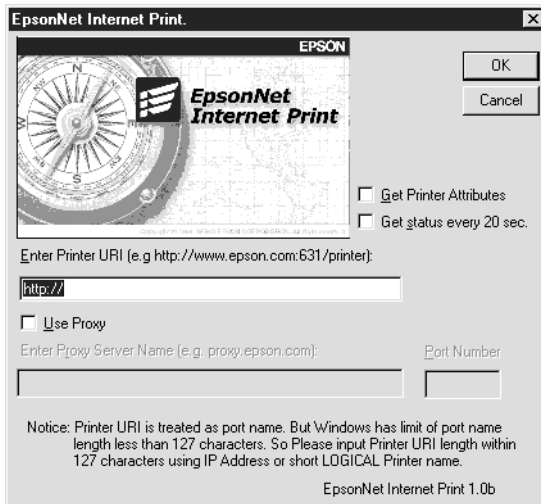
- ❑ *If you delete the port which you set above from the Details tab of the printer properties, you cannot reuse the deleted port name as a new port name (the printer URI) until you restart the computer.*
- ❑ *If you are using EPSON Status Monitor 3 and printing with EpsonNet Internet Print, the message "A communication error has occurred." appears. You can get rid of this message by clearing the Monitor the Printing Status check box in the Utility menu of the printer properties.*

Windows NT 4.0

1. Be sure that TCP/IP is correctly installed and setup in the computer and a valid IP address is set for the computer and printer.
2. Make sure that the IPP settings in EpsonNet WinAssist or EpsonNet WebAssist are correct. See “IPP” on page 96 or “IPP” on page 241 for instructions on settings for IPP.
3. Click Start, point to Settings, and then select Printers.
4. Double-click the Add Printer icon and click Next.
5. Click the My Computer radio button and click Next.
6. Click the Add Port button, and select EPSON IPP Port from the list. Then click the New Port button.



7. The following screen appears. The address you set here becomes the port for Internet printing. Make the settings described below.



Enter Printer URI:

Enter the target printer's URI (up to 127 characters). The URI you set here must be the same as the IPP URL you set for the IPP configuration in EpsonNet WinAssist/WebAssist. Do not use the following characters; | \ [] { } < > # " `

Format: **http://**IP address of printer:**631**/printer name

Example: **http://**192.168.100.201:**631**/EPSON_IPP_Printer

Use Proxy:

When using a proxy server, select this box and enter the Proxy Server Name and Port Number. All communication is done via the proxy server.

Enter Proxy Server Name:

Enter the proxy server name or the IP address of the proxy server (up to 256 characters). Do not use the following characters; | \ [] { } < > # " `

Port Number:

Enter the port number of the proxy server (from 0 to 65535).

Get Printer Attributes:

When you select this box and click OK, EpsonNet Internet Print communicates with the printer and acquires information, so it may take a few minutes before a message appears. This setting is available only when creating a port.

Get status every 20 sec.:

Select this box when you want to receive printer status updates at regular intervals (every 5 seconds during printing and every 20 seconds when idle). If you select this box, a message will appear if an error occurs during printing. You can also check the printer status by double-clicking the printer icon.

OK button:

Saves the settings.

Cancel button:

Cancels any changes.

Note:

- The settings can be changed after setting up the printer. In the printer Properties dialog box, click the Ports tab, and click the Configure Port button to change the settings.*
- Be aware that if you connect to the Internet using a dial-up router and select the Get status every 20 sec check box, you may be charged for the extra line connection.*
- When you select the Get Printer Attributes check box and click OK, an error message may appear. Be sure that the printer power is on, and the printer is connected to the network.*

- ❑ *If the printer power is off or there is a problem in the network, the Get status every 20 sec check box is automatically cleared. If this happens, make sure that the printer power is on and the printer is correctly connected on the network, and then select the Get status every 20 sec check box again.*
8. Click OK to save the settings.
 9. Select the printer driver, and follow the on-screen instructions to install the printer driver.

Note:

When you are using EPSON Status Monitor 3 and printing from EpsonNet Internet Print, the message "A communication error has occurred." appears. To clear this message, right-click the printer icon, select Document Defaults, and select the Utility tab. Then select the Monitor the Printing Status check box.

Status Alert Window

The EpsonNet Internet Print utility updates the status of the IPP printer if you have selected the Get status every 20 sec check box in the EpsonNet Internet Print dialog box.

The status alert window appears when the printer is out of paper, toner, or ink, if paper is jammed, the cover is open, or when the printer is offline.

The EpsonNet Internet Print utility checks the printer status every 5 seconds during printing and every 20 seconds when idle. If you do not want to check the printer status, clear the Get status every 20 sec check box in the EpsonNet Internet Print dialog box.

EpsonNet WebAssist

About EpsonNet WebAssist

EpsonNet WebAssist is a web-based software designed to configure the printer for use on a network.

By typing the IP address of the print server for the URL in your browser, you can start EpsonNet WebAssist that allows you to configure the print server for TCP/IP, NetWare, MS Network, AppleTalk, IPP, and SNMP.

Note:

The wireless information appears only for the wireless print server.

Supported Web browser

- Microsoft Internet Explorer version 4.0 or later
- Netscape Communicator version 4.0 or later
- Netscape Navigator version 3.02 or later

Note for Windows NT 4.0 users:

If you have not yet upgraded with Windows NT Service Pack 3, install the Windows NT Service Pack before installing Microsoft Internet Explorer.

About Web browser setting

When running EpsonNet WebAssist, be sure not to use a proxy server to access the Internet. If the Access the Internet using a proxy server check box is selected, you cannot use EpsonNet WebAssist. Use the following steps to clear the Access the Internet using a proxy server check box.

1. Right-click the Internet Explorer icon on the desktop, and then select Properties.
2. Click the Connection tab.
3. Clear the Access the Internet using a proxy server check box.

Configuring the Print Server Using EpsonNet WebAssist

After you have assigned an IP address to the print server using EpsonNet WinAssist, MacAssist, or the arp/ping command, you can configure the print server using EpsonNet WebAssist.

Note:

- A web browser must be installed on your computer.*
- TCP/IP must be correctly set for the computer and the print server.*
- Do not run both EpsonNet WinAssist/MacAssist and EpsonNet WebAssist at the same time.*
- Your browser may restrict some characters you can use. For details, see your browser or OS documentation.*

- ❑ *If you are using the dial-up environment and not using NetWare, select Disable in the NetWare screen. If Enable is selected, the extra account might be charged when you are using the dial-up router.*

Follow the steps below to change the IP address using EpsonNet WebAssist.

1. Turn on your printer.
2. Run EpsonNet WebAssist using one of the following ways.
 - ❑ Run EpsonNet WinAssist or EpsonNet MacAssist. Select the printer you want to configure from the list and then click Launch Browser.
 - ❑ Open your browser, and then type in the IP address of the print server directly. Do not run EpsonNet WinAssist or MacAssist.

http://*IP address of print server/*

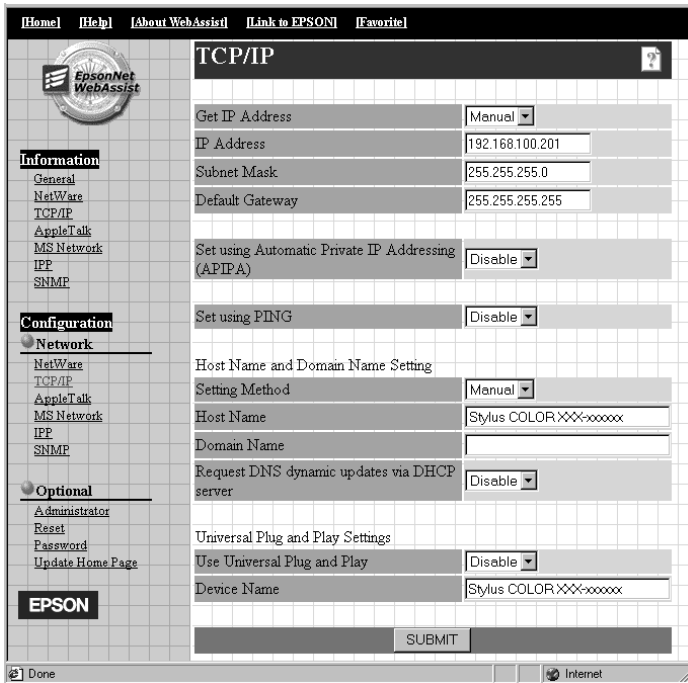
Example: http://192.168.100.201/

Note on NetWare setting:

- ❑ *From any NetWare client, log in to the target NetWare server or NDS context with supervisor privileges.*
 - ❑ *You cannot create a print server, print queue, or printer with EpsonNet WebAssist. You must have created these objects before using EpsonNet WebAssist.*
3. Click TCP/IP under Network on the Configuration menu to view the TCP/IP setting screen.

Note:

If you want to configure a protocol other than TCP/IP, see “Configuration - Network Screens” on page 238.



4. Select the “Get IP Address” method. When you select Auto, DHCP becomes available and assigns an IP address automatically. If you want to set the IP address manually, select Manual.

Note:

- ❑ The network administrator must confirm any changes made to the IP address settings.
- ❑ When Auto is selected, DHCP becomes available. To use the DHCP server, make sure it is installed on your computer and correctly configured. See your operating system’s online help for detailed instructions.

- ❑ *If Set using Automatic Private IP Addressing (APIPA) is enabled, a private IP address is automatically assigned to the print server even when there are no DHCP servers on your system or your network.*
 - ❑ *If the Dynamic DNS function is not supported, we recommend that you select Manual and enter an IP address. This is because if you select Auto, the IP address of the print server changes every time you turn on the printer so that you need to change the printer port setting accordingly.*
5. To assign the IP address manually, enter the IP address, the subnet mask, and the default gateway. Be sure the IP address does not conflict with any other device on the network.

Note:

If there is a server or a router functioning as a gateway, enter the IP address of the server or the router for the gateway address. If there is no gateway, leave the default values there.

6. If you want to get a private address between 169.254.1.1 and 169.254.254.254 automatically when an IP address cannot be obtained by the DHCP server, select Enable for Set using Automatic Private IP Addressing (APIPA).
7. When setting the IP address using the ping command, select Enable for Set using PING. Select Disable when setting the IP address with EpsonNet WinAssist/MacAssist/WebAssist; this prevents any unexpected change of the IP address.

Note:

Be sure to select Disable when not using ping; this prevents an unexpected change of the IP address by EpsonNet WebManager.

8. Select Manual or DHCP for Setting Method. You can select DHCP only if you have selected Auto for the Get IP Address method in step 4.
9. Enter the host name and the domain name.

10. Select Enable or Disable for Request DNS dynamic updates via DHCP server.
11. Select Enable or Disable for Use Universal Plug and Play. Select Enable if you want to use the Universal Plug and Play function in Windows Me or future operating systems.
12. Change the default Universal Plug and Play device name, if desired. This device name is used for Windows that supports the Universal Plug and Play function.
13. Click SUBMIT and enter the password to update the settings. The same password is required for EpsonNet WinAssist, MacAssist, and WebAssist. See “Password” on page 244 for more information on setting the password.

Note:

If you have set the Administrator Name in the Administrator screen, enter the administrator name for the user name.

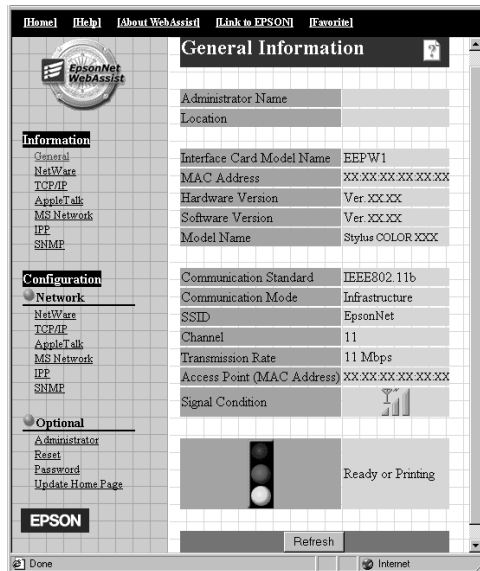
14. If the message “Configuration change is complete!” appears on your screen, the update is complete. Do not exit the Web browser and do not send a job to the printer until this message appears. Follow the on-screen instructions to reset the printer.

Note:

- Since the new IP address becomes available after the printer is reset, you need to restart EpsonNet WebAssist by entering the new IP address.*
- Only changes on the page where you press the SUBMIT button take effect.*

Opening Screen

Any user can access the following screen by typing the IP address of the print server for the URL in your browser.



Index

Home	Links to the opening screen.
Help	Links to Help.
About WebAssist	Links to the copyright and version information for EpsonNet WebAssist.
Link to EPSON	Links to the EPSON Web site (http://www.epson.com).
Favorite	Links to a web site previously defined by the administrator.

Menu

Information	
General	Displays the print server information.
NetWare	Displays information about NetWare.
TCP/IP	Displays information about TCP/IP.
AppleTalk	Displays information about AppleTalk.
MS Network	Displays information about Microsoft Network.
IPP	Displays information about IPP.
SNMP	Displays information about SNMP.
Configuration - Network	
NetWare	Configure the applicable settings for NetWare.
TCP/IP	Configure the desired settings/method for TCP/IP.
AppleTalk	Configure the desired settings for AppleTalk.
MS Network	Configure the desired settings for Microsoft Network.
IPP	Configure the desired settings for IPP.
SNMP	Configure the desired settings for SNMP.
Configuration - Optional	
Administrator	Type the name of the administrator and a link to a favorite Web site.
Reset	Resets the printer and returns to the default settings.
Password	Set the password to protect settings.
Update Home Page	Update EpsonNet WebAssist.
Epson logo	Links to the EPSON Web site (http://www.epson.com).

Information

General information

Items	Explanations
Administrator Name	Administrator name of the printer
Location	Location of the printer
Interface Card Model Name	Model of the print server
MAC Address	Unique hardware address of the print server. You can distinguish the print server by its MAC address.
Hardware Version	Hardware version of the print server
Software Version	Software version of the print server
Model Name	Product name of the printer attached to the print server
Communication Standard	Communication standard for wireless LAN
Communication Mode	Wireless network mode
SSID	SSID of the access point or wireless LAN
Channel	Channel used for wireless communication
Transmission Rate	Communication speed
Access Point (MAC Address)	Access Point used for wireless LAN in the Infrastructure mode.
Signal Condition	Condition of the radio wave, as follows: Three antennas: Excellent (11 Mbps) Two antennas: Good (5 or 2.2 Mbps) One antenna: Poor (1 Mbps) None: No connection

Status	A signal shows the status level. The green light is on when the printer is idle or printing. The yellow light is on when the paper or toner is low. The red light is on when the printer has no paper or no toner, if paper is jammed, the cover is open, or an error has occurred.
Refresh button	Refreshes the printer status. The printer status is not updated automatically. Press Refresh to display the latest printer information.

Configuration - Network Screens

NetWare

NetWare Basic Configuration

Items	Explanations
NetWare	Enable or Disable NetWare.
Frame Type	Leave the default frame type (Auto) as it is.
Mode	Select the appropriate NetWare mode.

Print Server Mode/NDS/Bindery

Items	Explanations
Print Server Name	Enter the print server name (up to 47 characters)
Polling Interval	Enter the polling interval in seconds.
NetWare Password	Enter the password (up to 20 characters) you use when you log in to the print server.
NDS Tree Name	Enter the NDS tree name (up to 31 characters) if the mode is NDS Print Server.
NDS Context	Enter the NDS context (up to 255 characters) if the mode is NDS Print Server.
Primary File Server Name	If the mode is Bindery Print Server, enter the file server name (up to 47 characters) which the print server logs in.

Remote Printer Mode

Items	Explanations
Primary Print Server Name	Enter the primary print server name (up to 47 characters).
Printer Port Number	Enter the printer port number (0 to 254).

TCP/IP

Items	Explanations
Get IP Address	Select a method for acquiring IP addresses. If Auto is selected, DHCP becomes available. To use the DHCP server, it must be installed in your computer and must be correctly configured. See your operating system's online help for detailed instructions. To set the IP address manually, select Manual.
IP Address	Enter an IP address for the print server. Be sure the IP address does not conflict with any other device on the network.
Subnet Mask	Set the subnet mask.
Default Gateway	Set the gateway address if needed.
Set using Automatic Private IP Addressing (APIPA)	Select Enable to get the private address between 169.254.1.1 and 169.254.254.254 automatically when an IP address cannot be obtained by the DHCP server.
Set using PING	Enables or disables IP address setting using the ping command.
Setting Method	Select a setting method: Manual or DHCP. If you want to get a host name and domain name from the DHCP server, select DHCP.
Host Name	Enter the host name (between 2 and 63 characters).
Domain Name	Leave it blank or enter two or more characters of the domain name. The total number of characters of the host name and the domain name must not exceed 251.
Request DNS dynamic updates via DHCP server	Enables or disables to request the DNS dynamic updates via the DHCP server that supports Dynamic DNS function.
Use Universal Plug and Play	Enables or disables Universal Plug and Play.
Device Name	Enter the device name (between 2 and 63 characters).

AppleTalk

Items	Explanations
AppleTalk	Enable or Disable AppleTalk.
Printer Name	Enter the name of the printer attached to the print server (up to 32 characters).
Zone Name	Enter the network zone name (up to 32 characters). To have the zone selected automatically, select Auto for the Network Number Set and enter an asterisk (*) in this text box.
Entity Type	The default entity type is EPSONLQ2. Enter the entity type to match your printer. InkJet, All in One Product: EPSONLQ2 Laser (mono): EPSONPAGE4 Laser (color): EPSONPAGECOLOR1 Impact Dot Matrix (except 9 pin and DFX series): EPSONFX Impact Dot Matrix (24 pin): EPSONLQ
Network Number Set	Select Auto or Manual. Usually Auto is recommended.
Network Number for Manual Mode	Enter the network number when you select to set the Network Number manually.

MS Network

Items	Explanations
MS Network	Enable or Disable Microsoft network.
Print Server Name	Enter the print server name which is the computer name on the network (up to 15 characters). Be sure to give a name that is unique on the network.
Workgroup Name	Enter the workgroup name or domain name (up to 15 characters).
Share Name	Enter the printer's shared name (up to 12 characters). LPT1, LPT2, or LPT3, or COM cannot be used.

IPP

You must make the following settings before setting up the printer for Internet Printing in Windows Me/2000 or using EpsonNet Internet Print in Windows 98/95/NT 4.0. See "About EpsonNet Internet Print" on page 217 for more information.

Items	Explanations
IPP URL	Displays the printer's URL for Internet Printing. Format: http://IP address of printer:631/printer name set below Example: http://192.168.100.201:631/EPSON_IPP_Printer
Printer Name	Enter the name of the printer to use for Internet Printing (up to 127 characters). Example: EPSON_IPP_Printer
Location	Enter the name of the printer's physical location (up to 64 characters).

SNMP

Community

Items	Explanations
Community	Displays the community name.
Read Only	The word "public" always appears.
Read/Write	Enter the Read/Write community name (up to 32 characters).

IP Trap

Items	Explanations
Trap	Enable or Disable the trap.
Address	Enter the IP address of the server to which the trap is transmitted.
Community Name	Enter the community name (up to 32 characters).

IPX Trap

Items	Explanations
Trap	Enable or Disable the trap.
Address	Enter Network Address and Node Number (MAC Address) of the server to which the trap is transmitted. Format: Network Address: Node Number Suppose Network Address is A7E00BB0 (hexadecimal) and Node Number is 000048930000 (hexadecimal). In this case, the address is A7E00BB0:000048930000.
Community Name	Enter the community name (up to 32 characters).

Optional Screens

Administrator

You can link to the web site specified in this screen when you click Favorite (the name is changeable) in the Index.

Items	Explanations
Administrator Name	Enter the name of the administrator (up to 255 characters).
Location	Enter the location of the print server (up to 255 characters).
Favorite Name	Enter the link item name (up to 20 characters) which will be displayed in the Index menu.
Favorite URL	Enter a URL (up to 64 characters).
Description	Enter any comments concerning the URL above (up to 64 characters).

Note:

Links to ftp are not supported.

Reset

You can reset the print server or return the settings to the default values.

Items	Explanations
RESET button	Functions like turning the power off and on again. Click this button to make the changes take effect.
RETURN TO DEFAULT button	Returns the print server to the default settings.

Password

The password set here protects the settings. You will be asked for the password when you update or change the settings on each setting screen. Passwords are case sensitive. No password is set by default.

Items	Explanations
Old Password	Input the old password.
New Password	Input the new password (up to 20 characters).
Re-input Password	Re-input the new password.

Note:

- The same password can be used for EpsonNet WinAssist, MacAssist, and WebAssist.*
- If you forget your password, you need to initialize the print server. See "Initializing the print server" on page 73 for instructions.*

Update Home Page

Note:

Update the Home Page only if EpsonNet WebAssist has been corrupted..

Items	Explanations
Filename	Mount the CD-ROM included in this package, and click the Browse button to select the EPW*****.pac file, or enter the file name with the full path.
Browse button	Click this button to browse for the file.
UPDATE button	Updates to the specified file in the Filename.

EpsonNet WebManager

About EpsonNet WebManager

EpsonNet WebManager is an application designed to manage network devices. It allows network administrators to easily control network devices such as network printers, interface cards, and network adapters attached to a printer. EpsonNet WebManager offers the following features:

- ❑ It supports Windows, Macintosh, and UNIX platforms to give network administrators flexibility in managing network devices.
- ❑ It allows you to search and monitor network devices, and make settings for network devices.
- ❑ It offers a Group Management function that helps you manage devices as a group.
- ❑ It provides printer driver management functions: such as the ability to store printer drivers on the EpsonNet WebManager server, and easy installation of printer drivers on client PCs.
- ❑ It allows you to access the screen faster in the text mode.

Note:

- ❑ *Before installing and using EpsonNet WebManager, be sure to read the README file. This file contains the latest information on EpsonNet WebManager.*
- ❑ *The term “device” refers to a printer, interface card, or network adapter.*

System Requirements

Note:

- ❑ *Before using EpsonNet WebManager, the computer and other devices must be properly connected to the network.*

- ❑ *Since EpsonNet WebManager runs on a web browser, you must install TCP/IP and a web browser first. See the README file for supported browsers.*

EpsonNet WebManager server operating systems

EpsonNet WebManager server is the computer where you have installed EpsonNet WebManager.

Operating system:	Windows Me/98 Windows XP (Professional & Home Edition) Windows 2000 (Server & Professional) Windows NT 4.0 (Server & Workstation)
System:	Pentium 200 MHz or better recommended
Memory:	64MB
Hard disk space:	20MB

EpsonNet WebManager client operating systems

You can access the EpsonNet WebManager server from the following operating systems through a browser.

- ❑ Windows Me/98/XP/2000/NT 4.0

- ❑ Macintosh

- ❑ UNIX (see the README file for supported UNIX systems)

- ❑ Monitor: 1024 x 768 or higher resolution VGA monitor with support for 256 or more display colors

Printers

- ❑ EPSON printers

Laser printers:

EPL-5700/5800/5900/N1200/N1600/N1610

EPL-N2000/N2010/N2050/N2050+/N2120/N2700/N2750

EPL-N4000/N4000+/C8000/C8200

AL-C1000/C1900/C2000/C4000/C8500/C8600

Ink jet printers:

Stylus COLOR 760/800/850/860/880/900/900N/980

Stylus COLOR 1160/1520/3000

Stylus Pro 5000/5500/7000/7500/7600/9000/9500/9600

Stylus Pro 10000/10000CF

Stylus Photo 750/870/890/1200/1270/1280/1290

SIDM printer:

FX-880/1180/2180

LQ-680/680Pro/1150

LX-300+

DFX-8500

DLQ-3000/3000+/3500

Note:

All future printers with a Type B interface are planned to be supported, except PostScript printers.

- ❑ Non-EPSON printers that support Printer MIB

Print servers

- ❑ C82362* EpsonNet 10 Base 2/T Int. Print Server
- ❑ C82363* and C82364* EpsonNet 10/100 Base Tx Int. Print Server
- ❑ C82384* EpsonNet 10/100 Base Tx Int. Print Server
- ❑ EpsonNet 10/100 Base Tx Int. Print Server 2
- ❑ EpsonNet 10/100 Base Tx Ext. Print Server
- ❑ EpsonNet 802.11b Wireless Ext. Print Server

EpsonNet WebManager Functions

EpsonNet WebManager provides you with the following functions:

- ❑ **Device list function**
Searches for devices on the network and displays a device list with current status.
- ❑ **Device details function**
You can make or change the printer settings through EpsonNet WebManager. The setting items in the Device details function will differ depending on the printer.
- ❑ **Network settings function**
You can make or change the network interface settings through EpsonNet WebManager.
- ❑ **Group management function**
Groups can help you manage network devices more effectively.

- ❑ Printer driver management
Downloading and updating the printer driver through the Internet automatically, and easy installation of the printer driver on client PCs.

Note:

- ❑ *Some functions of EpsonNet WebManager may not be available depending on the combination of network devices. See the Introduction of the EpsonNet WebManager Online Manual for detailed information.*
- ❑ *When using EpsonNet WebManager with Internet Explorer in Mac OS, the Map view, Notice window, and Device Detailed window may not be available.*

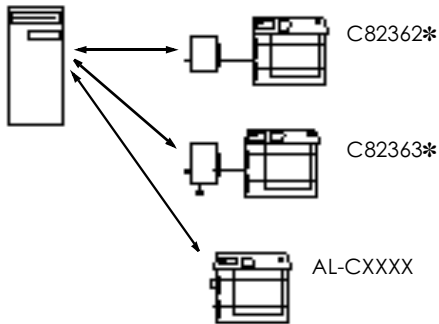
EpsonNet WebManager Operating Structure

EpsonNet WebManager must be installed in the computer that functions as the network server. You can select either of the two methods described below to use EpsonNet WebManager.

EpsonNet WebManager and a Web browser running on the same PC

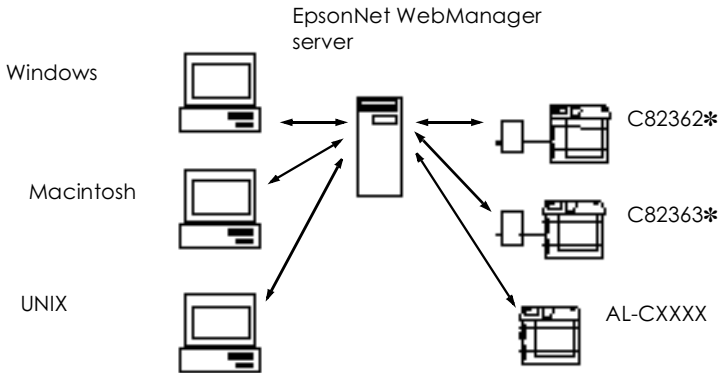
No special server is required. Just install EpsonNet WebManager and a Web browser on the same computer that functions as a server. All administration is possible from the network administrator's Windows Me/98/XP/2000/NT 4.0 computer.

EpsonNet WebManager server



EpsonNet WebManager and a Web browser running on different PCs

Install EpsonNet WebManager in the server, and install a Web browser in the client computers. Run the Web browser on a client computer to access EpsonNet WebManager on the server. Multi-platform network administration is possible from Windows, Macintosh, and UNIX platforms through the browser.




Installing EpsonNet WebManager

Follow the steps below to install EpsonNet WebManager.

1. Insert the software CD-ROM in the CD-ROM drive.
2. The EPSON Installation Program screen opens automatically.

If the Installer dialog box does not appear, double-click SETUP.EXE on the CD-ROM.

3. Select Install EpsonNet WebManager, and then click .
4. Follow the on-screen instructions to complete the installation.

Note:

- You do not need to install EpsonNet WebManager in the client computer. Just announce the IP address or host name of the server to any clients who use EpsonNet WebManager from a client computer.*
- To use the printer driver management function, E-mail notification function, and print information function, you need to select Custom and then select these components during installation.*

Starting EpsonNet WebManager

Be sure that TCP/IP is installed, and the IP address or host name is set for the computer. (Register the host name in the hosts file in the Windows directory.)

From the server

To start EpsonNet WebManager, click Start, point to Programs or All Programs (Windows XP), then EpsonNet WebManager, then select EpsonNet WebManager.

From the client

Run the Web browser and type the IP address (or the host name) of the server and default port number.

- Format:
http://IP address or host name of server:8090/
- Example:
http://192.168.100.201:8090/

Opening the Online Guide

After starting EpsonNet WebManager, be sure to read the EpsonNet WebManager's online manual. It provides important information and instructions for using the EpsonNet WebManager.

You can view the online manual by clicking the Help button in the main menu. Then click Online Manual.

Also, when you click the question mark button on the current screen, a help screen appears describing the functions on that page.

Troubleshooting

General Problems

Cannot configure the print server or cannot print from the network.
--

Cause	What to do
Printer settings or network settings may be wrong.	First, check if you can print a status sheet, as described in “Status sheet button” on page 23. If not, set the interface mode of the printer’s control panel to Auto or Option . If you can print a status sheet, check the network settings.

Unable to start EpsonNet WinAssist.
--

Cause	What to do
You have added or deleted protocols after installing EpsonNet WinAssist.	Uninstall EpsonNet WinAssist and reinstall it. See “Uninstalling Software” on page 275 and “Installing EpsonNet WinAssist/MacAssist” on page 50.

The message “EpsonNet WinAssist cannot be used because no network is installed.” appears when you start EpsonNet WinAssist.

Cause	What to do
Both TCP/IP and IPX/SPX are not installed in the computer.	Install TCP/IP or IPX/SPX protocol.
TCP/IP is installed in the computer, but its IP address is not set correctly.	Set the IP address for the computer correctly.

The message “Could not complete communicating configuration data” appears when you send settings to the print server.

Cause	What to do
This might happen when using a dial-up router.	Run Command Prompt from the computer in which EpsonNet WinAssist/MacAssist is installed, then enter the following command; Format: >ROUTE_ADD_the IP address of the print server_ the IP address of the computer (the under bar represents one space) Example: >ROUTE ADD 192.168.192.168 22.33.44.55.

Unable to start EpsonNet WebAssist.

Cause	What to do
You have not set the IP address for the print server.	Set the IP address for the print server using EpsonNet WinAssist, MacAssist, the printer's control panel, or the arp/ping commands. You can check the IP address on a status sheet. See "TCP/IP" on page 83, "TCP/IP" on page 119, or "Setting an IP Address Using the arp/ping Command" on page 270.
The print server is not connected to the wireless network.	Configure the print server to use on the wireless network using EpsonNet WinAssist/MacAssist.

Unable to set the IP address using the arp/ping commands.

Cause	What to do
The print server is not connected to the network.	Connect the print server to the network, and check the network environment.
The printer is located beyond the router.	The printer and computer must be in the same segment.

The Printer Model and IP Address do not appear in the EpsonNet WinAssist dialog box.

Cause	What to do
If the valid IP address is not set, the items indicated in the dialog box mentioned above may not appear.	Set a valid IP address. Refresh the status by selecting Refresh from the View menu. Increase the length of time before a time-out. To do this, select TimeOut from the Tool menu. Please note that doing so can cause EpsonNet WinAssist to run more slowly.

An extra account is generated when using the dial-up network.

Cause	What to do
NetWare is set to Enable even though you are not using NetWare.	Set NetWare to Disable in the NetWare screen of EpsonNet WebAssist.

The print server cannot roam around the access point.

Cause	What to do
The AP Density is not properly set.	Change the AP Density in the Wireless Advanced Settings dialog box.

The WEP Key entered is not displayed in the field.

Cause	What to do
The WEP Key disappears after the print server is configured.	Do not forget the WEP Key (1 to 4) you have set.

The print server does not appear in the EpsonNet WinAssist/MacAssist list view.

Cause	What to do
There are several possible causes. Check the items described on the right.	<p>Make sure the print server is properly connected to the printer using the USB cable.</p> <p>Make sure the printer and the print server are turned on.</p> <p>Make sure the mode, WEP Key, SSID, authentication method, and channel (for Ad Hoc mode) of the print server and the wireless LAN are the same.</p> <p>Make sure there is no radio interference causing the problem.</p> <p>Check the connection range of the print server.</p>

The wireless communication speed is very slow.

Cause	What to do
There are several possible causes. Check the items described on the right.	Adjust the location and orientation of the access point. If interference occurs, switch to another channel. Other devices may be causing the interference. Relocate the “noisy” devices if found.

How to acquire an IP address.

In order to acquire your IP address, you need to apply with the NIC (Network Information Center) in your country.

Problems Specific to Your Network Environment

Windows Me/98/95 environment

A dial-up connection dialog box appears when printing with TCP/IP via EpsonNet Direct Print.

Cause	What to do
You have selected a phone line or modem (for Internet Explorer 4.0x) for the Internet connection.	Printing will complete normally after you cancel this dialog box, but the message appears every time you print. Connect to the Internet using a local area network or start a dial-up network manually.

A communication error message appears when you start printing or when you open the printer's properties.

Cause	What to do
When you print with NetBEUI or IPP, EPSON Status Monitor cannot be used.	Open the printer's properties and click the Optional Settings tab. Select the Update the Printer Option Information manually radio button. Open the printer's properties and click the Utility tab. Clear the Monitor the Printing Status check box.

Windows 2000/NT environment

A dial-up connection dialog box appears when printing with TCP/IP via EpsonNet Direct Print.

Cause	What to do
You have selected a phone line or modem (for Internet Explorer 4.0x) for the Internet connection.	Printing will complete normally after you cancel this dialog box, but the message appears every time you print. Connect to the Internet using a local area network or start a dial-up network manually.

A communication error message appears when you start printing or when you open the printer's properties.

Cause	What to do
When you print with NetBEUI or IPP, EPSON Status Monitor cannot be used.	Open the printer's properties and click the Optional Settings tab. Select the Update the Printer Option Information manually radio button. Open the printer's properties and click the Utility tab. Clear the Monitor the Printing Status check box.

No clients except an administrator can print via Windows NT Server 4.0.

Cause	What to do
CREATOR OWNER has been deleted from the Printer Permissions list, or CREATOR OWNER is set to Print or No Access.	Add CREATOR OWNER by clicking the Add button in the Printer Permissions dialog box, or set CREATOR OWNER to Manage Documents (default setting).

Macintosh environment

Printers do not appear in the Chooser.

Cause	What to do
You may have selected a wrong one for "Connect via" in the AppleTalk Control Panel.	Make sure to select Ethernet built-in or AirPort in the AppleTalk Control Panel, and make sure AppleTalk is active in Chooser. Also, check the network equipment including the hub cable.

NetWare environment

Nothing prints even though clients have sent data to the printer.

Cause	What to do
Clients may not be registered, or the print server may not be logged in to the NetWare server.	Make sure clients are registered as users of the print queue and the print server. Also, make sure the print server is logged in to the NetWare server.

EpsonNet WinAssist/WebAssist will not start correctly.

Cause	What to do
Microsoft NetWare Directory Service is installed in your computer.	If you are using NDS service, install Novell NetWare Client service.

It takes a long time to start EpsonNet WinAssist.

Cause	What to do
Novell Client service is installed.	Double-click Network in the Control Panel, and double-click the network adapter which does not use IPX/SPX-compatible protocol. Clear the items related to IPX to unbind IPX.

The printers on the IPX network do not appear in the EpsonNet WinAssist dialog box.

Cause	What to do
The printer is turned off.	Turn on the printer.
The printer is not in the same segment as the computer where you installed EpsonNet WinAssist.	To search for print servers in other segments, use the Search Options of EpsonNet WinAssist.
You have not logged in to the target NetWare server with supervisor privileges.	From the computer in which EpsonNet WinAssist is installed, log in to the target NetWare server with supervisor privileges.

Tips for Administrator

Configuring the Print Server on Wired Computer

You can also configure the print server on a wired computer. If your environment is under the following conditions, follow the steps below:

- ❑ Your computer does not support USB and wireless.
 - ❑ An access point is connected to the computer with an Ethernet crossover cable, or with a straight-through cable via a HUB.
1. Install the necessary components on the computer and modify the network settings.
 2. Install EpsonNet WinAssist on the computer.
 3. Connect the access point and the computer with an Ethernet crossover cable, or connect the access point to the computer via a HUB.
 4. Set the SSID of the access point to EpsonNet, and make sure the WEP Key is disabled.
 5. Plug the AC adapter into the print server's DC-IN connector, and then plug the power cord into a properly grounded wall outlet.
 6. Run EpsonNet WinAssist. Check that the print server appears in the window.

7. Click the Configuration button to configure the wireless settings of the print server. See “Configuring the Print Server Using EpsonNet WinAssist” on page 59.
8. Reconfigure the wireless settings of the access point to match the settings (such as SSID, and WEP Key) of the print server.
9. Run EpsonNet WinAssist and select Refresh from the View menu.

Note:

If the print server is not listed in the window, it is not connected to the wireless network. Reset the print server to the factory default settings, and then configure it again. To revert to the factory default settings, follow the steps below.

1. *Unplug the AC adapter from the print server’s DC-IN connector.*
 2. *While pressing and holding down the status sheet button on the print server, plug the AC adapter into the print server’s DC-IN connector.*
10. Click the Configuration button and configure the network settings, such as the TCP/IP settings. See “Details of the Configuration Dialog Box” on page 81.

Selecting a Printing Method

If necessary, use this section to help you select a printing method.

Printing from Windows

Check if there is a Windows XP/2000/NT print server on your network, and then use the suggestions below.

Note:

Only the recommended printing methods are introduced here. See “Features of the Printing Methods” on page 268 for more methods.

If no Windows XP/2000/NT print server exist

Use a printing method appropriate to your operating system:

- For Windows Me/98/95
We recommend TCP/IP printing via EpsonNet Direct Print. See “About EpsonNet Direct Print” on page 203.

- For Windows XP/2000/NT
We recommend TCP/IP printing via LPR. See “Windows XP” on page 143, “Windows 2000” on page 150, or “Windows NT 4.0” on page 155.

If a Windows XP/2000/NT print server exists

On the server, set the printer to connect with LPR and turn it into a shared printer. Your clients can then print to this shared printer.

Printing from Macintosh

Use AppleTalk to print from Macintosh. See “Macintosh” on page 49.

Features of the Printing Methods

This section describes features of the printing methods available for you to choose.

LPR (TCP/IP) printing

Advantages

- No computer as a print server is required.
- No special utility for Windows XP/2000/NT is required.
- You can see the printer status using EPSON Status Monitor 2 or 3.
- For Windows XP/2000/NT, you can create a print log using the event viewer.
- You can print via a router.

Disadvantages

- You need to set up TCP/IP.
- For Windows Me/98/95, EpsonNet Direct Print must be installed on all computers to use for printing.

Internet printing

Advantages

- No proxy server (computer) is required.
- You can print to the printer over the Internet.

Disadvantages

- ❑ EPSON Status Monitor 2 or 3 cannot be used.
- ❑ TCP/IP and DNS settings are required.
- ❑ For Windows Me/98/95, EpsonNet Internet Print must be installed on all computers used for printing.
- ❑ For Windows XP/2000, you cannot share the Internet printer.

Microsoft Network Shared printing

Advantages

- ❑ Easy to set up (IP address is not required if NetBEUI protocol is installed).
- ❑ No computer as a print server is required.
- ❑ No special print utility is required.

Disadvantages

- ❑ EPSON Status Monitor 2 or 3 cannot be used.
- ❑ You cannot print via a router.
- ❑ It takes a longer time to start printing because more time is required to search for a network printer.

Setting an IP Address Using the arp/ping Command

If you are using UNIX or OS/2, you need to use the arp and ping command to set the IP address of the print server. You can also use these commands with Windows Me/98/95/XP/2000/NT, if you have correctly installed TCP/IP networking on these systems.

Note:

- Make sure that the Set using PING function is enabled on the TCP/IP menu in EpsonNet WinAssist or EpsonNet WebAssist. If this function is disabled, you cannot set the IP address using the arp/ping command.*
- Make sure the print server and the computer are in the same segment.*

Before you start, you need the following information:

- A valid IP address for the print server. Ask your system administrator for an IP address which does not cause conflicts with any other device on the network. If you are the system administrator, choose an address within your subnet which does not conflict with any other device.
- The MAC (Ethernet hardware) address of the print server. You can find out the MAC address on a status sheet.

Checking the LAN

First, you need to check that the computer can reach to other computer in the same segment, as follows:

1. Set the default gateway to the host on which you are setting up the print server.

If there is a server or a router which acts as a gateway, enter the address of the server or the router. If there is no gateway, enter the IP address of your computer as a gateway address.

2. Assume that the you want to reach to the computer having the IP address "192.168.100.101". Check that the computer is reachable by "pinging" it from the command line:
ping 192.168.100.101

3. If the computer is reachable, you can see the following result (the exact form of the message depends on your operating system, and the time may vary):
64 bytes from 192:168:100:101:icmp_seq=0. Time=34.ms

4. If the computer is unreachable, you may see something like this:
PING 192:168:100:101:56 data bytes

If you press Ctrl-C, you may see something like this:
192:168:100:101 PING Statistics
3 packets transmitted, 0 packets received,
100% packet loss

Again, the exact wording of the message you see may differ from this, depending on your operating system. If you cannot "ping" the computer, check the following:

- The address in the ping command is correct.
- The Ethernet connection to the computer has been made correctly, and all hubs, routers, etc. are switched on.

Setting and checking the new IP address

To set the new IP address of the print server which you have obtained from your system administrator, use the ping command and arp command with the -s flag (create an ARP entry).

Note:

In the following procedure, we assume that the MAC address of your print server is 00:00:48:93:00:00 (hexadecimal), and that the IP address which you will be assigning is 192.168.100.201 (decimal). Substitute your values for these addresses when you type in the commands.

1. From the command line, type:
Example: `arp -s 192.168.100.201 00-00-48-93-00-00`
2. Execute the ping command to set the IP address by pinging it:
Example: `ping 192.168.100.201`
3. The print server should now respond to the ping. If it does not, you may have incorrectly typed the MAC address or the IP address in the `arp -s` command. Double-check and try again. If none of these actions are effective, re-initialize the print server and try again.
4. Print a status sheet to check whether the new IP address has been assigned to the print server.

Note:

When the IP address is set by the ping command, the subnet mask is automatically changed by the class of the IP address. To change the subnet mask and the default gateway according to your network environment, use EpsonNet WinAssist on Windows operating systems or EpsonNet MacAssist in Macintosh.

Instructions on Using a Dial-Up Router

This section describes instructions on using a dial-up router.

If DHCP is used to assign an IP address of the printer and the Dynamic DNS function is not supported, you need to change the printer port setting every time you turn on the printer. Therefore, we recommend that you set a valid IP address for the print server by using the one of the following methods.

- ❑ Set the IP address for the print server manually. Use EpsonNet WinAssist or MacAssist. See “TCP/IP” on page 83 or “TCP/IP” on page 119.
- ❑ Specify the print server by using the bind of DHCP function.
- ❑ Set the exclusive address of the DHCP function.

Note:

- ❑ *Use NetBEUI printing if you do not want to go through these steps.*
- ❑ *See the manual of the Dial-Up router for more information on scorp range, bind, exclusive address of the DHCP function.*

Function of Universal Plug and Play

When you connect your printer to the network, the printer is automatically assigned with an IP address, and the printer's icon appears in the My Network Places folder. By double-clicking the printer's icon, you can access EpsonNet WebAssist for basic information about the printer, such as manufacturer, model name, location, and administrator's name.

Right-click the printer's icon in the My Network Places folder and select Properties. You can check the brief information of the print server.

To use this function, the Universal Plug and Play must be installed on Windows Me. For information on how to install Universal Plug and Play, see the Windows Me online help.

Note:

Before using the Universal Plug and Play function, you must set the Universal Plug and Play function to ON in EpsonNet WinAssist or WebAssist. See "TCP/IP" on page 83 or "Configuring the Print Server Using EpsonNet WebAssist" on page 229.

Uninstalling Software

Follow the steps below to uninstall the network software.

Windows Me/98/95/2000/NT 4.0

1. Click Start, point to Settings, and then select Control Panel.
2. Double-click the Add/Remove Programs icon.
3. Select the utility you want to uninstall, and then click the Add/Remove button (Windows Me/98/95/NT 4.0) or the Change/Remove button (Windows 2000).
4. Follow the on-screen instructions to complete uninstallation.

Windows XP

1. Click Start, click Control Panel, and then click Add or Remove Programs.
2. Click the Change or Remove Programs icon.
3. Select the utility you want to uninstall, and then click the Change/Remove button.
4. Follow the on-screen instructions to complete uninstallation.

Macintosh

Drag the EpsonNet MacAssist folder or icon to the Trash.

Specifications

Wireless Network Interfaces Specification

Standard:	IEEE 802.11b
Data Rate:	11 Mbps, 5.5 Mbps, 2 Mbps, 1 Mbps, Auto
Security:	64-bit or 128-bit WEP Data Encryption
Frequency Band:	2.4 GHz 2,400 - 2,4835 GHz (ARIB STD-T66)
Wireless Medium:	Direct Sequence Spread Spectrum (DS-SS)
Operation Channels:	US, Canada: 1 - 11 Europe: 1 - 13
Communication Mode:	Ad hoc mode Infrastructure mode
Roaming Function:	Supported
Antenna Type:	Built-in diversity antenna
Printer Interface:	USB 1.1 Downstream port/Type A
Host Interface:	USB 1.1 Upstream port/Type B

Operation Range

Indoor:	25 m (approx. 83 ft) at 11 Mbps 35 m (approx. 115 ft) at 5.5 Mbps 40 m (approx. 130 ft) at 2 Mbps 50 m (approx. 165 ft) at 1 Mbps
Outdoor:	50 m (approx. 165 ft) at 11 Mbps 70 m (approx. 230 ft) at 5.5 Mbps 90 m (approx. 295 ft) at 2 Mbps 115 m (approx. 377 ft) at 1 Mbps
Dimensions:	Width: 43 mm (approx. 1.7 in.) Depth: 151 mm (approx. 5.9 in.) Height: 160 mm (approx. 6.3 in.)
Weight:	Approx. 0.5 kg (approx. 1.1 lb)

Regulatory Approvals

Rated Voltage: DC 5 V \pm 5%
Rated Current: 1 A
Current Consumption: Less than 700 mA
Wireless Standard:

FCC part 15 subpart C
RSS210
EN 300 328

EMC:

FCC part 15 subpart B Class B
CSA C108.8 Class B
EN 55022 Class B
EN 55024
EN 50082-1
EN 61000-3-2
EN 61000-3-3
EN301 489-17

Reliability

MTBF: 10,000 hours (power on, 100% duty)

Environmental

Operating Temperature:	5 to 35° C (41 to 95° F)
Storage Temperature:	-20 to 70° C (- 4 to 158° F)
Operating Humidity:	15 to 85% RH
Storage Humidity:	5 to 95% RH
Operating Vibration:	0.15 G (5 to 55 Hz)
Storage Vibration:	0.5 G (5 to 55 Hz)
Shock:	1 G

Network Software

NetWare 3.x, 4.x, 5.x, or 6

EtherTalk (AppleTalk)

TCP/IP

NetBEUI

IPP

Regulatory Approvals for AC Adapter (A191H)

Input:	AC 100 - 240 V, 50 - 60 Hz
Output:	DC 5 V, 1.4 A
Power Consumption:	Max. 0.22 A, 11 W
Temperature:	5 to 35° C (41 to 95° F)
Dimensions:	43 × 104 × 32 mm
Weight:	Approx. 210 g (without AC plug)

Safety Standards:

UL 1310/1950 (60950)
CSA C22.2 No.223/No.950 (60950)
IEC60950 (EN60950)
GS

EMC:

FCC part 15 subpart B Class B
CSA C108.8 Class B
EN 55022 Class B
EN 55024
EN 61000-3-2
EN 61000-3-3

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