Multi-Protocol On-board Ethernet Multi-function Print Server and Wireless (IEEE 802.11b/g) Ethernet Multi-function Print Server

NETWORK USER'S GUIDE

MFC-7840W

Please read this manual thoroughly before using this machine on your network. You can view this manual in HTML format from the CD-ROM at any time, please keep the CD-ROM in a convenient place for quick and easy reference at all times. You can also download the manual in PDF format from the Brother Solutions Center (http://solutions.brother.com).

The Brother Solutions Center (http://solutions.brother.com) is your one stop resource for all your printing needs. Download the latest drivers and utilities for your machine, read FAQs and troubleshooting tips or learn about special printing solutions.

Version A
ENG

Definitions of notes

We use the following icon throughout this User's Guide:

Notes tell you how you should respond to a situation that may arise or give tips about how the operation works with other features.

Trademarks

Brother and the Brother logo are registered trademarks and BRAdmin Light and BRAdmin Professional are trademarks of Brother Industries, Ltd.

UNIX is a registered trademark of The Open Group.

Apple and Macintosh are registered trademarks and Safari is a trademark of Apple Inc.

HP, Hewlett-Packard, Jetdirect and PCL are registered trademarks of Hewlett-Packard Company.

PostScript is a registered trademark of Adobe Systems Incorporated.

Windows Vista is either a registered trademark or a trademark of Microsoft Corporation in the United States and other countries.

Microsoft, Windows and Windows Server are registered trademarks of Microsoft Corporation in the United States and/or other countries.

Java and all Java-based trademarks and logos are trademarks or registered trademarks of Sun Microsystems, Inc. in the United States and other countries.

Firefox is a registered trademark of the Mozilla Foundation.

BROADCOM, SecureEasySetup and the SecureEasySetup logo are trademarks or registered trademarks of Broadcom Corporation.

AOSS is a trademark of Buffalo Inc.

Wi-Fi, WPA and WPA2 are registered trademarks and Wi-Fi Protected Setup is a trademark of Wi-Fi Alliance.

Cisco is a registered trademark of Cisco Systems, Inc.

All other terms, brand and product names mentioned in this User's Guide are registered trademarks or trademarks of their respective companies.

Compilation and publication notice

Under the supervision of Brother Industries Ltd., this manual has been compiled and published, covering the latest product's descriptions and specifications.

The contents of this manual and the specifications of this product are subject to change without notice.

Brother reserves the right to make changes without notice in the specifications and materials contained herein and shall not be responsible for any damages (including consequential) caused by reliance on the materials presented, including but not limited to typographical and other errors relating to the publication.

©2008 Brother Industries Ltd.

IMPORTANT NOTE

- This product is approved for use in the country of purchase only. Do not use this product outside the country of purchase as it may violate the wireless telecommunication and power regulations of that country.
- Windows® XP in this document represents Windows® XP Professional, Windows® XP Professional x64 Edition and Windows® XP Home Edition.
- Windows® Server 2003 in this document represents Windows® Server 2003 and Windows® Server 2003 x64 Edition.
- Windows Vista® in this document represents all editions of Windows Vista®.

Brother numbers

IMPORTANT

For technical and operational assistance, you must call the country where you purchased the machine. Calls must be made ***from within*** that country.

For Customer Service

In USA	1-877-BROTHER (1-877-276-8437)
In Canada	1-877-BROTHER
In Brazil	helpline@brother.com.br
In Europe	Visit http://www.brother.com for contact information on your local Brother office.

- Service center locator (USA)

  For the location of a Brother authorized service center, call 1-877-BROTHER (1-877-276-8437).

- Service center locations (Canada)

  For the location of a Brother authorized service center, call 1-877-BROTHER.

If you have any comments or suggestions, please write to us at:

In USA	Customer Support Brother International Corporation 100 Somerset Corporate Boulevard Bridgewater NJ 08807-0911
In Canada	Brother International Corporation (Canada), Ltd. - Marketing Dept. 1 Hôtel de Ville Dollard des Ormeaux, QC H9B 3H6 Canada
In Brazil	Brother International Corporation do Brasil Ltda. Av. Paulista, 854 - 15 and. - Ed. Top Center CEP: 01310-100 - São Paulo - SP - Brasil
In Europe	European Product & Service Support 1 Tame Street Audenshaw Manchester, M34 5JE, UK

Internet address

Brother Global Web Site: http://www.brother.com

For Frequently Asked Questions (FAQs), Product Support, Driver Updates and Utilities: http://solutions.brother.com

Ordering accessories and supplies

In USA: 1-877-552-MALL (1-877-552-6255)

1-800-947-1445 (fax)

http://www.brothermall.com

In Canada: 1-877-BROTHER

http://www.brother.ca

Table of Contents

1 Introduction 1

Overview 1
Network features 2
Network printing 2
Network scanning 2
Network PC Fax 2
Management utilities 2
Internet fax/scan to E-mail server (download only) 3
Types of network connections 4
Network connection example 4
Wireless network connection examples 6
Protocols 7
TCP/IP protocols and functionalities 7
Other protocol 9

2 Configuring your machine for a network 10

Overview 10
IP addresses, subnet masks and gateways 10
IP address 10
Subnet mask 11
Gateway (and router) 11
Step by step chart 12
Setting the IP address and subnet mask 13
Using the BRAdmin Light utility to configure your machine as a network printer 13
Using the control panel to configure your machine for a network 15
Using other methods to configure your machine for a network 15
Changing the print server settings 16
Using the BRAdmin Light utility to change the print server settings 16
Using the BRAdmin Professional utility to change print server settings (for Windows®) 17
Using the control panel to change the print server settings 17
Using Web Based Management (web browser) to change the print/scan server settings 18
Using Remote Setup to change the print server settings (not available for Windows Server® 2003) 18
Using other methods to change print server settings 18

3 Configuring your machine for a wireless network 19

Overview 19
Wireless network terms and concepts 20
SSID (Service Set Identifier) and channels 20
Authentication and encryption 20
Step by step chart for wireless network configuration 23
For Infrastructure mode 23
For Ad-hoc mode 24
Confirm your network environment 25
Connected to a computer with an access point in the network (Infrastructure mode) 25
Connected to a wireless capable computer without an access point in the network (Ad-hoc mode) 25

Confirm your wireless network setup method 26
Configuration using the machine's control panel Setup Wizard to configure your wireless network machine 26
Configuration using the SES/WPS/AOSS control panel menu (Automatic Wireless mode) (Infrastructure mode only) 26
Configuration using the PIN Method of Wi-Fi Protected Setup™ (Infrastructure mode only) 27
Configuration using the Brother installer application on the CD-ROM to configure your wireless network machine 28
Configuring your machine for a wireless network 29
Using the Setup Wizard from the control panel 29
Using the SES/WPS/AOSS control panel menu to configure your machine for a wireless network (Automatic Wireless mode) 32
Using the PIN Method of Wi-Fi Protected Setup™ 34
Using the Brother installer application on the CD-ROM to configure your machine for a wireless network 35

4 Wireless configuration for Windows® using the Brother installer application 36

Configuration in Infrastructure mode 36
Before configuring the wireless settings 36
Configure the wireless settings 36
Configuration using the SES/WPS/AOSS control panel menu (Automatic Wireless mode) 43
Configuration in Ad-hoc mode 47
Before configuring the wireless settings 47
Configure the wireless settings 47

5 Wireless configuration for Macintosh® using the Brother installer application 56

Configuration in Infrastructure mode 56
Before configuring the wireless settings 56
Configure the wireless settings 56
Configuration using the SES/WPS/AOSS control panel menu (Automatic Wireless mode) 63
Configuration in Ad-hoc mode 67
Before configuring the wireless settings 67
Configure the wireless settings 67

6 Control panel setup 74

LAN menu 74
TCP/IP 74
Ethernet (wired network only) 81
Setup Wizard (wireless network only) 82
SES/WPS/AOSS (wireless network only) 82
WPS w/PIN code (wireless network only) 82
WLAN Status (wireless network only) 82
Set to Default 84
Wired Enable (wired network only) 85
WLAN Enable (wireless network only) 85
Scan to FTP 86
Restoring the network settings to factory default 87
Printing the Network Configuration List 87

7 Driver Deployment Wizard (Windows® only) 88

Overview 88
Connection methods 88
Peer-to-peer 88
Network Shared 89
How to install the Driver Deployment Wizard software 90
Using the Driver Deployment Wizard software 91

8 Network printing from Windows®: basic TCP/IP Peer-to-Peer printing 94

Overview 94
Configuring the standard TCP/IP port 95
Printer driver not yet installed 95
Printer driver already installed 95
Other sources of information 96

9 Internet printing for Windows® 97

Overview 97
IPP printing for Windows® 2000/XP, Windows Vista® and Windows Server® 2003 98
For Windows Vista® 98
For Windows® 2000/XP and Windows Server® 2003 100
Specifying a different URL 102
Other sources of information 102

10 Network printing from Macintosh® 103

Overview 103
How to choose the BR-Script 3 printer driver (TCP/IP) 103
For Mac OS® X 10.5 103
For Mac OS® X 10.2.4 to 10.4.x 105
Other sources of information 107

11 Web Based Management 108

Overview 108
How to configure the print server settings using Web Based Management (web browser) 109
Password information 110
Changing the Scan to FTP configuration using a web browser 110

12 Security features 111

Overview 111
Security methods for E-mail notification 111
POP before SMTP (PbS) 111
SMTP-AUTH (SMTP Authentication) 111
APOP (Authenticated Post Office Protocol) 111
Using E-mail notification with user authentication 112
Managing your network printer securely using BRAdmin Professional (for Windows®) 114

13 Troubleshooting 115

Overview 115
General problems 115
Network print software installation problems 116
Printing problems 118
Scanning and PC Fax problems 120
Wireless network troubleshooting 122
Wireless setup problems 122
Wireless connection problem 123
Protocol-specific troubleshooting 124
Windows® 2000/XP, Windows Vista® and Windows Server® 2003 IPP troubleshooting 124
Web Based Management (web browser) troubleshooting (TCP/IP) 124

A Appendix A 125

Using services 125
Other ways to set the IP address (for advanced users and administrators) 125
Using DHCP to configure the IP address 125
Using BOOTP to configure the IP address 126
Using RARP to configure the IP address 127
Using APIPA to configure the IP address 127
Using ARP to configure the IP address 128
Using the TELNET console to configure the IP address 129
Using the Brother Web BRAdmin server software for IIS to configure the IP address 130
Installation when using web services (For Windows Vista® users) 131
Installation when using a Network Print Queue or Share (printer driver only) 132

B Appendix B 133

Print server specifications 133
Ethernet wired network 133
Ethernet wireless network 134
Function table and default factory settings 136
Entering Text 140

C Index 141

1 Introduction

Overview

The Brother machine can be shared on a 10/100 Mb wired or IEEE 802.11b/802.11g wireless Ethernet network using the internal network print server. The print server supports various functions and methods of connection depending on the operating system you are running on a network supporting TCP/IP. These functions include printing, scanning, PC Fax send, PC Fax receive, Remote Setup and Status Monitor. The following chart shows what network features and connections are supported by each operating system.

Operating Systems	Windows® 2000 Windows® XP Windows® XP Professional x64 Edition Windows Vista®	Windows Server® 2003 Windows Server® 2003 x64 Edition	Mac OS® X 10.2.4 or greater
10/100BASE-TX wired Ethernet (TCP/IP)	✔	✔	✔
IEEE 802.11b/g wireless Ethernet (TCP/IP)	✔	✔	✔
Printing	✔	✔	✔
BRAdmin Light	✔	✔	✔
BRAdmin Professional [1]	✔	✔	
Web BRAdmin [1]	✔	✔	
Web Based Management (web browser)	✔	✔	✔
Internet Printing (IPP)	✔	✔	
Scanning	✔		✔
PC Fax Send	✔		✔
PC Pax Receive	✔		
Remote Setup	✔		✔
Status Monitor	✔		✔
Driver Deployment Wizard	✔	✔	

[1] BRAdmin Professional and Web BRAdmin are available as a download from http://solutions.brother.com.

To use the Brother machine through a network, you need to configure the print server, and set up the computers you use.

Network features

Your Brother machine has the following basic network features.

Network printing

The print server provides printing services for Windows® 2000/XP, Windows Vista® and Windows Server® 2003 supporting the TCP/IP protocols and Macintosh® (Mac OS® X 10.2.4 or greater) supporting the TCP/IP protocols.

Network scanning

You can scan documents over the network to your computer (See *Network Scanning* in the Software User's Guide).

Network PC Fax

You can directly send a PC file as a PC Fax over your network (See *Brother PC-FAX Software for Windows® and Sending a Fax for Macintosh®* in the Software User's Guide for a complete description). Windows® users can also PC Fax receive (See *PC-FAX receiving* in the Software User's Guide).

Management utilities

BRAdmin Light

BRAdmin Light is a utility for initial setup of Brother network connected devices. This utility can search for Brother products on your network, view the status and configure basic network settings, such as IP address. The BRAdmin Light utility is available for Windows® 2000/XP, Windows Vista® and Windows Server® 2003 and Mac OS® X 10.2.4 or greater computers. For installing BRAdmin Light on Windows®, please see the Quick Setup Guide provided with the machine. For Macintosh® users, BRAdmin Light will be installed automatically when you install the printer driver. If you have already installed the printer driver, you don't have to install it again.

For more information on BRAdmin Light, visit us at http://solutions.brother.com

BRAdmin Professional (for Windows®)

BRAdmin Professional is a utility for more advanced management of network connected Brother devices. This utility can search for Brother products on your network, view the status and configure the network settings from a computer running Windows®. BRAdmin Professional has additional features from BRAdmin Light.

For more information and to download the software, visit us at http://solutions.brother.com

Web BRAdmin (for Windows®)

Web BRAdmin is a utility for managing network connected Brother devices. This utility can search for Brother products on your network, view the status and configure the network settings. Unlike BRAdmin Professional, which is designed for Windows® only, Web BRAdmin is a server based utility that can be accessed from any client PC with a web browser that supports JRE (Java Runtime Environment). By installing the Web BRAdmin server utility on a computer running IIS [1], administrators can connect to the Web BRAdmin server using a web browser, which then communicates with the device itself.

For more information and to download the software, visit us at http://solutions.brother.com

[1] Internet Information Server 4.0 or Internet Information Service 5.0/5.1/6.0/7.0

Remote Setup

The Remote Setup software allows you to configure network settings from a Windows® or Macintosh® (Mac OS® X 10.2.4 or greater) computer. (See *Remote Setup* in the Software User's Guide).

Web Based Management (web browser)

The Web Based Management allows you to monitor Brother printer's status or change some of its configuration settings using a web browser.

Note

We recommend Microsoft Internet Explorer 6.0® (or greater) or Firefox® 1.0 (or greater) for Windows® and Safari™ 1.0 (or greater) for Macintosh®. Please also make sure that JavaScript and Cookies are always enabled in whichever browser you use. We recommend you upgrade to Safari™ 1.2 or greater to enable JavaScript. If a different web browser is used, make sure it is compatible with HTTP 1.0 and HTTP 1.1.

Internet fax/scan to E-mail server (download only)

The Brother machine can be assigned an E-mail address allowing you to send, receive or forward documents over a Local Area Network or the Internet to PC's or other Internet fax machines. In order to use this function, please download the necessary software from our web site The Brother Solutions Center (http://solutions.brother.com). Before using this function, you have to configure the necessary machine settings by using the machine's control panel. For details, please refer to the user's guide for Internet fax on the web site listed above.

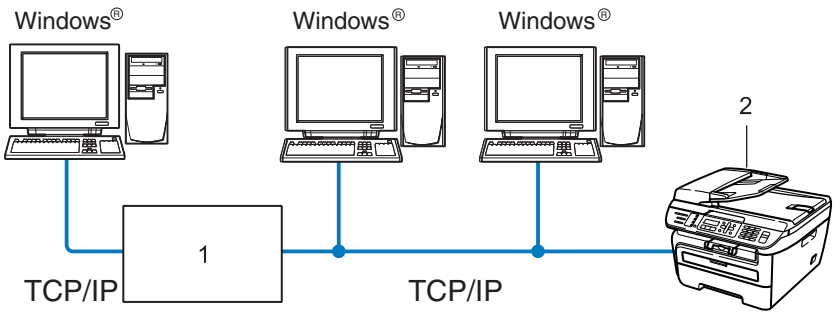
Types of network connections

Network connection example

Generally there are two types of network connections: Peer-to-Peer and Network Shared environment.

Peer-to-Peer printing using TCP/IP

In a Peer-to-Peer environment, each computer directly sends and receives data to each device. There is no central server controlling file access or printer sharing.



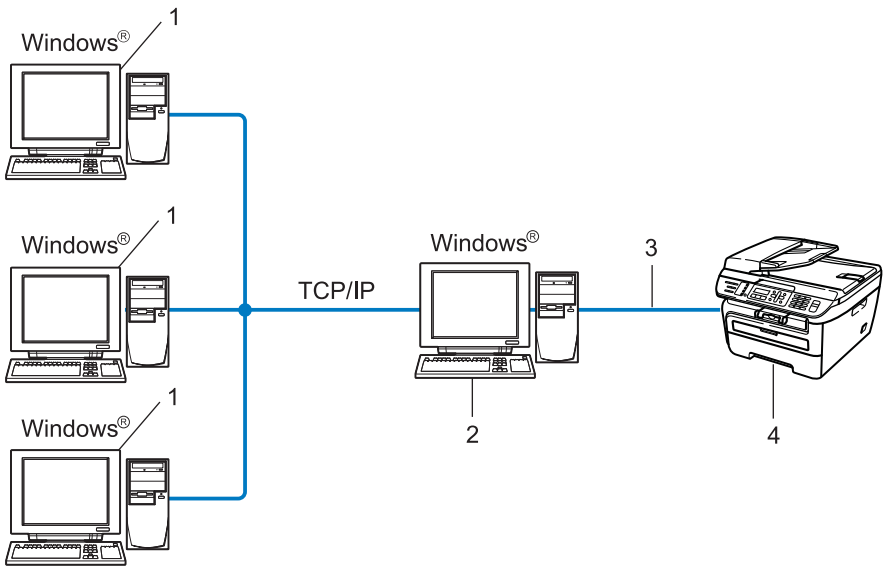
1 Router

2 Network printer (your machine)

- In a smaller network of 2 or 3 computers, we recommend the Peer-to-Peer printing method as it is easier to configure than the Network Shared printing method described on the following page. See *Network Shared printing* on page 5.
- Each computer must use the TCP/IP Protocol.
- The Brother machine needs to have an appropriate IP address configuration.
- If you are using routers, the Gateway address must be configured on the computers and the Brother machine.
- The Brother machine can also communicate with Macintosh® (TCP/IP compatible operating systems).

Network Shared printing

In a Network Shared environment, each computer sends data via a centrally controlled computer. This type of computer is often called a “Server” or a “Print Server”. Its job is to control the printing of all print jobs.



1 Client computer

2 Also known as “Server” or “Print server”

3 TCP/IP or USB (where available)

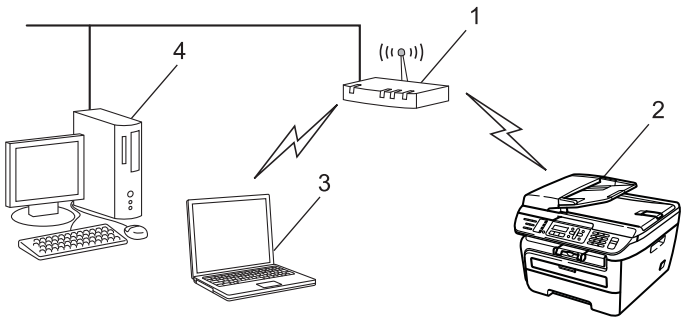
4 Printer (your machine)

- In a larger network, we recommend a Network Shared printing environment.
- The “server” or the “print server” must use the TCP/IP print protocol.
- The Brother machine needs to have an appropriate IP address configuration unless the machine is connected via the USB interface at the server.

Wireless network connection examples

Connected to a computer with an access point on the network (Infrastructure mode)

This type of network has a central access point at the heart of the network. The access point can also act as a bridge or a gateway to a wired network. When the Brother wireless machine (your machine) is part of this network, it receives all print jobs via an access point.



1 Access point

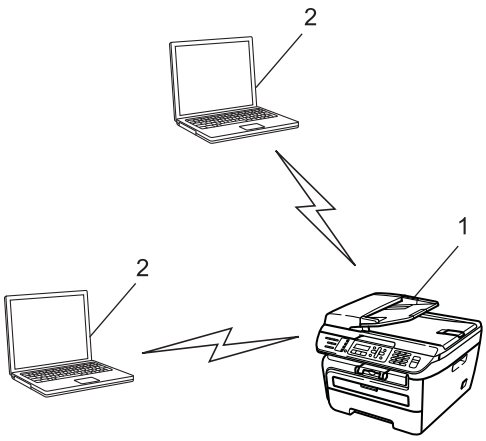
2 Wireless network printer (your machine)

3 Wireless capable computer communicating with the access point

4 Wired computer which is not wireless capable connected to the access point with the Ethernet cable

Connected to a wireless capable computer without an access point on the network (Ad-hoc mode)

This type of network does not have a central access point. Each wireless client communicates directly with each other. When the Brother wireless machine (your machine) is part of this network, it receives all print jobs directly from the computer sending the print data.



1 Wireless network printer (your machine)

2 Wireless capable computer

Protocols

TCP/IP protocols and functionalities

Protocols are the standardized sets of rules for transmitting data on a network. Protocols allow users to gain access to network connected resources.

The print server used on this Brother product supports the TCP/IP (Transmission Control Protocol/Internet Protocol) protocol.

TCP/IP is the most popular set of protocols used for communication such as Internet and E-mail. This protocol can be used in almost all operating systems such as Windows®, Macintosh® and Linux.

The following TCP/IP protocols are available on this Brother product.

Note

- You can configure the protocol settings by using the HTTP (web browser). See *How to configure the print server settings using Web Based Management (web browser)* on page 109.
- For security features, see *Security methods for E-mail notification* on page 111.

DHCP/BOOTP/RARP

By using the DHCP/BOOTP/RARP protocols, the IP address can be automatically configured.

Note

To use the DHCP/BOOTP/RARP protocols, please contact your network administrator.

APIPA

If you do not assign an IP address manually (using the control panel of the machine or the BRAdmin software) or automatically (using a DHCP/BOOTP/RARP server), the Automatic Private IP Addressing (APIPA) protocol will automatically assign an IP address from the range 169.254.1.0 to 169.254.254.255.

DNS client

The Brother print server supports the Domain Name System (DNS) client function. This function allows the print server to communicate with other devices by using its DNS name.

LPR/LPD

Commonly used printing protocols on a TCP/IP network.

SMTP client

Simple Mail Transfer Protocol (SMTP) client is used to send E-mails via Internet or Intranet.

Port9100

Another commonly used printing protocol on a TCP/IP network.

IPP

The Internet Printing Protocol (IPP Version 1.0) allows you to print documents directly to any accessible printer via the internet.

mDNS

mDNS allows the Brother print server to automatically configure itself to work in a Mac OS® X Simple Network Configured system. (Mac OS® X 10.2.4 or greater).

TELNET

The Brother print server supports TELNET server for command line configuration.

SNMP

The Simple Network Management Protocol (SNMP) is used to manage network devices including computers, routers and Brother network ready machines in a TCP/IP network.

LLMNR

The Link-Local Multicast Name Resolution protocol (LLMNR) resolves the names of neighboring computers, if the network does not have a Domain Name System (DNS) server. The LLMNR Responder function works in both the IPv4 or IPv6 environment when using a computer that has the LLMNR Sender function such as Windows Vista®.

Web services

The Web Services protocol enables Windows Vista® users to install the Brother printer driver by right clicking the machine icon from the **Start** / **Network** selection. (See *Installation when using web services (For Windows Vista® users)* on page 131). The Web Services also lets you check the current status of the machine from your computer.

Web server (HTTP)

The Brother print server is equipped with a built in web server that allows you to monitor its status or change some of its configuration settings using a web browser.

Note

We recommend Microsoft Internet Explorer 6.0® (or greater) or Firefox® 1.0 (or greater) for Windows® and Safari™ 1.0 (or greater) for Macintosh®. Please also make sure that JavaScript and Cookies are always enabled in whichever browser you use. We recommend you upgrade to Safari™ 1.2 or greater to enable JavaScript. If a different web browser is used, make sure it is compatible with HTTP 1.0 and HTTP 1.1.

FTP

The File Transfer Protocol (FTP) allows the Brother machine to scan black and white or color documents directly to an FTP server located locally on your network or on the internet.

IPv6

This machine is compatible with IPv6, the next generation internet protocol. For more information on the IPv6 protocol, visit http://solutions.brother.com.

Other protocol

LLTD

The Link Layer Topology Discovery protocol (LLTD) lets you locate the Brother machine easily on the Windows Vista® network map. Your Brother machine will be shown with a distinctive icon and the node name. The default setting for this protocol is Off.

2 Configuring your machine for a network

Overview

Before using your Brother machine in a network environment, you must install the Brother software and also configure the appropriate TCP/IP network settings on the machine itself. In this chapter, you will learn the basic steps required to print over the network using TCP/IP protocol.

We recommend that you use the Brother installer on the Brother CD-ROM to install the Brother software as this will guide you through the software and network installation. Please follow the instructions in the supplied Quick Setup Guide.

Note

If you do not wish to, or are unable to use the Brother installer or any of Brother's software tools, you can also use the machine's control panel to change network settings. For more information, see *Control panel setup* on page 74.

IP addresses, subnet masks and gateways

To use the machine in a networked TCP/IP environment, you need to configure the IP address and subnet mask. The IP address you assign to the print server must be on the same logical network as your host computers. If it is not, you must properly configure the subnet mask and the gateway address.

IP address

An IP address is a series of numbers that identifies each computer connected to a network. An IP address consists of four numbers separated by dots. Each number is between 0 and 255.

■ Example: In a small network, you would normally change the final number.

- 192.168.1.1
- 192.168.1.2
- 192.168.1.3

How the IP address is assigned to your print server:

If you have a DHCP/BOOTP/RARP server in your network (typically a UNIX®/Linux or Windows® 2000/XP, Windows Vista® or Windows Server® 2003 network) the print server will automatically obtain its IP address from the DHCP server and register its name with any RFC 1001 and 1002-compliant dynamic name services.

Note

On smaller networks, the DHCP server may be the router.

For more information on DHCP, BOOTP and RARP, see *Using DHCP to configure the IP address* on page 125, *Using BOOTP to configure the IP address* on page 126 and *Using RARP to configure the IP address* on page 127.

If you do not have a DHCP/BOOTP/RARP server, the Automatic Private IP Addressing (APIPA) protocol will automatically assign an IP address from the range 169.254.1.0 to 169.254.254.255. For more information on APIPA, see *Using APIPA to configure the IP address* on page 127.

If the APIPA protocol is disabled, the IP address of a Brother print server is 192.0.0.192. However, you can easily change this IP address number to match with the IP address details of your network. For information on how to change the IP address, see *Setting the IP address and subnet mask* on page 13.

Subnet mask

Subnet masks restrict network communication.

■ Example: Computer 1 can talk to Computer 2

- Computer 1

  IP Address: 192.168.1.2

  Subnet Mask: 255.255.255.0

- Computer 2

  IP Address: 192.168.1.3

  Subnet Mask: 255.255.255.0

Note

0 denotes that there is no limit to communication at this part of the address.

In the above example, we can communicate with anything that has an IP address that begins with 192.168.1.x.

Gateway (and router)

A gateway is a network point that acts as an entrance to another network and sends data transmitted via the network to an exact destination. The router knows where to direct data that arrives at the gateway. If a destination is located on an external network, the router transmits data to the external network. If your network communicates with other networks, you may need to configure the Gateway IP address. If you do not know the Gateway IP address then contact your Network Administrator.

Step by step chart

1 Configure the TCP/IP settings.

- Configure the IP address → See page 13
- Configure the subnet mask → See page 13
- Configure the gateway → See page 13

2 Change the print server settings.

- Using the BRAdmin Light utility → See page 16
- Using the BRAdmin Professional utility → See page 17
- Using the control panel → See page 17
- Using the Web Based Management (web browser) → See page 18
- Using the Remote Setup → See page 18
- Using other methods → See page 18

Setting the IP address and subnet mask

Using the BRAdmin Light utility to configure your machine as a network printer

BRAdmin Light

The BRAdmin Light utility is designed for initial setup of the Brother network connected devices. It also can search for Brother products in a TCP/IP environment, view the status and configure basic network settings, such as IP address. The BRAdmin Light utility is available for Windows® 2000/XP, Windows Vista®, Windows Server® 2003 and Mac OS® X 10.2.4 or greater.

How to configure your machine using the BRAdmin Light utility

Note

- Please use the BRAdmin Light utility version that was supplied on the CD-ROM with your Brother product. You can also download the latest Brother BRAdmin Light utility version from http://solutions.brother.com.
- If you require more advanced printer management, use the latest version of BRAdmin Professional utility that is available as a download from http://solutions.brother.com. This utility is only available for Windows® users.
- If you are using personal Firewall software, disable it. Once you are sure that you can print, re-start your personal Firewall software.
- Node name: The node name appears in current BRAdmin Light. The default node name of the network card in the printer is “BRNxxxxxxxxxxx” for a wired network or “BRWxxxxxxxxxxx” for a wireless network.
- The default password for Brother print servers is “**access**”.

1. Start the BRAdmin Light utility.

   - For Windows® 2000/XP, Windows Vista® and Windows Server® 2003 users

     Click **Start** / **All Programs** [1] / **Brother** / **BRAdmin Light** / **BRAdmin Light**.

     [1] **Programs** for Windows® 2000 users

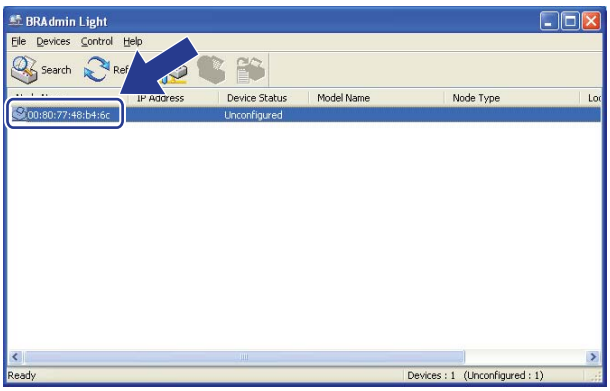
   - For Mac OS® X 10.2.4 or greater users

     Double-click **Mac OS X** or **Macintosh HD** (Startup Disk) / **Library** / **Printers** / **Brother** / **Utilities** / **BRAdmin Light.jar** file.

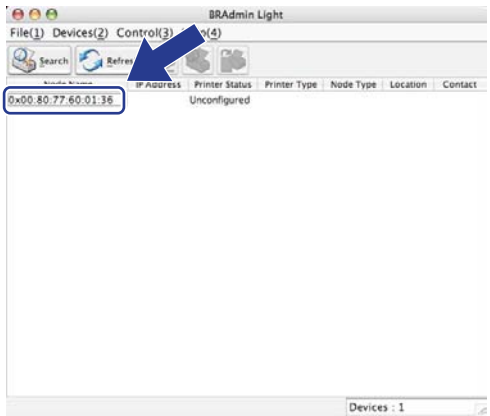
2. BRAdmin Light will search for new devices automatically.

3 Double-click the unconfigured device.

Windows®



Macintosh®

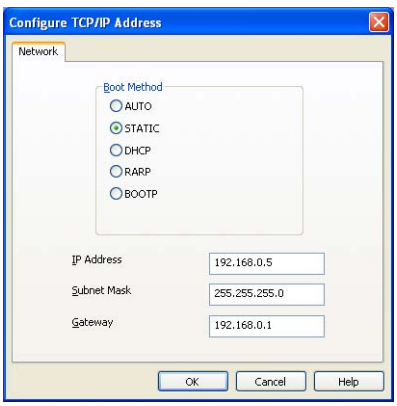


Note

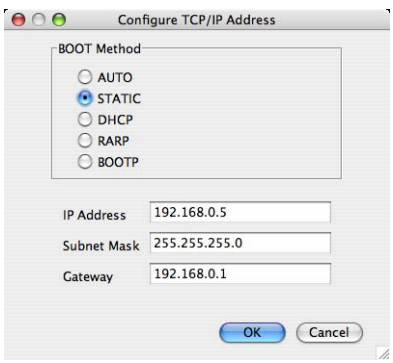
- If the print server is set to its factory default settings without using a DHCP/BOOTP/RARP server, the device will appear as **Unconfigured** in the BRAdmin Light utility screen.
- You can find the node name and Ethernet address (MAC address) by printing the Network Configuration List. See *Printing the Network Configuration List* on page 87.

4 Choose **STATIC** from **Boot Method**. Enter the **IP Address**, **Subnet Mask** and **Gateway** (if needed) of your print server.

Windows®



Macintosh®



5 Click **OK**.

6 With the correctly programmed IP address, you will see the Brother print server in the device list.

Using the control panel to configure your machine for a network

You can configure your machine for a network using the control panel LAN menu. See *Control panel setup* on page 74.

Using other methods to configure your machine for a network

You can configure your machine for a network using other methods. See *Other ways to set the IP address (for advanced users and administrators)* on page 125.

Changing the print server settings

Note

For wireless network users, you need to configure the wireless settings to change the print server settings. See *Configuring your machine for a wireless network* on page 29.

Using the BRAdmin Light utility to change the print server settings

1. Start the BRAdmin Light utility.

   - For Windows® 2000/XP, Windows Vista® and Windows Server® 2003 users

     Click **Start** / **All Programs** [1] / **Brother** / **BRAdmin Light** / **BRAdmin Light**.

     [1] **Programs** for Windows® 2000 users

   - For Mac OS® X 10.2.4 or greater users

     Double-click **Mac OS X** or **Macintosh HD** (Startup Disk) / **Library** / **Printers** / **Brother** / **Utilities** / **BRAdmin Light.jar** file.

2. Choose the print server which you want to change the settings.
3. Choose **Network Configuration** from the **Control** menu.
4. Enter a password. The default password is “**access**”.
5. You can now change the print server settings.

Note

If you want to change more advanced settings, use the BRAdmin Professional utility that is available as a download from http://solutions.brother.com.

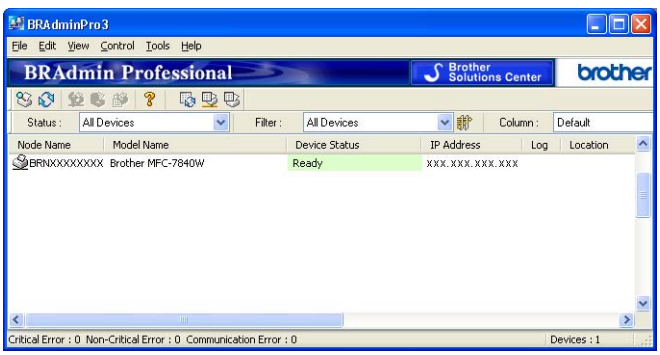
Using the BRAdmin Professional utility to change print server settings (for Windows®)

Note

- Please use the latest version of the BRAdmin Professional utility that is available as a download from http://solutions.brother.com This utility is only available for Windows® users.
- Node name: The Node name for each Brother device on the network appears in BRAdmin Professional. The default Node name is “BRNxxxxxxxxxxxx” for a wired network or “BRWxxxxxxxxxxxx” for a wireless network.

1. Start the BRAdmin Professional utility (from Windows® 2000/XP, Windows Vista® and Windows Server® 2003), by clicking **Start** / **All Programs** [1] / **Brother Administrator Utilities** / **Brother BRAdmin Professional 3** / **BRAdmin Professional 3**.

   [1] **Programs** for Windows® 2000 users



2. Choose the print server which you want to configure.
3. Choose **Configure Device** from the **Control** menu.
4. Enter a password. The default password is “**access**”.
5. You can now change the print server settings.

Note

- If the print server is set to its factory default settings without using a DHCP/BOOTP/RARP server, the device will appear as APIPA in the BRAdmin Professional utility screen.
- You can find the node name and Ethernet address (MAC address) by printing out the Network Configuration List. See *Printing the Network Configuration List* on page 87 for information on how to print the Network Configuration List on your print server.

Using the control panel to change the print server settings

You can configure and change the print server settings using the control panel `LAN` menu. See *Control panel setup* on page 74.

Using Web Based Management (web browser) to change the print/scan server settings

A standard web browser can be used to change your print server settings using the HTTP (Hyper Text Transfer Protocol). See *How to configure the print server settings using Web Based Management (web browser)* on page 109.

Using Remote Setup to change the print server settings (not available for Windows Server® 2003)

Remote Setup for Windows®

The Remote Setup application allows you to configure network settings from a Windows® application. When you access this application, the settings on your machine will be downloaded automatically to your PC and displayed on your PC screen. If you change the settings, you can upload them directly to the machine.

1. Click the **Start** button, **All Programs** [1], **Brother**, **MFC-7840W LAN**, then **Remote Setup**.

   [1] **Programs** for Windows® 2000 users

2. Enter a password. The default password is “**access**”.
3. Click **TCP/IP**.
4. You can now change the print server settings.

Remote Setup for Macintosh®

The Remote Setup application allows you to configure many MFC settings from a Macintosh® application. When you access this application, the settings on your machine will be downloaded automatically to your Macintosh® and displayed on your Macintosh® screen. If you change the settings, you can upload them directly to the machine.

1. Double click the **Mac OS X** or **Macintosh HD** (Startup Disk) icon on your desktop, **Library**, **Printers**, **Brother**, then **Utilities**.
2. Double click the **Remote Setup** icon.
3. Enter a password. The default password is “**access**”.
4. Click **TCP/IP**.
5. You can now change the print server settings.

Using other methods to change print server settings

You can configure your network printer using other methods. See *Other ways to set the IP address (for advanced users and administrators)* on page 125.

3 Configuring your machine for a wireless network

Overview

To connect your machine to your wireless network, we recommend you to follow the steps in the Quick Setup Guide using the Setup Wizard from the machine's control panel LAN menu. By using this method, you can easily connect your machine to your wireless network.

Please read this chapter for additional methods on how to configure the wireless network settings. For information on TCP/IP settings, see *Setting the IP address and subnet mask* on page 13 and *Using the BRAdmin Light utility to configure your machine as a network printer* on page 13. Then, in *Network printing from Windows®: basic TCP/IP Peer-to-Peer printing* on page 94 or *Network printing from Macintosh®* on page 103, you will learn how to install the network software and drivers into the operating system running on your computer.

Note

- To achieve optimum results with normal every day document printing, place the Brother machine as close to the network access point (or router) as possible with minimal obstructions. Large objects and walls between the two devices as well as interference from other electronic devices can affect the data transfer speed of your documents.

  Due to these factors, wireless may not be the best method of connection for all types of documents and applications. If you are printing large files, such as multi-page documents with mixed text and large graphics, you may want to consider choosing wired Ethernet for a faster data transfer, or USB for the fastest throughput speed.

- Although the Brother MFC-7840W can be used in a both wired and wireless network, only one connection method can be used at a time.

Wireless network terms and concepts

When you configure your machine for a wireless network, you must ensure that your wireless network machine is configured to match the settings of the existing wireless network. This section provides some of the main terms and concepts of these settings, which may be helpful when you configure your machine for a wireless network.

SSID (Service Set Identifier) and channels

You need to configure the SSID and a channel to specify the wireless network you want to connect to.

- SSID

  Each wireless network has its own unique network name and it is technically referred to as SSID or ESSID (Extended Service Set Identifier). The SSID is a 32-byte or less value and is assigned to the access point. The wireless network devices you want to associate to the wireless network should match the access point. The access point and wireless network devices regularly send wireless packets (referred to as a beacon) which has the SSID information. When your wireless network device receives a beacon, you can identify the wireless network that is close enough for the radio waves to reach your device.

- Channels

  Wireless networks use channels. Each wireless channel is on a different frequency. There are up to 14 different channels that can be used when using a wireless network. However, in many countries the number of channels available are restricted. For further information, see *Ethernet wireless network* on page 134.

Authentication and encryption

Most wireless networks use some kind of security settings. These security settings define the authentication (how the device identifies itself to the network) and encryption (how the data is encrypted as it is sent on the network). If you do not correctly specify these options when you are configuring your Brother wireless device, it will not be able to connect to the wireless network. Therefore care must be taken when configuring these options. Please refer to the information below to see which authentication and encryption methods your Brother wireless device supports.

Authentication methods

The Brother printer supports the following methods:

- Open system

  Wireless devices are allowed access the network without any authentication.

- Shared key

  A secret pre-determined key is shared by all devices that will access the wireless network.
  The Brother wireless machine uses the WEP keys as the pre-determined key.

■ WPA-PSK/WPA2-PSK

Enables a Wi-Fi® Protected Access Pre-shared key (WPA-PSK/WPA2-PSK), which enables the Brother wireless machine to associate with access points using TKIP for WPA-PSK or AES for WPA-PSK and WPA2-PSK (WPA-Personal).

■ LEAP

Cisco®LEAP (Light Extensible Authentication Protocol) has been developed by Cisco Systems, Inc. which uses user ID and password for authentication.

Encryption methods

Encryption is used to secure the data that is sent over the wireless network. The Brother wireless machine supports the following encryption methods:

■ None

No encryption method is used.

■ WEP

By using WEP (Wired Equivalent Privacy), the data is transmitted and received with a secure key.

■ TKIP

TKIP (Temporal Key Integrity Protocol) provides per-packet key mixing a message integrity check and rekeying mechanism.

■ AES

AES (Advanced Encryption Standard) is the Wi-Fi® authorized strong encryption standard.

■ CKIP

The original Key Integrity Protocol for LEAP by Cisco Systems, Inc.

Network key

There are some rules for each security method:

■ Open system/Shared key with WEP

This key is a 64-bit or 128-bit value that must be entered in an ASCII or hexadecimal format.

- 64 (40) bit ASCII:

  Uses 5 text characters. e.g. “WSLAN” (this is case sensitive).

- 64 (40) bit hexadecimal:

  Uses 10 digits of hexadecimal data. e.g. “71f2234aba”

- 128 (104) bit ASCII:

  Uses 13 text characters. e.g.“Wirelesscomms” (this is case sensitive)

- 128 (104) bit hexadecimal:

  Uses 26 digits of hexadecimal data. e.g. “71f2234ab56cd709e5412aa2ba”

■ WPA-PSK/WPA2-PSK and TKIP or AES

Uses a Pre-Shared Key (PSK) that is 8 or more characters in length, up to a maximum of 63 characters.

■ LEAP

Uses User ID and Password.

- User ID: Up to a maximum of 63 characters in length
- Password: Up to a maximum of 31 characters in length

Step by step chart for wireless network configuration

For Infrastructure mode

1 **Confirm your network environment.** See page 25

■ **Infrastructure mode**
Connected to a computer with an access point

or

■ **Ad-hoc mode** → See page 24
Connected to a wireless capable computer without an access point

2 **Confirm your wireless network setup method.** See page 26

- Using the **Setup Wizard** from the control panel **(Recommended)**
- Using the **SES/WPS/AOSS** control panel menu (Automatic Wireless mode)
- Using the **PIN Method** of Wi-Fi Protected Setup™
- Using the **Brother installer application**
  - Temporarily using a network cable
  - Using the **SES/WPS/AOSS** control panel menu (Automatic Wireless mode)

3 **Configure your machine for a wireless network.** See page 29

See page 29	See page 32	See page 34	For Windows® See page 36 For Macintosh® See page 56	For Windows® See page 43 For Macintosh® See page 63

Installing drivers and software (See the Quick Setup Guide)

OK! **Wireless configuration and installing drivers and software have been completed.**

For Ad-hoc mode

1 **Confirm your network environment.** See page 25.

■ **Ad-hoc mode**
Connected to a wireless capable computer without an access point

or

■ **Infrastructure mode** → See page 23
Connected to a computer with an access point

2 **Confirm your wireless network setup method.** See page 26.

Using the **Setup Wizard** from the control panel **(Recommended)**

Using the **Brother installer application**

3 **Configure your machine for a wireless network.** See page 29

See page 29

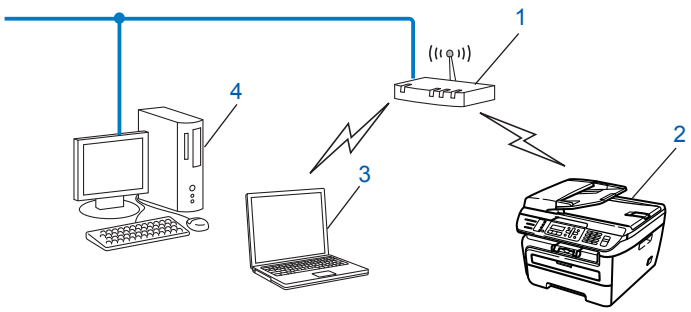
For Windows® See page 47
For Macintosh® See page 67

Installing drivers and software (See the Quick Setup Guide)

Wireless configuration and installing drivers and software have been completed.

Confirm your network environment

Connected to a computer with an access point in the network (Infrastructure mode)



1 Access point

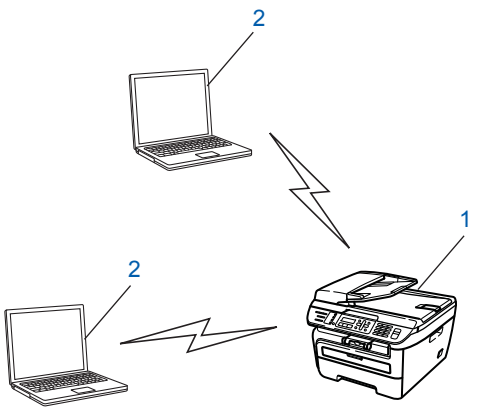
2 Wireless network printer (your machine)

3 Wireless capable computer connected to the the access point

4 Wired computer which is not wireless capable connected to the access point with an Ethernet cable

Connected to a wireless capable computer without an access point in the network (Ad-hoc mode)

This type of network does not have a central access point. Each wireless client communicates directly with each other. When the Brother wireless machine (your machine) is part of this network, it receives all print jobs directly from the computer sending the print data.



1 Wireless network printer (your machine)

2 Wireless capable computer

Confirm your wireless network setup method

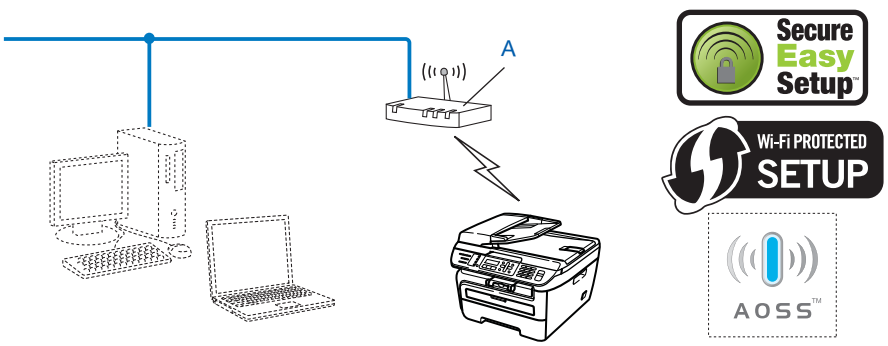
There are four methods to configure your machine for a wireless network; by using the machine's control panel (recommended), using SES, WPS or AOSS from the control panel menu (Automatic Wireless mode), using the PIN Method of Wi-Fi Protected Setup™ or using the Brother installer application. The setup process will be different depending on your network environment.

Configuration using the machine's control panel Setup Wizard to configure your wireless network machine

We recommend that you use the machine's control panel to configure your wireless network settings. By using the control panel `Setup Wizard` function, you can easily connect your Brother machine to your wireless network. You must know your wireless network settings before you proceed with this installation. See *Using the Setup Wizard from the control panel* on page 29.

Configuration using the SES/WPS/AOSS control panel menu (Automatic Wireless mode) (Infrastructure mode only)

If your wireless access point (A) supports either SecureEasySetup™, Wi-Fi Protected Setup™ (PBC [1]) or AOSS™, you can configure the machine without a computer. See *Using the SES/WPS/AOSS control panel menu to configure your machine for a wireless network (Automatic Wireless mode)* on page 32.

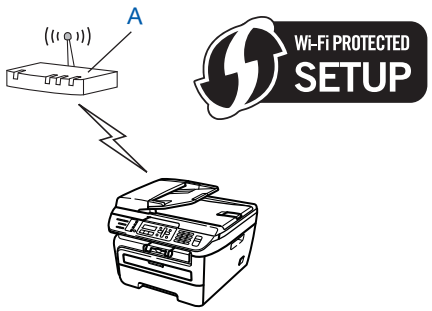


1 Push Button Configuration

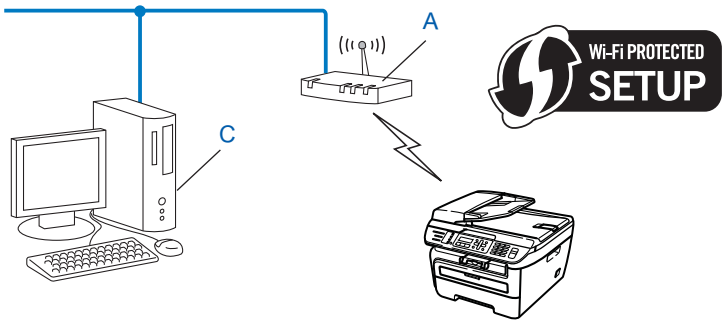
Configuration using the PIN Method of Wi-Fi Protected Setup™ (Infrastructure mode only)

If your wireless access point (A) supports Wi-Fi Protected Setup™, you can also configure using the PIN Method of Wi-Fi Protected Setup™. See *Using the PIN Method of Wi-Fi Protected Setup™* on page 34.

■ Connection when the wireless access point (router) (A) doubles as a Registrar [1]



■ Connection when another device (C), such as a computer is used as a Registrar [1].



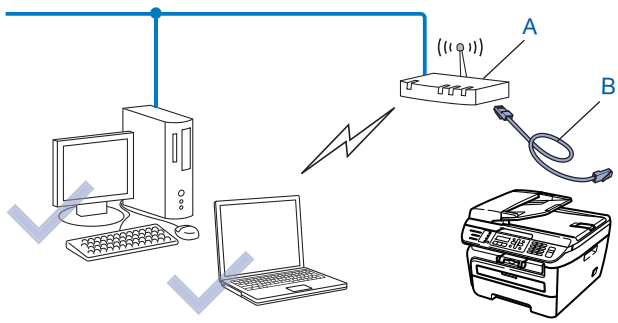
[1] The Registrar is a device that manages the wireless LAN.

Configuration using the Brother installer application on the CD-ROM to configure your wireless network machine

You can also use the Brother installer application on the CD-ROM we have provided with the printer. You will be guided by the on-screen instructions until you are able to use your Brother wireless network machine. You must know your wireless network settings before you proceed with this installation. See *Using the Brother installer application on the CD-ROM to configure your machine for a wireless network* on page 35.

Configuration temporarily using a network cable

If there is an Ethernet Hub or Router in the same network as the wireless access point (A) of your machine, you can temporarily connect the Hub or Router to the printer using an Ethernet cable (B), this is an easy way to configure your machine. You can then remotely configure the machine from a computer on the network.



Configuring your machine for a wireless network

IMPORTANT

- If you are going to connect your Brother machine to your network, we recommend that you contact your system administrator prior to installation. You must know your wireless network settings before you proceed with this installation.
- If you have previously configured the wireless settings of the machine, you must reset the network LAN settings before you can configure the wireless settings again. Press **Menu**, **5**, **0** for `Factory Reset`, `Reset` and choose `Yes` to accept the change. The machine will restart automatically.

Using the Setup Wizard from the control panel

You can configure your Brother machine by using the `Setup Wizard` function. This is located in the `LAN` menu on the machine's control panel. See to the steps below for further information.

1. Write down the wireless network settings of your access point or wireless router.
   - SSID (Service Set ID or Network name)
   - WEP key (if needed)
   - WPA-PSK password (if needed)
   - WPA-PSK encryption (TKIP or AES)
   - LEAP user name (if needed)
   - LEAP password
2. Plug the machine's power cord into the AC power outlet. Turn on the machine's power switch.
3. Press **Menu** on the control panel of the Brother machine.
4. Press ▲ or ▼ to choose `LAN`.
   Press **OK**.

   ```
   Select ▲▼ or OK
   5.LAN
   ```
5. Press ▲ or ▼ to choose `WLAN`.
   Press **OK**.

   ```
   LAN
   2.WLAN
   ```
6. Press ▲ or ▼ to choose `Setup Wizard`.
   Press **OK**.

   ```
   WLAN
   2.Setup Wizard
   ```

7 If the following message appears, press **1** to choose On. The wired network interface will become inactive with this setting.

```
WLAN Enable ?
1.On 2.Off
```

8 The machine will search for your network and display a list of available SSIDs. You should see the SSID you wrote down earlier. If the machine finds more than one network use ▲ or ▼ key to choose your network, then press **OK**. Go to ⓬.

If your access point is set to not broadcast the SSID, you will have to manually add the SSID name. Go to ⓽.

9 Choose <New SSID> using ▲ or ▼.
Press **OK**. Go to ⓾.

```
Select SSID&Set
<New SSID>
```

10 Enter a new SSID. (For information how to type text, see *Entering Text* on page 140.)
Press **OK**.

```
SSID:
```

11 Press ▲ or ▼ to choose Infrastructure.
Press **OK**. Go to ⓬
If you chose Ad-hoc, go to ⓭.

```
Mode Select
Infrastructure
```

12 Choose the Authentication method using ▲ or ▼, and press **OK**.

```
Auth. Select
Open System
```

If you chose Open System, go to ⓭.
If you chose Shared Key, go to ⓮.
If you chose WPA/WPA2-PSK, go to ⓱.
If you chose LEAP, go to ⓲.

13 Choose the Encryption type, None or WEP using ▲ or ▼, and press **OK**.

```
Encryption Type?
None
```

If you chose None, go to ⓴.
If you chose WEP, go to ⓮.

14 Choose the key option; KEY1, KEY2, KEY3, KEY4 using ▲ or ▼, and press **OK**.

```
Set WEP KEY
KEY1:
```

If you chose the key which shows **********, go to ⓯.
If you chose a blank key, go to ⓰.

15 If you want to change the key you chose in ⓮, press **1** to choose `Change`. Press **OK**. Go to ⓰.
If you want to keep the key you chose in ⓮, press **2** to choose `Keep`. Press **OK**. Go to ⓴.

```
KEY1:**********
1.Change 2.Keep
```

16 Enter a new WEP key. Press **OK**. Go to ⓴. (To manually enter the text, see *Entering Text* on page 140)

```
WEP:
```

17 Choose the Encryption type, `TKIP` or `AES` using ▲ or ▼. Press **OK**. Go to ⓳.

```
Encryption Type?
TKIP
```

18 Enter the user name and press **OK**. Go to ⓳. (To manually enter the text, see *Entering Text* on page 140)

```
USER:
```

19 Enter the password and press **OK**. Go to ⓴. (To manually enter the text, see *Entering Text* on page 140)

```
PASS:
```

20 To apply the settings, choose `Yes`. To cancel, choose `No`.

```
Apply Settings?
1.Yes 2.No
```

If you chose `Yes`, go to ㉑.
If you chose `No`, go back to ❽.

21 The machine starts to connect to the wireless device you have chosen.

22 If your wireless device is connected successfully, the display shows `Connected` for one minute and configuration is completed.

```
Connected
```

If the connection failed, the display shows `Connection NG` or `Connection error` for one minute. See *Wireless network troubleshooting* on page 122.

OK!

(For Windows®)

You have completed the wireless network setup. If you would like to continue installing drivers and software necessary for operating your device, please choose Install **MFL-Pro Suite** from CD-ROM menu.

(For Macintosh®)

You have completed the wireless network setup. If you would like to continue installing drivers and software necessary for operating your device, please choose **Start Here OSX** from CD-ROM menu.

Using the SES/WPS/AOSS control panel menu to configure your machine for a wireless network (Automatic Wireless mode)

If your wireless access point supports either SecureEasySetup™, Wi-Fi Protected Setup™ (PBC [1]) or AOSS™, you can configure the machine easily without a computer. Your Brother machine has the SES/WPS/AOSS menu on the control panel. This feature automatically detects which mode your access point uses, SecureEasySetup™, Wi-Fi Protected Setup™ or AOSS™. By pushing a button on the wireless LAN router / access point and the machine, you can setup the wireless network and security settings. See the user's guide for your wireless LAN router / access point for instructions on how to access one-push mode.

[1] Push Button Configuration

Note

Routers or access points that support SecureEasySetup™, Wi-Fi Protected Setup™ or AOSS™ have the symbols shown below.

1. Plug the machine's power cord into the AC power outlet. Turn on the machine's power switch.
2. Press **Menu**, **5**, **2**, **7**. Using ▲ or ▼, choose `On` and press **OK**.
   Press **Stop/Exit**.

   ```
   WLAN Enable
   On
   ```
3. Press **Menu**, **5**, **2**, **3** for `SES/WPS/AOSS`.

   ```
   WLAN
   3.SES/WPS/AOSS
   ```

   This feature will automatically detect which mode (SecureEasySetup™, Wi-Fi Protected Setup™ or AOSS™) your access point uses to configure your machine.

Note

If your wireless access point supports Wi-Fi Protected Setup™ (PIN Method) and you want to configure your machine using the PIN (Personal Identification Number) Method, see *Using the PIN Method of Wi-Fi Protected Setup™* on page 34.

4. The machine searches for an access point that supports SecureEasySetup™, Wi-Fi Protected Setup™ or AOSS™ for 2 minutes.

   ```
   Setting WLAN
   ```
5. Put your access point in the SecureEasySetup™ mode, Wi-Fi Protected Setup™ mode or AOSS™ mode, depending on what is supported by your access point. Please refer to the instruction manual that came with your access point.

6 If the LCD shows `Connected`, the machine has successfully connected to your router or access point. You can now use your machine in a wireless network.

If the LCD shows `Incorrect Mode`, session overlap is detected. The machine has detected more than one router or access point on your network with the Wi-Fi Protected Setup™ mode or AOSS™ mode enabled. Make sure that only one router or access point has the Wi-Fi Protected Setup™ mode or the AOSS™ mode enabled and try starting from ❸ again.

If the LCD shows `Connection NG` (or `Connection error`), the machine has not successfully connected to your router or access point. Try starting from ❸ again. If the same message is indicated again, reset the machine back to the default factory settings and try again. For resetting, see *Restoring the network settings to factory default* on page 87.

If `Connection NG` (or `Connection error`) is shown after `Setting WLAN`, this may be due to a session overlap detection error. The machine has detected more than one router or access point on your network with the SecureEasySetup™ mode, Wi-Fi Protected Setup™ mode or AOSS™ mode enabled. Make sure that only one router or access point has the SecureEasySetup™ mode, Wi-Fi Protected Setup™ mode or AOSS™ mode enabled and try starting from ❸ again.

LCD messages when using the SES/WPS/AOSS control panel menu

<table>
<tr><th>LCD shows</th><th colspan="2">Connection status</th><th>Action</th></tr>
<tr><td>Setting WLAN</td><td colspan="2">Searching or accessing the access point, and downloading settings from the access point</td><td>—</td></tr>
<tr><td>Connecting SES
Connecting WPS
Connecting AOSS</td><td colspan="2">Connecting the access point</td><td>—</td></tr>
<tr><td>Connected</td><td colspan="2">Connection succeeded.</td><td>—</td></tr>
<tr><td>Incorrect Mode</td><td colspan="2">Session overlap is detected.</td><td>Check that only one router or access point has the Wi-Fi Protected Setup™ mode or AOSS™ mode enabled and try starting from ❸ again.</td></tr>
<tr><td rowspan="3">Connection NG
Connection error</td><td colspan="2">Connection failed.</td><td rowspan="2">1 Try starting ❸ again.
2 If the same message continues, reset the machine back to the factory settings and try again.</td></tr>
<tr><td rowspan="2">(If it is shown after the LCD shows Setting WLAN.)</td><td>Connection failed.</td></tr>
<tr><td>Session overlap is detected.</td><td>Check that only one router or access point has the SecureEasySetup™ mode, Wi-Fi Protected Setup™ mode or AOSS™ mode enabled and try starting from ❸ again.</td></tr>
</table>

OK!

(For Windows®)

You have completed the wireless network setup. If you would like to continue installing drivers and software necessary for operating your device, please choose Install **MFL-Pro Suite** from CD-ROM menu.

(For Macintosh®)

You have completed the wireless network setup. If you would like to continue installing drivers and software necessary for operating your device, please choose **Start Here OSX** from CD-ROM menu.

Using the PIN Method of Wi-Fi Protected Setup™

If your wireless access point supports Wi-Fi Protected Setup™ (PIN Method), you can configure the machine easily without a computer. The PIN (Personal Identification Number) Method is one of the connection methods developed by the Wi-Fi Alliance. By inputting a PIN which is created by an Enrollee (your machine) to the Registrar (a device that manages the wireless LAN), you can setup the wireless network and security settings. See the user's guide for your wireless LAN router / access point for instructions on how to access the Wi-Fi Protected Setup™ mode.

Note

Routers or access points that support Wi-Fi Protected Setup™ have a symbol as shown below.

1. Plug the machine's power cord into the AC power outlet. Turn on the machine's power switch.
2. Press **Menu**, **5**, **2**, **7**. Using ▲ or ▼, choose `On` and press **OK**.
   Press **Stop/Exit**.

   ```
   WLAN Enable
   On
   ```
3. Press **Menu**, **5**, **2**, **4** for `WPS w/PIN code`.
4. The LCD will show an 8 digit PIN and the machine starts searching for an access point for 5 minutes.

   ```
   Connecting WPS
   PIN:XXXXXXXX
   ```
5. Using a computer that is on the network, type "http://access point's IP address/" into your browser. (Where "access point's IP address" is the IP address of the device that is used as the Registrar [1]) Go to the WPS (Wi-Fi Protected Setup) setting page and input the PIN which the LCD shows in ❹ to the Registrar and follow the on-screen instruction.

   [1] The Registrar is normally the access point / router.

Note

The setting page is different, depending on the brand of access point / router. See the instruction manual that came with your access point / router.

For Windows Vista®

If you are using your Windows Vista® computer as a Registrar, follow these steps:

Note

To use a Windows Vista® computer as a Registrar, you need to register it to your network in advance. See the instruction manual that came with your access point / router.

1. Click **Start** and then **Network**.
2. Click **Add a wireless device**.
3. Choose your printer and click **Next**.
4. Input the PIN which the LCD shows in ❹ on page 34 and then click **Next**.
5. Choose your network that you want to connect to, and then click **Next**.
6. Click **Close**.

6 If the LCD shows `Connected`, the machine has successfully connected to your router or access point. You can now use your machine in a wireless network.

If the LCD shows `Connection NG` or `Connection error`, the machine has not successfully connected to your router or access point. Try starting from ❸ again. If the same message is indicated again, reset the machine back to the default factory settings and try again. For resetting, see *Restoring the network settings to factory default* on page 87.

OK!

(For Windows®)

You have completed the wireless network setup. If you would like to continue installing drivers and software necessary for operating your device, please choose Install **MFL-Pro Suite** from the CD-ROM menu.

(For Macintosh®)

You have completed the wireless network setup. If you would like to continue installing drivers and software necessary for operating your device, please choose **Start Here OSX** from the CD-ROM menu.

Using the Brother installer application on the CD-ROM to configure your machine for a wireless network

For installation, see *Wireless configuration for Windows® using the Brother installer application* in Chapter 4 and *Wireless configuration for Macintosh® using the Brother installer application* in Chapter 5.

4 Wireless configuration for Windows® using the Brother installer application

IMPORTANT

- The following instructions will install your Brother machine in a network environment using the Brother installer application for Windows® found on the CD-ROM we have provided with the machine.
- You can also setup your Brother machine using the machine's control panel (recommended). You can find instructions in the supplied Quick Setup Guide or see *Configuring your machine for a wireless network* on page 19.
- If you are going to connect your Brother machine to your network, we recommend that you contact your system administrator prior to installation. You must know your wireless network settings before you proceed with this installation.

Configuration in Infrastructure mode

Before configuring the wireless settings

IMPORTANT

- If you have previously configured the wireless settings of the machine, you must reset the network LAN settings before you can configure the wireless settings again. Press **Menu**, **5**, **0** for `Factory Reset`, `Reset` and choose `Yes` to accept the change. The machine will restart automatically.
- If you are using personal Firewall software (e.g. Windows Firewall), disable it. Once you are sure that you can print, restart your personal Firewall software.
- You need to temporarily use an Ethernet cable during configuration.

Configure the wireless settings

1. Plug the machine's power cord into the AC power outlet. Turn on the machine's power switch.
2. Turn on your computer.
   Close any applications running before configuration.
3. Put the supplied CD-ROM into your CD-ROM drive. The opening screen will appear automatically.
   If the model name screen appears, choose your machine. If the language screen appears, choose your language.

4 The CD-ROM main menu will appear. Click **Install Other Drivers or Utilities**.

(For USA)

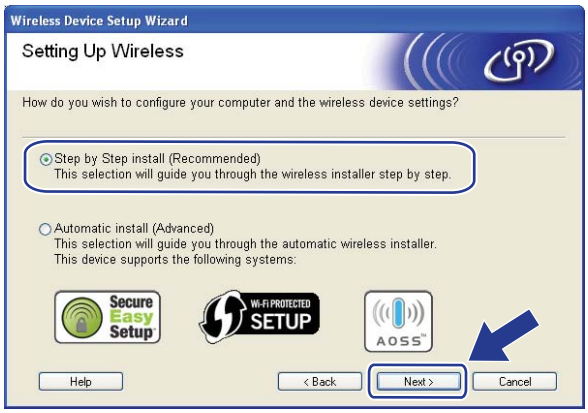
(For UK)

Note

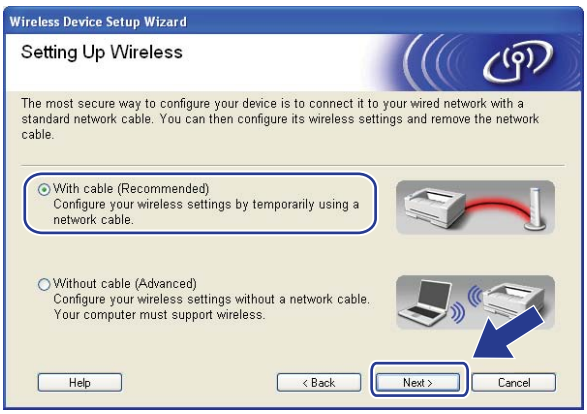
If this window does not appear, use Windows® Explorer to run the start.exe program from the root folder of the Brother CD-ROM.

5 Click **Wireless LAN Setup Wizard**.

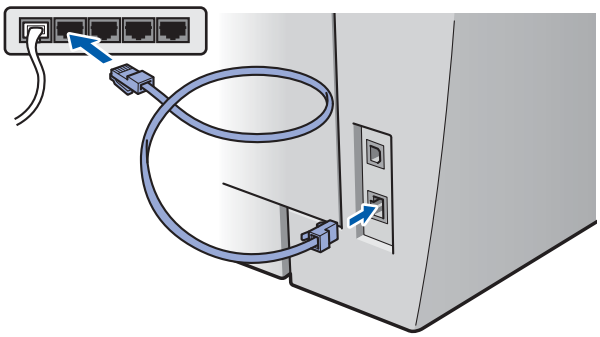
6 Choose **Step by Step install (Recommended)** and then click **Next**.



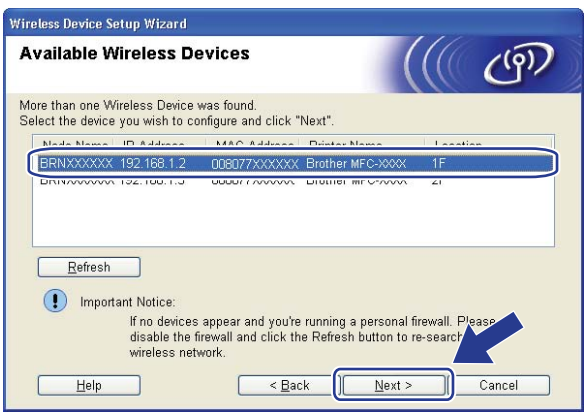
7 Choose **With cable (Recommended)** and then click **Next**.



8 Connect the Brother wireless device to your access point using a network cable and click **Next**.



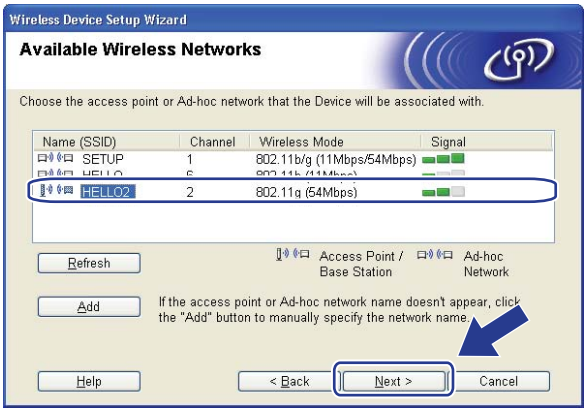
9 Choose the machine you wish to configure, and click **Next**. If the list is blank, check if the access point and the machine are powered on, and then click **Refresh**.



Note

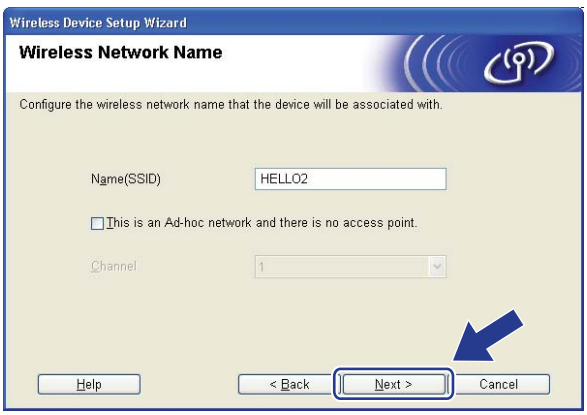
The default Node name is “BRNxxxxxxxxxxxx”.

⑩ The wizard will search for wireless networks available from your machine. Choose the access point you wish to associate the machine with, and then click **Next**.



Note

- "SETUP" is the default SSID of the machine. Do not choose this SSID.
- If the list is blank, check that the access point has power and is broadcasting the SSID, and then see if the machine and the access point are within range for wireless communication. Then, click **Refresh.**
- If your access point is set to not broadcast the SSID you can manually add it by clicking the **Add** button. Follow the on-screen instructions for entering the **Name (SSID)**, and then click **Next**.



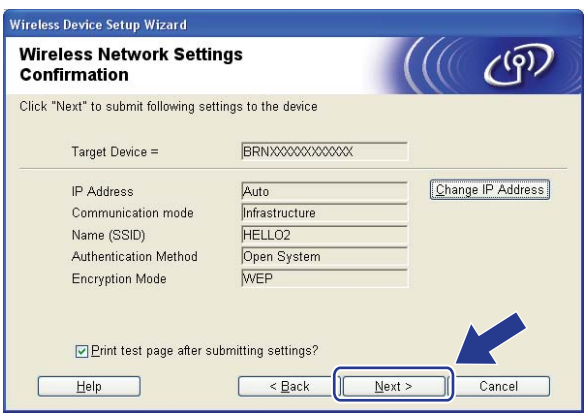
⑪ If your network is not configured for Authentication and Encryption, the following screen will appear. To continue configuration, click **OK** and go to ⑬.

12 If your network is configured for Authentication and Encryption, the following screen will appear. When configuring your Brother wireless machine, you must ensure that it is configured to match the Authentication and Encryption settings of your existing wireless network. Choose the **Authentication Method** and **Encryption Mode** from the pull-down list in each setting box. Then enter the **Network key** and **Confirm Network Key**, and then click **Next**.

Note

- If you want to setup or configure additional WEP key other than WEP key1, click **Advanced**.
- If you do not know the Authentication or Encryption settings for your network, contact your network administrator.
- If the **Authentication Method** is set to **Open System** and the **Encryption Mode** is set to **WEP**, an error indication will NOT appear if the **Network key** is incorrect.

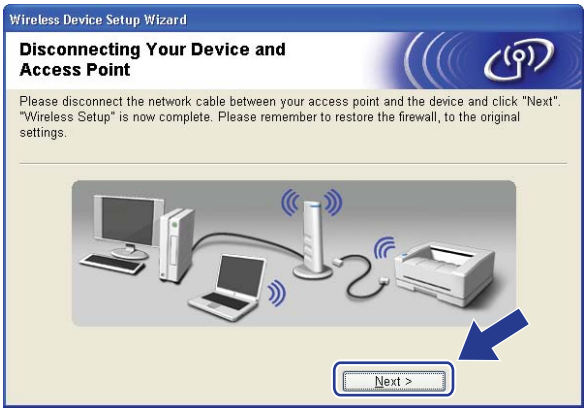
13 Click **Next**. The settings will be sent to your printer. The settings will remain unchanged if you click **Cancel**.



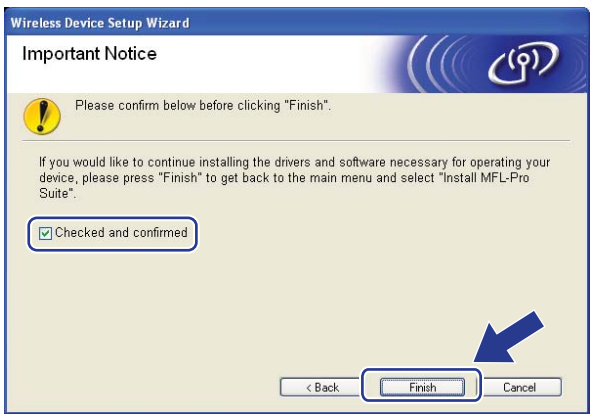
Note

If you want to manually enter the IP address settings of your machine, click **Change IP Address** and enter the necessary IP address settings for your network.

14 Disconnect the network cable between your access point (hub or router) and the machine, and click **Next**.



15 Check the box after you confirm that you have completed the wireless settings, and then click **Finish**.



OK! You have completed the wireless network setup. If you would like to continue installing drivers and software necessary for operating your device, please choose Install **MFL-Pro Suite** from the CD-ROM menu.

Configuration using the SES/WPS/AOSS control panel menu (Automatic Wireless mode)

IMPORTANT

- If you are going to connect your Brother machine to your network, we recommend that you contact your system administrator prior to installation. You must know your wireless network settings before you proceed with this installation.
- If you have previously configured the wireless settings of the machine, you must reset the network LAN settings before you can configure the wireless settings again. Press **Menu**, **5**, **0** for `Factory Reset`, `Reset` and choose `Yes` to accept the change. The machine will restart automatically.

1. Plug the machine's power cord into the AC power outlet. Turn on the machine's power switch..
2. Press **Menu**, **5**, **2**, **7**. Using ▲ or ▼, choose `On` and press **OK**.

   ```
   WLAN Enable
   On
   ```

3. Turn on your computer.
   Close any applications running before configuration.
4. Put the supplied CD-ROM into your CD-ROM drive. The opening screen will appear automatically.
   If the model name screen appears, choose your machine. If the language screen appears, choose your language.
5. The CD-ROM main menu will appear. Click **Install Other Drivers or Utilities**.

(For USA)

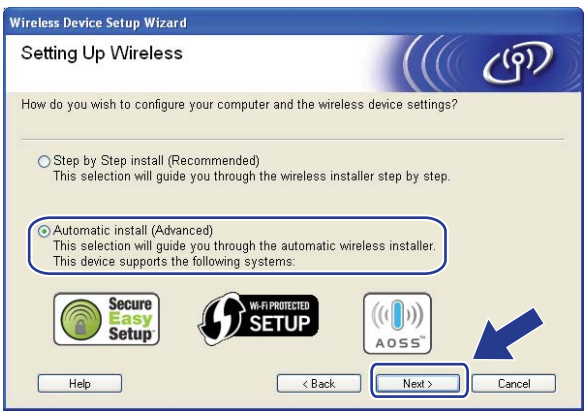
(For UK)

Note

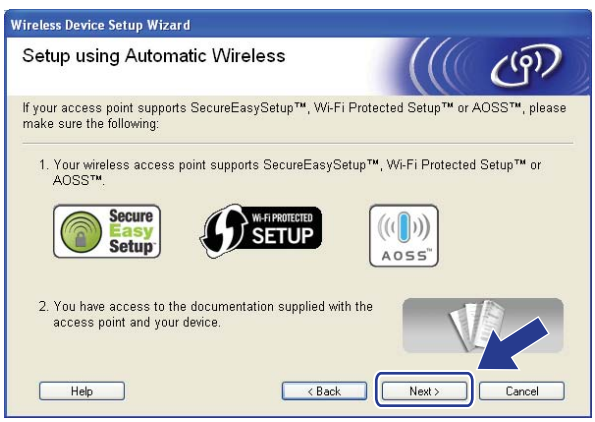
If this window does not appear, use Windows® Explorer to run the start.exe program from the root folder of the Brother CD-ROM.

6 Click **Wireless LAN Setup Wizard**.

7 Choose **Automatic install (Advanced)** and click **Next**.



8 Confirm the on-screen message and click **Next**.



9 Press **Menu**, **5**, **2**, **3** for `SES/WPS/AOSS`.
This feature will automatically detect which mode (SecureEasySetup™, Wi-Fi Protected Setup™ or AOSS™) your access point uses to configure your machine.

Note

If your wireless access point supports Wi-Fi Protected Setup™ (PIN Method) and you want to configure your machine using the PIN (Personal Identification Number) Method, see *Using the PIN Method of Wi-Fi Protected Setup™* on page 34.

10 The machine searches for an access point that supports SecureEasySetup™, Wi-Fi Protected Setup™ or AOSS™ for 2 minutes.

```
Setting WLAN
```

11 Put your access point in the SecureEasySetup™ mode, Wi-Fi Protected Setup™ mode or AOSS™ mode, depending on what is supported by your access point. Please refer to the instruction manual that came with your access point.

12 If the LCD shows `Connected`, the machine has successfully connected to your router or access point. You can now use your machine in a wireless network.

If the LCD shows `Incorrect Mode`, session overlap is detected. The machine has detected more than one router or access point on your network with the Wi-Fi Protected Setup™ mode or AOSS™ mode enabled. Make sure that only one router or access point has the Wi-Fi Protected Setup™ mode or the AOSS™ mode enabled and try starting from ❸ again.

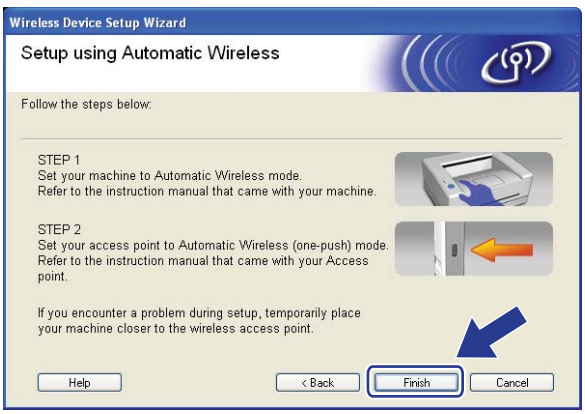
If the LCD shows `Connection NG` (or `Connection error`), the machine has not successfully connected to your router or access point. Try starting from ❸ again. If the same message is indicated again, reset the machine back to the default factory settings and try again. For resetting, see *Restoring the network settings to factory default* on page 87.

If `Connection NG` (or `Connection error`) is shown after `Setting WLAN`, this may be due to a session overlap detection error. The machine has detected more than one router or access point on your network with the SecureEasySetup™ mode, Wi-Fi Protected Setup™ mode or AOSS™ mode enabled. Make sure that only one router or access point has the SecureEasySetup™ mode, Wi-Fi Protected Setup™ mode or AOSS™ mode enabled and try starting from ❸ again.

LCD messages when using the SES/WPS/AOSS control panel menu

<table>
<tr><th>LCD shows</th><th colspan="2">Connection status</th><th>Action</th></tr>
<tr><td>Setting WLAN</td><td colspan="2">Searching or accessing the access point, and downloading settings from the access point</td><td>—</td></tr>
<tr><td>Connecting SES
Connecting WPS
Connecting AOSS</td><td colspan="2">Connecting the access point</td><td>—</td></tr>
<tr><td>Connected</td><td colspan="2">Connection succeeded.</td><td>—</td></tr>
<tr><td>Incorrect Mode</td><td colspan="2">Session overlap is detected.</td><td>Check that only one router or access point has the Wi-Fi Protected Setup™ mode or AOSS™ mode enabled and try starting from ❸ again.</td></tr>
<tr><td rowspan="3">Connection NG
Connection error</td><td colspan="2">Connection failed.</td><td rowspan="2">1 Try starting ❸ again.
2 If the same message continues, reset the machine back to the factory settings and try again.</td></tr>
<tr><td rowspan="2">(If it is shown after the LCD shows Setting WLAN.)</td><td>Connection failed.</td></tr>
<tr><td>Session overlap is detected.</td><td>Check that only one router or access point has the SecureEasySetup™ mode, Wi-Fi Protected Setup™ mode or AOSS™ mode enabled and try starting from ❸ again.</td></tr>
</table>

⓭ Click **Finish**.



OK! You have completed the wireless network setup. If you would like to continue installing drivers and software necessary for operating your device, please choose Install **MFL-Pro Suite** from the CD-ROM menu.

Configuration in Ad-hoc mode

Before configuring the wireless settings

IMPORTANT

- If you have previously configured the wireless settings of the machine, you must reset the network LAN settings before you can configure the wireless settings again. Press **Menu**, **5**, **0** for `Factory Reset`, `Reset` and choose `Yes` to accept the change. The machine will restart automatically.
- If you are using personal Firewall software (e.g. Windows Firewall), disable it. Once you are sure that you can print, restart your personal Firewall software.

Configure the wireless settings

1. Plug the machine's power cord into the AC power outlet. Turn on the machine's power switch.
2. Press **Menu**, **5**, **2**, **7**. Using ▲ or ▼, choose `On` and press **OK**.

```
WLAN Enable
On
```

3. Turn on your computer.
   Close any applications running before configuration.
4. Put the supplied CD-ROM into your CD-ROM drive. The opening screen will appear automatically.
   If the model name screen appears, choose your machine. If the language screen appears, choose your language.
5. The CD-ROM main menu will appear. Click **Install Other Drivers or Utilities**.

(For USA)

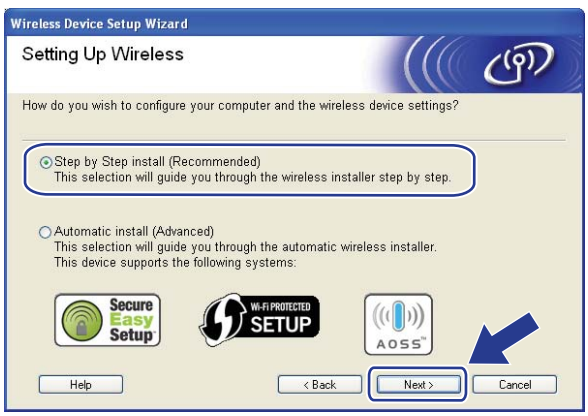
(For UK)

Note

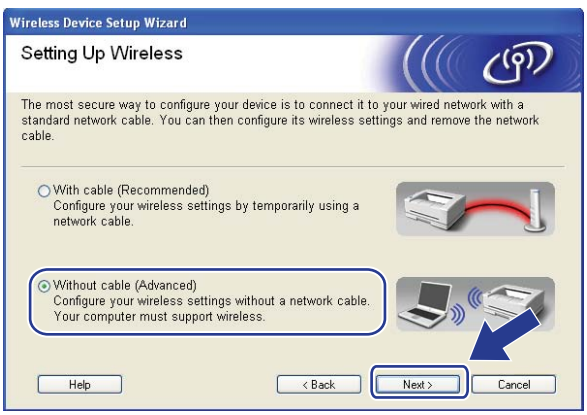
If this window does not appear, use Windows® Explorer to run the start.exe program from the root folder of the Brother CD-ROM.

6 Click **Wireless LAN Setup Wizard**.

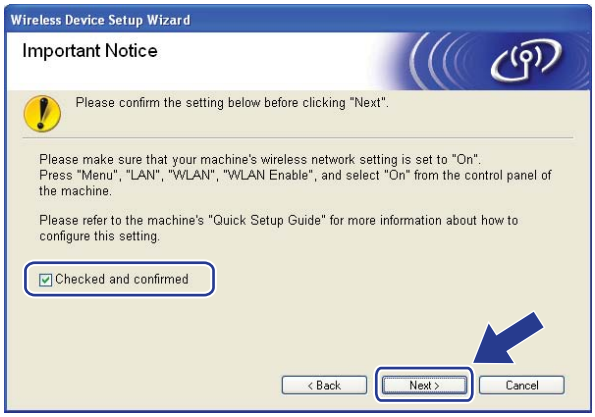
7 Choose **Step by Step install (Recommended)** and then click **Next**.



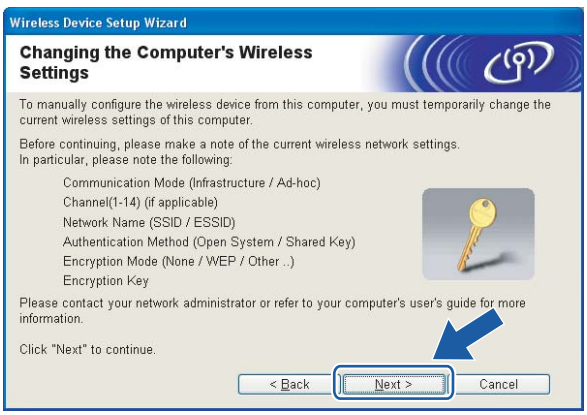
8 Choose **Without cable (Advanced)** and then click **Next**.



9 Read the **Important Notice**. Check the box after you confirm the wireless setting is enabled, and then click **Next**.

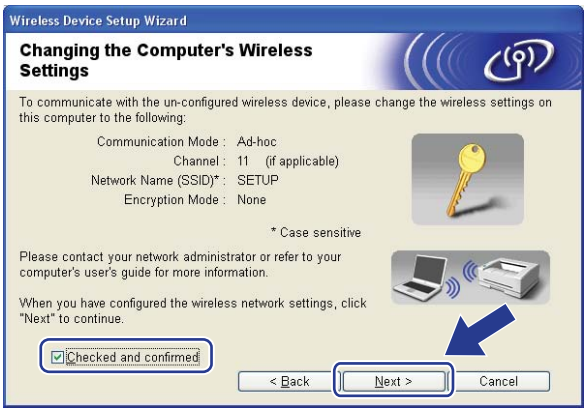


10 You need to temporarily change your computer's wireless settings. Follow the on-screen instructions. Make sure you take notes on all the settings such as SSID or channel of your computer. You will need them to return your computer back to its original wireless settings, and then click **Next**.



Item	Record the current wireless computer settings
Communication mode: (Infrastructure / Ad-hoc)	
Channel: (1-14)	
Network name: (SSID / ESSID)	
Authentication method: (Open system / Shared key / WPA/WPA2-PSK / LEAP)	
Encryption mode: (None / WEP / TKIP / AES / CKIP)	
Encryption key:	

⓫ To communicate with the un-configured wireless machine, temporarily change the wireless settings on your computer to match the machine's default settings shown on this screen. Check the box after you confirm these settings, and then click **Next**.



Note

- If a message to restart your computer appears after the wireless settings have been changed, restart your computer and then go back to step ❹ and continue with the install skipping steps ❿ and ⓫.
- For Windows Vista® users:

  You can temporarily change the wireless settings on your computer, following the steps below:

  1 Click **Start** and then **Control Panel**.

  2 Click **Network and Internet** and then the **Network and Sharing Center** icon.

  3 Click **Connect to a network**.

  4 You can see the SSID of the wireless printer in the list. Select **SETUP** and click **Connect**.

  5 Click **Connect Anyway** and then **Close**.

  6 Click **View status** of **Wireless Network Connection (SETUP)**.

  7 Click **Details...**. and check the **Network Connection Details**. It may take a few minutes to change from 0.0.0.0 to 169.254.x.x IP address to be shown on screen (where x.x. are numbers between 1 and 254).

- For Windows® XP SP2 users:

  You can temporarily change the wireless settings on your computer, following the steps below:

  1 Click **Start** and then **Control Panel**.

  2 Click the **Network and Internet Connections** icon.

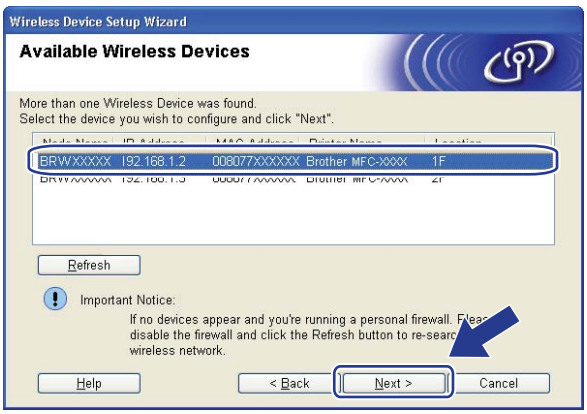
  3 Click the **Network Connections** icon.

  4 Select and right click **Wireless Network Connection**. Click **View Available Wireless Networks**.

  5 You can see the SSID of the wireless printer in the list. Select **SETUP** and click **Connect**.

  6 Check the **Wireless Network Connection** status. It may take a few minutes to change from 0.0.0.0 to 169.254.x.x IP address to be shown on screen (where x.x. are numbers between 1 and 254).

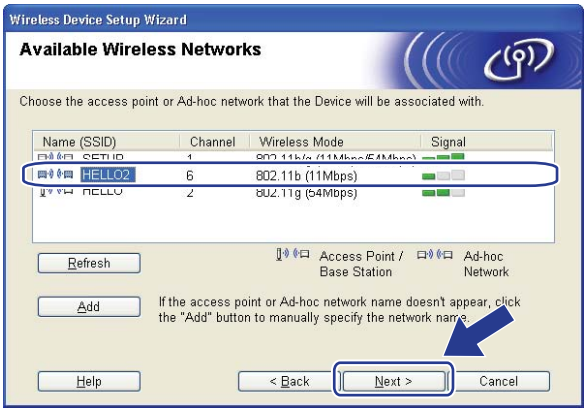
⑫ Choose the machine you wish to configure, and click **Next**. If the list is blank, check if the machine is powered on, and then click **Refresh**.



Note

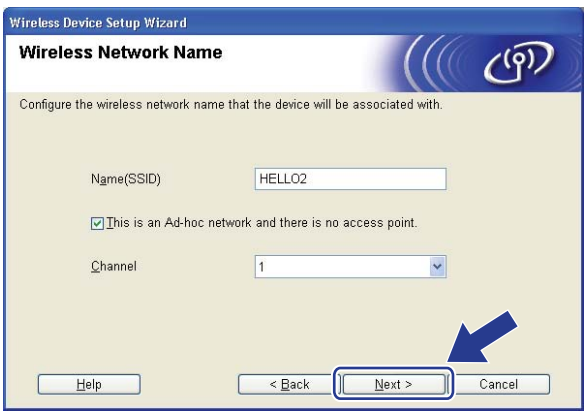
The default Node name is “BRWxxxxxxxxxxxx”.

13 The wizard will search for wireless networks available from your machine. Choose the Ad-hoc network you wish to associate the machine with, and then click **Next**.



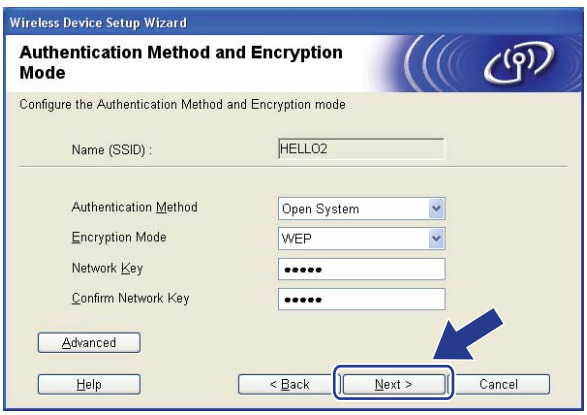
Note

- If the list is blank, check if the machine is within range for wireless communication. Then, click **Refresh**.
- If your target Ad-hoc network does not appear on the list, you can manually add it by clicking the **Add** button. Check **This is an Ad-hoc network and there is no access point.**, and then enter the **Name (SSID)** and the **Channel** number, and then click **Next**.



14 If your network is not configured for Authentication and Encryption, the following screen will appear. To continue configuration, click **OK** and go to ⓰.

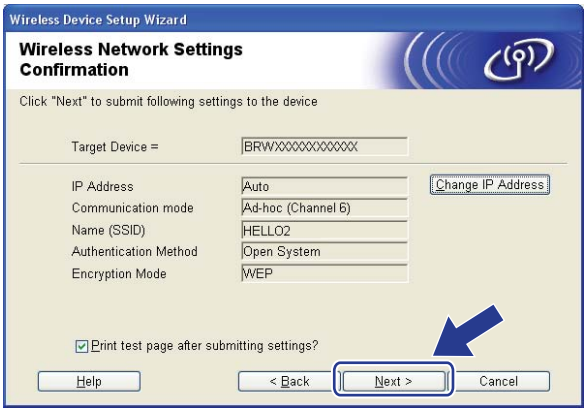
15 If your network is configured for Authentication and Encryption, the following screen will appear. When configuring your Brother wireless machine, you must ensure that it is configured to match the Authentication and Encryption settings of your existing wireless network. Choose the **Authentication Method** and **Encryption Mode** from the pull-down list in each setting box. Then enter the **Network key** and **Confirm Network Key**, and then click **Next**.



Note

- If you want to setup or configure additional WEP key indexes other than WEP key1, click **Advanced**.
- If you do not know the Authentication or Encryption settings for your network, contact your network administrator.
- If the **Authentication Method** is set to **Open System** and the **Encryption Mode** is set to **WEP**, an error indication will NOT appear if the **Network key** is incorrect.

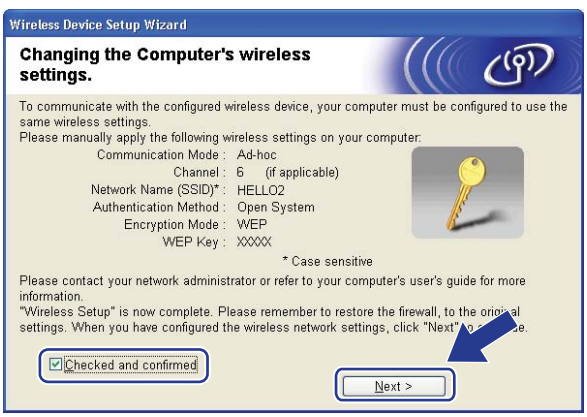
16 Click **Next**. The settings will be sent to your machine. The settings will remain unchanged if you click **Cancel**.



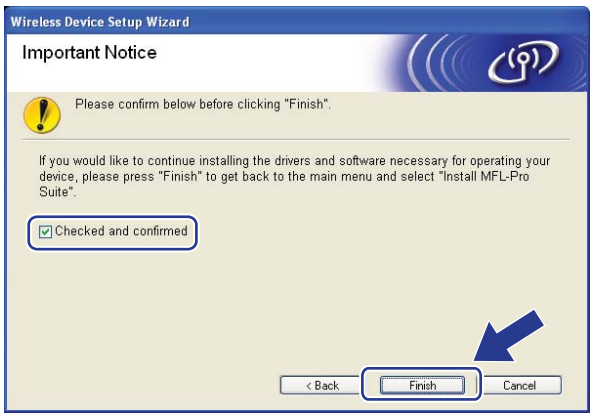
Note

If you want to manually enter the IP address settings of your machine, click **Change IP Address** and enter the necessary IP address settings for your network.

17 To communicate with the configured wireless device, you must configure your computer to use the same wireless settings. Manually change the wireless settings on your computer to match the machine's wireless settings shown on this screen. Check the box after you confirm these settings, and then click **Next**.
(The settings shown on this screen are for example only. Your settings will not be the same.)



18 Check the box after you confirm that you have completed the wireless settings, and then click **Finish**.



OK! You have completed the wireless network setup. If you would like to continue installing drivers and software necessary for operating your device, please choose Install **MFL-Pro Suite** from the CD-ROM menu.

5 Wireless configuration for Macintosh® using the Brother installer application

IMPORTANT

- The following instructions will install your Brother machine in a network environment using the Brother installer application for Macintosh® on the CD-ROM we have provided with the machine.
- You can also setup your Brother machine using the machine's control panel (recommended). You can find instructions in the supplied Quick Setup Guide or see *Configuring your machine for a wireless network* on page 19.
- If you are going to connect your Brother machine to your network, we recommend that you contact your system administrator prior to installation. You must know your wireless network settings before you proceed with this installation.

Configuration in Infrastructure mode

Before configuring the wireless settings

IMPORTANT

- If you have previously configured the wireless settings of the machine, you must reset the network LAN settings before you can configure the wireless settings again. Press **Menu**, **5**, **0** for `Factory Reset`, `Reset` and choose `Yes` to accept the change. The machine will restart automatically.
- If you are using personal Firewall software, disable it. Once you are sure that you can print, restart your personal Firewall software.
- You need to temporarily use an Ethernet cable during configuration.

Configure the wireless settings

1. Plug the machine's power cord into the AC power outlet. Turn on the machine's power switch.
2. Turn on your Macintosh®.
3. Put the supplied CD-ROM into your CD-ROM drive. Double-click the **MFL-Pro Suite** icon on your desktop.

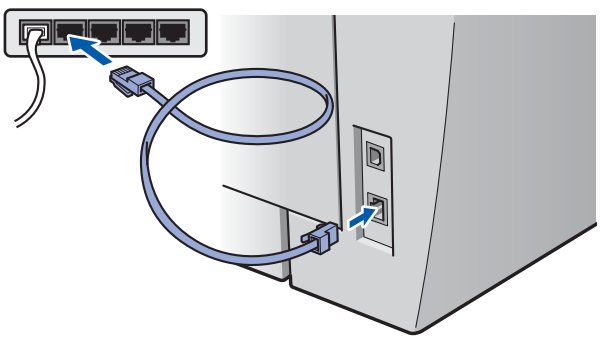
4 Double-click the **Utilities** icon.

5 Double-click the **Wireless Device Setup Wizard**.

6 Choose **Step by Step install (Recommended)** and then click **Next**.

7 Choose **With cable (Recommended)** and then click **Next**.

8 Connect the Brother wireless device to your access point using a network cable and click **Next**.

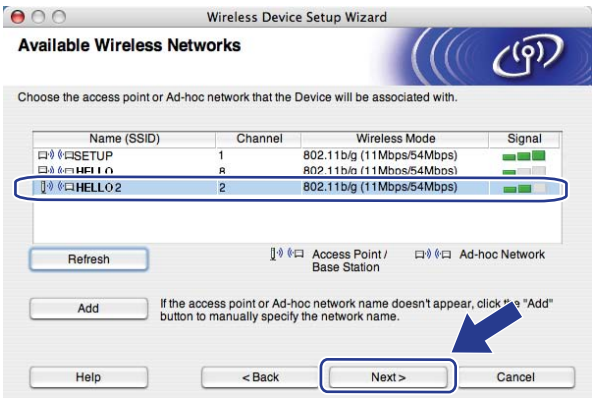


9 Choose the machine you wish to configure, and click **Next**. If the list is blank, check if the access point and the printer are powered on, and then click **Refresh**.

Note

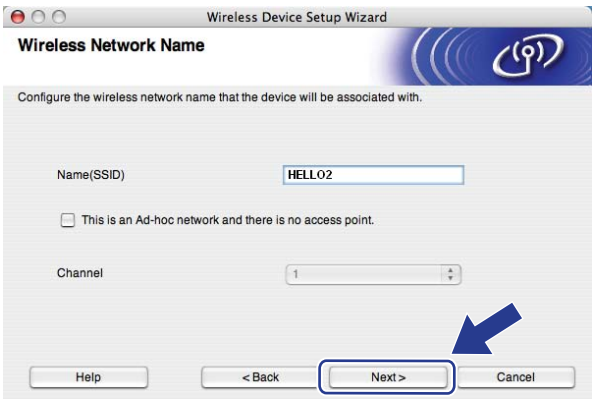
The default Node name is “BRNxxxxxxxxxxx”.

10 The wizard will search for wireless networks available from your printer. Choose the access point you wish to associate the machine with, and then click **Next**.



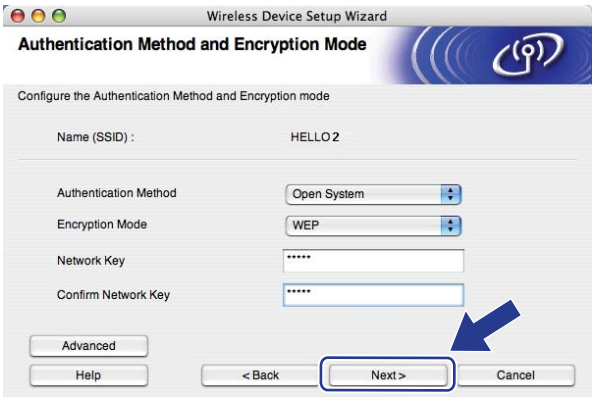
Note

- "SETUP" is the default SSID of the machine. Do not choose this SSID.
- If the list is blank, check that the access point has power and is broadcasting the SSID, and then see if the machine and the access point are within range for wireless communication. Then, click **Refresh.**
- If your access point is set to not broadcast the SSID you can manually add it by clicking the **Add** button. Follow the on-screen instructions for entering the **Name (SSID)**, and then click **Next**.



11 If your network is not configured for Authentication and Encryption, the following screen will appear. To continue configuration, click **OK** and go to ⓭.

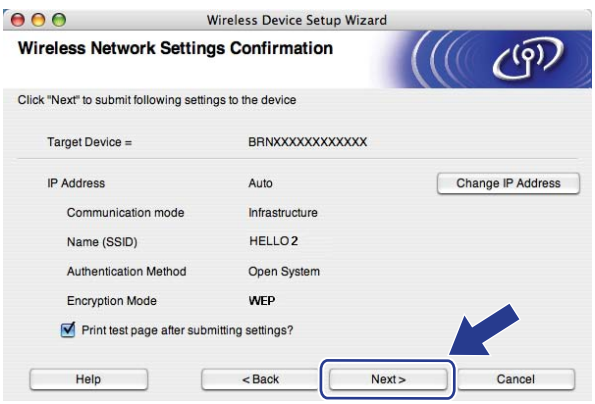
12 If your network is configured for Authentication and Encryption, the following screen will appear. When configuring your Brother wireless machine, you must ensure that it is configured to match the Authentication and Encryption settings of your existing wireless network. Choose the **Authentication Method** and **Encryption Mode** from the pull-down list in each setting box. Then enter the **Network key** and **Confirm Network Key**, and then click **Next**.



Note

- If you want to setup or configure additional WEP key indexes other than WEP key1, click **Advanced**.
- If you do not know the Authentication or Encryption settings for your network, contact your network administrator.
- If the **Authentication Method** is set to **Open System** and the **Encryption Mode** is set to **WEP**, an error indication will NOT appear if the **Network key** is incorrect.

13 Click **Next**. The settings will be sent to your printer. The settings will remain unchanged if you click **Cancel**.



Note

If you want to manually enter the IP address settings of your machine, click **Change IP Address** and enter the necessary IP address settings for your network.

14 Disconnect the network cable between your access point (hub or router) and the machine, and click **Next**.

15 Check the box after you confirm that you have completed the wireless settings, and then click **Finish**.

OK! You have completed the wireless network setup. If you would like to continue installing drivers and software necessary for operating your device, please choose **Start Here OSX** from the CD-ROM menu.

Configuration using the SES/WPS/AOSS control panel menu (Automatic Wireless mode)

IMPORTANT

- If you are going to connect your Brother machine to your network, we recommend that you contact your system administrator prior to installation.
- If you have previously configured the wireless settings of the machine, you must reset the network LAN settings before you can configure the wireless settings again. Press **Menu**, **5**, **0** for `Factory Reset`, `Reset` and choose `Yes` to accept the change. The machine will restart automatically.

1. Plug the machine's power cord into the AC power outlet. Turn on the machine's power switch.
2. Press **Menu**, **5**, **2**, **7**. Using ▲ or ▼, choose `On` and press **OK**.

```
WLAN Enable
On
```

3. Turn on your Macintosh®.
4. Put the supplied CD-ROM into your CD-ROM drive. Double-click the **MFL-Pro Suite** icon on your desktop.
5. Double-click the **Utilities** icon.

6 Double-click the **Wireless Device Setup Wizard**.

7 Choose **Automatic install (Advanced)** and click **Next**.

8 Confirm the on-screen message and click **Next**.

9 Press **Menu**, **5**, **2**, **3** for SES/WPS/AOSS.
This feature will automatically detect which mode (SecureEasySetup™, Wi-Fi Protected Setup™ or AOSS™) your access point uses to configure your machine.

Note

If your wireless access point supports Wi-Fi Protected Setup™ (PIN Method) and you want to configure your machine using the PIN (Personal Identification Number) Method, see *Using the PIN Method of Wi-Fi Protected Setup™* on page 34.

10 The machine searches for an access point that supports SecureEasySetup™, Wi-Fi Protected Setup™ or AOSS™ for 2 minutes.

```
Setting WLAN
```

11 Put your access point in the SecureEasySetup™ mode, Wi-Fi Protected Setup™ mode or AOSS™ mode, depending on what is supported by your access point. Please refer to the instruction manual that came with your access point.

12 If the LCD shows `Connected`, the machine has successfully connected to your router or access point. You can now use your machine in a wireless network.

If the LCD shows `Incorrect Mode`, session overlap is detected. The machine has detected more than one router or access point on your network with the Wi-Fi Protected Setup™ mode or AOSS™ mode enabled. Make sure that only one router or access point has the Wi-Fi Protected Setup™ mode or the AOSS™ mode enabled and try starting from ❾ again.

If the LCD shows `Connection NG` (or `Connection error`), the machine has not successfully connected to your router or access point. Try starting from ❾ again. If the same message is indicated again, reset the machine back to the default factory settings and try again. For resetting, see *Restoring the network settings to factory default* on page 87.

If `Connection NG` (or `Connection error`) is shown after `Setting WLAN`, this may be due to a session overlap detection error. The machine has detected more than one router or access point on your network with the SecureEasySetup™ mode, Wi-Fi Protected Setup™ mode or AOSS™ mode enabled. Make sure that only one router or access point has the SecureEasySetup™ mode, Wi-Fi Protected Setup™ mode or AOSS™ mode enabled and try starting from ❾ again.

LCD messages when using the SES/WPS/AOSS control panel menu

<table>
<tr><th>LCD shows</th><th colspan="2">Connection status</th><th>Action</th></tr>
<tr><td>Setting WLAN</td><td colspan="2">Searching or accessing the access point, and downloading settings from the access point</td><td>—</td></tr>
<tr><td>Connecting SES
Connecting WPS
Connecting AOSS</td><td colspan="2">Connecting the access point</td><td>—</td></tr>
<tr><td>Connected</td><td colspan="2">Connection succeeded.</td><td>—</td></tr>
<tr><td>Incorrect Mode</td><td colspan="2">Session overlap is detected.</td><td>Check that only one router or access point has the Wi-Fi Protected Setup™ mode or the AOSS™ mode enabled and try starting from ❾ again.</td></tr>
<tr><td rowspan="3">Connection NG
Connection error</td><td colspan="2">Connection failed.</td><td rowspan="2">1 Try starting ❾ again.
2 If the same message continues, reset the machine back to the factory settings and try again.</td></tr>
<tr><td rowspan="2">(If it is shown after the LCD shows Setting WLAN.)</td><td>Connection failed.</td></tr>
<tr><td>Session overlap is detected.</td><td>Check that only one router or access point has the SecureEasySetup™ mode, the Wi-Fi Protected Setup™ mode or the AOSS™ mode enabled and try starting from ❾ again.</td></tr>
</table>

⓭ Click **Finish**.

OK! You have completed the wireless network setup. If you would like to continue installing drivers and software necessary for operating your device, please choose **Start Here OSX** from the CD-ROM menu.

Configuration in Ad-hoc mode

Before configuring the wireless settings

IMPORTANT

- If you have previously configured the wireless settings of the machine, you must reset the network LAN settings before you can configure the wireless settings again. Press **Menu**, **5**, **0** for `Factory Reset`, `Reset` and choose `Yes` to accept the change. The machine will restart automatically.
- If you are using personal Firewall software, disable it. Once you are sure that you can print, restart your personal Firewall software.

Configure the wireless settings

1. Plug the machine's power cord into the AC power outlet. Turn on the machine's power switch.
2. Press **Menu**, **5**, **2**, **7**. Using ▲ or ▼, choose `On` and press **OK**.

```
WLAN Enable
On
```

3. Turn on your Macintosh®.
4. Put the supplied CD-ROM into your CD-ROM drive. Double-click the **MFL-Pro Suite** icon on your desktop.
5. Double-click the **Utilities** icon.

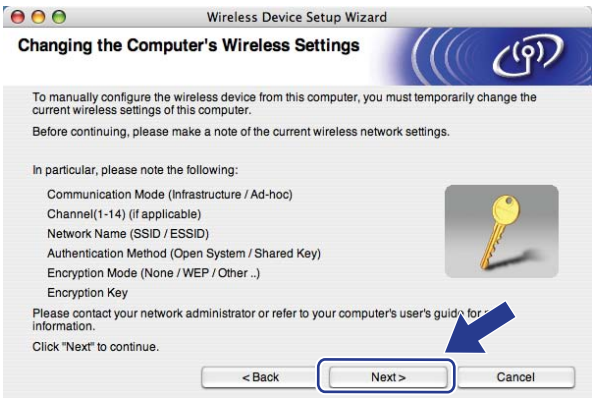
6 Double-click the **Wireless Device Setup Wizard**.

7 Choose **Step by Step install (Recommended)** and then click **Next**.

8 Choose **Without cable (Advanced)** and then click **Next**.

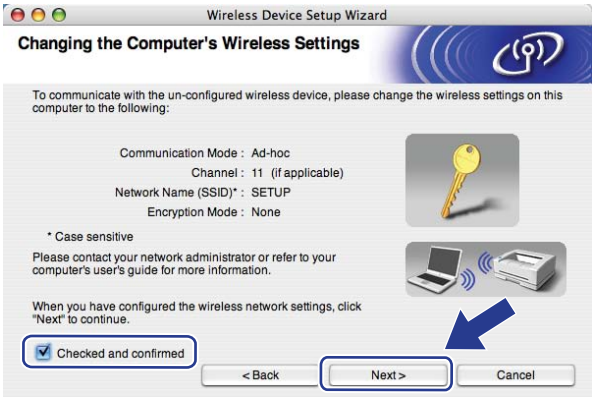
9 Read the **Important Notice**. Check the box after you confirm the wireless setting is enabled, and then click **Next**.

10 You need to temporarily change your computer's wireless settings. Follow the on-screen instructions. Make sure you take notes on all the settings such as SSID or channel of your computer. You will need them to return your computer back to its original wireless settings, and then click **Next**.



Item	Record the current wireless computer settings
Communication mode: (Infrastructure / Ad-hoc)	
Channel: (1-14)	
Network name: (SSID / ESSID)	
Authentication method: (Open system / Shared key / WPA/WPA2-PSK / LEAP)	
Encryption mode: (None / WEP / TKIP / AES/ CKIP)	
Encryption key:	

11 To communicate with the un-configured wireless machine, temporarily change the wireless settings on your computer to match the machine's default settings shown on this screen. Check the box after you confirm these settings, and then click **Next**.



Note

You can temporarily change the wireless settings on your computer, following the steps below:

1 Click the AirPort status icon and select **Open Internet Connect...**.

2 Click the Network tab to see the available wireless devices. You can see the Brother wireless print server in the **Network** option. Select **SETUP**.

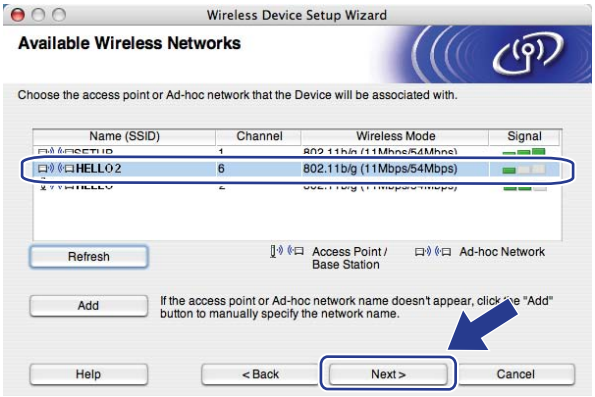
3 Your wireless network is connected successfully.

12 Choose the machine you wish to configure, and click **Next**. If the list is blank, check if the machine is powered on, and then click **Refresh**.

Note

The default Node name is "BRWxxxxxxxxxxxx".

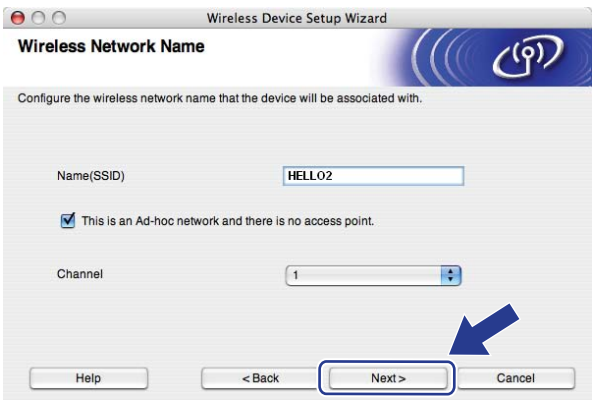
13 The wizard will search for wireless networks available from your printer. Choose the Ad-hoc network you wish to associate the printer with, and then click **Next**.



5

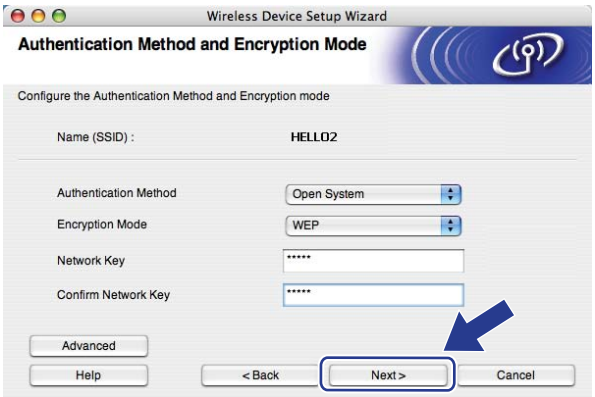
Note

- If the list is blank, check if the printer is within range for wireless communication. Then, click **Refresh**.
- If your target Ad-hoc network does not appear on the list, you can manually add it by clicking the **Add** button. Check **This is an Ad-hoc network and there is no access point.**, and then enter the **Name (SSID)** and the **Channel** number, and then click **Next**.



14 If your network is not configured for Authentication and Encryption, the following screen will appear. To continue configuration, click **OK** and go to ⓰.

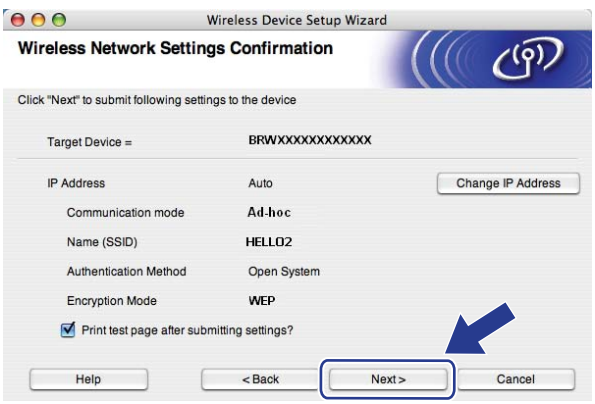
15 If your network is configured for Authentication and Encryption, the following screen will appear. When configuring your Brother wireless machine, you must ensure that it is configured to match the Authentication and Encryption settings of your existing wireless network. Choose the **Authentication Method** and **Encryption Mode** from the pull-down list in each setting box. Then enter the **Network key** and **Confirm Network Key**, and then click **Next**.



Note

- If you want to setup or configure additional WEP key indexes other than WEP key1, click **Advanced**.
- If you do not know the Authentication or Encryption settings for your network, contact your network administrator.
- If the **Authentication Method** is set to **Open System** and the **Encryption Mode** is set to **WEP**, an error indication will NOT appear if the **Network key** is incorrect.

16 Click **Next**. The settings will be sent to your machine. The settings will remain unchanged if you click **Cancel**.

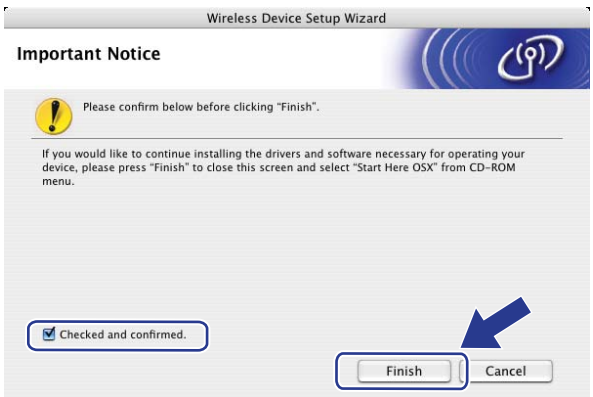


Note

If you want to manually enter the IP address settings of your machine, click **Change IP Address** and enter the necessary IP address settings for your network.

17 To communicate with the configured wireless device, you must configure your computer to use the same wireless settings. Manually change the wireless settings on your computer to match the machine's wireless settings shown on this screen. Check the box after you confirm these settings, and then click **Next**.
(The settings shown on this screen are for example only. Your settings will not be the same.)

18 Check the box after you confirm that you have completed the wireless settings, and then click **Finish**.



OK! You have completed the wireless network setup. If you would like to continue installing drivers and software necessary for operating your device, please choose **Start Here OSX** from the CD-ROM menu.

6 Control panel setup

LAN menu

Before using your Brother product in a network environment, you need to configure the correct TCP/IP settings.

In this chapter, you will learn how to configure the network settings using the control panel, located on the front of the machine.

The LAN menu selections of the control panel allow you to set up the Brother machine for your network configuration. Press **Menu**, then press ▲ or ▼ to choose LAN. Proceed to the menu selection you wish to configure. See *Function table and default factory settings* on page 136.

Please note that the machine is supplied with the BRAdmin Light utility and Remote Setup applications for Windows® and Macintosh®, which also can be used to configure many aspects of the network. See *Changing the print server settings* on page 16.

TCP/IP

If you connect the machine with an Ethernet cable to your network, use the Wired menu selections. If you connect the machine to a wireless Ethernet network, use the WLAN menu selections.

This menu has ten sections: BOOT Method, IP Address, Subnet Mask, Gateway, Node Name, WINS Config, WINS Server, DNS Server, APIPA and IPv6.

BOOT Method

This selection controls how the machine obtains an IP address. The default setting is Auto.

Note

If you do not want your print server configured via DHCP, BOOTP or RARP, you must set the BOOT Method to Static so that the print server has a static IP address. This will prevent the print server from trying to obtain an IP address from any of these systems. To change the BOOT Method, use the machine's control panel, BRAdmin Light utility, Remote Setup or Web Based Management (web browser).

1. Press **Menu**.
2. Press ▲ or ▼ to choose LAN.
   Press **OK**.
3. (For Wired) Press ▲ or ▼ to choose Wired.
   (For Wireless) Press ▲ or ▼ to choose WLAN.
   Press **OK**.
4. Press ▲ or ▼ to choose TCP/IP.
   Press **OK**.
5. Press ▲ or ▼ to choose BOOT Method.
   Press **OK**.

6 Press ▲ or ▼ to choose `Auto` [1], `Static` [2], `RARP` [3], `BOOTP` [4] or `DHCP` [5].
Press **OK**.

- If you chose `Auto`, `RARP`, `BOOTP` or `DHCP`, go to ❼.
- If you chose `Static`, go to ❽.

7 Enter how many times the machine tries to obtain the IP address. We recommend you to enter 3 or more.
Press **OK**.

8 Press **Stop/Exit**.

[1] Auto mode
In this mode, the machine will scan the network for a DHCP server, if it can find one, and if the DHCP server is configured to allocate an IP address to the machine, then the IP address supplied by the DHCP server will be used. If no DHCP server is available, then the machine will scan for a BOOTP server. If a BOOTP server is available, and it is configured correctly, the machine will take its IP address from the BOOTP server. If a BOOTP server is not available, the machine will scan for a RARP server. If a RARP server also does not answer, the IP Address is set using the APIPA protocol, see *Using APIPA to configure the IP address* on page 127. After the machine is initially powered ON, it may take a few minutes for the machine to scan the network for a server.

[2] Static mode
In this mode the machine's IP address must be manually assigned. Once entered the IP address is locked to the assigned address.

[3] RARP mode
The Brother print server IP address can be configured using the Reverse ARP (RARP) service on your host computer. For more information on RARP, see *Using RARP to configure the IP address* on page 127.

[4] BOOTP mode
BOOTP is an alternative to RARP that has the advantage of allowing configuration of the subnet mask and gateway. For more information on BOOTP, see *Using BOOTP to configure the IP address* on page 126.

[5] DHCP mode
Dynamic Host Configuration Protocol (DHCP) is one of several automated mechanisms for IP address allocation. If you have a DHCP server in your network (typically a UNIX®, Windows® 2000/XP, Windows Vista® network) the print server will automatically obtain its IP address from a DHCP server and register its name with any RFC 1001 and 1002 compliant dynamic name services.

Note

On smaller networks, the DHCP server may be the router.

IP Address

This field displays the current IP address of the machine. If you have chosen a BOOT Method of Static, enter the IP address that you wish to assign to the machine (check with your network administrator for the IP address to use). If you have chosen a method other than Static, the machine will attempt to determine its IP address using the DHCP or BOOTP protocols. The default IP address of your machine will probably be incompatible with the IP address numbering scheme of your network. We recommend that you contact your network administrator for an IP address for the network the unit will be connected on.

1. Press **Menu**.
2. Press ▲ or ▼ to choose `LAN`.
   Press **OK**.
3. (For Wired) Press ▲ or ▼ to choose `Wired`.
   (For Wireless) Press ▲ or ▼ to choose `WLAN`.
   Press **OK**.
4. Press ▲ or ▼ to choose `TCP/IP`.
   Press **OK**.
5. Press ▲ or ▼ to choose `IP Address`.
   Press **OK**.
6. Press **1** to choose `Change`.
7. Enter the IP address.
   Press **OK**.
8. Press **Stop/Exit**.

Subnet Mask

This field displays the current subnet mask used by the machine. If you are not using DHCP or BOOTP to obtain the subnet mask, enter the desired subnet mask. Check with your network administrator for the subnet mask to use.

1. Press **Menu**.
2. Press ▲ or ▼ to choose `LAN`.
   Press **OK**.
3. (For Wired) Press ▲ or ▼ to choose `Wired`.
   (For Wireless) Press ▲ or ▼ to choose `WLAN`.
   Press **OK**.
4. Press ▲ or ▼ to choose `TCP/IP`.
   Press **OK**.
5. Press ▲ or ▼ to choose `Subnet Mask`.
   Press **OK**.
6. Press **1** to choose `Change`.

7. Enter the Subnet Mask address.
   Press **OK**.

8. Press **Stop/Exit**.

Gateway

This field displays the current gateway or router address used by the machine. If you are not using DHCP or BOOTP to obtain the gateway or router address, enter the address you wish to assign. If you do not have a gateway or router, leave this field blank. Check with your network administrator if you are unsure.

1. Press **Menu**.

2. Press ▲ or ▼ to choose `LAN`.
   Press **OK**.

3. (For Wired) Press ▲ or ▼ to choose `Wired`.
   (For Wireless) Press ▲ or ▼ to choose `WLAN`.
   Press **OK**.

4. Press ▲ or ▼ to choose `TCP/IP`.
   Press **OK**.

5. Press ▲ or ▼ to choose `Gateway`.
   Press **OK**.

6. Press **1** to choose `Change`.

7. Enter the Gateway address.
   Press **OK**.

8. Press **Stop/Exit**.

Node Name

You can register the machine name on the Network. This name is often referred to as a NetBIOS name; it will be the name that is registered by the WINS server on your network. Brother recommends the name “BRNxxxxxxxxxxx” for a wired network or “BRWxxxxxxxxxxx” for a wireless network.

1. Press **Menu**.

2. Press ▲ or ▼ to choose `LAN`.
   Press **OK**.

3. (For Wired) Press ▲ or ▼ to choose `Wired`.
   (For Wireless) Press ▲ or ▼ to choose `WLAN`.
   Press **OK**.

4. Press ▲ or ▼ to choose `TCP/IP`.
   Press **OK**.

5. Press ▲ or ▼ to choose `Node Name`.
   Press **OK**.

6 Press **1** to choose `Change`.

7 Enter the Node Name.
Press **OK**.

8 Press **Stop/Exit**.

WINS Config

This selection controls how the machine obtains the IP address of the WINS server.

1 Press **Menu**.

2 Press ▲ or ▼ to choose `LAN`.
Press **OK**.

3 (For Wired) Press ▲ or ▼ to choose `Wired`.
(For Wireless) Press ▲ or ▼ to choose `WLAN`.
Press **OK**.

4 Press ▲ or ▼ to choose `TCP/IP`.
Press **OK**.

5 Press ▲ or ▼ to choose `WINS Config`.
Press **OK**.

6 Press ▲ or ▼ to choose `Auto` or `Static`.
Press **OK**.

7 Press **Stop/Exit**.

Auto

Automatically uses a DHCP request to determine the IP addresses for the primary and secondary WINS servers. You must set the BOOT Method to Auto for this feature to work.

Static

Uses a specified IP address for the primary and secondary WINS servers.

WINS Server

Primary WINS Server IP Address

This field specifies the IP address of the primary WINS (Windows® Internet Naming Service) server. If set to a non-zero value, the machine will contact this server to register its name with the Windows® Internet Name Service.

Secondary WINS Server IP Address

This field specifies the IP address of the secondary WINS server. It is used as a backup to the Primary WINS server address. If the Primary server is unavailable, the machine still can register itself with a secondary server. If set to a non-zero value, the machine will contact this server to register its name with the Windows® Internet Name Service. If you have a primary WINS server, but no secondary WINS server, simply leave this field blank.

1. Press **Menu**.
2. Press▲ or ▼ to choose `LAN`.
   Press **OK**.
3. (For Wired) Press ▲ or ▼ to choose `Wired`.
   (For Wireless) Press ▲ or ▼ to choose `WLAN`.
   Press **OK**.
4. Press ▲ or ▼ to choose `TCP/IP`.
   Press **OK**.
5. Press ▲ or ▼ to choose `WINS Server`.
   Press **OK**.
6. Press ▲ or ▼ to choose `Primary` or `Secondary`.
   Press **OK**.
7. Press **1** to choose `Change`.
8. Enter the WINS Server address.
   Press **OK**.
9. Press **Stop/Exit**.

DNS Server

Primary DNS Server IP Address

This field specifies the IP address of the primary DNS (Domain Name System) server.

Secondary DNS Server IP Address

This field specifies the IP address of the secondary DNS server. It is used as a backup to the Primary DNS server address. If the Primary server is unavailable, the machine will contact the Secondary DNS server. If you have a primary DNS server, but no secondary DNS server, simply leave this field blank.

1. Press **Menu**.
2. Press ▲ or ▼ to choose `LAN`.
   Press **OK**.
3. (For Wired) Press ▲ or ▼ to choose `Wired`.
   (For Wireless) Press ▲ or ▼ to choose `WLAN`.
   Press **OK**.

4. Press ▲ or ▼ to choose `TCP/IP`.
   Press **OK**.
5. Press ▲ or ▼ to choose `DNS Server`.
   Press **OK**.
6. Press ▲ or ▼ to choose `Primary` or `Secondary`.
   Press **OK**.
7. Press **1** to choose `Change`.
8. Enter the DNS Server address.
   Press **OK**.
9. Press **Stop/Exit**.

APIPA

The setting of On will cause the print server to automatically allocate a Link-Local IP address in the range (169.254.1.0 - 169.254.254.255) when the print server cannot obtain an IP address through the BOOT Method you have set (see *BOOT Method* on page 74). Choosing Off means the IP address doesn't change, when the print server cannot obtain an IP address through the BOOT Method you have set.

1. Press **Menu**.
2. Press ▲ or ▼ to choose `LAN`.
   Press **OK**.
3. (For Wired) Press ▲ or ▼ to choose `Wired`.
   (For Wireless) Press ▲ or ▼ to choose `WLAN`.
   Press **OK**.
4. Press ▲ or ▼ to choose `TCP/IP`.
   Press **OK**.
5. Press ▲ or ▼ to choose `APIPA`.
   Press **OK**.
6. Press ▲ or ▼ to choose `On` or `Off`.
   Press **OK**.
7. Press **Stop/Exit**.

IPv6

This machine is compatible with IPv6, the next generation internet protocol. If you want to use the IPv6 protocol, choose On. The default setting for IPv6 is Off. For more information on the IPv6 protocol, visit http://solutions.brother.com.

1. Press **Menu**.
2. Press ▲ or ▼ to choose LAN.
   Press **OK**.
3. (For Wired) Press ▲ or ▼ to choose Wired.
   (For Wireless) Press ▲ or ▼ to choose WLAN.
   Press **OK**.
4. Press ▲ or ▼ to choose TCP/IP.
   Press **OK**.
5. Press ▲ or ▼ to choose IPv6.
   Press **OK**.
6. Press ▲ or ▼ to choose On or Off.
   Press **OK**.
7. Press **Stop/Exit**.

Note

After you choose IPv6 On, this setting will be applied to both the wired and wireless LAN interface.

Ethernet (wired network only)

Ethernet link mode. Auto allows the print server to operate in 100BASE-TX full or half duplex, or in 10BASE-T full or half duplex mode by auto negotiation.

You can fix the server link mode to 100BASE-TX Full Duplex (100B-FD) or Half Duplex (100B-HD) and 10BASE-T Full Duplex (10B-FD) or Half Duplex (10B-HD). This change is valid after the print server has been reset (default is Auto).

Note

If you incorrectly set this value, you may not be able to communicate with your print server.

1. Press **Menu**.
2. Press ▲ or ▼ to choose LAN.
   Press **OK**.
3. Press ▲ or ▼ to choose Wired.
   Press **OK**.
4. Press ▲ or ▼ to choose Ethernet.
   Press **OK**.

5 Press ▲ or ▼ to choose `Auto`, `100B-FD`, `100B-HD`, `10B-FD` or `10B-HD`.
Press **OK**.

6 Press **Stop/Exit**.

Setup Wizard (wireless network only)

The **Setup Wizard** guides you through the wireless network configuration. For more information, see the Quick Setup Guide or *Using the Setup Wizard from the control panel* on page 29.

SES/WPS/AOSS (wireless network only)

If your wireless access point supports either SecureEasySetup™, Wi-Fi Protected Setup™ (PBC [1]) or AOSS™ (one-push method), you can configure the machine easily without a computer. Your Brother machine has the SES/WPS/AOSS menu on the control panel. This feature automatically detects which mode your access point uses, SecureEasySetup™, Wi-Fi Protected Setup™ or AOSS™. By pushing a button on the wireless LAN router / access point and the machine, you can setup the wireless network and security settings. See the user's guide for your wireless LAN router / access point for instructions on how to access one-push mode. See the Quick Setup Guide or *Using the SES/WPS/AOSS control panel menu to configure your machine for a wireless network (Automatic Wireless mode)* on page 32.

[1] Push Button Configuration

WPS w/PIN code (wireless network only)

If your wireless access point supports Wi-Fi Protected Setup™ (PIN Method), you can configure the machine easily without a computer. The PIN (Personal Identification Number) Method is one of the connection methods developed by the Wi-Fi Alliance. By inputting a PIN which is created by an Enrollee (your machine) to the Registrar (a device that manages the wireless LAN), you can setup the wireless network and security settings. See the user's guide for your wireless LAN router / access point for instructions on how to access the Wi-Fi Protected Setup™ mode. See *Using the PIN Method of Wi-Fi Protected Setup™* on page 34.

WLAN Status (wireless network only)

Status

This field displays the current wireless network status; `Active(11b)`, `Active(11g)`, `Wired LAN Active`, `WLAN OFF`, `AOSS Active` or `Connection NG` / `Connection error`.

1 Press **Menu.**

2 Press ▲ or ▼ to choose `LAN`.
Press **OK**.

3 Press ▲ or ▼ to choose `WLAN`.
Press **OK**.

4. Press ▲ or ▼ to choose `WLAN Status`.
   Press **OK**.
5. Press ▲ or ▼ to choose `Status`.
   Press **OK**.
6. The current wireless network status will be displayed; `Active(11b)`, `Active(11g)`, `Wired LAN Active`, `WLAN OFF`, `AOSS Active` or `Connection NG` / `Connection error`.
7. Press **Stop/Exit**.

Signal

This field displays the current wireless network signal strength; `Strong`, `Medium`, `Weak` or `None`.

1. Press **Menu**.
2. Press ▲ or ▼ to choose `LAN`.
   Press **OK**.
3. Press ▲ or ▼ to choose `WLAN`.
   Press **OK**.
4. Press ▲ or ▼ to choose `WLAN Status`.
   Press **OK**.
5. Press ▲ or ▼ to choose `Signal`.
   Press **OK**.
6. The current wireless network signal strength will be displayed; `Strong`, `Medium`, `Weak` or `None`.
7. Press **Stop/Exit**.

SSID

This field displays the current wireless network SSID. The display shows up to 32 characters of the SSID name.

1. Press **Menu**.
2. Press ▲ or ▼ to choose `LAN`.
   Press **OK**.
3. Press ▲ or ▼ to choose `WLAN`.
   Press **OK**.
4. Press ▲ or ▼ to choose `WLAN Status`.
   Press **OK**.
5. Press ▲ or ▼ to choose `SSID`.
   Press **OK**.
6. The current wireless network SSID will be displayed.

7 Press **Stop/Exit**.

Comm.Mode

This field displays the current wireless network communication mode; `Ad-hoc` or `Infrastructure`.

1 Press **Menu**.

2 Press ▲ or ▼ to choose `LAN`.
Press **OK**.

3 Press ▲ or ▼ to choose `WLAN`.
Press **OK**.

4 Press ▲ or ▼ to choose `WLAN Status`.
Press **OK**.

5 Press ▲ or ▼ to choose `Comm.Mode`.
Press **OK**.

6 The current wireless network communication mode will be displayed; `Ad-hoc` or `Infrastructure`.

7 Press **Stop/Exit**.

Set to Default

The `Set to Default` allows you to reset each wired or wireless settings to the default. If you want to reset both wired and wireless settings, see *Restoring the network settings to factory default* on page 87.

1 Press **Menu**.

2 Press ▲ or ▼ to choose `LAN`.
Press **OK**.

3 (For Wired) Press ▲ or ▼ to choose `Wired`.
(For Wireless) Press ▲ or ▼ to choose `WLAN`.
Press **OK**.

4 Press ▲ or ▼ to choose `Set to Default`.
Press **OK**.

5 Press **1** to choose `Reset`.

6 Press **Stop/Exit**.

Wired Enable (wired network only)

If you want to use the wired network connection, set `Wired Enable` to `On`.

1. Press **Menu**.
2. Press ▲ or ▼ to choose `LAN`.
   Press **OK**.
3. Press ▲ or ▼ to choose `Wired`.
   Press **OK**.
4. Press ▲ or ▼ to choose `Wired Enable`.
   Press **OK**.
5. Press ▲ or ▼ to choose `On` or `Off`.
   Press **OK**.
6. Press **Stop/Exit**.

WLAN Enable (wireless network only)

If you want to use the wireless network connection, set `WLAN Enable` to `On`.

Note

If the network cable is connected to your machine, set `Wired Enable` to `Off`.

1. Press **Menu**.
2. Press ▲ or ▼ to choose `LAN`.
   Press **OK**.
3. Press ▲ or ▼ to choose `WLAN`.
   Press **OK**.
4. Press ▲ or ▼ to choose `WLAN Enable`.
   Press **OK**.
5. Press ▲ or ▼ to choose `On` or `Off`.
   Press **OK**.
6. Press **Stop/Exit**.

Scan to FTP

You can choose the default color file type for the Scan to FTP function.

1. Press **Menu**.
2. Press ▲ or ▼ to choose `LAN`.
   Press **OK**.
3. Press ▲ or ▼ to choose `Scan to FTP`.
   Press **OK**.
4. Press ▲ or ▼ to choose `Color 150 dpi`, `Color 300 dpi`, `Color 600 dpi`, `Gray 100 dpi`, `Gray 200 dpi`, `Gray 300 dpi`, `B&W 200 dpi` or `B&W 200x100 dpi`.
   Press **OK**.
5. If you chose `Color 150 dpi`, `Color 300 dpi`, `Color 600 dpi`, `Gray 100 dpi`, `Gray 200 dpi` or `Gray 300 dpi` in ❹, press ▲ or ▼ to choose `PDF` or `JPEG`.
   If you chose `B&W 200 dpi` or `B&W 200x100 dpi` in ❹, press ▲ or ▼ to choose `PDF` or `TIFF`.
   Press **OK**.
6. Press **Stop/Exit**.

Note

For how to operate Scan to FTP, see *Network Scanning* of the Software User's Guide on the CD-ROM.

Restoring the network settings to factory default

If you wish to reset the print server back to its default factory settings (resetting all information such as the password and IP address information), please follow these steps:

Note

This function restores all wired and wireless network settings to the factory default.

1. Press **Menu**.
2. Press ▲ or ▼ to choose `LAN`.
   Press **OK**.
3. Press ▲ or ▼ to choose `Factory Reset`.
   Press **OK**.
4. Press **1** to choose `Reset`.
5. Press **1** to choose `Yes` for reboot.
6. The machine will re-start. You can now reconnect the network cable and configure the network settings to work with your network.

Printing the Network Configuration List

Note

Node name: Node name appears in the Network Configuration List. The default node name is “BRNxxxxxxxxxxx” for a wired network or “BRWxxxxxxxxxxx” for a wireless network.

The Network Configuration List prints a report listing all the current network configuration including the network print server settings.

1. Press **Reports**.
2. Press ▲ or ▼ to choose `Network Config`.
   Press **OK**.

7 Driver Deployment Wizard (Windows® only)

Overview

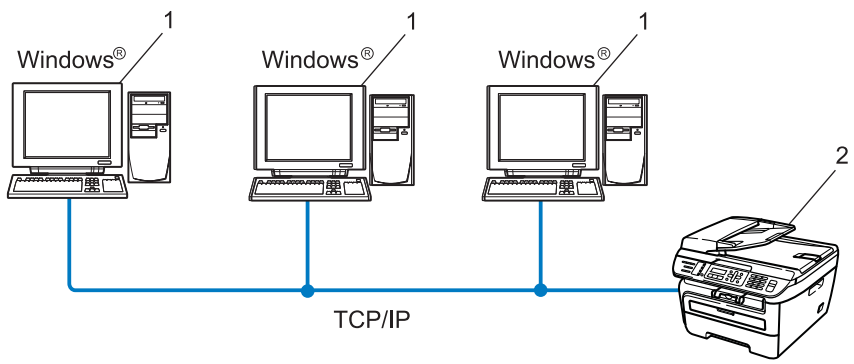
The Driver Deployment Wizard software can be used to ease the installation or even automate the installation of a locally connected or network connected printer. The Driver Deployment Wizard can also be used to create self running executable files which when run on a remote PC, completely automates the installation of a printer driver. The remote PC does not have to be connected to a network.

Connection methods

The Driver Deployment Wizard supports the two connection methods.

Peer-to-peer

The device is connected to the network but each user prints directly to the printer WITHOUT printing through a central queue.

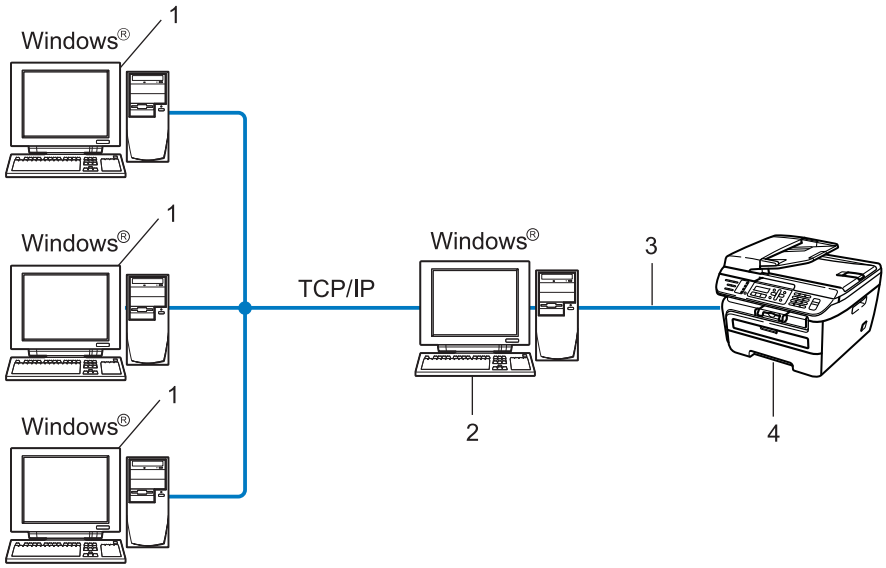


1 Client computer

2 Network printer (your machine)

Network Shared

The device is connected to a network and a central print queue is used to manage all print jobs.



1 Client computer

2 Also known as “Server” or “Print Server”

3 TCP/IP or USB

4 Printer (your machine)

How to install the Driver Deployment Wizard software

1. Put the supplied CD-ROM into your CD-ROM drive. If the model name screen appears, choose your machine. If the language screen appears, choose your language.
2. The CD-ROM main menu will appear. Click **Install Other Drivers or Utilities**.
3. Choose the **Driver Deployment Wizard** installation program.

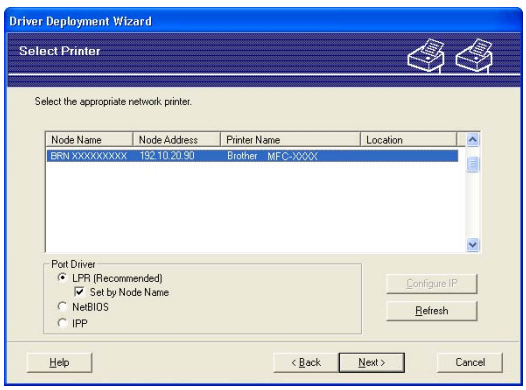
Note

For Windows Vista®, when the **User Account Control** screen appears, click **Continue**.

4. Click **Next** in response to the Welcome message.
5. Read the License Agreement carefully. Then follow the on-screen instructions.
6. Click **Finish**. Now the Driver Deployment Wizard software has been installed.

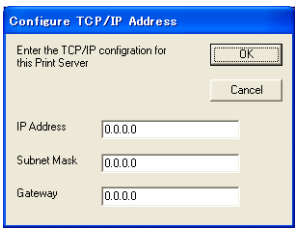
Using the Driver Deployment Wizard software

1. When you run the Wizard for the first time you will see a welcome screen. Click **Next**.
2. Choose **MFC**, and then click **Next**.
3. Choose your connection type to the printer that you want to print to.
4. Choose the option you require, and follow the on-screen instructions.
   If you choose **Brother Peer-to-Peer Network Printer**, the following screen is displayed.



■ Setting the IP Address

If the printer does not have an IP address, the Wizard will allow you to change the IP address by selecting the printer from the list and by selecting the **Configure IP** option. A dialog box then appears which allows you to specify information such as the IP address, subnet mask and also the gateway address.



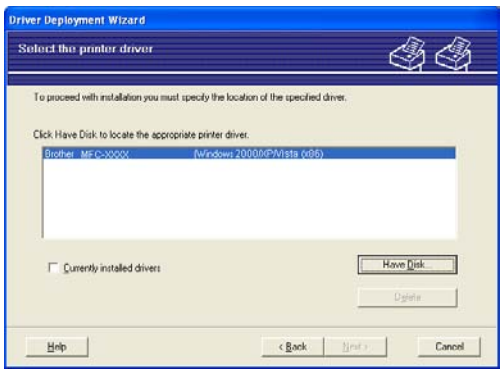
5 Choose the printer driver if you wish to install.

■ If the printer driver you wish to use is installed on your computer:

Check the box of **Currently installed drivers** and choose the printer you wish to install, and then click **Next**.

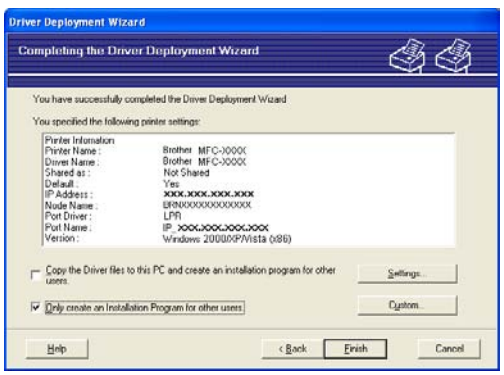
■ If the driver you wish to use is not installed on your computer:

Click **Have Disk** and then specify the path of the printer driver.



6 Click **Next** after you choose the correct driver.

7 A summary screen will appear. Confirm the settings of the driver.



■ **Creating an executable file**

The Driver Deployment Wizard software can also be used to create self running .EXE files. These self-running .EXE files can be saved to the network, copied to a CD-ROM, USB flash memory drive or even E-mailed to another user. Once run, the driver and its settings are automatically installed without any user intervention.

- **Copy the Driver files to this PC and create an installation program for other users.**

  Choose this option if you wish to install the driver onto your computer and also create a self-running executable file for use with another computer using the same operating system as your own.

- **Only Create an Installation Program for other users.**

  Choose this option if the driver is already installed on your computer and you wish to create a self-running executable file without installing the driver again on your own computer.

Note

- If you work in a "queue" based network and you create an executable file for another user who does not have access to the same printer queue that you define into the executable file, the driver when installed on the remote computer will default to LPT1 printing.
- If you check the box of **Currently installed drivers** in ❺, you can change the default settings of the printer driver, such as paper size by clicking **Custom...**.

8 Click **Finish**. The driver is automatically installed to your computer.

8 Network printing from Windows®: basic TCP/IP Peer-to-Peer printing

Overview

To connect your printer to your network, you need to follow the steps in the Quick Setup Guide. We recommend that you use the Brother installer application on the CD-ROM which we have provided with the printer. By using this application, you can easily connect your printer to your network and install the network software and printer driver which you need to complete the configuration of your printer for a network. You will be guided by the on-screen instructions until you are able to use your Brother network printer.

If you are a Windows® user and want to configure your machine without using the Brother installer application, use the TCP/IP protocol in a Peer-to-Peer environment. Please follow the instructions in this chapter. This chapter explains how to install the network software and the printer driver which you will need to be able to print using your network printer.

Note

- You must configure the IP address on your machine before you proceed with this chapter. If you need to configure the IP address, see *Setting the IP address and subnet mask* on page 13 first.
- Verify the host computer and the machine are either on the same subnet, or that the router is properly configured to pass data between the two devices.
- If you are connecting to a Network Print Queue or Share (printing only), see *Installation when using a Network Print Queue or Share (printer driver only)* on page 132 for installation details.
- The default password for Brother print server is “**access**”.

Configuring the standard TCP/IP port

Printer driver not yet installed

1. Put the supplied CD-ROM into your CD-ROM drive. If the model name screen appears, choose your machine. If the language screen appears, choose your language.
2. The CD-ROM main menu will appear. Click **Install Other Drivers or Utilities**.
3. Click **Printer Driver (Only, for Network)**.
4. Click **Next** in response to the Welcome message. Follow the on-screen instructions.
5. Choose **Standard Installation** and click **Next**.
6. Choose **Brother Peer-to-Peer Network Printer**, and then click **Next**.
7. Follow the on-screen instruction, and then click **OK**.

Note

Contact your administrator if you are not sure about the location and name of the printer on the network.

8. Continue through the wizard clicking **Finish** when complete.

Printer driver already installed

If you have already installed the printer driver and wish to configure it for network printing, follow these steps:

1. For Windows Vista®:
   Click the **Start** button, **Control Panel**, **Hardware and Sound**, and then **Printers**.
   For Windows® XP and Windows Server® 2003:
   Click the **Start** button and choose **Printers and Faxes**.
   For Windows® 2000.
   Click the **Start** button and choose **Settings** and then **Printers**.
2. Right click on the printer driver you wish to configure, and then choose **Properties**.
3. Click the **Ports** tab and click **Add Port**.
4. Choose the port that you wish to use. Typically this would be **Standard TCP/IP Port**. Then click the **New Port...** button.
5. The **Standard TCP/IP Port Wizard** will start.
6. Enter the IP address of your network printer. Click **Next**.
7. Click **Finish**.
8. Close **Printer Ports** and **Properties** dialog box.

Other sources of information

See *Configuring your machine for a network* on page 10 to learn how to configure the IP address of the printer.

9 Internet printing for Windows®

Overview

Windows® 2000/XP, Windows Vista® and Windows Server® 2003 users can print using TCP/IP and the standard Network Printing IPP protocol software built into Windows® 2000/XP, Windows Vista® and Windows Server® 2003 installation.

Note

- You must configure the IP address on your printer before you proceed with this chapter. If you need to configure the IP address, see *Chapter 2* first.
- Verify the host computer and machine are either on the same subnet, or that the router is properly configured to pass data between the two devices.
- The default password for Brother print servers is “**access**”.

IPP printing for Windows® 2000/XP, Windows Vista® and Windows Server® 2003

Use the following instructions if you wish to use the IPP printing capabilities of Windows® 2000/XP, Windows Vista® and Windows Server® 2003.

For Windows Vista®

1. Click the **Start** button, **Control Panel**, **Hardware and Sound**, and then **Printers**.
2. Click **Add a printer**.
3. Choose **Add a network, wireless or Bluetooth printer**.
4. Click **The printer that I want isn't listed**.
5. Choose **Select a shared printer by name** and then enter the following in the URL field: http://printer's IP address:631/ipp (where "printer's IP address" is the printer's IP address or the node name.)

Note

If you have edited the hosts file on your computer or are using a Domain Name System (DNS), you can also enter the DNS name of the print server. As the print server supports TCP/IP and NetBIOS names, you can also enter the NetBIOS name of the print server. The NetBIOS name can be seen in the Network Configuration List. To learn how to print the Network Configuration List, see *Printing the Network Configuration List* on page 87. The NetBIOS name assigned is the first 15 characters of the node name and by default it will appear as "BRNxxxxxxxxxxx" for a wired network or "BRWxxxxxxxxxxx" for a wireless network.

6. When you click **Next**, Windows Vista® will make a connection with the URL that you specified.
   - If the printer driver has already been installed:
     1. You will see the printer selection screen in the **Add Printer Wizard**. Click **OK**.
        If the appropriate printer driver is already installed on your computer, Windows Vista® will automatically use that driver. In this case, you will simply be asked if you wish to make the driver the default printer, after which the Driver installation wizard will complete. You are now ready to print.
     2. Go to ⓫.
   - If the printer driver has NOT been installed:
     One of the benefits of the IPP printing protocol is that it establishes the model name of the printer when you communicate with it. After successful communication you will see the model name of the printer automatically. This means that you do not need to inform Windows Vista® about the type of printer driver to be used.
     Go to ❼.

7 If your printer is not in the list of supported printers, click **Have Disk**. You will then be asked to insert the driver disk.

8 Click **Browse** and choose the appropriate Brother printer driver that is contained on the CD-ROM or in the network share. Click **Open**.

9 Click **OK**.

10 Specify the model name of the printer. Click **OK**.

Note

- When the **User Account Control** screen appears, click **Continue**.
- If the printer driver that you are installing does not have a Digital Certificate you will see a warning message. Click **Install this driver software anyway** to continue with the installation. The **Add Printer Wizard** will then complete.

11 You will see the **Type a printer name** screen in the **Add Printer Wizard**. Check the **Set as the default printer** check box if you want to use this printer as the default printer, and then click **Next**.

12 To test the printer connection, click **Print a test page**, and then click **Finish**. The printer is now configured and ready to print.

For Windows® 2000/XP and Windows Server® 2003

1. For Windows® XP and Windows Server® 2003:
   Click the **Start** button and choose **Printers and Faxes**.
   For Windows®2000:
   Click the **Start** button and choose **Settings** and then **Printers**.

2. For Windows® XP and Windows Server® 2003:
   Click **Add a printer** to start the **Add Printer Wizard**.
   For Windows® 2000:
   Double click the **Add Printer** icon to start the **Add Printer Wizard**.

3. Click **Next** when you see the **Welcome to the Add Printer Wizard** screen.

4. Choose **Network Printer**.
   For Windows® XP and Windows Server® 2003:
   Choose **A network printer, or a printer attached to another computer**.
   For Windows® 2000:
   Choose **Network Printer**.

5. Click **Next**.

6. For Windows® XP and Windows Server® 2003:
   Choose **Connect to a printer on the Internet or on a home or office network** and then enter the following in the URL field:
   http://printer's IP address:631/ipp
   (where "printer's IP address" is the printer's IP address or the node name.)
   For Windows® 2000:
   Choose **Connect to a printer on the Internet or on your intranet** and then enter the following in the URL field:
   http://printer's IP address:631/ipp
   (Where "printer's IP address" is the printer's IP address or the node name).

Note

If you have edited the hosts file on your computer or are using a Domain Name System (DNS), you can also enter the DNS name of the print server. As the print server supports TCP/IP and NetBIOS names, you can also enter the NetBIOS name of the print server. The NetBIOS name can be seen in the Network Configuration List. To learn how to print the Network Configuration List, see *Printing the Network Configuration List* on page 87. The NetBIOS name assigned is the first 15 characters of the node name and by default it will appear as "BRNxxxxxxxxxxxx" for a wired network or "BRWxxxxxxxxxxxx" for a wireless network.

7 When you click **Next**, Windows® 2000/XP and Windows Server® 2003 will make a connection with the URL that you specified.

■ If the printer driver has already been installed:

1 You will see the printer selection screen in the **Add Printer Wizard**.
If the appropriate printer driver is already installed on your computer, Windows® 2000/XP and Windows Server® 2003 will automatically use that driver. In this case, you will simply be asked if you wish to make the driver the default printer, after which the Add Printer wizard will complete. You are now ready to print.

2 Go to ⓬.

■ If the printer driver has NOT been installed:

One of the benefits of the IPP printing protocol is that it establishes the model name of the printer when you communicate with it. After successful communication you will see the model name of the printer automatically. This means that you do not need to inform Windows® 2000/XP and Windows Server® 2003 about the type of printer driver to be used.
Go to ❽.

8 The driver installation starts automatically.

Note

If the printer driver that you are installing does not have a Digital Certificate you will see a warning message. Click **Continue Anyway** [1] to continue with the installation.

[1] **Yes** for Windows® 2000 users

9 For Windows® XP and Windows Server® 2003:
Click **Have Disk**. You will then be asked to insert the driver disk.
For Windows® 2000:
Click **OK** when you see the **Insert Disk** screen.

10 Click **Browse** and choose the appropriate Brother printer driver that is contained on the CD-ROM or in the network share.
For example, choose the "X:**driver****win2kxpvista** [1]**your language**" folder (where X is your drive letter). Click **Open**.

[1] **winxpx64vista64** for 64-bit OS users

11 Click **OK**.

12 Check **Yes** if you want to use this printer as the default printer. Click **Next**.

13 Click **Finish** and the printer is now configured and ready to print. To test the printer connection, print a test page.

Specifying a different URL

Please note that there are several possible entries that you can enter for the URL field.

http://printer's IP address:631/ipp

This is the default URL and we recommend that you use this URL.

http://printer's IP address:631/ipp/port1

This is for HP® Jetdirect® compatibility.

http://printer's IP address:631/

Note

If you forget the URL details, you can simply enter the above text (http://printer's IP address/) and the printer will still receive and process data.

Where "printer's IP address" is the printer's IP address or the node name.

- For example:

  `http://192.168.1.2/` (if the printer's IP address is 192.168.1.2.)

  `http://BRN123456765432/` (if the printer's node name is BRN123456765432.)

Other sources of information

For how to configure the IP address of the printer, see *Configuring your machine for a network* on page 10.

10 Network printing from Macintosh®

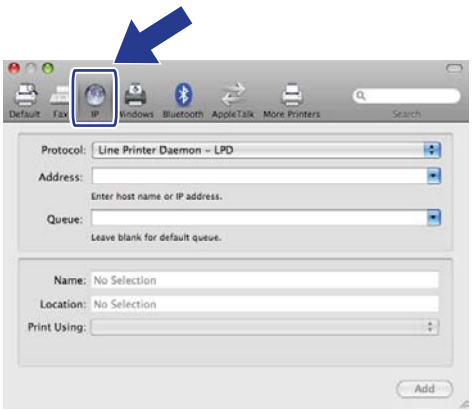
Overview

This chapter explains how to configure the BR-Script 3 (PostScript® 3™ language emulation) printer driver on a Network using Mac OS® X 10.2.4 or greater. For more information on how to install the Brother standard printer driver on a Network, see the Quick Setup Guide included with the machine.

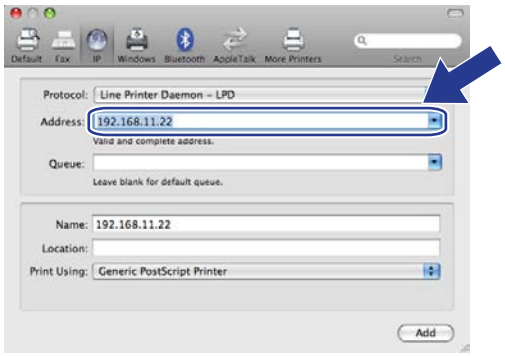
How to choose the BR-Script 3 printer driver (TCP/IP)

For Mac OS® X 10.5

1. Turn the power of the machine ON.
2. From the **Apple** menu, choose **System Preferences**.
3. Click **Print & Fax**.
4. Click **+** button to add your machine.
5. Choose **IP**.



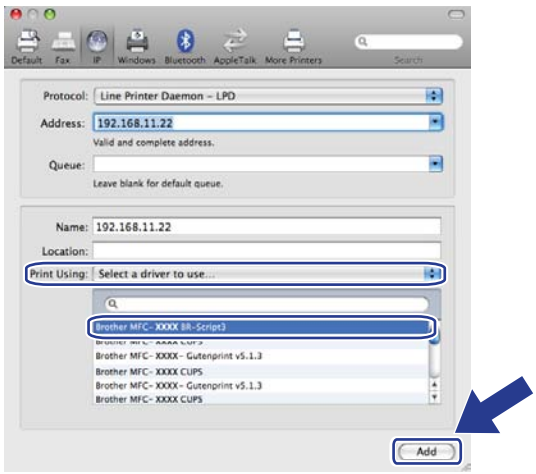
6 Enter the IP address of the printer into the **Address** box.



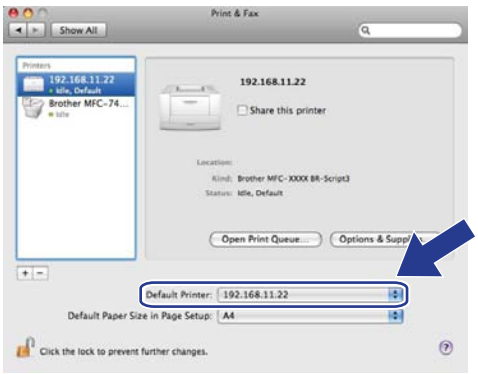
Note

- The Network Configuration List will allow you to confirm the IP address. For more information on how to print the configuration page, see *Printing the Network Configuration List* on page 87.
- When specifying the **Queue** name, use the value "brnxxxxxxxxxxxx_at".

7 From the Print Using pull-down list choose **Select a driver to use**, and then from the printer model pull-down list choose your model. For example, choose **Brother MFC-7840W BR-Script3**, and then click **Add**.



8 From the **Default Printer** pull-down list choose your model to set as the default printer. The printer is now ready.



For Mac OS® X 10.2.4 to 10.4.x

1 Turn the power of the machine ON.

2 From the **Go** menu, choose **Applications**.

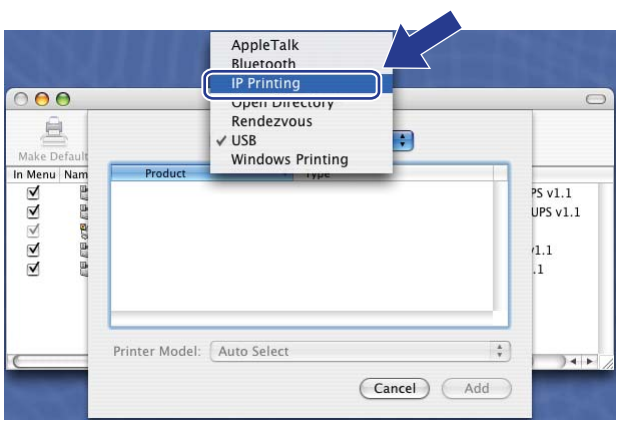
3 Open the **Utilities** folder.

4 Double click the **Printer Setup Utility** icon. (Mac OS® X 10.2.x users, click the **Print Center** icon.)

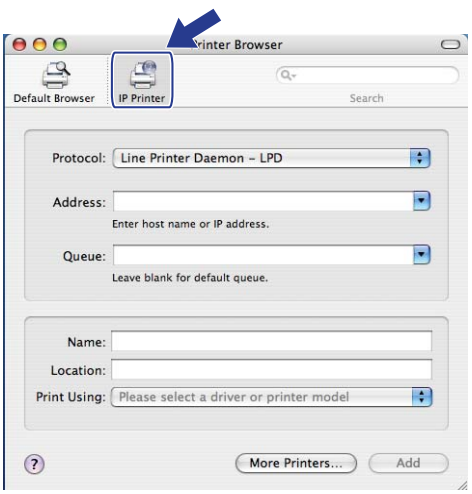
5 Click **Add**.

6 (Mac OS® X 10.2.4 to 10.3.x) Choose **IP Printing**.
(Mac OS® X 10.4) Choose **IP Printer**.

(Mac OS® X 10.2.4 to 10.3.x)

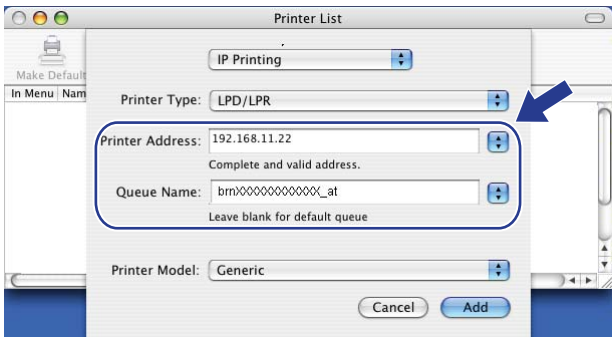


(Mac OS® X 10.4)

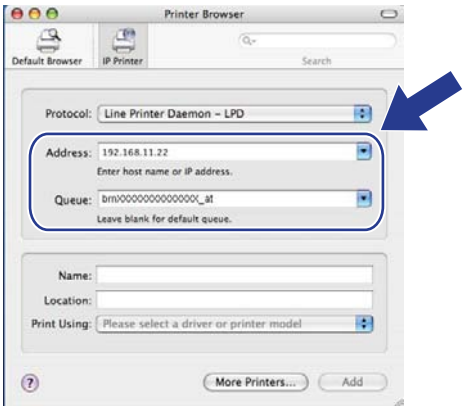


7 (Mac OS® X 10.2.4 to 10.3.x) Enter the IP address of the printer into the **Printer Address** box.
(Mac OS® X 10.4) Enter the IP address of the printer into the **Address** box.

(Mac OS® X 10.2.4 to 10.3.x)



(Mac OS® X 10.4)

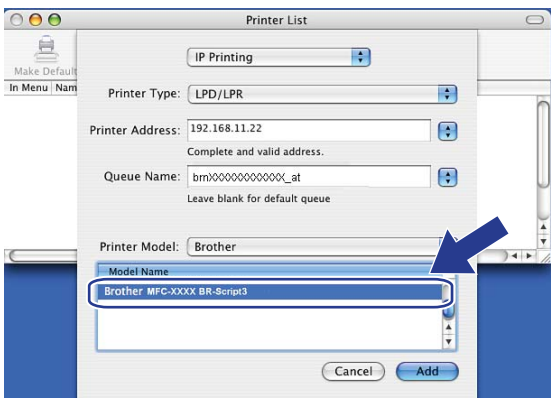


Note

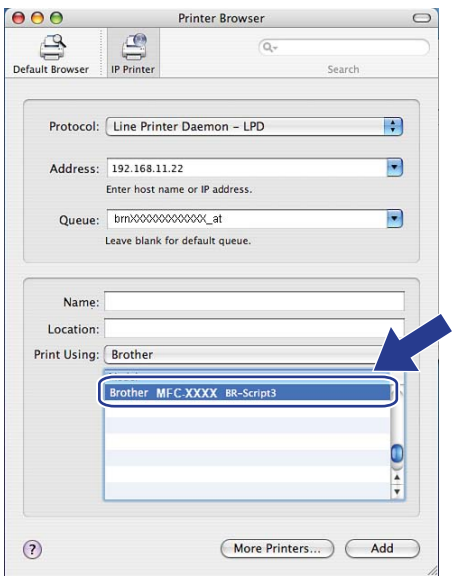
- The Network Configuration List will allow you to confirm the IP address. For more information on how to print the configuration page, see *Printing the Network Configuration List* on page 87.
- When specifying the **Queue Name**, use the value “brnxxxxxxxxxxxx_at”.

8 From the **Printer Model** pull-down list choose your model. For example, choose **Brother MFC-7840W BR-Script3**.

(Mac OS® X 10.2.4 to 10.3.x)



(Mac OS® X 10.4)



9 Click **Add** and the printer will be available from the **Printer List**.

Other sources of information

See *Chapter 2* of this User's Guide to learn how to configure the IP address of the printer.

11 Web Based Management

Overview

A standard Web Browser can be used to manage your machine using the HTTP (Hyper Text Transfer Protocol). You can get the following information from a machine on your network using a web browser.

- Printer status information
- Change Fax configuration items, such as General Setup, Quick-Dial settings and Remote Fax
- Change network settings such as TCP/IP information.
- Configure Scan to FTP
- Software version information of the machine and print server
- Change network and machine configuration details

Note

We recommend Microsoft Internet Explorer 6.0® (or greater) or Firefox® 1.0 (or greater) for Windows® and Safari™ 1.0 (or greater) for Macintosh®. Please also make sure that JavaScript and Cookies are always enabled in whichever browser you use. We recommend you upgrade to Safari™ 1.2 or greater to enable JavaScript. If a different web browser is used, make sure it is compatible with HTTP 1.0 and HTTP 1.1.

You must use the TCP/IP protocol on your network and have a valid IP address programmed into the print server and your computer.

Note

- To learn how to configure the IP address on your machine, see *Configuring your machine for a network* on page 10.
- You can use a web browser on most computing platforms, for example, Macintosh® and UNIX® users are also able to connect to the machine and manage it.
- You can also use the BRAdmin applications to manage the printer and its network configuration.

How to configure the print server settings using Web Based Management (web browser)

A standard web browser can be used to change your print server settings using the HTTP (Hyper Text Transfer Protocol).

Note

To use a web browser, you will need to know the IP address or node name of the print server.

1. Start your web browser.
2. Type “http://printer’s IP address/” into your browser. (where “printer’s IP address” is the printer’s IP address or the node name)
   - For example:

     `http://192.168.1.2/` (if the printer’s IP address is 192.168.1.2.)

     `http://BRN123456765432/` (if the printer’s node name is BRN123456765432.)

Note

- If you have edited the hosts file on your computer or are using a Domain Name System (DNS), you can also enter the DNS name of the print server. As the print server supports TCP/IP and NetBIOS names, you can also enter the NetBIOS name of the print server. The NetBIOS name can be seen in the Network Configuration List. To learn how to print the Network Configuration List, see *Printing the Network Configuration List* on page 87. The NetBIOS name assigned is the first 15 characters of the node name and by default it will appear as “BRNxxxxxxxxxxxx” for a wired network or “BRWxxxxxxxxxxxx” for a wireless network.
- For Macintosh® users, you can have easy access to the Web Based Management System by clicking the machine icon on **Status Monitor** screen. For more information, see the Software User’s Guide on the CD-ROM.

3. Click **Network Configuration**.
4. Enter a user name and a password. The default User Name is “**admin**” and the default password is “**access**”.
5. Click **OK**.
6. You can now change the printer server settings.

Note

If you have changed the protocol settings, restart the printer after clicking **Submit** to activate the configuration.

Password information

Web Based Management offers two levels of password access. Users are able to access to the **General Setup**, **Fax Settings** and **Copy Settings**. The default user name for User is “**user**” (case sensitive) and the default password is “**access**”.

Administrators are able to access all settings. The login name for the Administrator is “**admin**” (case sensitive) and the default password is “**access**”.

Changing the Scan to FTP configuration using a web browser

You can configure and change the following Scan to FTP settings using a web browser. Click **Administrator Settings** on the MFC-7840W web page, and then click **Scan to FTP**. See *Chapter 4* of the Software User’s Guide for more details on Scan to FTP.

- **Profile Name** (Up to 15 characters)
- **Host Address** (FTP server address)
- **Username**
- **Password**
- **Store Directory**
- **File Name**
- **Quality** (**Color 150**, **Color 300**, **Color 600**, **B&W 200**, **B&W 200 x 100**, **Gray 100**, **Gray 200** and **Gray 300**)
- **File Type** (**PDF**, **JPEG** or **TIFF**)
- **Passive Mode** (**On** or **Off**)
- **Port Number**

12 Security features

Overview

This chapter explains the security features supported by your Brother machine and how to configure them. You can also learn how to manage your network printer securely.

Security methods for E-mail notification

The Brother print server supports the following security methods for E-mail notification.

POP before SMTP (PbS)

The user authentication method for sending E-mail from a client. The client is given permission to use the SMTP server by accessing the POP3 server before sending the E-mail.

SMTP-AUTH (SMTP Authentication)

SMTP-AUTH expands SMTP (the Internet E-mail sending protocol) to include an authentication method that ensures the true identity of the sender is known.

APOP (Authenticated Post Office Protocol)

APOP expands POP3 (the Internet receiving protocol) to include an authentication method that encrypts the password when the client receives E-mail.

Using E-mail notification with user authentication

To use the E-mail notification function via secure SMTP server that requires a user authentication, you need to use POP before SMTP or SMTP-AUTH method. These methods prevent an unauthorized user from accessing the mail server. You can use Web Based Management (web browser), BRAdmin Professional and Web BRAdmin to configure these settings.

Note

You need to match the settings of POP3/SMTP authentication with one of the E-mail servers. Contact your network administrator or your internet service provider about the configuration before using.

How to configure the POP3/SMTP settings using Web Based Management (web browser).

1. Start your web browser.
2. Type “http://printer’s IP address/” into your browser (where “printer’s IP address” is the printer’s IP address or the node name.).
   - For example:

     `http://192.168.1.2/` (if the printer’s IP address is 192.168.1.2.)

     `http://BRN123456765432/` (if the printer’s node name is BRN123456765432.)

Note

If you have edited the hosts file on your computer or are using a Domain Name System, you can also enter the DNS name of the print server. As the print server supports TCP/IP and NetBIOS names, you can also enter the NetBIOS name of the print server. The NetBIOS name can be seen in the Network Configuration List. To learn how to print the Network Configuration List, see *Printing the Network Configuration List* on page 87. The NetBIOS name assigned is the first 15 characters of the node name and by default it will appear as “BRNxxxxxxxxxxxx” for a wired network or “BRWxxxxxxxxxxxx” for a wireless network.

3. Click **Network Configuration**.
4. Enter a user name and a password.

Note

The login name for the Administrator is “**admin**” (case sensitive) and the default password is “**access**”.

5. Click **Configure Protocol**.
6. Make sure that the **POP3/SMTP** setting is **Enable**, and then click **Advanced Setting** of **POP3/SMTP**.

7 You can configure the **POP3/SMTP** settings on this page.

Note

- You can also change the SMTP port number using Web Based Management. This is useful if your ISP (Internet Service Provider) implements the “Outbound Port 25 Blocking (OP25B)” service, and you are not using the ISP’s SMTP server. By changing the SMTP port number to a specific number which your SMTP server decide (for example, port 587), you can still send an E-mail via the SMTP server you currently use. You will also need to check **SMTP-AUTH** of **SMTP Server Authentication Method** to enable the SMTP server authentication.
- If you can use both POP before SMTP and SMTP-AUTH, we recommend choosing SMTP-AUTH.
- If you choose POP before SMTP for the SMTP Server Authentication Method, you need to configure the POP3 settings. You can also use the APOP method.
- For more information, see the Help text in the Web Based Management.
- You can also confirm whether the E-mail settings are correct after configuration by sending a test E-mail.

8 After configuring, click **Submit**. The Test E-mail Send Configuration dialog appears.

9 Follow the instructions on-screen if you want to test with the current settings.

Managing your network printer securely using BRAdmin Professional (for Windows®)

To use the BRAdmin Professional utility securely, you need to follow the points below.

- We strongly recommend to use the latest version of the BRAdmin Professional utility or Web BRAdmin that are available as a download from http://solutions.brother.com. If you use an older version of BRAdmin [1] to manage your brother devices the user authentication will not be secure.
- If you want to prevent access to your printer from older versions of BRAdmin [1], you need to disable access from older versions of BRAdmin [1] from the **Advanced Setting** of **SNMP** on **Configure Protocol** page by using Web Based Management (web browser). See *How to configure the print server settings using Web Based Management (web browser)* on page 109.
- Disable the TELNET, FTP and TFTP protocols. Accessing the machine using these protocols is not secure. For how to configure the protocol settings, see *How to configure the print server settings using Web Based Management (web browser)* on page 109.
- If you are managing a mixed group of older print servers [2] and the new NC-6600h or NC-7400w print server with BRAdmin Professional, we recommend using a different password in each group. This will ensure security is maintained on the new NC-6600h or NC-7400w print server.

[1] BRAdmin Professional older than Ver. 2.80, Web BRAdmin older than Ver. 1.40, BRAdmin Light for Macintosh® older than Ver. 1.10

[2] NC-2000 series, NC-2100p, NC-3100h, NC-3100s, NC-4100h, NC-5100h, NC-5200h, NC-6100h, NC-6200h, NC-6300h, NC-6400h, NC-8000, NC-100h, NC-110h, NC-120w, NC-130h, NC-140w, NC-8100h, NC-9100h, NC-7100w, NC-7200w, NC-2200w

13 Troubleshooting

Overview

This chapter explains how to resolve typical network problems you may encounter when using the machine. If, after reading this chapter, you are unable to resolve your problem, please visit the Brother Solutions Center at: http://solutions.brother.com

This chapter is divided into the following sections:

- General problems
- Network print software installation problems
- Printing problems
- Scanning and PC Fax problems
- Protocol-specific troubleshooting
- Wireless network specific troubleshooting

General problems

CD-ROM is inserted, but does not start automatically

If your computer does not support Autorun, the menu will not start automatically after inserting the CD-ROM. In this case, execute **start.exe** in the root directory of the CD-ROM.

My computer cannot find the machine/print server
I cannot make a necessary connection to the machine/print server.
My machine/print server does not appear in the window of Remote Setup, BRAdmin Light or BRAdmin Professional

- For Windows®

  The Firewall setting on your computer may be rejecting the necessary network connection to the machine. In this case, you will need to disable the Firewall on your computer and install the drivers again.

  Windows® XP SP2 users:

  1. Click the **Start** button, **Control Panel**, **Network and Internet Connections**.
  2. Click **Windows Firewall**.
  3. Click the **General** tab. Make sure that **Off (not recommended)** is selected.
  4. Click **OK**.

Note

After the Brother software package is installed, enable your Firewall again.

Windows Vista® users:

1. Click the **Start** button, **Control Panel**, **Network and Internet**, **Windows Firewall** and click **Change settings**.
2. When the **User Account Control** screen appears, do the following.
   - Users who have administrator rights: Click **Continue**.
   - For users who do not have administrator rights: Enter the administrator password and click **OK**.
3. Click the **General** tab. Make sure that **Off (not recommended)** is selected.
4. Click **OK**.

Note

After the Brother software package is installed, enable your Firewall again.

- For Macintosh®

  Choose your machine again in the DeviceSelector application located in **Mac OS X** or **Macintosh HD** (Startup Disk)/**Library**/**Printers**/**Brother**/**Utilities**/**DeviceSelector** or from the model pull-down list of ControlCenter2.

Network print software installation problems

The Brother print server is not found during the setup of the network print software or from the installation of the printer driver of the Brother machine in Windows®.

The Brother print server is not found using the Simple Network Configuration capabilities of Mac OS® X.

- For a network with an Ethernet cable connection

  Make sure you have completed the IP address setting of the Brother print server according to Chapter 2 of this User's Guide before installing the network print software or printer driver.

- For a wireless network

  Make sure you have completed the IP address setting and wireless network settings of the Brother print server according to Chapter 3 of this User's Guide before installing the network print software or printer driver.

Check the following:

1. Make sure that the machine is powered on, is on-line and ready to print.
2. For wired network users: Check to see if there is any LED activity. Brother print servers have two LEDs on the back panel of the machine. The upper orange LED shows Speed status. The lower green LED shows Link/Activity (Received/Transmit) status.
   - The upper LED is orange: The Speed LED will be orange if the print server is connected to a 100BASE-TX Fast Ethernet network.

- The upper LED is off: The Speed LED will be off if the print server is connected to a 10BASE-T Ethernet network.
- The lower LED is green: The Link/Activity LED will be green if the print server is connected to a Ethernet network.
- The lower LED is off: The Link/Activity LED will be off if the print server is not connected to the network.

3 Print the Network Configuration List and check if the settings such as IP address settings are correct for your network. The problem may be the result of a mismatched or duplicate IP address. Verify that the IP address is correctly loaded into the print server, and make sure that no other nodes on the network have this IP address. For information on how to print the Network Configuration List, see *Printing the Network Configuration List* on page 87.

4 Verify that the print server is on your network as follows:

- **For Windows®**

  Try pinging the print server from the host operating system command prompt with the command: Click **Start**, **All Programs** [1], **Accessories** then choose **Command Prompt**.

  [1] **Programs** for Windows® 2000 users

  ```
  ping ipaddress
  ```

  Where `ipaddress` is the print server IP address (note that in some instances it can take up to two minutes for the print server to load its IP address after setting the IP address).

- **For Mac OS® X 10.2.4 or greater**

  1 From the **Go** menu, choose **Applications**.

  2 Open the **Utilities** folder.

  3 Double click the **Terminal** icon.

  4 Try pinging the print server from the Terminal window:
  `ping ipaddress`
  Where `ipaddress` is the print server IP address (note that in some instances it can take up to two minutes for the print server to load its IP address after setting the IP address).

5 If you have tried ❶ to ❹ above and it does not work, then reset the print server back to the default factory settings and try from the initial setup again. For information on how to reset to the default factory settings, see *Restoring the network settings to factory default* on page 87.

6 (For Windows®)
If the installation failed, the Firewall on your computer may be blocking the necessary network connection to the machine. In this case, you will need to disable the Firewall on your computer and re-install the drivers. For how to disable the Firewall, see *General problems* on page 115. If you are using personal Firewall software, see the User's Guide for your software or contact the software manufacturer.

Printing problems

Print job is not printed

Make sure the status and configuration of the print server. Check the following:

1. Make sure that the machine is powered on, is on-line and ready to print.

2. Print the Network Configuration List of the machine and check if the settings such as IP address settings are correct for your network. The problem may be the result of mismatched or duplicate IP address. Verify that the IP address is correctly loaded into the print server, and make sure that no other nodes on the network have this IP address. For information on how to print the Network Configuration List, see *Printing the Network Configuration List* on page 87.

3. Verify that the print server is on your network as follows:

   ■ **For Windows®**

   1 Try pinging the print server from the host operating system command prompt with the command:

   `ping ipaddress`

   Where `ipaddress` is the print server IP address (note that in some instances it can take up to two minutes for the print server to load its IP address after setting the IP address).

   2 If a successful response is received, then proceed to *Windows® 2000/XP, Windows Vista® and Windows Server® 2003 IPP troubleshooting* on page 124. Otherwise, proceed to ❹.

   ■ **For Mac OS® X 10.2.4 or greater**

   1 From the **Go** menu, choose **Applications**.

   2 Open the **Utilities** folder.

   3 Double click the **Terminal** icon.

   4 Try pinging the print server from the Terminal window:

   `ping ipaddress`

   Where `ipaddress` is the print server IP address (note that in some instances it can take up to two minutes for the print server to load its IP address after setting the IP address).

4. If you have tried ❶ to ❸ above and it does not work, then reset the print server back to the default factory settings and try from the initial setup again. For information how to reset to the default factory settings, see *Restoring the network settings to factory default* on page 87.

Error during printing

If you try to print while other users are printing large amounts of data (e.g. many pages or pages with a large amount of graphics at high resolution), the printer is unable to accept your print job until the ongoing printing is finished. If the waiting time of your print job exceeds a certain limit, a time out situation occurs, which causes the error message. In such situations, execute the print job again after the other jobs are completed.

Scanning and PC Fax problems

The network scanning feature does not work in Windows®

The network PC Fax feature does not work in Windows®

Firewall settings on your PC may be rejecting the necessary network connection. Follow the instructions below to disable the Firewall. if you are using personal Firewall software, see the User's Guide for your software or contact the software manufacturer.

Windows® XP SP2 users:

1. Click the **Start** button, **Control Panel**, **Network and Internet Connections** and then **Windows Firewall**. Make sure that **Windows Firewall** on the **General** tab is set to On.
2. Click the **Advanced** tab and **Settings...** button of **Network Connection Settings**.
3. Click the **Add** button.
4. To add port 54925 for network scanning, enter the information below:
   1. In **Description of service**: Enter any description, for example, "Brother Scanner".
   2. **In Name or IP address (for example 192.168.0.12) or the computer hosting this service on your network**: Enter "Localhost".
   3. In **External Port number for this service**: Enter "54925".
   4. In **Internal Port number for this service**: Enter "54925".
   5. Make sure **UDP** is selected.
   6. Click **OK**.
5. Click the **Add** button.
6. To add port 54926 for network PC Fax, enter the information below:
   1. In **Description of service**: Enter any description, for example, "Brother PC Fax".
   2. In **Name or IP address (for example 192.168.0.12) or the computer hosting this service on your network**: Enter "Localhost".
   3. In **External Port number for this service**: Enter "54926".
   4. In **Internal Port number for this service**: Enter "54926".
   5. Make sure **UDP** is selected.
   6. Click **OK**.
7. If you still have trouble with your network connection, click the **Add** button.
8. To add port 137 for network scanning, network printing and network PC Fax receiving, enter the information below:
   1. In **Description of service**: Enter any description, for example, "Brother PC Fax receiving".
   2. In **Name or IP address (for example 192.168.0.12) or the computer hosting this service on your network**: Enter "Localhost".
   3. In **External Port number for this service**: Enter "137".
   4. In **Internal Port number for this service**: Enter "137".
   5. Make sure **UDP** is selected.
   6. Click **OK**.

9 Make sure if the new setting is added and is checked, and then click **OK**.

Note

After the Brother software package is installed, enable your Firewall again.

Windows Vista® users:

1 Click the **Start** button, **Control Panel**, **Network and Internet**, **Windows Firewall** and click **Change settings**.

2 When the **User Account Control** screen appears, do the following.

- Users who have administrator rights: Click **Continue**.
- For users who do not have administrator rights: Enter the administrator password and click **OK**.

3 Make sure that **on (recommended)** is selected on the **General** tab.

4 Click the **Exceptions** tab.

5 Click the **Add port...** button.

6 To add port 54925 for network scanning, enter the information below:
1. In **Name**: Enter any description, for example, “Brother Scanner”.
2. In **Port number**: Enter “54925”.
3. Make sure **UDP** is selected.
4. Click **OK**.

7 Click the **Add port...** button.

8 To add port 54926 for network PC Fax, enter the information below:
1. In **Name**: Enter any description, for example, “Brother PC Fax”.
2. In **Port number**: - Enter “54926”.
3. Make sure **UDP** is selected.
4. Click **OK**.

9 Make sure that the new setting is added and is checked, and then click **Apply**.

10 If you still have trouble with your network connection such as network scanning or printing, check **File and Printer Sharing** box in the **Exceptions** tab and then click **Apply**.

Note

After the Brother software package is installed, enable your Firewall again.

Wireless network troubleshooting

Wireless setup problems

The Brother print server is not found during setup by the Wireless Device Setup Wizard.

1. Make sure that the machine is powered on, is on-line and ready to print.
2. Move your computer closer to the Brother machine and try again.
3. Reset the print server back to its default factory settings and try again. For the information how to reset to the factory default settings, see *Restoring the network settings to factory default* on page 87.

Why do I have to change my machine's network setting to "Wired LAN" during setup although I am trying to setup Wireless LAN?

If you are using Windows® 2000, Mac OS® X 10.2.4 or greater or your computer is connected to the wireless network using a network cable, it is recommended you temporarily connect the machine to your access point/router, hub or router using a network cable. You will also need to change your machine's network setting to wired LAN temporarily. Your machine's network setting will be changed to wireless LAN automatically or during the course of the setup.

- For Windows®:

  See:

  Using the Setup Wizard from the control panel on page 29

  Wireless configuration for Windows® using the Brother installer application on page 36

- For Macintosh®:

  See:

  Using the Setup Wizard from the control panel on page 29

  Wireless configuration for Macintosh® using the Brother installer application on page 56

Wireless connection problem

The wireless network connection is sometimes disabled.

The wireless network connection status is affected by the environment where the Brother printer and other wireless devices are located. The following conditions may cause connection problems:

- A concrete or metal framed wall is installed between the Brother machine and the access point/router.
- Electric appliances such as televisions, computer appliances, microwave ovens, intercoms, mobile/cellular phones and the battery chargers and AC power adapters are installed close to your network.
- A broadcast station or high-tension wire is located close to your network.
- A nearby fluorescent light is being switched on or off.

Protocol-specific troubleshooting

Windows® 2000/XP, Windows Vista® and Windows Server® 2003 IPP troubleshooting

I want to use a different Port number other than 631.

If you are using Port 631 for IPP printing, you may find that your firewall may not let the print data through. If this is the case, use a different port number (port 80), or configure your Firewall to allow Port 631 data through.

To send a print job using IPP to a printer using Port 80 (the standard HTTP port) enter the following when configuring your Windows® 2000/XP, Windows Vista® and Windows Server® 2003 system.

`http://ipaddress/ipp`

The “Go to printer’s Web site” option in Windows® XP and Windows Vista® is not working
The “Get More Info” option in Windows® 2000 and Windows Server® 2003 is not working

If you are using a URL of:

`http://ipaddress:631` or `http://ipaddress:631/ipp`

the **Get More Info** option in Windows® 2000/XP, Windows Vista® and Windows Server® 2003 will not function. if you wish to use the **Get More Info** option, use the following URL:

`http://ipaddress`

This will then force Windows® 2000/XP, Windows Vista® and Windows Server® 2003 to use Port 80 to communicate with the Brother print server.

Web Based Management (web browser) troubleshooting (TCP/IP)

1. If you cannot connect to the print server using your web browser it may be worth checking the Proxy Settings of your browser. Look in the Exceptions setting and if necessary, type in the IP address of the print server. This will stop your computer from trying to connect to your ISP or proxy server every time you wish to look at the print server.
2. Make sure that you are using the correct web browser, we recommend Microsoft Internet Explorer 6.0® (or greater) or Firefox® 1.0 (or greater) for Windows® and Safari™ 1.0 for Macintosh®. Please also make sure that JavaScript and Cookies are always enabled in whichever browser you use. We recommend you upgrade to Safari™ 1.2 or greater to enable JavaScript. If a different web browser is used, make sure it is compatible with HTTP 1.0 and HTTP 1.1.

A Appendix A

Using services

A service is a resource that can be accessed by computers that wish to print to the Brother print server. The Brother print server provides the following predefined services (do a SHOW SERVICE command in the Brother print server remote console to see a list of available services): Enter `HELP` at the command prompt for a list of supported commands.

Service (Example)	Definition
BINARY_P1	TCP/IP binary
TEXT_P1	TCP/IP text service (adds carriage return after each line feed)
PCL_P1	PCL® service (switches PJL-compatible printer to PCL® mode)
BRNxxxxxxxxxxx	TCP/IP binary
BRNxxxxxxxxxxx_AT	PostScript® service for Macintosh®
POSTSCRIPT_P1	PostScript® service (switches PJL-compatible printer to PostScript® mode)

Where “xxxxxxxxxxx” is your machine’s Ethernet address (MAC address) for the wired network.

Other ways to set the IP address (for advanced users and administrators)

For information on how to configure your machine for a network using the BRAdmin Light utility, see *Setting the IP address and subnet mask* on page 13.

Using DHCP to configure the IP address

The Dynamic Host Configuration Protocol (DHCP) is one of several automated mechanisms for IP address allocation. If you have a DHCP server in your network, the print server will automatically obtain its IP address from the DHCP server and register its name with any RFC 1001 and 1002-compliant dynamic name services.

Note

If you do not want your print server configured via DHCP, BOOTP or RARP, you must set the BOOT Method to static so that the print server has a static IP address. This will prevent the print server from trying to obtain an IP address from any of these systems. To change the BOOT Method, use the machine’s control panel `LAN` menu, BRAdmin applications, Remote Setup or Web Based Management (web browser).

Using BOOTP to configure the IP address

BOOTP is an alternative to RARP that has the advantage of allowing configuration of the subnet mask and gateway. In order to use BOOTP to configure the IP address make sure that BOOTP is installed and running on your host computer (it should appear in the `/etc/services` file on your host as a real service; type `man bootpd` or refer to your system documentation for information). BOOTP is usually started up via the `/etc/inetd.conf` file, so you may need to enable it by removing the "#" in front of the bootp entry in that file. For example, a typical bootp entry in the /etc/inetd.conf file would be:

```
#bootp dgram udp wait /usr/etc/bootpd bootpd -i
```

Depending on the system, this entry might be called "bootps" instead of "bootp".

Note

In order to enable BOOTP, simply use an editor to delete the "#" (if there is no "#", then BOOTP is already enabled). Then edit the BOOTP configuration file (usually `/etc/bootptab`) and enter the name, network type (1 for Ethernet), Ethernet address (MAC address) and the IP address, subnet mask and gateway of the print server. Unfortunately, the exact format for doing this is not standardized, so you will need to refer to your system documentation to determine how to enter this information (many UNIX® systems also have template examples in the bootptab file that you can use for reference). Some examples of typical `/etc/bootptab` entries include: ("BRN" below is "BRW" for a wireless network.)

```
BRN008077310107 1  00:80:77:31:01:07 192.168.1.2
```

and:

```
BRN008077310107:ht=ethernet:ha=008077310107:\
ip=192.168.1.2:
```

Certain BOOTP host software implementations will not respond to BOOTP requests if you have not included a download filename in the configuration file. If this is the case, simply create a null file on the host and specify the name of this file and its path in the configuration file.

As with RARP, the print server will load its IP address from the BOOTP server when the printer is powered on.

Using RARP to configure the IP address

The Brother print server's IP address can be configured using the Reverse ARP (RARP) facility on your host computer. This is done by editing the `/etc/ethers` file (if this file does not exist, you can create it) with an entry similar to the following: ("BRN" below is "BRW" for a wireless network.)

```
00:80:77:31:01:07   BRN008077310107
```

Where the first entry is the Ethernet address (MAC address) of the print server and the second entry is the name of the print server (the name must be the same as the one you put in the `/etc/hosts` file).

If the RARP daemon is not already running, start it (depending on the system the command can be `rarpd`, `rarpd -a`, `in.rarpd -a` or something else; type `man rarpd` or refer to your system documentation for additional information). To verify that the RARP daemon is running on a Berkeley UNIX® based system, type the following command:

```
ps -ax | grep -v grep | grep rarpd
```

For AT&T UNIX®-based systems, type:

```
ps -ef | grep -v grep | grep rarpd
```

The Brother print server will get the IP address from the RARP daemon when the printer is powered on.

Using APIPA to configure the IP address

The Brother print server supports the Automatic Private IP Addressing (APIPA) protocol. With APIPA, DHCP clients automatically configure an IP address and subnet mask when a DHCP server is not available. The device chooses it's own IP address in the range 169.254.1.0 through to 169.254.254.255. The subnet mask is automatically set to 255.255.0.0 and the gateway address is set to 0.0.0.0.

By default, the APIPA protocol is enabled. If you want to disable the APIPA protocol, you can disable it using control panel of the machine. For more information, see *APIPA* on page 80.

If the APIPA protocol is disabled, the default IP address of a Brother print server is 192.0.0.192. However, you can easily change this IP address number to match with the IP address details of your network.

Using ARP to configure the IP address

If you are unable to use the BRAdmin application and your network does not use a DHCP server, you can also use the ARP command. The ARP command is available on Windows® systems that have TCP/IP installed as well as UNIX® systems. To use ARP enter the following command at the command prompt:

```
arp -s ipaddress ethernetaddress
ping ipaddress
```

Where `ethernetaddress` is the Ethernet address (MAC address) of the print server and `ipaddress` is the IP address of the print server. For example:

■ **Windows® systems**

Windows® systems require the dash “-” character between each digit of the Ethernet address (MAC address).

```
arp -s 192.168.1.2 00-80-77-31-01-07
ping 192.168.1.2
```

■ **UNIX®/Linux systems**

Typically, UNIX® and Linux systems require the colon “:” character between each digit of the Ethernet address (MAC address).

```
arp -s 192.168.1.2 00:80:77:31:01:07
ping 192.168.1.2
```

Note

You must be on the same Ethernet segment (that is, there cannot be a router between the print server and operating system) to use the arp -s command.

If there is a router, you may use BOOTP or other methods described in this chapter to enter the IP address. If your administrator has configured the system to deliver IP addresses using BOOTP, DHCP or RARP your Brother print server can receive an IP address from any one of these IP address allocation systems. In which case, you will not need to use the ARP command. The ARP command only works once. For security reasons, once you have successfully configured the IP address of a Brother print server using the ARP command, you cannot use the ARP command again to change the address. The print server will ignore any attempts to do this. If you wish to change the IP address again, use a Web Based Management (web browser), TELNET (using the SET IP ADDRESS command) or factory reset the print server (which will then allow you to use the ARP command again).

Using the TELNET console to configure the IP address

You can also use the TELNET command to change the IP address.

TELNET is an effective method to change the machine's IP address. But a valid IP address must already be programmed into the print server.

Type `TELNET <command line>` at the command prompt of the system prompt, where `<command line>` is the IP address of the print server. When you are connected, push the Return or Enter key to get the "#" prompt. Enter the password "**access**" (the password will not appear on the screen).

You will be prompted for a user name. Enter anything in response to this prompt.

You will then get the `Local>` prompt. Type `SET IP ADDRESS ipaddress`, where `ipaddress` is the desired IP address you wish to assign to the print server (check with your network administrator for the IP address to use). For example:

```
Local> SET IP ADDRESS 192.168.1.3
```

You will now need to set the subnet mask by typing `SET IP SUBNET subnet mask`, where `subnet mask` is the desired subnet mask you wish to assign to the print server (check with your network administrator for the subnet mask to use). For example:

```
Local> SET IP SUBNET 255.255.255.0
```

If you do not have any subnets, use one of the following default subnet masks:

255.0.0.0 for class A networks

255.255.0.0 for class B networks

255.255.255.0 for class C networks

The leftmost group of digits in your IP address can identify the type of network you have. The value of this group ranges from 1 through 127 for Class A networks (e.g., 13.27.7.1), 128 through 191 for Class B networks (e.g.,128.10.1.30), and 192 through 255 for Class C networks (e.g., 192.168.1.4).

If you have a gateway (router), enter its address with the command `SET IP ROUTER routeraddress`, where routeraddress is the desired IP address of the gateway you wish to assign to the print server. For example:

```
Local> SET IP ROUTER 192.168.1.4
```

Type `SET IP METHOD STATIC` to set the method of IP access configuration to static.

To verify that you have entered the IP information correctly, type `SHOW IP`.

Type `EXIT` or Ctrl-D (i.e., hold down the control key and type "D") to end the remote console session.

Using the Brother Web BRAdmin server software for IIS to configure the IP address

The Web BRAdmin server software is designed to manage all LAN/WAN Brother network connected devices. By installing the Web BRAdmin server software on a computer running IIS [1], administrators with a web browser can connect to the Web BRAdmin server, which then communicates with the device itself. Unlike the BRAdmin Professional utility, which is designed for Windows® systems only, the Web BRAdmin server software can be accessed from any client computer with a web browser that supports Java.

Please note this software is not included on the CD-ROM that was supplied with your Brother product.

Please visit http://solutions.brother.com to learn more about this software and to download it.

[1] Internet Information Server 4.0 or Internet Information Services 5.0/5.1/6.0/7.0

Installation when using web services (For Windows Vista® users)

Note

Verify the host computer and print server are either on the same subnet, or that the router is properly configured to pass data between the two devices.

1. Click **Start**, then choose **Network**.
2. The machine's Web Services Name will be shown with the printer icon. Right click the machine you want to install.

Note

The Web Services Name for the Brother machine is your model name and the Ethernet address (MAC address) of your machine (e.g. Brother MFC-XXXX [XXXXXXXXXXXX]).

3. From the pull down menu, click **Install**.
4. When the **User Account Control** screen appears, do the following.
   - Users who have administrator rights: Click **Continue**.
   - For users who do not have administrator rights: Enter the administrator password and click **OK**.
5. Choose **Locate and install driver software (recommended)**.
6. Insert Brother CD-ROM.
7. Choose **Don't search online** and then **Browse my computer for driver software (advanced)** on your computer.
8. Choose your CD-ROM drive and then the **driver** \ **win2kxpvista** [1] \ **your language** folder.
   Click **OK**.

   [1] **winxp64vista64** for 64-bit OS users
9. Click **Next** to begin installation.

Installation when using a Network Print Queue or Share (printer driver only)

Note

If you are going to connect to a shared printer on your network, we recommend that you ask your system administrator about the queue or share name for the printer prior to installation.

1. Start the CD-ROM installation menu program according to the Quick Setup Guide.
2. Choose the model name and your language (if necessary), and then click **Install Other Drivers or Utilities**.
3. Click **Printer Driver (Only, for Network)**.
4. Click **Next** in response to the Welcome message. Follow the on-screen instructions.
5. Choose **Standard Installation** and click **Next**.
6. Choose **Network Shared Printer**, and then click **Next**.
7. Choose your printer's queue, and then click **OK**.

Note

Contact your administrator if you are not sure about the location and name of the printer in the network.

8. Click **Finish**. Setup is now complete.

B Appendix B

Print server specifications

Ethernet wired network

Network Board Model name	NC-6600h	
LAN	You can connect your machine to a network for Network Printing, Network Scanning, PC Fax and Remote Setup. [1] [2]	
Support for	Windows® 2000 Professional, Windows® XP,	
	Windows® XP Professional x64 Edition, Windows Vista®, Windows Server® 2003 and Windows Server® 2003 x64 Edition [2]	
	Mac OS® X 10.2.4 or greater	
Protocols	TCP/IP for IPv4:	ARP, RARP, BOOTP, DHCP, APIPA (Auto IP), WINS/NetBIOS name resolution, DNS resolver, mDNS, LLMNR responder, LPR/LPD, Custom Raw Port/Port9100, IPP, FTP server, FTP client, POP before SMTP, SMTP AUTH, APOP, TELNET, SNMPv1, HTTP server, TFTP client and server, SMTP client, ICMP, Web services
	TCP/IP for IPv6:	(Turned off as default) NDP, RA, DNS resolver, mDNS, LLMNR responder, LPR/LPD, Custom Raw Port/Port9100, IPP, FTP server, FTP client, POP before SMTP, SMTP AUTH, APOP, TELNET, SNMPv1, HTTP server, TFTP client and server, SMTP client, ICMP, Web services
	Other	LLTD responder
Network type	Ethernet 10/100 BASE-TX Auto Negotiation (Wired LAN)	
Management utilities [3]	BRAdmin Light for Windows® 2000 Professional, Windows® XP, Windows® XP Professional x64 Edition, Windows Vista®, Windows Server® 2003, Windows Server® 2003 x64 Edition and Mac OS® X 10.2.4 or greater	
	BRAdmin Professional for Windows® 2000 Professional, Windows® XP, Windows® XP Professional x64 Edition, Windows Vista®, Windows Server® 2003 and Windows Server® 2003 x64 Edition	
	Web BRAdmin for Windows® 2000 Professional, Windows® XP, Windows® XP Professional x64 Edition, Windows Vista®, Windows Server® 2003 and Windows Server® 2003 x64 Edition	
	Client computers with a web browser supporting Java™.	

1 PC Fax Send for Mac®

2 Printing only for Windows Server® 2003

3 BRAdmin Professional and Web BRAdmin are available as a download from http://solutions.brother.com

Ethernet wireless network

Network board model name	NC-7400w	
LAN	You can connect your machine to a network for Network Printing, Network Scanning, PC Fax and Remote Setup [1] [2].	
Support for	Windows® 2000 Professional, Windows® XP,	
	Windows® XP Professional x64 Edition, Windows Vista®, Windows Server® 2003 and Windows Server® 2003 x64 Edition	
	Mac OS® X 10.2.4 or greater	
Protocols	TCP/IP for IPv4:	ARP, RARP, BOOTP, DHCP, APIPA (Auto IP), WINS/NetBIOS name resolution, DNS resolver, mDNS, LLMNR responder, LPR/LPD, Custom Raw Port/Port9100, IPP, FTP server, FTP client, POP before SMTP, SMTP AUTH, APOP, TELNET, SNMPv1, HTTP server, TFTP client and server, SMTP client, ICMP, Web services
	TCP/IP for IPv6	(Turned off as default) NDP, RA, DNS resolver, mDNS, LLMNR responder, LPR/LPD, Custom Raw Port/Port9100, IPP, FTP server, FTP client, POP before SMTP, SMTP AUTH, APOP, TELNET, SNMPv1, HTTP server, TFTP client and server, SMTP client, ICMP, Web services
	Other	LLTD responder
Management utilities [3]	BRAdmin Light for Windows® 2000 Professional, Windows® XP, Windows® XP Professional x64 Edition, Windows Vista®, Windows Server® 2003, Windows Server® 2003 x64 Edition and Mac OS® X 10.2.4 or greater	
	BRAdmin Professional for Windows® 2000 Professional, Windows® XP, Windows® XP Professional x64 Edition, Windows Vista®, Windows Server® 2003 and Windows Server® 2003 x64 Edition	
	Web BRAdmin for Windows® 2000 Professional, Windows® XP, Windows® XP Professional x64 Edition, Windows Vista®, Windows Server® 2003 and Windows Server® 2003 x64 Edition	
	Client computers with a web browser supporting Java™ [1].	
Network type	IEEE 802.11 b/g (Wireless LAN)	
Frequency	2412-2472 MHz	
RF channels	USA/Canada	1-11
	Japan	802.11b: 1-14, 802.11g: 1-13
	Others	1-13
Communication mode	Infrastructure, Ad-hoc (802.11b only)	

Data rates	802.11b	11/5.5/2/1 Mbps
	802.11g	54/48/36/24/18/12/11/9/6/5.5/2/1 Mbps
Link distance	70m (233 ft.) at lowest data rate (The distance rate will vary upon environment and other equipment location.)	
Network security	SSID/ESSID, 128 (104) / 64 (40) bit WEP, WPA/WPA2-PSK (TKIP/AES), LEAP (CKIP)	
Setup support utilities	SecureEasySetup™, Wi-Fi Protected Setup™, AOSS™	

[1] PC Fax Send for Mac®

[2] Only printing for Windows Server® 2003

[3] BRAdmin Professional and Web BRAdmin are available as a download from http://solutions.brother.com

Function table and default factory settings

The factory settings are shown in Bold with an asterisk.

Main Menu	Submenu	Menu Selections		Options	Page
5.LAN	1.Wired	1.TCP/IP	1.BOOT Method	**Auto*** Static RARP BOOTP DHCP (If you choose Auto, RARP, BOOTP or DHCP, you will be asked to enter how many times the machine tries to obtain the IP address.)	74
			2.IP Address	[000-255].[000-255].[000-255].[000-255] **[000].[000].[000].[000]*** [1]	76
			3.Subnet Mask	[000-255].[000-255].[000-255].[000-255] **[000].[000].[000].[000]*** [1]	76
			4.Gateway	[000-255].[000-255].[000-255].[000-255] **[000].[000].[000].[000]***	77
			5.Node Name	BRNxxxxxxxxxxxx (up to 15 characters)	77
			6.WINS Config	**Auto*** Static	78
			7.WINS Server	(Primary) [000-255].[000-255].[000-255].[000-255] **[000].[000].[000].[000]*** (Secondary) [000-255].[000-255].[000-255].[000-255] **[000].[000].[000].[000]***	78

Main Menu	Submenu	Menu Selections		Options	Page
5.LAN (continued)	**1.Wired** (continued)	**1.TCP/IP** (continued)	**8.DNS Server**	(Primary) [000-255].[000-255].[000-255].[000-255] **[000].[000].[000].[000]*** (Secondary) [000-255].[000-255].[000-255].[000-255] **[000].[000].[000].[000]***	79
			9.APIPA	**On*** Off	80
			0.IPv6	On **Off***	81
		2.Ethernet	—	**Auto*** 100B-FD 100B-HD 10B-FD 10B-HD	81
		3.Set to Default	**1.Reset**	—	84
			2.Exit	—	
		4.Wired Enable	—	**On*** Off	85
	2.WLAN	**1.TCP/IP**	**1.BOOT Method**	**Auto*** Static RARP BOOTP DHCP (If you choose Auto, RARP, BOOTP or DHCP, you will be asked to enter how many times the machine tries to obtain the IP address.)	74
			2.IP Address	[000-255].[000-255].[000-255].[000-255] **[000].[000].[000].[000]*** [1]	76
			3.Subnet Mask	[000-255].[000-255].[000-255].[000-255] **[000].[000].[000].[000]*** [1]	76

Main Menu	Submenu	Menu Selections		Options	Page
5.LAN (continued)	**2.WLAN** (continued)	**1.TCP/IP** (continued)	**4.Gateway**	[000-255].[000-255]. [000-255].[000-255] **[000].[000].[000].[000]***	77
			5.Node Name	BRWxxxxxxxxxxxx (up to 15 characters)	77
			6.WINS Config	**Auto*** Static	78
			7.WINS Server	(Primary) [000-255].[000-255]. [000-255].[000-255] **[000].[000].[000].[000]*** (Secondary) [000-255].[000-255]. [000-255].[000-255] **[000].[000].[000].[000]***	78
			8.DNS Server	(Primary) [000-255].[000-255]. [000-255].[000-255] **[000].[000].[000].[000]*** (Secondary) [000-255].[000-255]. [000-255].[000-255] **[000].[000].[000].[000]***	79
			9.APIPA	**On*** Off	80
			0.IPv6	On **Off***	81
		2.Setup Wizard	—	—	82
		3.SES/WPS/AOSS	—	—	82
		4.WPS w/PIN code	—	—	82

Main Menu	Submenu	Menu Selections		Options	Page
5.LAN (continued)	**2.WLAN** (continued)	**5.WLAN Status**	**1.Status**	Active(11b) Active(11g) Wired LAN Active WLAN OFF AOSS Active Connection NG or Connection error	82
			2.Signal	Strong Medium Weak None	83
			3.SSID	—	83
			4.Comm.Mode	Ad-hoc Infrastructure	84
		6.Set to Default	**1.Reset**	—	84
			2.Exit	—	
		7.WLAN Enable	—	On **Off***	85
	3.Scan to FTP	—	**Color 150 dpi***	(If you chose Color option)	86
			Color 300 dpi	**PDF***	
			Color 600 dpi	JPEG	
			Gray 100 dpi	(If you chose Gray option)	
			Gray 200 dpi	PDF	
			Gray 300 dpi	**JPEG***	
			B&W 200 dpi		
			B&W 200x100 dpi	(If you chose B&W option)	
				PDF*	
				TIFF	
	0.Factory Reset	**1.Reset**	—	1.Yes 2.No	87
		2.Exit	—	—	

[1] On connection to the network, the machine will automatically set the IP address and Subnet Mask to values appropriate for your network.

Entering Text

When setting certain menu selections, such as the Station ID, you will need to type text characters. The dial pad keys have letters printed on them. The keys: **0**, **#** and ✳ do not have printed letters because they are used for special characters.

Press the appropriate dial pad key the required number of times to access the characters below:

Press Key	one time	two times	three times	four times
2	A	B	C	2
3	D	E	F	3
4	G	H	I	4
5	J	K	L	5
6	M	N	O	6
7	P	Q	R	S
8	T	U	V	8
9	W	X	Y	Z

Inserting spaces

To enter a space in a fax number, press ▶ once between numbers. To enter a space in a name, press ▶ twice between characters.

Making corrections

If you entered a letter incorrectly and want to change it, press ◀ to move the cursor to the incorrect character, and then press **Clear/Back**.

Repeating letters

To enter a character on the same key as the previous character, press ▶ to move the cursor right before pressing the key again.

Special characters and symbols

Press ✳, **#** or **0**, and then press ◀ or ▶ to move the cursor to the symbol or character you want.
Press **OK** to choose it. The symbols and characters below will appear depending on your menu selection.

Press ✳	for	(space) ! " # $ % & ' ( ) ✳ + , - . / €
Press **#**	for	: ; < = > ? @ [ ] ^ _ ¥ ~ ‘ | { }
Press **0**	for	(For USA) É À È Ê Î Ç Ë Ö 0
		(For UK) Ä Ë Ö Ü À Ç È É 0

C Index

A

Accessories and supplies iv
Ad-hoc mode 47, 67
AES 21
AOSS 26, 32, 43, 63, 82
AOSS™ 32
APIPA 7, 80, 127
APOP 111
ARP 128
Authentication 20

B

BINARY_P1 125
BOOTP 7, 75, 126
BRAdmin Light 1, 2
BRAdmin Professional 1, 3, 13, 16, 17, 114
BRNxxxxxxxxxxx 125
BRNxxxxxxxxxxx_AT 125
Brother
  accessories and supplies iv
Brother installer application 26, 28
Brother Solutions Center 13, 17

C

Channels 20
CKIP 21
Control panel 17

D

DHCP 7, 75, 125
DNS client 7
DNS server 79
Domain 98, 100, 112
Driver Deployment Wizard 1, 88

E

Encryption 21

F

Factory default 87
Firewall 115, 117, 120

G

Gateway 77

H

Hyper Text Transfer Protocol 18

I

Infrastructure mode 36, 56
Internet printing 1, 97
IP address 10, 76
IPP 8, 98
IPv6 ..... 9, 81

L

LEAP 21
LLMNR 8
LLTD 9
LPR/LPD 7

M

Macintosh printing 103
mDNS 8

N

Network Configuration List 87
Network Key 21
Network printing 94
Network shared printing 5
Node name 77

O

Open system 20
Operating systems 1

P

Password 97
PBC 26, 32, 82
PCL_P1 125
Peer-to-Peer 4
PIN Method 27, 34, 82
Ping 117, 118
POP before SMTP 111, 112
Port9100 7
POSTSCRIPT_P1 125
Print server setting 16
Protocol 7

R

RARP 7, 75, 127
Remote Setup 1, 18
Restoring the network settings 87
RFC 1001 125

S

SecureEasySetup™ 26, 32, 43, 63, 82
Service 125
Shared key 20
Simple Network Configuration for Mac OS® X 116
SMTP client 7
SMTP-AUTH 111, 112
SNMP 8
Specifications 133
SSID 20
Status Monitor 1
Subnet mask 11, 76

T

TCP/IP 7, 74
TCP/IP printing 94
TELNET 8, 129
Text
  entering 140
  special characters 140
TEXT_P1 125
TKIP 21
Trademarks i

W

Web Based Management (web browser) 18
Web BRAdmin 3
Web server (HTTP) 8
Web services 8, 131
WEP 21
Wi-Fi Protected Setup™ 26, 27, 32, 34, 43, 63, 82
WINS Config 78
WINS Server 78
Wireless network 19
WPA-PSK/WPA2-PSK 21