



NETWORK USER'S GUIDE

Internet Fax and Windows® Internet Printing

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.

Definitions of warnings, cautions, and 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.

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- 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. Go to the Brother Solutions Center (<http://solutions.brother.com>) for more information on Windows® XP Professional x64 Edition support.

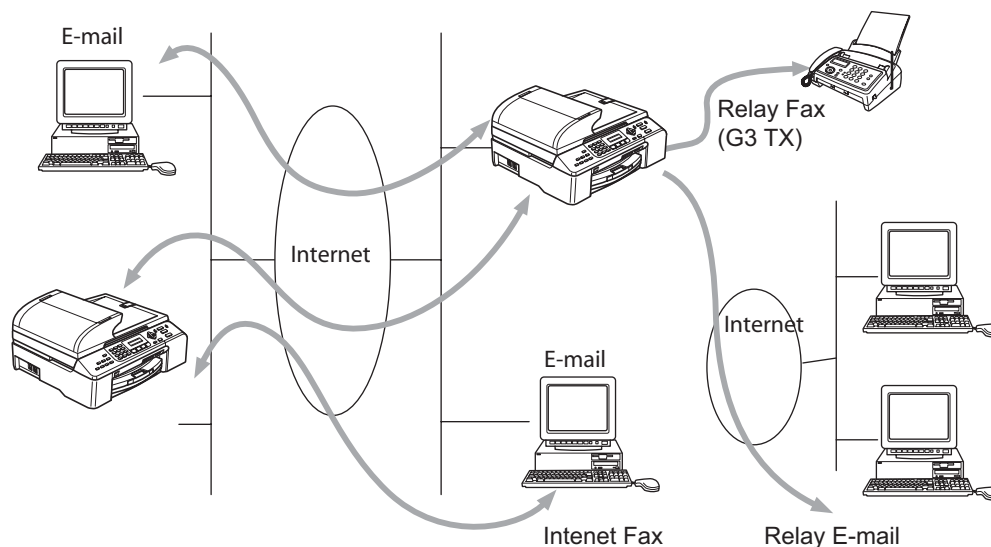
For technical and operational assistance, you must call the country where you purchased the machine. Calls must be made **from within** that country.

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Overview

Internet Faxing (I-Fax) allows you to send and receive FAX documents using the Internet as the transport mechanism. Documents are transmitted in E-mail messages as attached TIFF-F files. This means that PC's are also able to receive and send documents, providing that the PC has as an application that can generate and view TIFF-F files, you can use Microsoft® Imaging or a TIFF-F viewer application. Any documents sent via the machine will automatically be converted into a TIFF-F format. If you wish to send and receive messages to and from your machine, your mail application on the PC must be able to support the MIME format.

**Note**

I-Fax is available in Black & White only.

Getting Connected

Before sending or receiving an Internet Fax you must configure your Brother machine to communicate with your network and mail server. You must ensure the following: a correctly configured IP address for your machine, an E-mail address for your machine, the mail server(s) IP address, mailbox name and password for your Brother machine. If you are unsure of any of these items, please contact your systems Administrator. For details of how to configure this information, see *Setup Internet* on page 19.

Control Panel Key Functions

Search/Speed Dial + 1

Used to change input mode. You can use Dial Pad keys as Standard alphabet character key(26 letters), as well as @. space ! " # % & ' () + / : ; < > = ? [] ^ - \$, _ and Numbers.

Search/Speed Dial + 3

To change between upper case and lower case for entering the E-mail/ I-Fax address.

◀ or ▶

Moves the LCD cursor to the left or right when you enter text.

OK

Used to store multiple numbers.

Start

Begins transmitting the document.

Stop/Exit

Deletes entered data and stops the scanning or transmitting process.

Search/Speed Dial

These functions work the same way as with conventional machine's. However, please note that you cannot use chain dialling for E-mail addresses.

Search/Speed Dial + Mono Start

Used to receive E-mail from the POP3 server manually.



Note

Search/Speed-Dial functions work the same way as with conventional machine's. However, please note that you cannot use chain dialling for E-mail addresses.

Sending an Internet Fax

Sending an Internet Fax is the same as sending a normal Fax. If you have already programmed the addresses of the destination Internet Fax machines as Speed-Dial locations, you can send the Internet Fax by loading the document into the machine, use the Fax Resolution key to set the preferred resolution and select a Speed-Dial number and pressing **Mono Start**.

If you wish to manually enter the Internet Fax Address load the document into the machine and press **Search/Speed Dial** and **1** simultaneously to change into the "alphabet" dialling mode.

To manually enter the Internet Fax address, see *Entering text* on page 29.

If you specify more than 16 characters, the LCD panel will scroll the name to the left character by character. You can enter up to 60 characters.

- 1 Press **Mono Start** to send the document.

After the document is scanned, it is transmitted to the Recipient Internet Fax Machine automatically via your SMTP server. You can cancel the send operation by pressing the **Stop/Exit** button during scanning. After the transmission has finished, the machine will return to standby mode. See *Setup Internet* on page 19

Some E-mail servers do not allow you to send large E-mail documents (the System Administrator will often place a limit on the maximum E-mail size). You can enable the Limit Size of the Sent Mail feature (See *Size Limit* on page 23). The machine will display *Out of Memory* when trying to send E-mail documents over 1Mbyte in size. The document will not be sent and an error report will be printed. The document you are sending should be separated into smaller documents that will be accepted by the mail server. You can turn on this feature through the LAN function menu.

Receiving an E-mail or Internet Fax

There are 2 ways you can receive E-mail messages:

- POP3 receiving at regular intervals
- POP3 receiving (manually initiated)

Using POP3 receiving the machine must poll the E-mail server to receive the print jobs (See *Setup Internet* on page 19). This polling can occur at set intervals (for example, you can configure the machine to poll the E-mail server at 10 minute intervals, see *Poll Frequency* on page 21) or you can manually poll the server by pressing the **Search/Speed Dial + Mono Start** button.

If your machine starts to receive E-mail print jobs, the LCD panel will reflect this activity. For example, you will see *Receiving* on the LCD panel followed by "xx E-mail(S)". If you press the **Search/Speed Dial + Mono Start** button to manually poll the E-mail server for E-mail print jobs and there are no mail documents waiting to be printed, the machine will display *No Mail* on the LCD panel for two seconds.

If your machine is out of paper when receiving data, the received data will be held in the machine's memory. To print this data, press **Mono Start** after paper is re-inserted into the machine. (For Chinese machines, Memory receive must be switched "ON".)

If the received mail is not in a plain text format or an attached file is not in the TIFF-F format, the following error message will be printed: ATTACHED FILE FORMAT NOT SUPPORTED. FILE NAME:XXXXXX.doc. If the received mail is too large, the following error message will be printed: E-MAIL FILE TOO LARGE. If Delete POP Receive Error Mail is On (default) then error mail is automatically deleted from the E-mail Server (See *Del Error Mail* on page 22).

Receiving an Internet Fax to a PC

When a PC receives an Internet Fax document, the document is attached to a mail message that informs the PC that it has received a document from an Internet Fax. This is notified in the Subject field of the received mail message (See *Sender Subject* on page 22).

If the PC to which you wish to send a document is not running Windows® 98/98SE/Me/2000/XP/XP Professional x64 Edition operating system, please inform the PC's owner that they must install some software that can view TIFF-F files.

You can use “Microsoft® Imaging” that is supplied with Windows® 98/Me/2000 and Windows “Picture and Fax Viewer” with Windows XP/XP Professional x64 Edition.

Forwarding Received E-mail and Fax Messages

You can forward received E-mail or standard fax messages to another E-mail address or fax machine. Received messages can be forwarded via E-mail to a PC or Internet Fax. They can also be forwarded via standard phone lines to another machine.

The setting can be enabled through the the machine's control panel. The steps for configuring Fax Forward can be found in the User's Guide supplied with your machine.

Please see the User's Guide included with the machine to check that this feature is supported.

TX Verification Mail

Transmission Verification Mail supports two separate functions. Verification Mail for sending allows you request notification from the receiving station that the I-Fax or E-mail was received and processed. Verification Mail for receiving allows you to transmit a default report back to the sending station after successfully receiving and processing an I-Fax or E-mail.

To use this feature you must set the **Notification** option within the **Setup Mail RX** and **Setup Mail TX** options.

Setup Mail (TX)

You can set the **Notification** option in the **Setup Mail TX** option to either ON or OFF. When switched to ON an additional field of information is sent with the image data. This field is named **MDN** (See *Notification* on page 23).

MDN

Mail Disposition Notification - This field requests the status of the I-Fax / E-mail message after delivery through the SMTP (Simple Mail Transfer Protocol) transport system. Once the message has arrived at the Receiving station this data is used when the machine or user reads or prints the received I-Fax or E-mail. For example, if the message is opened for reading or is printed the receiving station sends back a notification to the original sending machine or user.

The receiving station must support the MDN field in order to be able to send a notification report, otherwise the request will be ignored.

Setup Mail (RX)

There are three possible settings for this option ON/MDN/OFF.

■ Receive Notification “ON”

When switched to “ON” a fixed message is sent back to the sending station to indicate successful reception and processing of the message. These fixed messages depend on the operation requested by the sending station.

Report messages consist of

```
SUCCESS : Received From <mail address>
```

■ Receive Notification “MDN”

When switched to “MDN” a report as described above is sent back to the sending station if the originating station sent the “MDN” field to request confirmation.

■ Receive Notification “OFF”

OFF - Switches all forms of receive notification OFF, no messages are send back to the sending station regardless of the request (See *Notification* on page 22).

Error mail

If there is a mail delivery error while sending an Internet Fax, the mail server will send an error message back to the machine and the error message will be printed. If there is an error while receiving mail, an error message will be printed (Example: “The message being sent to the machine was not in a TIFF-F format.”).

Relay Broadcasting

This function allows the Brother machine to receive a document over the Internet, and then relay it to other fax machines through conventional telephone lines (See *Setup Relay* on page 24).

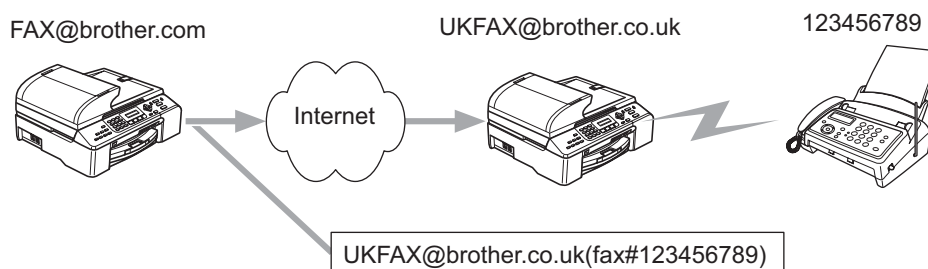
If you wish to use your machine as a relay broadcast device, you must specify the domain name that you trust at the machine, in other words, the portion of the domain after the ‘@’ sign (See *Relay Domain* on page 24).

A trusted domain refers to the E-mail address. For example, if the other party’s address is bob@brother.com, then we identify the domain as brother.com. If the E-mail address is jack@brother.co.uk, then we identify the domain as brother.co.uk.

Use care in selecting a trusted domain since any user on a trusted domain will be able to send a Relay Broadcast. You can register up to 5 domain names.

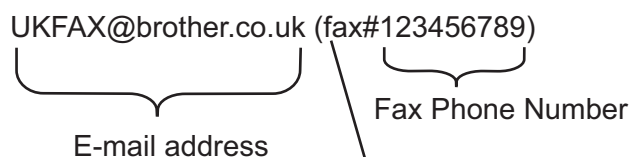
Relay Broadcast can support the relay of a document up to a maximum of 48 fax machines through conventional telephone lines.

Relay Broadcast from a machine



In this example, your machine has an E-mail address of FAX@brother.com, you wish to send a document from this machine to another machine in England with an E-mail address of UKFAX@brother.co.uk, this machine will then forward the document to a standard fax machine using a conventional telephone line. If your E-mail address is FAX@brother.com, you must configure a trusted domain name of brother.com on the machine in England that will broadcast the document to the conventional fax machine. If you do not enter the domain name information, then the machine in the middle (the machine that will broadcast the document) will not trust any internet jobs that it receives from the machine in the @brother.com domain.

After the trusted domain is set you can send the document from your machine [I.E. FAX@brother.com] by entering the E-mail address of the machine [I.E. UKFAX@brother.co.uk] that will forward the document followed by the phone number of the fax that will receive the document. The following is an example of how to enter the E-mail address and phone number.



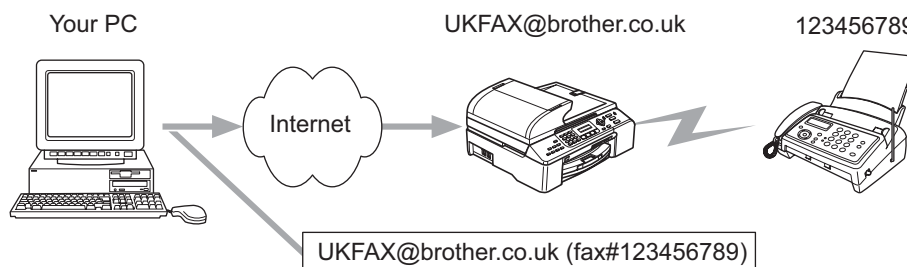
The word "fax#" must be included with the phone number inside the parenthesis.

Sending to multiple phone numbers:

If you want to have the document relayed to more than one standard fax machine the address can be entered using the following method:

- 1 Enter the phone number of the first Fax machine UKFAX@brother.co.uk(Fax#123).
- 2 Press **OK**.
- 3 Enter the phone number of the second Fax machine UKFAX@brother.co.uk(Fax#456).
- 4 Press **Mono Start**.

Relay Broadcast from a PC



You can also send E-mail from your PC and have it relayed to a conventional FAX machine. The method of entering the phone number of the conventional FAX machine that will receive the relayed E-mail will vary depending on the mail application you are using. The following are some examples of different mail applications:

Some E-mail applications do not support sending to multiple phone numbers. If your E-mail application cannot support multiple phone numbers you will only be able to relay to one Fax machine at a time.

Enter the address of the relay machine and phone number of the FAX in the "TO" box using the same method used when sending from a machine.

UKFAX@brother.co.uk(fax#123456789)

Outlook 97/98/2000/2002/2003:

The address information must be entered into the address book as follows:

- **Name:** fax#123456789
- **E-mail Address:** UKFAX@brother.co.uk

Important information on Internet Fax

Internet Fax Communication on a LAN system is basically the same as communication via E-mail; however, it is different from Fax communication using standard phone lines. The following is important information for using Internet Fax:

- Factors such as the receiver's location, structure of the LAN system, and how busy the circuit (such as the internet) is, may cause the system to take a long time to send back an error mail. (normally 20 sec. to 30 sec.).
- In the case of transmission through the Internet, due to its low level of security, we recommend that you use standard phone lines to send confidential documents.
- If the receiver's mail system is not compatible with the MIME format, you cannot transmit a document to the receiver. Depending on receiver's server, there may be some cases in which the error mail will not be sent back.
- If the size of a document's image data is huge, there is a possibility of unsuccessful transmission.
- You cannot change the font and character size of Internet mail that you receive.

Internet Printing Installation

Overview

Brother Internet Print (BIP) software for Windows® 98/98SE/Me/2000/XP/XP Professional x64 Edition it allows a PC user at one location to send a print job to a Brother Printer at a remote location via the Internet. For example, a user on a PC in New York could print a document directly from their Microsoft Excel application program to a printer in Paris. The Brother Internet Print software is located on the CD-ROM included with your machine.

Brother Internet Print General Information

The BIP software is installed using a standard Windows® 98/98SE/Me/2000/XP/XP Professional x64 Edition Installation Wizard. It creates a virtual port on the PC that operates in a similar way to the standard LPT1 printer port from the application program point of view. The user can use the Print Manager to create a printer that uses this port along with a standard Windows® 98/98SE/Me/2000/XP/XP Professional x64 Edition compatible printer. Any Windows® 98/98SE/Me/2000/XP/XP Professional x64 Edition applications program can therefore print to this printer (and hence to the virtual port) without modification or operational procedure.

When a job is printed to the BIP virtual port, it is actually MIME-encoded (converted to a standard Internet E-mail message) and sent out to a Brother print server at the remote location. This means that BIP is compatible with most common E-mail software packages. The only requirement is that the E-mail server be capable of sending E-mail message over the Internet.

In more detail, the procedure works in the following way:

- If you are connected to a Local Area Network, the E-mail message is passed to the E-mail server, which in turn transmits the message out over the Internet using the SMTP (Simple Mail Transfer Protocol) to the remote print server.
- If you are connecting via a modem directly to an Internet Service Provider (ISP), the ISP handles the routing of the E-mail to the remote print server.
- At the remote site, an E-mail server receives the E-mail message. The remote Print/Fax server, which has its own E-mail address, uses the POP3 protocol (Post Office Protocol 3) to download the E-mail message from the E-mail server. It then decodes the attachment and prints it out on the printer.



Note

If an E-mail is received that has not been configured to use the BIP virtual port driver, the printer will print the E-mail out as a text document.

Brother Internet Print: Configuring the Brother Print Server

The print server can be configured using the BRAdmin Professional utility.

Print Server Configuration Checklist



Note

Before configuring the print server to receive BIP jobs, be sure that the E-mail server at the remote site (the receiving end) is configured to handle the TCP/IP POP3, and SMTP (SMTP is only required if the notification feature is enabled).

- 1 Configure the POP3 server on the E-mail server at the remote site with a mail account (Mailbox name) and password for the Brother print server (generally, the mail account name will be the first part of the E-mail address; for example, if you assign the E-mail address emailprinter@xyz.com, then the mail account name would be emailprinter) (See *Setup Internet* on page 19).
- 2 Make sure that the print server is installed and running with TCP/IP enabled and has a valid IP address assigned to it (See *Setup TCP/IP* on page 13).

Because access to the E-mail server on most networks is usually restricted, you may need to have your Network Administrator check the configuration and add the mail account.

Brother Internet Print: Using the BRAdmin Professional utility to Configure the Print Server



Note

Using the BRAdmin Professional utility, you can configure the Brother print server using the TCP/IP protocol.

The steps required to configure the print server to receive print jobs from a Windows® 98/98SE/Me/2000/XP/XP Professional x64 Edition PC running the BIP software are as follows.

- 1 Start the BRAdmin Professional utility.
- 2 Select the **Node Name** of the desired Brother print server from the list and double click on it. (the default node name is usually BRN_XXXXXX, where XXXXXX is the last six digits of the Ethernet address (MAC address). You will be prompted for a password; the default password is “**access**”).



Note

You can find the node name and MAC address by printing out the machine configuration page. For information on how to print the configuration page on your print server, see *Printing the Network Configuration List* on page 27.

- 3 Click on the **POP3/SMTP** tab.
- 4 Enter the address of the POP3 server (consult your Network Administrator if you do not know this address).

- 5 Enter the **POP3 Account Name** for the remote Brother print server. Usually this will be the first part of the E-mail address (for example, if the E-mail address of the print server is emailprinter@xyz.com, then the **POP3 Account Name** would be emailprinter).
- 6 Enter the password for the mailbox, if any.
- 7 The print server is configured by default to poll the POP3 server every 10 minutes. You may change this value, if desired.
- 8 If you have enabled notification, enter the address of your SMTP server (consult your Network Administrator if you do not know this address).
- 9 Press the **OK** button and save the changes. Now exit the BRAdmin Professional utility. You have now configured the print server to receive print jobs.

Brother Internet Print: Installing the BIP software on Windows® 98/98SE/Me/2000/XP/XP Professional x64 Edition

To install the BIP software on a PC, execute the following steps:



Note

- Be sure that the PC is running an E-mail program (for example, Microsoft Outlook) that is capable of sending E-mail message using Winsock.
 - Be sure that your E-mail server is capable of sending messages across the Internet.
-

Setup from CD-ROM

- 1 Start the CD-ROM installation menu program according to the Quick Setup Guide.
- 2 Select the model and **Install Other Drivers or Utilities** menu. Then select **Network Print Software** installation program.
- 3 Click the **Next** button in response to the Welcome message.
- 4 Select the **Brother Internet Print** button.
- 5 Select the desired directory to install the BIP files and then click **Next**. The installation program will create the directory for you if it does not already exist.
- 6 You will then be asked for a port name. Enter the name of the port. The port name must begin with BIP and end with a number, for example, BIP1.
- 7 Press **OK** to continue.
- 8 You will then be asked to enter the port settings for the remote print server:
Enter any unique legal Internet E-mail address for the remote print server (for example emailprinter@xyz.com). Note that Internet E-mail addresses cannot have spaces in them.
Enter your E-mail address and the IP address of your SMTP E-mail server (consult your Network Administrator if you do not know this address). Also specify if you are going to use the **Partial E-mail Print** option and the **Notification** type.

- 9 Press **OK** to continue. You will then be asked to re-start your computer.
- 10 Once your computer has re-started you must create a printer on your Windows® 98/98SE/Me/2000/XP/XP Professional x64 Edition system using the standard Windows® printer setup procedure. To do this, go the **Start** button and select **Settings** and then **Printers** (Windows® 98/98SE/Me/2000). For Windows® XP/XP Professional x64 Edition users, go to the **Start** button, select **Printers and Faxes**.
- 11 Select **Add Printer** (or **Add a Printer** for Windows® XP/XP Professional x64 Edition) to begin the printer installation.
- 12 Click **Next** when you get the **Add Printer Wizard** window.
- 13 Depending on the OS-version you are using, the operations differ. Do one of the following.
 - For Windows® 98/98SE/Me users
 - Select **Local Printer** when you are asked how the printers are connected to your computer and click **Next**.
 - For Windows® 2000/XP/XP Professional x64 Edition users
 - Select **Local Printer** and delete the check mark in **Plug and Play** check box. Then click **Next**.
- 14 Depending on the OS-version you are using, the operations differ. Do one of the following.
 - For Windows® 98/98SE/Me users
 - 1 Select the desired model of the remote printer (for example, Brother HL-series). If necessary, click **Have Disk** to load the driver from the CD-ROM. Click **Next** when you are done.
 - 2 If you have selected a printer driver that is already being used, you have the option of either keeping the existing driver (recommended) or replacing it. Select the desired option and press **Next**.
 - 3 Select the **Brother Internet port** (BIP...) which you selected in 6 and press **Next**.
 - For Windows® 2000/XP/XP Professional x64 Edition users
 - 1 Select the **Brother Internet port** (BIP...) which you selected in 6 and press **Next**.
 - 2 Select the desired model of the remote printer (for example, Brother HL-series). If necessary, click **Have Disk** to load the driver from the CD-ROM. Click **Next** when you are done.
 - 3 If you have selected a printer driver that is already being used, you have the option of either keeping the existing driver (recommended) or replacing it. Select the desired option and press **Next**.
 - 4 Enter any desired name for the BIP remote printer and press **Next**. Note that this name does not need to match the port name that you assigned in 6, or E-mail address that you assigned in 9.
 - 5 Select **No** when asked if you want to print a test page, unless you have already configured the remote print server to receive BIP print jobs.

You have now finished installing the BIP software. If you need to configure another remote print server, go to the next section, *Adding a Second Brother Internet Port* on page 12.

Adding a Second Brother Internet Port

You should not re-run the install program to add a new Brother Internet Port. Instead, press the **Start** button, select **Settings**, and open the **Printers** window. Click on the icon of a printer that is using BIP, select **File** from the menu bar, and then choose **Properties**. Click on the **Details (Ports on Windows® 2000/XP/XP Professional x64 Edition)** tab and click the **Add Port** button.

In the **Add Port** dialog, select the **Other** radio button (Windows® 98/98SE/Me only) and then **Brother Internet Port**. Click **OK (New Port on Windows® 2000/XP/XP Professional x64 Edition)** and it will give you the **Port Name** text box. Any unique name can be given here as long as it starts with “BIP” and another port does not already exist with the same name.

Other sources of information

Visit Microsoft’s web site for the “Microsoft Internet Print Services” software for Windows® 98/98SE/Me.

LAN menu

The control panel LAN menu section can be used to configure network settings.

Press **Menu, 5** for LAN and then proceed to the menu selection you wish to configure.

Please note that the machine is supplied with the BRAdmin Professional Windows® software, BRAdmin Light Macintosh® software and RemoteSetup which also can be used to configure network settings (See the Network User's Guide located on the CD-ROM included with your machine).



Note

If you already installed your machine for a network connection following the steps in the Quick Setup Guide then the TCP/IP settings have already been configured. You should only need to configure the Internet Fax settings. Go to *Setup Internet* on page 19.

Setup TCP/IP

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

BOOT Method

This selection controls how the machine obtains the IP address for itself. The default setting is *Auto*.

- 1 Press **Menu, 5, 1, 1**.
- 2 Press **▲** or **▼** to select *Auto, Static, RARP, BOOTP* or *DHCP*.
- 3 Press **OK**.
- 4 Press **Stop/Exit**.

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 scanned through the APIPA facility. After it is initially powered ON, it may take a few minutes for the machine to scan the network for a server.

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 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

- If you do not want your print server configured via DHCP, BOOTP or RARP, you must set the BOOT METHOD to static, 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 or the BRAdmin Professional utility.
- On smaller networks, the DHCP server may be the Router.

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.

RARP mode

The Brother print server IP address can be configured using the Reverse ARP (RARP) service 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:

```
00:80:77:31:01:07 BRN_310107
```

Where the first entry is the Ethernet 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 it is powered on.

BOOTP mode

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
```

**Note**

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

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 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_310107 1 00:80:77:31:01:07 192.189.207.3
```

and:

```
BRN_310107:ht=ethernet:ha=008077310107:ip=192.189.207.3:
```

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.

IP Address

This field displays the current IP address of the machine. If you have selected 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 selected 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**, **5**, **1**, **2**.
- 2 Select **1** to change. Enter the IP address.
- 3 Press **OK**.
- 4 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, 5, 1, 3**.
- 2 Select **1** to change. Enter the Subnet Mask address.
- 3 Press **OK**.
- 4 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, 5, 1, 4**.
- 2 Select **1** to change. Enter the Gateway address.
- 3 Press **OK**.
- 4 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 BRN_XXXXXX (where XXXXXX is the last six digits of the Ethernet address) (up to 15 characters).

- 1 Press **Menu, 5, 1, 5**.
- 2 Select **1** to change. Enter the Node Name.
- 3 Press **OK**.
- 4 Press **Stop/Exit**.

WINS Config

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

- 1 Press **Menu**, **5**, **1**, **6**.
- 2 Press **▲** or **▼** to select `Auto` or `Static`.
- 3 Press **OK**.
- 4 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 can still 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**, **5**, **1**, **7**.
- 2 Press **▲** or **▼** to select `Primary` or `Secondary`.
- 3 Press **OK**.
- 4 Enter the WINS Server address.
- 5 Press **OK**.
- 6 Press **Stop/Exit**.

DNS Server

Primary DNS Server IP Address

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

3

- 1 Press **Menu, 5, 1, 8**.
- 2 Press **▲** or **▼** to select `Primary` or `Secondary`.
- 3 Press **OK**.
- 4 Enter the DNS Server address.
- 5 Press **OK**.
- 6 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 13). Selecting `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, 5, 1, 9**.
- 2 Press **▲** or **▼** to select `On` or `Off`.
- 3 Press **OK**.
- 4 Press **Stop/Exit**.

Setup Internet

This menu has five selections: Mail Address, SMTP Server, POP3 Server, Mailbox Name and Mailbox Pwd. These settings must be configured for the I-Fax feature to work.

Mail Address

This field displays the E-mail address that you can set for the machine.

- 1 Press **Menu, 5, 2, 1**.
- 2 Select **1** to change. Enter the mail address. Press **OK**.
- 3 Press **Stop/Exit**.

Entering text

You can access the character you want by repeatedly pressing the appropriate number key. For more information, see *Entering text* on page 29 .

SMTP server

This field displays the Node Name or IP address of an SMTP mail server (outgoing E-mail Server) on your network. (Ex, mailhost.brothermail.net -or- 192.000.000.001)

- 1 Press **Menu, 5, 2, 2**.
- 2 Press **▲** or **▼** to select Name or IP address.
- 3 Enter the SMTP SERVER Address.
- 4 Press **OK**.
- 5 Press **Stop/Exit**.

POP3 server

This field displays the Node Name or IP address of the POP3 server (incoming E-mail server) used by the Brother machine. This address is necessary for the Internet Fax features to function correctly. (Ex, mailhost.brothermail.net -or- 192.000.000.001)

- 1 Press **Menu**, **5**, **2**, **3**.
- 2 Press **▲** or **▼** to select **Name or IP address**.
- 3 Enter the POP3 Server Address.
- 4 Press **OK**.
- 5 Press **Stop/Exit**.

Mailbox Name

You can specify the mailbox name created on the POP3 server where the I-Fax or internet print jobs are to be retrieved from.

- 1 Press **Menu**, **5**, **2**, **4**.
- 2 Enter the user account name (mailbox name) assigned to the Brother machine on the POP3 Server.
- 3 Press **OK**.
- 4 Press **Stop/Exit**.

Mailbox Pwd

You can specify the password for access to the mailbox on the POP3 server where the I-Fax or internet print jobs are to be retrieved from.

- 1 Press **Menu**, **5**, **2**, **5**.
- 2 Enter the user password assigned to the mailbox for the machine that will login to the POP3 Server. Please note that this password is case sensitive.
- 3 Press **OK**.
- 4 Press **OK** again to verify the password.
- 5 Press **Stop/Exit**.



Note

To set no password, enter a single space.

Setup Mail RX

This menu has five selections Auto Polling, Poll Frequency, Header, Del Error Mail and Notification.

Auto Polling

When set to On, the Brother machine will automatically check the POP3 server for new messages.

- 1 Press **Menu, 5, 3, 1.**
- 2 Press **▲** or **▼** to select On or Off.
- 3 Press **OK.**
- 4 Press **Stop/Exit.**

Poll Frequency

Sets the interval for checking for new messages on the POP3 server (default is 10Min).

- 1 Press **Menu, 5, 3, 2.**
- 2 Enter the polling frequency.
- 3 Press **OK.**
- 4 Press **Stop/Exit.**

Header

This selection allows the contents of the mail header to be printed when the received message is printed (Subject+From+To or All or None).

- 1 Press **Menu, 5, 3, 3.**
- 2 Press **▲** or **▼** to select All or Subject+From+To or None.
- 3 Press **OK.**
- 4 Press **Stop/Exit.**

Del Error Mail

When set to On, the machine automatically deletes error mails that the machine can not receive from the POP server.

- 1 Press **Menu**, **5**, **3**, **4**.
- 2 Press **▲** or **▼** to select **On** or **Off**.
- 3 Press **OK**.
- 4 Press **Stop/Exit**.

Notification

The notification feature allows a receive notification message to be transmitted to the sending station to indicate successful reception of the I-Fax.

When switched to “ON” a fixed message is sent back to the sending station to indicate successful reception and processing of the message. These fixed messages depend on the operation requested by the sending station.

Report messages consist of

SUCCESS : Received From <mail address>

When switched to “MDN” a report as described above is sent back to the sending station if the originating station sent the “MDN” field to request confirmation.

- 1 Press **Menu**, **5**, **3**, **5**.
- 2 Press **▲** or **▼** to select **On** or **MDN** or **Off**.
- 3 Press **OK**.
- 4 Press **Stop/Exit**.

Setup Mail TX

This field displays the subject that is attached to the Internet Fax data being sent from the Brother machine to a PC (default is “Internet Fax Job”).

Sender Subject

- 1 Press **Menu**, **5**, **4**, **1**.
- 2 Select **1** to change the Sender Subject—OR—**2** to exit.
- 3 Enter the subject information.
- 4 Press **OK**.
- 5 Press **Stop/Exit**.

Size Limit

Some E-mail servers do not allow you to send large E-mail documents (the System Administrator will often place a limit on the maximum E-mail size). With this function enabled, the machine will display Out of Memory when trying to send E-mail documents over 1Mbyte in size. The document will not be sent and an error report will be printed. The document you are sending should be separated into smaller documents that will be accepted by the mail server. (For example, a 42 page document based on the ITU-T Test Chart#1 test chart is approximately 1Mbyte in size).

- 1 Press **Menu, 5, 4, 2**.
- 2 Press **▲** or **▼** to select **On** or **Off**.
- 3 Press **OK**.
- 4 Press **Stop/Exit**.

Notification

The notification feature allows a confirmation of receipt message to be transmitted to the sending station when the I-Fax has been received.

When switched to ON an additional field of information is sent with the image data. This field is named **MDN** (See *Notification* on page 23).

MDN

Mail Disposition Notification - This field requests the status of the I-Fax / E-mail message after delivery through the SMTP (Simple Mail Transfer Protocol) transport system. Once the message has arrived at the Receiving station this data is used when the machine or user reads or prints the received I-Fax or E-mail. For example, if the message is opened for reading or is printed the receiving station sends back a notification to the original sending machine or user.

The receiving station must support the MDN field in order to be able to send a notification report, otherwise the request will be ignored.

- 1 Press **Menu, 5, 4, 3**.
- 2 Press **▲** or **▼** to select **On** or **Off**.
- 3 Press **OK**.
- 4 Press **Stop/Exit**.

Setup Relay

This menu has three selections Rly Broadcast, Relay Domain and Relay Report. For more information on Relay Broadcast, see *Relay Broadcasting* on page 5.

Rly Broadcast

- 1 Press **Menu**, **5**, **5**, **1**.
- 2 Press **▲** or **▼** to select **On** or **Off**.
- 3 Press **OK**.
- 4 Press **Stop/Exit**.

Relay Domain

You can register the Domain Names (Max.5) that are allowed to request a Relay Broadcast.

- 1 Press **Menu**, **5**, **5**, **2**.
- 2 Press **▲** or **▼** to select the **Relay Domain** (01 - 05).
- 3 Press **OK**.
- 4 Enter the Relay Domain name for the Domain that is being allowed to request a Relay Broadcast.
- 5 Press **OK**.
- 6 Press **Stop/Exit**.

Relay Report

A Relay Broadcast Report can be printed at the machine that will act as a Relay Station for all Relay Broadcasts. When the machine is used with the Brother Network PC Fax software the machine is also acting as a Relay Station for fax transmissions from the network. This means that a Relay Report can also be printed for confirmation of sent network faxes. (For US / Canada only)

Its primary function is to print reports of any relayed broadcasts that have been sent through the machine. Please note: in order to use this function, you must assign the relay domain in the "Trusted Domains" section of the Relay function settings.

- 1 Press **Menu**, **5**, **5**, **3**.
- 2 Press **▲** or **▼** to select **On** or **Off**.
- 3 Press **OK**.
- 4 Press **Stop/Exit**.

Setup Misc.

Ethernet

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.

100BASE-TX Full Duplex (100B-FD) or Half Duplex (100B-HD) and 10BASE-T Full Duplex (10B-FD) or Half Duplex (10B-HD) fix the print server link mode. 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**, **5**, **6**, **1**.
- 2 Press **▲** or **▼** to select *Auto/100B-FD/100B-HD/10B-FD/10B-HD*.
- 3 Press **OK**.
- 4 Press **Stop/Exit**.

Time Zone

This field displays your country time zone. The time shown is the time difference between your country and Greenwich Mean Time. For example, the Time Zone for Eastern Time in the USA and Canada is UTC-05:00.

- 1 Press **Menu**, **5**, **6**, **2**.
- 2 Press **▲** or **▼** to enter the time.
- 3 Press **OK**.
- 4 Press **Stop/Exit**.



Note

Windows® Time Zone Setting

You can determine the time difference for your location by using the Time Zone setting in Windows®.

- 1 Click on **Start**.
 - 2 Select **Settings / Control Panel**.
 - 3 Double click on **Date/Time**.
 - 4 Select **Time Zone**.
 - 5 Verify your time zone setting from the pull-down menu (this menu displays the time difference from GMT).
-

Scan to E-mail (E-mail server)

Black and White File Type for Scan to E-mail (E-mail server)

You can select the default Black and White file type (TIFF or PDF) for the Scan to E-mail (E-mail server) function.

- 1 Press **Menu**, **5**, **7**, **1**.
- 2 Press **▲** or **▼** to select **TIFF**.or **PDF**.
- 3 Press **OK**.
- 4 Press **Stop/Exit**.

Colour File Type for Scan to E-mail (E-mail server)

You can select the default colour file type (PDF or JPEG) for the Scan to E-mail (E-mail server) function.

- 1 Press **Menu**, **5**, **7**, **2**.
- 2 Press **▲** or **▼** to select **PDF**.or **JPEG**.
- 3 Press **OK**.
- 4 Press **Stop/Exit**.

Printing the Network Configuration List



Note

Node name: Node name appears in the Network Configuration List. The default Node name is "BRN_XXXXXX" ("XXXXXX" is the last six digits of Ethernet address.).

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

- 1 Press **Menu**, **6**, **6**.
- 2 Press **Mono Start** or **Colour Start**
- 3 Press **Stop/Exit**.

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 network settings to the factory default.

3

- 1 Make sure the machine is not operating, then disconnect all the cables from the machine (except the power cable).
- 2 Press **Menu, 5, 0**.
- 3 Press **1** to select 1.Reset.
- 4 Press **1** to select 1.Yes.
- 5 The machine will re-start. You can now reconnect the network cable and configure the network settings to work with your network.

Entering text

When you are setting certain menu selections, such as the Station ID, you may need to enter text into the machine. Most number keys have three or four letters printed on keys. The keys for **0**, **#** and ***** do not have printed letters because they are used for special characters.

By pressing the correct number key repeatedly, you can access the character you want.

To change the mode between upper case and lower case, press **Search/Speed Dial + 3**.

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

Putting 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 an incorrect letter and want to change it, press ◀ to move the cursor under the incorrect letter. Press **Clear/Back**. Re-enter the correct letter. You can also back up and type over incorrect letters.

Repeating letters

If you need to enter a letter that is on the same key as the letter before, press ► to move the cursor to the right before you press the key again.

Special characters and symbols

Press ***** or **#**, and then press ◀ or ► to move the cursor under the special character or symbol you want. Then press **OK** to choose it.

Press ***** for (space) ! " # \$ % & ' () * + , - . /

Press **#** for ; : < = > ? @ [] ^ _

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