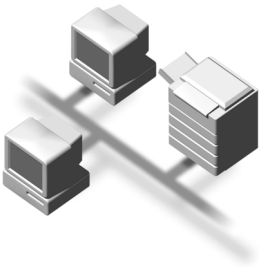
Network Guide



For safe and proper operation, read the Safety Information in the "*General Settings Guide*" before you use it.

Introduction

This manual describes detailed instructions on the operation and notes about the use of this machine. To get maximum versatility from this machine all operators are requested to read this manual carefully and follow the instructions. Please keep this manual in a handy place near the machine.

Important

Contents of this manual are subject to change without prior notice. In no event will the company be liable for direct, indirect, special, incidental, or consequential damages as a result of handling or operating the machine.

Software Version Conventions Used in this Manual

- NetWare 3.x means NetWare 3.12 and 3.2.
- NetWare 4.x means NetWare 4.1, 4.11 and IntranetWare.

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The proper names of the Windows operating systems are as follows:

- The product name of Windows® 95 is Microsoft® Windows 95.
- The product name of Windows® 98 is Microsoft® Windows 98.
- The product name of Windows® Me is Microsoft® Windows Millennium Edition (Windows Me).
- The product names of Windows® XP are as follows:
  Microsoft® Windows® XP Professional
  Microsoft® Windows® XP Home Edition
- The product names of Windows® 2000 are as follows:
  Microsoft® Windows® 2000 Advanced Server
  Microsoft® Windows® 2000 Server
  Microsoft® Windows® 2000 Professional
- The product names of Windows NT® 4.0 are as follows:
  Microsoft® Windows NT® Server 4.0
- Microsoft® Windows NT® Workstation 4.0

Manuals for This Machine

The following manuals describe the operational procedures of this machine. For particular functions, see the relevant parts of the manual.

Note

❒ Manuals provided are specific to machine type.

❒ Adobe Acrobat Reader is necessary to view the manuals as a PDF file.

❒ Two CD-ROMs are provided:

- CD-ROM 1 “Operating Instructions for Printer/Scanner”
  CD-ROM 2 “Scanner Driver & Document Management Utilities”

❖ **General Settings Guide**
Provides an overview of the machine.
It also describes System Settings (such as paper trays and user codes settings), Document Server functions, and troubleshooting.

❖ **Network Guide (PDF file - CD-ROM1) (this manual)**
Describes procedures for configuring the machine and computers in a network environment.

❖ **Copy Reference**
Describes operations, functions, and troubleshooting for the machine’s copier function.

❖ **Printer Reference 1**
Describes system settings and operations for the machine’s printer function.

❖ **Printer Reference 2 (PDF file - CD-ROM1)**
Describes operations, functions, and troubleshooting for the machine’s printer function.

❖ **Scanner Reference (PDF file - CD-ROM1)**
Describes operations, functions, and troubleshooting for the machine’s scanner function.

❖ Manuals for DeskTopBinder V2 Lite

DeskTopBinder V2 Lite is a utility included on the CD-ROM labeled "Scanner Driver & Document Management Utilities".

- DeskTopBinder V2 Lite Setup Guide (PDF file - CD-ROM2)
  Describes installation of, and the operating environment for DeskTop-Binder V2 Lite in detail. This guide can be displayed from the **[Setup]** dialog box when DeskTopBinder V2 Lite is installed.
- DeskTopBinder V2 Lite Introduction Guide (PDF file - CD-ROM2)
  Describes operations of DeskTopBinder V2 Lite and provides an overview of its functions. This guide is added to the **[Start]** menu when DeskTop-Binder V2 Lite is installed.
- Auto Document Link Guide (PDF file - CD-ROM2)
  Describes operations and functions of Auto Document Link installed with DeskTopBinder V2 Lite. This guide is added to the **[Start]** menu when DeskTopBinder V2 Lite is installed.

❖ Manuals for ScanRouter V2 Lite

ScanRouter V2 Lite is a utility included on the CD-ROM labeled "Scanner Driver & Document Management Utilities".

- ScanRouter V2 Lite Setup Guide (PDF file - CD-ROM2)
  Describes installation of, settings, and the operating environment for Scan-Router V2 Lite in detail. This guide can be displayed from the **[Setup]** dialog box when ScanRouter V2 Lite is installed.
- ScanRouter V2 Lite Management Guide (PDF file - CD-ROM2)
  Describes delivery server management and operations, and provides an overview of ScanRouter V2 Lite functions. This guide is added to the **[Start]** menu when ScanRouter V2 Lite is installed.

❖ Other manuals

- PS3 Supplement (PDF file - CD-ROM1)
- Unix Supplement (Available from an authorized dealer, or as a PDF file on our Web site.)

TABLE OF CONTENTS

5. Using the Printer Function

6. Using SmartNetMonitor for Client

7. Using SmartNetMonitor for Admin

8. Configuring the Network Interface Board Using a Web Browser

9. Appendix

How to Read This Manual

Symbols

In this manual, the following symbols are used:

⚠ ***WARNING:***
This symbol indicates a potentially hazardous situation which, if instructions are not followed, could result in death or serious injury.

⚠ ***CAUTION:***
This symbol indicates a potentially hazardous situation which, if instructions are not followed, may result in minor or moderate injury or damage to property.

* The statements above are notes for your safety.

Important
If this instruction is not followed, paper might be misfed, originals might be damaged, or data might be lost. Be sure to read this.

Preparation
This symbol indicates prior knowledge or preparations is required before operation.

Note
This symbol indicates precautions for operation, or actions to take after mal-operation.

Limitation
This symbol indicates numerical limits, functions that cannot be used together, or conditions in which a particular function cannot be used.

Reference
This symbol indicates a reference.

[ ]
Keys that appear on the machine's display panel.

Keys and buttons that appear on the computer's display.

【 】
Keys built into the machine's control panel.

Keys on the computer's keyboard.

1. Introduction

This machine can operate as a network printer, and a scanner. This machine also has a Document Server function which has a File Merge Printing and On Demand Printing features. By using Document Server, this machine is also capable of operations such as combining and printing copies and documents from the computer, or printing stored documents when necessary.

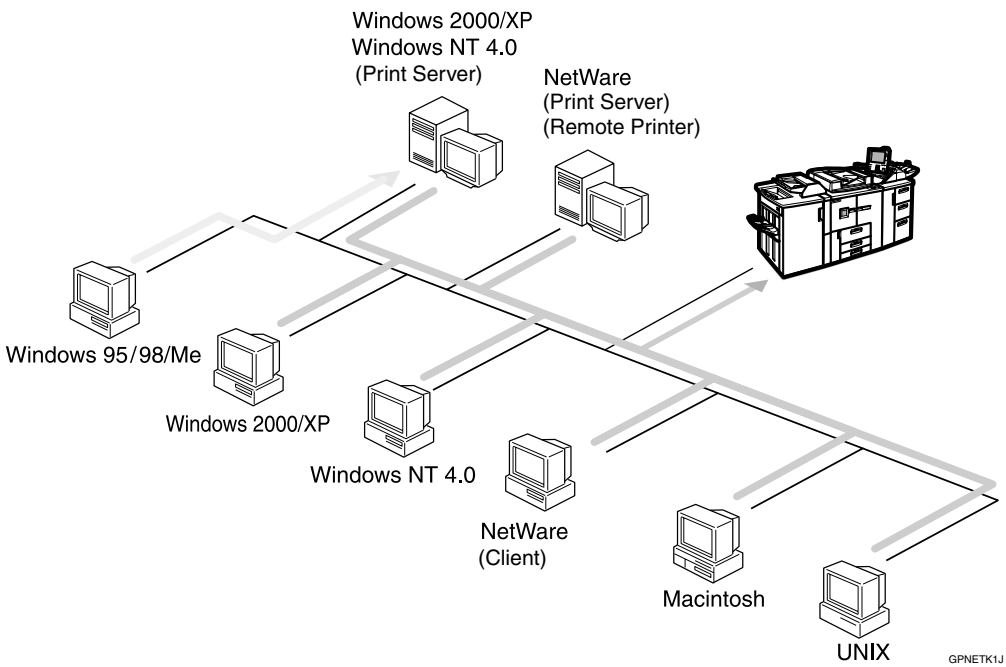
Using the Printer

The network interface board is compatible with NetWare [*1] (IPX/SPX, TCP/IP), Windows NT 4.0 (TCP/IP, NetBEUI [*2], IPP [*3]), Windows 2000 (TCP/IP, NetBEUI [*2], IPP [*3]), Windows XP (TCP/IP, IPP [*3]), Windows 95/98/Me (TCP/IP, NetBEUI [*2], IPP [*3]), UNIX (TCP/IP), and Macintosh (AppleTalk) protocols. This allows you to use the machine in a network that uses different protocols and operating systems.

[*1] If the optional 802.11b interface kit has been installed, you can use only infrastructure mode.

[*2] For NetBEUI, use the SmartNetMonitor for Client port.

[*3] IPP (Internet Printing Protocol) is a protocol for printing via the Internet.



Reference

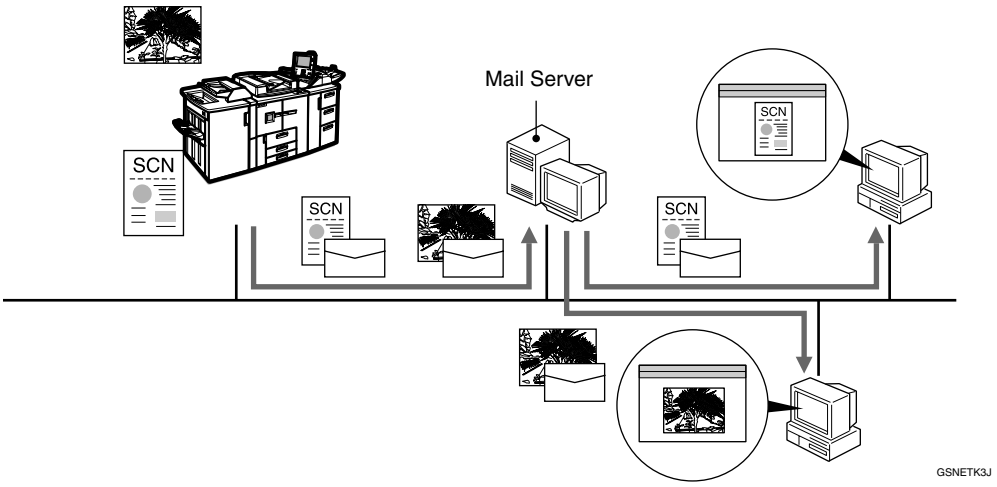
For more information about configuring the network interface board, see p.94 “Configuring the Network Interface Board”.

For more information about the printer operation, see “Using the Printer Function”.

Network Scanner

E-mail

A scanned image that is attached to an e-mail can be delivered using the e-mail system through a LAN or the Internet.



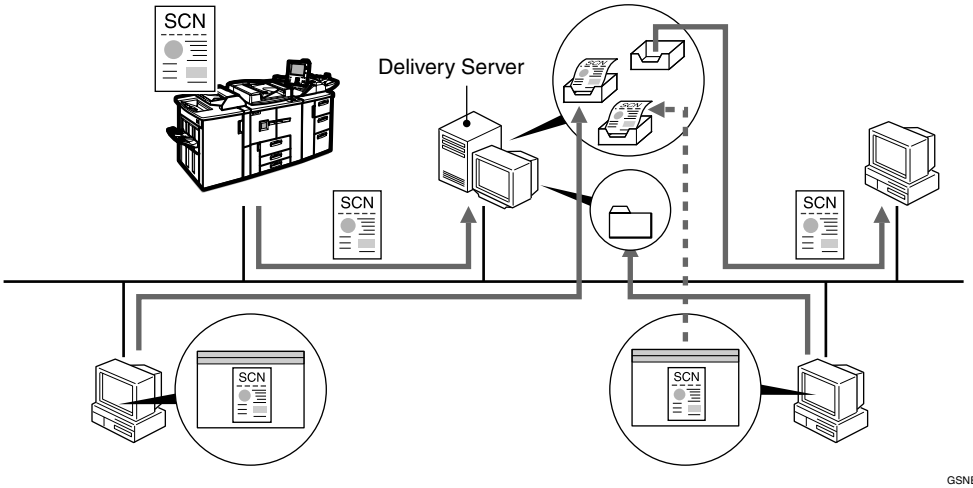
Reference

For more information about configuring the network interface board, see p.13 “Setting Up the Machine on a Network”.

For more information about Network Delivery Scanner, see “Using as a Network Delivery Scanner”, *Scanner Reference*.

Network Delivery Scanner

The machine is used as a delivery scanner with ScanRouter V2 Lite/Professional. The data from the original scanned by the machine is stored in the delivery server and delivered to the folders of the client computers on the same network.



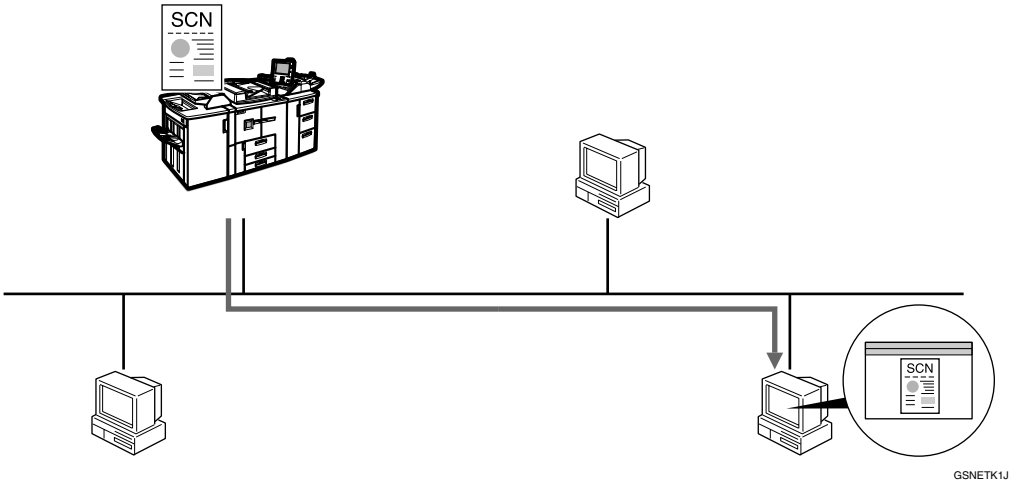
Reference

For more information about configuring the network interface board, see p.13 "Setting Up the Machine on a Network".

For more information about Network Delivery Scanner, see "Using as a Network Delivery Scanner", *Scanner Reference*.

Network TWAIN Scanner

The scanning function of this machine can be used from a client computer via a network (Ethernet, IEEE 1394 (IP over 1394), or IEEE 802.11b). Original can be scanned with the same operation used for SCSI- and USB-connected scanners.



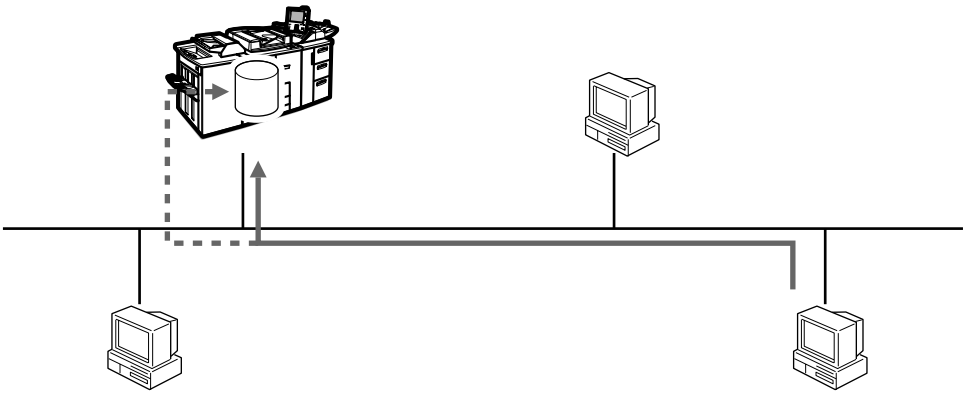
Reference

For more information about configuring the network interface board, see p.13 "Setting Up the Machine on a Network".

For more information about Network Delivery Scanner, see "Using as a Network Delivery Scanner", *Scanner Reference*.

Document Server

You can save the documents from copy and printer functions to the hard disk. Documents can be printed later, or the machine can be controlled from the computer. Scanned documents can be stored on the hard disk, or you can see the document's thumbnails on the computer.



GSNETK4J

Reference

For more information about configuring the network interface board, see "Configuring the Network Interface Board".

For more information about Document Server operation from the printer, see "Using the Document Server", *Printer Reference 2*.

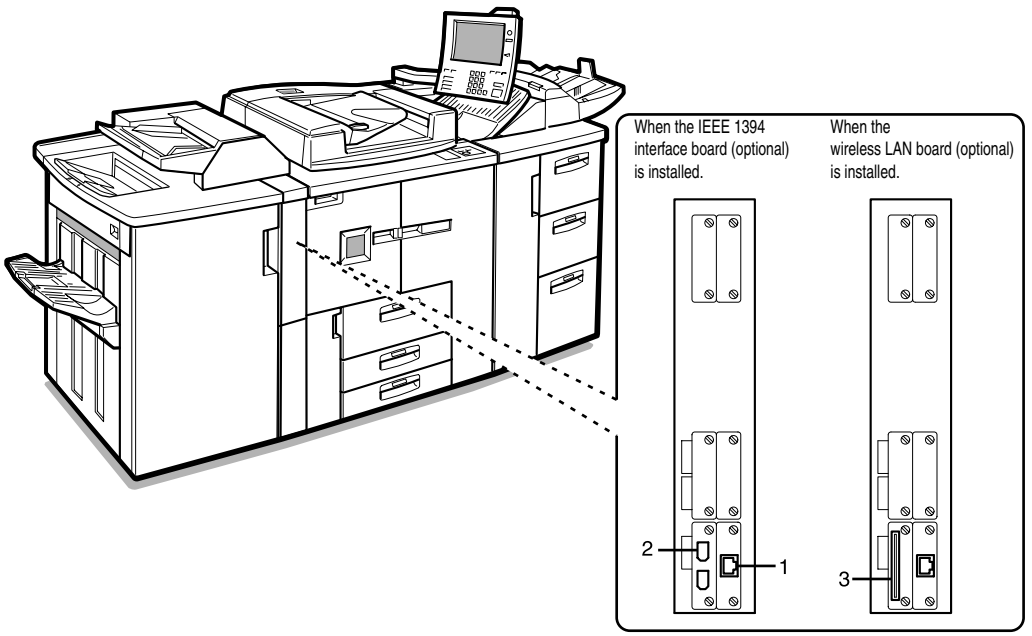
For more information about Document Server operation from the scanner, see "Using the Document Server", *Scanner Reference*.

For all information about Document Server operation, see "Using the Document Server", *General Settings Guide*.

For more information about DeskTopBinder V2 Lite, see the manuals for DeskTopBinder V2 Lite.

2. Connecting the Network Cable to the Network

Confirming the Connection



1. 10BASE-T/100BASE-TX port

Port for connecting the 10BASE-T or 100BASE-TX cable.

2. IEEE 1394 ports (optional)

Ports for connecting the IEEE 1394 interface cable.

3. Wireless LAN port (optional)

Port for using the wireless LAN.

Note

❒ The IEEE 1394 interface board (optional), the wireless LAN board (optional) or USB 2.0 interface board (optional) cannot be installed at the same time.

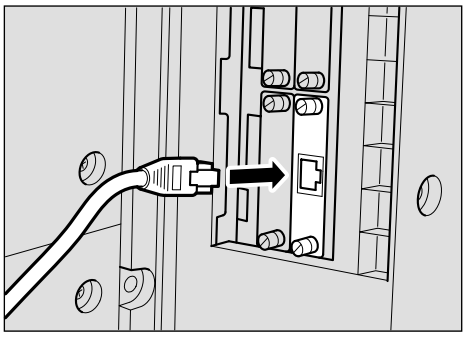
Connecting to the Ethernet Interface

The network interface board supports 10BASE-T or 100BASE-TX connections.

2

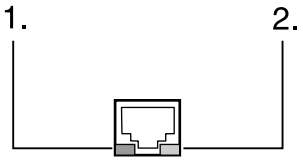
1 Turn off the main power switch.

2 Connect the Ethernet interface cable to the 10BASE-T/100BASE-TX port.



ZJTP110J

3 Turn on the main power switch.



ZGJS834E

1. **Indicator (green)**

Remains green when the machine is connected to the network correctly.

2. **Indicator (yellow)**

Turns yellow when 100 BASE-TX is operating. Turns off when 10 BASE-T is operating.

Connecting to the IEEE 1394 Interface (optional)

Important

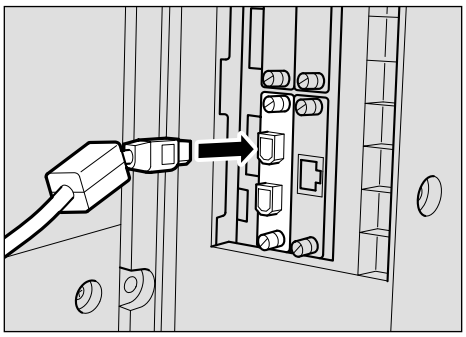
❒ Before making the connection, touch the metallic part to dissipate static electricity.

Note

❒ Use the interface cable supplied with the IEEE 1394 interface board (optional).

❒ The interface cable should not be looped.

1 Connect the IEEE 1394 interface cable to the IEEE 1394 ports.



ZJTP120J

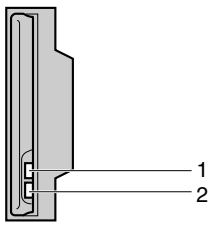
Note

❒ Two interface ports are available for connecting the IEEE 1394 interface cable.

Using the IEEE 802.11b (Wireless LAN)

1 **Make sure the LED of the IEEE 802.11b card is lit.**

❖ **When using in Infrastructure Mode**

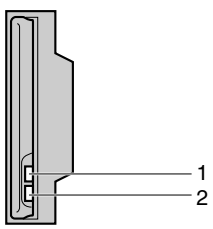


ZGDH600J

1. **If the IEEE 802.11b card is working, it is lit in orange. If the IEEE 802.11b (wireless LAN) is not selected, it does not light, even if the machine power is on.**

2. **If it is connected properly to a network, the LED is green in infrastructure mode. When the LED is blinking, the machine is searching for devices.**

❖ **When using in Ad hoc Mode/802.11 Ad hoc Mode**



ZGDH600J

1. **If the IEEE 802.11b card is working, it is lit in orange.**

2. **If it is connected properly to a network, the LED is green in ad hoc mode or 802.11 ad hoc mode. When the LED is blinking, the machine is searching for devices. The LED will light after a few seconds.**

2 **Print the configuration page to verify settings.**

Reference

For more information about printing a configuration page, see *Printer Reference 2*.

Checking the Machine's Radio Wave Status

You can check the machine's radio wave status using the machine's control panel.

Infrastructure Mode

1 **Press the 【User Tools】 key.**

2 **Press [System Settings].**

3 **Press [Interface Settings].**

4 **Press [Network].**

5 **Press [LAN Type].**

6 **Select [IEEE 802.11b], and then click [OK].**

7 **Press [IEEE 802.11b].**

8 **Press [Communication Mode].**

9 **Select [Infrastructure], and then click [OK].**

10 **Press [Wireless LAN Signal].**

The machine's radio wave status is displayed.

11 **After checking the machine's radio wave status, press [Exit].**

12 **Press the 【User Tools】 key to return to the User Tools menu.**

3. Setting Up the Machine on a Network

User Tools Menu (System Settings)

This section describes the network settings you can change with User Tools (System Settings). Make settings according to functions you want to use and the interface to be connected.

Important

❒ These settings should be made by the systems administrator or after consulting with the systems administrator.

Note

❒ For more information about setting the machine up on a network, see p.13 "Setting Up the Machine on a Network".

❖ **Viewing the Information Displayed in the List**

● These items must be set to use the function. Be sure to set them before using the corresponding function.

❍ These items must be set if required.

Printer

Interface	Settings		
Ethernet	Interface Settings/Network ⇒ p.22	IP Address	●
		Gateway Address	❍
		Effective Protocol	❍
		NW Frame Type	❍
		LAN Type *2	●
		Ethernet Speed	❍
		Host Name	❍
IEEE 1394 (IP over 1394)	Interface Settings/IEEE 1394 *1 ⇒ p.23	IP Address	●
		IP over 1394	●
	Interface Settings/Network ⇒ p.22	Gateway Address	❍
		Host Name	❍

Interface	Settings		
IEEE 802.11b (Wireless LAN)	Interface Settings/Network ⇒ p.22	IP Address	●
		Gateway Address	❍
		Effective Protocol	❍
		LAN Type *2	●
		Host Name	❍
	Interface Settings/IEEE 802.11b *2 ⇒ p.24	Communication Mode	●
		SSID Setting	❍
		Channel	❍
		WEP (Encryption) Setting	❍
		Transmission Speed	❍

*1 Displayed when the IEEE 1394 interface board (optional) is installed.
*2 Displayed when the wireless LAN board (optional) is installed.

E-mail

Interface	Settings		
Ethernet	Interface Settings/Network ⇒ p.22	IP Address	●
		Gateway Address	❍
		DNS Configuration	❍
		Effective Protocol	❍
		NW Frame Type	❍
		LAN Type *2	●
		Ethernet Speed	❍
	File Transfer ⇒ p.25	Scanner Recall Interval Time	❍
		Number of Scanner Recalls	❍
		SMTP Server Name	●
	SMTP E-mail Transmission *3 ⇒ p.25		❍

Interface	Settings		
IEEE 1394 (IP over 1394)	Interface Settings/IEEE 1394 *1 ⇒ p.23	IP Address	●
		IP over 1394	●
	Interface Settings/Network ⇒ p.22	Gateway Address	❍
		DNS Configuration	❍
	File Transfer ⇒ p.25	Scanner Recall Interval Time	❍
		Number of Scanner Recalls	❍
		SMTP Server Name	●
	SMTP E-mail Transmission *3 ⇒ p.25		❍
IEEE 802.11b (Wireless LAN)	Interface Settings/Network ⇒ p.22	IP Address	●
		Gateway Address	❍
		DNS Configuration	❍
		Effective Protocol	❍
		LAN Type *2	●
	Interface Settings/IEEE 802.11b *2 ⇒ p.24	Communication Mode	●
		SSID Setting	❍
		Channel	❍
		WEP (Encryption) Setting	❍
		Transmission Speed	❍
	File Transfer ⇒ p.25	Scanner Recall Interval Time	❍
		Number of Scanner Recalls	❍
		SMTP Server Name	●
	SMTP E-mail Transmission *3 ⇒ p.25		❍

*1 Displayed when the IEEE 1394 interface board (optional) is installed.
*2 Displayed when the wireless LAN board (optional) is installed.
*3 Settings are made using a Web browser connected to the machine.

Network Delivery Scanner

Interface	Settings		
Ethernet	Interface Settings/Network ⇒ p.22	IP Address	●
		Gateway Address	❍
		Effective Protocol	❍
		NW Frame Type	❍
		LAN Type *2	●
		Ethernet Speed	❍
	File Transfer ⇒ p.25	Delivery Option *3	❍
		Scanner Recall Interval Time	❍
		Number of Scanner Recalls	❍
		SMTP Server Name	❍
IEEE 1394 (IP over 1394)	Interface Settings/IEEE 1394 *1 ⇒ p.23	IP Address	●
		IP over 1394	●
	Interface Settings/Network ⇒ p.22	Gateway Address	❍
	File Transfer ⇒ p.25	Scanner Recall Interval Time *3	❍
		Number of Scanner Recalls	❍
		SMTP Server Name	❍
IEEE 802.11b (Wireless LAN)	Interface Settings/Network ⇒ p.22	IP Address	●
		Gateway Address	❍
		DNS Configuration	❍
		Effective Protocol	❍
		LAN Type *2	●
	Interface Settings/IEEE 802.11b *2 ⇒ p.24	Communication Mode	●
		SSID Setting	❍
		Channel	❍
		WEP (Encryption) Setting	❍
		Transmission Speed	❍
	File Transfer ⇒ p.25	Scanner Recall Interval Time	❍
		Number of Scanner Recalls	❍
		SMTP Server Name	●

*1 Displayed when the IEEE 1394 interface board (optional) is installed.
*2 Displayed when the wireless LAN board (optional) is installed.
*3 When delivery option is set to "ON", make sure that IP address is set.

Network TWAIN Scanner

Interface	Settings		
Ethernet	Interface Settings/Network ⇒ p.22	IP Address	●
		Gateway Address	❍
		Effective Protocol	❍
		NW Frame Type	❍
		LAN Type *2	●
		Ethernet Speed	❍
IEEE 1394 (IP over 1394)	Interface Settings/IEEE 1394 *1 ⇒ p.23	IP Address	●
		IP over 1394	●
	Interface Settings/Network ⇒ p.22	Gateway Address	❍
IEEE 802.11b (Wireless LAN)	Interface Settings/Network ⇒ p.22	IP Address	●
		Gateway Address	❍
		Effective Protocol	❍
		LAN Type *2	●
	Interface Settings/IEEE 802.11b *2 ⇒ p.24	Communication Mode	●
		SSID Setting	❍
		Channel	❍
		WEP (Encryption) Setting	❍
		Transmission Speed	❍

*1 Displayed when the IEEE 1394 interface board (optional) is installed.
*2 Displayed when the wireless LAN board (optional) is installed.

Document Server

Interface	Settings		
Ethernet	Interface Settings/Network ⇒ p.22	IP Address	●
		Gateway Address	❍
		Effective Protocol	❍
		LAN Type *2	●
		Ethernet Speed	❍
IEEE 1394 (IP over 1394)	Interface Settings/IEEE 1394 *1 ⇒ p.23	IP Address	●
		IP over 1394	●
	Interface Settings/Network ⇒ p.22	Gateway Address	❍
IEEE 802.11b (Wireless LAN)	Interface Settings/Network ⇒ p.22	IP Address	●
		Gateway Address	❍
		Effective Protocol	❍
		LAN Type *2	●
	Interface Settings/IEEE 802.11b *2 ⇒ p.24	Communication Mode	●
		SSID Setting	❍
		Channel	❍
		WEP (Encryption) Setting	❍
		Transmission Speed	❍

*1 Displayed when the IEEE 1394 interface board (optional) is installed.
*2 Displayed when the wireless LAN board (optional) is installed.

Network Configuration

Any change you make with User Tools remains in effect even if the main power switch or operation switch is turned off, or the 【Energy Saver】 or 【Clear Modes】 key is pressed.

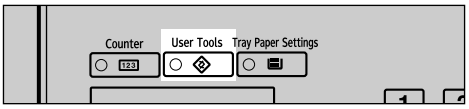
Configuring the Network Using the Control Panel

Note

❒ Operations for system settings are different from normal operations. After using User Tools, press 【User Tools】 to exit.

❒ If a key operator code has been set, the key operator code entry dialog box appears. Enter the code, and then press the **[OK]** key. ⇒ *General Settings Guide*

1 **Press the 【User Tools】 key.**



ZJBS050N

Note

❒ The machine will be offline during setting.

2 **Press the [System Settings] key.**

3 **Press the [Interface Settings] or [File Transfer] key.**

4 **Select the desired menu, and then press the desired key.**

5 **Change settings by following instructions on the display panel, and then press the [OK] key.**

Note

❒ To cancel changes made to settings and return to the normal function display, press the **[Cancel]** key.

6 **Press the [Exit] key.**

7 **Press the 【User Tools】 key.**

Note

❒ You can also exit from User Tools by pressing the **[Exit]** key.

Printing the Interface Setting List

You can print the current configuration of the machine.

1. **Press the 【User Tools】 key.**
2. **Press [System Settings].**
3. **Press [Interface Settings].**
4. **Press [Print List].**

   In a short time, the printing of the configuration page will start.
5. **Press [Exit].**
6. **Press the 【User Tools】 key.**

Note

❒ You can also exit from User Tools by pressing the **[Exit]** key.

Configuring the Network Using Other Utilities

As well as using the control panel to make network settings, utilities such as a Web browser and SmartNetMonitor for Admin can be used. The following table shows available settings:

Note

❒ ❍ in the list indicates that machine settings can be changed.

❒ - in the list indicates that the setting cannot be changed from that device.

Name on the Control Panel					Web Browser	Smart-NetMon-itor for Admin	telnet
Interface Settings	Network	IP Address	Auto-Obtain (DHCP)		❍	❍	❍
			Specify	IP Address	❍	❍	❍
				Sub-net Mask	❍	❍	❍
		Gateway Address			❍	❍	❍
		DNS Configu-ration	Auto-Obtain (DHCP)		❍	-	❍
			Specify	DNS Server 1	❍	-	❍
				DNS Server 2	❍	-	❍
				DNS Server 3	❍	-	❍
	Network	Effective Protocol	TCP/IP		-	❍ *1	❍
			NetWare		❍	❍ *2	❍
			SMB		❍	❍	❍
			AppleTalk		❍	❍	❍
		NW Frame Type	Auto Select		❍	-	❍
			Ethernet II		❍	-	❍
			Ethernet 802.2		❍	-	❍
			Ethernet 802.3		❍	-	❍
			Ethernet SNAP		❍	-	❍
		LAN Type	Ethernet		❍	-	❍
			IEEE 802.11b		❍	-	❍
		Host Name			❍	❍	❍
		Domain Name			❍	-	❍
	IEEE 1394	IP Address	Auto-Obtain (DHCP)		❍	-	❍
			Specify	IP Address	❍	-	❍
				Sub-net Mask	❍	-	❍
		IP over 1394			❍	-	❍
		Host Name			❍	-	❍
		Domain Name			❍	-	❍

Name on the Control Panel				Web Browser	Smart-NetMon-itor for Admin	telnet
Interface Settings	IEEE 802.11b	Communication Mode		❍	-	❍
		SSID Setting		❍	-	❍
		Channel		❍	-	❍
		WEP (En-cryption) Setting	WEP	❍	-	❍
			Encryption	❍	-	❍
		Transmission Speed		-	-	❍
File Transfer	SMTP Server Name			❍	-	❍

*1 When the computer is communicating with the machine using SmartNetMonitor for Admin by means of IPX/SPX, you can make settings for TCP/IP.

*2 When the computer is communicating with the machine using SmartNetMonitor for Admin by means of TCP/IP, you can make settings for NetWare (IPX/SPX).

Settings You Can Change with User Tools

Interface Settings/Network

❖ **IP Address**

Before using this machine with the network environment, you must configure the IP address.

Note

❒ Default: *Auto-Obtain (DHCP)*

❒ When you select **[Specify]**, enter the IP address and subnet mask as "xxx.xxx.xxx.xxx"("x" indicates a number).

❒ If you use the interface for Ethernet and IEEE 1394 (IP over 1394) at the same time, settings must be made with care.

❒ When you use the IEEE 1394 interface on a network, you cannot use the Ethernet interface in the same domain. To use both interfaces in the same domain, set different values for the Subnet Mask.

❒ When you select **[Specify]**, be sure not to set the same IP address as one of the other machines in the network.

❖ **Gateway Address**

A gateway is a connection or interchange point connecting two networks. Configure the gateway address for the router or host computer used as a gateway.

Note

❒ Default: *000.000.000.000*

❖ **DNS Configuration**

Make settings for the DNS server.

Note

❒ Default: *Auto-Obtain (DHCP)*

❒ When you select **[Specify]**, enter the DNS server value as "xxx.xxx.xxx.xxx"("x" indicates a number).

❖ **Effective Protocol**
Select the protocol to use in the network.

Note
❒ Default: *TCP/IP:Effective, NetWare:Effective, SMB:Effective, AppleTalk:Effective*

❖ **NW Frame Type**
Select the frame type when you use NetWare.

Note
❒ Default: *Auto select*

❖ **LAN Type**
When you have installed the wireless LAN board (optional), select interface, Wireless LAN (IEEE 802.11b) or Ethernet.

Note
❒ Default: *Ethernet*

❖ **Ethernet Speed**
Set the access speed for networks. Select a speed that matches your network environment. "Auto Select" should usually be specified.

Note
❒ Default: *Auto select*

❖ **Host Name**
Specify the host name.

❖ **Domain Name**
Specify the domain name.

Interface Settings/IEEE 1394

Preparation
You must install the IEEE 1394 interface board (optional) into the machine.

❖ **IP Address**
When you connect the machine to a network using the IEEE 1394 interface board (optional), you must configure the IP address.

Note
❒ Default: *Auto-Obtain (DHCP)*
❒ When you select **[Specify]**, enter the IP address and subnet mask as "xxx.xxx.xxx.xxx"("x" indicates a number).
❒ To configure the IP address, you need to enable "IP over 1394".
❒ If you use the interface for Ethernet and IEEE 1394 (IP over 1394) at the same time, settings must be made with care.
❒ When you use the IEEE 1394 interface on a network, you cannot use the Ethernet interface in the same domain. To use both interfaces in the same domain, set different values for the Subnet Mask.

❖ **IP over 1394**
When you use the IP over 1394 function of the IEEE 1394 interface to connect the machine to the network, or you print using a personal computer with the IP over 1394 driver, you must set IP over 1394.

Note
❒ Default: *Active*

❖ **SCSI print (SBP-2)**
When you print using the SCSI Print client function supported by Windows 2000 or Windows XP, you must set SCSI Print.

Note
❒ Default: *Active*

❖ **Bidirectional SCSI print**
Specifies the printer's response mode and so forth for a status request when using the IEEE 1394 interface.

Note
❒ Default: *ON*
❒ If this is set to "OFF", bidirectional communication functions will not work.

❖ **Host Name**
Specify the host name.

❖ **Domain Name**
Specify the domain name.

Interface Settings/IEEE 802.11b

Preparation
You must install the wireless LAN board (optional) into the machine.

Note
❒ Be sure to make all settings simultaneously.

❖ **Communication Mode**
Specifies the communication mode of the Wireless LAN.

Note
❒ Default: *802.11 Ad hoc*

❖ **SSID Setting**
Specifies SSID to distinguish the access point in the Infrastructure mode.

Note
❒ Default: *blank (ASSID)*
❒ The characters that can be used are ASCII 0x20- 0x7e (32 bytes).
❒ If blank is specified in 802.11b Ad hoc mode or Ad hoc mode, "ASSID" appears.

❖ **Channel**
Specifies a channel when you select 802.11b Ad hoc mode or Ad hoc mode.

Note
❒ Default: *11*
❒ The channel can be set from following channel:
- Metric Version: 1-13
- Inch Version: 1-11

❖ **Wireless LAN Signal**
Shows the radio wave conditions of the access point connected in Infrastructure mode.

Note
❒ Radio wave status is shown when you press the **[Wireless LAN Signal]** key.

❖ **WEP (Encryption) Setting**
Specifies the encryption of the Wireless LAN. If this is set to "Active", you must enter the WEP key.

Note
❒ Default: *Inactive*

❖ **Transmission Speed**
Specifies the communication speed of the Wireless LAN.

Note
❒ Default: *Auto*

❖ **Return to Defaults**
You can return the Wireless LAN settings to the default.

File Transfer

❖ **Delivery Option**
Enables or disables the function for sending documents stored in this machine or scanned documents via the ScanRouter V2 Professional/Lite delivery server.

Note
❒ Default: *OFF*
❒ Set this option when you specify whether or not to use ScanRouter V2 Professional/Lite. If you use, you will have to reregister the I/O devices in the ScanRouter V2 Professional/Lite.

❖ **SMTP Server Name**
Specify the SMTP server name.

Note
❒ When DNS is operating, enter the host name.
❒ If DNS is not operating, enter the SMTP server IP address.

Limitation
❒ A maximum of 127 characters (consisting of uppercase letters, numbers, and space) can be used in the SMTP server name.

❖ **Scanner Recall Interval Time**
Specifies the interval the machine waits before resending data or a document, if it could not be sent to the delivery server or mail server.

Note
❒ Default: *300 seconds*
❒ The interval time can be set from 60 to 900 seconds in one second increments using the number keys.
❒ This setting is for the Scanner function.

❖ **Number of Scanner Recalls**
Sets a maximum number of resend documents or data in the machine sent to the delivery server or mail server.

Note
❒ Default: *3* time(s)
❒ The number of times can be set from 1 to 99 using the number keys.
❒ This setting is for the Scanner function.

Setting the SMTP E-mail Transmission

The SMTP E-mail Transmission can be configured from the computer using a Web browser or telnet.

This section describes configuration using a Web browser.

Reference
See p.61 “Configuring the Network Interface Board Using a Web Browser”.

1 Start the Web browser.

2 **Point the browser to the URL or IP address of the machine (e.g. http://XXX.XXX.XXX.XXX/, where the Xs represent the numeric IP address).**

3 **Click [Administrator Mode].**

The dialog box for entering the user name and password appears.

4 **Enter your user name and password, and then click [OK].**

Note

❒ To use the factory default account, enter no user name and enter "password" as the password.

5 **Click [Configuration] → [Network] → [Protocol] → [SMTP E-mail Transmission] in the menu area.**

6 **Click the selected item in the menu area and make the necessary settings.**

Reference

For more information about making settings, see p.105 "Settings for SMTP Authentication and POP Authentication"

7 **Click [Apply].**

The configuration is transmitted.

4. Windows Configuration

Configuring TCP/IP

Follow these instructions to configure Windows to use TCP/IP and IPP.

Configuring a Windows 95/98/Me computer

These steps are for configuring a Windows 95/98/Me computer to use TCP/IP.

1. **Open [Control Panel], and then double-click the [Network] icon. Make sure that TCP/IP is listed in the [The following network components are installed] box on the [Configuration] tab.**

   Note

   ❒ Under Windows Me, if you want to use IEEE 1394 (IP over 1394) interface, make sure TCP/IP is bound to the IEEE 1394 adaptor being used. The following message will be displayed:

   `TCP/ IP -> (IEEE 1394 adaptor in use)`

   ❒ If TCP/IP is not installed, click **[Add]** on the **[Configuration]** tab to install it. For more information about installing TCP/IP, see Windows 95/98/Me Help.

2. **Configure TCP/IP with the appropriate IP address, subnet mask and other settings.**

   Check with the network administrator that the settings are correct.

Configuring a Windows 2000 computer

These steps are for configuring a Windows 2000 computer to use TCP/IP.

1. **Click the[Start]button on the taskbar, point to [Settings], and then click [Network and Dial-up Connections].**

2. **Double-click [Local Area Connection]. On the [General] tab, click [Properties].**

3. **Make sure that Internet Protocol (TCP/IP) is selected in the [Components checked are used by this connection] box on the [General] tab.**

   Note

   ❒ Select TCP/IP if it is not already selected.

   ❒ If TCP/IP is not installed, click **[Install]** on the **[General]** tab to install it. For more information about installing TCP/IP, see Windows 2000 Help.

4. **Configure TCP/IP with the appropriate IP address, subnet mask and other settings.**

   Check with the network administrator that the settings are correct.

Configuring a Windows XP computer

These steps are for configuring a Windows XP computer to use TCP/IP.

1. **Click the [Start] button on the taskbar, click [Control Panel], and then click [Network and Internet Connections].**

2. **Click [Network Connections], and then double-click [Local Area Connection].**

3. **On the [General] tab, click [Properties].**

   Note

   ❒ If you want to use IEEE 1394 (IP over 1394) interface, click **[1394 Connection]**.

4. **Make sure that "Internet Protocol (TCP/IP)" is selected in the [This connection uses the following items] box on the [General] tab.**

   Note

   ❒ Select TCP/IP if not already selected.

   ❒ If TCP/IP protocol is not installed, click **[Install]** on the **[General]** tab to install it. For more information about installing TCP/IP, see Windows XP Help.

5. **Configure TCP/IP protocol with the appropriate IP address, subnet mask and other settings.**

   Check with the network administrator that the settings are correct.

Configuring a Windows NT 4.0 computer

These steps are for configuring a Windows NT 4.0 computer to use TCP/IP.

1. **Open [Control Panel], and then double-click the [Network] icon. Make sure that TCP/IP Protocol is listed in the [Network protocols] box on the [Protocols] tab.**

   Note

   ❒ If TCP/IP is not installed, click **[Add]** on the **[Protocols]** tab to install it. For more information about installing TCP/IP, see Windows NT 4.0 Help.

2. **Configure TCP/IP with the appropriate IP address, subnet mask and other settings.**

   Check with the network administrator that the settings are correct.

Configuring NetBEUI

Follow these instructions to configure Windows to use NetBEUI.

Limitation

❒ NetBEUI protocol cannot be used under Windows XP.

Note

❒ NetBEUI protocol appears as SMB on the control panel, manual, and related utilities.

Configuring a Windows 95/98/Me computer

Install NetBEUI on the Windows 95/98/Me computer and set it as the default.

1. **Open [Control Panel], and then double-click the [Network] icon. Make sure that NetBEUI is listed in the [The following network components are installed] box on the [Configuration] tab.**

   Note

   ❒ If NetBEUI is not installed, click **[Add]** on the **[Configuration]** tab to install it. For more information about installing NetBEUI, see Windows 95/98/Me Help.

   ❒ If **[NetBEUI →Dial-Up Adaptor]** is listed in the **[The following network components are installed]** box, select it, and then click **[Remove]** to remove the binding.

2. **Click [OK] to close the [Network] dialog box.**

Configuring a Windows 2000 computer

Follow these steps to configure a Windows 2000 computer to use NetBEUI.

1. **Click the[Start]button on the taskbar, point to [Settings], and then click [Network and Dial-up Connections].**

2. **Double-click [Local Area Connection]. On the [General] tab, click [Properties].**

3. **Make sure that NetBEUI Protocol is selected in the [Components checked are used by this connection] box on the [General] tab.**

   Note

   ❒ Select NetBEUI if it is not already selected.

   ❒ If NetBEUI is not installed, click **[Install]** on the **[General]** tab and install it. For more information about installing NetBEUI, see Windows 2000 Help.

Configuring a Windows NT computer

Install NetBEUI on the Windows NT computer, and then change the LAN adapter number (Lana Number).

1. **Open [Control Panel], and then double-click the [Network] icon. Make sure that NetBEUI Protocol is listed in the [Network Protocols] box on the [Protocols] tab.**

   Note

   ❒ If NetBEUI is not installed, click **[Add]** on the **[Protocols]** tab to install it. For more information about installing NetBEUI, see Windows NT Help.

2. **Change the Lana Number. Click the [Services] tab, click [NetBIOS Interface] in the [Services] tab, and then click [Properties].**

3. **Click the Lana Number corresponding to the Nbf protocol of the [Network Route] headline, and then click [Edit].**

4. **Enter "0" as the Lana Number.**

   Note

   ❒ If the other protocol's Lana Number is "0", you must change the Lana Number to a number other than "0".

5. **Click [OK].**

6. **Click [Close], and then close the [Network] dialog box.**

7. **After checking the message to restart, click [Yes].**

   Note

   ❒ After you change the Lana Number, you must restart the computer.

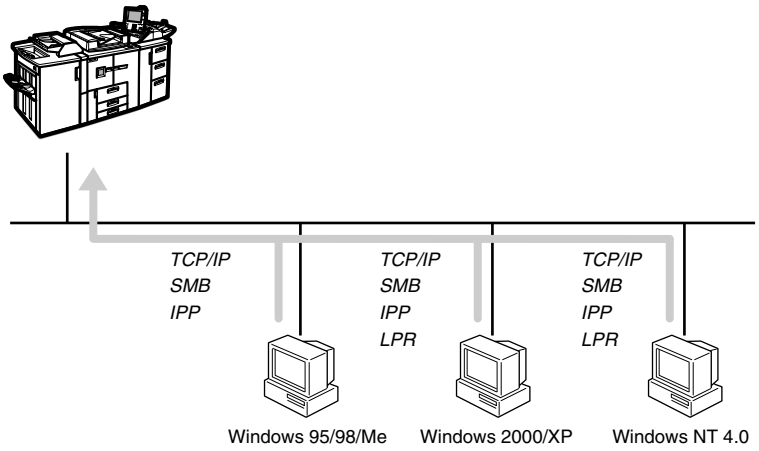
5. Using the Printer Function

This section contains instructions to configure the machine as a network printer. Read the section that relates to your network environment for information about correct configuration.

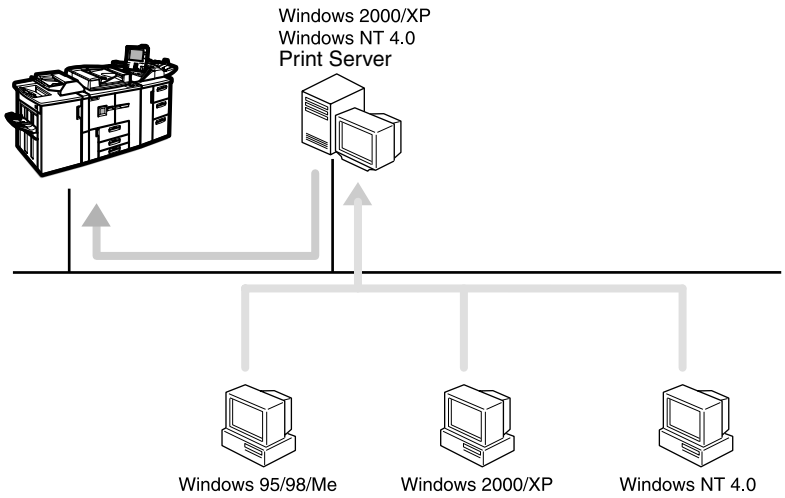
❖ Printing with a Windows 2000/XP or Windows NT Print Server

To set up the machine as a network printer in Windows 95/98/Me, Windows 2000/XP, and Windows NT 4.0 environment, see p.34 “Printing with Windows”.

- Printing Without a Print Server



- Printing with a Windows 2000/XP or Windows NT Print Server

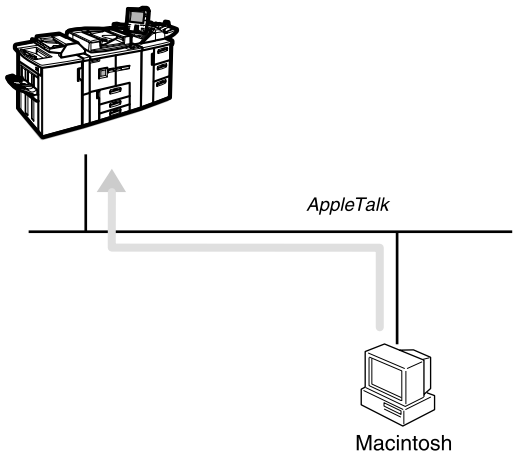


Note

❒ Under Windows XP, you cannot print via SmartNetMonitor for Client using SMB.

❖ Printing with a Macintosh

To set up the machine as a network printer in a Macintosh environment, see p.38 “Printing with a Macintosh”.

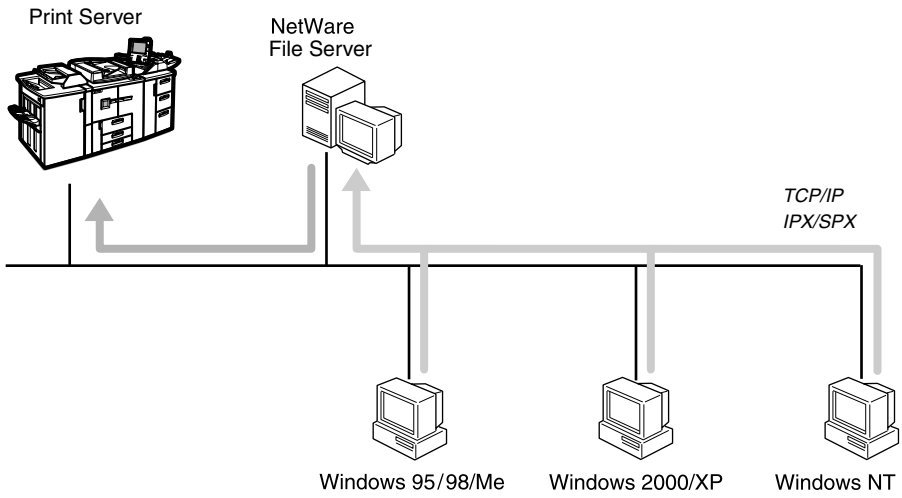


GPNETKFJ

❖ Printing with NetWare

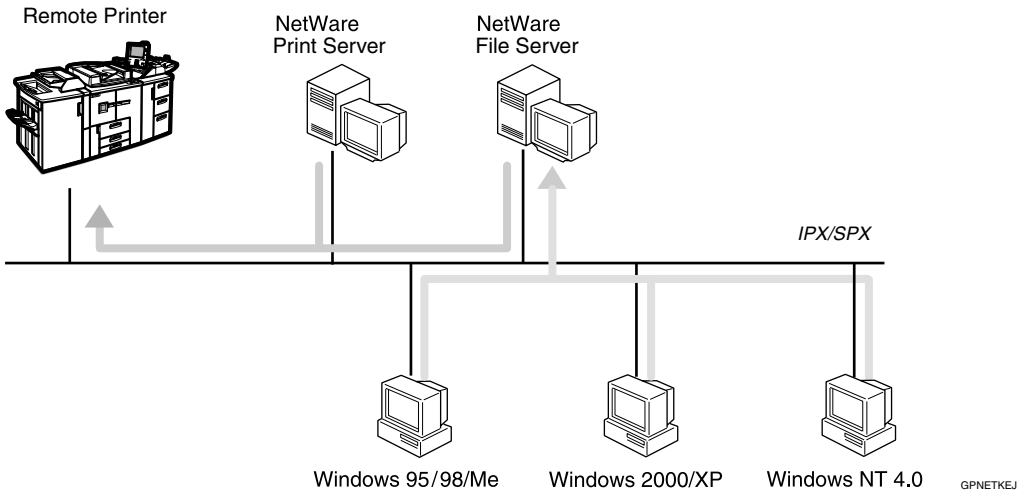
To set up the machine as a network printer in a NetWare environment. The network interface board allows you to use the machine as either a print server or a remote printer, see p.40 “Printing with NetWare”.

- Configuring the machine as a print server



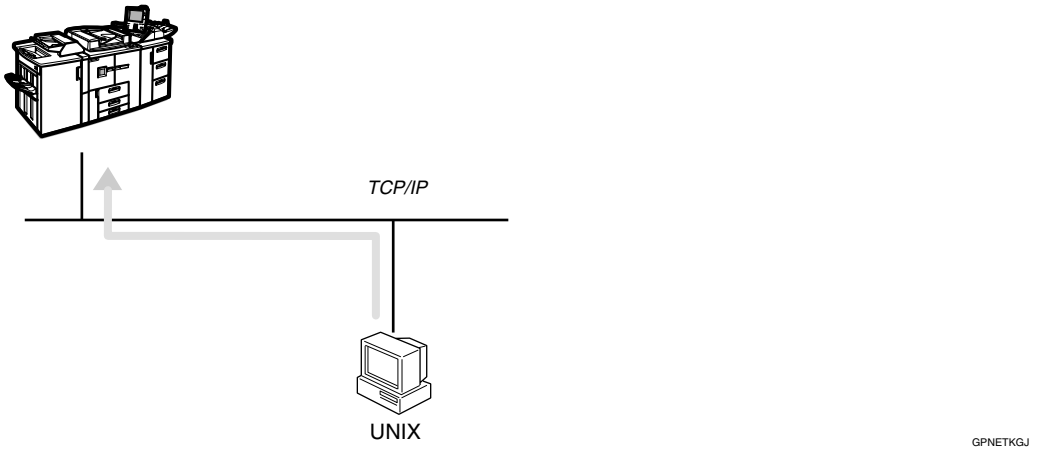
GPNETKDJ

- Configuring the machine as a remote printer



❖ **UNIX**

For UNIX printing information, please visit our Web site or consult your authorized dealer.



Printing with Windows

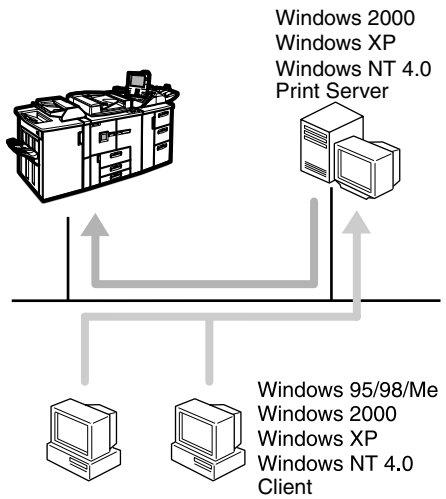
Printing with a Windows 2000/XP or Windows NT Print Server

This section describes procedures for setting up a client on a network using Windows 2000/XP, Windows NT Server or Windows NT Workstation as a print server.

When using a Windows 2000/XP or Windows NT print server, select a shared printer on Windows 2000/XP or Windows NT.

This section describes running **[Add Printer Wizard]** on each client computer, and adding the Windows 2000, Windows XP, and Windows NT 4.0 print servers as the network printer.

The instructions are given using Windows 98.



Limitation

- When using a print server connected to the machine with SmartNet-Monitor for Client, you cannot use Recovery Printing and Parallel Printing.
- When using Windows XP as a print server, the client computer cannot receive notification of print job completion.

Note

- This section assumes that the client has already been configured to communicate with a Windows 2000/XP or Windows NT print server. Do not begin the following procedure until the client has been set up and configured correctly.
- When using Windows NT 4.0 as the print server, make sure to install the Windows NT 4.0 printer driver before connecting the print server. There is a Windows NT 4.0 printer driver on the CD-ROM labeled "Printer Drivers and Utilities".

1 **Click the [Start] button, point to [Settings], and then click [Printers].**

2 **Click the icon of the printer you want to use. On the [File] menu, click [Properties].**

3 **Click the [Details] tab, and then click [Add Port].**

4 **Click [Network], and then click [Browse].**

5 On the network tree, double-click the name of the computer used as the print server.

The printers connected to the network are displayed.

6 Click the name of the printer you want to use, and then click [OK].

7 Click [OK].

8 Make sure that the port name is displayed in the [Print to the following port] box, and then click [OK].

Printing without a Print Server

You can use this machine as a network printer without connecting to a print server.

You can configure the following ports:

❖ **SmartNetMonitor for Client**
You can print via TCP/IP, IPP, and NetBEUI using SmartNetMonitor for Client.

Note

❒ Install SmartNetMonitor for Client from the supplied CD-ROM. For more information about installation, see *Printer Reference 1*.

❒ For more information about SmartNetMonitor for Client, see p.51 "Using SmartNetMonitor for Client".

❖ **Standard TCP/IP Port**
You can print via TCP/IP using a standard TCP/IP port.

❖ **LPR port**
You can print via TCP/IP using an LPR port.

Changing Port Settings

This section describes how to change the port settings under Windows 2000 when a printer driver has been installed.

1 From the [Printers] window, click the icon of the printer you want to use. On the [File] menu, click [Properties].

2 Click the [Ports] tab, and then click [Add Port].

Select the port you want to use.

SmartNetMonitor

❶ Select [SmartNetMonitor], and then click [New Port].

❷ Select a printer you want to use.

❖ **TCP/IP**

① Click **[TCP/IP]**, and then click **[Search]**.
Available printers will be listed.

② Click the printer you want to use, and then click **[OK]**.

Note

❒ Printers that respond to an IP broadcast from the computer will be displayed. To print to a printer not listed here, click **[Specify Address]**, and then type the IP address or host name.

❖ **NetBEUI**

Note

❒ Do not use NetBEUI under Windows XP.

① Click **[NetBEUI]**, and then click **[Search]**.
A list of printers that can be used by the NetBEUI protocol appears.

② Click the printer you want to use, and then click **[OK]**.

Note

❒ Printers that respond to a broadcast from the computer will be displayed. To print to a printer not listed here, click **[Specify Address]**, and then type the NetBEUI address. Confirm the NetBEUI address on the network is on the configuration page. For more information about printing the configuration page, see General Settings Guide. NetBEUI address appears as "\\RNPxxxx\xxx" on the configuration page. Type the printer's network path name in the form of "%%Computer name\Share name". Do not type "\\" as head characters but "%%".

❒ You cannot print to printers beyond routers.

❖ **IPP**

① Click **[IPP]**.
The IPP setting dialog box appears.

② To specify the IP address of the printer, type "http://printer's-ip-address/printer" or "ipp://printer's-ip-address/printer" in the **[Printer URL]** field.
(Example IP address is 192.168.15.16)

`http://192.168.15.16/printer`
`ipp://192.168.15.16/printer`

③ As necessary, type the names to distinguish the printer in **[IPP Port Name]**.
Type a different name from those of any existing port name.
If you omit this, the address typed in **[Printer URL]** will be set as the IPP port name.

④ If a proxy server and IPP user name are used, click **[Detailed Settings]** and configure the necessary settings.

⑤ Click **[OK]**.

Standard TCP/IP Port

❶ Select [Standard TCP/IP], and then click [New Port].

❷ Click [Next] in the "Add Standard TCP/IP Printer Port Wizard" window.

❸ Type the printer name or IP address in the "Printer Name or IP Address" box.

❹ Click [Finish] in the "Add Standard TCP/IP Printer Port Wizard" window.

LPR Port

❶ **Select [LPR Port], and then click [New Port].**

❷ **Type the printer's IP address in the "Name or address of server providing lpd" box, and then click [Next].**

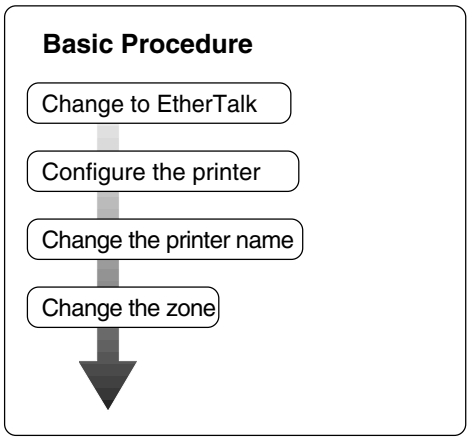
❸ **Type "lp" in the "Name of printer or print queue on that server" box, and then click [OK].**

3 **Click [Close].**

4 **Check the location for the selected printer, and click [Close].**

Printing with a Macintosh

This section describes how to configure a Macintosh computer to use EtherTalk. Actual procedures may vary depending on the version of the Mac OS. The following procedures describe how to configure Mac OS 9.1 and Mac OS X v10.1. In case you are using other version than Mac OS 9.1 and Mac OS X v10.1, see the manual that comes with Mac OS for more information.



Note

❒ Mac OS 8.6, Mac OS X 10.1, and later versions are supported.

❒ To print from a Macintosh, PostScript 3 option is required.

Changing to EtherTalk

The following procedure is for configuring a Macintosh computer to use EtherTalk.

Reference

For more information about installing the software required for EtherTalk, see the Macintosh manuals.

Mac OS

1. **Open [Control Panel], and then double-click the [AppleTalk] icon.**
2. **On the [Connect via] pop-up menu, click [Ethernet].**
3. **If you change zones, select a name from the [Current zone] pop-up menu.**
4. **Close the [AppleTalk] control panel.**
5. **Restart the Macintosh.**

Mac OS X

Note

❒ You need an administrator name and a password (phrase). For more information, consult your administrator.

1. **Open [System Preferences], and then click the [Network] icon.**
2. **Click the [AppleTalk] tab.**

3 **If you change zone, select a name from the [AppleTalk Zone:] pop- up menu.**

4 **When the setting is complete, click [Apply Now].**

Configuring the Printer

Use the control panel to activate the AppleTalk protocol. (The default is active.)

Reference

For more information about configuration, see p.22 “Interface Settings/Network”.

Changing the Printer Name

If the network has several similar model printers, the names will be the same. Printers of the same name will have slightly changed names in the Chooser. For example, three printers named “printer” will appear in the Chooser as “printer0”, “printer1”, and “printer2”.

To change the printer name in the Macintosh EtherTalk environment, use the Printer Utility for Mac included on the CD-ROM labeled “Printer Drivers and Utilities”.

Changing the Zone

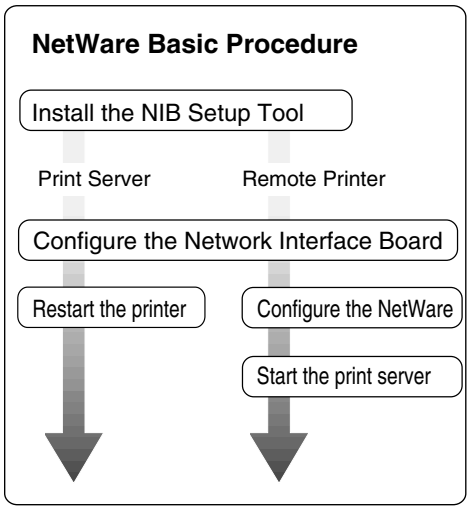
To change the zone configuration in a Macintosh EtherTalk environment, use the Printer Utility for Mac included on the CD-ROM labeled “Printer Drivers and Utilities”.

Reference

For more information about using Printer Utilities for Mac, see PostScript 3 Supplement, provided as a PDF file on the CD-ROM labeled “Operating Instructions for Printer/Scanner”.

Printing with NetWare

This chapter describes how to configure the machine for use as a print server or a remote printer in a NetWare environment.



This section assumes NetWare is functional and the necessary environment for the NetWare Print Service is available.

Note

❒ NetWare must be set to active using the machine's control panel. For more information about how to set it, see *General Settings Guide*.

❖ **SmartNetMonitor for Admin**

Using a printer in a NetWare environment, configure the NetWare printing environment by using SmartNetMonitor for Admin.

Note

❒ If you configure NetWare printing using SmartNetMonitor for Admin under the following environments, NetWare Client provided by Novell is required:

- NDS mode in Windows 95/98/Me
- NDS or Bindery mode in Windows 2000/Windows NT 4.0

❖ **Printers listed by SmartNetMonitor for Admin**

SmartNetMonitor for Admin displays a list of printers, which are connected to the network.

If you cannot find out the printer from the displayed list, refer to the configuration page printed from the printer. For more information about printing a configuration page, see *General Settings Guide*.

Setting Up as a Print Server

NetWare 3.x

1. **Log on to the file server as a Supervisor, or equivalent.**
2. **Run SmartNetMonitor for Admin.**
3. **Click the [Group] menu, point to [Search Device], and then select [IPX/SPX].**

   A list of machines appears.
4. **In the list, select the printer for which you want to change configuration.**
5. **On the [Tools] menu, click [NIB Setup Tool].**

   NIB Setup Tool starts up.
6. **Click [Wizard], and then click [OK].**

   The **[NIB Setup Tool - Network board list]** dialog box of the network interface board appears.
7. **Click [IPX protocol].**
8. **As necessary, enter the print server name in the [Device Name] box, and then click [Next>].**
9. **Select the [NetWare] check box, and then click [Next >].**
10. **Select [Bindery], and then enter in the [File Server Name:] box the name of the file server in which a print server is to be created.**

    After clicking **[Browse]**, you can select a file server among those listed in the **[Browse]** dialog box.
11. **Click [Next >].**
12. **Enter the name of the printer in the [Printer Name] box, and the name of the print queue in the [Print Queue Name] box.**

    The default for Printer Name is "Print Server Name" followed by "_1" and for Print Queue Name is "Print Server Name" followed by "_Q" (quotation marks are not included). You can change these if necessary.
13. **Click [Next >].**
14. **After checking the environment, click [Next >].**

    Clicking **[Next >]**, NIB Setup Tool automatically creates the Print Server, the Printer, and the Print Queue in the NetWare network.
15. **Quit SmartNetMonitor for Admin.**
16. **Restart the machine.**

Note

❒ To make sure that the printer is correctly configured, enter the following from the command prompt:

```
F:> USERLIST
```

❒ If the printer works as configured, the name of the print server appears as an attached user.

NetWare 4.x, 5/5.1, 6

Important

❒ You must set up the print server using NDS mode in NetWare 4.x, 5/5.1, 6.

❖ To use NetWare 5/5.1, 6

- Use the printer as a print server. Do not use as a remote printer.
- If you use Pure IP, configure the machine to use TCP/IP. For more information about how to make the settings, see p.22 "Interface Settings/Network".

1 Log on to the file server as an administrator, or equivalent.

2 Run SmartNetMonitor for Admin.

3 Click the [Group] menu, point to [Search Device], and then select [IPX/SPX].

A list of machines appears.

4 In the list, select the printer for which you want to change configuration.

5 On the [Tools] menu, click [NIB Setup Tool].

NIB Setup Tool starts up.

6 Click [Wizard], and then click [OK].

The **[NIB Setup Tool - Network board list]** dialog box of the network interface board appears.

7 Click [IPX protocol].

8 As necessary, enter the print server name in the [Device Name] box, and then click [Next>].

9 Select the [NetWare] check box, and then click [Next >].

Note

❒ Select **[NDS]**, and then enter in the **[Tree:]** box the name of the NDS tree in which the print server is created, and then enter the context in the **[Context:]** box.

❒ Clicking **[Browse]**, you can select an NDS tree and an NDS context among those listed in the **[Browse]** dialog boxes.

❒ As context, object names are entered in a lower object and divided by a period. For example, if you want to create a print server into NET under DS, enter "NET.DS".

10 Click [Next >].

11 Enter the name of the printer in the [Printer Name] box, and the name of the print queue in the [Print Queue Name] box, and the volume of the print queue in the [Queue Volume] box.

Note

❒ The default for Printer Name is "Print Server Name" followed by "_1" and for Print Queue Name is "Print Server Name" followed by "_Q" (quotation marks are not included). You can change these if necessary.

❒ Clicking **[Browse]**, you can select the print queue shown in the **[Browse]** dialog box.

12 **Click [Next >].**

13 **After checking the environment, click [Next >].**

Clicking **[Next >]**, NIB Setup Tool automatically creates the Print Server, the Printer, and the Print Queue in the NetWare network.

14 **Quit SmartNetMonitor for Admin.**

15 **Restart the machine.**

Note

❒ To make sure that the printer is correctly configured, enter the following from the command prompt:

```
F:>NLIST USER /A/B
```

❒ If the printer works as configured, the name of the print server appears as an attached user.

Using Pure IP in the NetWare 5/5.1, 6 Environment

Note

❒ When not using IPX, it is recommended that you change the print server protocol in the Web browser from **[TCP/IP+IPX]** to **[TCP/IP]**.

1 **Log on to the file server as an administrator, or equivalent.**

2 **Run SmartNetMonitor for Admin.**

3 **Click the [Group] menu, point to [Search Device], and then select [IPX/SPX].**

A list of machines appears.

4 **In the list, select the printer for which you want to change configuration.**

5 **On the [Tools] menu, click [NIB Setup Tool].**

NIB Setup Tool starts up.

6 **Click [Configure], and then click [OK].**

The **[NIB Setup Tool - Network board list]** dialog box of the network interface board appears.

7 **Click the [General] tab, and then enter the name of the print server into the [Device Name] box.**

8 **Click the [NetWare] tab, and then make the following settings:**

❶ **In the [Print Server Name] box, enter the name of the print server.**

❷ **In the [File Server Name] box, enter the name of the file server in which the print server is to be created.**

Note

❒ Clicking **[Browse]**, you can select a file server among those listed in the **[Browse File Server]** dialog box.

❸ **In the [NDS Context] box, enter the context of the print server.**

Note

❒ Type the name of the print server within 47 characters.

❒ Clicking **[Browse]**, you can select an NDS tree and an NDS context from those listed in the **[Browse Context]** dialog box.

❒ As context, object names are entered in lower object order and divided by a period. For example, if you want to create a print server into NET under DS, enter "NET.DS".

❹ **In the [Print Server Operation Mode] group, click [As Print Server].**

❺ **Click [OK] to close the property sheet.**

❻ **After the confirmation dialog box appears, click [OK].**

9 **Quit SmartNetMonitor for Admin.**

After this step, operate the machine by following the steps starting with step **9** in p.46 "NetWare 4.x, 5/5.1, 6". However, steps **15**-❸ and 15-❹ are not required.

Setting Up as a Remote Printer

NetWare 3.x

1 **Log on to the file server as an administrator, or equivalent.**

2 **Run SmartNetMonitor for Admin.**

3 **Click the [Group] menu, point to [Search Device], and then select [IPX/SPX].**

A list of machines appears.

4 **In the list, select the printer for which you want to change configuration.**

5 **On the [Tools] menu, click [NIB Setup Tool].**

NIB Setup Tool starts up.

6 **Click [Configure], and then click [OK].**

The property sheet appears.

7 **Click the [General] tab, and then enter the name of the print server into the [Device Name] box.**

8 **Click the [NetWare] tab, and then make the following settings:**

❶ **In the [Print Server Name] box, enter the name of the print server.**

❷ **In the [File Server Name] box, enter the name of the file server in which a print server is to be created.**

Note

❒ Clicking **[Browse]**, you can select a file server among those listed in the **[Browse]** dialog box.

❸ **In the [Print Server Operation Mode] group, click [As Remote Printer].**

❹ **In the [Remote Printer No.] box, enter the printer number.**

Important

❒ Use the same printer number as that to be created in the printer server.

❺ **Click [OK] to close the property sheet.**

9 **Quit SmartNetMonitor for Admin.**

10 **Enter "PCONSOLE" from the command prompt.**

```
F:> PCONSOLE
```

11 **Create a print queue as follows:**

Note

❒ If you use a currently defined print queue, proceed to step **12**

❶ **On the [Available Options] menu, click [Print Queue Information], and then press the 【ENTER】 key.**

❷ **Press the 【INSERT】 key, and then enter a print queue name.**

❸ **Press the 【ESCAPE】 key to return to the [Available Options] menu.**

12 **Create a printer as follows:**

❶ **On the [Available Options] menu, click [Print Server Information], and then press the 【ENTER】 key.**

❷ **To create a new print server, press the [INSERT] key, and then enter a print server name.**

Note

❒ If you use a currently defined print server, select one of the print servers shown in the **[Print Server]** list.

Important

❒ Use the same name as that specified in NIB Setup Tool. (Step **8**-❶).

❸ **On the [Print Server Information] menu, click [Print Server Configuration].**

❹ **On the [Print Server Configuration] menu, click [Printer Configuration].**

❺ **Select the printer which is indicated as "Not Installed".**

Important

❒ Use the same number as that specified as Remote Printer No. using NIB Setup Tool. (Step **8**-❹).

❻ **If you want to change the name of the printer, enter a new name.**

Note

❒ A name "Printer x" is assigned to the printer. x stands for the number of the selected printer.

❼ **Click [Remote Parallel, LPT1] as printer type.**

IRQ, Buffer size, Starting form, and Queue service mode are automatically configured.

❽ **Press the 【ESC】 key, and then click [Yes] in the confirmation dialog box.**

❾ **Press the 【ESC】 key to return to [Print Server Configuration] menu.**

13 **Assign print queues to the created printer as follows:**

❶ **On the [Print Server Configuration] menu, click [Queues Serviced By Printer].**

❷ **Select the printer created in step 12.**

❸ **Press the 【INSERT】 key to select a queue serviced by the printer.**

Note

❒ You can select more than one queue at a time.

❹ **Follow the instructions on screen to make other necessary settings.**

When you have finished the above steps, make sure that the queues are assigned.

❺ **Press the [ESC] key until "Exit?" appears, and then click [Yes] to exit PCONSOLE.**

❻ **Start the print server by entering the following from the keyboard of the NetWare Server.**

If it is running, restart after exiting.

❖ **To exit**

```
CAREE: unload pserver
```

❖ **To start**

```
CAREE: load pserver
print_server_name
```

Note

❒ If the printer works as configured, "Waiting for job" appears.

❒ NetWare 3.x ends here.

NetWare 4.x, 5/5.1, 6

1 **Log on to the file server as an administrator, or equivalent.**

2 **Run SmartNetMonitor for Admin.**

3 **Click the [Group] menu, point to [Search Device], and then select [IPX/SPX].**

A list of machines appears.

4 **In the list, select the printer for which you want to change configuration.**

5 **On the [Tools] menu, click [NIB Setup Tool].**

NIB Setup Tool starts up.

6 **Click [Configure], and then click [OK].**

The property sheet appears.

7 **Click the [General] tab, and then enter the name of the print server into the [Device Name] box.**

8 **Click the [NetWare] tab, and then make the following settings:**

❶ **In the [Print Server Name] box, enter the name of the print server.**

Note

❒ Type the name of the print server within 47 characters.

❷ **In the [File Server Name] box, enter the name of the file server in which a print server is to be created.**

Note

❒ Clicking **[Browse]**, you can select a file server from those listed in the **[Browse]** dialog box.

❸ **In the [NDS Context] box, enter the context in which the print server is to be created.**

Note

❒ Clicking **[Browse]**, you can select a context from those listed in the **[Browse]** dialog box.

❒ As context, object names are entered in lower object order and divided by a period. For example, if you want to create a print server into NET under DS, enter "NET.DS".

❹ **In the [Print Server Operation Mode] group, click [As Remote Printer].**

❺ **In the [Remote Printer No.] box, enter the number of the printer.**

Important

❒ Use the same number as that of the printer to be created in the print server.

❻ **Click [OK] to close the property sheet.**

9 **Quit SmartNetMonitor for Admin.**

10 **From Windows, run NWadmn.**

Reference

For more information about NWadmn, see the operating instructions that comes with the NetWare.

11 **Create a print queue as follows:**

Note

❒ If you use a currently defined print queue, proceed to step **12**.

❶ **Select the container object the print queue is located in from those in the directory tree, and then click [Create] on the [Object] menu.**

❷ **In the [Class of new object] box, click [Print Queue], and then click [OK].**

❸ **In the [Print Queue name] box, enter the name of the print queue.**

❹ **In the [Print Queue Volume] box, click [Browse].**

❺ **In the [Available objects] box, click the volume in which the print queue is created, and then click [OK].**

❻ **After checking the settings, click [Create].**

12 **Create a printer as follows:**

❶ **Select the container object where the printer is located, and then click [Create] in the [Object] menu.**

❷ **In the [Class of new object] box, click [Printer], and then click [OK]. When using NetWare 5/5.1, 6, click [Printer (Non NDPS)].**

❸ **In the [Printer name] box, enter the name of the printer.**

❹ **Select the [Define additional properties] check box, and then click [Create].**

13 Assign print queues to the created printer as follows:

❶ Click [Assignments], and then click [Add] in the [Assignments] group.

❷ In the [Available objects] box, click the queue created in step 12, and then click [OK].

❸ Click [Configuration], and in the [Printer type] box, click [Parallel] using the drop-down menu, and then click [Communication].

❹ Click [Manual load] in the [Communication type] group, and then click [OK].

❺ After checking the settings, click [OK].

14 Create a print server as follows:

❶ Select the context specified using NIB Setup Tool (Step 8-❶), and on the [Object] menu, click [Create].

❷ In the [Class of new object] box, click [Print Server], and then click [OK].

When using NetWare 5/5.1, 6, click **[Print Server (Non NDPS)]**.

❸ In the [Print Server name] box, enter the name of the print server.

Important

❒ Use the same name as that specified using NIB Setup Tool. (Step 8-❶).

❹ Select the [Define additional properties] check box, and then click [Create].

15 Assign the printer to the created print server as follows:

❶ Click [Assignments], and then click [Add] in the [Assignments] group.

❷ In the [Available objects] box, click the queue created in step 11, and then click [OK].

❸ In the [Printers] group, click the printer assigned in step ❷, and then click [Printer Number].

❹ Enter the printer number and click [OK].

Important

❒ Specify the same printer No. as used with NIB Setup Tool. (Step 8-❺).

❺ After checking the settings, click [OK].

16 Start the print server by entering the following from the console of the NetWare Server.

If it is running, restart after exiting.

❖ To exit

```
CAREE: unload pserver
```

❖ To start

```
CAREE: load pserver
print_server_name
```

Setting Up a Client Computer

This section describes how to set up a client computer when using a NetWare print server.

Note

❒ Use the version of Novell Client provided with your operating system, or the latest version.

❒ This section assumes that the client has NetWare client applications installed and is correctly configured to communicate with a NetWare print server. If not, install the necessary applications before starting the setting up procedure.

Windows 95/98/Me

Follow the procedure to set up a Windows 95/98/Me client:

Preparation

Log on to the NetWare file server before starting the following procedure:

1 Install the printer driver you want to use as "local printer".

Reference

For more information about installing the printer driver, see *Printer Reference 1*.

Note

❒ Any port can be selected during installation. However, LPT1 is recommended.

2 Click the [Start]button, point to [Settings], and then click [Printers].

3 In the [Printers] window, click the icon of the printer you want to use.

4 On the [File] menu, click [Properties].

5 Click the [Details] tab, and then click [Add Port].

6 Click [Network], and then click [Browse].

7 On the network tree, double-click the name of the file server.

The queues are displayed.

8 Click the queue you want to print, and then click [OK].

9 Click [OK].

In the **[Print to the following port]** box, a network path to the printer appears.

10 Click [OK] to close the printer properties dialog box, and again, open it.

11 Click the [Printer Settings] tab.

12 Clear the [Form feed] and [Enable banner] check boxes.

Note

❒ You should not select these boxes because they should be specified in the printer driver. If they are selected, the printer might not print correctly.

When using the PostScript printer driver

Follow these steps to set the PostScript printer driver:

❶ **Click the [PostScript] tab.**

❷ **Click [Advanced].**

❸ **Clear the [Send CTRL+D before job] and [Send CTRL+D after job] check boxes.**

13 **Click [OK] to close the printer properties dialog box.**

Windows 2000/XP, Windows NT 4.0

Follow the procedure to set up a Windows 2000/XP, Windows NT 4.0 client.

Preparation

Log on to the NetWare file server before starting the following procedure:

1 **Double-click the [My Network Places] icon on the desktop and go to the queue you want to use, and then double-click it.**

The **[printers]** dialog box appears.

Note

❒ When using Windows NT 4.0, the **[Network Neighborhood]** icon appears on the desktop instead of the **[My Network Places]** icon.

2 **Click [Yes], and then click [OK].**

[Add Printer Wizard] starts.

3 **Insert the CD-ROM labeled "Printer Drivers and Utilities" into the CD-ROM drive, and then click [Have Disk].**

If the setup menu starts automatically, you can proceed to the next step. If not, see *Printer Reference 1*.

4 **Follow the instructions on screen to complete installation of the printer driver.**

NDPS

The machine operates using NDPS. Operating requirements are as follows:

- NetWare Version: 5.0, 5.1, 6

❖ **Printer Drivers and Operating Systems**

Printer Driver	OS
PCL	Windows 95/98/Me Windows 2000 Windows XP Windows NT 4.0
PostScript 3	Windows 95/98 Windows NT 4.0

To use the machine with NDPS, NDPS Gateway is required.

- Novell NDPS Gateway
  For more information about using Novell NDPS Gateway, see the manual provided with it.
- Custom NDPS Gateway
  For more information about using Custom NDPS Gateway, consult your authorized retailer.

iPrint

This machine does not support iPrint.

6. Using SmartNetMonitor for Client

SmartNetMonitor for Client

SmartNetMonitor for Client is software equipped with the following functions. We recommend all users of this printer to install this software.

❖ Protocol Stack

OS	Protocol Stack
Microsoft Windows 95/98/Me	TCP/IP provided with Windows 95/98/Me IPX/SPX provided with Windows 95/98/Me NetBEUI provided with Windows 95/98/Me NetWare network client provided with Windows 95/98/Me Novell Client for Windows 95/98/Me
Microsoft Windows 2000	TCP/IP provided with Windows 2000 IPX/SPX provided with Windows 2000 NetBEUI provided with Windows 2000 NetWare Client provided with Windows 2000 Novell Client for Windows NT/2000/XP
Microsoft Windows XP	TCP/IP provided with Windows XP IPX/SPX provided with Windows XP NetWare Client provided with Windows XP Novell Client for Windows NT/2000/XP
Microsoft Windows NT 4.0	TCP/IP provided with Windows NT IPX/SPX provided with Windows NT NetBEUI provided with Windows NT Client Service for NetWare provided with Windows NT Novell Client for Windows NT/2000/XP

❖ What can it do?

- Peer-to-Peer print function
  - Prints directly on the network printer without a print server.
  - Prints on a substitute printer when there are too many jobs accumulated in the specified printer, or when an error disables printing (Recovery printing).
  - Allocates multiple printings to multiple printers (Parallel Printing).
  - Prior group registration of printers specified for Recovery Printing /Parallel Printing.

- Notification function
  - An error message warns when there is an error on the specified printer during transfer or printing of data.
  - A window opens to notify the completion of printing. You can also select to be notified of the print condition, such as displaying the notice only when Recovery Printing is executed.
  - You can have a completion notice appear after printing and document storage.
- An error message can be displayed if an error occurs during printing or transmission of a print job.
- Monitoring function
  - Checks the equipment information on printing, paper exhaustion, and such, on the computer.
  - Simultaneously monitors multiple printers in use.
  - Checks the printer's network settings and detailed information of devices.
  - Enables you to check the log of print jobs using the user ID.
- Reports completion of printing and document storage by the printer function and completion of printing and document storage.
- Up to 100 print jobs can be displayed.

Limitation

❒ Make similar settings for the option configuration of the printer for Recovery/Parallel Printing and the printer for giving print commands. If the required options necessary for printing, such as the Paper Feed Unit, are not installed on the substitute printer, that function is disabled.

❒ Load paper of the same size on both the printer for Recovery/Parallel Printing and the printer for giving print commands. When specifying a particular Paper Tray for printing, load paper of the same size into that tray.

❒ If the type and devices of the printer for Recovery/Parallel Printing and the printer for giving commands are different, the print results might not turn out identical.

❒ If you select Sample Print or Locked Print, you cannot execute Recovery/Parallel Printing.

Reference

For more information about using Recovery Printing/Parallel Printing, See the SmartNetMonitor for Client Help.

Setting the Network Monitoring Function

Viewing the status of machines using SmartNetMonitor for Client, you must configure SmartNetMonitor for Client in advance, so that it monitors the machine whose status you want to view.

1 Run SmartNetMonitor for Client.

The SmartNetMonitor for Client icon appears at the right end of the taskbar.

2 Right-click the SmartNetMonitor for Client icon, and check that the desired machine is on the shortcut menu that appears.

For details about the machine status icon, see SmartNetMonitor for Client Help.

3 If the desired machine does not appear, click [Options] on the pop-up menu.

The **[SmartNetMonitor for Client - Options]** dialog box appears.

4 Click the machine to be monitored, and select the [To be Monitored] check box from the [Monitoring Information Settings] group.

Note

❒ Selecting the **[Displayed on Task Bar]** check box will bring up the status of a machine with an icon on the SmartNetMonitor for Client icon in the task tray.

5 Click [OK].

The dialog box closes and the selected machine is monitored.

Displaying the Status of Machines

You can monitor machine status by using SmartNetMonitor for Client.

1 Run SmartNetMonitor for Client.

2 The status of machines is displayed on the SmartNetMonitor for Client icon in the task tray.

Note

❒ For more information about status icons, see SmartNetMonitor for Client Help.

3 For further information on status, right-click the SmartNetMonitor for Client icon, and then click the desired machine.

The status of the machine is displayed in the dialog box.

Note

❒ For more information about each item in the dialog box, see SmartNetMonitor for Client Help.

7. Using SmartNetMonitor for Admin

SmartNetMonitor for Admin

Using SmartNetMonitor for Admin, not only can you monitor the status of network printers, but you also can change the configuration of the network interface board using TCP/IP or IPX/SPX protocol.

❖ Protocol Stack

Operating system	Protocol stack
Microsoft Windows 95/98/Me	TCP/IP provided with Windows 95/98/Me IPX/SPX provided with Windows 95/98/Me NetWare network client provided with Windows 95/98/Me Novell Client for Windows 95/98/Me
Microsoft Windows 2000	TCP/IP provided with Windows 2000 IPX/SPX provided with Windows 2000 NetWare Client provided with Windows 2000 Novell Client for Windows NT/2000/XP
Microsoft Windows XP	TCP/IP provided with Windows XP IPX/SPX provided with Windows XP Novell Client for Windows NT/2000/XP
Microsoft Windows NT 4.0	TCP/IP provided with Windows NT IPX/SPX provided with Windows NT Client Service for NetWare provided with Windows NT Novell Client for Windows NT/2000/XP

❖ What can it do?

- Limits the settings to be done from the control panel, and disables changes to be made to some items.
- Enables the selection of paper type loaded in the machine.
- Switches to Energy Saver mode, and wakes up from the Energy Saver mode.
- Checks information on printing, paper quantity, and so on.
- Simultaneously monitors multiple printers. When there are many printers, you can create groups and classify the printers to facilitate management.
- Checks the machine's network settings and detailed device information.
- Enables you to change the machine's network settings.
- You can check the details of print jobs sent from the computer.

- Allows you to check job histories of printed, scanned, and photocopied documents identified by user codes.
- Allows selection of whether or not to use functions such as printing and scanning for each user code.
- E-mail addresses stored in the machine can be changed and saved by computer.
- You can make settings for and display the status changes of group devices.

Reference

For more information about these settings, see SmartNetMonitor for Admin Help.

Limitation

❒ A TCP/IP environment is required when using the following functions:
- Using Tools
  - Locking the Control Panel Menu
  - Selecting the Paper Type
  - Managing User Information
  - Viewing and Deleting Spool Print Jobs
- Opening the Web browser using SmartNetMonitor for Admin

Changing the Network Interface Board Configuration

Limitation

❒ To use NIB Setup Tool, make sure using Web browser version. See p.61 "Configuring the Network Interface Board Using a Web Browser".

1 **Run SmartNetMonitor for Admin.**

2 **Click the [Group] menu, point to [Search Device], and then select [TCP/IP] or [IPX/SPX].**

A list of machines appears.

Note

❒ Select the protocol of the machine for which you want to change configuration.

3 **In the list, select the machine for which you want to change configuration.**

4 **On the [Tools] menu, click [NIB Setup Tool].**

NIB Setup Tool starts up.

5 **Click [Property Sheet], and then click [OK].**

Network Board Selection Wizard starts running.

6 **Follow the instructions on the screen.**

Note

❒ For more information about changing machine names, comments, and other items, see NIB Setup Tool Help.

Displaying Machine Status

You can view the status of machines using SmartNetMonitor for Admin.

1. **Run SmartNetMonitor for Admin.**

2. **Click the [Group] menu, point to [Search Device], and then select [TCP/IP] or [IPX/SPX].**

   The status of machines is indicated by an icon in the list.

   Note

   ❒ For more information about status icons, see SmartNetMonitor for Admin Help.

3. **For further information, click the desired machine from the list, and then click [Open] on the [Device] menu.**

   The status of the machine is displayed in the dialog box.

   Note

   ❒ For more information about each item in the dialog box, see SmartNetMonitor for Admin Help.

Locking the Control Panel Menu

1. **Run SmartNetMonitor for Admin.**

2. **Click the [Group] menu, point to [Search Device], and then select [TCP/IP] or [IPX/SPX].**

   A list of machines appears.

   Note

   ❒ Select the protocol of the machine for which you want to change configuration.

3. **In the list, select the machine whose numerical values you want to manage.**

4. **On the [Tools] menu, point to [Device Settings], and then click [Lock Operation Panel Menu].**

   A screen prompting you to enter a password appears.

5. **Enter your user name and password, and then click [OK].**

   Note

   ❒ To use the factory default account, enter no user name and type "password" for the password.

Check the device status on the Device Settings of the Web browser, and change the device settings.

Reference

For more information about viewing status information and changing settings using a Web browser, see Device Settings Help.

Selecting the Paper Type

1. **Run SmartNetMonitor for Admin.**

2. **Click the [Group] menu, point to [Search Device], and then select [TCP/IP] or [IPX/SPX].**

   A list of machines appears.

   Note

   ❒ Select the protocol of the machine for which you want to change configuration.

3. **In the list, select the machine whose numerical values you want to manage.**

4. **On the [Tools] menu, point to [Device Settings], and then click [Select Paper Type].**

   A screen prompting you to enter a password appears.

5. **Enter your user name and password, and then click [OK].**

   Note

   ❒ To use the factory default account, enter no user name and type "password" for the password.

   Check the device status on the Device Settings of the Web browser, and change the device settings.

   Reference

   For more information about viewing status information and changing settings using a Web browser, see Device Settings Help.

Managing User Information

1. **Run SmartNetMonitor for Admin.**

2. **Click the [Group] menu, point to [Search Device], and then select [TCP/IP] or [IPX/SPX].**

   A list of machines appears.

   Note

   ❒ Select the protocol of the machine for which you want to change configuration.

3. **In the list, select the machine whose numerical values you want to manage.**

4. **On the [Tools] menu, click [User Management Tool].**

   A screen prompting you to enter a password appears.

5. **Enter the password, and then click [OK].**

   Note

   ❒ The factory default password is "password".

   User Code Maintenance Tool starts up.

   For more information about using User Management Tool, see User Management Tool Help.

Viewing and Deleting Spool Print Jobs

1. **Run SmartNetMonitor for Admin.**
2. **Click the [Group] menu, point to [Search Device], and then select [TCP/IP] or [IPX/SPX].**

   A list of machines appears.

   Note

   ❒ Select the protocol of the machine for which you want to change configuration.
3. **In the list, select a machine whose numerical values you want to manage.**
4. **On the [Tools] menu, click [Spool Printing Job List (Printer)].**
5. **Enter your user name and password, and then click [OK].**

   Note

   ❒ To use the factory default account, enter no user name and type "password" for the password.

   Check Spool Print Job List on the Web browser, and print out.

   Reference

   For more information about Spool Print Job List, see Spool Print Job List Help.

   Note

   ❒ To display Spool Print Job List, spool must be set to **[Enable]** on Device Settings in advance.

Managing Address Information

1. **Run SmartNetMonitor for Admin.**
2. **Click the [Group] menu, point to [Search Device], and then select [TCP/IP] or [IPX/SPX].**

   A list of machines appears.

   Note

   ❒ Select the protocol of the machine for which you want to change configuration.
3. **In the list, select a machine whose statistics information you want to manage.**
4. **On the [Tools] menu, click [Address Management Tool].**

   A screen prompting you to enter a password appears.
5. **Enter the password, and then click [OK].**

   Note

   ❒ The factory default password is "password".

   Address Management Tool starts.

   Reference

   For more information about Address Management Tool, see Address Management Tool Help.

Configuring Energy Save Mode

1. **Run SmartNetMonitor for Admin.**

2. **Click the [Group] menu, point to [Search Device], and then select [TCP/IP] or [IPX/SPX].**

   A list of machines appears.

3. **On the [Group] menu, point to [Energy Save Mode].**

   For more information about settings, see SmartNetMonitor for Admin Help.

   Note

   - Point to **[Set by Group]** if you want to change all devices in the group.
   - Point to **[Set Individually]** if you want to change only selected devices.
   - In both cases, select the energy saver mode on the displayed menu.
   - When you point to **[Set Individually]**, **[Timer Settings]** is not displayed.

8. Configuring the Network Interface Board Using a Web Browser

You can check the status of a machine and change its settings using the Web browser.

❖ Configuring the machine

This requires TCP/IP to be installed. After the machine has been configured to use TCP/IP, it will be possible to adjust settings using a Web browser.

Reference

For more information about configuring the machine to use TCP/IP, see *General Settings Guide*.

❖ Operating system browser requirements

Operating system	Browser
Windows 95/98/Me	Microsoft Internet Explorer 5.5 or later Netscape Navigator 6.2 or later
Windows 2000/XP	
Windows NT 4.0	
Mac OS 8.6 ~ 9.1, Mac OS X 10.1	
Solaris 2.6, 7, 8	

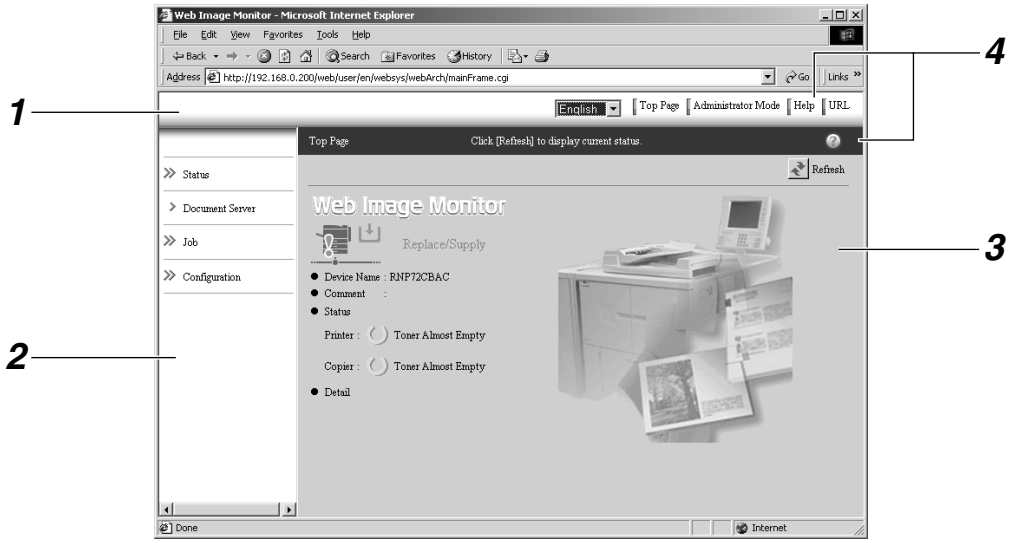
Limitation

- ❒ If the Web browser in use is older than the recommended version or **[JavaScript]** and **[Cookie]** are not effective, display and operation problems may occur.
- ❒ If you use a proxy server, change the Web browser settings. Consult your network administrator about the settings.
- ❒ Sometimes after clicking **[Back]**, the previous page may not appear. In this case, click **[Refresh]** or **[Reload]**.
- ❒ This machine information cannot refresh automatically. Click **[Reload]** or **[Refresh]** on the Web browser or click **[Refresh]** on the work area when you want to refresh.

❖ Specifying the Address

Point the browser to the URL or IP address of the printer (e.g., http://XXX.XXX.XXX.XXX/, where the Xs are the numbers in the IP address). If the host name of the machine is registered on the DNS server or WINS server, you can enter it.

Going to the Top Page



1. Header Area

You can register favorite URLs with **[URL]**. To view the Help section, click **[Help]**.

2. Menu Area

These Buttons are to configure the network interface board and for checking machine status.

3. Status

Displays the name and comments of the network interface board, and machine status.

4. Help

Types of Menu Configuration and Mode

The items that appear on the menu area differ between user mode and administrator mode.

The work area which appears under the selected menu displays the status of the machine under the user mode and the machine setting under the administrator mode.

Menu				User Mode	Administrator Mode
Status	Input Tray			❍	❍
	Output Tray			❍	❍
	Toner			❍	❍
	Function			❍	❍
	System			❍	❍
	Printer Language			❍	❍
Document Server				●	●
Job	Printer	Spool Printing		❍	❍
		History		❍	●
	Document Server			❍	●
Address Book				—	●
Configuration	Device Settings			—	●
	Network	Interface		❍	●
		Protocol	Protocol	❍	●
			TCP/IP	❍	●
			SMTP E-mail Transmission	❍	●
			NetWare	❍	●
			AppleTalk	❍	●
			SMB	❍	●
			SNMP	—	●
		System Log		❍	❍
	Webpage			❍	●
	Security	Password		—	●
		Access Control		—	●
		IPP Authentication		—	●

Limitation

❒ Documents stored under the copier and printer functions cannot be downloaded.

Note

❒ ❍ in the list indicates that machine status can be displayed.

❒ ● in the list indicates that machine settings can be changed.

Reference

For more information about displaying status and changing settings, see p.67 "Using Help on the Web Browser".

Verifying the Network Interface Board Settings

1. **Start the Web browser.**

2. **Point your browser at the machine's URL or IP address (for example, http://XXX.XXX.XXX.XXX, where the Xs are the number of the IP address).**

   The status of the machine you chose appears on the Web browser.

3. **Click the selected menu in the menu area.**

   If a sub-menu appears, click it.

   Reference

   For more information about each item, see p.67 “Using Help on the Web Browser”.

Configuring the Network Interface Board Settings

1. **Start the Web browser.**

2. **Point your browser at the machine's URL or IP address (for example, http://XXX.XXX.XXX.XXX, where the Xs are the number of the IP address).**

   The status of the machine you chose appears on the Web browser.

3. **Click [Administrator Mode].**

   The dialog box for entering the password and user name is displayed.

4. **Enter your user name and password, and then click [OK].**

   To use the factory default account, enter no user name and enter "password" for the password.

5. **Click the selected item in the menu area and make the necessary settings.**

6. **Click [Apply].**

   The configuration is transmitted.

   Reference

   For more information about making settings, see p.67 "Using Help on the Web Browser".

Using Help on the Web Browser

When using Help for the first time, clicking either **[Help]** in the header area or the icon marked "?" in the work area makes the following screen appear. From there you can check Help in two different ways, as shown below:

❖ **Checking a Help Using the Internet**
You can check the latest Help updates.

❖ **Downloading and Checking Help**
You can download Help from the Internet.

Note

❒ By clicking **[Help]** in the header area, Help contents normally appears.

❒ By clicking "?", the Help icon in the work area, Help for the items shown in the work area normally appears.

Downloading Help

1 Select the operating system in the [OS] list.

2 Select the language in the [Language] list.

3 Click [Download].

4 Download Help by following the messages on screen.

5 Save the downloaded compressed file and decompress it.

Note

❒ To check the downloaded Help, specify the path where the document is decompressed.

Linking the address (URL) to the [Help] button

You can link the address (URL) of the **[Help]** button to the Help files on the computer or Web server.

① Download the Help files on the machine to the desired location.

② Using a Web browser, navigate to Top Page and click **[Administrator Mode]**.

③ Click **[Configuration]**, and then click **[Webpage]**.

④ Enter your password, (it is not necessary to enter a user name) and click **[OK]**.

⑤ Enter the path to the Help files in the **[Help URL]** box.
If you copied the Help files to "C:HELPEN", enter "file://C:/HELP/". For example, if you copied the files to a Web server and the index URL is "http:// a.b.c.d/HELP/EN/index.html", enter "http://a.b.c.d/HELP/".

⑥ Click **[Apply]**.

Remote Maintenance by telnet

You can view printer status and configure the network interface board using telnet.

Note

❒ You should specify a password so that only the network administrator, or a person with network administrator privileges, can use remote maintenance.

❒ The password is the same as that used for configuring the network interface board with a Web browser.

❒ If you change a password with remote maintenance, the other passwords are also changed.

Using telnet

The following is a sample procedure using telnet.

Limitation

❒ Only one person at a time can be logged on to do remote maintenance.

1 Using the IP address or host name of the machine, start telnet.

```
% telnet IP_address
```

Note

❒ In order to use the host name instead of the IP address, you must write it to the hosts file.

2 Enter the password.

Note

❒ The default is "password".

3 Enter a command.

Reference

For more information about telnet commands, see p.70 "Commands List".

4 Exit telnet.

```
msh> logout
```

When the configuration is changed, a message asks whether the changes should be saved or not.

5 Enter "yes" to save the changes, and then press the 【ENTER】 key.

If you do not want to save the changes, enter "no", and then press the 【ENTER】 key. If you want to make additional changes, enter "return" at the command line, and then press the 【ENTER】 key.

Note

❒ If the "Cannot write NVRAM information" message appears, the changes are not saved. Repeat the steps above.

❒ The network interface board is reset automatically when the settings are changed.

❒ When the network interface board is reset, the active print job already sent to the machine will finish printing. However, jobs not already sent will be canceled.

Commands List

Use this command to display remote maintenance use.

Note

❒ Enter "help" to see a list of commands that can be used.

```
msh> help
```

❒ Enter "help command_name" to display information about the syntax of that command.

```
msh> help command_name
```

TCP/IP address

Use the ifconfig command to configure the Ethernet interface, the IEEE 1394 interface/IEEE 802.11b, and the TCP/IP (IP address, subnet mask, broadcast address, default gateway address) for the machine.

❖ Reference

```
msh> ifconfig
```

❖ Configuration

```
msh> ifconfig interface_name parameter address
```

Interface name	Interface to be configured
ether	Ethernet interface *1
ip1394 *2	IEEE 1394 interface
wlan *3	IEEE 802.11b interface

*1 If you did not enter an interface name, it will automatically be set to the Ethernet interface.

*2 Available when the 1394 interface board is installed.

*3 You can specify an interface when installing the optional 802.11b interface kit.

Parameter	Meaning
(no parameter)	IP address
netmask	subnet mask
broadcast	broadcast address

❖ Changing the Interface

You can specify either Ethernet interface or IEEE 802.11b interface when using the optional 802.11b interface kit.

```
msh> ifconfig interface up
```

Note

❒ You cannot specify the optional IEEE 1394 interface board (ip1394).

The following is an example for configuring an IP address of 192.168.15.16 on an Ethernet interface:

```
msh> ifconfig ether 192.168.15.16
```

The following is an example for configuring a subnet mask of 255.255.255.0 on an Ethernet interface:

```
msh> ifconfig ether netmask 255.255.255.0
```

Note

❒ This affects the configuration of the network interface board on the IP address used.

❒ The TCP/IP setting is the same as that of the Ethernet interface and IEEE 802.11b interface.

❒ To enter an address using hexadecimal, prefix it by "0x".

Address

❖ **Subnet Mask**

A number used to mathematically "mask" or hide the IP address on the network by eliminating those parts of the address that are alike for all the machines on the network.

❖ **Broadcast address**

A specified address for sending data to specific devices on the network.

Note

❒ To get the above addresses, contact your network administrator.

❒ If you don't know the address to configure, use the machine's default.

❒ The Ethernet interface and IEEE 802.11b interface share the same TCP/IP address. When changing interfaces, the former interface setting is applied to the new interface.

❒ When installing the optional 1394 interface board, set the subnet so it does not overlap with the Ethernet interface or the 1394 interface.

Access control

Use the access command to view and configure access control. You can also specify two or more access ranges.

❖ **Reference**

```
msh> access
```

❖ **Configuration**

```
msh> access ☆ range start-address end-address
```

- ☆ represents a target number between 1 and 5. (Up to five access ranges can be registered and selected.)

Example: To specify accessible IP addresses between 192.168.0.10 and 192.168.0.20:

```
msh> access 1 range 192.168.0.10 192.168.0.20
```

Note

❒ The access range restricts the workstations from which printing is possible by means of an address. If you do not need to restrict printing, make the setting "0.0.0.0".

❒ The entry is invalid if the start address is greater than the end address.

❒ Up to five access ranges can be specified. The entry is invalid if the target number is omitted.

❒ Sessions other than those from a Web browser [*1] or telnet are limited by access control.

[*1] This does not include viewing and file management with the Document Server.

❖ **Access control initialization**

```
msh> access flush
```

Note

❒ This restores the factory default so all access ranges become "0.0.0.0".

DHCP

Use the dhcp command to configure the DHCP settings.

❖ Reference

The following command displays the current DHCP settings.

```
msh> dhcp
```

❖ Configuration

You can configure the DHCP settings.

```
msh> dhcp interface_name [on|off]
```

Note

❒ Select **[on]** to enable DHCP. Select **[off]** to disable DHCP.

❖ Interface Priority Configuration

You can assign priorities governing which interface obtains DHCP parameters.

```
msh> dhcp priority interface_name
```

Note

❒ Priority assignment is useful when connecting more than one interface to the machine.

❒ If an interface is not selected, the interface appears according to currently set priority regardless of multiple interface connections.

interface name	Interface to be configured
ether	Ethernet interface
wlan *1	IEEE 802.11b interface
ip1394 *2	IEEE 1394 interface

*1 If you install the 802.11b interface kit, you can set the command.

*2 If you install the 1394 interface board, you can set the command.

Reference

For more information about DHCP, see p.84 “Using DHCP”.

Protocol

Use the set command to allow or prevent remote access for each protocol.

```
msh> set protocol {up | down}
```

Protocol	
tcpip appletalk netware smb scsiprint *1 ip1394 *1 lpr ftp rsh diprint web snmp ipp http	“up” means active and “down” means inactive.

*1 Available when the 1394 interface board is installed.

Note

❒ If you prohibit remote access using TCP/IP and then log out, you cannot use remote access. If this was a mistake, you can use the control panel to allow access by TCP/IP.

❒ When you prevent access via TCP/IP, you are also prevented from using ip1394, lpr, ftp, rsh, diprint, web, snmp, ipp and http.

❖ Display

The following command displays current tcpip, appletalk, netware, and smb settings.

```
msh> set protocol
```

Printer status

The following command can be used to get information about the current status of the printer:

msh> *command*

Command	Information that is displayed
status	Status of printer. Information about print jobs.
info	Information about the paper tray, output tray, printer language of printer.
prnlog [ID]	Lists the last 50 print jobs.

Note

❒ For more information about print jobs is displayed when the ID number is added after the prnlog command.

Reference

For more information about the meaning of the data returned using these commands, see p.88 "Understanding Displayed Information".

Network interface board configuration settings information

Use the show command to display the network interface board configuration settings.

msh> show [-p]

Note

❒ Add "-p" to the show command to have the information displayed one screen at a time.

Reference

For more information about the meaning of the data returned using this command, see p.94 "Configuring the Network Interface Board".

System log information

Use the syslog command to display information stored in the system log.

msh> syslog

Reference

For more information about the displayed information, see p.98 "System Log Information".

SNMP

Use the snmp command to display and edit SNMP configuration settings such as the community name.

Note

❒ The 1394 interface board supports TCP/IP only.

❒ You can configure from ten SNMP access settings numbered 1-10.

❒ Default access settings 1 and 2 are as follows.

Number	1	2
Community name	public	admin
IP address	0.0.0.0	0.0.0.0
Access type	read-only trap off	read-write trap off

❖ **Display**

Shows the SNMP information and available protocols.

msh> snmp ?
msh> snmp [-p] [*registered_number*]

Note

❒ If the -p option is added, you can view the settings one by one.

❒ Omitting the number displays all access settings.

❖ Community name configuration

You can set the community name of the registered number.

msh> snmp *number* name *community_name*

Note

❒ The community name must consist of 15 characters or less.

❖ Access type configuration

You can select the access type from those listed below.

msh> snmp *number* type *access_type*

Access type	Type of access which is permitted
read	Read only
write	Read and write
trap	User is notified of trap messages.
no	All access is denied.

❖ Protocol configuration

You should use the following command to set the protocols to active or inactive. If you set a protocol to inactive, all access settings set to use that protocol will be disabled:

msh> snmp {ip | ipx} {on | off}

- "on" means active and "off" means inactive.

To change the protocol of an access setting use the following command. However, if you disabled a protocol with the above command, making it active here will have no effect.

msh> snmp *number* active {ip | ipx} {on | off}

❖ Access configuration

You can configure the address of a host depending on protocols used. The network interface board accepts requests only from hosts with addresses "read-only" or "read-write" access type. Enter "0" to have the network interface board accept requests from any host without requiring a specific type of access.

msh> snmp *number* {ip | ipx} *address*

Note

❒ To specify TCP/IP protocol, enter ip followed by a space, and then the IP address.

❒ To specify the IPX/SPX protocol, enter ipx followed by a space, and then the IPX address followed by a decimal, and then the MAC address of the network interface board.

The following is an example of how to configure registration number 3 with the IP address 192.168.15.16:

msh> snmp 3 ip 192.168.15.16

The following is an example of how to configure registration number 3 with the IPX address 7390A448, and the MAC address 00:00:74:62:5C:65:

msh> snmp 3 ipx 7390A448:000074625C65

IPP

Use the ipp command to configure IPP settings.

❖ Viewing setting

The following command displays the current IPP setting:

```
msh> ipp
```

Example output:

```
timeout=900(sec)
auth basic
```

- The "timeout" setting specifies how many seconds the computer keeps trying to access the network printer to send print jobs if no connection can be made.
- The "auth" setting indicates the user authorization mode.

❖ IPP timeout configuration

Specify how many seconds to wait before canceling a print job if it has been interrupted for some reason. The time can be changed from 30 to 65535 seconds.

```
msh> ipp timeout {30 - 65535}
```

❖ IPP user authorization configuration

Use IPP user authorization to restrict printing with IPP to certain users. The default is "off".

```
msh> ipp auth {basic|digest|off}
```

- "basic" and "digest" are user authorization settings.
- "off" removes the user's authorization.

Note

❒ If you select "basic" or "digest", see next section "Configuring the IPP User Authorization" for how to configure the user name. Up to ten user names are available.

❖ Configuring IPP user authorization

Use the following command:

```
msh> ipp user
```

The following message appears:

```
Input user number (1 to 10):
```

Enter the number, user name, and password.

```
IPP user name:user1
IPP password:*******
```

After configuring, the following message appears:

```
IPP configuration changed.
```

Direct printing port

The direct printing port allows printing directly from a computer, connected to the network, to the printer.

Use the diprint command to change direct printing port settings.

❖ View settings

The following command displays the current direct printing port settings:

```
msh> diprint
```

Example output:

```
port 9100
timeout=300(sec)
bidirect off
```

- The "Port" specifies the port number of the direct printing port.
- The "bidirect" setting indicates whether the direct printing port is bidirectional.

❖ Setting timeout

You can specify the timeout interval in use when receiving data from the network.

```
msh> diprint [0~65535]
```

Note

❒ The factory default is 300 seconds.

❒ If 0 is set, timeout is disabled.

❖ **Bidirectional configuration for the direct printing port**

Use this setting to configure whether the direct printing port is bidirectional. The factory default is "off".

```
msh> diprint bidirect {on|off}
```

Note

❒ If you select "on", SmartNet-Monitor for Client or Standard TCP/IP on Windows 2000 might not work correctly.

SPRINT

Use the sprint command to view and configure SCSI print (SBP-2) of the IEEE 1394.

Limitation

❒ You can use this function when the optional IEEE 1394 board is installed.

❖ **Viewing settings**

The following command displays the current IEEE 1394 (SCSI print) settings:

```
msh> sprint
```

❖ **Bidirectional configuration for IEEE 1394 (SCSI print)**

```
msh> sprint bidi {on|off}
```

Use this setting to select whether IEEE 1394 (SCSI print) is bidirectional. The factory default is "on".

SMB

Use the smb command to configure or delete the computer name or workgroup name for NetBEUI.

```
msh> smb parameter
```

Parameter	Settings
comp	Your computer name consisting of up to 15 characters
group	Workgroup name consisting of up to 15 characters
comment	Comment consisting of up to 31 characters
clear comp	Clears the computer name
clear group	Clears the Workgroup name
clear comment	Clears comment

Note

❒ You cannot use a computer name starting with RNP or rnp.

ROUTE

Use the route command to control the routing table.

This command allows you to configure and display routing information. You can change the network configuration from remote personal computers using this command.

Note

❒ The maximum number of routing tables is 16.

Commands	Topics of setting
route add {host | net} destination *1 gateway *1	Adds a host/network route to "destination", and a gateway address to "gateway" in the table. Host becomes the default.

Commands	Topics of setting
route delete {host | net} destination *1	Deletes a host/network route from the table. Host becomes the default.
route get {destination *1}	Displays only route information corresponding to a specified destination. When the destination is unspecified, all routing information is displayed.
route active {host | net} destination *1 on/off	You can turn the specified destination on or off. Host becomes the default.
route add default gateway *1	You can set the default gateway address.
route flush	Deletes all routing information.

*1 IP address

SLP

Use this command to configure SLP settings.

You can search the NetWare server using SLP in the PureIP environment of NetWare5/5.1, 6. To use the slp command, you can configure the value of TTL that can be used by the SLP multi-cast-packet.

Note

❒ The default value of TTL is "1". A search is executed only within a local segment. If the router does not support multi-cast, the settings are not available even if the TTL value is increased.

❒ The acceptable TTL value is 1 - 255.

```
msh> slp ttl {1 - 255}
```

Setting IEEE 802.11b

Use the wiconfig command to configure IEEE 802.11b settings.

Limitation

❒ You can make settings when installing the optional 802.11b interface kit.

❖ View settings

The following command displays the current IEEE 802.11b settings.

```
msh> wiconfig
```

The IEEE 802.11b card information is displayed.

```
msh> wiconfig cardinfo
```

Note

❒ If the IEEE 802.11b interface is not working correctly, the IEEE 802.11b card information is not displayed.

❖ Configuration

Parameter	Value to be configured
mode [ap | 802.11adhoc | adhoc]	You can set Infrastructure mode (ap), 802.11 Ad hoc mode (802.11adhoc) or Ad hoc mode (adhoc). The default is 802.11 Ad hoc mode.

Parameter	Value to be configured
ssid *ID value*	You can set SSID in Infrastructure mode. The characters that can be used are ASCII 0x20-0x7e (32 bytes). SSID value is set automatically to the nearest access point if the setting has not been made. If the setting has not been made for Ad hoc mode, the same value as for Infrastructure mode or an "ASSID" value is set automatically.
channel frequency *channel no.*	You can set the channel. You can specify from following channel: • Metric Version :1-13 • Inch Version :1-11 Set the same channel for all the machines you are using.
enc [on | off]	You can enable or disable the WEP function. To enable the WEP function, specify [on]; to disable it, specify [off]. To start the WEP function, enter the correct WEP key.
key [*key value*]	64-bit or 128-bit can be set. Only 10 hexadecimal characters can be set when using 64-bit, or 26 hexadecimal characters when using 128-bit. Also, set 0x as prefix. To use this function, set the same WEP key for all ports that transmit to each other.
auth [open | shared]	You can set the authorized mode when using WEP. The specified value and the authorized mode are as follows: open: Open system authorized (default) shared: Shared key authorized
rate [auto | 11m | 5.5m | 2m | 1m]	You can set the IEEE 802.11b transmitting speed. The transmitting speed you specify here is the speed at which data is sent. You can receive data at any speed. auto: automatically set (default) 11m: 11 Mbps fixed 5.5m: 5.5 Mbps fixed 2m: 2 Mbps fixed 1m: 1 Mbps fixed

Note

❒ When changing the interface to IEEE 802.11b, see p.70 "TCP/IP address"

❒ When configuring the IEEE 802.11b TCP/IP, see p.70 "TCP/IP address"

Job Spool

Use this command to configure Job Spool settings.

Limitation

❒ You can only specify LPR, IPP and SMB protocol.

Note

❒ This information cannot reload automatically when you confirm Job Spool settings with the Web browser. Click **[Reload]** or **[Refresh]** on the Web browser when you want to reload this information.

❖ Reference

The Job Spool setting appears.

```
msh> spoolsw
```

❖ Job Spool setting

```
msh> spoolsw spool {on | off}
```

Note

❒ Select "on" to enable Job Spool or "off" to disable it.

❖ Clearing Spool Job

If the machine is turned off accidentally during a spool job, you can have the job reprinted when the printer is turned back on.

```
msh> spoolsw clearjob {on |off}
```

❖ Protocol configuration

To change protocol settings, use the following command. You can specify the setting for "lpr", "ipp" or "smb".

- lpr

  ```
  msh> spoolsw lpr {on |off}
  ```

- ipp

  ```
  msh> spoolsw ipp {on |off}
  ```

- smb

  ```
  msh> spoolsw smb {on |off}
  ```

Changing the host name

Use the hostname command to change the printer name.

msh> hostname *interface_name printer_name*

interface name	Interface to be configured
ether	Ethernet interface [*1]
wlan [*2]	IEEE 802.11b interface
ip1394 [*3]	IEEE 1394 interface

[*1] If you did not enter the interface name, it will be automatically set to the Ethernet interface.

[*2] If you install the 802.11b interface kit, you can set the command.

[*3] If you install the 1394 interface board, you can set the command.

Note

❒ Enter the printer name using up to 15 characters.

❒ You cannot use a printer name starting with RNP or rnp.

❒ The Ethernet interface and IEEE 802.11b interface will have the same printer name.

WINS

Use the wins command to configure WINS server settings.

For more information about WINS server settings, see p.86 “Configuring the WINS Server”.

❖ Viewing setting

The following command displays the WINS server IP address:

```
msh> wins
```

Example output:

```
msh > wins
WINS Configuration:
Ethernet(ether):
 WINS: On
   primary server 0.0.0.0
secondary server 0.0.0.0
  Current configuration:
      primary server
192.168.0.200  secondary
server 192.168.0.220
  hostname selve ScopeID
```

Note

❒ If DHCP is used to start from the network, the current WINS server address is displayed. However, this address is not displayed if DHCP is not used.

❒ If the IP address obtained from DHCP differs from the WINS IP address, the DHCP address is the valid address.

❖ Configuration

Use the set command to make WINS active or inactive.

```
msh> wins interface_name
{on|off}
```

- “on” means active and “off” means inactive.

❖ Setting WINS Server Address

You can make settings for the WINS server address.

```
msh> wins interface_name
{primary|secondary}
IP_address
```

- “primary” is for setting the primary WINS server address.
- “secondary” is for setting the secondary WINS server address.

interface name	Interface to be configured
ether	Ethernet interface
wlan *1	IEEE 802.11b interface
ip1394 *2	IEEE 1394 interface

*1 If you install the 802.11b interface kit, you can set the command.

*2 If you install the 1394 interface board, you can set the command.

AutoNet

Use the autonet command to configure the AutoNet settings.

❖ Display

The following command displays the current AutoNet settings.

```
msh> autonet
```

❖ Configuration

You can configure the AutoNet settings.

```
msh>          autonet
interface_name [on|off]
```

Note

❒ Select [on] to enable AutoNet.

❒ Select [off] to disable AutoNet.

❖ Interface Priority Configuration

You can assign priorities governing which interface obtains AutoNet parameters.

```
msh> autonet priority interface_name
```

Note

❒ Priority assignment is useful when connecting more than one interface to the machine.

❒ If an interface is not selected, the interface appears according to currently set priority regardless of multiple interface connections.

interface name	Interface to be configured
ether	Ethernet interface
wlan *1	IEEE 802.11b interface
ip1394 *2	IEEE 1394 interface

*1 If you install the 802.11b interface kit, you can set the command.

*2 If you install the 1394 interface board, you can set the command.

Reference

For more information about AutoNet, see p.85 "Using AutoNet".

Changing the password

Use the passwd command to change the remote maintenance password.

Important

❒ Be sure not to forget or lose the password.

Note

❒ The default password is "password".

1 **Enter "passwd".**

```
msh> passwd
```

2 **Enter the current password.**

```
Old password:
```

3 **Enter the new password.**

```
New password:
```

Note

❒ The password must consist of three to eight alphanumeric characters and symbols. Passwords are case-sensitive. For example, R is different from r.

❒ The password is the same as that used in configuring the network interface board with a Web browser and that used in NIB Setup Tool. If you change a password from telnet, the other passwords are also changed.

4 **Enter the new password once again.**

```
Retype new password:
```

SMTP

Use the smtp command to configure SMTP (Simple Mail Transfer Protocol) settings.

❖ View setting

The following command displays current SMTP settings:

```
msh> smtp
```

❖ SMTP server name configuration

The following command sets the SMTP server name:

```
msh> smtp server / server_name
```

The following is an example of configuring an IP address of 192.168.15.16 on SMTP server:

```
msh> smtp server 192.168.15.16
```

The following is an example of configuring the Host name for mail.xyz.com on the SMTP server:

msh> smtp server mail.xyz.com

Note

❒ You can configure the SMTP server name using Host name or IP address.

❒ A maximum of 127 alphanumeric or numeric characters can be used.

❖ **SMTP port number configuration**

The following command sets the SMTP port number:

msh> smtp port *port_number*

Note

❒ The acceptable value is 1-65535.

DNS

Use the dns command to configure or display DNS (Domain Name System) settings.

❖ **View setting**

The following command displays current DNS settings:

msh> dns

❖ **Using the DNS server obtained from the DHCP server**

The following command sets use of the DNS server obtained from the DHCP server:

msh> dns dhcp {valid | invalid}

- If you use the DNS server obtained from the DHCP server, designate "valid". If not, designate "invalid".
  If you set "valid", the DNS server from the DHCP server is prioritized.

❖ **DNS server configuration**

The following command sets use of the DNS server address:

msh> dns *number* server / *server address*

The following is an example of configuring an IP address of 192.168.15.16 on DNS 1 server:

msh> dns 1 server 192.168.15.16

- You can register up to three DNS server numbers.
- You cannot use "255.255.255.255" as the DNS server address.

Domainname

Use the domainname command to display or configure domain name settings.

You can configure the Ethernet interface, IEEE 1394 interface, or IEEE 802.11b interface.

❖ **View setting**

The following command displays the current domain name:

msh> domainname

❖ **Interface domain configuration**

The following command displays or sets the Ethernet interface domain name, IEEE 1394 interface, or IEEE 802.11b interface.

msh> domainname / *interface_name*

The following is an example of configuring a domain name on the Ethernet interface:

msh> domainname ether

Interface	Interface that can be set
ether	Ethernet interface
ip1394 *1	IEEE 1394 interface

Interface	Interface that can be set
wlan *2	IEEE 802.11b interface

*1 Available when the optional 1394 interface board is installed.
*2 Available when the optional 802.11b interface kit is installed.

Note

❒ A domain name can contain a maximum of 63 characters.

Setting Protocols

The protocols described in this section provide various functions that can be used on the machine.

Important

❒ If a protocol is disabled or inactive, functions provided for that protocol cannot be used.

Reference

For more information about setting protocols, consult your network administrator.

❖ LPR

- Printer function using Standard TCP/IP
- Printer function using command line

❖ RSH/RCP

- Printer function using command line
- Scanner function using network TWAIN driver.
- Function to obtain device information by command line

❖ DIPRINT

- Printer function using SmartNetMonitor for Client

❖ FTP

- Printer function using command line
- Scanner function using a delivery server
- Function to obtain device information by command line

❖ IPP

- Printer function using SmartNetMonitor for Client

❖ NetWare

- Printer function using NetWare Server (remote printer/printer server)

Note

❒ If protocols are disabled or inactive under PureIP environment, only the print server can be used.

❖ AppleTalk

- Printer function using Appletalk with Macintosh

Note

❒ This function can be selected when a module supporting PostScript 3 is attached.

❖ SMB

- Printer function using SmartNetMonitor for Client
- Printer function using Microsoft Windows Network

❖ SNMP

- Bidirectional configuration for the printer driver
- Function to obtain device information by SmartNetMonitor for Admin/Client

Using DHCP

You can use the printer in a DHCP environment. You can also register the printer NetBIOS name on a WINS server when it is running.

If you connect an Ethernet interface and IEEE 1394 (IP over 1394) interface simultaneously, pay attention to the following:

❖ When a static IP address is set for both interfaces

- IP Address: If interface IP addresses overlap, the Ethernet interface is selected.
- Subnet Mask: If interface subnet masks overlap, the Ethernet interface is selected.
- Gateway Address: the selected value is applied.

Note

❒ Make the gateway address setting inside the subnet set in the interface.

❒ If a value is beyond the range of the subnet selected by the interface, the machine operates with "0.0.0.0".

❖ When obtaining addresses from the DHCP server

- IP Address, Subnet Mask: You can configure addresses assigned by a DHCP server.

  Note

  ❒ If IP addresses overlap or same subnet IP addresses are selected, the effective value is assigned only to the prioritized interface.

  ❒ Default interface priority is Ethernet.

- AutoNet: A temporary IP address starting with 169.254 that is not used on the network, assigned to the prioritized interface.

  Note

  ❒ Default interface priority is IEEE 1394 (IP over 1394).

- Gateway Address, DNS Server Address, and Domain Name: You can configure the addresses assigned by DHCP to the prioritized interface.

  Note

  ❒ Default interface priority is Ethernet.

❖ When there are static IP addresses and addresses assigned by DHCP

- IP Address and Subnet Mask: If a static IP address is the same as an address assigned by DHCP, or the static subnet mask address and the subnet mask address assigned by DHCP overlap, the machine operates with a static IP address interface.

  Note

  ❒ The interface with the DHCP setting is set by default.

  - Gateway Address: Operates with the address entered manually.

Note

❒ If a static address is not selected, or is set to 0.0.0.0, the interface with the address assigned by DHCP operates.

Note

- ❒ Printers that register the printer NetBIOS name on a WINS server must be configured for the WINS server. See p.80 “WINS”.
- ❒ Supported DHCP servers are Windows NT 4.0 Server Service Pack 4 or later, Windows 2000, Windows XP Professional Server, and NetWare 5/5.1, 6.
- ❒ If you do not use the WINS server, reserve the printer's IP address in the DHCP server so the same IP address is assigned every time.
- ❒ To use the WINS server, change the WINS server setting to “active” from the control panel.
- ❒ Using the WINS server, you can configure the host name via the remote network printer port.
- ❒ DHCP relay-agent is not supported. If you use DHCP relay-agent on a network via ISDN line, it will result in expensive line charges. This is because your computer connects to the ISDN line whenever a packet is transferred from the printer.
- ❒ If there is more than one DHCP server, use the same setting for all servers. The machine operates using data from the DHCP server that responds first.

Using AutoNet

If the printer IP address is not assigned by the DHCP server automatically, a temporary IP address starting with 169.254 not used on the network can be selected automatically by the printer.

Note

- ❒ The IP address assigned by the DHCP server is given priority to that selected by AutoNet.
- ❒ You can confirm the current IP address on the configuration page. For more information about the configuration page, see *Printer Reference 2*.
- ❒ When AutoNet is running, the NetBIOS name is not registered on the WINS server.
- ❒ The machine cannot communicate with devices that do not have the AutoNet function.

Configuring the WINS Server

The printer can be configured to register its NetBIOS name with a WINS server when power is turned on. This enables the NetBIOS name of the printer to be specified from SmartNetMonitor for Admin even in a DHCP environment. By registering a host name to the WINS server, the host name can be used as the port name of SmartNetMonitor for Client, or for Web browser access.

This section describes how to configure the WINS server.

Note

- ❒ The WINS Server is supported with Windows NT 4.0 Server Service Pack 4 or later, and Windows 2000 Servers WINS Manager.
- ❒ For more information about WINS Server settings, see Windows Help.
- ❒ If there is no reply from the WINS Server, the NetBIOS name will be registered by broadcast.
- ❒ The NetBIOS name consists of up to 15 alphanumeric characters.

Using a WWW browser

1. **Start the Web browser.**
2. **Point your browser at the URL or IP address of the printer (for example, http://XXX.XXX.XXX.XXX, where the Xs are the numbers of the IP address).**

   The status of the chosen printer appears on the Web browser.
3. **Click [Administrator Mode].**

   The dialog box for entering the password and user name is displayed.
4. **Enter your user name and password, and then click [OK].**

   To use the factory default account, enter no user name and type "password" for the password.
5. **Point to [Configuration], [Network], [Protocol], and then click [TCP/IP].**
6. **Set WINS to [Enable] and enter the IP address of the WINS server in [Primary WINS Server] and [Secondary WINS Server] boxes.**
7. **Click [Apply].**
8. **Quit the Web browser.**

Using telnet

1. **Connect to the remote printer using telnet.**
2. **Use the "wins" command to make WINS active.**

   ```
   msh> wins interface_name on
   ```
3. **Specify the IP addresses (primary and secondary) using the following commands:**

   ```
   msh> wins interface_name primary IP_address
   msh> wins interface_name secondary IP_address
   ```

   Note

   - ❒ To confirm the current configuration, use the "wins" command.
4. **Log out from telnet.**

SNMP

The machine is equipped with an SNMP (Simple Network Management Protocol) agent that operates under UDP and IPX on the Ethernet/wireless LAN interface, and UDP on the IEEE 1394 (IP over 1394) interface. Using the SNMP manager you can get information about the machine.

The default community names are "public" and "admin". You can get MIB information using these community names.

Important

❒ If you change the machine's community name to one different from the default, use the SNMP Setup Tool to change the setting for the computer. For more information, see SNMP Setup Tool Help.

Note

❒ Use the following procedure to start SNMP Setup Tool:

- Windows 95/98/Me, Windows 2000, Windows NT 4.0:
  On the taskbar, click the **[Start]** button, point to **[SmartNetMonitor for Admin]** in **[Programs]**, and then click **[SNMP Setup Tool]**.
- Windows XP:
  On the taskbar, click the **[Start]** button, point to **[SmartNetMonitor for Admin]** in **[All Programs]**, and then click **[SNMP Setup Tool]**.

❖ **Supported MIBs**

- MIB-II
- PrinterMIB
- HostResourceMIB
- RicohPrivateMIB

Understanding Displayed Information

This section describes how to read the status information returned by the network interface board.

Print Job Information

Print job status can be viewed using the following commands.

- telnet : Use the status command. See p.73 “Printer status”.

Item name	Meaning
Rank	Print job status. • Active Printing or preparing for printing. • Waiting Waiting to be transferred to the printer.
Owner	Print request user name.
Job	Print request number.
Files	The name of the document.
Total Size	The size of the data (spooled). The default is “0 bytes”.

Print Log Information

This is a record of the most recent 50 jobs printed.

This log can be displayed with the following commands.

- telnet : Use the prnlog command. See p.73 “Printer status”.

Name	Meaning
ID	Print request ID.
User	Print request user name.
Page	The number of pages that is printed.
Result	The result of the print request.
Time	The time when the print request was received.
UserID *1	User ID that is to be configured in the printer driver.
JobName *1	The name of the document for printing.

*1 Displays UserID and JobName information when entering the prnlog command with the ID.

Machine Status and Configuration

You can check the machine status and configuration using telnet or UNIX.

❖ **telnet**
Use the info or status command.

❖ **UNIX**
Use the lpr or lpstat command, or stat or info parameter of rsh, rcp, or ftp.

machine status

Status	Description
Call Service Center	An error has occurred.
Card/Counter not inserted	Waiting for prepaid card or key counter insertion.
Coin/Key Counter not inserted	Waiting for coin or key card insertion.
Cover Open: Finisher Front	Finisher cover is open.
Cover Open: Front Cover (Left)	Front cover (Left) is open.
Cover Open: Front Cover (Right)	Front cover (Right) is open.
Cover Open: LCT Front Cover	LCT front cover is open.
Empty: Toner	No Toner
Energy Saver Mode	Energy Saver mode
Error: Ethernet Board	Ethernet board has a problem.
Error: HDD Board	Hard disk drive has a problem.
Error: IEEE1394 Board	IEEE 1394 board has a problem.
Error: Memory Switch	Contents of the memory unit are damaged.
Error: Memory Value	DIMM has a problem.
Error: Parallel I/F Board	Parallel interface board error
Error: USB Interface	USB interface board has a problem.
Error: Wireless Card	Wireless card is not inserted when the machine is turned on or has been removed.
Error: Wireless Card or Board	Wireless card or board has a problem.
Full: Finisher Booklet Tray	Finisher booklet tray is full.
Full: Finisher Shift Tray	Finisher shift tray is full.
Full: Finisher Shift Tray 1, 2	Finisher shift tray 1,2 is full.
Full: Finisher Upper Tray	Finisher upper tray is full.
Full: Hole Punch Receptacle	Cannot punch. Punch container is full.

Status	Description
Full: Waste Toner	Waste toner container is full.
Full: Sucked Toner Bottle	Sucked toner bottle is full.
In Use: Input Tray	Paper tray is in use.
In Use: Staple Unit	Staple unit is in use.
Key Card not inserted	Waiting for key card insertion.
Key Card/Counter not inserted	Waiting for key card or key counter insertion.
Key Counter not inserted	Waiting for key counter insertion.
Low: Toner	Toner is almost empty.
Malfunction: Ext. Charge Unit	External charge unit is faulty.
Malfunction: Interposer	Interposer unit is faulty.
Malfunction: Output Tray	Output tray is faulty.
Malfunction: Staple Unit	Cannot staple. Staple unit is faulty.
Malfunction: Tray 1	Tray 1 is faulty.
Malfunction: Tray 2	Tray 2 is faulty.
Malfunction: Tray 3	Tray 3 is faulty.
Malfunction: Tray 4	Tray 4 is faulty.
Malfunction: Tray 5	Tray 5 is faulty.
Malfunction: Tray 6	Tray 6 is faulty.
Malfunction: Tray 7	Tray 7 is faulty.
Mismatch: Paper Size	Paper size set in paper tray is different from selected paper size.
Mismatch: Paper Size and Type	Paper size and type set in paper tray is different from selected paper size and type.
Mismatch: Paper Type	Paper type set in paper tray is different from selected paper type.
Nearly Full: Sucked Toner Bottle	Sucked toner bottle is almost full.
Need more Booklet Staples	Remaining booklet staples are few.
Need more Staples	Remaining staples are few.
No Paper: Selected Tray	No paper in the paper tray
	No paper in the selected paper tray.
Not Detected: B2 Lever	B2 lever is not correctly set.
Not Detected: Duplex Unit	Duplex unit is not correctly set.
Not Detected: Fusing Unit	Fusing unit is not correctly set.
Not Detected: Selected Tray	Paper tray is not set correctly.
Panel Off Mode	Panel Off mode

Status	Description
Paper in Finisher	Finisher cannot be used. Paper in the finisher.
Paper Misfeed: Duplex Unit	Paper misfeed inside duplex unit
Paper Misfeed: Finisher	Paper misfeed inside finisher
Paper Misfeed: Input Tray	Paper misfeed in paper feed area
Paper Misfeed: Internal/Output	Paper misfeed inside machine or in output tray area
Paper Misfeed: Interposer	Paper misfeed inside interposer
Paper on Finisher Shift Tray 2	Cannot feed paper to Finisher Upper Tray: papers of different sizes or orientations cannot be fed together to the tray.
Paper on Finisher Shift Tray 1, 2	There are remaining papers in Finisher Shift Tray 1 and 2.
Prepaid Card not inserted	Waiting for prepaid card insertion.
Printing	Printing
Ready	Normal operation
Replace Cleaning Web	Remaining cleaning web is few.
Replace Toner Suction Motor	Toner suction motor replacement is soon necessary.
Suspend/Resume Key Error	The [Suspend/Resume] key of finisher has been pressed.
Tray Error: Chaptering	Do not print because documents and separate papers set in same tray.
Tray Error: Duplex Printing	Cannot duplex print. A restricted tray has been selected.
Warming Up	Warming up

machine configuration

Note

❒ "*" (asterisk) is displayed with the current setting.

❒ Regarding *1–*5, see table below.

Item	Description
Input Tray	
No.	ID number of the paper tray
Name	Name of the paper tray*1
PaperSize	Paper size loaded in the paper tray*2
Status	Current status of the paper tray*3
Output Tray	
No.	ID number of the output tray
Name	Name of the output tray*4
Status	Current status of the output tray*5

❖ *1 Input Tray: Name

Name	Description
Tray X	Name of installed paper tray (X is the number of tray.)

❖ *2 Input Tray: Paper Size

Paper Size	Description
A3 (297 × 420)	A3
B4JIS (Japanese Industrial Standard) (257 × 364)	B4
A4 (297 × 210)	A4
A4 (210 × 297)	A4
B5JIS (257 × 182)	B5
B5JIS (182 × 257)	B5
A5 (210 × 148)	A5
A5 (148 × 210)	A5
12 × 18	12x18
11 × 17	DLT
$8^1/_2 \times 14$	LG
$8^1/_2 \times 11$	LT
$11 \times 8^1/_2$	LT
$5^1/_2 \times 8^1/_2$	HLT

Paper Size	Description
$8^1/_2 \times 5^1/_2$	HLT
Custom Size	Custom Size
$10^1/_2 \times 7^1/_4$	Executive
$7^1/_4 \times 10^1/_2$	Executive
$8^1/_4 \times 13$	Folio
$8^1/_2 \times 13$	Foolscap
8×13	8″×13″
8K (267 × 390)	8K
16K (195 × 267)	16K
16K (267 × 195)	16K

❖ *3 Input Tray: Status

Status	Description
Normal	—
Not Detected	There is no paper tray
No Paper	There is no paper in the paper tray

❖ *4 Output Tray: Name

Name	Description
Finisher Upper Tray	Finisher Upper Tray (option:Finisher)
Finisher Shift Tray	Finisher Shift Tray (option:Finisher)
Finisher Shift Tray 1	Finisher Shift Tray 1 (option:Finisher)
Finisher Shift Tray 2	Finisher Shift Tray 2 (option:Finisher)
Finisher Booklet Tray	(option:Booklet Finisher)

❖ *5 Output Tray: Status

Status	Description
Normal	----
Paper In	There is paper in the output tray
Full	Output tray is full of paper
Error	Other error

Configuring the Network Interface Board

The network interface board settings can be displayed using the commands below.

- telnet : Use the show command. See p.73 “Network interface board configuration settings information”.

Item name	Meaning
Common	
Mode	
Protocol Up/Down	“Up” means active, “Down” means inactive.
AppleTalk	
TCP/IP	
NetWare	
SMB	
IP over 1394 *1	
SCSI print *1	
Ethernet interface	Internal version number.
Syslog priority	
NVRAM version	Internal version number.
Device name	
Comment	
Location	
Contact	
Soft switch	
AppleTalk	
Mode	AppleTalk protocol in selection.
Net	Network number.
Object	Macintosh printer name.
Type	The type of printer.
Zone	Name of the zone that the printer belongs to.

Item name	Meaning
TCP/IP	
Mode	"Up" means active, "Down" means inactive.
ftp	
lpr	
rsh	
telnet	
diprint	
web	
http	
ftpc	
snmp	
ipp	
autonet	
EncapType	Frame type.
DHCP	Dynamic Host Configuration Protocol
Address	IP address.
Netmask	subnet mask.
Broadcast	Broadcast address.
Gateway	Default gateway address.
Access Range[☆] *2	Access Control Range.
Time server	NTP server address.
Time Zone	NTP server time difference.
Time server polling time	Synchronizes interval.
SYSLOG server	
Home page URL	URL of homepage.
Home page link name	URL name of homepage.
Help page URL	URL of help page.
SNMP protocol	Protocol used with SNMP.
NetWare	
EncapType	Frame type.
RPRINTER number	Remote printer number.
Print server name	Print server name.
File server name	Name of the connect file server.
Context name	Context of print server.
Switch	
Mode	Active mode.
NDS/Bindery	(this value is fixed)
Packet negotiation	
Print job timeout	Time of the job timeout.
Protocol	
SAP interval Time	

Item name	Meaning
SMB	
Switch	
Mode	(this value is fixed)
Direct print	(this value is fixed)
Notification	Notification of print job completion.
Workgroup name	Name of the workgroup.
Computer name	Name of the computer.
Comment	Comment.
Share name[1]	Share name (name of the printer type).
Protocol	
IEEE 802.11b *3	
Device Name	
DHCP	
Address	
Netmask	
Broadcast	
SSID	SSID being used.
Channel range	Channels available for use.
Channel	Channel being used.
Communication mode	IEEE 802.11b interface transmitting mode.
Authentication	Validity or invalidity of the authorized mode setting when using WEP.
Tx Rate	IEEE 802.11b interface speed.
WEP encryption	Whether WEP is enabled or disabled.
Encryption key	64-bit WEP key/128-bit WEP key.
IP over 1394 *4	
Device name	Name of the machine.
DHCP	
Address	IP address.
Netmask	subnet mask.
Broadcast	Broadcast address.
SCSI print *4	
Bidi.	Bidirectional setting (on/off).
SMTP	
Server name	SMTP server name.
Port number	SMTP port number.

Item name	Meaning
DNS Server [☆] *5 use DHCP parameters	DNS server address.
Domain name ether wlan *3 ip1394 *4	 Ethernet interface domain name. IEEE 802.11b Interface domain name. IEEE 1394 interface domain name.
WINS ether Primary WINS Secondary WINS ip 1394 *1 Primary WINS Secondary WINS wlan *3 Primary WINS Secondary WINS	 Ethernet interface WINS name. Primary WINS server address. Secondary WINS server address. IEEE 1394 interface WINS name. Primary WINS server address. Secondary WINS server address. IEEE 802.11b Interface WINS name. Primary WINS server address. Secondary WINS server address.
Shell mode	Mode of the remote maintenance tool.

*1 The 1394 interface board supports TCP/IP only.
*2 ☆ represents a target number between 1 and 5.
*3 You can display the item names when installing the optional 802.11b interface kit.
*4 You can display the item names when installing the optional 1394 interface board.
*5 ☆ represents a target number between 1 and 3.

Message List

This is a list of messages written to the machine's system log. The system log can be viewed using the syslog command.

System Log Information

You can use the following methods to view the system log.

- telnet : Use the syslog command. See p.73 “System log information”.

Messages	Causes and Solutions
Access to NetWare server <file server name> denied. Either there is no account for this print server or the NetWare server or the password was incorrect.	(In print server mode) Cannot log in to the file server. Make sure that the print server is registered on the file server. If a password is specified for the print server, delete it.
add_sess: community<community name> already defined.	The same community name already exists. Use another community name.
session<community name> not defined.	A requested community name is not defined.
add_sess: bad trap addr:<IpAddress>, community:<community name>	The IP address (0.0.0.0.) is unavailable when the community access type is TRAP. Specify the host IP address for the TRAP destination.
add_sess_ipx: bad trap addr: <IPX address>, community:<community name>	The IPX address (00:00:00:00:00:00) is unavailable when the community access type is TRAP. Specify the host IPX address for the TRAP destination.
add_sess_ipx: community <community name> already defined.	The same community name already exists. Use another community name.
session_ipx<community name> not defined.	The requested community name is not defined.
ANONYMOUS FTP LOGIN FROM <IP address>, <password>	An anonymous login has been made with a password <password> from the host <IP address>.
anpd start. (AppleTalk)	An anpd (AppleTalk Network Package Daemon) has started.
Attach FileServer =<file server name>	Attached to the file server as a nearest server.
Attach to print queue <print queue name>	(In print server mode) Attached to the print queue name.
Change IP address from DHCP Server.	The IP address changes when DHCP LEASE is renewed. To always assign the same IP address, set a static IP address to the DHCP server.
child process exec error! (process name)	The network servibe failed to start. Turn the printer off and then on. If this does not work, contact your service or sales representatives.

Messages	Causes and Solutions
Connected DHCP Server(<DHCP server address>).	The IP address was successfully received from the DHCP server.
connection from <IP address>	Logged on from the host <IP address>.
Current Interface Speed:xxxMbps	The speed of the network (10 Mbps or 100 Mbps).
Current IP address <current IP address>	The IP address <current IP address> was received from the DHCP server.
Current IPX address<IPX address>	The current IPX address.
DHCP lease time expired.	DHCP lease time has expired. The printer tries to locate the DHCP server again. The IP address used till now becomes invalid.
DHCP server not found.	The DHCP server cannot be found. Make sure the DHCP server is running on the network.
dhcpcd start.	A dhcpcd (DHCP client server) has started.
Duplicate IP=<IP address>(from <MAC address>).	The same IP address is used. Every IP address must be unique. Check the address of the device indicated in <MAC address>.
Established SPX Connection with PServer, (RPSocket=<socket number>, connID= <connection ID>)	(In remote printer mode) A connection with the print server has been established.
exiting	lpd service has ended and the system is exiting.
Exit pserver	(In print server mode) Exits the print server because necessary print server settings have not been made.
Frametype =<frame type name>	The <frame type name> is configured to be used on NetWare.
httpd start.	httpd has started.
IEEE 802.11b <Transmission mode> mode	Transmission mode for IEEE 802.11b. (Example: Current mode is Infrastructure mode.) IEEE 802.11b [infrastructure] mode (Example: Current mode is 802.11 Ad hoc mode.) IEEE 802.11b [802.11 ad hoc] mode (Example: Current mode is Ad hoc mode.) IEEE 802.11b [ad hoc] mode

Messages	Causes and Solutions
IEEE 802.11b current channel <Channel>	The current channel is displayed. The value chosen by the user is displayed in Ad hoc mode. The channel used in the access point is displayed in Infrastructure mode. (Example: Current channel is 11.) IEEE 802.11b current channel 11
IEEE 802.11b Card Firmware REV. <Version>	Wireless LAN Card Firmware version. (Example: Current version is 0.8.3.) IEEE 802.11b Card Firmware REV. 0.8.3
IEEE 802.11b MAC Address = <MAC Address>	The IEEE 802.11b I/F MAC address is displayed. (Example: Current MAC address is 00:00:74:XX:XX:XX.) IEEE 802.11b MAC Address = 00:00:74:XX:XX:XX
IEEE 802.11b SSID <ssid> (AP MAC Address < MAC Address>)	The access point SSID used in Infrastructure mode and the MAC address of the access point are displayed. (Example: Current MAC address is xx:xx:xx:xx:xx:xx and SSID value is “test-ssid”.) IEEE 802.11b SSID test-ssid (AP MAC Address xx:xx:xx:xx:xx:xx)
IEEE 802.11b Tx Rate <Transfer Speed>	The IEEE 802.11b transmitting speed (set speed) is displayed. (Example: Current Tx Rate is 11Mbps.) IEEE 802.11b Tx Rate 11Mbps Transmission speeds vary depending on signal quality. Displayed values may differ from actual transmission speed.
inetd start.	An inetd has started.
<interface> started with IP: <IP address>	<IP address> has been set for <Interface> and <Interface> started.
<Interface>: Subnet overlap.	Subnet from Netmask and the IP address you tried to set for <Interface> overlap the subnet of another interface. Set Subnet so it does not overlap with another interface.
IPP cancel-job: permission denied.	The printer could not authenticate the name of the user attempting to cancel a job.
ipp disable.	Printing with ipp is disabled.
ipp enable.	Printing with ipp is enabled.

Messages	Causes and Solutions
IPP job canceled. jobid=%d.	The spooled job has been canceled due to error or user request.
job canceled. jobid=%d.	The spooled job has been canceled due to error or user request.
LeaseTime=<lease time>(sec), Renew-Time=<renew time>(sec).	The resource lease time received from the DHCP server is <lease time> in seconds. The renewal time is also <renew time> in seconds.
Login to fileserver <file server name> (<IPX | IP>,<NDS | BINDERY>)	(In print server mode) Logged in to the file server with NDS or BINDERY mode.
multid start.	Data transmission service for multiprotocols has started.
Name registration failed. name=<NetBIOS name>	The printer could not regist the name of NetBIOS.
Name registration success in Broadcast name=<NetBIOS name>	The NetBIOS name was successfully registed from a broadcast.
Name registration success. WINS Server=<WINS Server Address> NetBIOS Name=<NetBIOS name>	The NetBIOS name was successfully registed to the WINS server.
nbtd start.	nbtd (NetBIOS over TCP/IP Daemon) has started. (Available only in DHCP mode)
NetBEUI Computer Name =<computer name>	The NetBEUI Computer Name is defined as <computer name>.
nmsd start. (NetBEUI)	nmsd (Name Server Daemon) has started.
nprinter start. (NetWare)	(In remote printer mode) NetWare service has started.
nwstart start. (NetWare)	The service for NetWare protocol stack setting has started.
Open log file <file name>	(In print server mode) The specified log file has been opened.
papd start. (AppleTalk)	AppleTalk print service has started.
permission denied.	Job cancellation was determined to be unauthorized after checking user name and host address (except for ROOT authorization).
phy release file open failed.	Replacing the network interface board is required. Contact your sales or service representatives.
Print queue <print queue name> cannot be serviced by printer 0, <print server name>	(In print server mode) The print queue name cannot be serviced. Make sure that print queue volume is on the specified file server.

Messages	Causes and Solutions
Print server <print server name> has no printer.	(In print server mode) The printer object is not assigned to the print server <print server name>. Using NWadmn, assign the printer object, and then restart the printer device.
Print sessions full	Cannot accept the print session.
Printer <printer name> has no queue	(In print server mode) The print queue is not assigned to the printer. Using NWadmn, assign the print queue to the printer, and then restart it.
pserver start. (NetWare)	(In print server mode) NetWare service has started.
Required computer name (<Computer name>) is duplicated name	The same computer name is detected on the network. The start job determines the computer name by adding it to the suffix (0,1....). Configure a new computer name that is unique.
Required file server (<file server name>) not found	Cannot find the required file server.
restarted.	LPD has started.
sap enable, saptype=<SAP type>, sapname=<SAP name>	The SAP function has started. The SAP (SAP type and SAP name) packet is issued to advertise the service on the NetWare server SAP table.
Set context to <NDS context name>	A <NDS context name> has been set.
shutdown signal received. network service rebooting...	Rebooting the network service.
smbd start. (NetBEUI)	An smbd (SMB (Server Message Block) service) has started.
Snmp over ip is ready.	Communication over TCP/IP with SNMP is available.
Snmp over IP over 1394 is ready.	Communication over IP over 1394 with SNMP is available.
Snmp over ipx is ready.	Communication over IPX with SNMP is available.
snmpd start.	SNMP service has started.
started.	Direct print service has started.
The print server received error <error number> during attempt to log in to the network.Access to the network was denied.Verify that the print server name and password are correct.	Cannot log in to the file server. The print server is not registered or the password is specified. Register the print server without specifying a password.

Messages	Causes and Solutions
SCSI print (SBP-2) Service stopped.	NVRAM setting ioctl (SPIO CAPPEXIT) of device SBP2TSP was set by protocol-DOWN. SCSI print is not receiving data.
SCSI print (SBP-2) Service started.	NVRAM setting ioctl (SPIO CAPPENTRY) of device SBP2TSP was set by protocol-UP. SCSI print is not receiving data.
sprd started.	SCSI print (SBP-2) service has started.
WINS name registration: No responce to server (WINS server address)	There is no response from the server during data registration. Check the WINS server address is correct and the WINS server is working properly.
WINS wrong scopeID	The scope ID is wrong. Specify the correct scope ID.
write error occurred. (diskfull)	The hard disk became full while the spool file was being written. Wait until enough HDD space becomes available as printing proceeds.
write error occurred. (fatal)	A fatal error occurred while the spool file was being written. Turn the printer off and then on. If this does not work, contact your service or sales representative.
SMTPC: failed to get smtp server ip-address.	Failed to get the SMTP server IP address. This is caused by the following: • The DNS server could not be found. • There is no connection to the network. • The specified DNS server could not be connected to. • Incorrect DNS server specification. • No specified SMTP server IP address in the DNS server.
SMTPC: failed to connect smtp server. timeout.	Failed to connect the SMTP server due to timeout. This is caused by the following: • The SMTP server name is incorrect. • There is no connection to the network. • The network configuration is incorrect, so there is no response from the SMTP server.
SMTPC: refused connect by smtp server.	The connection to the SMTP server is denied. This is caused by the following: • Another server other than the SMTP server has been designated. • The SMTP server port number is incorrect.

Messages	Causes and Solutions
SMTPC: no smtp server. connection close.	No response from the SMTP protocol. Cannot connect to the SMTP server. This is caused by the following: • Another server other than the SMTP server has been designated. • The SMTP server port number is incorrect.
SMTPC: failed to connect smtp server.	Failed to connect the SMTP server. This is caused by the following: • Not connected to the network. • The network configuration is incorrect, so there is no response from the SMTP server. • The SMTP server name is incorrect. • The specified SMTP server is incorrect. • No specified SMTP server IP address in the DNS server. • Another server other than the SMTP server has been designated. • The SMTP server port number is incorrect.
SMTPC: username or password wasn't correct.	Failed to connect the SMTP server due to an authentication failure. This is caused by the following: • The specified SMTP user name is incorrect. • The specified SMTP password is incorrect.

Settings for SMTP Authentication and POP Authentication

This section explains all required settings for using SMTP Authentication and POP Authentication.

- POP Authentication (POP before SMTP)
  This function prevents others from connecting to the SMTP server inappropriately by connecting to the POP server to authenticate the user before e-mail is sent.
- SMTP Authentication (PLAIN, LOGIN, CRAM-MD5 *1)
  This function prevents others from connecting to the SMTP server inappropriately by requiring that the SMTP User Name and SMTP Password be entered to authenticate the user when e-mail is sent.

❖ Setting item using the control panel

For information about this item and how to make settings for this item, see *General Settings Guide*.

Items			Explanation	Default
System Settings	Key Operator Tools	Key Operator's E-mail Address	• This e-mail address is used for SMTP Authentication. When using SMTP Authentication, you must register this e-mail address.	-

❖ Setting items using the Web browser

For information about making settings from a Web browser, see p.61 “Configuring the Network Interface Board Using a Web Browser”.

Items			Explanation	Defaut
Configuration	SMTP E-mail Transmission	SMTP Server Name	• Up to 127 letters or digits can be used. Spaces cannot be used.	-
		SMTP Port No.	• Numbers from 1 to 65535 are available.	25
		SMTP Authentication	• When using SMTP Authentication, set to **[Enable]**.	Disable

Items			Explanation	Defaut
		SMTP User Name	• Enter the name which is registered in Key Operator's E-mail Address for SMTP sending. • Up to 191 letters or digits can be used. Spaces cannot be used. • Some SMTP servers require the specification of a realm. In this case, enter the user name like this: "SMTP User Name @ realm".	-
		SMTP Password	• Enter the password which is registered in Key Operator' E-mail Address for SMTP sending. • Up to 63 letters or digits can be used. Spaces cannot be used.	-
		SMTP Auth. Encryption	• **[Auto Select]**: Authentication by PLAIN, LOGIN, or CRAM-MD5 *1 • **[Disable]**: Authentication by PLAIN or LOGIN. • **[Enable]**: Authentication by CRAM-MD5 *1	Auto Select
		POP before SMTP	• When using POP Authentication, set to **[Enable]**.	Disable
		POP Server Name	• Up to 127 letters or digits can be used. Spaces cannot be used.	-
		POP Port No.	• Numbers from 1 to 65535 are available.	110
		POP User Name	• Up to 63 letters or digits can be used. Spaces cannot be used.	-
		POP Password	• Up to 63 letters or digits can be used. Spaces cannot be used.	-

Items			Explanation	Defaut
		POP Auth. Encryption	• **[Auto Select]**:Automatically decides whether or not to encrypt POP Password according to POP server settings. • **[Disable]**: POP Password is not encrypted. • **[Enable]**: POP Password is encrypted.	Auto Select
		Timeout setting after POP Auth.	• Values from 0 to 10000 milli-seconds are available.	300

Note

❒ When the message "Cannot communicate with SMTP server.Check the server status." is displayed, check whether SMTP User Name and SMTP Password are correct and whether PLAIN, LOGIN, or CRAM-MD5 *1 is selected as the method of authentication.

❒ Even when you specify a sender name with SMTP authentication, the Key Operator's name will appear in the "from" field of the e-mail when the e-mail is received.

❒ When you specify a sender name with SMTP authentication, a reply mail from the receiver will be sent to the sender. If an error has occurred in the mail server because of entering wrong addresses etc., a reply mail notifying of the error will be sent to the address set in Key Operator's E-mail Address.

*1 RSA Data Security, Inc. MD5 Message-Digest Algorithm

When Using Windows Terminal Service/MetaFrame

Operating Environment

The following combinations of operating system and MetaFrame are supported:

❖ **Windows NT Server 4.0 Terminal Server Edition**

- MetaFrame 1.8 SP3/FR1+SP3
- MetaFrame XP 1.0 SP1/FR1

❖ **Windows 2000 Server /Advanced Server**

- MetaFrame 1.8 SP3/FR1+SP3
- MetaFrame XP 1.0 SP1/SP2/FR1 /FR2

Supported Printer Drivers

❖ **When Windows Terminal Service is operating**

- PCL5e
- PCL6
- PostScript 3

Note

❒ The RPCS printer driver is not supported.

❒ Some RPCS printer driver functions do not work if Windows Terminal Service is installed, even if it is not operating.

Limitation

The following restrictions apply in the Windows Terminal Service environment.

These restrictions are due to the way Windows Terminal Service or MetaFrame works.

❖ **When printing (Windows Terminal Service)**

When printing a file containing a large number of bitmap images or fonts, some of the images or font settings may be lost. We strongly recommend to test this funciton under your network environment before using in your routine works.

❖ **When using [Auto-creating client printers] (MetaFrame)**

Auto-creating client printers can select a logical printer created by copying the client's local printer data to the MetaFrame server. We strongly recommend to test this funciton under your network environment before using in your routine works.

- The settings for optional equipment, such as the finisher or Large Capacity Tray, will not be stored in the server after the equipment is disconnected. The settings for optional items will return to default values each time the client computer logs on to the server.

- When printing a large number of bitmap images or using the server in a WAN environment over dial-up lines such as ISDN, depending on the data rate, printing may be disabled or an error may occur.
- When using MetaFrame XP 1.0 or later versions, we recommend configuring Client Printer bandwidth available from the Citrix Management Console, according to the environment.
- If a printing error occurs on the server and the print job or **[Auto-creating client printers]** cannot be deleted, we recommend doing the following:
  - MetaFrame 1.8 SP3, MetaFrame XP 1.0 SP1/FR1
    Configure the Delete unfinished print jobs settings in the registry. For more information, see the Readme file provided with MetaFrame.
  - MetaFrame XP 1.0 FR2
    Configure the Delete pending print jobs at logout settings in Printer Properties Management of the Citrix Management Console.

❖ **When using [Printer driver replication] (MetaFrame)**

[Printer driver replication] is designed to distribute printer drivers across all servers in a server farm. We strongly recommend to test this funciton under your network environment before using in your routine works.

- If the printer drivers are not replicated properly, we recommend installing them directly on each server.

Precautions

Please pay attention to the following when using the network interface board. When configuration is necessary, follow the appropriate procedures below.

Connecting a Dial-Up Router to a Network

When Using NetWare (File Server)

When the NetWare file server and printer are on the opposite side of a router, packets are continuously sent back and forth, possibly incurring communications charges. Because packet transmission is a specification of NetWare, you need to change the configuration of the router. If the network you are using does not allow you to configure the router, configure the machine.

❖ **Configuring the router**

Filter packets so they do not pass over the dial-up router.

Note

❒ The MAC address of the filtering printer is printed on the printer configuration page. For more information about printing a configuration page, see *Printer Reference 2*.

❒ For more information about configuring the printer if the router cannot be configured, see the instructions below.

Configuring the printer with NetWare

1 Following the setup method described in this manual, configure the file server.

2 Set the frame type for NetWare environment.

Reference

For more information about selecting a frame type, see *General Settings Guide*.

Configuring the printer without NetWare

1 When not printing, the network interface board sends packets over the network. Set NetWare to "inactive".

Reference

For more information about selecting a protocol, see *General Settings Guide*.

When Using Network Utility

When the machine is connected to a network, observe the following points when setting up the machine or changing settings:

For more details, see the documentation and Help for ScanRouter V2 Lite/Professional and DeskTopBinder V2 Lite/Professional.

❖ When a dial-up router is connected in a network environment

The settings for the delivery server to be connected must be made appropriately for the machine with ScanRouter V2 Lite/Professional, Auto Document Link, or DeskTopBinder V2 Lite/Professional. In addition, appropriately set up connected devices with the I/O settings of ScanRouter V2 Administration Utility.

If the network environment changes, make the necessary changes for the delivery server with the machine, the administration utility of the client computers, Auto Document Link, and DeskTopBinder V2 Lite/Professional. Also, set the correct information for the connected devices with the I/O settings of ScanRouter V2 Administration Utility.

Important

❒ When the machine is set up to connect to the delivery server via a dial-up router, the router will dial and go online whenever connection to the delivery server is initiated. Telephone charges may be incurred.

❖ When connected to a computer that uses dial-up access

- Do not install ScanRouter V2 Lite/Professional on a computer which uses dial-up access.
- When using ScanRouter V2 Lite/Professional, DeskTopBinder V2 Lite/Professional, Auto Document Link, or a TWAIN driver on a computer with dial-up access, a dial-up connection may be performed when connecting to the delivery server and other equipment depending on the setup. If the computer is set up to connect to the Internet automatically, the confirmation dialog box will not appear, and telephone charges may be incurred without the user being aware of it. To prevent unnecessary connections, the computer should be set up so that the confirmation dialog box is always displayed before establishing a connection. Do not make unnecessary connections when using the above listed software.

NetWare Printing

Form feed

You should not configure form feed on NetWare. Form feed is controlled by the printer driver on Windows. If NetWare form feed is configured, the printer might not work properly. If you want to change form feed settings, always configure using Windows.

- With Windows 95/98/Me, clear the **[Form feed]** check box on the **[Printer Settings]** tab in the printer properties dialog box.
- With Windows 2000/XP, clear the **[Form feed]** check box on the **[NetWare Settings]** tab in the printer properties dialog box.
- With Windows NT 4.0, clear the **[Form feed]** check box on the **[NetWare Settings]** tab in the printer properties dialog box.

Banner page

You should not configure a banner page on NetWare. If you want to change the banner page setting, always configure using Windows.

- With Windows 95/98/Me, clear the **[Enable banner]** check box on the **[Printer Settings]** tab in the printer properties dialog box.
- With Windows 2000/XP, clear the **[Enable banner]** check box on the **[NetWare Settings]** tab in the printer properties dialog box.
- With Windows NT 4.0, clear the **[Enable banner]** check box on the **[NetWare Settings]** tab in the printer properties dialog box.

Printing after resetting the machine

After resetting the remote printer, the connection from the print server will be cut off for about 30-40 seconds before re-connecting. Due to the NetWare specification, print jobs may be accepted, but they will not be printed during this interval.

When using the machine as a remote printer, wait about 2 minutes after resetting the printer before attempting to print.

When Using IPP with SmartNetMonitor for Client

When using IPP with SmartNetMonitor for Client, note the following:

- The network printer can only receive one print job from SmartNetMonitor for Client at a time. While the network printer is printing, another user cannot access the network printer until it completes the job. In this case, SmartNetMonitor for Client tries to access the network printer until the retry interval expires.
- If SmartNetMonitor for Client cannot access the network printer and times out, it will stop sending the print job. In this case, you should cancel the paused status from the print queue window. SmartNetMonitor for Client will resume access to the network printer. You can delete the print job from the print queue window, but canceling a print job printed by the network printer might cause the next print job sent from another user to be incorrectly printed.

- If a print job sent from SmartNet-Monitor for Client is interrupted and the network printer cancels the job because something went wrong, send the print job again.
- Print jobs sent from another computer do not appear in the print queue window regardless of protocol.
- If various users send print jobs using SmartNetMonitor for Client to network printers, the printing order might not be as that in which the jobs were sent.
- An IP address cannot be used for the IPP port name because the IP address is used for the SmartNet-Monitor for Client port name.

When the Wireless LAN Board (optional) is installed

When using the Wireless LAN Interface on the network, keep the following points in mind:

❖ When moving the machine

Detach the antennas when relocating the machine locally.

After moving the machine, reattach the antennas, ensuring that:

- The antennas are positioned clear of obstacles.
- There is 40 to 60 mm between the antennas, so that they do not touch.
- The exposure glass cover and Document Feeder (ADF) do not knock the antennas.

❖ If the network area provides poor radio environment

Where radio wave conditions are bad, the network may not function due to interrupted or failed connections. When checking the Wireless LAN Signal and the access point, follow these steps to improve the situation:

- Position the access point nearer to the machine.
- Clear the space between access point and machine of obstructions.
- Move radio wave generating appliances, such as microwaves, away from the machine and access point.

Reference

For information about how to check radio wave status, see p.11 “Checking the Machine's Radio Wave Status”.

For more information about access point radio wave conditions, refer to the access point manual.

When connected to an e-mail server

When the machine is connected to an SMTP server managed by an Internet service provider (hereafter called “provider(s)”), the POP identity (POP Before SMTP) may be required by the provider.

Specifications

Interface	100BASE-TX, 10BASE-T, IEEE 1394 (IP over 1394) *1 , IEEE 802.11b
Frame type	EthernetII, IEEE 802.2, IEEE 802.3, SNAP
Protocol	• Printer TCP/IP LPR RSH RCP DIPRINT FTP IPP *2 *3 SMB *2 *4 IPX/SPX (NetWare) AppleTalk • Network Scanner TCP/IP RSH FTP SMTP • Document Server TCP/IP FTP HTTP • Management Function TCP/IP RSH RCP FTP SNMP HTTP NBT DHCP DNS
SNMP	MIB-II, PrinterMIB, HostResourceMIB, RicohPrivateMIB

*1 The 1394 interface board supports only TCP/IP.
*2 Use the SmartNetMonitor for Client port.
*3 To use IPP under Windows XP, use the Standard IPP port.
*4 Under Windows, this function can be used with TCP/IP and NetBEUI.

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