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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.

Please read the Safety Information before using this machine. It contains important information related to USER SAFETY and PREVENTING EQUIPMENT PROBLEMS.

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.

Trademarks

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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® 2000 are as follows: Microsoft® Windows® 2000 Advanced Server

Microsoft[®] Windows[®] 2000 Server Microsoft[®] Windows[®] 2000 Professional

- The product names of Windows[®] XP are as follows: Microsoft[®] Windows[®] XP Professional Microsoft[®] Windows[®] XP Home Edition
- The product names of Windows ServerTM 2003 are as follows: Microsoft[®] Windows ServerTM 2003 Standard Edition Microsoft[®] Windows ServerTM 2003 Enterprise Edition Microsoft[®] Windows ServerTM 2003 Web Edition
- The product names of Windows NT® 4.0 are as follows: Microsoft® Windows NT® Server 4.0
- Microsoft® Windows NT® Workstation 4.0

Notes:

Some illustrations in this manual might be slightly different from the machine.

Certain options might not be available in some countries. For details, please contact your local dealer.

Two kinds of size notation are employed in this manual. With this machine refer to the metric version.



How to Read This Manual

Symbols

The following set of symbols is used in this manual.

↑ WARNING:

This symbol indicates a potentially hazardous situation that might result in death or serious injury when you misuse the machine without following the instructions under this symbol. Be sure to read the instructions, all of which are described in the Safety Information section.

↑ CAUTION:

This symbol indicates a potentially hazardous situation that might result in minor or moderate injury or property damage that does not involve personal injury when you misuse the machine without following the instructions under this symbol. Be sure to read the instructions, all of which are described in the Safety Information section.

* 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 information or preparations required prior to operating.

Note

This symbol indicates precautions for operation, or actions to take after abnormal operation.

Limitation

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



Operating Instructions Administrator Reference

Reference

This symbol indicates a reference.

[

Keys that appear on the machine's display panel.

[]

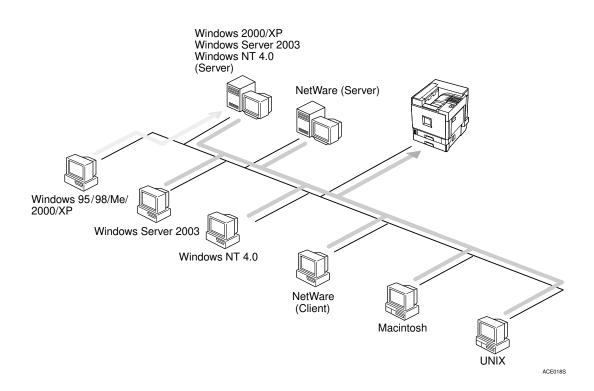
Keys and buttons that appear on the computer's display.

Keys built into the machine's control panel.

Keys on the computer's keyboard.



Checking the Network Environment



Connecting Printer and Computer

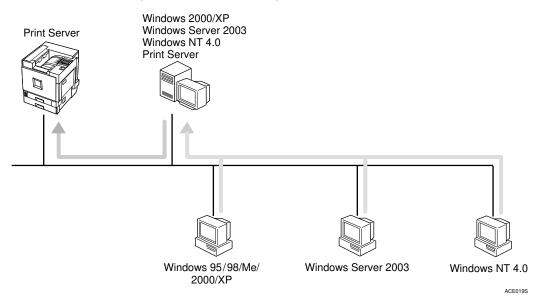
- Network connection (Ethernet cable, IEEE 1394 cable (IP over 1394), IEEE 802.11b (wireless LAN))
- Parallel connection (parallel cable)



- USB connection (USB cable)
- IEEE 1394 (SCSI print) connection (IEEE 1394 cable)
- BluetoothTM connection

Print Server Configuration

You can use Windows 2000/XP, Windows Server2003, or Windows NT 4.0 as a Print Server.



See p.15 "Windows 2000 Print Server Configuration".

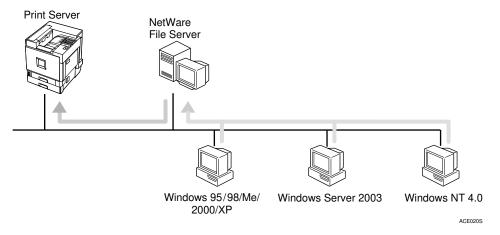
See p.35 "Windows XP, Windows Server 2003 Print Server Configuration".

See p.53 "Windows NT 4.0 Print Server Configuration".

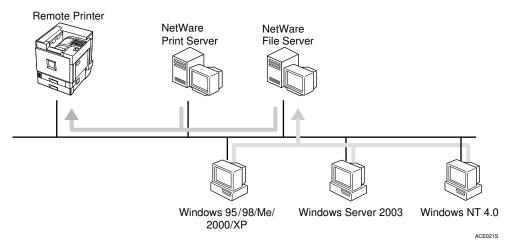


NetWare Configuration

To set the machine up as a network printer in a NetWare environment. The network interface board allows you to use the machine as a print server or remote printer.







See p.73 "NetWare Configuration".



1. Windows 2000 Print Server Configuration

To use a network printer, click [SmartDeviceMonitor], [Standard TCP/IP Port], or [LPR Port] when installing the printer driver.

- SmartDeviceMonitor
 See p.16 "Configuring Protocols", p.19 "Installing Software", p.20 "Installing the PCL 5c or RPCS
 Printer Driver", and p.25 "Installing the PostScript Printer Driver".
- Standard TCP/IP Port, LPR Port
 See p.16 "Configuring Protocols", p.20 "Installing the PCL 5c or RPCS Printer Driver", and p.25
 "Installing the PostScript Printer Driver".

Note

☐ If you want to use LPR Port, Print Services for UNIX must be installed. For details, see Windows 2000 Help.



Configuring Protocols

Configuring TCP/IP and IPP for Printing

This describes how to configure the network interface board and Windows 2000 to use TCP/IP and IPP.



To use NetBEUI, use the SmartDeviceMonitor for Client port.

Configuring the printer

Configure the printer to use TCP/IP.

- Check TCP/IP is set to active. (The factory default is active.)
- Assign an IP address and make other settings required for TCP/IP.

Reference

For more information about how to make the above settings, see "Windows 2000 Configuration", *Printer Client Reference*.

If DHCP is used to assign IP addresses, see p.300 "Using DHCP".



- ☐ After setting the IP address, use the ping command to confirm that it has been set correctly.
 - ① On the [Start] menu, point to [Programs], [Accessories], and then click [Command Prompt].
 - ② Enter the following: (Example: IP address is 192.168.15.16)

C:> ping 192.168.15.16

If the address is configured correctly, the following message appears:

Reply from 192.168.15.16 : bytes=32 time<10ms TTL=32

If the address is configured incorrectly, the following message appears:

Request timed out.



Configuring a Windows 2000 computer

Follow the procedure below to configure a Windows 2000 computer to use TCP/IP.

- 1 On the [Start] menu, point to [Settings], and then click [Network and Dial-up Connections].
- 2 Click [Local Area Connection]. On the [File] menu, click [Properties].
- Check [Internet Protocol (TCP/IP)] is selected in the [Components checked are used by this connection:] box on the [General] tab.
 - Note
 - ☐ If the check box for TCP/IP is not selected, select it.
 - ☐ If TCP/IP is not installed, click [Install] on the [General] tab and install it. For more information about installing TCP/IP, see Windows 2000 Help.
- 4 Configure TCP/IP with an appropriate IP address, subnet mask, and other settings.

Check with the network administrator that the settings are correct.



Configuring NetBEUI for Printing

This describes how to configure the network interface board and Windows 2000 to use NetBEUI.

Configuring the printer

Configure the printer to use NetBEUI.

• Check NetBEUI is set to active. (The factory default is active.)

Reference

For more information about how to make the above settings, see "Windows 2000 Configuration", *Printer Client Reference*.

Configuring a Windows 2000 computer

Follow the procedure below to configure a Windows 2000 computer to use NetBEUI.

- 1 On the [Start] menu, point to [Settings], and then click [Network and Dial-up Connections].
- 2 Click [Local Area Connection]. On the [File] menu, click [Properties].
- Check [NetBEUI Protocol] is selected in the [Components checked are used by this connection:] box on the [General] tab.

Note

- ☐ If the check box for NetBEUI is not selected, select it.
- ☐ If NetBEUI is not installed, click [Install] on the [General] tab and install it. For more information about installing NetBEUI, see Windows 2000 Help.



Installing Software

Installing SmartDeviceMonitor for Client

- 1 Quit all applications that are running.
- 2 Insert the CD-ROM into the CD-ROM drive.

Auto Run will start the installer.

- Note
- ☐ Auto Run might not work automatically due to certain operating system settings. If this is the case, launch "Setup.exe" located in the CD-ROM root directory.
- Select a language for the interface, and then click [OK].

The following languages are available: Cestina (Czech), Dansk (Danish), Deutsch (German), English (English), Espanol (Spanish), Francais (French), Italiano (Italian), Magyar (Hungarian), Nederlands (Dutch), Norsk (Norwegian), Polski (Polish), Portugues (Portuguese), Suomi (Finnish), Svenska (Swedish)

- 4 Click [SmartDeviceMonitor for Client/Admin].
- **5** The software license agreement appears in the [License Agreement] dialog box.

After reading through the content, click [I accept the agreement.] to agree with the license agreement, and then click [Next>].

6 Follow the instructions on the screen.

- Note
- ☐ If you are required to restart the computer after the installation of SmartDeviceMonitor for Client, restart and continue configuration.



Installing the PCL 5c or RPCS Printer Driver

- 1 Quit all applications that are running.
- 2 Insert the CD-ROM into the CD-ROM drive.

Auto Run will start the installer.

- **#Important**
- □ Never have two versions of the same printer driver installed on your system at the same time. When upgrading to a new version of the printer driver, delete the old version, and then install the new one.
- Note
- ☐ Auto Run might not work automatically due to certain operating system settings. If this is the case, launch "Setup.exe" located in the CD-ROM root directory.
- **3** Select a language for the interface, and then click [OK].

The following languages are available: Cestina (Czech), Dansk (Danish), Deutsch (German), English (English), Espanol (Spanish), Francais (French), Italiano (Italian), Magyar (Hungarian), Nederlands (Dutch), Norsk (Norwegian), Polski (Polish), Portugues (Portuguese), Suomi (Finnish), Svenska (Swedish)

- 4 Click [PCL/RPCS Printer Drivers].
- **5** The software license agreement appears in the [License Agreement] dialog box.

After reading through the content, click [laccept the agreement] to agree with the license agreement, and then click [Next>].



6 Select the printer drivers you want to use when the [Select Program] dialog box appears, and then click [Next>].

You can select more than one printer driver.

- Select the [Printer Name] check box to select the printer model(s) you want to use.

 To change the printer name, use the [Change settings for 'Printer Name'] box.
- 8 Double-click the printer name to display its settings.
 - Note
 - ☐ The details shown for [Comment], [Driver], and [Port] vary depending on the operating system being used, model of printer selected, and port being used.
- Click [Port], and then click [Add] in the [Change settings for 'Port'] box.
 The [Add Port] dialog box appears.
- The next part of the procedure depends on the port in use. Follow the section that corresponds to the port you want to use.

SmartDeviceMonitor

- Click [SmartDeviceMonitor], and then click [OK].
- **2** Select the 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].

Operating Instructions Administrator Reference



☐ 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 enter the printer's IP address or host name.

❖ NetBEUI

- ① Click [NetBEUI], and then click [Search].

 A list of printers that can be used with NetBEUI 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 enter the NetBEUI address. Check the NetBEUI network address is on the configuration page. For more information about printing the configuration page, see p.138 "Printing a Configuration Page". NetBEUI address appears as "\\RNPxxxx\xxxx" on the configuration page. Enter the printer's network path name in the form of "%%Computer name\Share name". Do not enter "\\" 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 printer's IP address, enter "http://(printer's-ip-address)/printer" in the [Printer URL] field.

Note

☐ If you have configured SSL (secure sockets layer) encryption and have issued the server certificate, enter "https://<pri>https://<pri>https://<pri>printer's IP address>/printer". Internet Explorer 5.01 or later must be installed on the computer.

(Example: IP address is 192.168.15.16)

http://192.168.15.16/printer https://192.168.15.16/printer

- ③ If necessary, enter the names to distinguish the printer in **[IPP Port Name]**. Enter a different name from those of existing port names.

 If you do not do this, the address entered 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.
 - Note
 - ☐ For more information about these settings, see SmartDeviceMonitor for Client Help.
- ⑤ Click [OK].

Standard TCP/IP Port

- Click [Standard TCP/IP Port], and then click [OK].
- 2 In the [Add Standard TCP/IP Printer Port Wizard] window, click [Next>].
- 3 In the [Printer Name or IP Address] box, enter the printer name or IP address, and then click [Next>].
- 4 In the [Add Standard TCP/IP Printer Port Wizard] window, click [Finish].

LPR Port

- Click [LPR Port], and then click [OK].
- 2 In the [Name or address of server providing lpd] box, enter the printer's IP address.
- 3 In the [Name of printer or print queue on that server] box, enter "lp", and then click [OK].



- 11 Make sure the location for the selected printer is displayed after [Port].
- Double-click [Shared] to display share settings.
- 13 To share the printer, select the [Shared] check box.
- 14 Check the boxes under [Share name] to install the alternative driver for the necessary system.

Note

- ☐ Select the [Shared] check box to start installation of an alternative driver ([Windows NT 4.0/2000] and [Windows 95/98/Me] are already selected).
- ☐ You can add an alternative driver after installation. See p.34 "Settings for Printer Share".
- **15** Configure the default printer as necessary.
 - Default Printer

Select the **[Default Printer]** check box to set the printer as the default printer.

- 16 Click [Continue] to start printer driver installation.
- 17 When the [Select Program] dialog box appears, click [Finish].
- 18 When the [Installation completion.] dialog box appears, click [Finish].
- 19 Set up the options.

Note

☐ You must set up the options when bidirectional transmission is disabled. For more information about bidirectional transmission status, see p.32 "Bidirectional transmission".

Reference

For more information about option settings, see p.31 "Setting Up Options".



Installing the PostScript Printer Driver

- 1 Quit all applications that are running.
- 2 Insert the CD-ROM into the CD-ROM drive.

Auto Run will start the installer.

- **#Important**
- ☐ Never have two versions of the same printer driver installed on your system at the same time. When upgrading to a new version of the printer driver, delete the old version, and then install the new one.
- Note
- ☐ Auto Run might not work automatically due to certain operating system settings. If this is the case, launch "Setup.exe" located in the CD-ROM root directory.
- Select a language for the interface, and then click [OK].

The following languages are available: Cestina (Czech), Dansk (Danish), Deutsch (German), English (English), Espanol (Spanish), Francais (French), Italiano (Italian), Magyar (Hungarian), Nederlands (Dutch), Norsk (Norwegian), Polski (Polish), Portugues (Portuguese), Suomi (Finnish), Svenska (Swedish)

- Note
- ☐ The printer driver with the selected language will be installed. The printer driver will be installed in English if you select the following languages: Cestina, Magyar, Polski, Portugues, Suomi
- 4 Click [PostScript 3 Printer Driver].

Add Printer Wizard starts.

Click [Next>].



- 6 Click [Local printer], and then click [Next>].
- Click [Create a new port:].
- The next part of the procedure depends on the port in use. Follow the section that corresponds to the port you want to use.
 - SmartDeviceMonitor
 - Standard TCP/IP Port
 - LPR Port

SmartDeviceMonitor

- **1** Click [SmartDeviceMonitor], and then click [Next>].
- 2 Select the 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].



☐ 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 enter the printer's IP address or host name.

❖ NetBEUI

- ① Click [NetBEUI], and then click [Search].

 A list of printers that can be used with NetBEUI 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 enter the NetBEUI address. Check the NetBEUI network address is on the configuration page. For more information about printing the configuration page, see p.138 "Printing a Configuration Page". NetBEUI address appears as "\\RNPxxxx\xxx" on the configuration page. Enter the printer's network path name in the form of "%%Computer name\Share name". Do not enter "\\" 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 printer's IP address, enter "http://(printer's-ip-address)/printer" in the [Printer URL] field.

Note

☐ If you have configured SSL (secure sockets layer) encryption and have issued the server certificate, enter "https://<printer's IP address>/printer". Internet Explorer 5.01 or later must be installed on the computer.

(Example: IP address is 192.168.15.16)

http://192.168.15.16/printer https://192.168.15.16/printer

- ③ If necessary, enter the names to distinguish the printer in [IPP Port Name]. Enter a different name from those of existing port names.
 - If you do not do this, the address entered 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.



- Note
- ☐ For more information about these settings, see SmartDeviceMonitor for Client Help.
- ⑤ Click [OK].

Standard TCP/IP Port

- 1 Click [Standard TCP/IP], and then click [Next>].
- 2 In the [Add Standard TCP/IP Printer Port Wizard] window, click [Next>].
- 3 In the [Printer Name or IP Address] box, enter the printer name or IP address, and then click [Next>].
- 4 In the [Add Standard TCP/IP Printer Port Wizard] window, click [Finish].

LPR Port

- 1 Click [LPR Port], and then click [Next>].
- 2 In the [Name or address of server providing lpd] box, enter the printer's IP address.
- 3 In the [Name of printer or print queue on that server] box, enter "lp", and then click [OK].
- Oconfirm to select the name of the printer whose driver you want to install, and then click [Next>].
- 10 Change the name of the printer if you want, and then click [Next>].

Configure the default printer as necessary. Select the **[Yes]** check box to set the printer as the default printer.

11 Select the [Share as:] check box, and then click [Next>].

To change the printer name, use the [Share as:] box.



- 12 Select whether or not you want to print a test page, and then click [Next>].
- 13 Click [Finish].

Printer driver installation starts.

1 Set up the options.



For more information about option settings, see p.31 "Setting Up Options".

Changing Port Settings

This describes how to change SmartDeviceMonitor for Client settings, such as proxy server settings or IPP URL.

- Note
- ☐ There are no settings for NetBEUI.
- 1 In 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 [Configure Port].

The [Port Configuration:] dialog box appears.

- Note
- ☐ If you cannot set items on the [Recovery/Parallel Printing] tab, follow the procedure below.
 - ① Click [Cancel] to close the [Port Configuration:] dialog box.
 - ② Start SmartDeviceMonitor for Client, and then right-click the SmartDeviceMonitor for Client icon on the taskbar.



Operating Instructions Administrator Reference

- 3 Click [Extended Features Settings], and then select the [Set Recovery/Parallel Printing for each port] check box.
- 4 Click [OK] to close the [Extended Features Settings] dialog box.
- For IPP, you can configure User Settings, Proxy Settings, and Timeout Settings.

Note

☐ For more information about these settings, see SmartDeviceMonitor for Client Help.



Setting Up Options

You must set up installed options, paper size, and feed direction with the printer driver when bidirectional transmission is disabled.

- Limitation
- ☐ Changing the printer settings requires Manage Printers permission. Members of the Administrators and Power Users groups have Manage Printers permission by default. When you set up options, log on using an account that has Manage Printers permission.
- Note
- ☐ The description uses the PCL 5c printer driver.
- 1 On the [Start] menu, point to [Settings], and then click [Printers]. The [Printers] window appears.
- 2 Click the icon of the printer you want to use. On the [File] menu, click [Properties].
 - Note
 - ☐ When you open the printer properties dialog box for the first time after installing the RPCS printer driver, the confirmation window appears. After that, the initial display of the printer properties dialog box appears.
- Click the [Accessories] tab.
 - Note
 - $\ \square$ If you are using the RPCS printer driver, click the **[Change Accessories]** tab.
 - ☐ If you are using the PostScript 3 printer driver, click the [Device Settings] tab.
- 4 Select options you have installed from the [Options] group, and then make any necessary settings.



Note

- ☐ If you are using the RPCS printer driver, select the options from [Select printer options:].
- ☐ If you are using the PostScript 3 printer driver, select the options from [Installable Options].

Click [OK].

Bidirectional transmission

When bidirectional transmission is enabled, information about paper size and feed direction settings is automatically sent to the printer by a computer. You can also check the printer status from your computer.

- Bidirectional transmission is supported by Windows 95/98/Me/2000/XP, Windows Server 2003, and Windows NT 4.0.
- If you use the RPCS printer driver and bidirectional transmission is enabled, the [Change Accessories] tab is shaded, and cannot be modified

Note

- ☐ The RPCS printer driver supports bidirectional transmission and updates the printer status automatically.
- ☐ The PCL 5c printer driver supports bidirectional transmission; you can update the printer status manually. However, it does not support bidirectional transmission over a parallel connection.
- ☐ The PostScript 3 printer driver does not support bidirectional transmission.

Bidirectional transmission requires the following conditions:



Operating Instructions Administrator Reference

When connecting via parallel cable

- The computer must support bidirectional transmission.
- The printer must be set to bidirectional transmission.
- The interface cable must support bidirectional transmission.
- The machine must be connected to the computer using standard parallel cable and parallel connector.
- Under Windows 2000, [Enable bidirectional support] must be selected and [Enable printer pooling] must not be selected on the [port] tab with RPCS printer driver.

When connecting with the network

- The printer must be set to bidirectional transmission.
- SmartDeviceMonitor for Client included on the CD-ROM must be installed, and TCP/IP must be used.
- Under Windows 2000, [Enable bidirectional support] must be selected and [Enable printer pooling] must not be selected on the [port] tab with RPCS printer driver.



Settings for Printer Share

- Limitation
- ☐ Changing the printer settings requires Manage Printers permission. Members of the Administrators and Power Users groups have Manage Printers permission by default. When you set up options, log on using an account that has Manage Printers permission.
- 1 On the [Start] menu, point to [Settings], and then click [Printers]. The [Printers] window appears.
- 2 Click the icon of the printer you want to use. On the [File] menu, click [Properties].
- Select the [Shared as:] check box on the [Sharing] tab.
- To share a printer with users running different versions of Windows, click [Additional Drivers...], and then follow the instruction on the screen.
 - Note
 - ☐ If you have installed an alternative driver by selecting the [Shared] check box, you do not have to follow this step.
- Click [OK].



2. Windows XP, Windows Server 2003 Print Server Configuration

To use a printer connected to the Ethernet interface, click [SmartDeviceMonitor], [Standard TCP/IP Port], or [LPR Port] when installing the printer driver.

- SmartDeviceMonitor
 See p.36 "Configuring Protocols", p.38 "Installing Software", p.39 "Installing the PCL 5c or RPCS
 Printer Driver", and p.44 "Installing the PostScript Printer Driver".
- Standard TCP/IP Port, LPR Port
 See p.36 "Configuring Protocols", p.39 "Installing the PCL 5c or RPCS Printer Driver", and p.44
 "Installing the PostScript Printer Driver".



☐ If you want to use "LPR Port", "Print Services for UNIX" must be installed. For details, see Windows XP or Windows Server 2003 Help.



Configuring Protocols

Configuring TCP/IP and IPP for Printing

This describes how to configure the network interface board and Windows XP or Windows Server 2003 to use TCP/IP and IPP.

Configuring the printer

Configure the printer to use TCP/IP.

- Check TCP/IP is set to active. (The factory default is active.)
- Assign an IP address and make other settings required for TCP/IP.

Reference

For more information about how to make the above settings, see "Windows XP, Windows Server 2003 Configuration", *Printer Client Reference*.

If DHCP is used to assign IP addresses, see p.300 "Using DHCP".



- ☐ After setting the IP address, use the ping command to confirm that it has been set correctly.
 - ① On the [Start] menu, point to [All Programs], point to [Accessories], and then click [Command Prompt].
 - ② Enter the following: (Example: IP address is 192.168.15.16)

C:> ping 192.168.15.16

If the address is configured correctly, the following message appears:

Reply from 192.168.15.16 : bytes=32 time<10ms TTL=32

If the address is configured incorrectly, the following message appears:

Request timed out.



Operating Instructions Administrator Reference

Configuring a Windows XP or Windows Server 2003 computer

Follow the procedure below to configure a Windows XP or Windows Server 2003 computer to use TCP/IP.

- 1 On the [Start] menu, point to [Control Panel], and then click [Network Connections].
- 2 Click [Local Area Connection]. On the [File] menu, click [Properties].
- Check [Internet Protocol (TCP/IP)] is selected in the [This connection uses the following items:] box on the [General] tab.
 - Note
 - ☐ If the check box for TCP/IP is not selected, select it.
 - ☐ If TCP/IP is not installed, click [Install] on the [General] tab and install it. For more information about installing TCP/IP, see Windows XP or Windows Server 2003 Help.
- 4 Configure TCP/IP with an appropriate IP address, subnet mask, and other settings.

Check with the network administrator that the settings are correct.



Installing Software

Installing SmartDeviceMonitor for Client

- 1 Quit all applications that are running.
- 2 Insert the CD-ROM into the CD-ROM drive.

Auto Run will start the installer.



- ☐ Auto Run might not work automatically due to certain operating system settings. If this is the case, launch "Setup.exe" located in the CD-ROM root directory.
- **3** Select a language for the interface, and then click [OK].

The following languages are available: Cestina (Czech), Dansk (Danish), Deutsch (German), English (English), Espanol (Spanish), Francais (French), Italiano (Italian), Magyar (Hungarian), Nederlands (Dutch), Norsk (Norwegian), Polski (Polish), Portugues (Portuguese), Suomi (Finnish), Svenska (Swedish)

- 4 Click [SmartDeviceMonitor for Client/Admin].
- **5** The software license agreement appears in the [License Agreement] dialog box.

After reading through the content, click [I accept the agreement.] to agree with the license agreement, and then click [Next>].

6 Follow the instructions on the screen.



☐ If you are required to restart the computer after the installation of SmartDeviceMonitor for Client, restart and continue configuration.



Installing the PCL 5c or RPCS Printer Driver

- 1 Quit all applications that are running.
- 2 Insert the CD-ROM into the CD-ROM drive.

Auto Run will start the installer.

- **#Important**
- ☐ Never have two versions of the same printer driver installed on your system at the same time. When upgrading to a new version of the printer driver, delete the old version, and then install the new one.
- Note
- ☐ Auto Run might not work automatically due to certain operating system settings. If this is the case, launch "Setup.exe" located in the CD-ROM root directory.
- **3** Select a language for the interface, and then click [OK].

The following languages are available: Cestina (Czech), Dansk (Danish), Deutsch (German), English (English), Espanol (Spanish), Francais (French), Italiano (Italian), Magyar (Hungarian), Nederlands (Dutch), Norsk (Norwegian), Polski (Polish), Portugues (Portuguese), Suomi (Finnish), Svenska (Swedish)

- 4 Click [PCL/RPCS Printer Drivers].
- **5** The software license agreement appears in the [License Agreement] dialog box.

After reading through the content, click [l accept the agreement.] to agree with the license agreement, and then click [Next>].



6 Select the printer drivers you want to use when the [Select Program] dialog appears, and then click [Next>].

You can select more than one printer driver.

- Select the [Printer Name] check box to select the printer model(s) you want to use.

 To change the printer name, use the [Change settings for 'Printer Name'] box.
- 8 Double-click the printer name to display its settings.



- ☐ The details shown for [Comment], [Driver], and [Port] vary depending on the operating system being used, model of printer selected, and port being used.
- Olick [Port], and then click [Add] in the [Change settings for 'Port'] box.
- 10 The next part of the procedure depends on the port in use. Follow the section that corresponds to the port you want to use.
 - SmartDeviceMonitor
 - Standard TCP/IP Port
 - LPR Port

SmartDeviceMonitor

- 1 Click [SmartDeviceMonitor], and then click [OK].
- **2** Select the 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].



☐ 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 enter the printer's IP address or host name.

♣ IPP

- ① Click [IPP].

 The IPP setting dialog box appears.
- ② To specify the printer's IP address, enter "http://(printer's-ip-address)/printer" in the [Printer uRL] field.

Note

☐ If you have configured SSL (secure sockets layer) encryption and have issued the server certificate, enter "https://<printer's IP address>/printer". Internet Explorer 5.01 or later must be installed on the computer.

(Example: IP address is 192.168.15.16)

http://192.168.15.16/printer https://192.168.15.16/printer

- ③ If necessary, enter the names to distinguish the printer in [IPP Port Name]. Enter a different name from those of existing port names.
 - If you do not do this, the address entered 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.



- ☐ For more information about these settings, see SmartDeviceMonitor for Client Help.
- ⑤ Click [OK].



Standard TCP/IP Port

- 1 Click [Standard TCP/IP], and then click [OK].
- 2 In the [Add Standard TCP/IP Printer Port Wizard] window, click [Next>].
- **3** In the [Printer Name or IP Address] box, enter the printer name or IP address, and then click [Next>].
- 4 In the [Add Standard TCP/IP Printer Port Wizard] window, click [Finish].

LPR Port

- ① Click [LPR Port], and then click [OK].
- 2 In the [Name or address of server providing lpd] box, enter the printer's IP address.
- 3 In the [Name of printer or print queue on that server] box, enter "lp", and then click [OK].
- Make sure the location for the selected printer is displayed after [Port].
- 12 Double-click [Shared] to display share settings.
- 13 To share the printer, select the [Shared] check box.
- 14 Check the boxes under [Share name] to install the alternative driver for the necessary system.

Note

- ☐ Select the [Shared] check box to start installation of an alternative driver ([Windows NT 4.0/2000] and [Windows 95/98/Me] are already selected).
- ☐ You can add an alternative driver after installation. See p.52 "Settings for Printer Share".



- **15** Configure the default printer as necessary.
 - Default Printer

Select the [Default Printer] check box to set the printer as the default printer.

16 Click [Continue] to start printer driver installation.

- Note
- ☐ During installation, the [Software Installation] dialog box may appear. In this case, click [Continue Anyway] to continue the installation.
- 17 When the [Select Program] dialog box appears, click [Finish].
- When the [Installation completion.] dialog box appears, click [Finish].
- 19 Set up the options.
 - Note
 - ☐ You must set up the options when bidirectional transmission is disabled. For more information about bidirectional transmission status, see p.50 "Bidirectional transmission".
 - Reference

For more information about option settings, see p.49 "Setting Up Options".



Installing the PostScript Printer Driver

- 1 Quit all applications that are running.
- 2 Insert the CD-ROM into the CD-ROM drive.

Auto Run will start the installer.

- **#Important**
- □ Never have two versions of the same printer driver installed on your system at the same time. When upgrading to a new version of the printer driver, delete the old version, and then install the new one.
- Note
- ☐ Auto Run might not work automatically due to certain operating system settings. If this is the case, launch "Setup.exe" located in the CD-ROM root directory.
- Select a language for the interface, and then click [OK].

The following languages are available: Cestina (Czech), Dansk (Danish), Deutsch (German), English (English), Espanol (Spanish), Francais (French), Italiano (Italian), Magyar (Hungarian), Nederlands (Dutch), Norsk (Norwegian), Polski (Polish), Portugues (Portuguese), Suomi (Finnish), Svenska (Swedish)

- Note
- ☐ The printer driver with the selected language will be installed. The printer driver will be installed in English if you select the following languages: Cestina, Magyar, Polski, Portugues, Suomi
- 4 Click [PostScript 3 Printer Driver].

Add Printer Wizard starts.

Click [Next>].



- 6 Click [Local printer attached to this computer], and then click [Next>].
- Click [Create a new port:].
- The next part of the procedure depends on the port in use. Follow the section that corresponds to the port you want to use.
 - SmartDeviceMonitor
 - Standard TCP/IP Port
 - LPR Port

SmartDeviceMonitor

- **1** Click [SmartDeviceMonitor], and then click [Next>].
- **2** Select the 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 enter the printer's IP address or host name.

◆ IPP

① Click [IPP].

The IPP setting dialog box appears.



② To specify the printer's IP address, enter "http://(printer's-ip-address)/printer" in the [Printer uRL] field.



☐ If you have configured SSL (secure sockets layer) encryption and have issued the server certificate, enter "https://<printer's IP address>/printer". Internet Explorer 5.01 or later must be installed on the computer.

(Example: IP address is 192.168.15.16)

http://192.168.15.16/printer https://192.168.15.16/printer

- ③ If necessary, enter the names to distinguish the printer in **[IPP Port Name]**. Enter a different name from those of existing port names.
 - If you do not do this, the address entered 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.



- ☐ For more information about these settings, see SmartDeviceMonitor for Client Help.
- ⑤ Click **[OK]**.

Standard TCP/IP Port

- ① Click [Standard TCP/IP], and then click [Next>].
- 2 In the [Add Standard TCP/IP Printer Port Wizard] window, click [Next>].
- **3** In the [Printer Name or IP Address] box, enter the printer name or IP address, and then click [Next>].
- 4 In the [Add Standard TCP/IP Printer Port Wizard] window, click [Finish].



LPR Port

- 1 In [Create a new Port:], click [LPR Port], and then click [Next>].
- 2 In the [Name or address of server providing lpd] box, enter the printer's IP address.
- 3 In the [Name of printer or print queue on that server] box, enter "lp", and then click [OK].
- Confirm to select the name of the printer whose driver you want to install, and then click [Next>].
- 10 Change the name of the printer if you want, and then click [Next>].

Configure the default printer as necessary. Select the **[Yes]** check box to set the printer as the default printer.

Select the [Share name:] check box, and then click [Next>].

To change the printer name, use the [Share name:] box.

- 12 Select whether or not you want to print a test page, and then click [Next>].
- 13 Click [Finish].

Printer driver installation starts.



- ☐ During installation, the [Hardware Installation] dialog box may appear. In this case, click [Continue Anyway] to continue the installation.
- 11 Set up the options.

Reference

For more information about option settings, see p.49 "Setting Up Options".



Changing Port Settings

Follow the procedure below to change SmartDeviceMonitor for Client settings, such as proxy server settings or IPP URL.

- In the [Printers and Faxes] 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 [Configure Port].

The [Port Configuration:] dialog box appears.



- ☐ If you cannot set items on the [Recovery/Parallel Printing] tab, follow the procedure below.
 - ① Click [Cancel] to close the [Port Configuration:] dialog box.
 - ② Start SmartDeviceMonitor for Client, and then right-click the SmartDeviceMonitor for Client icon on the taskbar.
 - 3 Click [Extended Features Settings], and then select the [Set Recovery/Parallel Printing for each port] check box.
 - ④ Click [OK] to close the [Extended Features Settings] dialog box.
- For IPP, you can configure IPP User Settings, Proxy Settings, and Timeout Settings.

Note

☐ For more information about these settings, see SmartDeviceMonitor for Client Help.



Setting Up Options

You must set up installed options, paper size and feed direction with the printer driver when bidirectional transmission is disabled.

- Limitation
- ☐ Changing the printer settings requires Manage Printers permission. Members of the Administrators and Power Users groups have Manage Printers permission by default. When you set up options, log on using an account that has Manage Printers permission.
- Note
- ☐ The description uses the PCL 5c printer driver.
- 1 Access the [Printers and Faxes] window from [Start] on the taskbar.
 The [Printers and Faxes] window appears.
- 2 Click the icon of the printer you want to use. On the [File] menu, click [Properties].
 - Note
 - ☐ When you open the printer properties dialog box for the first time after installing the RPCS printer driver, the confirmation window appears. After that, the initial display of the printer properties dialog box appears.
- Click the [Accessories] tab.
 - Note
 - $\ \square$ If you are using the RPCS printer driver, click the **[Change Accessories]** tab.
 - ☐ If you are using the PostScript 3 printer driver, click the [Device Settings] tab.



4 Select options you have installed from the [Options] group, and then make any necessary settings.

Note

- ☐ If you are using the RPCS printer driver, select the options from [Select printer options:].
- ☐ If you are using the PostScript 3 printer driver, select the options from [Installable Options].
- **5** Click [OK].

Pidirectional transmission

When bidirectional transmission is enabled, information about paper size and feed direction settings is automatically sent to the printer by a computer. You can also check printer status from your computer.

- Bidirectional transmission is supported by Windows 95/98/Me/2000/XP, Windows Server 2003, and Windows NT 4.0.
- If you use the RPCS printer driver and bidirectional transmission is enabled, the [Change Accessories] tab is shaded, and cannot be used.

Note

- ☐ The RPCS printer driver supports bidirectional transmission and updates the printer status automatically.
- ☐ The PCL 5c printer driver supports bidirectional transmission; you can update the printer status manually.
- ☐ The PostScript 3 printer driver does not support bidirectional transmission.

Bidirectional transmission requires the following conditions:



Operating Instructions Administrator Reference

When connecting via parallel cable

- The computer must support bidirectional transmission.
- The printer must be set to bidirectional transmission.
- The interface cable must support bidirectional transmission.
- The machine must be connected to the computer using standard parallel cable and parallel connector.
- Under Windows XP or Windows Server 2003 [Enable bidirectional support] must be selected and [Enable printer pooling] must not be selected on the [port] tab with RPCS printer driver.

When connecting with the network

- The printer must be set to bidirectional transmission.
- SmartDeviceMonitor for Client included on the CD-ROM must be installed, and TCP/IP must be used.
- Under Windows XP or Windows Server 2003 [Enable bidirectional support] must be selected and [Enable printer pooling] must not be selected on the [port] tab with RPCS printer driver.



Settings for Printer Share

- Limitation
- ☐ Changing the printer settings requires Manage Printers permission. Members of the Administrators and Power Users groups have Manage Printers permission by default. When you set up options, log on using an account that has Manage Printers permission.
- 1 Access the [Printers and Faxes] window from [Start] on the taskbar.
 The [Printers and Faxes] window appears.
- 2 Click the icon of the printer you want to use. On the [File] menu, click [Properties].
- Select the [Share this printer:] check box on the [Sharing] tab.
- To share a printer with users running different versions of Windows, click [Additional Drivers...], and then follow the instruction on the screen.
 - Note
 - ☐ If you have installed an alternative driver by selecting the [Shared] check box, you do not have to follow this step.
- Click [OK].



3. Windows NT 4.0 Print Server Configuration

To use a printer connected to the Ethernet interface, click [SmartDeviceMonitor] or [LPR Port] when installing the printer driver.

- SmartDeviceMonitor
 See p.54 "Configuring Protocols", p.58 "Installing Software", p.59 "Installing the PCL 5c or RPCS
 Printer Driver", and p.64 "Installing the PostScript Printer Driver".
- LPR Port
 See p.54 "Configuring Protocols", p.59 "Installing the PCL 5c or RPCS Printer Driver", and p.64 "Installing the PostScript Printer Driver".



☐ If you want to use "LPR Port", "Microsoft TCP/ IP Printing" must be installed. For details, see Windows NT 4.0 Help.



Configuring Protocols

Configuring TCP/IP and IPP for Printing

This describes how to configure the network interface board and Windows NT 4.0 to use TCP/IP and IPP.

Configuring the printer

Configure the printer to use TCP/IP.

- Check TCP/IP is set to active. (The factory default is active.)
- Assign an IP address and make other settings required for TCP/IP.

P Reference

For more information about how to make the above settings, see "Windows NT 4.0 Configuration", *Printer Client Reference*.

If DHCP is used to assign IP addresses, see p.70 "Bidirectional transmission".



- ☐ After setting the IP address, use the ping command to confirm that it has been set correctly.
 - ① On the [Start] menu, point to [Programs], and then click [Command Prompt].
 - 2) Enter the following: (Example: IP address is 192.168.15.16)

C:> ping 192.168.15.16

If the address is configured correctly, the following message appears:

Reply from 192.168.15.16: bytes=32 time<10ms TTL=32

If the address is configured incorrectly, the following message appears:

Request timed out.



Operating Instructions Administrator Reference

Configuring a Windows NT 4.0 computer

Follow the procedure below to configure a Windows NT 4.0 computer to use TCP/IP.

1 Open [Control Panel] and double-click the [Network] icon. Check "TCP/IP Protocol" is listed in the [Network protocols] box on the [Protocols] tab.



- ☐ If TCP/IP is not installed, click **[Add]** on the **[Protocols]** tab and install it. For more information about installing TCP/IP, see Windows NT 4.0 Help.
- 2 Check TCP/IP with an appropriate IP address, subnet mask, and other settings. Check the settings are correct with the network administrator.
- Click the [Services] tab, and confirm that "Microsoft TCP/IP Printing" is installed.

 If "Microsoft TCP/IP Printing" is not installed, click [Add] on the [Services] tab, and install it. For more information about installing and configuring network services, see Windows NT 4.0 Help.



Configuring NetBEUI for Printing

This describes how to configure the network interface board and Windows NT 4.0 to use NetBEUI.



Preparation

To use NetBEUI, use the SmartDeviceMonitor for Client port.

Configuring the printer

Configure the printer to use NetBEUI.

Check NetBEUI is set to active. (The factory default is active.)



Reference

For more information about how to make the above settings, see "Windows NT 4.0 Configuration", Printer Client Reference.

Configuring a Windows NT 4.0 computer

Install NetBEUI on the Windows NT 4.0 computer, and then change the LAN adapter number (Lana Number).

1 Open [Control Panel] and double-click the [Network] icon. Check [NetBEUI Protocol] is listed in the [Network Protocols] box on the [Protocols] tab.



- ☐ If NetBEUI is not installed, click [Add...] on the [Protocols] tab, and install it. For more information about installing NetBEUI, see Windows NT 4.0 Help.
- 2 Change the Lana Number. Click the [Services] tab, click [NetBEUI Interface] in the [Network Services:] box, and then click [Properties:].



Operating Instructions Administrator Reference

- 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 another protocol's Lana Number is configured to "0", change it to another number.
- Click [OK].
- 6 Click [Close].
- After confirming the message to restart, click [Yes].
 - Note
 - ☐ After you change the Lana Number, you must restart the computer.



Installing Software

Installing SmartDeviceMonitor for Client

- 1 Quit all applications that are running.
- 2 Insert the CD-ROM into the CD-ROM drive.

Auto Run will start the installer.

- Note
- ☐ Auto Run might not work automatically due to certain operating system settings. If this is the case, launch "Setup.exe" located in the CD-ROM root directory.
- Select a language for the interface, and then click [OK].

The following languages are available: Cestina (Czech), Dansk (Danish), Deutsch (German), English (English), Espanol (Spanish), Francais (French), Italiano (Italian), Magyar (Hungarian), Nederlands (Dutch), Norsk (Norwegian), Polski (Polish), Portugues (Portuguese), Suomi (Finnish), Svenska (Swedish)

- 4 Click [SmartDeviceMonitor for Client/Admin].
- **5** The software license agreement appears in the [License Agreement] dialog box.

After reading through the content, click [I accept the agreement.] to agree with the license agreement, and then click [Next>].

6 Follow the instructions on the screen.

- Note
- ☐ If you are required to restart the computer after the installation of SmartDeviceMonitor for Client, restart and continue configuration.



Installing the PCL 5c or RPCS Printer Driver

- 1 Quit all applications that are running.
- 2 Insert the CD-ROM into the CD-ROM drive.

Auto Run will start the installer.

- **#Important**
- ☐ Never have two versions of the same printer driver installed on your system at the same time. When upgrading to a new version of the printer driver, delete the old version, and then install the new one.
- Note
- ☐ Auto Run might not work automatically due to certain operating system settings. If this is the case, launch "Setup.exe" located in the CD-ROM root directory.
- **3** Select a language for the interface, and then click [OK].

The following languages are available: Cestina (Czech), Dansk (Danish), Deutsch (German), English (English), Espanol (Spanish), Francais (French), Italiano (Italian), Magyar (Hungarian), Nederlands (Dutch), Norsk (Norwegian), Polski (Polish), Portugues (Portuguese), Suomi (Finnish), Svenska (Swedish)

- 4 Click [PCL/RPCS Printer Drivers].
- **5** The software license agreement appears in the [License Agreement] dialog box.

After reading through the content, click [l accept the agreement.] to agree with the license agreement, and then click [Next>].



6 Select the printer drivers you want to use when the [Select Program] dialog appears, and then click [Next>].

You can select more than one printer driver.

- Select the [Printer Name] check box to select the printer model(s) you want to use.

 To change the printer name, use the [Change settings for 'Printer Name'] box.
- **8** Double-click the printer name to display its settings.



- ☐ The details shown for [Comment], [Driver], and [Port] vary depending on the operating system being used, model of printer selected, and port being used.
- Olick [Port], and then click [Add] in the [Change settings for 'Port'] box.
- 11 The next part of the procedure depends on the port in use. Follow the section that corresponds to the port you want to use.
 - SmartDeviceMonitor
 - LPR Port

SmartDeviceMonitor

- 1 Click [SmartDeviceMonitor], and then click [OK].
- 2 Select the 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 enter the printer's IP address or host name.

❖ NetBEUI

- ① Click [NetBEUI], and then click [Search].

 A list of printers that can be used with NetBEUI appears.
- ② Click the printer you want to use, and then click [OK].

Note

- □ Printers that respond to an broadcast from the computer will be displayed. To print to a printer not listed here, click [Specify Address], and then enter the NetBEUI address. Check the NetBEUI network address is on the configuration page. For more information about the printing of configuration page, see p.138 "Printing a Configuration Page". NetBEUI address appears as "\\RNPxxxx\xxx" on a configuration page. Enter the printer's network path name in form of "%%Computer name \Share name". Do not enter "\\" as head characters but "%%".
- ☐ You cannot print to printers beyond routers.

♣ IPP

- ① Click **[IPP]**. The IPP settings dialog box appears.
- ② To specify the printer's IP address, enter "http://(printer's-ip-address)/printer" in the [Printer URL] field.

Note

☐ If you have configured SSL (secure sockets layer) encryption and have issued the server certificate, enter "https://<pri>https://<pri>https://<pri>printer's IP address>/printer". Internet Explorer 5.01 or later must be installed on the computer.



(Example: IP address is 192.168.15.16)

http://192.168.15.16/printer https://192.168.15.16/printer

- ③ If necessary, enter the names to distinguish the printer in [IPP Port Name]. Enter a different name from those of existing port names.
 If you do not do this, the address entered 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.
 - Note
 - ☐ For more information about these settings, see SmartDeviceMonitor for Client Help.
- ⑤ Click [OK].

LPR Port

- Click [LPR Port], and then click [OK].
- 2 In the [Name or address of server providing lpd] box, enter the printer's IP address.
- 3 In the [Name of printer or print queue on that server] box, enter "lp", and then click [OK].
- 11 Make sure the location for the selected printer is displayed after [Port].
- Double-click [Shared] to display share settings.
- 13 To share the printer, select the [Shared] check box.
- 14 Check the boxes under [Share name] to install the alternative driver for the necessary system.



Note

- ☐ Select the [Shared] check box to start installation of an alternative driver ([Windows NT 4.0/2000] and [Windows 95/98/Me] are already selected).
- ☐ You can add an alternative driver after installation. See p.72 "Settings for Printer Share".
- **E** Configure the default printer as necessary.
 - ♦ Default Printer
 Select the [Default Printer] check box to set the printer as the default printer.
- 16 Click [Continue] to start printer driver installation.
- 17 When the [Select Program] dialog box appears, click [Finish].
- 18 When the [Installation completion.] dialog box appears, click [Finish].
- 19 Set up the options.
 - Note
 - ☐ You must set up the options when bidirectional transmission is disabled. For more information about bidirectional transmission status, see p.70 "Bidirectional transmission".
 - **P**Reference

For more information about option settings, see p.69 "Setting Up Options".



Installing the PostScript Printer Driver

- 1 Quit all applications that are running.
- 2 Insert the CD-ROM into the CD-ROM drive.

Auto Run will start the installer.

- **#Important**
- ☐ Never have two versions of the same printer driver installed on your system at the same time. When upgrading to a new version of the printer driver, delete the old version, and then install the new one.
- Note
- ☐ Auto Run might not work automatically due to certain operating system settings. If this is the case, launch "Setup.exe" located in the CD-ROM root directory.
- Select a language for the interface, and then click [OK].

The following languages are available: Cestina (Czech), Dansk (Danish), Deutsch (German), English (English), Espanol (Spanish), Francais (French), Italiano (Italian), Magyar (Hungarian), Nederlands (Dutch), Norsk (Norwegian), Polski (Polish), Portugues (Portuguese), Suomi (Finnish), Svenska (Swedish)

- Note
- ☐ The printer driver with the selected language will be installed. The printer driver will be installed in English if you select the following languages: Cestina, Magyar, Polski, Portugues, Suomi
- 4 Click [PostScript 3 Printer Driver].

Add Printer Wizard starts.

Click [Next>].



- 6 Click [Local printer], and then click [Next>].
- Click [Add Port...].
- The next part of the procedure depends on the port in use. Follow the section that corresponds to the port you want to use.
 - SmartDeviceMonitor
 - LPR Port

SmartDeviceMonitor

- 1 Click [SmartDeviceMonitor], and then click [New Port...].
- **2** Select the 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].



☐ 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 enter the printer's IP address or host name.

❖ NetBEUI

- ① Click [NetBEUI], and then click [Search].

 A list of printers that can be used with NetBEUI 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 enter the NetBEUI address. Check the NetBEUI network address is on the configuration page. For more information about printing the configuration page, see p.138 "Printing a Configuration Page". NetBEUI address appears as "\\RNPxxxx\xxxx" on the configuration page. Enter the printer's network path name in the form of "%%Computer name\Share name". Do not enter "\\" 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 printer's IP address, enter "http://(printer's-ip-address)/printer" in the [Printer URL] field.

Note

☐ If you have configured SSL (secure sockets layer) encryption and have issued the server certificate, enter "https://<printer's IP address>/printer". Internet Explorer 5.01 or later must be installed on the computer.

(Example: IP address is 192.168.15.16)

http://192.168.15.16/printer https://192.168.15.16/printer

- ③ If necessary, enter the names to distinguish the printer in [IPP Port Name]. Enter a different name from those of existing port names.
 - If you do not do this, the address entered 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.





- ☐ For more information about these settings, see SmartDeviceMonitor for Client Help.
- ⑤ Click [OK].

LPR Port

- Click [LPR Port], and then click [New Port...].
- 2 In the [Name or address of server providing lpd] box, enter the printer's IP address.
- 3 In the [Name of printer or print queue on that server] box, enter "lp", and then click [OK].
- 4 Click [Close] in the [Printer Ports] dialog box, and then click [Next>].
- Confirm to select the name of the printer whose driver you want to install, and then click [Next>].
- 10 Change the name of the printer if you want, and then click [Next>].

Configure the default printer as necessary. Select the **[Yes]** check box to set the printer as the default printer.

- Select the [Shared] check box, select the operating system as necessary, and then click [Next>].

 To change the printer name, use the [Share Name:] box.
- 12 Select whether or not you want to print a test page, and then click [Finish].
- Printer driver installation starts.
- 12 Set up the options.

Reference

For more information about option settings, see p.69 "Setting Up Options".



Changing Port Settings

This describes how to change SmartDeviceMonitor for Client settings, such as proxy server settings or IPP URL.



- ☐ There are no settings for NetBEUI.
- 1 In 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 [Configure Port].

The [Port Configuration:] dialog box appears.



- ☐ If you cannot set items on the [Recovery/Parallel Printing] tab, follow the procedure below.
 - ① Click [Cancel] to close the [Port Configuration:] dialog box.
 - ② Start SmartDeviceMonitor for Client, and then right-click the SmartDeviceMonitor for Client icon on the taskbar.
 - ③ Click [Extended Features Settings], and then select the [Set Recovery/Parallel Printing for each port] check box.
 - 4 Click [OK] to close the [Extended Features Settings] dialog box.
- For IPP, you can configure User Settings, Proxy Settings, and Timeout Settings.

Note

☐ For more information about these settings, see SmartDeviceMonitor for Client Help.



Setting Up Options

You must set up installed options, paper size, and feed direction with the printer driver when bidirectional transmission is disabled.

- Limitation
- ☐ Changing the printer settings requires Full Control Access permission. Members of the Administrators and Power Users groups have Full Control Access permission by default. When you set up options, log on using an account that has Full Control Access permission.
- Note
- ☐ The description uses the PCL 5c printer driver.
- 1 On the [Start] menu, point to [Settings], and then click [Printers]. The [Printers] window appears.
- 2 Click the icon of the printer you want to use. On the [File] menu, click [Properties].
 - Note
 - ☐ When you open the printer properties dialog box for the first time after installing the RPCS printer driver, the confirmation window appears. After that, the initial display of the printer properties dialog box appears.
- Click the [Accessories] tab.
 - Note
 - $\ \square$ If you are using the RPCS printer driver, click the **[Change Accessories]** tab.
 - ☐ If you are using the PostScript 3 printer driver, click the [Device Settings] tab.



4 Select options you have installed from the [Options] group, and then make any necessary settings.

Note

- ☐ If you are using the RPCS printer driver, select the options from [Select printer options:].
- ☐ If you are using the PostScript 3 printer driver, select the options from [Installable Options].
- **5** Click [OK].

Ÿ Bidirectional transmission

When bidirectional transmission is enabled, information about paper size and feed direction settings is automatically sent to the printer by a computer. You can also check printer status from your computer.

- Bidirectional transmission is supported by Windows 95/98/Me/2000/XP, Windows Server 2003, and Windows NT 4.0.
- If you use the RPCS printer driver and bidirectional transmission is enabled, on Windows 95/98/Me, the unavailable functions are shaded, and cannot be used.

Note

- ☐ The RPCS printer driver supports bidirectional transmission and updates the printer status automatically.
- ☐ The PCL 5c printer driver supports bidirectional transmission; you can update the printer status manually.
- ☐ The PostScript 3 printer driver does not support bidirectional transmission.

Bidirectional transmission requires the following conditions:



Operating Instructions Administrator Reference

❖ When connecting via parallel cable

- The computer must support bidirectional transmission.
- The printer must be set to bidirectional transmission.
- The interface cable must support bidirectional transmission.
- The machine must be connected to the computer using standard parallel cable and parallel connector.
- Under Windows NT 4.0 [Enable bidirectional support] must be selected and [Enable printer pooling] must not be selected on the [port] tab with RPCS printer driver.

When connecting with the network

- The printer must be set to bidirectional transmission.
- SmartDeviceMonitor for Client included on the CD-ROM must be installed, and TCP/IP must be used.
- Under Windows NT 4.0 [Enable bidirectional support] must be selected and [Enable printer pooling] must not be selected on the [port] tab with RPCS printer driver.



Settings for Printer Share

Limitation

☐ Changing the printer settings requires Full Control Access permission. Members of the Administrators and Power Users groups have Full Control Access permission by default. When you set up options, log on using an account that has Full Control Access permission.

Use the [Printers] window to set up the printer.

- 1 On the [Start] menu, point to [Settings], and then click [Printers].
 - The [Printers] window appears.
- 2 Click the icon of the printer you want to use. On the [File] menu, click [Properties].
- Select the [Shared] check box on the [Sharing] tab.
 - Note
 - ☐ If you use alternate drivers for Windows 95/98/Me client, Service Pack 4 or later is required. Install the appropriate printer driver for each client.
- To share a printer with users running different versions of Windows, select the operating system in the [Alternate Drivers:] box, and then follow the instruction on the screen.
 - Note
 - ☐ If you have installed an alternate driver by selecting the [Shared] check box, you do not have to follow this step.
- Click [OK].

The printers attached to the network are displayed.

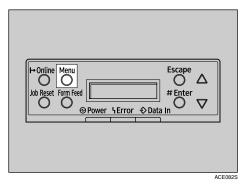


4. NetWare Configuration

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

Configuring NetWare Using the Control Panel

- Note
- ☐ IPX/SPX must be installed on your computer. If it is not, see Windows Help for instructions.
- 1 Press the [Menu] key.



"Menu" appears on the display.

Press the [▲] or [▼] key to display "Host Interface".

Menu: Host Interface



Press the [# Enter] key.

The following message appears on the display:

Host Interface: I/O Buffer

4 Press the [▲] or [▼] key to display "Network Setup".

Host Interface: Network Setup

5 Press the [# Enter] key.

The following message appears on the display:

Network Setup: DHCP

- 6 Select NetWare.
 - Note
 - ☐ All protocols are active by default.
 - ☐ Do not select protocols not used on your network.
 - ☐ If you use Pure IP on NetWare 5/5.1, 6/6.5, configure the printer to active TCP/IP.
 - **1** Press the [▲] or [▼] key to display "Active Protocol", and then press the [# Enter] key.

Active Protocol: TCP/IP



- **2** Press the **[▲]** or **[▼]** key to display "NetWare".
- 3 Press the [# Enter] key.

The current setting appears on the display.

```
NetWare:
*Active
```

- **4** Press the **[**▲] or **[**▼] key to display "NetWare".
- **6** Press the [# Enter] key.

After about two seconds, the display returns to "Active Protocol".

6 Press the [Escape] key.

The display returns to "Network Setup".

7 Select the frame type for NetWare.

Select one of the following items if necessary:

- Auto (Default)
- Ethernet II
- Ethernet 802.3
- Ethernet 802.2
- Ethernet SNAP



☐ In most situations, use the default setting ("Auto"). When you first select "Auto", the frame type first detected by the printer is adopted. If the network can use more than two frame types, the printer may fail to select the correct frame type if "Auto" is selected. In this case, select the appropriate frame type.



1 Press the **[▲]** or **[▼]** key to display "Frame Type (NW)".

Network Setup: Frame Type (NW)

2 Press the [# Enter] key.

The current setting appears on the display.

Frame Type (NW): *Auto

- **③** Press the **[▲]** or **[▼]** key to display the frame type you want to use.
- 4 Press the [# Enter] key.

In about two seconds, the display returns to "Network Setup".

6 Press the [On Line] key.

"Ready" appears on the display.

Ready

8 Print the configuration page to check settings you have made.

For more information about how to print a configuration page, see p.138 "Printing a Configuration Page".

SmartDeviceMonitor for Admin

To use a printer in a NetWare environment, configure the NetWare printing environment using SmartDeviceMonitor for Admin.



Operating Instructions Administrator Reference

Note

- ☐ If you configure the NetWare printing using SmartDeviceMonitor for Admin under the following environments, Novell NetWare Client is required:
 - NDS mode in Windows 95/98/Me
 - NDS or Bindary mode in Windows 2000/XP, Windows Server 2003, Windows NT 4.0
- ☐ Use the version of Novell Client provided with your operating system, or the latest version.

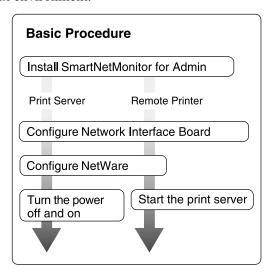
Printers listed by SmartDeviceMonitor for Admin

SmartDeviceMonitor for Admin displays a list of printers connected to the network. If you cannot find the printer on the displayed list, refer to the configuration page printed on the printer. For more information about printing a configuration page, see p.138 "Printing a Configuration Page".



NetWare 3.x - Advanced Settings

The procedure for configuring the printer differs depending on whether the network interface board is configured as a print server or remote printer. This section describes how to configure it in a NetWare 3.x environment.





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



Installing SmartDeviceMonitor for Admin

Install SmartDeviceMonitor for Admin on your computer. For the installation procedure, see p.96 "Installing SmartDeviceMonitor for Admin".

After installing SmartDeviceMonitor for Admin, go to p.79 "Setting Up as a Print Server" to use this computer as a print server, or to p.81 "Setting Up as a Remote Printer" to use it as a remote printer.

Setting Up as a Print Server

- 1 Log on to the file server as a Supervisor or the equivalent of a Supervisor.
- 2 Run SmartDeviceMonitor for Admin.
- On the [Group] menu, point to [Search Device], and then click [IPX/SPX].

A list of printers appears.



- ☐ If you cannot identify which printer to configure from the list of printers, print the configuration page and find it. For more information about printing the configuration page, see p.138 "Printing a Configuration Page".
- ☐ If no printer name appears on the list, match the IPX/SPX frame types between the computer and printer. Use the [Network] dialog box of Windows to change the computer frame type. For more information about changing equipment frame types, see p.73 "Configuring NetWare Using the Control Panel".
- 4 Select the printer you want to configure, and then click [NIB Setup Tool] on the [Tools] menu.
- Click [Wizard], and then click [OK].



- **6** Enter the device name in the [Device Name] box, a comment in the [Comment] box if necessary, and then click [Next>].
- Select the [NetWare] check box, and then click [Next>].
- Click [Bindery Mode], enter the file server name in the [File Server Name:] box, and then click [Next>].

In the **[File Server Name:]** box, enter the name of the file server in which the print server is to be created. You can also select a file server from the list that appears by clicking **[Browse]**.

- Enter the print server name in the [Print Server Name] box, the printer name in the [Printer Name] box, and the print queue name in the [Print Queue Name] box, then click [Next>].
 - In the [Print Server Name] box, enter the name of the NetWare print server using up to 47 characters.
 - In the [Printer Name] box, enter the name of the NetWare printer.
 - In the [Print Queue Name] box, enter the name of the print queue to be added to NetWare.
- **1** After confirming the settings, click [Next>].

The settings take effect, and NIB Setup Tool closes.

- **11** Exit SmartDeviceMonitor for Admin.
- 12 Turn the printer power off and on.
 - Note
 - ☐ To check the printer is configured correctly, enter the following after the command prompt:
 - F:> USERLIST
 - ☐ If the printer works as configured, the name of the print server appears as an attached user.



Setting Up as a Remote Printer

- 1 Log on to the file server as a Supervisor or the equivalent of a Supervisor.
- 2 Run the SmartDeviceMonitor for Admin.
- On the [Group] menu, point to [Search Device], and then click [IPX/SPX].

A list of printers appears.



- ☐ If you cannot identify which printer to configure from the list of printers, print the configuration page and find it. For more information about printing the configuration page, see p.138 "Printing a Configuration Page".
- ☐ If no printer name appears on the list, match the IPX/SPX frame types between the computer and printer. Use the [Network] dialog box of Windows to change the computer frame type. For more information about changing equipment frame types, see p.73 "Configuring NetWare Using the Control Panel".
- 4 Select the printer you want to configure, and then click [NIB Setup Tool] on the [Tools] menu.
- Click [Property Sheet], and then click [OK].
- 6 Click the [NetWare] tab, and then make the following settings:
 - **1** In the [Print Server Name] box, enter the name of the print server.
 - 2 In the [File Server Name] box, enter the name of the file server in which a print server is to be created.

By clicking [Browse], you can select a file server among those listed in the [Browse] dialog box.

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



- 4 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.
- **6** Click **[OK]** to close the property sheet.
- **6** After a confirmation dialog box appears, click [OK].
- On the [NIB] menu, click [Exit] to exit NIB Setup Tool.
- 8 Enter "PCONSOLE" after the command prompt.
 - F:> PCONSOLE
- **9** Create a print queue as follows:
 - Note
 - ☐ If you use a currently defined print queue, proceed to step [].
 - ① On the [Available Options] menu, click [Print Queue Information], and then press [Enter].
 - 2 Press [INSERT], and then enter a print queue name.
 - 3 Press [ESC] to return to the [Available Options] menu.
- **Oreate a printer as follows:**
 - ① On the [Available Options] menu, click [Print Server Information], and then press [Enter].
 - 2 To create a new print server, press [INSERT], and then enter a print server name.

 If you are using 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 6 1).
 - 3 On the [Print Server Information] menu, click [Print Server Configuration].
 - **4** On the [Print Server Configuration] menu, click [Printer Configuration].



- **6** Select the printer which is indicated as "Not Installed".
 - **#Important**
 - ☐ Use the same number as that specified as the Remote Printer No. using NIB Setup Tool. (Step 6 4).
- **6** If you want to change the name of the printer, enter a new name. The name "Printer x" is assigned to the printer. The "x" stands for the number of the selected printer.
- **7** For type, click [Remote Parallel, LPT1]. IRO, Buffer size, Starting form, and Queue service mode are automatically configured.
- 8 Press the [ESC] key, and then click [Yes] in the confirmation dialog box.
- **9** Press the [ESC] key to return to [Print Server Configuration Menu].
- 11 Assign print queues to the created printer as follows:
 - **1** From [Print Server Configuration Menu], click [Queues Serviced By Printer].
 - 2 Select the printer created in step 11.
 - **3** Press the [INSERT] key to select a queue serviced by the printer.
 - Note
 - ☐ You can select more than one queue at a time.
 - 4 Follow the instructions on the screen to make other necessary settings. When you have finished the above steps, check the queues are assigned.
- Press the [ESC] key until "Exit?" appears, and then click [Yes] to close PCONSOLE.



B Start the print server by entering the following from the console of the NetWare Server:

If it is running, restart it after exiting it.

❖ To exit

CAREE: unload pserver

❖ To start

CAREE: load pserver print_server_name

Note

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

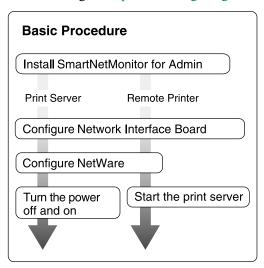


NetWare 4.x, 5/5.1, 6/6.5 - Advanced Settings

The procedure for configuring the printer differ depending on whether the network interface board is configured as a print server or remote printer. This section describes how to configure it in a NetWare 4.x, 5/5.1, 6/6.5 environment.

♦ To use NetWare 5/5.1, 6/6.5

- Use the printer as a print server. Do not use as a remote printer.
- If you use Pure IP, configure the printer to use TCP/IP. For more information about how to make the settings, see p.73 "Configuring NetWare Using the Control Panel".





Installing SmartDeviceMonitor for Admin

Install SmartDeviceMonitor for Admin on your computer. For the installation procedure, see p.96 "Installing SmartDeviceMonitor for Admin".

After installing SmartDeviceMonitor for Admin, go to p.86 "Setting Up as a Print Server" to use this computer as a print server, or to p.90 "Setting Up as a Remote Printer" to use it as a remote printer.

Setting Up as a Print Server

- **#Important**
- ☐ You must set up the print server using NDS mode in NetWare 4.x, 5/5.1, 6/6.5.
- 1 Log on to the file server as a Supervisor or the equivalent of a Supervisor.
- 2 Run SmartDeviceMonitor for Admin.
- On the [Group] menu, point to [Search Device], and then click [IPX/SPX] or [TCP/IP].

A list of printers appears.



- ☐ If you use Pure IP, click [TCP/IP].
- ☐ If you cannot identify which printer to configure from the list of printers, print the configuration page and find it. For more information about printing the configuration page, see p.138 "Printing a Configuration Page".
- ☐ If no printer name appears in the list, match the IPX/SPX frame types between the computer and printer. Use the [Network] dialog box of Windows to change the computer frame type. For more information about changing equipment frame types, see p.73 "Configuring NetWare Using the Control Panel".



- A Select the printer you want to configure, and then click [NIB Setup Tool] on the [Tools] menu.
 - PReference
 If you use Pure IP, see p.88 "Using Pure IP in the NetWare 5/5.1, 6/6.5 Environment".
- Click [Wizard], and then click [OK].
- **6** Enter the device name in the [Device Name] box, a comment in the [Comment] box if necessary, and then click [Next>].
- Select the [NetWare] check box, and then click [Next>].
- Click [NDS Mode], enter the file server name in the [File Server Name:] box, the NDS tree name in the [NDS Tree] box and the context in the [NDS Context:] box, and then click [Next>].

In the **[File Server Name:]** box, enter the name of the file server in which the print server is to be created. You can also select a file server from the list that appears by clicking **[Browse]**.

By clicking [Browse], you can select a NDS context from those listed in the [Browse] dialog box.

For context, object names are entered from 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".

- Enter the print server name in the [Print Server Name] box, the printer name in the [Printer Name] box, the print queue name in the [Print Queue Name] box, and the print queue volume in the [Print Queue Volume], and then click [Next>].
 - In the [Print Server Name] box, enter the name of the NetWare print server using up to 47 characters.
 - In the [Printer Name] box, enter the name of the NetWare printer.
 - In the [Print Queue Name] box, enter the name of the print queue to be added to NetWare.
 - In [Print Queue Volume], enter the print queue volume. As a volume, object names are entered from a lower object and divided by a period. You can select a volume by clicking [Browse].



1 After confirming the settings, click [Next>].

The settings take effect, and NIB Setup Tool closes.

- **11** Exit SmartDeviceMonitor for Admin.
- 12 Turn the printer power off and on.
 - Note
 - ☐ To check the printer is configured correctly, enter the following after 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, 6/6.5 Environment

- Note
- ☐ When not using IPX, it is recommended that you change the print server protocol in Web Image Monitor from [TCP/IP+IPX] to [TCP/IP].
- 1 Log on to the file server as an Admin or the equivalent of an Admin.
- 2 Run SmartDeviceMonitor for Admin.
- Click [Property Sheet], and then click [OK].
 The [NIB Setup Tool] dialog box appears.
- 4 Click the [NetWare] tab, and make the following settings:
 - 1 In the [Print Server Name] box, enter the name of the print server.



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

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

3 In the [NDS Context:] box, enter the context of the print server.

By clicking [Browse], you can select NDS tree and NDS context from those listed in the [Browse Context] dialog box.

For context, object names are entered from 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":



- 4 In the [Print Server Operation Mode] group, click [As Print Server].
- **6** Click [OK] to close the property sheet.
- **6** After the confirmation dialog box appears, click [OK].
- **5** Exit SmartDeviceMonitor for Admin.

After this step, proceed to step 3 on p.90 "Setting Up as a Remote Printer".



Setting Up as a Remote Printer

- 1 Log on to the file server as an Admin or the equivalent of an Admin.
- 2 Run the SmartDeviceMonitor for Admin.
- On the [Group] menu, point to [Search Device], and then click [IPX/SPX].

A list of printers appears.



- ☐ If you cannot identify which printer to configure from the list of printers, print the configuration page and find it. For more information about printing the configuration page, see p.138 "Printing a Configuration Page".
- ☐ If no printer name appears on the list, match the IPX/SPX frame types between the computer and printer. Use the [Network] dialog box of Windows to change the computer frame type. For more information about changing equipment frame types, see p.73 "Configuring NetWare Using the Control Panel".
- 4 Select the printer you want to configure, and then click [NIB Setup Tool] on the [Tools] menu.
- Click [Property Sheet], and then click [OK].
- 6 Click the [NetWare] tab, and make the following settings:
 - 1 In the [Print Server Name] box, enter the name of the print server.
 - 2 In the [File Server Name] box, enter the name of the file server in which a print server is to be created.

By clicking [Browse], you can select a file server among those listed in the [Browse] dialog box.



3 In the [NDS Context] box, enter the context in which the print server is to be created. By clicking [Browse], you can select a context from those listed in the [Browse] dialog box. For context, object names are entered from a lower level object and divided by a period. For example, if you want to create a print server into NET under DS, enter "NET.DS":



- **4** In the [Print Server Operation Mode] group, click [As Remote Printer].
- **6** 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.
- 6 Click [OK] to close the property sheet.
- 7 On the [NIB] menu, click [Exit] to exit NIB Setup Tool.
- 8 From Windows, run NWadmin.
 - Reference

For more information about NWadmin, see the documentation provided with NetWare.

- **9** Create a print queue as follows:
 - **1** Select the container object the print queue is located in among those in the directory tree, and then click [Create] on the [Object] menu.
 - 2 In the [Class of new object] box, click [Print Queue], and then click [OK].
 - 3 In the [Print Queue name] box, enter the name of the print queue.



- 4 In the [Print Queue Volume] box, click [Browse].
- **(3)** In the [Available objects] box, click the volume in which the print queue is created, and then click [OK].
- **6** After confirming the settings, click [Create].

11 Create a printer as follows:

- Select the container object the printer is located in, and then click [Create] on the [Object] menu.
- 2 In the [Class of new object] box, click [Printer], and then click [OK]. When you are using Net-Ware 5/5.1, 6, click [Printer (Non NPDS)].
- 3 In the [Printer name] box, enter the name of the printer.
- 4 Select the [Define additional properties] check box, and then click [Create].
- 11 Assign print queues to the created printer as follows:
 - ① Click [Assignments], and then click [Add] in the [Assignments] group.
 - 2 In the [Available objects] box, click the queue created in step [], and then click [OK].
 - 3 Click [Configuration], and in the [Printer type] list, click [Parallel], and then click [Communication].
 - 4 Click [Manual load] in the [Communication type] group, and then click [OK].
 - **5** After confirming the settings, click [OK].
- **12** Create a print server as follows:
 - Select the context specified using NIB Setup Tool (Step 🖸 •••), and on the [Object] menu, click [Create].
 - 2 In the [Class of new object] box, click [Print Server], and then click [OK]. When you are using NetWare 5/5.1, 6/6.5, click [Print Server (Non NPDS)].



- 3 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 [] 1).
- 4 Select the [Define additional properties] check box, and then click [Create].
- 13 Assign the printer to the created print server as follows:
 - ① Click [Assignments], and then click [Add] in the [Assignments] group.
 - 2 In the [Available objects] box, click the queue created in step [1], and then click [OK].
 - 3 In the [Printers] group, click the printer assigned in step 2, and then click [Printer Number].
 - 4 Enter the printer number, and then click [OK].
 - **#Important**
 - ☐ Use the same number as that specified as Remote Printer No. using NIB Setup Tool. (Step **6 6**).
 - **6** After confirming the settings, click [OK].
- 14 Start the print server by typing the following from the console of the NetWare Server.

If it is running, restart it after closing.

❖ To exit

CAREE: unload pserver

❖ To start

CAREE: load pserver print_server_name



5. Using SmartDeviceMonitor for Admin

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

SmartDeviceMonitor for Admin is equipped with the following functions;

- Device Information function
 - Checks the printer's network settings and device details.
 - Checks the number of pages printed for each computer, using the user codes.
 - Checks results of print jobs executed from the computer.
 - Enables you to change the printer's network settings.
- Device Settings function
 - Limits settings done from the control panel, and disables changes made to certain items.
 - Enables selection of paper type loaded in the printer.
- Energy Saver function
 - Switches to, and wakes up from Energy Saver mode.
- System Status function
 - Checks information about printing, paper quantity, and such, on the computer.
- Groups function
 - Monitors multiple printers at the same time. When there are many printers, you can create groups and classify printers to facilitate management.



Operating Instructions Administrator Reference

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
	Novell Client for Windows 95/98
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
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 XP
Microsoft Windows Server 2003	TCP/IP provided with Windows Server 2003
	IPX/SPX provided with Windows Server 2003
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



☐ Select the appropriate protocol stack for your operating system.



Installing SmartDeviceMonitor for Admin

- **1** Quit all applications that are running.
- 2 Insert the CD-ROM into the CD-ROM drive.

Auto Run will start the installer.



- ☐ Auto Run might not work automatically due to certain operating system settings. If this is the case, launch "Setup.exe" located in the CD-ROM root directory.
- Select a language for the interface, and then click [OK].

The following languages are available: Cestina (Czech), Dansk (Danish), Deutsch (German), English (English), Espanol (Spanish), Francais (French), Italiano (Italian), Magyar (Hungarian), Nederlands (Dutch), Norsk (Norwegian), Polski (Polish), Portugues (Portuguese), Suomi (Finnish), Svenska (Swedish)

- 4 Click [SmartDeviceMonitor for Client/Admin].
- **5** The software license agreement appears in the [License Agreement] dialog box.

After reading through the content, click [I accept the agreement.] to agree with the license agreement, and then click [Next>].

6 Follow the instructions on the screen.



☐ If you are required to restart the computer after the installation of SmartDeviceMonitor for Admin, restart and continue configuration.



Changing the Network Interface Board Configuration

- 1 Run SmartDeviceMonitor for Admin.
- 2 Click the [Group] menu, point to [Search Device], and then click [TCP/IP] or [IPX/SPX]. A list of printers appears.
 - Note
 - ☐ Select the protocol of the printer for which you want to change configuration.
- In the list, select the printer for which you want to change configuration.
- 4 On the [Tools] menu, click [NIB Setup Tool].
 NIB Setup Tool starts.
- Click [Wizard] or [Property Sheet], and then click [OK].
 - When configuring the network interface board for the first time, click [Wizard].
 - When changing configuration of the network interface board or configuring details, click [Property Sheet].

Selecting [Wizard]

1 Enter the necessary items, and then follow the instructions on the screen.

Selecting [Property Sheet]

1 A configuration list appears in the dialog box.

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

Operating Instructions Administrator Reference

Selecting [Web Image Monitor]

1 For Web Image Monitor setting, see p.112 "Configuring the Network Interface Board Settings".



Changing Names and Comments

You can change printer names and attach comments to help identify printers listed on SmartDevice-Monitor for Admin.

SmartDeviceMonitor for Admin allows you to change names and comments when TCP/IP or IPX/SPX is available. You can install SmartDeviceMonitor for Admin from the CD-ROM provided. For more information about installing SmartDeviceMonitor for Admin, see p.86 "Installing SmartDeviceMonitor for Admin".

The following utilities are used to change printer names and comments:



- ☐ Each of the names, in TCP/IP form (printer name) and NetBEUI form, is changed individually. Comments are, however, common to both protocols.
- ☐ The factory default name consists of "RNP" and the last 3 bytes of the MAC address on the network interface board. For example, if the MAC address is 00:00:74:62:7D:D5, the factory default name is "RNP627DD5". Comments are not configured.
- 1 Run SmartDeviceMonitor for Admin.
- 2 Click the [Group] menu, point to [Search Device], and click [TCP/IP] or [IPX/SPX]. A list of printers appears.
 - Note
 - ☐ Select the protocol of the printer for which you want to change configuration.
- In the list, select the printer for the network interface board you want to change configuration.
- 4 On the [Tools] menu, click [NIB Setup Tool].

NIB Setup Tool starts.



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

TCP/IP

- Click the [General] tab, and then enter the device name in the [Device Name] box and comment in the [Comment] box.
 - In the **[Device Name]** box, enter the name of the printer using up to 13 characters. The factory default name consists of "RNP" and the last 3 bytes of the MAC address on the network interface board. For example, if the MAC address is 00:00:74:62:7D:D5, the factory default name is "RNP627DD5". Nine character names are not permitted if the prefix is "RNP". Also, if DHCP is selected as an IP address setting, the number of characters is limited to 13.
 - In the **[Comment]** box, enter a printer comment using up to 31 characters.

NetBEUI

- ① Click the [General] tab, and then enter the comment in the [Comment] box. In the [Comment] box, enter a printer comment using up to 31 characters.
- 2 Click the [NetBEUI] tab.
- 3 Enter the computer name in the [Computer Name] box.
 - In the **[Computer Name]** box, enter a name to help identify the printers using NetBEUI. The factory default name consists of "RNP" and the last 3 bytes of the MAC address on the network interface board. For example, if the MAC address is 00:00:74:62:7D:D5, the factory default name is "RNP627DD5". A maximum of 13 characters consisting of uppercase alphabetical letters, numbers, or symbols (except "*+,/:;<=>?[\]]. and space) can be used. No name is permitted if the prefix is "RNP". You must avoid using same names on a network.

Operating Instructions Administrator Reference

- 6 Click [OK].
 - NIB Setup Tool closes, and the setting is transmitted to the printer.
- **7** Exit SmartDeviceMonitor for Admin.



Displaying Printer Status

You can view the status of printers using SmartDeviceMonitor for Admin, SmartDeviceMonitor for Client, or Web Image Monitor.

- 1 Run SmartDeviceMonitor for Admin.
- 2 Click the [Group] menu, point to [Search Device], and then click [TCP/IP] or [IPX/SPX]. Printer status is indicated by an icon in the list.
 - Note
 - ☐ For more information about status icons, see SmartDeviceMonitor for Admin Help.
- To see detailed status information, click the desired printer in the list, and then click [Open] on the [Device] menu.

Printer status is displayed in the dialog box.



☐ For more information about dialog box items, see Help.



Locking Menus on the Printer's Control Panel

- 1 Start SmartDeviceMonitor for Admin.
- 2 Click the [Group] menu, point to [Search Device], and then click [TCP/IP] or [IPX/SPX].

A list of printers appears.

- Note
- ☐ Select the protocol of the printer for which you want to change configuration.
- **3** Select a desired printer.
- 4 On the [Tools] menu, point to [Device Settings], and then click [Lock Operation Panel Menu]. Web Image Monitor starts, and a screen prompting you to enter the user name and password appears.
- Enter the user name and password, and then click [OK].

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

 The general configuration window appears.
- 6 In the [Lock Operation Panel Menu] list, click [Enable].
 - Note
 - ☐ The Panel Lock function that can be set here is the same as that on the control panel of this machine.
- 7 Click [Apply].
- 8 Exit Web Image Monitor.



Changing the Paper Type

- 1 Start SmartDeviceMonitor for Admin.
- 2 Click the [Group] menu, point to [Search Device], and then click [TCP/IP] or [IPX/SPX].

A list of printer appears.

- Note
- ☐ Select the protocol of the printer for which you want to change configuration.
- In the list, select the printer whose paper type you want to change.
- 4 On the [Tools] menu, point to [Device Settings], and then click [Select Paper Type].

 Web Image Monitor starts, and a screen prompting you to enter the user name and a password appears.
- Enter the user name and the password, and then click [OK].

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

 The paper type configuration window appears.
- **6** Select the paper type, and then click [Apply].
- **7** Exit Web Image Monitor.



Managing the Number of Copies to be Printed

Preparation

Optional user account enhance unit must be installed to manage the number of copies to be printed. For more information about installing user account enhance unit, see "User Account Enhance Unit", Setup Guide.

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

 A list of printers appears.
 - Note
 - ☐ Select the protocol of the printer for which you want to change configuration.
- In the list, select the printer whose statistics 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].



☐ The factory default password is "password".

The User Management Tool starts.

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



Configuring Energy Save Mode

- 1 Start SmartDeviceMonitor for Admin.
- 2 Click the [Group] menu, point to [Search Device], and then click [TCP/IP] or [IPX/SPX].

 A list of printers appears.
 - Note
 - ☐ Select the protocol of the printer for which you want to change configuration.
- Select the device you want to make a setting for.

 You do not need to select anything if you want to make a setting for all devices in the group.
- 4 Click [Group] and point to [Energy Save Mode].
- To make a setting only for the device you have selected, click [Set Individually].
- 6 To make a setting for all the devices in the group, click [Set By Group].
- **7** Then, select an energy saver mode from the menu that appears.



Setting a Password

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

A list of printer appears.

- Note
- ☐ Select the protocol of the printer for which you want to change configuration.
- In the list, select the printer for which you want to change configuration.
- 4 On the [Tools] menu, click [NIB Setup Tool].

NIB Setup Tool starts.

- Note
- ☐ To prevent the network interface board configuration from being changed accidentally by someone other than the network administrator, you can set a password in [NIB Setup Tool] that is different from the network password. Click [Option] to set a password in [NIB Setup Tool].
- Click [Property Sheet], and then click [OK].
- 6 Click the [Password] tab.
- 2 Select the [Change Password] check box, enter a password, and then click [OK].



6. Using a Web Image Monitor

You can check the status of a machine and change its network settings using Web Image Monitor.

What can it do?

You can remotely check the status of a machine or specify its settings over the network using a computer's Web Image Monitor.

The following functions are available with Web Image Monitor:

- Displaying machine status/settings
- Checking print job status/history
- Interrupting a job that is being printed
- Resetting this machine
- Managing the Address Book
- Making machine settings
- Setting the e-mail notification function
- Making the network protocol settings
- Making the security settings

Configuring the printer

This requires TCP/IP to be installed. After the printer has been configured to use TCP/IP, it will be possible to adjust the settings using Web Image Monitor.



For more information about configuring the printer to use TCP/IP, see "Configuring the Printer for the Network", *Setup Guide*



Browser requirements

- Microsoft Internet Explorer 5.5 or later
- Netscape 6.2 or later
- Safari 1.0 or later (Mac OS X 10.1)

Operating systems the browser is guaranteed to run on are all supported.

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*	Limitation
	If you have configured SSL (secure sockets layer) encryption, Netscape 7.0 or later is required.
	If Web Image Monitor in use is older than the recommended version or [Java Script] and [Cookie] are not available, display and operation problems may occur.
	If you are using a proxy server, change Web Image Monitor settings. Consult your network administrator about the settings.
	Sometimes after clicking [Back], the previous page may not appear. If this happens, click [Refresh] or [Reload].
	The text on screen may disappear or be aligned incorrectly if browser font size settings are too large. It is recommended that you use a font size equal to or smaller than "10 points" with Netscape, and "Medium" or smaller with Internet Explorer.



Going to the Top Page

After launching Web Image Monitor, enter the printer's IP address. See the example below. (This example is for the English version.)

http://192.168.15.16/ https://192.168.15.16/

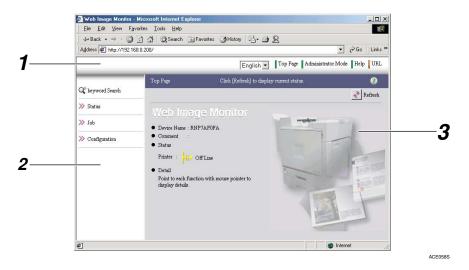
(In this example, the IP address of the network interface board is 192.168.15.16.)

If you have configured SSL (secure sockets layer) encryption and have issued the server certificate, enter "https://<printer's IP address>/printer". Internet Explorer 5.01 or later must be installed on the computer.



- ☐ If a DNS server is used on the network, you can enter the host name as a URL. For example, http://webmonitor.netprinter.com/. In order to do this, you must register the IP address and host name of the network interface board with the DNS server. Consult the network administrator for information about how to do this.
- ☐ To use the proxy server, you must set up the proxy server address for Web Image Monitor you are using. Consult the network administrator about how to set the proxy server.





1. Header buttons

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

#Important

Using the browser to access websites will entail normal connection changes.

Note

□ When you click [Administrator Mode], a dialog box appears requesting the user name and password. Enter only the password in this dialog box. The factory default password is "password".

2. Menu buttons

Use to configure the network interface board and confirm printer status.

3. Status

Displays printer status, and network interface board, name and comments.



Access in Administrator Mode

1 On Web Image Monitor Top Page, click [Administrator Mode].

The password and user name dialog box appears.

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

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

Configuring the Network Interface Board Settings

- 1 Start Web Image Monitor.
- Point your browser at the URL or IP address of the printer (e.g. http://XXX.XXX.XXX where the Xs are the number of the IP address).

The status of the chosen printer appears on Web Image Monitor.

If you have configured SSL (secure sockets layer) encryption and have issued the server certificate, enter "https://<pri>rinter's IP address>/printer". Internet Explorer 5.01 or later must be installed on the computer.

3 Click [Administrator Mode].

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

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 [Configuration].
- 6 Click the item you want to configure, and then make all the settings.



Verifying the Network Interface Board Settings

- **1** Start Web Image Monitor.
- Point your browser at the URL or printer's IP address (e.g. http://XXX.XXX.XXX where the Xs are the number of the IP address).

The status of the chosen printer appears on Web Image Monitor.

- Click [Configuration].
- 4 Click the item you want to check.



Using Help on Web Image Monitor

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

Checking Help Using the Internet

You can check the latest Help updates.

Downloading and Checking Help

You can download Help to your computer's hard disk and view it. As the Help URL, you can specify the path to the local file to view Help without connecting to the Internet.

Note

- ☐ By clicking [Help] in the header area, Help contents normally appear.
- ☐ By clicking "?", the Help icon in the work area, Help for the items shown in the work area normally appears.

Downloading Help

- **1** In the [OS] list, select the operating system.
- 2 In the [Language] list, select the language.
- 3 Click [Download].
- 4 Download Help by following the messages on the screen.
- **5** Save the downloaded compressed file, and then decompress it.



- Note
- ☐ To check the downloaded Help, specify the path where the file 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 Access Web Image Monitor in administrator mode.
 - Reference
 p.112 "Access in Administrator Mode"
- 2 In the left area, click [Configuration].
- Click [Webpage].
- 4 In the [Help URL] box, enter the path to the Help files.

If you copied the Help files to "C:\HELP\EN", 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/".

5 Click [Apply].



Changing Names and Comments

You can change printer names and attach comments to help identify printers listed on SmartDevice-Monitor for Admin.

SmartDeviceMonitor for Admin allows you to change names and comments when TCP/IP is available. The following utilities are used to change printer names and comments:

Note

- ☐ Each of the names, in TCP/IP form (printer name) and NetBEUI form, is changed individually. Comments are, however, common to both protocols.
- ☐ The factory default name consists of "RNP" and the last 3 bytes of the MAC address on the network interface board. For example, if the MAC address is 00:00:74:62:7D:D5, the factory default name is "RNP627DD5". Comments are not configured.
- 1 Start Web Image Monitor.
- 2 Enter the address "http://(IP address of the printer for which you want to change settings)".

 The status of the selected printer is displayed on Web Image Monitor.
- 3 Click [Administrator Mode].

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

- 4 Enter the user name and the password, and then click [OK].
 Enter only the password in this dialog box. The factory default password is "password".
- 5 Click [Configuration], and then click [Network].
- 6 Click [Protocol].



7 Change names and comments.

TCP/IP

- 1 Click the [TCP/IP].
- 2 If a name is used by Ethernet or wireless LAN, enter it in [Host Name] the [Ethernet] column. If a name is used by IP over 1394, it in [Host Name] in the [IP over 1394] column.
 - In the **[Host Name]** box, type the name of the printer within 15 characters. The factory default name consists of "RNP" and the last 3 bytes of the MAC address on the network interface board. For example, when the MAC address is 00:00:74:62:7D:D5, the factory default name is "RNP627DD5". No name of 9 characters is permitted if the prefix is "RNP". Also, when DHCP is selected as an IP address setting, the number of characters is limited to within 13 characters.

SMB

- Click [SMB].
- 2 Enter the name in the [Computer Name] box and comment in the [Comment] box.
 - In the **[Computer Name]** box, enter a name to help identify the printers using the SMB protocol. The factory default name consists of "RNP" and the last 3 bytes of the MAC address on the network interface board. For example, if the MAC address is 00:00:74:62:7D:D5, the factory default name is "RNP627DD5". A maximum of 13 characters consisting of uppercase alphabetical letters, numbers, or symbols (except "*+,/:;<=>?[\]]. and space) can be used. No name is permitted if the prefix is "RNP". You must avoid using same names on a network.



8 Click [Apply].

The setting is transmitted to the printer.

9 Exit Web Image Monitor.



Displaying Printer Status

You can view the status of printers using Web Image Monitor.

- **1** Start Web Image Monitor.
- 2 Enter the address "http://(IP address of the printer whose status you want to view)". The status of the selected printer is displayed on Web Image Monitor.
- 3 Click [Status] to check the status of the printer.
 - Note
 - $\ \square$ For more information about each item, see Help.



Machine Status Notification by E-mail

When alerts occur such as when a paper tray is empty or a paper jam occurs, machine status notification can be generated using the notify by e-mail function.

A status notification e-mail is sent to a previously set e-mail address.

Details such as notification timing and content can also be set.

1 Set [Notify by Email] on the [System] menu to [On] using the control panel (the default is [On]).

Reference

For more information, see p.154 "System Menu".

2 Start Web Image Monitor, and then access this machine by entering "http: //(IP address of this machine)/" in the [Address] box of Web Image Monitor.

Top Page of Web Image Monitor appears.

On Top Page of Web Image Monitor, click [Administrator Mode].

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

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

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

- In the left area, click [Configuration].
- 6 Click [E-mail].



7 Make settings for the following:

The dialog box for making e-mail notification settings appears.

- Key Operator's E-mail Address
- Items in the SMTP column
- Items in the POP before SMTP column
- 8 Click [Apply].
- 9 In the left area, click [Notification].

The dialog box for making notification settings appears.

10 Make settings for the following:

- Device E-mail Address
- Notification Message
- Items in the Groups to Notify column
- Items in the Select Groups/Items to Notify column
 To make detailed settings for items, click [Edit] next to [Detailed Settings of Each Item], make settings in the dialog box that appears, and then click [OK].
- 11 Click [Apply].
- **12** Quit Web Image Monitor.



7. Making Printer Settings Using the Control Panel

Menu Chart

This section describes changing the printer's default settings and provides information about the parameters included in each menu.

Category	Function menu
Sample Print *1	Select Action / Error File(s)
Locked Print *1	Select Action / Error File(s)
Paper Input, see p.129 "Paper Input	Bypass Size
Menu"	Tray Paper Size
	Paper Type
	Tray Locking
	Tray Priority
List/Test Print, see p.136 "List/Test	Config.P/Er.Log
Print Menu"	Config. Page
	Error Log
	Menu List
	Color Demo Page
	PCL Config.Page
	PS Config. Page
	PDF Config.Page
	Hex Dump
	Operations Test

Category	Function menu
Maintenance, see p.144 "Mainte-	Color Regist.
nance Menu"	Color Calibrate
	Image Density
	Registration
	HD Format *2
	WL.LAN Signal *3
	WL.LAN Defaults *3
	4C.Graphic Mode
	Key Repeat
	Menu Protect *4



Category	Function menu
System, see p.154 "System Menu"	Prt. Err Report
	Auto Continue
	Memory Overflow
	Copies
	Printer Lang.
	Sub Paper Size
	Page Size
	Def.Print Lang.
	Duplex *5
	Output Tray
	Job Separation
	Energy Saver 1
	Energy Saver 2
	Unit of Measure
	B&W Page Detect
	Spool Printing *2
	Letterhead Mode
	RAM Disk
	Notify by Email
	Email Date *4



Category	Function menu
Host Interface, see p.167 "Host Inter-	I/O Buffer
face Menu"	I/O Timeout
	Network Setup
	IEEE 1394 Setup *6
	IEEE 802.11b *7
	USB Setting *4
	Bluetooth *4
PCL Menu, see p.180 "PCL Menu"	Orientation
	Form Lines
	Font Source
	Font Number
	Point Size
	Font Pitch
	Symbol Set
	Courier Font
	Ext. A4 Width
	Append CR to LF
	Resolution



Category	Function menu
PS Menu, see p.187 "PS Menu"	Data Format
	Resolution
	Color Setting
	Color Profile
PDF Menu, see p.193 "PDF Menu"	PDF: Change PW
	PDF Group PW
	Resolution
	Color Setting
	Color Profile
Language, see p.198 "Language Menu"	

^{*1} The Sample Print menu and Locked Print menu appear only when the optional printer hard disk is installed.

^{*2} The HD Format and Spool Printing menu appears only when the optional printer hard disk is installed.

^{*3} The WL.LAN Signal menu and the WL.LAN Defaults menu appears only when IEEE 802.11b interface unit is installed.

While the printer is **On Line**, press the **[# Enter]** key, and then press the **[Escape]** key, finally press the **[Menu]** key.

^{*5} The Duplex menu appears only when the optional duplex unit is installed.

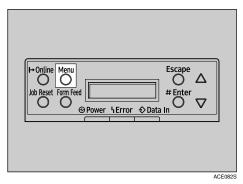
^{*6} The IEEE 1394 Setup menu appears only when the optional IEEE 1394 interface board is installed.

^{*7} The IEEE 802.11b menu appears only when the optional IEEE 802.11b interface unit is installed.



Accessing the Main Menu

Press the [Menu] key, and "Menu" appears on the display.

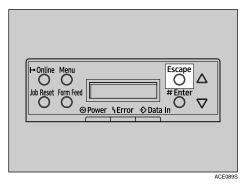


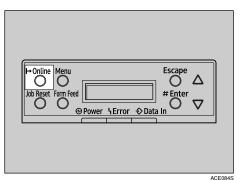
- Sample Print
- · Locked Print
- Paper Input
- List/Test Print
- Maintenance
- System
- Host Interface
- PCL Menu
- PS Menu
- PDF Menu
- Language



Note

- ☐ If the optional printer hard disk is not installed, the Sample Print menu and Locked Print menu cannot be displayed on the control panel.
- □ [▼]: Press to go to the next page.
- ☐ [♠]: Press to go back to the previous page.
- ☐ After making printer settings, be sure to return to the previous menu by pressing the **[Escape]** key.





☐ The revised settings are not canceled, even when the power switch is turned off.



Paper Input Menu

You can make the following settings from the Paper Input menu:

- · Bypass Size
- Tray Paper Size
- Paper Type
- · Tray Locking
- Tray Priority

Reference

For more information about loading paper in the tray, see Setup Guide.

Paper Input Parameters

Menu	Description
Bypass Size	The paper size for the bypass tray.
	For more information about paper sizes that can be set in the bypass tray, see "Paper and Other Media Supported by This Printer", <i>Maintenance Guide</i> .
	12×18,11×17, 8 1/2×14, 8 1/2×11, 11×8 1/2, 5 1/2×8 1/2, 7 1/4×10 1/2,10 1/2×7 1/4, 8×13, 8 1/2×13, 8 1/4×13, A3 (297×420), B4 JIS (257×364), A4 (210×297), A4 (297×210), B5 JIS (182×257), B5 JIS (257×182), A5 (148×210), A5 (210×148), A6 (105×148), 8K (267×390), 16K (195×267), 16K (267×195), 4 1/8×9 1/2, 3 7/8×7 1/2, C5 Env (229×162), C6 Env (162×114), DL Env (220×110), Custom Size
	✓ Note□ Default: A4 (297×210) (Metric version) 11×8 1/2 (Inch version)



Menu	Description
Tray Paper Size	The paper size for Tray 2, optional Tray 3 and Tray 4.
	For more information about paper sizes that can be set in each tray, see <i>Maintenance Guide</i> .
	Auto, 8 1/2×14, 8 1/2×11, 7 1/4×10 1/2, 8×13, 8 1/2×13, 8 1/4×13, B4JIS (257×364), A4, B5JIS (182×257), 8K (267×390), 16K (195×267), 16K (267×195)
	Only installed trays appear on the display.
Paper Type	If you are using different kinds of paper, set the paper type for Tray 1, Tray 2, Tray 3 or Bypass Tray.
	For more information about paper sizes that can be set in each tray, see <i>Maintenance Guide</i> .
	❖ Tray 1, Tray 2, Tray 3, Tray 4 Plain Paper, Recycled Paper, Special Paper, Color Paper, Letterhead, Pre-
	printed
	❖ Bypass Tray Plain Paper, Recycled Paper, Special Paper, Color Paper, Letterhead, Pre- printed, Transparency, Thick Paper, Plain: Dup. Back, Thick:Dup.Back
	✓ Note
	☐ Default : Plain Paper
	☐ Only installed trays appear on the display.



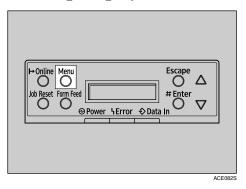
Menu	Description
Tray Locking	If you are using different kinds of paper, you can lock a tray to prevent printing on wrong paper such as letterhead or colored paper. When "Auto Select" is selected in the Paper Source selections from the printer driver, the locked tray will not be used. You can set each tray to on or off.
	Tray 1, Tray 2, Tray 3, Tray 4
	 ✔ Note □ Default : Off □ Only installed trays appear on the display. □ You can lock multiple trays. □ If you want to use a locked tray, you must select it from the printer driver and control panel. □ If a locked tray is selected from the printer driver, the printer does not search for another.
Tray Priority	You can set which tray should be checked first when "Auto Tray Select" is selected in the Paper Source selections from the printer driver. When printing from DOS, the tray selected here is used when no tray is specified for a print job. Tray 1, Tray 2, Tray 3, Tray 4 Note Default: Tray 1 Only installed trays appear on the display. It is recommended that you load paper of the size and orientation you most frequently use in the tray selected with "Tray Priority".



Changing the Paper Input Menu

Tray Locking

1 Press the [Menu] key.



"Menu" appears on the display.

Press the [▲] or [▼] key to display "Paper Input", and then press the [# Enter] key.



Press the [▲] or [▼] key to display "Tray Locking", and then press the [# Enter] key.

```
Paper Input:
Tray Lockins
```



Press the [▲] or [▼] key to display the tray to change tray locking to off, and then press the [# Enter] key.

```
Tray Lockins:
Tray 1
```

- Note
- ☐ The bypass tray cannot be locked.
- Press the [▲] or [▼] key to display "Off", and then press the [# Enter] key.

```
Tray 1:
*Off
```

Wait for two seconds.

"Paper Input" appears on the display.

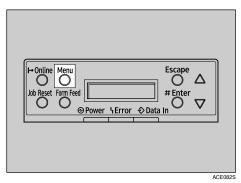
6 Press the [On Line] key.

"Ready" appears on the display.



Tray Priority

1 Press the [Menu] key.



"Menu" appears on the display.

Press the [▲] or [▼] key to display "Paper Input", and then press the [# Enter] key.

```
Menu:
Paper Input
```

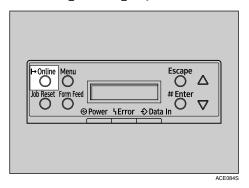
Press the [▲] or [▼] key to display "Tray Priority", and then press the [# Enter] key.

```
Paper Input:
Tray Priority
```

4 Press the **(▲)** or **(▼)** key to select the tray type you want to use.



- **5** Press the [# Enter] key. Wait for two seconds.
 - "Menu" appears on the display.
- 6 Press the [On Line] key.



"Ready" appears on the display.

Ready		



List/Test Print Menu

You can make the following settings from the List/Test Print menu:

- Config.P./Er.Log
- Config. Page
- Error Log
- Menu List
- Color Demo Page
- · PCL Config.Page
- PS Config. Page
- PDF Config.Page
- Hex Dump
- Operations Test



List/Test Print Parameters

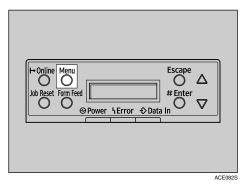
Menu	Description
Config.P/Er.Log	You can print the configuration page and error log
Config. Page	You can print the printer's current configuration. See p.138 "Printing a Configuration Page".
Error Log	You can print an error report.
Menu List	You can print the Menu List which shows the function menus of this printer.
Color Demo Page	You can print the Color Demo Page.
PCL Config.Page	You can print the PCL's current configuration.
PS Config. Page	You can print a list of installed PS Fonts. *1
PDF Config.Page	You can print the Adobe® PDF Reference, Memory/HDD status, Printing Configuration, and Resident Fonts.
Hex Dump	You can print the Hex Dump.
Operations Test	Test printing checks paper feeding and printing with the optional devices, and punching and stapling with the 2-tray finisher. Only settings for installed optional devices appear. If the selected function cannot be performed, a message appears and the machine stops printing. If the machine is working properly, a black ruled frame is printed.

^{*1} If the hard disk is not installed, the machine identifies the RAM area as the hard disk area and displays the messages "Font HDD Area:3MB" and "Free HDD Area:3MB" on the PS Config. Page. (Depending on the RAM Disk settings, the indicated capacity may be a value other than 3 MB.)



Printing a Configuration Page

- **P**Reference
 - For more information, see p.140 "Interpreting the Configuration Page".
- 1 Press the [Menu] key.



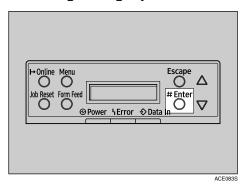
"Menu" appears on the display.

2 Press the **[▼]** or **[▲]** key to display the List/Test Print menu.

Menu: List/Test Print



Press the [# Enter] key.



The following message appears on the display:

List/Test Print: Confis. Pase

4 Press the [# Enter] key.

The following message appears on the display:

Printing...

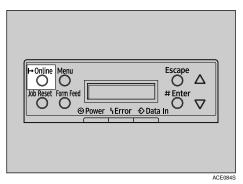
After a short time, the configuration page will start printing.

#Important

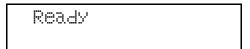
☐ If you cannot print the configuration page, check for an error message appearing on the display. For more information about error messages, see "Troubleshooting", *Maintenance Guide*.



Press the [On Line] key.



"Ready" appears on the display.



Interpreting the Configuration Page

System Reference

Printer ID

Displays the serial number assigned to the board by its manufacturer.

❖ Total Memory

Displays the total amount of memory (SDRAM) installed on the printer.



Firmware Version

- Firmware
 Displays the printer controller firmware version number.
- Engine
 Displays the printer engine firmware version number.
- NCS
 Displays the network interface firmware version number.

Controller Option

The item(s) appears when the controller option(s) is installed.

Printer Language

Displays the printer language version number.

Options

Displays the options installed.

Consumption Status

Displays how much of each toner is left.

Paper Input

Displays the settings made under the Paper Input menu.

Reference

For more information, see p.129 "Paper Input Menu".



Maintenance

Displays the settings made under the Maintenance menu.



For more information, see p.144 "Maintenance Menu".

System

Displays the settings made under the System menu.

Reference

For more information, see p.154 "System Menu".

PCL Menu

Displays the settings made under the PCL Menu.

Reference

For more information, see p.180 "PCL Menu".

PS Menu

Displays the settings made under the PS Menu.

Reference

For more information, see p.187 "PS Menu".

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Operating Instructions Administrator Reference

Host Interface

Displays the settings made under the Host Interface menu.

When DHCP is active on the network, the actual IP address, subnet mask, and gateway address appear in parentheses on the configuration page.



Reference

For more information about the Host Interface menu, see p.167 "Host Interface Menu".

Interface Information

Displays the interface information.

Error Log

Displays the printer error log.



Maintenance Menu

You can make the following settings from the Maintenance menu:

- · Color Regist.
- Color Calibrate
- Image Density
- Registration
- HD Format
- WL.LAN Signal
- WL.LAN Defaults
- 4C.Graphic Mode
- Key Repeat
- Menu Protect

Maintenance Menu Parameters

Menu	Description
Color Regist.	You can adjust color alignment for each color (black, cyan, magenta, yellow). Reference For more information about registration, see "Adjusting the Color Registration", Maintenance Guide.
Color Calibrate	In color printing, the color tone can change subtly because of various factors. For example, continuous printing or changing the toner might affect the color tone. If this happens, you can adjust the color tone by calibrating it (Color Calibrate). Normally, however, you do not need to do this.



Menu	Description
Image Density	❖ Black, Cyan, Magenta, Yellow You can specify image density for each color in the range of -3 to +3.
Registration	❖ Prt. Test Sheet You can print the registration test sheet. Tray 3, Tray 4, Duplex.BackSide
	 ❖ Adjustment You can select the start position for printing on the page. Vert.: Tray 3, Vert.: Tray 4, Vert.:Dup.Back -5 to +5 (Every 0.1 mm)
	NoteRegistration values are not default.Only installed trays appear on the display.
HD Format	You can format the printer hard disk. Available when the optional printer hard disk is installed.
	For more information about formatting the printer hard disk, see "Printer Hard Disk", Setup Guide.
WL.LAN Signal	You can check signal quality when using wireless LAN. Reference For more information about displaying signal quality, see p.150 "Displaying the Signal Quality".
WL.LAN Defaults	You can reset wireless LAN settings to the default.



Menu	Description
4C.Graphic Mode	This setting adjusts how much each toner color overlaps when printing. If characters or lines are blurred, selecting [Text Priority] may make them clearer. Select [Photo Priority] for normal use.
	✓ Note□ Default: Photo Priority
Key Repeat	The default setting [On] enables the user to scroll through menu items and settings by holding the key down; the [Off] setting requires the user to press the key for each Cursor/Scroll movement.
Menu Protect *1	This procedure lets you protect menu settings against accidental changes. It makes it impossible to change menu settings made by normal procedure unless you perform the required key operation. In a network environment, protecting settings makes changing menu settings a network administrator task. • Level 1 • Level 2 • Off
	 ✓ Note □ Default: Off □ While the printer is On Line, press the [#Enter] key, and then press the [Escape] key, finally press the [Menu] key. You can access the Menu Protect menu on the display. □ You can protect the Maintenance, System, Host Interface and Language menu on Level 1. □ You can protect the Paper Input, Maintenance, System, Host Interface and Language menu on Level 2.

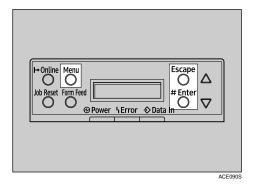
^{*1} While the printer is On Line, press the **[# Enter]** key, and then press the **[Escape]** key. Finally, press the **[Menu]** key. You can access the Menu Protect, and Series Prnt.Job menu on the display.



Changing the Maintenance Menu

Protecting the menus

- 1 Check the On Line indicator is on. If not, press the [On Line] key to enter the "Ready" condition.
- 2 Press the [# Enter] key, then the [Escape] key, and then the [Menu] key.



"Menu" appears on the display.

Press the [] or [] key to display the Maintenance menu, and then press the [# Enter] key. The following message appears on the display:

Maintenance: Color Re§ist.



4 Press the **(▲)** or **(▼)** key to display "Menu Protect".

Maintenance: Menu Protect

Press the [# Enter] key.

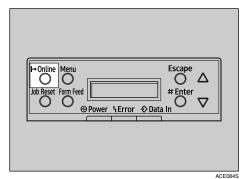
The following message appears on the display:

Menu Protect: *Off

6 Press the **(▲)** or **(▼)** key to select the levels desired, and then press the **(# Enter)** key. Wait for two seconds.

"Maintenance" appears on the display.

7 Press the [On Line] key.





"Ready" appears on the display.

Ready

Removing Protect

- 1 Check the On Line indicator is on. If not, press the [On Line] key to enter the "Ready" condition.
- 2 Press the [# Enter] key, then the [Escape] key, and then the [Menu] key.

"Menu" appears on the display.

Press the [] or [] key to display the Maintenance menu, and then press the [# Enter] key. The following message appears on the display:

Maintenance: Color ReSist.

- 4 Press the [▲] or [▼] key to display "Menu Protect", and then press the [# Enter] key.
- Press the [▲] or [▼] key to display "Off", and then press the [# Enter] key. Wait for two seconds.

"Maintenance" appears on the display.

6 Press the [On Line] key.

"Ready" appears on the display.



Displaying the Signal Quality

If you need to check the IEEE 802.11b (wireless LAN) signal, select "WL.LAN Signal" in the Maintenance menu.

1 Press the [Menu] key.

"Menu" appears on the display.

2 Press the **[▼]** or **[▲]** key to display the Maintenance menu.

Menu: Maintenance

3 Press the [# Enter] key.

The following message appears on the display:

Maintenance: Color Resist.

1 Press the **[▼]** or **[▲]** key to display "WL.LAN Signal".

Maintenance: WL.LAN Signal



Press the [# Enter] key.

One of the following messages appears on the display:

WL.LAN Si≊nal Good 100%

WL.LAN Siënal Fair 50%

WL.LAN Sißnal Poor 30%

WL.LAN Si≋na! Unavailable 18%

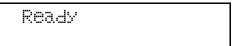
Note

- ☐ If "WL.LAN Signal" is not displayed, "IEEE 802.11b" has not been selected for "LAN Type" in "Network Setup" of the Host Interface menu. Select "IEEE 802.11b" for "LAN Type", and then check the "WL.LAN Signal" in the Maintenance menu again.
- ☐ If "802.11 Ad hoc" or "Ad hoc" in "Comm. Mode" of "IEEE 802.11b" in the Host Interface menu is selected, you cannot check the signal. Select "Infrastructure", and then check it again.
- ☐ Every time you press the [# Enter] key, the signal is refreshed.
- ☐ The signal is indicated as "Good" if the signal strength is 76-100%, "Fair" is 41-75%, "Poor" is 21-40%, and "Unavailable" if strength is 0-20%. If signal is unstable or unavailable, remove obstacles or move the printer to a place where the signal can be received.
- ☐ Using wireless devices or microwave sources near the printer might affect the signal.



- 6 Press the [Escape] key.
- **7** Press the [On Line] key.

"Ready" appears on the display.



Resetting the IEEE 802.11b (wireless LAN) Settings

If you need to reset the wireless LAN setting, select "WL.LAN Defaults" in the Maintenance menu.



- ☐ The five items that can be reset in "IEEE 802.11b" of the Host Interface menu are "Comm. Mode", "Channel", "Trans. Speed", "WEP Setting ", and "SSID".
- 1 Press the [Menu] key.

"Menu" appears on the display.

2 Press the **(▼)** or **(▲)** key to display the Maintenance menu.

Menu: Maintenance



Press the [# Enter] key.

The following message appears on the display:

Maintenance: Color Re%ist.

4 Press the [▼] or [▲] key to display "WL.LAN Defaults".

Maintenance: WL.LAN Defaults

5 Press the [# Enter] key.

WL.LAN Defaults Reset→Defaults?

6 Press the [# Enter] key.

The following message appears on the display:

Defaults reset

The wireless LAN setting value is reset.

"Ready" appears on the display.

Ready



System Menu

You can make the following settings from the System menu:

- Prt. Err Report
- Auto Continue
- Memory Overflow
- Copies
- Printer Lang.
- Sub Paper Size
- Page Size
- Def.Print Lang.
- Duplex
- Output Tray
- Job Separation
- Energy Saver 1
- Energy Saver 2
- Unit of Measure
- B&W Page Detect
- Spool Printing
- Letterhead Mode
- RAM Disk
- Notify by Email
- Email Date



System Parameters

Menu	Description
Prt. Err Report	You can have an error report printed when a printer error or memory error occurs. On Off
	✓ Note□ Default: Off
Auto Continue	You can have Auto Continue enabled. When it is on, printing continues after a system error occurs. Off Immediate I minute I minutes I minutes
	 Note Default: Off When it is on, and certain types of error occur, the current job might be canceled, and the machine automatically resumes the next job.
Memory Overflow	You can have memory overflow error reports printed. • Do not Print • Error Info. Note □ Default: Do not Print



Menu	Description
Copies	You can specify how many pages to print. This setting is disabled if the number of pages to print is already specified with
	the printer driver or a command.
	• 1-999
Printer Lang.	You can specify the printer language.
	Auto Detect
	• PCL
	• PS
	• PDF
	☐ Default: Auto Detect
Sub Paper Size	You can enable the Sub Paper Size feature. When you select "Auto", the printer substitutes paper of a certain size as an alternative if the currently specified paper is not loaded. If you select "Off", the printer uses the paper in the current specified paper input tray regardless of its size.
	• Auto
	• Off
	☐ Default: Off



Menu	Description
Page Size	You can specify the default paper size.
	12×18, 11×17, 8 1/2×14, 8 1/2×11, 5 1/2×8 1/2, 7 1/4×10 1/2, 8×13, 8 1/2×13, 8 1/4×13, A3 (297×420), B4JIS, A4, B5JIS, A5, A6, 8K, 16K, 4 1/8×9 1/2, 3 7/8×7 1/2, C5 Env(162×229), C6 Env(114×162), DL Env(110×220), XPDL_0, XPDL_0, Custom Size
	Note Default: A4 (297×210) (Metric version) 8 1/2×11 (Inch version)
D CD: 41	
Def.Print Lang.	You can specify the default printer Language. • PCL
	• PS
	• PDF
	• XPDL_0
	• XPDL_1
	□ Default: PCL
Duplex	You can select to print on both sides of each page.
	• Off
	Short Edge Bind
	Long Edge Bind
	☐ Default: Off
	☐ This menu appears only if the optional duplex unit is installed.



Menu	Description
Output Tray	You can select the default output tray.
	Standard Tray, External Tray, Finisher Tray 1, Finisher Tray 2
	✓ Note□ Default: Standard Tray
	 Only installed trays appear on the display.
Job Separation	You can enable Job Separation.
	• Off
	• On
	☐ Default: Off
	☐ This menu appears only when the optional 2 tray finisher is installed.
Energy Saver 1	You can set On/Off for the Energy Saver 1. This is Preheat mode.
	• On
	• Off
	☐ Default: Off



Menu	Description
Energy Saver 2	 E.Saver2 OnOff You can set On/Off for the Energy Saver 2. On Off
	 Note Default: On When the printer switches to Energy Saver mode, the Power indicator turns off, while the On Line indicator stays on.
	 ★ E. Saver2 Timer You can set how many minutes the printer waits before switching to Energy Saver mode. Energy Saver mode reduces electric power consumption. 5 minutes, 15 minutes, 30 minutes, 45 minutes, 60 minutes.
	 ✓ Note □ Default: 60 minutes □ When the printer switches to Energy Saver mode, the Power in-
	dicator turns off, while the On Line indicator stays on and "Energy Save Mode" appears on the display.
Unit of Measure	You can select "mm" or "inch" for the custom paper size.
	 ✓ Note □ Default: • Metric version: mm • Inch version: inch



Menu	Description
B&W Page Detect	You can have the Black & White Page Detect feature enabled.
	• On
	• Off
	☐ Default: On
Spool Printing	You can select to enable spool printing. Spool Printing allows print jobs sent from a computer to be temporarily stored and printed after they have been sent.
	• On
	• Off
	□ Default: Off
	This setting appears only when the optional hard disk drive is installed.
	If you select [On], it takes a while before the first print job starts printing.
	☐ If you turn the printer off before printing finishes, the print job is stored on the hard disk. For details, see p.220 "Spool Printing".



Menu	Description
Letterhead Mode	You can select whether or not to do letterhead printing. If you select letterhead printing and duplex printing, the last sheet of a print job with an odd number of pages is printed on both sides.
	• Off
	Auto Detect
	• On (Always)
	☐ Default: Off
	☐ Duplex printing is canceled if the paper size does not allow it.
	☐ If printing changes from single-sided to duplex during printing, the second and later copies with collate will all be duplex. If you want the second and later copies to be single-sided, select a paper size that does not allow duplex printing.
	☐ When using letterheads, be careful how you orient the paper.



Menu	Description
RAM Disk	If the optional hard disk drive is not installed, when executing PDF Direct Print set a value of 2 MB or higher.
	This menu appears only when the optional hard disk drive is not installed.
	• 0 MB
	• 2 MB
	• 4 MB
	• 8 MB
	• 16 MB
	✓ Note ☐ Default: 4 MB
	 Limitation ☐ The amount of acquired RAM disk space is 4 MB, even if the value is set to 8 MB or more when the optional SDRAM module is not installed.
	☐ Install the optional SDRAM module if you require 8 MB or more of RAM disk space.
	For more information about the optional SDRAM module, see Setup Guide.



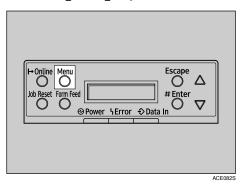
Menu	Description
Notify by Email	You can have error details sent to a preset e-mail address when an error occurs in the printer. Off On
	 Important After changing the setting, turn off the power of the main unit briefly, and then back on again.
	✓ Note□ Default: On
Email Date	If there is no timeserver, set to "On" if mail without date information causes problems for the mail server. Through its software, email sent by this device includes a date and time (based on a provisional date and time using January 1st of the year of manufacture as the initial date). Off On
	✓ Note□ Default: Off



Changing the System Menu

The following example describes how to change the settings for "E. Saver2 Timer".

1 Press the [Menu] key.



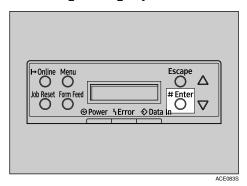
"Menu" appears on the display.

2 Press the [▲] or [▼] key to display "System".

Menu: System



Press the [# Enter] key.



The following message appears on the display:

System: Prt. Err Report

Press the [▲] or [▼] key to display "Energy Saver 2", and then press the [# Enter] key.

System: Ener%y Saver 2

Press the [▲] or [▼] key to select how many minutes the printer waits before switching to Energy Saver mode.

The following message appears on the display:

Ener&y Saver 2: E. Saver2 Timer



6 Press the [▲] or [▼] key to select how many minutes the printer waits before switching to Energy Saver mode.

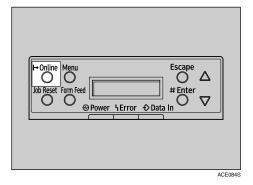
The following message appears on the display:

E. Saver2 Timer *60 minutes

7 Press the [# Enter] key. Wait for two seconds.

"Menu" appears on the display.

8 Press the [On Line] key.



"Ready" appears on the display.

Ready



Host Interface Menu

You can make the following settings from the Host Interface menu:

- I/O Buffer
- I/O Timeout
- Network Setup
- IEEE 1394 Setup
- IEEE 802.11b
- USB Setting
- Bluetooth

Reference

For more information about "Network Setup", see "Configuring the printer for the Network", *Setup Guide*

Host Interface Parameters

Menu	Description
I/O Buffer	You can set the size of the I/O Buffer. Normally it is not necessary to change this setting. 128 KB, 256 KB, 512 KB
	✓ Note□ Default: 128 KB



Menu	Description
I/O Timeout	You can set how many seconds the printer waits before ending a print job. If data from another port often arrives during print jobs, you should increase the timeout period. 10 seconds, 15 seconds, 20 seconds, 25 seconds, 60 seconds
	✓ Note□ Default: 15 seconds
Network Setup	♦ DHCP You can set how the network interface board acquires TCP/IP settings.
	Note □ Default: On
	PReference "Configuring the printer for the Network", Setup Guide
	❖ IP Address You can set the IP address.
	 Limitation ■ When DHCP is On, its setting cannot be changed. If you want to change the setting, make the setting for DHCP Off. Consult the network administrator for information about how to make the setting for the network.
	Reference "Configuring the printer for the Network", Setup Guide



Menu	Description
Network Setup	Subnet Mask You can set the subnet mask.
	 Limitation □ When DHCP is On, its setting cannot be changed. If you want to change the setting, make the setting for DHCP Off. Consult the network administrator for information about how to make the setting for the network.
	✓ Note□ Default: 000.000.000
	PReference "Configuring the printer for the Network", Setup Guide
	Gateway Address You can set the gateway address.
	 Limitation □ When DHCP is On, its setting cannot be changed. If you want to change the setting, make the setting for DHCP Off. Consult the network administrator for information about how to make the setting for the network.
	✓ Note□ Default: 000.000.000
	Reference "Configuring the printer for the Network", Setup Guide



Menu	Description
Network Setup	❖ Frame Type (NW) You can set the Frame type for NetWare. Auto, Ethernet II, Ethernet 802.2, Ethernet 802.3, Ethernet SNAP
	✓ Note□ Default: Auto
	❖ Active Protocol You can set the active protocol. TCP/IP, NetWare, SMB, AppleTalk
	✓ Note□ Default: All Active



Menu	Description
Network Setup	❖ Ethernet Speed You can select the speed of the network that the printer is connected to. Auto, 10Mbps Full D., 100Mbps Full D., 10Mbps Half D., 100Mbps Half D.
	Note □ Default: Auto
	Reference "Configuring the printer for the Network", Setup Guide
	❖ LAN Type You can select Ethernet or IEEE 802.11b as the LAN Type.
	 ✓ Note □ Default: Ethernet □ Appears only when the optional IEEE 802.11b interface unit is
	installed. Reference For more information about Network Setup, "Configuring the printer for the Network", Setup Guide



Menu	Description
IEEE 1394 Setup *1	You can make settings for using IEEE 1394. This menu appears only when the optional IEEE 1394 interface board is installed.
	 ❖ DHCP You can set the method the IEEE 1394 interface board uses to acquire TCP/IP settings. • On • Off
	✓ Note□ Default: On
	♦ IP Address1394 You can set the IP address for IEEE 1394 (IP over 1394).
	✓ Note□ Default: 000.000.000
	Subnet Mask1394 You can set the subnet mask for IEEE 1394 (IP over 1394).
	✓ Note□ Default: 000.000.000
	♦ IP over 1394 You can activate IP over 1394.
	✓ Note□ Default: Active



Menu	Description
IEEE 1394 Setup	SCSI print You can activate SCSI print.
	✓ Note□ Default: Active
	❖ Bidi-SCSI print You can activate bidirectional transmission for SCSI print.
	✓ Note□ Default: On



Menu	Description
IEEE 802.11b *2	You can make settings for using the wireless LAN. This menu appears only when the optional IEEE 802.11b interface unit is installed.
	 Comm. Mode You can set the transmission mode for IEEE 802.11b. ✓ Note □ Default: 802.11 Ad hoc
	♦ Channel The selectable channels are 1-11 (Inch version) and 1-13 (Metric version).
	Ø Note □ Default: 11
	❖ Trans. Speed You can set the transmission speed for IEEE 802.11b.
	✓ Note□ Default: Auto



Menu	Description
IEEE 802.11b	❖ SSID You can make settings for SSID in Infrastructure mode and 802.11 Ad hoc mode.
	 Limitation □ Select "¥" if you want to enter "/" in the SSID. Also, "¥" appears when printing the configuration page, read it as "/".
	 ✓ Note □ Up to 32 ASCII characters in the range 0x20-0x7e can be used. The SSID setting is case-sensitive.
	An SSID value is automatically set to the nearest access point if the setting has not been made.
	If the setting has not been made for 802.11 Ad hoc mode, the same value for Infrastructure mode or an "ASSID" value is au- tomatically set.
	♦ WEP Setting You can set the WEP encryption key for IEEE 802.11b.
	 Note □ Default: Not Active □ With 64-bit WEP, you can use a 10-digit hexadecimal key. With 128-bit WEP, you can use a 26-digit hexadecimal key. □ IEEE 802.11b communication is only possible when a WEP key has been specified. Set WEP to [Active].



Menu	Description
USB Setting	You can set the transmission speed for USB.
	Auto, Full Speed
Bluetooth *3	You can set Bluetooth operation mode to either private or public.
	✓ Note□ Default: Public

^{*1} Appears only when the optional IEEE 1394 interface board is installed.

^{*2} Appears only when the optional IEEE 802.11b interface unit is installed.

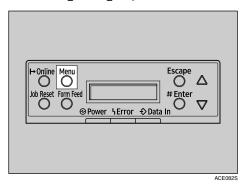
^{*3} Appears only when the optional bluetooth interface unit is installed.



Changing the Host Interface Menu

The following example describes how to change the setting for "I/O Timeout":

1 Press the [Menu] key.



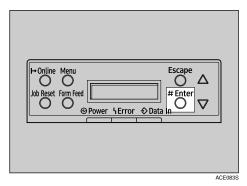
"Menu" appears on the display.

2 Press the [▲] or [▼] key to display the Host Interface menu.

Menu: Host Interface



Press the [# Enter] key.



The following message appears on the display:

Host Interface: I/O Buffer

4 Press the [▲] or [▼] key to display "I/O Timeout".

Host Interface: I/O Timeout

Press the [# Enter] key.

The following message appears on the display:

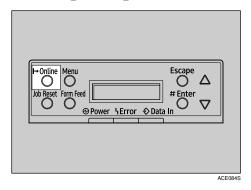
I/O Timeout: *15 seconds



- Press the [▲] or [▼] key to select how many minutes the printer waits before finishing a print job.
- **7** Press the [# Enter] key. Wait for two seconds.

"Host Interface" appears on the display.

8 Press the [On Line] key.



"Ready" appears on the display.





PCL Menu

You can make the following settings from the "PCL Menu":

- Orientation
- Form Lines
- Font Source
- Font Number
- Point Size
- Font Pitch
- Symbol Set
- Courier Font
- Ext. A4 Width
- Append CR to LF
- Resolution

PCL Parameters

Menu	Description
Orientation	You can set the page orientation.
	Portrait
	• Landscape
	Ø Note
	☐ Default: <i>Portrait</i>



Menu	Description
Form Lines	You can set the number of lines per page.
	5-128
	☐ Default: 64 (Metric version), 60 (Inch version)
Font Source	You can set the location of the default font.
	Resident
	• RAM
	• HDD
	• SD
	☐ Default: Resident
	When you select "RAM", you can select only fonts downloaded to the printer RAM.
	☐ 1 to n (for Download source)
Font Number	You can set the ID of the default font you want to use.
	• 0 to 50: (for Internal)
	• 1 to 50: (for Download)
	☐ Default: 0



Menu	Description
Point Size	You can set the point size you want to use for the default font.
	4 to 999.75 by 0.25
	✓ Note
	☐ Default: 12.00 points
	☐ This setting is effective only for variable-space fonts.
Font Pitch	You can set the number of characters per inch for the default font.
	0.44 to 99.99 by 0.01
	☐ Default: 10.00 pitch
	☐ This setting is effective only for fixed-space fonts.
Symbol Set	You can specify the set of print characters for the default font. Available options are as follows:
	Roman-8, ISO L1, ISO L2, ISO L5, PC-8, PC-8 D/N, PC-850, PC-852, PC8-TK, Win L1, Win L2, Win L5, Desktop, PS Text, VN Intl, VN US, MS Publ, Math-8, PS Math, VN Math, Pifont, Legal, ISO 4, ISO 6, ISO 11, ISO 15, ISO 17, ISO 21, ISO 60, ISO 69, Win 3.0
	✓ Note
	☐ Default: Roman-8
Courier Font	You can select a courier font type.
	Regular
	• Dark
	□ Default: Regular



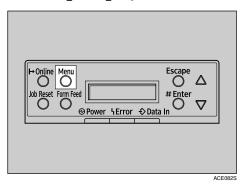
Menu	Description
Ext. A4 Width	You can extend the width of the printable area for an A4 sheet, leaving a narrow margin on the sides. On Off Note □ Default: Off
Append CR to LF	By adding a CR code to each LF code, you can print text data clearly. On Off Note Default: Off
Resolution	You can set the print resolution in dots per inch. • 300 dpi • 600 dpi Fast • 600 dpi Std.



Changing the PCL Menu

The following example describes how to change the setting for "Orientation":

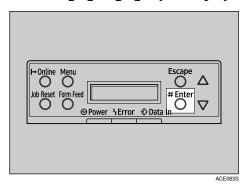
1 Press the [Menu] key.



"Menu" appears on the display.



Press the [▲] or [▼] key to display "PCL Menu", and then press the [# Enter] key.



The following message appears on the display:

PCL Menu: Orientation

Press the [# Enter] key.

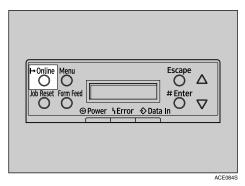
Orientation: *Portrait

Press the [▲] or [▼] key to select the orientation desired, and then press the [# Enter] key. Wait for two seconds.

"PCL Menu" appears on the display.



5 Press the [On Line] key.



"Ready" appears on the display.





PS Menu

You can make the following settings from the "PS Menu":

- Data Format
- Resolution
- Color Setting
- Color Profile



PS Parameters

Menu	Description
Data Format	You can select the data format. Binary Data TBCP Limitation This setting is effective when operating the machine with a parallel, USB or EtherTalk connection. When operating the machine with a parallel or USB connection, if binary data is sent from the printer driver, the print job is canceled. When operating the machine with an Ethernet connection, the print job is canceled under the following conditions; The printer driver data format is TBCP and the data format selected on the control panel is Binary Data. The printer driver data format is binary and the data format selected on the control panel is TBCP. Note Default: Binary Data
Resolution	You can select the resolution. • 600 dpi Fast • 600 dpi Std. • 1200 dpi Note □ Default: 600 dpi Fast



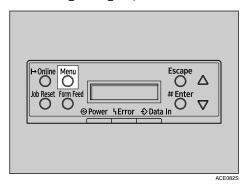
Menu	Description
Color Setting	You can select the RGB Color adjustment quality.
	• None
	• Fine
	Super Fine
	☐ Default: Super Fine
Color Profile	You can select the color profile.
	• Auto
	Presentation
	Solid Color
	Photographic
	User Setting
	☐ Default: Auto



Changing the PS Menu

The following example describes how to change the setting for "TBCP":

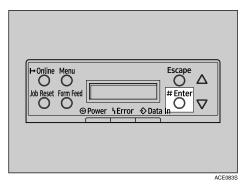
1 Press the [Menu] key.



"Menu" appears on the display.



Press the [▲] or [▼] key to display "PS Menu", and then press the [# Enter] key.



The following message appears on the display:

PS Menu: Data Format

Press the [# Enter] key.

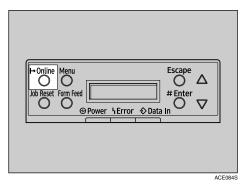
Data Format: *Binary Data

Press the [▲] or [▼] key to select the TBCP desired, and then press the [# Enter] key. Wait for two seconds.

"PS Menu" appears on the display.



5 Press the [On Line] key.



"Ready" appears on the display.





PDF Menu

There are five menu items in the "PDF Menu".

- PDF: Change PW
- PDF Group PW
- Resolution
- Color Setting
- Color Profile

PDF Parameters

Menu	Description
PDF: Change PW	Set [Password to Open the Text File] for the PDF file to be printed using PDF Direct Print.
	Current PW
	PDF: New PW
	#Important
	A password can be set using Web Image Monitor, but in this case the password information is sent through the network. If security is a priority, set the password using this menu from the control panel.
	✓ Note□ Default: no password set



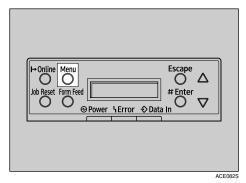
Menu	Description
PDF Group PW	Set the group password already specified with DeskTopBinder V2 Lite. • Current PW • New PW
	 Important ☐ A password can be set using Web Image Monitor, but in this case the password information is sent through the network. If security is a priority, set the password using this menu from the control panel.
	✓ Note□ Default: no password set
Resolution	You can select the resolution for the PDF file to be printed using PDF Direct Print. • 600 dpi Fast • 600 dpi Std. • 1200 dpi
	✓ Note□ Default: 600 dpi Fast
Color Setting	You can make an RGB setting for the PDF file to be printed using PDF Direct Print. None Fine Super Fine
	✓ Note□ Default: Super Fine



Menu	Description
Color Profile	You can set the color profile for the PDF file to be printed using PDF Direct Print.
	• Auto
	Solid Color
	Presentation
	Photographic
	User Setting
	✓ Note□ Default: Auto

Changing the PDF Menu

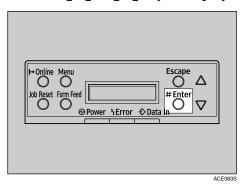
1 Press the [Menu] key.



"Menu" appears on the display.



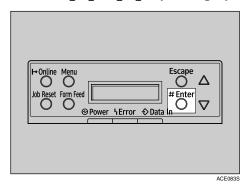
2 Press the [▲] or [▼] key to display "PDF Menu", and then press the [# Enter] key.



The following message appears on the display.

PDF Menu: PDF: Chan%e PW

Press the [▲] or [▼] key to display "Resolution", and then press the [# Enter] key.





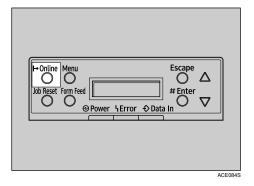
The following message appears on the display.

```
PDF Menu:
Resolution
```

4 Press the [# Enter] key.

```
Resolution:
*600 dpi
```

- Press the [▲] or [▼] key to select the resolution desired, and then press the [# Enter] key. The screen returns to the screen in step 3 in a few seconds.
- 6 Press the [On Line] key.



"Ready" appears on the display.

Ready



Language Menu

You can select a languages to use. Available languages are:

English, French, German, Italian, Spanish, Dutch, Swedish, Norwegian, Danish, Finnish, Portuguese, Czech, Polish and Hungarian.

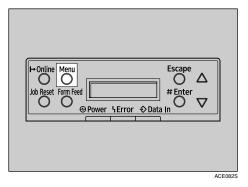


☐ Default: English

Changing the Language Menu

You can change the language by the following procedures:

1 Press the [Menu] key.



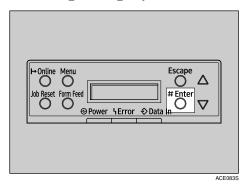
"Menu" appears on the display.



Press the [▲] or [▼] key to display "Language".

```
Menu:
Lansuase
```

Press the [# Enter] key.



The following message appears on the display:

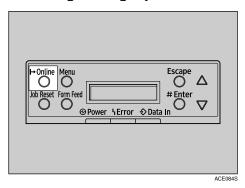
Language: *English

- **1** Press the **(▲)** or **(▼)** key until the language you want to select appears on the display.
- Press the [# Enter] key. Wait for two seconds.

"Menu" appears on the display.



6 Press the [On Line] key.



"Ready" appears on the display.





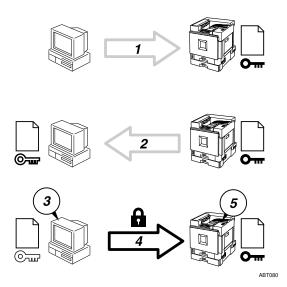
8. Appendix

Protection Using Encryption

When you access the machine using a Web browser or IPP, you can establish encrypted communication using SSL. When you access the machine using an application such as SmartDeviceMonitor for Admin, you can establish encrypted communication using SSL.

To protect data from interception, analysis, and tampering, you can install a server certificate in the machine, negotiate a secure connection, and encrypt transmitted data.

SSL (Secure Sockets Layer)



- ① To access the machine from a user's computer, request for the SSL server certificate and public key.
- ② The server certificate and public key are sent from the machine to the user's computer.



- 3 Using the public key, encrypt the data for transmission.
- 4 The encrypted data is sent to the machine.
- ⑤ The encrypted data is decrypted using the private key.

SSL (Secure Sockets Layer) Encryption

To protect the communication path and establish encrypted communication, create and install the server certificate.

There are two ways of installing a server certificate: create and install a self-certificate using the machine, or request a certificate from a certificate authority and install it.

Configuration flow (self-signed certificate)

- ① Creating and installing the server certificate Install the server certificate using Web Image Monitor.
- ② Enabling SSL Enable the **[SSL/TLS]** setting using Web Image Monitor.

Configuration flow (certificate issued by a certificate authority)

- ① Creating the server certificate

 Create the server certificate using Web Image Monitor.
 - The application procedure after creating the certificate depends on the certificate authority. Follow the procedure specified by the certificate authority.
- ② Installing the server certificate
 Install the server certificate using Web Image Monitor.
- ③ Enabling SSL Enable the [SSL/TLS] setting using Web Image Monitor.



Note

☐ To confirm whether SSL configuration is enabled, enter https://(machine's-address) in your Web browser's address bar to access this machine. If the "The page cannot be displayed" message appears, check the configuration as the SSL configuration is invalid.

Creating and Installing the Self-Signed Certificate

Create and install the server certificate using Web Image Monitor.

This section explains the use of a self-certificate as the server certificate.

- 1 Open a Web browser.
- Enter "http://(machine's-address)/" in the address bar to access the printer.
- 3 Select Administrator mode.

Reference

For details about selecting Administrator mode in Web Image Monitor, see p.112 "Access in Administrator Mode".

- 4 Click [Configuration], click [Security], and then click [Certificates].
- 5 Click [Create].
- 6 Make the necessary settings.

Reference

For details about the displayed items and selectable items, see Web Image Monitor Help.



Click [OK].

[Installed] appears under [Certificate Status] to show that a server certificate for the printer has been installed.



☐ Click [Delete] to delete the server certificate from the machine.

Creating the Server Certificate (Certificate Issued by a Certificate Authority)

Create the server certificate using Web Image Monitor.

This section explains the use of a certificate issued by a certificate authority as the server certificate.

- 1 Open a Web browser.
- Enter "http://(machine's-address)/" in the address bar to access the printer.
- **3** Select Administrator mode.

Reference

For details about selecting Administrator mode in Web Image Monitor, see p.112 "Access in Administrator Mode".

- Click [Configuration], click [Security], and then click [Certificates].
 The [Certificate Information] page appears.
- 5 Click [Request].
- **6** Make the necessary settings.

Reference

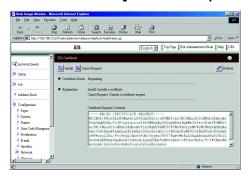
For details about the displayed items and selectable items, see Web Image Monitor Help.



Click [OK].

[Requesting] appears under [Certificate Status].

Use the data in the [Certificate Request Contents:] dialog box to apply to the certificate authority.



8 Apply to the certificate authority for the server certificate.

The application procedure depends on the certificate authority. For details, contact the certificate authority.

When applying, use the data created with Web Image Monitor.



- ☐ Using Web Image Monitor, you can create the contents of the server certificate but you cannot send the application.
- ☐ Click [Cancel Request] to cancel the request for the server certificate.



Installing the Server Certificate (Certificate Issued by a Certificate Authority)

Install the server certificate using Web Image Monitor.

This section explains the use of a certificate issued by a certificate authority as the server certificate.

Enter the server certificate contents issued by the certificate authority.

- 1 Open a Web browser.
- Enter "http://(machine's-address)/" in the address bar to access the printer.
- 3 Select Administrator mode.

Reference

For details about selecting Administrator mode in Web Image Monitor, see p.112 "Access in Administrator Mode".

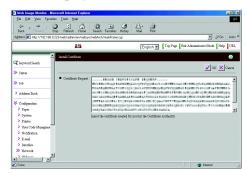
- Click [Configuration], click [Security], and then click [Certificates].

 The [SSL Certificate] page appears.
- 5 Click [Install].



6 Enter the contents of the server certificate.

In the displayed field, enter the contents of the server certificate issued by the certificate authority.



Reference

For details about the displayed items and selectable items, see Web Image Monitor Help.

Click [OK].

[Installed] appears under [Certificate Status] to show that a server certificate for the machine has been installed.



Enabling SSL

After installing the server certificate in the machine, enable the SSL setting.

This procedure is used for a self-signed certificate or a certificate issued by a certificate authority.

- 1 Open a Web browser.
- 2 Enter "http://(machine's-address)/" in the address bar to access the printer.
- 3 Select Administrator mode.

PReference

For details about selecting Administrator mode in Web Image Monitor, see p.112 "Access in Administrator Mode".

- 4 Click [Configuration], click [Security], and then click [SSL/TLS]. The [SSL/TLS Settings] page appears.
- 5 Click [Enable] for [SSL/TLS].
- 6 Click [Apply].

The SSL setting is enabled.



☐ When using SSL, enter "http://(machine's-address)/" to access the printer. For this to work, Internet Explorer 5.5 or later, or Netscape 7.0 or later must be installed on your computer.



User Settings for SSL (Secure Sockets Layer)

If you have installed a server certificate and enabled SSL (Secure Sockets Layer), you need to install the certificate on the user's computer.

The administrator must explain the procedure for installing the certificate to users.

If a warning dialog box appears while accessing the machine using the Web browser or IPP, start the Certificate Import Wizard and install a certificate.

1 When the [Security Alert] dialog box appears, click [View Certificate].



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

To be able to respond to inquiries from users about such problems as expiry of the certificate, check the contents of the certificate.

2 On the [General] tab, click [Install Certificate...].

Certificate Import Wizard starts.



Install the certificate by following the Certificate Import Wizard instructions.

- Note
- ☐ For details about how to install the certificate, see the Web browser Help.
- ☐ If a certificate issued by a certificate authority is installed in the printer, confirm the certificate store location with the certificate authority.

Installing the Certificate Using SmartDeviceMonitor for Client

If the **[Security Alert]** dialog box appears when accessing the printer using IPP to create or configure an IPP port, or when printing, install the certificate.



- Important
- ☐ To select the certificate store location when using Certificate Import Wizard, click [Place all certificates in the following store], and then click [Local Computer] under [Trusted Root Certification Authorities].
- ☐ Internet Explorer must be installed on your computer. Use the latest version. Internet Explorer 6.0 or later is recommended.
- 1 When [Security Alert] appears, click [View Certificate]. The [Certificate] dialog box appears.
- 2 On the [General] tab, click [Install Certificate...].

Certificate Import Wizard starts.



- Click [Place all certificates in the following store], and then click [Browse...].
 The [Select certificate store] dialog box appears.
- 4 Click [Next].
- Select the [Show physical stores] check box, and then click [Local Computer] under [Trusted Root Certification Authorities].
- 6 Click [OK].

The certificate store location appears under [Certificate store:].

- 7 Click [Next].
- 8 Click [Finish].
- 9 Click [OK].

The certificate is installed.



☐ When you create or change an IPP port using SmartDeviceMonitor for Client, enter "http://(machine's-address)/ printer" in [Printer URL] to access the printer.



Printing Files Directly from Windows

You can print files directly using Windows commands. For example, you can print postscript files for PostScript 3. Commands that can be used are as follows.

Operating system	lpr	rcp	ftp
Windows 95/98/Me			✓
Windows 2000/XP, Windows Server 2003	✓	✓	✓
Windows NT 4.0	1	✓	✓

The following explains setup and printing.

Setup

- 1 Make settings for the printer's network environment.
 - Enable the TCP/IP protocol (the default is enabled).
 - Set TCP/IP-related items, including the IP address.

Reference

"Configuring the Printer for the Network", *Setup Guide*.
p.300 "Using DHCP", when setting the IP address of the printer using DHCP.

2 Install the TCP/IP protocol in Windows to set the network environment.



☐ Make sure network settings are checked by a network administrator.



When printing with Windows 2000/XP, Windows Server 2003, or Windows NT 4.0, install "Printing service for UNIX" as the network software. When printing with Windows NT 4.0, install "Microsoft TCP/IP printing" as the network software.

Note

- ☐ When using Windows 95/98/Me, lpr cannot be used to print.
- ☐ This completes the setup for specifying a printer using an IP address when printing. When using a host name to specify a printer, proceed to p.213 "Using a Host Name Instead of an IP Address" and continue the setup.

Using a Host Name Instead of an IP Address

When the host name is defined, you can specify a printer by the host name instead of the IP address. The host name used differs depending on the network environment.

When using DNS

Use the host name set for the data file on the DNS server.

When setting the IP address of a printer using DHCP

Use the "Printer name" on the Configuration Page as the host name. See p.138 "Printing a Configuration Page" for details about printing the Configuration Page.

In other cases

Add the IP address and host name of the network printer to the hosts file on the computer used for printing. Methods of addition vary according to the operating system.



Windows 95/98/Me

- 1 Copy to the same \WINDOWS\HOSTS.SAM directory and name it "HOSTS" (no extension required).
- 2 Open the \WINDOWS\HOSTS file you created using Memo Pad or other applications.
- Add an IP address and a host name to the hosts file in the following format:

192.168.15.16 host # NP

"192.168.15.16" is the IP address, "host" is the printer's host name, and "#" to the end are comments. Separate each item with a space or tab, and use only one line.

4 Save the file.

Windows 2000/XP, Windows Server 2003, Windows NT 4.0

1 Open the hosts file using Memo Pad or other applications.

The hosts file is in the following folder:

\WINNT\SYSTEM32\DRIVERS\ETC\HOSTS

\WINNT is the directory of the installation destination for Windows 2000/XP, Windows Server 2003, and Windows NT 4.0.

- 2 Add an IP address and a host name to the hosts file in the following format:
 - 192.168.15.16 host # NP

"192.168.15.16" is the IP address, "host" is the printer's host name, and "#" to the end are comments. Separate each item with a space or tab, and use only one line.

3 Save the file.



Printing Method

The following explains printing using the "lpr", "rcp", and "ftp" commands.

Preparation

Enter commands using the commands prompt window. The location of the commands prompt in each operating system is as follows:

- Windows 95/98 [Start]-[Programs]-[MS-DOS Prompt]
- Windows Me [Start]-[Programs]-[Accessories]-[MS-DOS Prompt]
- Windows 2000 [Start]-[Programs]-[Accessories]-[Command Prompt]
- Windows XP, Windows Server 2003 [Start]-[All Programs]-[Accessories]-[Command Prompt]
- Windows NT 4.0 [Start]-[Programs]-[Command Prompt]

Note

☐ If the "print requests full" message appears, no more print requests can be accepted. Try printing again when the number of sessions has dropped below the value shown in the following table below.

rcp, rsh	5
ftp	3

☐ Enter the file name in a format including the path from the directory executing the commands.

Reference

The "option" specified in the command is an intrinsic printer option and its syntax is similar to printing from UNIX. For details, see *UNIX Supplement*.



lpr

- When specifying a printer by IP address
 - c:> lpr -Sprinter's IP address [-Poption] [ol] \pass name\file name
- **♦** When using a host name instead of an IP address
 - c:> lpr -Sprinter's host name [-Poption] [ol] \pass name\file name
 - Note
 - ☐ When printing a binary file, add the "-ol" option (lowercase o, and lowercase I).

When using a printer with the host name "host", to print a PostScript file named "file1" located in the C:\PRINT directory, the command line is as follows:

c:> lpr -Shost -Pfiletype=RPS -ol C:\PRINT\file1

rcp

Register the printer's host name in the hosts file beforehand. See p.213 "Using a Host Name Instead of an IP Address".

c:> rcp [-b] \pass name\file name [pass name\file name...] printer's host name: [option]



- ☐ In the file names, "*" and "?" can be used as wild cards.
- ☐ When printing a binary file, add the "-b" option.

When using a printer with the host name "host", to print a PostScript file named "file1" or "file2" located in the C:\PRINT directory, the command line is as follows.

c:> rcp -b C:\PRINT\file1 C:\PRINT\file2 host:filetype=RPS



ftp

Use the "put" or "mput" command according to the number of files to be printed.

- When the number of files to be printed is one
 - ftp> put \pass name\file name [option]
- **❖** When the number of files to be printed is two or more

ftp> put \pass name\file name [\pass name\file name...] [option]

- Note
- ☐ For the mput command, "*" and "?" can be used as wild cards in the file name.
- ☐ If these symbols are used, the file name will be read as an option string.

The procedure from starting ftp to printing is as follows.

- 1 Formulate the printer's IP address (or host name of the hosts file printer) as an argument and use the "ftp" command.
 - % ftp printer's IP address
- 2 Enter user names and passwords as needed, and then press the [# Enter] key.

There is no default user name when the default password is "password".

User:

Password:

3 When printing a binary file, set binary as the file mode.

ftp> bin



- Note
- ☐ When a binary file is printed in ASCII mode, print data may change and may not print out correctly.
- **4** Specify the file to be printed.

The following are examples of printing a PostScript file named "file1" in the C:\PRINT directory, and printing file1 and file2.

```
ftp> put C:\PRINT\file1 filetype=RPS
ftp> mput C:\PRINT\file1 C:\PRINT\file2
```

5 Quit ftp.

ftp> bye



SNMP

The network interface board functions as SNMP (Simple Network Management Protocol) agent using UDP and IPX protocols. Using the SNMP manager, you can get information about the printer.

The factory default community names are "public" and "admin". You can get MIB information using these community names.

Reference

You can configure SNMP from the command line using telnet. See p.235 "SNMP".

You can configure SNMP from SmartDeviceMonitor for Admin using NIB Setup Tool. See Help for SmartDeviceMonitor for Admin.

You can configure SNMP from your Web Image Monitor. See Help on the CD-ROM.

Limitation

- ☐ The optional IEEE 1394 interface board supports TCP/IP only.
- ☐ The kinds of supported MIB differ depending on the printer.

Supported MIBs

- MIB-II
- PrinterMIB
- HostResourceMIB
- RicohPrivateMIB



Spool Printing

With Spool Printing, the entire print job data is saved on the printer hard disk before printing. To use this function, set it from the menu. See p.154 "System Menu".

Important

☐ Do not turn off the printer or computer when a print job is being spooled and the **Data In** indicator is blinking. If you do, the print job will remain on the printer hard disk and be printed when the printer is turned on.

Limitation

- ☐ Spool Printing does not appear unless the optional printer hard disk is installed.
- Data that has been received in the protocol other than SMB, LPD or IPP cannot be spooled.
- ☐ Up to 150 jobs (approximately 1000 MB) can be spooled at a time.
- ☐ When Spool Printing is on, the size of a single print job cannot exceed 500 MB.
- ☐ When sending spooled print jobs from more than one computer at a time, up to five LPR jobs, one SMB job and one IPP job can be spooled. Jobs exceeding the maximum number cannot be spooled. Wait until the number of spooled print jobs falls below maximum.

Note

- ☐ When "On" is selected, the first print will take time.
- ☐ Spool jobs stored in the machine can be viewed or deleted using Web Image Monitor.



Setting Spool Printing

Spool Printing can be set using telnet or Web browser.

- Using Web browser
 In [System] on the [Configuration] menu, set [Spool Printing] to [Enable].
 For details, see Web Image Monitor Help.
- Using telnet Enter "spoolsw spool on" to set Spool Printing. For more information, see p.246 "Job Spool".

Confirm or Delete the Spooled Job from Web Image Monitor

The spooled job can be viewed or deleted from Web Image Monitor.

- 1 Start Web Image Monitor.
- 2 Enter "http://(IP address of printer whose settings you want to change)/" in the [Address] box to access the printer whose settings you want to change.

Web Image Monitor Top Page appears.

Click [Administrator Mode].

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

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

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

Click [Job] on the menu displayed in the left area.

A submenu will then appear.



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6 Click [Spool Printing] on the [Printer] menu.

A list of spooled jobs appears.

- To delete a job, select the check box of the job you want to delete, and then click [Delete]. The selected job is deleted.
- **8** Quit Web Image Monitor.

Reference

For more information, see Web Image Monitor Help.



Remote Maintenance by telnet

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



- ☐ You should specify a password so that only the network administrator or a user having network administrator privileges can use remote maintenance.
- ☐ The password is the same as that used for Web Image Monitor settings. When the password is changed on "mshell", the other passwords change also.

Using telnet

The following is a sample procedure using telnet.

- Limitation
- ☐ Only one user at a time can be logged on to do remote maintenance.
- 1 Enter the IP address or the host name of the printer to start telnet.
 - % telnet IP_address
- **2** Enter the password.
 - Note
 - ☐ The default is "password".
- Enter a command.
 - **P**Reference

For more information about telnet commands, see p.224 "Commands List".



4 Quit telnet.

msh> logout

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

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.



- ☐ If the "Can not 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 which has already been sent to the printer will finish printing. However, jobs that have not been sent yet will be canceled.

Commands List

This is a list of commands that can be used via remote maintenance.



☐ 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 TCP/IP (IP address, subnet mask, broadcast address, and 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 the interface name, it will be automatically set to the Ethernet interface.

^{*3} You can specify an interface when installing the optional IEEE 802.11b interface unit.

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

^{*2} Available when the optional IEEE 1394 interface board is installed.



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Changing the Interface

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

msh> ifconfig interface up



☐ You cannot specify the IEEE 1394 interface.

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

msh> ifconfig ether netmask 255.255.255.0



- This affects the configuration of the network interface board of the IP address that is used.
- ☐ The TCP/IP setting is the same as that for 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.

Note

- ☐ To get the above addresses, contact your network administrator.
- ☐ The subnet mask is the same as that for the Ethernet interface and IEEE 802.11b interface.
- ☐ When installing the optional IEEE 1394 interface board, set the IP address and subnet so they do not overlap with the Ethernet interface or IEEE 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

• \$\primeq\$ 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.
- You cannot access Web Image Monitor and telnet from a restricted IP address.

Access Control Initialization

msh> access flush



☐ This restores the settings to their defaults so that all access ranges become "0.0.0.0".

DHCP

Use the "dhcp" command to configure the DHCP settings.

Reference

For more information about DHCP, see p.300 "Using DHCP".

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

- ☐ Specify "on" to enable DHCP. Specify "off" to disable DHCP.
- ☐ When the DNS server address and domain name are acquired from DHCP, be sure to specify "on".

♦ Interface Priority Configuration

You can assign priorities governing which interface obtains DHCP parameters.

msh> dhcp priority interface_name



- Priority assignment is useful when connecting more than one interface to the machine.
- ☐ If an interface is not selected, it appears according to the 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} Available when the optional IEEE 802.11b interface unit is installed.

DNS Server Address Selection

You can specify whether to acquire the DNS server address from the DHCP server or to set it manually.

msh> dhcp dnsaddr [dhcp/static]



☐ Specify "dhcp" when acquiring the DNS server address from the DHCP server, or specify "static" when using it as a user setting.

^{*2} Available when the optional IEEE 1394 interface board is installed.



PReference

For more information about setting the DNS server address, see p.254 "DNS".

❖ Domain Name Selection

You can specify whether to acquire the domain name from the DHCP server or to set it as a user setting.

msh> dhcp domainname [dhcp/static]



☐ Specify "dhcp" when acquiring the domain name from the DHCP server, or specify "static" when using it as a user setting.

Reference

For more information about setting the domain name, see p.257 "Domain name".

Protocol

Use the "set" command to set the protocol information display to active or inactive.



Reference

Protocol information (active/inactive) appears.

msh> set protocol

Protocol tcpip appletalk netware smb scsiprint *1 ip1394 *1 protocol *2 lpr ftp rsh diprint web snmp ssl ipp http rendezvous

^{*1} Available when the optional IEEE 1394 interface board is installed.

^{*2} Information about tcpip, appletalk, netware, and smb appears.



Configuration

You can set the protocol to active or inactive.

msh> set protocol {up | down}

Protocol	
tcpip	"up" means active and "down" means inac-
appletalk	tive.
netware	
smb	
scsiprint *1	
ip1394 *1	
lpr	
ftp	
rsh	
diprint	
web	
snmp	
ssl	
ipp	
http	
rendezvous	

^{*1} Available when the optional IEEE 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, ssl, ipp, http, and rendezvous.



Printer status

The following commands 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 the print jobs
info	Information about the paper tray, output tray, and printer language
prnlog [ID]	Lists the last 16 print jobs



☐ More information about any print job is displayed when the ID number is added after the prnlog command.

P Reference

For more information about the meaning of the data returned with these commands, see p.271 "Understanding the Displayed Information".



Network interface board settings information

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

msh> show [-p]

- Note
- ☐ Add "-p" to the show command to have information displayed on screen at one time.

Reference

For more information about the meaning of the data returned with this command, see p.273 "Configuring the Network Interface Board".

System log information

Use the "syslog" command to display information stored in the printer's system log.

msh> syslog

Reference

For more information about the displayed information, see p.281 "System Log Information".



SNMP

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



Note

- ☐ You can configure up to ten SNMP access settings numbered 1–10.
- ☐ The printer cannot be accessed from SmartDeviceMonitor for Admin or SmartDeviceMonitor for Client if "public" is not registered in numbers 1-10. When changing the community name, use Smart-DeviceMonitor for Admin and the installed "SNMP Setup Tool" to change a computer's community name to correspond with printer settings.
- ☐ 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

You can display 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 network interface board.

msh> snmp number name community_name



☐ The community name can be entered up to 15 characters.

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
no	All access is denied.
read	Read only
write	Read and write
trap	User is notified of trap messages.

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 are disabled.

- Specify "ip" for TCP/IP, or specify "ipx" for IPX/SPX.
- "on" means active and "off" means inactive.

To change the protocol of access settings, 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 an address of a host depending on the protocols used.

The network interface board accepts requests only from hosts having addresses with access types of "read-only" or "read-write". Enter "0" to have the network interface board accept requests from any host without requiring a specific type of access.

- Specifying a TCP/IP address
 - msh> snmp number ip/addr address
- Specifying an IPX/SPX address
 - msh> snmp number ipx address



- ☐ To specify the 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



Use the "ipp" command to configure the IPP settings.

Viewing setting

You can display the current IPP settings.

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 when no connection could be made.
- The "auth" setting indicates the user authorization mode.

IPP timeout configuration

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

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

❖ IPP user authorization configuration

Use the IPP user authorization to restrict users to print with IPP. The default is "off".

msh> ipp auth {basic | digest | off}

- The settings for user authorization are "basic" and "digest".
- Use "off" to remove a user's authorization.



☐ If you specify "basic" or "digest", see the next section, "Configuring IPP user authorization", for more information about how to configure the user name.



Configuring IPP user authorization

Use the following command:

msh> ipp user

The following message appears.

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

Enter the number, user name, and password.

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

After configuring the settings, the following message appears.

User 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 the direct printing port settings.

❖ View settings

You can display 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 to use when receiving data from the network.

msh> diprint timeout [30~65535]



☐ The default is 300 seconds.

Bidirectional configuration for the direct printing port

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

msh> diprint bidirect {on off}

SMB

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

Settings of NetBEUI related items

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
notif {on off}	To notify print job completion, specify "on". Otherwise, specify "off".
clear comp	Clears complete name.
clear group	Clears Workgroup name.
clear comment	Clears comment.



Protocol settings

Enable/disable NetBEUI and TCP/IP. Specify "up" to enable, and "down" to disable.

msh> smb protocol [netbeui {up | down} | tcpip {up | down}]

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 a remote computer using this command.



☐ The maximum number of routing tables is 16.

Parameter	Settings
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 setting.
route delete [host net] destination	Deletes a host/network route from the table. Host becomes the default setting.
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 setting.
route add default gateway *1	You can set the default gateway address.
route flush	Deletes all routing information.

^{*1} IP address



Note

- ☐ Set the gateway address when communicating with devices on a different network beyond the router.
- ☐ The same gateway address is shared by all interfaces.

SLP

Use the "slp" command to configure SLP settings.

You can search the NetWare server using SLP in the PureIP environment of NetWare 5/5.1 and Net-Ware 6/6.5. Using the "slp" command, you can configure the value of TTL which can be used by SLP multi-cast-packet.



- ☐ The default of TTL is "1". A search is performed 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 range for acceptable TTL values is 1 255.

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

SPRINT

Use the "sprint" command to make setting for IEEE 1394 (SCSI print).



☐ You can make settings when the IEEE 1394 interface board is installed.

View settings

The IEEE 1394 (SCSI print) settings are displayed.

msh> sprint



❖ Bidirectional configuration for IEEE 1394 (SCSI print)

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

msh> sprint bidi [on/off]

Setting IEEE 802.11b

Use the "wiconfig" command to make setting for IEEE 802.11b.



☐ You can make settings when installing the optional IEEE 802.11b interface unit.

View settings

You can display the current IEEE 802.11b settings.

msh> wiconfig

The IEEE 802.11b information is displayed.

msh> wiconfig cardinfo



☐ If the IEEE 802.11b is not working correctly, the IEEE 802.11b information is not displayed.



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❖ Configuration

msh> wiconfig parameter

Parameter	Value to be configured
mode [ap adhoc 802.11adhoc]	You can set infrastructure mode (ap), 802.11 ad hoc mode (802.11adhoc), or ad hoc mode (adhoc).
	The default is ad hoc mode.
ssid ID value	You can set SSID in infrastructure mode.
	The characters that can be used are ASCII 0x20-0x7e (32 bytes).
	An 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 if the setting has not been made.
channel frequency channel no.	You can set the channel.
	You can specify from the following channels.
	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.

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Parameter	Value to be configured
key [key value] val [1 2 3 4]	You can specify the WEP key when entering in hexadecimal.
	With a 64-bit WEP, you can use 10-digit hexadecimal. With a 128-bit WEP, you can use 26-digit hexadecimal.
	Up to four WEP keys can be registered. Specify the number to be registered with "val".
	When a WEP is specified with the key, the WEP specified with the keyphrase is overwritten.
	To use this function, set the same key number and WEP key for all ports that transmit to each other.
	You can omit the numbers with "val". The key number is set to 1 when making these omissions.
keyphrase [phrase] val [1 2 3 4]	You can specify the WEP key when entering in ASCII.
	With a 64-bit WEP, you can use 10-digit hexadecimal. With a 128-bit WEP, you can use 26-digit hexadecimal.
	Up to four WEP can be registered. Specify the number to be registered with "val".
	When a WEP is specified with the keyphrase, the WEP specified with the key is overwritten.
	To use this function, set the same key number and WEP key for all ports that transmit to each other.
	You can omit the numbers with "val". The key number is set to 1 when making these omissions.
encval [1 2 3 4]	You can specify which of the four WEP keys is used for packet encoding. "1" is set if a number is not specified.



Parameter	Value to be configured
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

Job Spool

Use the "spoolsw" command to configure Job Spool settings.

Limitation

☐ You can only specify diprint, LPR, IPP, and SMB protocol.

❖ Reference

The Job Spool setting appears.

msh> spoolsw



❖ Job Spool setting

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



☐ Specify "on" to enable Job Spool or "off" to disable it.

Protocol configuration

To change protocol settings, use the following command. You can specify the setting for diprint, LPR, IPP, and SMB protocol.

• diprint

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

• lpr

• ipp

• SMB

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



Changing the host name

Use the "hostname" command to change the printer name.

Configuration

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.

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.

^{*2} If you install the optional IEEE 802.11b interface unit, you can set the command.

^{*3} If you install the optional IEEE 1394 interface board, you can set the command.



WINS

Use the "wins" command to configure the WINS server settings.



P Reference

For more information about WINS server settings, see p.302 "Configuring a WINS Server".

The specified values of the interfaces used in each of the following settings are shown below.

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 optional IEEE 802.11b interface unit, you can set the command.

Viewing setting

You can display the WINS server IP address.

msh> wins

Example output:

wins: primary server 0.0.0.0 secondary server 0.0.0.0



Note

- ☐ If DHCP is used to start from the network, the current WINS server address is displayed. This address, however, 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.

^{*2} If you install the optional IEEE 1394 interface board, you can set the command.



Configuration

Use the "set" command to make WINS active or inactive.

msh> wins interface_name {on | off}

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

Address configuration

Use this command to configure a WINS server IP address.

msh> wins ifname {primary | secondary} IP address

- Use "primary" to configure a primary WINS server IP address.
- Use "secondary" to configure a secondary WINS server IP address.
- You cannot use "255,255,255.255" as the IP address.

NBT (NetBIOS over TCP/IP) Scope ID Selection

You can specify the NBT scope ID.

msh> wins interface_name scope scope ID

• The scope ID is specified using up to 31 alphanumeric characters.

AutoNet

Use the "autonet" command to configure AutoNet settings.

Reference

For more information about AutoNet, see p.302 "Using AutoNet".

◆ Display

You can display the current AutoNet settings.

msh> autonet



Configuration

You can configure the AutoNet settings.

msh> autonet [on off]

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

Interface Priority Configuration

You can assign priorities governing which interface obtains AutoNet parameters.

msh> autonet priority interface_name



- Priority assignment is useful when connecting more than one interface to the machine.
- ☐ If an interface is not selected, the interface appears according to the 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} Available when the optional IEEE 802.11b interface unit is installed.

^{*2} Available when the optional IEEE 1394 interface board is installed.



SNTP

The printer clock can be synchronized with a NTP server clock using the Simple Network Time Protocol (SNTP). To change the SNTP settings, use the "sntp" command.

- Note
- ☐ SNTP supports the NTP servers running xntpd V3 and V4.
- ❖ Reference msh> sntp
- **❖ NTP Server Address Configuration**

You can specify the IP address of the NTP server.

msh> sntp server IP_address

Interval Configuration

You can specify the interval at which the printer synchronizes with the operator-specified NTP server.

msh> sntp interval polling_time



- ☐ The default is 3600 seconds.
- ☐ You can set the interval from 16 to 16384 seconds.
- ☐ If you set 0, the printer synchronizes with the NTP server only when you turn the printer on. After that, the printer does not synchronize with the NTP server.



❖ Time-zone Configuration

You can specify the time difference between the printer clock and the NTP server clock.

msh> sntp timezone +/-hour_time

Example: To set the time-zone difference to +8 hours:

```
msh> sntp timezone +08:00
```



☐ The time is in 24-hour notation.

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 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. Upper and lower case characters are considered unique. For example, R is different from r.
- ☐ The password is the same as that used for Web Image Monitor settings. When the password is changed on "mshell", the other passwords change also. If you change a password from telnet, change other passwords too.
- **4** Enter the new password once again.

Retype new password:

DNS

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

View setting

You can display current DNS settings.

msh> dns

DNS server configuration

You can enable/disable use of the DNS server address.

msh> dns number server / server address

The following is a sample configuration using 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.



Dynamic DNS Function Setting

You can set the dynamic DNS function to active or inactive.

msh> dns ifname ddns {on off}

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

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

^{*1} Available when the optional IEEE 802.11b interface unit is installed.

Specifying the record overlap operation

You can specify the operation performed when records overlap.

msh> dns overlap {update add}

- update
 - To delete the old record and register a new record
- add
 To add a new record while allowing the old record to remain
- Note
- ☐ When CNAME overlaps, it is always changed, irrespective of the setting.

CNAME Registration

You can specify whether to register CNAME.

msh> dns cname [on off]

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

^{*2} Available when the optional IEEE 1394 interface board is installed.



Note

☐ The CNAME registered is the default name beginning from RNP. CNAME cannot be changed.

❖ A Records Registration

You can specify the method of registering an A record when the dynamic DNS function is active and DHCP is used.

msh> dns arecord [dhcp|own]

- dhep
 - To register an A record while using the DHCP server as the DNS client instead of the printer.
- own
 To register an A record using the printer as the DNS client.

Note

☐ The DNS server address and domain name already designated on p.228 "DHCP" are used for the registration.

Record Updating Interval Setting

You can specify the interval at which records are updated when using the dynamic DNS function.

msh> dns interval time

- The updating interval is specified in units of one hour. It can be specified over a range of 1 to 255 hours.
- The default is 24.



Domain name

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

You can display the current domain name.

msh> domainname

Interface domain configuration

You can display or set the Ethernet interface domain name, IEEE 1394 interface, or IEEE 802.11b interface.

• Setting the domain name

msh> domainname interface_name domain name

- A domain name can be entered up to 63 alphanumeric characters.
- The Ethernet interface and IEEE 802.11b interface will have the same domain name.
- Deleting the domain name

msh> domainname interface name clear

Interface	Interface that can be set
ether	Ethernet interface
ip1394 *1	IEEE 1394 interface
wlan *2	IEEE 802.11b interface

^{*1} Available when the optional IEEE 1394 interface board is installed.

^{*2} Available when the optional IEEE 802.11b interface unit is installed.



NetWare

Use the "netware" command to configure the NetWare settings such as the print server name or file server name.

msh> netware parameter

Parameter	Settings
pname	Enter the NetWare print server name using up to 47 characters.
fname	Enter the NetWare file server name using up to 47 characters.
encap [802.3/802.2/snap/ ethernet2/ auto]	Select the encap type.
rnum	Specify the remote printer number.
timeout	Set the timeout.
mode pserver mode ps	Select the print server mode.
mode rprinter mode rp	Select the remote printer mode.
context	Specify the NDS context name.
sap_interval	Specify the SAP intervals. Each interval can be set to between 0 and 3600 seconds in one-second increments.
login server	Specify "login with a selected file server" as the login mode.
login tree	Specify "login with a selected NDS tree" as the login mode.
tree	Specify the NDS tree name.



web

Use the "web" command to display and configure the parameters on Web Image Monitor.

View Settings

msh> web

❖ URL Configuration

The link address reached by clicking **[URL]** on Web Image Monitor can be set.

msh> web url http://The URL or IP address you want to register/

Link Name Configuration

You can enter the name for **[URL]** that appears on Web Image Monitor.

msh> web name Name you want to display

♦ Help URL Configuration

The link address reached by clicking [Help] or "?" on Web Image Monitor can be set.

msh> web help http://Help URL or IP address/help/

Rendezvous

Use the "rendezvous" commands to display or configure rendezvous-related settings.

View settings

You can display a list of rendezvous settings.

msh> rendezvous



Rendezvous Computer Name Setting

You can display the rendezvous computer name.

msh> rendezvous cname "computer name"

- The computer name is specified using up to 63 alphanumeric characters.
- The current computer name appears if a computer name is not specified.

❖ Rendezvous Installation Location Information Setting

You can enter information related to the location where the printer is installed.

msh> rendezvous location "location"

- Information related to the installation location can be entered using up to 32 alphanumeric characters.
- The current installation location information appears if installation location information is not entered.

Setting Order of Priority for Each Protocol

You can specify the order of priority for "diprint", "1pr", and "ipp". Smaller numbers indicate higher priority.

• diprint

```
msh> rendezvous diprint [0-99]
```

• lpr

```
msh> rendezvous lpr [0-99]
```

• ipp

```
msh> rendezvous ipp [0-99]
```

❖ IP TTL setting

You can specify the IP TTL (the number of routers a packet can pass through).

```
msh> rendezvous ipttl {1-255}
```



Note

☐ The default is 255.

Resetting the computer name and location information

You can reset the computer name and location information.

msh> rendezvous clear {cname | location}

cname

Reset the computer name. The default for the computer name will be displayed when the computer is restarted.

• location

Reset the location information. The location information will be deleted.

Bluetooth

Use the "btconfig" command to make setting for BluetoothTM.

View settings

You can display the Bluetooth settings

msh> btconfig

Mode settings

You can set the Bluetooth operation mode to either "private" or "public".

msh> btconfig [private | public]



☐ The default is "public".



Getting Printer Information over the Network

Printer current status

You can check the printer's status using the "telnet" command.

◆ telnet

Use the "status" command.

Message	Description
Adjusting	The machine is adjusting the color.
Call Service Center	There is a malfunction in the printer.
Cover Open: Duplex Unit	The optional duplex unit cover is open.
Cover Open: Finisher Front	The front cover of the optional Finisher is open.
Cover Open: Finisher Upper	The upper cover of the optional Finisher is open.
Cover Open: Finisher Upper-R	The lower cover of the optional Finisher is open.
Cover Open: Front	The front cover is open.
Cover Open: Lower Right	The lower right cover is open.
Cover Open: Right	The right cover is open.
Cover Open: Upper Left	The upper left cover is open.
Cover Open: Right	The upper right cover is open.
Empty: Black Toner	The toner cartridge is almost empty.
Empty: Cyan Toner	The toner cartridge is almost empty.
Empty: Magenta Toner	The toner cartridge is almost empty.



Message	Description
Empty: Yellow Toner	The toner cartridge is almost empty.
Energy Save Mode	The printer is in Energy Saver Mode.
Error: Ethernet Board	An error has occurred in the Ethernet interface board.
Error: HDD Board	An error has occurred in the optional Printer Hard Disk
Error: IEEE1394 Board	An error has occurred in the IEEE 1394 interface board.
Error: Memory Switch	An error has occurred in the memory switch.
Error: Optional Font	An error has occurred in the optional font.
Error: Optional RAM	An error has occurred in the optional memory unit.
Error: Parallel I/F Board	An error has occurred in the parallel interface board.
Error: USB I/F	An error has occurred in the USB interface board.
Error: Wireless Card	An error has occurred in the IEEE 802.11b (Wireless LAN) card.
Error: Wireless Card or Board	An error has occurred in the IEEE 802.11b (Wireless LAN) interface.
Full: Finisher	Tray of the Finisher is full.
Full: Hole Punch Receptacle	The chad receptacle of the optional finisher is full.
Full: Output Tray(s)	All output trays are full.
Full: Standard Tray	The standard tray is full.
Full: Waste Oil Bottle	The waste oil bottle is full.
Full: Waste Toner Bottle	The waste toner bottle is full.
Loading Toner	Toner is being supplied.
Low: Black Toner	The toner cartridge is not set correctly, or toner is almost running out.
Low: Cyan Toner	The toner cartridge is not set correctly, or toner is almost running out.



Message	Description
Low: Magenta Toner	The toner cartridge is not set correctly, or toner is almost running out.
Low: Yellow Toner	The toner cartridge is not set correctly, or toner is almost running out.
Malfunction: Finisher	There is a problem with the finisher.
Malfunction: Stapler	There is a problem with the stapler.
Malfunction: Tray 1	There is a problem with tray 1.
Malfunction: Tray 2	There is a problem with tray 2.
Malfunction: Tray 3	There is a problem with tray 3
Malfunction: Tray 3 (LCT)	There is a problem with Large Capacity Tray.
Malfunction: Tray 4	There is a problem with tray 4.
Mismatch: Paper Size	The paper size setting of the tray differs from that of the actual size in the tray.
Mismatch: Paper Size and Type	The paper type setting of the tray differs from that of the actual type in the tray.
Mismatch: Paper Type	The paper type setting of the tray differs from that of the actual type in the tray.
Near Replacing: Fuser Oil Unit	The fuser oil unit will soon need to be replaced.
Nearly Full: Waste Oil Bottle	The waste oil is almost full.
Nearly Full: Waste Toner Bottle	The waste toner bottle is almost full.
Need more Staples	The staples have run out.
No Paper: Selected Tray	The selected tray has run out of paper.
Not Detected: Black Toner	The toner cartridge is not set correctly.
Not Detected: Cyan Toner	The toner cartridge is not set correctly.



Message	Description
Not Detected: Develop. Unit (C)	The indicated development unit(s) is/are not set correctly, or is not set.
Not Detected: Develop. Unit (K)	The indicated development unit(s) is/are not set correctly, or is not set.
Not Detected: Develop. Unit (M)	The indicated development unit(s) is/are not set correctly, or is not set.
Not Detected: Develop. Unit (Y)	The indicated development unit(s) is/are not set correctly, or is not set.
Not Detected: Duplex Feed Unit	The duplex feed unit is not set correctly, or is not set.
Not Detected: Finisher	The Finisher is not set correctly, or is not set.
Not Detected: Fuser Oil Unit	The fuser oil unit is not set correctly, or is not set.
Not Detected: Fusing Unit	The fusing unit is not set correctly, or is not set, or your fusing unit is improper.
Not Detected: Input Tray	The selected tray is not attached correctly.
Not Detected: Magenta Toner	The toner cartridge is not set correctly.
Not Detected: PCU (C)	The indicated PCU(s) is/are not set correctly, or is not set.
Not Detected: PCU (K)	The indicated PCU(s) is/are not set correctly, or is not set.
Not Detected: Develop. Unit (M)	The indicated PCU(s) is/are not set correctly, or is not set.
Not Detected: Develop. Unit (Y)	The indicated PCU(s) is/are not set correctly, or is not set.
Not Detected: Waste Oil Bottle	The waste oil bottle is not set correctly, or is not set.
Not Detected: WasteToner Bottle	The waste toner is not set correctly, or is not set.
Not Detected: Yellow Toner	The toner cartridge is not set correctly.
Offline	The machine is offline.
Paper in Finisher	There is paper left in the finisher
Paper Misfeed: Duplex Feed Unit	Paper is jammed in the duplex Feed Unit.



Message	Description
Paper Misfeed: Duplex Unit	There is misfeed in the Duplex Unit.
Paper Misfeed: Finisher	There is paper in the optional Finisher
Paper Misfeed: Fusing Unit	Paper is jammed in the fusing unit.
Paper Misfeed: Input Tray	feed unit.
Printing	The machine is printing.
RC Gate Connection Error	The RC gate connection failed.
Ready	The printer is ready to use.
Replace Develop. Unit (Black)	It is time to replace the black development unit.
Replace Develop. Unit (Color)	It is time to replace the color development unit.
Replace Feed Roller	It is time to replace the feed roller.
Replace Fuser Oil Unit	It is time to replace the fuser oil unit.
Replace Fusing Unit	It is time to replace the fusing unit.
Replace PCU (Black)	It is time to replace the black PCU.
Replace PCU (Color)	It is time to replace the color PCU
Replace Transfer Belt	It is time to replace the transfer belt.
Replace Transfer Cleaning Unit	It is time to replaxe the transfer cleaning unit.
SD Card Authentication failed	SD card authentication failed.
Supplies Order Call failed	The supplies order call failed.
Warming Up	The printer is warming up.



Printer configuration

You can check the printer configuration using telnet.

♦ telnet

Use the "info" command.



- J "*" (asterisk) is displayed with the current setting.
- ☐ Regarding *1 *5, see the following table.

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
Printer Language	
No.	ID number of the printer language used by the printer
Name	Name of the printer language used by the printer
Version	Version of the printer language



◆ *1 Input Tray: Name

Name	Description
Tray X	Name of installed paper tray (X is the number of tray.)
Tray3 (LCT)	Tray 3 (LCT)
Bypass Tray	Bypass Tray

◆ *2 Input Tray: PaperSize

Paper size	Description
A3 (297 × 420 mm)	A3 (297 × 420) 🗗
12×18	A3 wide (12 × 18) -
B4JIS (257 × 364 mm)	B4 (257 × 364) □
A4 (297 × 210 mm)	A4 (297 × 210) 🔽
A4 (210 × 297 mm)	A4 (210×297) 🗗
B5JIS (257 × 182 mm)	B5 (257 × 182) □
B5JIS (182 × 257 mm)	B5 (182 × 257) □
A5 (210 × 148 mm)	A5 (210 × 148) 🗸
A5 (148 × 210 mm)	A5 (148×210) 🗗
A6 (105 × 148 mm)	A6 (105 × 148) 🗗
11 × 17	DL (11 × 17) □
8 1/2 × 14	LG (8 ¹ / ₂ × 14) □
11 × 8 1/2	LT (11 × 8 ¹ / ₂)
8 1/2 × 11	LT (8 ¹ / ₂ ×11) D



Paper size	Description
5 1/2 × 8 1/2	HL (5 ¹ / ₂ × 8 ¹ / ₂) □
Custom (XXX × YYY mm)	Custom Size
10 1/2 × 7 1/4	10 ¹ / ₂ × 7 1/4 7
7 1/4 × 10 1/2	7 ¹ / ₄ × 10 ¹ / ₂ □
8 1/4 × 13	8 ¹ / ₄ × 13 □
8 1/2 × 13	8 ¹ / ₂ × 13 □
4 1/8 × 9 1/2	4 1/8 × 9 1/2 🗗
3 7/8 × 7 1/2	3 ⁷ / ₈ × 7 ¹ / ₂ □
DL (220 × 110 mm)	DL (220×110) 🔽
C5 Env (229 × 162 mm)	C5 Env (229 × 162) \Box
8×13	8 × 13 □
C6 Env (162 × 114 mm)	C6 Env (162 × 114) □
8K (267 × 390 mm)	8K (267 × 390) □
16K (267 × 195 mm)	16K (267 × 195)
16K (195 × 267 mm)	16K (195 × 267) □
Unknown	There is no tray.
**	The paper size is not selected.



◆ *3 Input Tray: Status

Status	Description
Normal	_
NoInputTray	There is no paper tray.
PaperEnd	There is no paper in the paper tray.

◆ *4 Output Tray: Name

Name	Description
Standard Tray	Output Tray
External Tray	External Tray
Finisher Tray 1	Finisher Tray 1
Finisher Tray 2	Finisher Tray 2
Finisher Shift Tray	Finisher Shift Tray
Finisher Booklet Tray	Finisher Booklet Tray

◆ *5 Output Tray: Status

Status	Description
Normal	
PaperExist	There is paper in the output tray.
OverFlow	Output tray is full of paper.
Error	Other errors



Understanding the 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.233 "Printer status".

Item name	Meaning
Rank	Print job status
	 Active Printing or preparing to print 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 20 jobs that have been printed.

This log can be displayed using the following commands:

• telnet: Use the "prnlog" command. See p.233 "Printer status".

Name	Meaning
ID	Print request ID
User	Print request user name
Page	The number of pages printed
Result	The result of the print request
Time	The time when the print request was received
User ID *1	User ID to be configured in the printer driver
JobName *1	The name of the document for printing

^{*1} Displays user ID and JobName information when entering the "info" command with the ID.



Configuring the Network Interface Board

The network interface board settings can be displayed by using the commands below.

• telnet: Use the "show" command. See p.234 "Network interface board 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 *5	
SCSI print *5	
Ethernet interface	Internal version number
Syslog priority	
NVRAM version	Internal version number
Device name	Printer name.
Comment	Comment.
Location	Location of the printer in the SNMP and Rendezvous information



Item name	Meaning
Contact	Person who maintains the printer and contact information in the SNMP information
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.
TCP/IP	
Mode	Up means active, Down means inactive.
ftp	
lpr	
rsh	
telnet	
diprint	
web	
http	
ftpc	
snmp	
ipp	



Item name	Meaning
autonet	
rendezvous	
ssl	
EncapType	Frame type.
DHCP	Dynamic Host Configuration Protocol (on/off)
Address	IP address.
Netmask	Subnet mask.
Broadcast	Broadcast address.
DNS Domain	DNS domain type
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.



Item name	Meaning
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	
Login Mode	Login mode.
Print job timeout	Time of the job timeout.
Protocol	Protocol used.
SAP interval time	
NDS Tree Name	NDS tree name.



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	Printer name.
DHCP	DHCP (on/off)
Address	IP address.
Netmask	Subnet mask.
Broadcast	Broadcast address.
DNS Domain	DNS domain type
SSID	SSID being used.
Channel range	Channels available for use.
Channel	Channel being used.
Communication mode	IEEE 802.11b interface transmitting mode.



Item name	Meaning
Authentification	
TX Rate	IEEE 802.11b interface speed.
WEP encryption	Whether WEP is enabled or disabled.
Encryption key	WEP key.
IP over 1394 *1 *5	
Device name	Printer name.
DHCP	DHCP (on/off)
Address	IP address.
Netmask	Subnet mask.
Broadcast	Broadcast address.
DNS Domain	DNS domain type
SCSI print *5	
Bidi.	Bidirectional setting (on/off).
Bluetooth *4	
Bluetooth mode	Bluetooth connection mode
DNS	
Server[X *6]:	IP address of the DNS server
Selected DNS Server	Selected DNS server



Item name	Meaning
Domain Name	
ether	Domain name on an Ethernet connection
ip1394	Domain name on an IP over 1394 connection
wlan	Domain name on a wireless LAN connection
Rendezvous	
Computer Name	Printer name.
Rendezvous Name (ether)	Printer name displayed with Rendezvous on an Ethernet connection
Rendezvous Name (wlan)	Printer name displayed with Rendezvous on a wireless LAN connection
Location	Location of the printer
Priority (diprint)	diprint priority number
Priority (lpr)	lpr priority number
Priority (ipp)	ipp priority number
IP TTL	IP TTL value
DDNS	
ether	Dynamic DNS function on an Ethernet connection (on/off)
ip1394	Dynamic DNS function on an IP over 1394 connection (on/off)
wlan	Dynamic DNS function on a wireless LAN connection (on/off)



Item name	Meaning
WINS	
ether	
Primary WINS	IP address of the primary WINS server on an Ethernet connection
Secondary WINS	IP address of the secondary WINS server on an Ethernet connection
ip1394	
Primary WINS	IP address of the primary WINS server on an IP over 1394 connection
Secondary WINS	IP address of the secondary WINS server on an IP over 1394 connection
Shell mode	Mode of the remote maintenance tool.

^{*1} The optional IEEE 1394 interface board supports TCP/IP only.

^{*2} \approx represents a target number between 1 and 3.

^{*3} You can display the item names when installing the optional IEEE 802.11b interface unit.

^{*4} You can display the item names when installing the optional Bluetooth interface unit.

^{*5} You can display the item names when installing the optional IEEE 1394 interface board.

^{*6} $\stackrel{*}{\approx}$ represents a target number between 1 and 3.



Message List

This is a list of messages written in the printer'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.224 "Commands List".

Message	Causes and solutions
Access to NetWare server <file name="" server=""> denied. Either there is no account for this print server on the NetWare server or the password was incorrect.</file>	(In print server mode) Cannot log on to the file server. Make sure 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.</community>	The same community name already exists. Use another one.
add_sess: session <community name="">already defined.</community>	The requested community name is not defined.
add_sess: bad trap addr: <ipaddress>, community:<community name=""></community></ipaddress>	The IP address (0.0.0.0.) is unavailable if 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=""></community></ipx>	The IPX address (00:00:00:00:00:00) is unavailable if the community access type is TRAP. Specify the host IPX address for the TRAP destination.
add_sess_ipx: community <community name=""> already defined.</community>	The same community name already exists. Use another one.
add_sess_ipx: session_ipx <community name=""> not defined.</community>	The requested community name is not defined.



Message	Causes and solutions
anpd start. (AppleTalk)	An anpd (AppleTalk Network Package Daemon) has started.
Attach FileServer = <file name="" server=""></file>	Attached to the file server as a nearest server.
Attach to print queue <print name="" queue=""></print>	(In print server mode) Attached to the print queue name.
Cannot create service connection	(In remote printer mode) Cannot establish a connection with the file server. The number of file server users may exceed the maximum number the file server can handle.
	(in print server mode) The printer with the required <printer number=""> does not appear in <print name="" server="">. Check the printer number of the printer registered in the print server.</print></printer>
Cannot find rprinter (<print name="" server="">/<printer number="">)</printer></print>	The printer with the number displayed on the print server does not exist. Make sure the number of the printer is registered in the print server.
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)	Failed to start the network service. Turn the printer off and then on. If this does not work, contact your service or sales representatives.
Connected DHCP Server(<dhcp address="" server="">).</dhcp>	The IP address was successfully received from the DHCP server.
connection from <ip address=""></ip>	Logged on from the host <ip address="">.</ip>
Could not attach to FileServer <error number=""></error>	(In remote printer mode) Cannot attach to the file server. For some reason, the file server is refusing the connection. Check the file server configuration.



Message	Causes and solutions
Could not attach to PServer <print server=""></print>	(In remote printer mode) Cannot attach to the print server. For some reason, the print server is refusing the connection. Check the print server configuration.
Current Interface Speed:xxxMbps	The speed of the network (10 Mbps or 100 Mbps)
Current IP address <current address="" ip=""></current>	The IP address <current address="" ip=""> was received from the DHCP server.</current>
Current IPX address <ipx address=""></ipx>	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.
dheped start.	A dhcpcd (DHCP client service) has started.
Duplicate IP= <ip address="">(from <mac address="">).</mac></ip>	The same IP address is in use. Every IP address must be unique. Check the address of the device indicated in <mac address="">.</mac>
Established SPX Connection with PServer, (RPSocket= <socket number="">, connID= <connection id="">)</connection></socket>	(In remote printer mode) A connection to the print server has been established.
exiting	lpd service has ended and the system is closing.
Exit pserver	(In print server mode) Exits the print server because the necessary print server settings have not been made.
Frametype = <frame name="" type=""/>	The <frame name="" type=""/> is configured to be used on Net-Ware.
httpd start.	An httpd has started.



Message	Causes and solutions
IEEE 802.11b Card Firmware REV.IEEE 802.11b Card Firmware REV.	This is the wireless LAN card's firmware version.
IEEE 802.11b current channel <channel></channel>	The current channel is displayed.
	In Ad hoc mode, the number selected by the user appears. In Infrastructure mode, the channel used in the access point appears.
	Example: IEEE 802.11b current channel 11
IEEE 802.11b MAC Address = <mac address=""></mac>	The IEEE 802.11b interface MAC address appears.
	Example: IEEE 802.11b MAC Address = 00:00:74:XX:XX:XX
IEEE 802.11b SSID <ssid> (AP MAC Address < MAC Address>)</ssid>	The access point SSID used in Infrastructure mode and the MAC address of the access point appear.
	Example: IEEE 802.11b SSID test-ssid (AP MAC Address xx:xx:xx:xx:xx)
IEEE 802.11b <transmission mode=""> mode</transmission>	This is the IEEE 802.11b transmission mode.
	IEEE 802.11b [Infrastructure] mode : in infrastructure mode
	• IEEE 802.11b [802.11 Ad hoc] mode : in 802.11 adhoc mode
	IEEE 802.11b [Ad hoc] mode : in adhoc mode
IEEE 802.11b Tx Rate <transfer speed=""></transfer>	The IEEE 802.11b transmitting speed (set speed) is displayed.
	Example: IEEE 802.11b Tx Rate 11Mbps
	Transmission speed varies according to signal quality. Actual transmission speed may differ from the displayed value.



Message	Causes and solutions
inetd start.	An inetd has started.
<interface> started with IP: <ip address=""></ip></interface>	<pre><ip address=""> has been set for <interface> and <inter- face=""> started.</inter-></interface></ip></pre>
<interface>: Subnet overlap.</interface>	Subnet from Netmask and the IP address you tried to set for <interface> overlap the subnet of another interface.</interface>
	Set Subnet so that 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.
IPP job canceled. jobid=%d.	The spooled job has been canceled due to an error or user request.
job canceled. jobid=%d.	The spooled job has been canceled due to an error or user request.
LeaseTime= <lease time="">(sec), RenewTime=<renew time="">(sec).</renew></lease>	The resource lease time received from the DHCP server is <lease time=""> in seconds. The renewal time is also <renew time=""> in seconds.</renew></lease>
Login to fileserver <file name="" server=""> (<ipx ip>,<nds bindery nds bindery>)</nds bindery nds bindery></ipx ip></file>	(In print server mode) Logged on to the file server with NDS or BINDERY mode.
multid start.	Data transmission service for multiprotocols has started.
Name registration failed. name= <netbios name=""></netbios>	The printer could not register the name of NetBIOS.
Name registration success in Broadcast name= <netbios name=""></netbios>	The NetBIOS name was successfully registered from a broadcast.



Message	Causes and solutions
Name registration success. WINS Server= <wins server<br="">Address> NetBIOS Name=<netbios name=""></netbios></wins>	The NetBIOS name was successfully registered to the WINS server.
nbstart start. (NetBEUI)	The service for NetBEUI stack setting has started.
NBT Registration Broadcast(<netbios name="">)</netbios>	Use a local broadcast to map <netbios name=""> with the IP address.</netbios>
nbtd start.	An nbtd (NetBIOS over TCP/IP Daemon) has started. (Available only in DHCP mode)
NetBEUI Computer Name = <computer name=""></computer>	The NetBEUI Computer Name is defined as <computer name="">.</computer>
nmsd start. (NetBEUI)	An nmsd (Name Server Daemon) has started.
npriter start. (NetWare)	(In remote printer mode) NetWare service has started.
nwstart start. (NetWare)	The service for NetWare stack setting has started.
Open log file <file name=""></file>	(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 the user name and host address (except for ROOT authorization).
phy release file open failed.	The network interface board needs replacing. Contact your sales or service representatives.
Print queue <print name="" queue=""> cannot be serviced by printer 0, <print name="" server=""></print></print>	(In print server mode) The print queue name cannot be serviced. Make sure that print queue volume exists on the specified file server.



Message	Causes and solutions
Print server <print name="" server=""> has no printer.</print>	(In print server mode) The printer object is not assigned to the print server <print name="" server="">. Using NWadmin, assign the printer object, and then restart the printer device.</print>
Print session full	Cannot accept the print session.
Printer <printer name=""> has no queue</printer>	(In print server mode) The print queue is not assigned to the printer. Using NWadmin, 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</computer>	The same computer name is detected on the network. The start job determines the computer name by adding the computer name to the suffix (0,1). Configure a new computer name that is unique.
Required file server (<file name="" server="">) not found</file>	Cannot find the required file server.
restarted.	LPD has started.
sap enable, saptype= <sap type="">, sapname=<sap name=""></sap></sap>	The SAP function has started. The SAP (SAP type and SAP name) packet is issued to advertise the service on the SAP table on the NetWare server.
sessionsession <community name="">not defined.</community>	The requested community name is not defined.
session_ipx <community name="">not defined.</community>	The requested community name is not defined.
Set context to <nds context="" name=""></nds>	A <nds context="" name=""> has been set.</nds>
shutdown signal received. network service rebooting	Rebooting the network service.
smbd start. (NetBEUI)	An smbd (SMB (Server Message Block) service) has started.



Message	Causes and solutions
SMTPC:failed to get smtp server ip-address.	Failed to get the SMTP server IP address. This could be because:
	• 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 is specified.
	 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 could be because:
	• 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 could be because:
	• Another server other than the SMTP server has been specified.
	• The SMTP server port number is incorrect.
SMTPC:no smtp server.connection close.	No reponse from the SMTP protocol. Cannot connect to the SMTP server. This could be because:
	• Another server other than the SMTP server has been specified.
	The SMTP server port number is incorrect.



Message	Causes and solutions	
SMTPC:failed to connect smtp server	Failed to connect the SMTP server. This could be because:	
	• There is no connection 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.	
	• There is no specified SMTP server IP address in the DNS server.	
	• Another server other than the SMTP server has been specified.	
	• The SMTP server port number is incorrect.	
SMTPC:username or password wasn't correct. [response code] (information)	Failed to connect the SMTP server. This could be beacuse:	
	• The specified SMTP user name is incorrect.	
	• The specified SMTP password is incorrect.	
	Check the SMTP user name and password.	
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.	
Started.	Rendezvous has started.	
Terminated.	Rendezvous has ended.	



Message	Causes and solutions
Terminated.(PS not found)	Rendezvous has been terminated because PS was not found.
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.</error>	Cannot log on to the file server. The print server is not registered or the password is specified. Register the print server without specifying a password.
win2kspd protocol-DOWN (APPEXIT).	The NVRAM setting ioctl (SPIO CAPPEXIT) of device SBP2TSP was set by protocol-DOWN. SCSI print is not receiving data.
win2kspd protocol-UP (APPENTRY).	The NVRAM setting ioctl (SPIO CAPPENTRY) of device SBP2TSP was set by protocol-UP. SCSI print is not receiving data.
win2kspd started.	SCSI print (SBP-2) service has started.
WINS name refresh :Server No Response	There was no response to the update request from the server. Confirm the WINS server address is correct and working properly.
WINS name registration/refresh error code(errornumber)	Set unique (not shared) NetBIOS names. Confirm the WINS server address is correct and working properly.
WINS name registration:Server No Response to server(WINS server address)	There was no response to the registration request from the server. Confirm the WINS server address is correct and working properly.
WINS server address0.0.0.0	The WINS server address has not been specified. Specify the WINS server address to match the printer name with WINS.



Message	Causes and solutions
WINS Server= <wins address="" server=""> NetBIOS Name=<netbios name=""></netbios></wins>	The printer name has been successfully registered in <wins address="" server="">.</wins>
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.



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/SP4
- MetaFrame XP 1.0 SP1/SP2/FR1

❖ Windows 2000 Server /Advanced Server

- MetaFrame 1.8 SP3/FR1 SP3/SP4
- MetaFrame XP 1.0 SP1/SP2/SP3/FR1/FR2/FR3

Note

☐ The PCL5c printer driver does not support MetaFrame 1.8 SP3 under Windows 2000 Server/Advanced Server.



Supported Printer Drivers

♦ When Windows Terminal Service is operating

- PCL5c
- PostScript 3



- ☐ 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 images or font settings may be lost. We strongly recommend testing this function under your network environment before applying it to actual jobs.

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 testing this function under your network environment before applying it to actual jobs.

• 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 errors may occur.
- When using MetaFrame XP 1.0 or later versions, we recommend configuring [Client Printer bandwidth] available from [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 testing this function under your network environment before applying it to actual jobs.

• If the printer drivers are not properly copied, we recommend installing them directly on each server.



Cautions When Using the Bluetooth Interface Unit

This machine's optional Bluetooth interface unit operation mode is set to [Public] as default.

If the setting is changed to **[Private]**, only registered computers can use this machine via the Bluetooth interface unit.

Confirm operation mode settings using Web Image Monitor or telnet.

Reference

For details about Web Image Monitor, see p.108 "Using a Web Image Monitor".

For details about making operation mode settings using telnet, see p.261 "Bluetooth".



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 the NetWare file server and printer are on opposite sides of a router, packets are continuously sent back and forth, possibly causing communication charges to increase. Because the packet transmission is a specification of NetWare, you need to change the router's configuration. If the network you are using does not allow you to configure the router, configure the printer.

Configuring the router

Filter packets so they do not pass over the dial-up router.



- ☐ The MAC address of the printer doing the filtering is printed on the printer configuration page. For more information about printing a configuration page, see Setup Guide.
- ☐ For more information about configuring the printer if the router cannot be configured, see the instructions below.

Configuring the printer with NetWare

- 1 Follow the setup method in this manual, configure the file server.
- 2 Set the frame type for a NetWare environment.



Reference

For more information about selecting a frame type, see p.73 "Configuring NetWare Using the Control Panel".

Configuring the printer without NetWare

1 While not printing, the network interface board sends packets on the network. Set the Net-Ware to inactive.

Reference

For more information about selecting a protocol, see p.73 "Configuring NetWare Using the Control Panel".

Configuring SSL Encryption

This section describes how to configure SSL (secure sockets layer) encryption.

Setting Procedure

- Install SmartDeviceMonitor for Client, and then create the machine's IPP port.
- Log on to Web Image Monitor in the Administrator mode, and then configure the server certificate.
- Log on to Web Image Monitor in the Administrator mode, and then enable the [SSL/TLS] setting.



☐ If you have configured SSL (secure sockets layer) encryption and have issued the server certificate, enter "https://<pri>printer's IP address>/printer" to access the machine with Web Image Monitor. Internet Explorer 5.01 or later or Netscape 7.0 or later must be installed on the computer.



Reference

For details about the setting, see Web Image Monitor Help. See p.114 "Using Help on Web Image Monitor".

PostScript Printing from Windows

When printing PostScript from Windows, see PostScript 3 Supplement.

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 print properly. If you want to change the form feed setting, always configure it on Windows.

- Under Windows 95/98/Me, clear the **[Form feed]** check box on the **[Printer Settings]** tab in the printer properties dialog box.
- Under Windows 2000, clear the **[Form feed]** check box on the **[NetWare Settings]** tab in the printer properties dialog box.
- Under 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 it on Windows.

- Under Windows 95/98/Me, clear the **[Enable banner]** check box on the **[Printer Settings]** tab in the printer properties dialog box.
- Under Windows 2000, clear the **[Enable banner]** check box on the **[NetWare Settings]** tab in the printer properties dialog box.
- Under 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 printer

After resetting the remote printer, it will be cut off from the print server for about 30-40 seconds before reconnecting. Due to the NetWare specification, print jobs may be accepted, but not printed during this interval.

When using the printer as a remote printer, wait about two minutes after resetting the printer before attempting to print.



Using DHCP

This machine can be used in DHCP environment. In a WINS server environment, the printer name can simultaneously be registered with a WINS server.

When static IP addresses are set for each interface

- IP address: When set at the same value, the Ethernet interface is used.
- Subnet mask: When a value overlaps, the Ethernet interface is used.
- Gateway address: The value set is used. For the gateway address, set the gateway address located in the subnetwork set by the interface. Is a value is outside the subnet range set by the interface, it operates as "0.0.0.0".

When each setting is acquired from the DHCP server

• IP address, subnet mask: set for each value leased by the DHCP server operating on a connected interface. When overlapping IP addresses or identical IP addresses in the subnetwork are set at this time, only the highest priority active value is set for the interface.



- ☐ The default priority interface is Ethernet.
- AutoNet: An automatic private address (169.254. xxx.xxx) is set for high priority interfaces.
- Gateway address, DNS server address, domain name: Settings are made for the DHCP-acquired values that have the highest interface priority.

If the gateway address is outside the subnetwork range set by the interface, it operates as "0.0.0.0".



☐ The default priority interface is Ethernet.



❖ When the settings of the static IP addresses and the DHCP acquired value overlap

- IP address, subnet mask: When the static IP address and DHCP-acquired value (IP address) are
 the same, or the static subnet mask value and DHCP-acquired subnet mask value overlap, the
 interface setting the static IP use the value set. The interface set by DHCP is reset to the default.
- Gateway address: Uses the manually set value.
- When a gateway address is set outside the interface subnetwork range, it operates as "0.0.0.0".

Note

☐ When the static IP address is not set, or is set as " 0.0.0.0", the interface setting the DHCP acquisition value is activated.

Note

- ☐ Supported DHCP server operating systems are: Windows 2000 Server, Windows NT 4.0 Server Service Pack 4 or later, NetWare, and UNIX standard.
- ☐ The IP address acquired from DHCP can be checked on the configuration page. See p.138 "Printing a Configuration Page" printing the configuration page.
- ☐ When using WINS server, set the WINS server as shown on p.302 "Configuring a WINS Server".
- ☐ Under WINS server, host names can be used for remote network printer ports.
- ☐ 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.
- ☐ When there are multiple DHCP servers, make the same reservation for all. This machine operates on the information from the DHCP server that answered first.
- ☐ DHCP relay-agent is not supported. If you use DHCP relay-agent on an ISDN line network, it will incur expensive line charges. This is because your computer connects to the ISDN line whenever a packet is transferred from the printer.



Using AutoNet

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

Limitation

☐ You must change the setting to "on" to use AutoNet. See p.250 "AutoNet".

Note

- ☐ The IP address assigned by the DHCP server is given priority over that selected by AutoNet.
- ☐ You can confirm the current IP address on the configuration page. For more information about the configuration page, see p.138 "Printing a Configuration Page".
- When AutoNet is running, the NetBIOS name is not registered on the WINS server.

Configuring a WINS Server

The printer can be configured to register its NetBIOS name with a WINS server when its power is turned on. This enables the NetBIOS name of the printer to be specified from SmartDeviceMonitor for Admin even under a DHCP environment.

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 the 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 13 alphanumeric characters.



Using a Web Image Monitor

- 1 Start Web Image Monitor.
- 2 Point your browser at the printer's URL or IP address (e.g. http://XXX.XXX.XXX substituting the Xs with the IP address).

The status of the chosen printer appears on Web Image Monitor.

Click [Administrator Mode].

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

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

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

- In the left area, click [Configuration], and then click [Network].
- 6 Click TCP/IP.
- Set WINS to "active" and enter the IP address of the WINS server in [Primary WINS Server] and [Secondary WINS Server].
- 8 Click [Apply].
- **9** Exit Web Image Monitor.



Using telnet

- 1 Connect to the remote printer using telnet.
- 2 Use the "set" command to make WINS active.

 msh> set wins on
- Specify the IP addresses (primary and secondary) using the following commands:

 msh> wins primary Ipaddress

 msh> wins secondary Ipaddress
 - Note
 - ☐ To confirm the current configuration, use the "show" command.
- 4 Log out from telnet.



Memory Capacity and Paper Size

Print Quality	nt Quality Paper Size		Non-Duplex Printing		Duplex Printing	
Time Quanty	Print Quality Paper Size	Can print	Guaranteed	Can print	Guaranteed	
	A3/DLT		LT			
	B4					
600 × 600 dpi *1	LG	128 MB (Standard)	128 MB	128 MB	192 MB	
	A4/LT		(Standard)	(Standard)	(Standard+64 MB)	
	B5		B5			
	A5					
	A3/DLT	128 MB	100.15		25(145)	
	B4		192 MB (Standard+64 MB)		256 MB (Standard+128 MB)	
1200 × 600 dpi *2	LG			128 MB		
1200 × 000 api	A4/LT	(Standard)	4.00.1.55	(Standard)	400.155	
	B5	128 MB (Standard)		192 MB (Standard+64 MB)		
	A5					



Print Quality	Paper Size	Non-Duple	ex Printing	Duplex	Printing		
Time Quanty	raper Size	Can print	Guaranteed	Can print	Guaranteed		
	A3/DLT				256 MB	192 MB	384 MB (Standard+256 MB)
	B4		(Standard+128 MB)	(Standard+64 MB) 384 MB	384 MB		
1200 × 1200 dpi	LG	128 MB (Standard)			(Standard+256 MB)		
	A4/LT						
	B5		192 MB (Standard+64 MB)	128 MB (Standard)	256 MB (Standard+128 MB)		
	A5		((=	(
	A3/DLT						
	B4	192 MB					
600 × 600 dpi	LG		192 MB	192 MB	256 MB		
(2bit) *4	(2bit) *4 A4/LT (Standard+64 MB)	(Standard+64 MB)	(Standard+64 MB)	(Standard+128 MB)			
	B5]					
	A5						

^{*1} Resolution settings from each printer driver are as follows:

- RPCS: [600 x 600 dpi] on [Resolution]
- PCL 5c: [600 dpi] on [Resolution]
- PostScript 3: [600 dpi] on [Resolution] and [Fast] on [Gradation]

Reference

For more information about how to set the printer driver, see the printer driver Help.

- *2 Resolution settings from each printer driver are as follows:
 - RPCS: [1200 x 600 dpi] on [Resolution]
 - PostScript 3: [600 dpi] on [Resolution] and [Standard] on [Gradation]



PReference

For more information about how to set the printer driver, see the printer driver Help.

- *3 Resolution settings from each printer driver are as follows:
 - RPCS: [1200 x 1200 dpi] on [Resolution]
 - PostScript 3: [1200 dpi] on [Resolution] and [Fast] on [Gradation]

Reference

For more information about how to set the printer driver, see the printer driver Help.

- *4 Resolution settings from each printer driver are as follows:
 - PCL 5c: [600 x 600 dpi] on [Resolution]



Specifications

Main Unit

A Configuration:

Desktop

Print Process:

Laser beam scanning & Electrophotographic printing Dual component toner development

Printing Speed:

Monochrome: Maximum 35 pages per minute (A4 \square), (11 × 8 $^{1}/_{2}\square$) Color: Maximum 35 pages per minute (A4 \square), (11 × 8 $^{1}/_{2}\square$)

♦ Interface:

- USB (USB1.1, USB2.0)
- Ethernet (10/100Base-TX)

Optional:

- IEEE 1394 (SCSI print, IP over 1394)
- IEEE 802.11b (wireless LAN)
- Parallel (Bidirectional IEEE1284)
- Bluetooth



❖ Resolution:

 1200×1200 dpi (RPCS, PostScript 3) 1200×600 dpi (RPCS, PostScript 3) 600×600 dpi (PCL 5c, RPCS, PostScript 3) 600×600 dpi 2bit (PCL 5c) 300×300 dpi (PCL 5c *1) *1 monochrome only

❖ Printer Language:

PCL 5c, RPCS, Adobe PostScript Level 3

❖ Fonts:

PCL 5c

Agfa Font 35 Manager Intellifonts, 10 TrueType fonts, and 1 Bitmap font Agfa Font Manager available, 31 fonts

PostScript 3

136 fonts

❖ Paper Size:

See "Paper and Other Media", Maintenance Guide.

❖ Paper Weight:

See "Paper and Other Media", Maintenance Guide.

Media Type:

See "Paper and Other Media", Maintenance Guide.

❖ Power Source:

220 - 240 V, 50/60Hz



❖ Power Consumption:

Printing	1,680 W or less
Energy Saver	15 W or less

♦ Noise Emission *1:

Sound Power Level

	Main unit only
During Printing	68 dB (A)
Standby	42 dB (A)
Energy Saver	40 db (A)

Sound Pressure Level *2

	Main unit only
Standby	24 dB (A)
During Printing	55 dB (A)

^{*1} The preceding measurement, made in accordance with ISO7779, are actual values.

❖ Dimensions:

	Width	Depth	Height
Printer only (tray not extended)	575 mm (22.7 inches)	678 mm (26.7 inches)	745 mm (29.3 inches)
With Paper Feed Unit Type 7100 (500×2) or Paper Bank Type 7100, and SR770	1,450 mm (57.2 inches)	678 mm (26.7 inches)	1060 mm (41.7 inches)

^{*2} Measured at the position of a bystander.



❖ Weight:

Approximately 85 kg (187 lb) (toner cartridge and power cord included)

♦ Warm-up Time:

Less than 99 seconds (23°C, 73F) *1

❖ Paper Input Capacity:

Standard Paper Tray	500 sheets × 2 *1
Bypass Tray	100 sheets *1
Paper Feed Unit Type 7100	500 sheets \times 1, 500 sheets \times 2 *1
Paper Bank Type 7100	2,000 sheets *1

^{*1} Paper weight: 80 g/m² (20 lb)

❖ Paper Output Capacity:

Face down: 500 sheets (80 g/m², 20 lb) Face up: 100 sheets (80 g/m², 20 lb)

^{*1} When no error.

^{*2} You can load up to 10 envelopes at the same time.



❖ Paper weight and number of sheets to be set:

	Supported paper weight	Maximum number of sheets (plain paper)
Tray 1	60-105 g/m ² (16-28 lb)	500 (80 g/m ² , 20 lb)
Tray 2	60-105 g/ m ² (16-28 lb)	500 (80 g/m ² , 20 lb)
Bypass Tray	60-163 g/m ² (16-42 lb)	100 (80 g/m ² , 20 lb)
Paper Feed Unit Type 7100 (500 × 1)	60-105 g/ m ² (16-28 lb)	500 (80 g/m ² , 20 lb)
Paper Feed Unit Type 7100 (500 × 2)	60-105 g/ m ² (16-28 lb)	500 (80 g/m ² , 20 lb)
Paper Bank Type 7100	60-105 g/ m ² (16-28 lb)	2000 (80 g/m ² , 20 lb)

♦ Memory:

Standard 128 MB, up to 384 MB (with the optional Memory Unit Type C)

❖ Network:

Protocol: TCP/IP, NetBEUI*1, IPX/SPX, AppleTalk

^{*1} To use NetBEUI, use the SmartDeviceMonitor for Client port.



Paper Feed Unit Type 7100 (500 × 1)

 \clubsuit Dimensions (W \times D \times H):

 $540 \times 600 \times 172 \text{ mm} (21.3 \times 23.7 \times 6.8 \text{ in})$

❖ Paper Weight:

60 - 105 g/m² (16 - 28 lb)

❖ Paper Size:

A5 (Long edge feed) - A3, $8^{1}/_{2} \times 11$ - 11 × 17 (Short edge feed)

Paper Feed Unit Type 7100 (500 \times 2)

 \clubsuit Dimensions (W \times D \times H):

 $540 \times 600 \times 270 \text{ mm} (21.3 \times 23.7 \times 10.7 \text{ in})$

Paper Weight:

 $60 - 105 \text{ g/m}^2 (16 - 28 \text{ lb})$

❖ Paper Size:

A5 (Long edge feed) - A3, $8^{1}/_{2} \times 11$ - 11×17 (Short edge feed)

Paper Bank Type 7100 (Large Capacity Tray)

\clubsuit Dimensions (W \times D \times H):

 $540 \times 600 \times 270 \text{ mm} (21.3 \times 23.7 \times 10.7 \text{ in})$

❖ Paper Weight:

60 - 105 g/m² (16 - 28 lb)

❖ Paper Size:

A4 (Long edge feed) or $8^{1}/_{2} \times 11$ (Short edge feed)

SR770 (2 Tray Finisher)

\clubsuit Dimensions (W \times D \times H):

 $680 \times 620 \times 1,030 \text{ mm} (26.8 \times 24.4 \times 40.6 \text{ in})$

❖ Paper Size:

A5 (Long edge feed) - A3, $8^{1}/_{2} \times 11$ - 11 × 17 (Short edge feed)

❖ Paper Weight:

 $60 - 105 \text{ g/m}^2 (16 - 28 \text{ lb})$

❖ Stack Capacity:

- Upper Tray: 500 sheets $(A4/11 \times 8^{1}/_{2}/B5/A5 \text{ (Long edge feed)} 80 \text{ g/m}^{2}, 20 \text{ lbs.})$
- Lower Tray
 2,000 sheets (A4/11 × 8¹/₂ (Long edge feed) 80 g/m², 20 lbs.)
 750 sheets (A3, B4, A4 (Short edge feed), B5, 8¹/₂ × 14, 11 × 17, 8¹/₂ × 11 (Short edge feed))
 500 sheets (A5 (Long edge feed))



❖ Weight:

53 kg (116.9 lb)

SR910 (Booklet Finisher)

\clubsuit Dimensions (W \times D \times H):

695×603×932 mm (27.3×23.7×36.7 in)

❖ Paper Size:

A5 (Long edge feed) - A3, $8^{1}/_{2}\times14$ - 11×17 , B5 (Short edge feed)

❖ Paper Weight:

 $64 - 128 \text{ g/m}^2 (17 - 34.1 \text{ lb})$

❖ Stack Capacity:

- No Staple:
 - 1000 sheets (A4, A5, Letter)
 - 500 sheets (A3, B4, 11×17 , Legal)
- Staple:
 - 1000 sheets (A4, A5, Letter)
 - 500 sheets (A3, B4, 11 × 17, Legal)
 Or 30 sets (A3, B4, A4, A5, 11 × 17, Legal, Letter)

Staple capacity:

- 50 sheets (A4, A5, Letter)
- 25 sheets (A3, B4, 11×17 , Legal)



❖ Staple paper size:

- $A3/A4/B4/B5/11 \times 17/Legal/Letter$ (Short edge feed)
- A4/B5/Letter (Long edge feed)

Staple position:

- 1 staple/2 positions
- 2 staples/2 positions

♦ Power consumption:

60W

Duplex Unit Type 7100

ightharpoonup Dimensions (W \times D \times H):

90×524×430 mm (3.6×20.7×17.0 in) (Including the duplex reversal unit and duplex reversal unit stand)

❖ Paper Size:

A5 (Long edge feed) - A3, 17×11 - 12×18 (Long edge feed)

♦ Weight:

8 kg (3.6 lb)



Printer Hard Disk Type 7100

Storage Capacity (Formatted):

40 GB

- Spool print data to collate
- Spool Sample/Locked Print data
- Store PostScript fonts
- · Store log data



☐ You can install PostScript fonts using the optional hard disk drive. With Macintosh, supported fonts are PostScript Type 1 and PostScript Type 2. To download them, use Printer Utility for Mac.

Memory Unit Type C 64/128/256MB

♦ Module Type:

SO-DIMM (Small Outline Dual-in-line Memory Module)

♦ Memory Type:

SDRAM (Synchronous Dynamic RAM)

❖ Number of Pins:

144 pins



User Account Enhance Unit Type D

❖ Capacity:

128 KB

• Store User Code (Up to 400 users)

IEEE 1394 Interface Board Type B

♦ Interface:

IEEE Std. 1394-1955 compliant, 1394a-2000 compliant.

♦ Interface Connector:

IEEE 1394 (6×2 pins)

* Required cable:

IEEE 1394 interface cable $(6 \times 4 \text{ pins}, 6 \times 6 \text{ pins})$

- **#Important**
- ☐ You cannot plug devices together to create loops.
- ☐ Do not use a cable that is more than 4.5 meters long.
- Connectable number of devices in a bus:

Maximum 63

Allowed cable hops in a bus:

Maximum 16

❖ Data Transmission:

400 Mbps (Maximum)



❖ Power supply:

No separate power supply Cable Power repeated (IEEE 1394a-2000 compliant)

IEEE 1284 Interface Board Type A

❖ Transmission Spec.:

IEEE 1284

Required cable

Standard IEEE 1284 compliant Micro Centronics 36 pin cable

IEEE 802.11b Interface Unit Type C

❖ Transmission Spec.:

Based on IEEE 802.11b (wireless LAN)

❖ Protocol:

TCP/IP, NetBEUI, IPX/SPX, AppleTalk



☐ SmartDeviceMonitor and Web Image Monitor are supported.

Data Transfer Speed:

1 Mbps, 2 Mbps, 5.5 Mbps, 11 Mbps (auto selected)



❖ Frequency Range:

• Inch version:

2412-2462 Mhz (1-11 channels)

• Metric version:

2412-2472 Mhz (1-13 channels)

❖ Transmittable Distance:

1 Mbps 400 m *1

2 Mbps 270 m *1

5.5 Mbps 200 m *1

11 Mbps 140 m *1

❖ Transmission Mode:

ad hoc and infrastructure mode

^{*1} These figures are a guideline for outdoor use. In general, the transmittable distance indoors is 10-100 m, depending on the environment.



Bluetooth Interface Unit Type 2238

❖ Supported Profiles:

- SPP (Serial Port Profile)
- HCRP (Hardcopy Cable Replacement Profile)
- BIP (Basic Imaging Profile)

Frequency Range:

2 GHz ISM band

Data Transmission Speed:

732 kbps



☐ The transmission speed is adjusted according to factors such as the distance and obstacles between the devices, radio signal condition and Bluetooth adaptor.

♦ Maximum Range:

10 m



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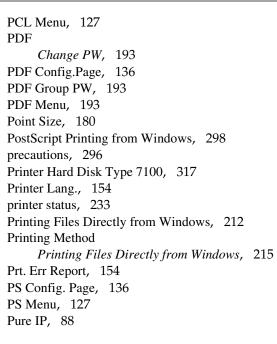
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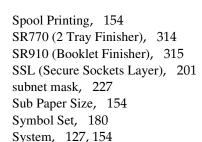


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