1. Windows 2000 Print Server Configuration

2. Windows XP Print Server Configuration

3. Windows NT 4.0 Print Server Configuration

4. NetWare Configuration

5. Using SmartNetMonitor for Admin

6. Using a Web Browser

7. Making Printer Settings Using the Control Panel

8. Appendix

Introduction

To get maximum versatility from this machine all operators should carefully read and follow the instructions in this manual. 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.

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

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

Symbols

In this manual, the following symbols are used:

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

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

* The statements above are notes for your safety.

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

Preparation
This symbol indicates the prior knowledge or preparations required before operating.

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

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

Reference
This symbol indicates a reference.

[ ]

Keys that appear on the machine's display.

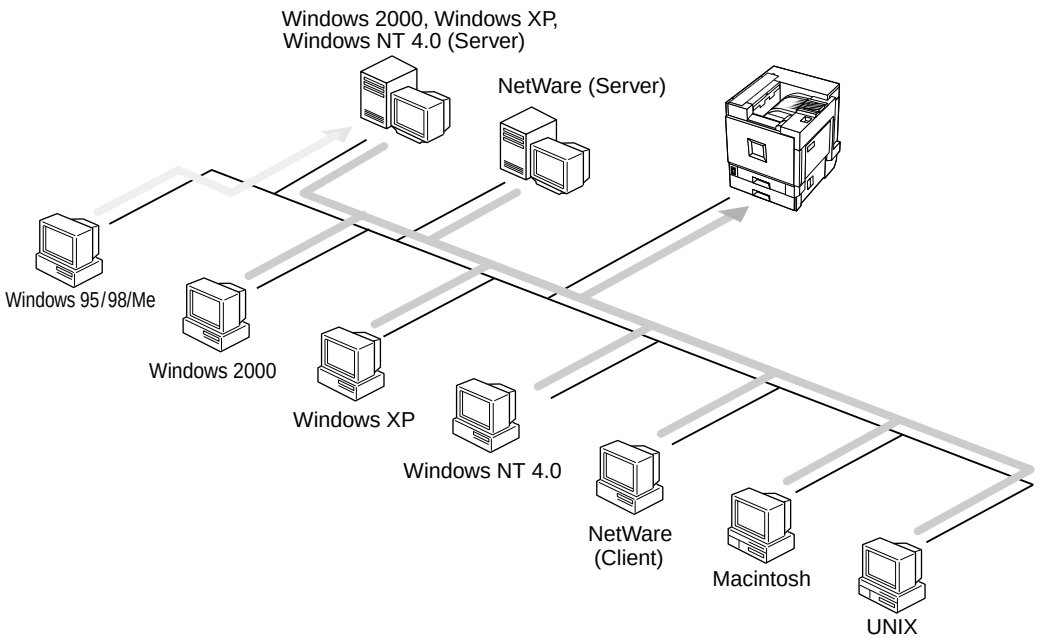
Keys and buttons that appear on the computer's display.

【 】

Keys built into the machine's control panel.

Keys on the computer's keyboard.

Checking the Network Environment



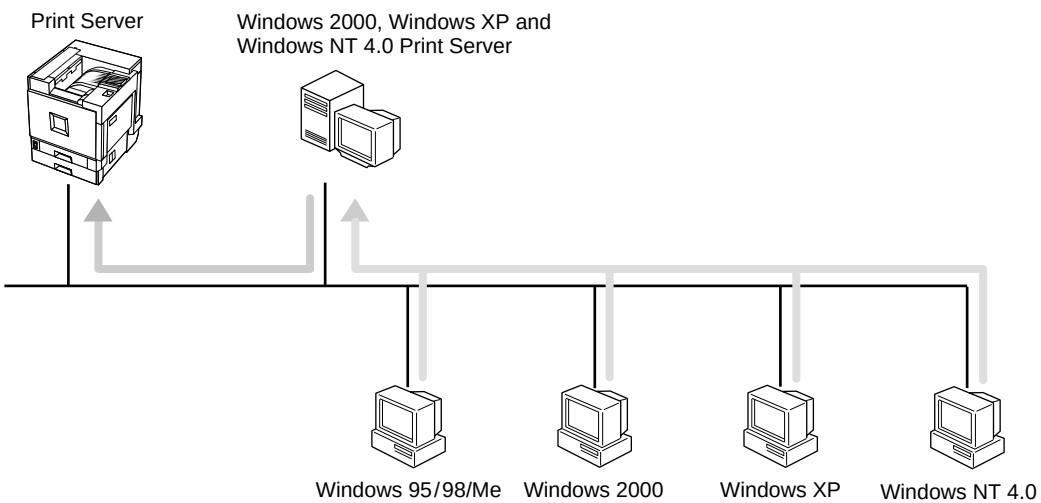
❖ Connecting Printer and Computer

- 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)
- Bluetooth™ connection

Print Server Configuration

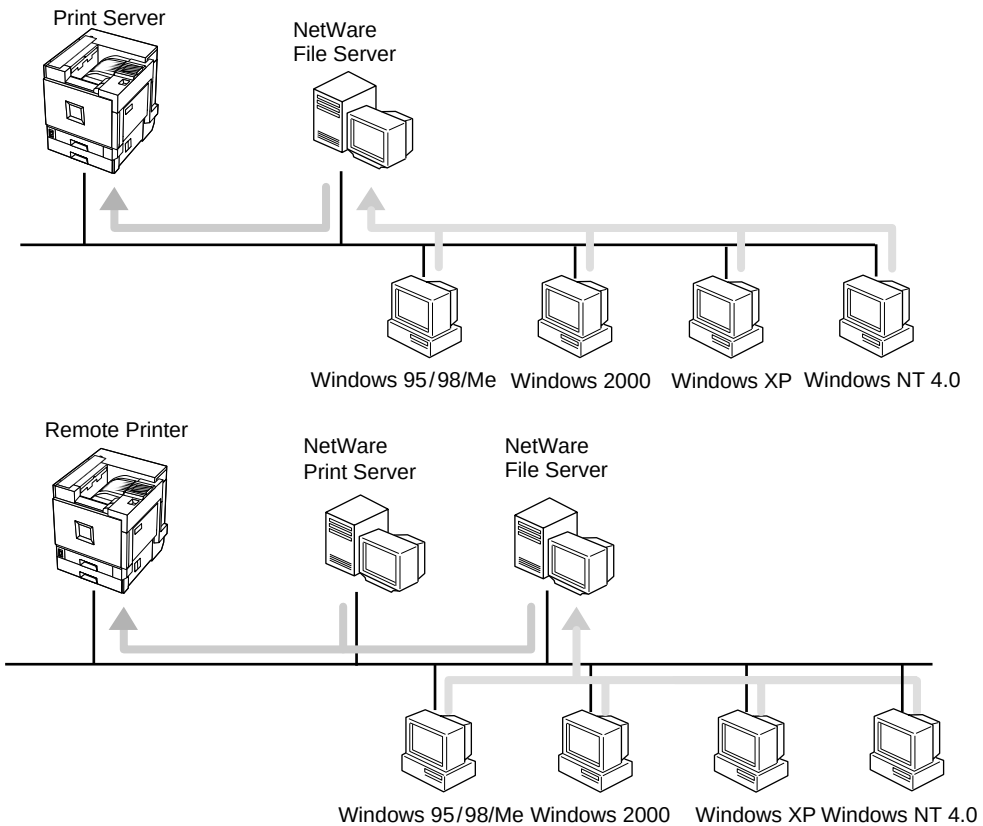
You can use Windows 2000, Windows XP, or Windows NT 4.0 as a Print Server.



See p.14 “Windows 2000 Print Server Configuration”.
See p.34 “Windows XP Print Server Configuration”.
See p.52 “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.72 “NetWare Configuration”.

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

- SmartNetMonitor
  See p.14 “Configuring Protocols”, p.18 “Installing Software”, p.19 “Installing the PCL 5c or RPCS Printer Driver”, and p.24 “Installing the PostScript Printer Driver”.
- Standard TCP/IP Port, LPR Port
  See p.14 “Configuring Protocols”, p.19 “Installing the PCL 5c or RPCS Printer Driver”, and p.24 “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.

Preparation

To use NetBEUI, use the SmartNetMonitor 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.250 “Using DHCP”.

Note

❒ 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]**, 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.
```

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].

3 **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].**
3. **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 SmartNetMonitor 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.

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 [SmartNetMonitor 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 SmartNetMonitor 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 **[I 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 box appears, and then click [Next>].**

You can select more than one printer driver.

7 **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.

9 **Click [Port:], and then click [Add] in the [Change settings for 'Port'] box.**

The **[Add Port]** dialog box appears.

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.**

SmartNetMonitor

❶ **Click [SmartNetMonitor], and then click [OK].**

❷ **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 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.134 "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" or "ipp://printer's-ip-address/printer" in the **[Printer URL]** field.
(Example: IP address is 192.168.15.16)

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

③ 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 SmartNetMonitor for Client Help.

⑤ Click **[OK]**.

Standard TCP/IP Port

❶ **Click [Standard TCP/IP Port], and then click [OK].**

❷ **In the [Add Standard TCP/IP Printer Port Wizard] window, click [Next>].**

❸ **In the [Printer Name or IP Address] box, enter the printer name or IP address, and then click [Next>].**

❹ **In the [Add Standard TCP/IP Printer Port Wizard] window, click [Finish].**

LPR Port

❶ **Click [LPR Port], and then click [OK].**

❷ **In the [Name or address of server providing lpd] box, enter the printer's IP address.**

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

⓫ **Make sure the location for the selected printer is displayed after [Port:].**

⓬ **Double-click [Shared] to display share settings.**

⓭ **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.33 “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.31 “Bidirectional transmission”.

Reference

For more information about option settings, see p.30 “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.

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)

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.

5 **Click [Next>].**

6 **Click [Local printer], and then click [Next>].**

7 **Click [Create a new port:].**

8 **The next part of the procedure depends on the port in use. Follow the section that corresponds to the port you want to use.**

- SmartNetMonitor
- Standard TCP/IP Port
- LPR Port

SmartNetMonitor

❶ **Click [SmartNetMonitor], and then click [Next>].**

❷ **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 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.134 "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" or "ipp://printer's-ip-address/printer" in the **[Printer URL]** field.
(Example: IP address is 192.168.15.16)

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

③ 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 SmartNetMonitor for Client Help.

⑤ Click **[OK]**.

Standard TCP/IP Port

❶ **In [Create a new Port], click [Standard TCP/IP], and then click [Next>].**

❷ **In the [Add Standard TCP/IP Printer Port Wizard] window, click [Next>].**

❸ **In the [Printer Name or IP Address] box, enter the printer name or IP address, and then click [Next>].**

❹ **In the [Add Standard TCP/IP Printer Port Wizard] window, click [Finish].**

LPR Port

❶ **Click [LPR Port] in [Create a new Port], and then click [Next>].**

❷ **In the [Name or address of server providing lpd] box, enter the printer's IP address.**

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

9 **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.

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

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

12 In the [Location and Comment] dialog box, enter the location and comment about the printer, and then click [Next>].

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

14 Click [Finish].

Printer driver installation starts.

15 Set up the options.

Reference

For more information about option settings, see p.30 “Setting Up Options”.

Changing Port Settings

This describes how to change SmartNetMonitor 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 SmartNetMonitor for Client, and then right-click the SmartNetMonitor 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 SmartNetMonitor 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.

3 Click the [Accessories] tab.

Note

❒ 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].**

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, Windows 2000, Windows XP, 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:

❖ 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.
- SmartNetMonitor 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].**

3. **Select the [Shared as:] check box on the [Sharing] tab.**

4. **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.

5. **Click [OK].**

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

- SmartNetMonitor
  See p.34 “Configuring Protocols”, p.37 “Installing Software”, p.38 “Installing the PCL 5c or RPCS Printer Driver”, and p.43 “Installing the PostScript Printer Driver”.
- Standard TCP/IP Port, LPR Port
  See p.34 “Configuring Protocols”, p.38 “Installing the PCL 5c or RPCS Printer Driver”, and p.43 “Installing the PostScript Printer Driver”.

Note

❒ If you want to use “LPR Port”, “Print Services for UNIX” must be installed. For details, see Windows XP Help.

Configuring Protocols

Configuring TCP/IP and IPP for Printing

This describes how to configure the network interface board and Windows XP 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 Configuration”, *Printer Client Reference*.

If DHCP is used to assign IP addresses, see p.250 “Using DHCP”.

Note

❒ 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.
```

Configuring a Windows XP computer

Follow the procedure below to configure a Windows XP 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].**
3. **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 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 SmartNetMonitor 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.

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 [SmartNetMonitor 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 SmartNetMonitor 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 **[I 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.

7 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.

9 Click [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.

- SmartNetMonitor
- Standard TCP/IP Port
- LPR Port

SmartNetMonitor

❶ Click [SmartNetMonitor], and then click [OK].

❷ 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" or "ipp://printer's-ip-address/printer" in the **[Printer URL]** field.
(Example: IP address is 192.168.15.16)

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

③ 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 SmartNetMonitor for Client Help.

⑤ Click **[OK]**.

Standard TCP/IP Port

❶ **Click [Standard TCP/IP], and then click [OK].**

❷ **In the [Add Standard TCP/IP Printer Port Wizard] window, click [Next>].**

❸ **In the [Printer Name or IP Address] box, enter the printer name or IP address, and then click [Next>].**

❹ **In the [Add Standard TCP/IP Printer Port Wizard] window, click [Finish].**

LPR Port

❶ **Click [LPR Port], and then click [OK].**

❷ **In the [Name or address of server providing lpd] box, enter the printer's IP address.**

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

⓫ **Make sure the location for the selected printer is displayed after [Port:].**

⓬ **Double-click [Shared] to display share settings.**

⓭ **To share the printer, select the [Shared] check box.**

⓮ **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.51 "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].**

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.49 “Bidirectional transmission”.

Reference
For more information about option settings, see p.48 “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.

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)

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.

5 **Click [Next>].**

6 **Click [Local printer attached to this computer], and then click [Next>].**

7 **Click [Create a new port:].**

8 **The next part of the procedure depends on the port in use. Follow the section that corresponds to the port you want to use.**

- SmartNetMonitor
- Standard TCP/IP Port
- LPR Port

SmartNetMonitor

❶ **Click [SmartNetMonitor], and then click [Next>].**

❷ **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" or "ipp://printer's-ip-address/printer" in the **[Printer URL]** field.
(Example: IP address is 192.168.15.16)

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

③ 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 SmartNetMonitor for Client Help.

⑤ Click **[OK]**.

Standard TCP/IP Port

❶ **In [Create a new Port:], click [Standard TCP/IP], and then click [Next>].**

❷ **In the [Add Standard TCP/IP Printer Port Wizard] window, click [Next>].**

❸ **In the [Printer Name or IP Address] box, enter the printer name or IP address, and then click [Next>].**

❹ **In the [Add Standard TCP/IP Printer Port Wizard] window, click [Finish].**

LPR Port

❶ **In [Create a new Port:], click [LPR Port], and then click [Next>].**

❷ **In the [Name or address of server providing lpd] box, enter the printer's IP address.**

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

9. **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.

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

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

12. **In the [Location and Comment] dialog box, enter the location and comment about the printer, and then click [Next>].**

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

14. **Click [Finish].**

    Printer driver installation starts.

Note

❒ During installation, the **[Hardware Installation]** dialog box may appear. In this case, click **[Continue Anyway]** to continue the installation.

15 Set up the options.

Reference

For more information about option settings, see p.48 “Setting Up Options”.

Changing Port Settings

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

1 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.

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 SmartNetMonitor for Client, and then right-click the SmartNetMonitor 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 SmartNetMonitor 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.

3 **Click the [Accessories] tab.**

Note

❒ 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].**

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, Windows 2000, Windows XP, 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:

❖ 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 **[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.
- SmartNetMonitor for Client included on the CD-ROM must be installed, and TCP/IP must be used.
- Under Windows XP **[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].**

3. **Select the [Share this printer:] check box on the [Sharing] tab.**

4. **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.

5. **Click [OK].**

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

- SmartNetMonitor
  See p.52 “Configuring Protocols”, p.57 “Installing Software”, p.58 “Installing the PCL 5c or RPCS Printer Driver”, and p.63 “Installing the PostScript Printer Driver”.
- LPR Port
  See p.52 “Configuring Protocols”, p.58 “Installing the PCL 5c or RPCS Printer Driver”, and p.63 “Installing the PostScript Printer Driver”.

Note

❒ If you want to use “LPR Port”, “Microsoft TCP/ IP Printing” must be installed. For details, see Windows NT Help.

Configuring Protocols

Configuring TCP/IP and IPP for Printing

This describes how to configure the network interface board and Windows NT 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 NT 4.0 Configuration”, *Printer Client Reference*.

If DHCP is used to assign IP addresses, see p.69 “Bidirectional transmission”.

Note

❒ 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.
```

Configuring a Windows NT computer

Follow the procedure below to configure a Windows NT 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.

Note

❒ 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 Help.

2 Check TCP/IP with an appropriate IP address, subnet mask, and other settings.

Check the settings are correct with the network administrator.

3 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 Help.

Configuring NetBEUI for Printing

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

Preparation

To use NetBEUI, use the SmartNetMonitor 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 computer

Install NetBEUI on the Windows NT 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.

Note

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

2. **Change the Lana Number. Click the [Services] tab, click [NetBEUI Interface] in the [Network Services:] box, and then click [Properties:].**

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

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

Note

❒ If another protocol's Lana Number is configured to "0", change it to another number.

5. **Click [OK].**

6. **Click [Close].**

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

Note

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

Installing Software

Installing SmartNetMonitor 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.

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 [SmartNetMonitor 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 SmartNetMonitor 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 **[I 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.

7 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.

9 Click [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.

- SmartNetMonitor
- LPR Port

SmartNetMonitor

❶ Click [SmartNetMonitor], and then click [OK].

❷ 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.134 “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” or “ipp://printer's-ip-address/printer” in the **[Printer URL]** field.
(Example: IP address is 192.168.15.16)

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

③ 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 SmartNetMonitor for Client Help.

⑤ Click **[OK]**.

LPR Port

❶ Click [LPR Port], and then click [OK].

❷ In the [Name or address of server providing lpd] box, enter the printer's IP address.

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

⓫ Make sure the location for the selected printer is displayed after [Port:].

⓬ Double-click [Shared] to display share settings.

⓭ To share the printer, select the [Shared] check box.

⓮ 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 98/98/Me]** is already selected).

❒ You can add an alternative driver after installation. See p.71 "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.69 “Bidirectional transmission”.

Reference

For more information about option settings, see p.68 “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.

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)

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.

5 **Click [Next>].**

6 **Click [Local printer], and then click [Next>].**

7 **Click [Add Port:].**

8 **The next part of the procedure depends on the port in use. Follow the section that corresponds to the port you want to use.**

- SmartNetMonitor
- LPR Port

SmartNetMonitor

❶ **Click [SmartNetMonitor], and then click [New Port...].**

❷ **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 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.134 "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" or "ipp://printer's-ip-address/printer" in the **[Printer URL]** field.
(Example: IP address is 192.168.15.16)

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

③ 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 SmartNetMonitor for Client Help.

⑤ Click **[OK]**.

LPR Port

❶ **In [Create a new Port:], click [LPR Port], and then click [New Port...].**

❷ **In the [Name or address of server providing lpd] box, enter the printer's IP address.**

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

❹ **Click [Close] in the [Printer Ports] dialog box, and then click [Next>].**

9. **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.

11. **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. **In the [Location and Comment] dialog box, enter the location and comment about the printer, and then click [Next>].**

13. **Select whether or not you want to print a test page, and then click [Finish].**

14. **Printer driver installation starts.**

15. **Set up the options.**

Reference

For more information about option settings, see p.68 "Setting Up Options".

Changing Port Settings

This describes how to change SmartNetMonitor 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 SmartNetMonitor for Client, and then right-click the SmartNetMonitor 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 SmartNetMonitor 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.

3 Click the [Accessories] tab.

Note

❒ 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].**

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, Windows 2000, Windows XP, 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:

❖ 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.
- SmartNetMonitor 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].**

3. **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.

4. **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.

5. **Click [OK].**

   The printers attached to the network are displayed.

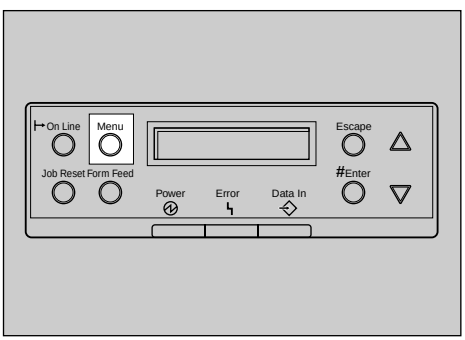
This describes how to configure the printer for use as a print server or remote printer in a NetWare environment.

Configuring NetWare Using the Control Panel

Note

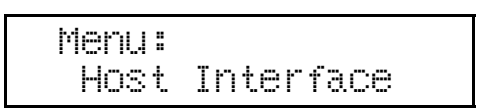
❒ IPX/SPX must be installed on your computer. If it is not, see Windows Help for instructions.

1 Press the【Menu】key.



"Menu" appears on the display.

2 Press the【▲】or【▼】key to display "Host Interface".



3 **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

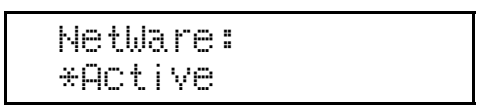
- ❒ All protocols are active by default.
- ❒ Do not select protocols not used on your network.
- ❒ If you use Pure IP on NetWare 5/5.1, 6, configure the printer to active TCP/IP.

❶ **Press the【▲】or【▼】key to display "Active Protocol", and then press the【Enter #】key.**

❷ **Press the【▲】or【▼】key to display "NetWare".**

❸ **Press the【Enter #】key.**

The current setting appears on the display.



❹ **Press the【▲】or【▼】key to display "NetWare".**

❺ **Press the【Enter #】key.**

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

❻ **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 ll
- Ethernet 802.3
- Ethernet 802.2
- Ethernet SNAP

Note

❒ 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.

❶ **Press the [▲] or [▼] key to display “Frame Type (NW)”.**

```
Network Setup:
 Frame Type (NW)
```

❷ **Press the [Enter #] key.**

The current setting appears on the display.

```
Frame Type (NW):
*Auto
```

❸ **Press the [▲] or [▼] key to display the frame type you want to use.**

❹ **Press the [Enter #] key.**

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

❺ **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.134 “Printing a Configuration Page”.

❖ SmartNetMonitor for Admin

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

Note

❒ If you configure the NetWare printing using SmartNetMonitor 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/Windows NT 4.0

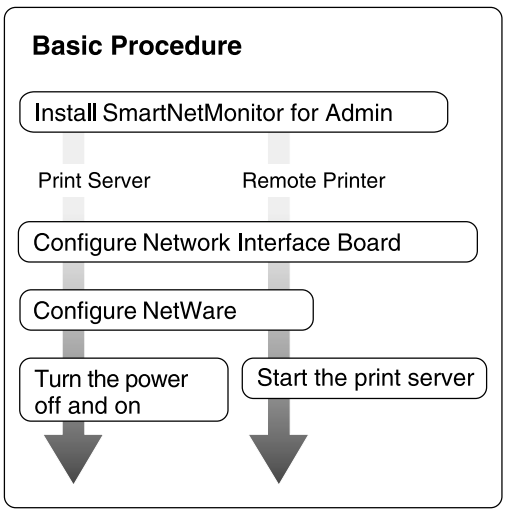
❒ Use the version of Novell Client provided with your operating system, or the latest version.

❖ Printers listed by SmartNetMonitor for Admin

SmartNetMonitor 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.134 “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.



Note

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

Installing SmartNetMonitor for Admin

Install SmartNetMonitor for Admin on your computer. For the installation procedure, see p.95 “Installing SmartNetMonitor for Admin”.

After installing SmartNetMonitor for Admin, go to p.78 “Setting Up as a Print Server” to use this computer as a print server, or to p.80 “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 SmartNetMonitor for Admin.**
3. **On the [Group] menu, point to [Search Device], and then click [IPX/SPX].**

   A list of printers appears.

   Note

   - 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.134 “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.72 “Configuring NetWare Using the Control Panel”.
4. **Select the printer you want to configure, and then click [NIB Setup Tool] on the [Tools] menu.**
5. **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>].

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

8 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]**.

9 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.

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

The settings take effect, and NIB Setup Tool closes.

11 Exit SmartNetMonitor 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 SmartNetMonitor for Admin.**
3. **On the [Group] menu, point to [Search Device], and then click [IPX/SPX].**

   A list of printers appears.

   Note

   - 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.134 "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.72 "Configuring NetWare Using the Control Panel".

4. **Select the printer you want to configure, and then click [NIB Setup Tool] on the [Tools] menu.**
5. **Click [Property Sheet], and then click [OK].**
6. **Click the [NetWare] tab, and then make the following settings:**

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

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

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

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

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

Important

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

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

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

7 **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 10.

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

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

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

10 **Create a printer as follows:**

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

❷ **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 - ❶).

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

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

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

Important

❒ Use the same number as that specified as the Remote Printer No. using NIB Setup Tool. (Step 6 - ❹).

❻ **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.

❼ **For type, click [Remote Parallel, LPT1].**

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

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

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

11 Assign print queues to the created printer as follows:

❶ **From [Print Server Configuration Menu], click [Queues Serviced By Printer].**

❷ **Select the printer created in step 10.**

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

Note

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

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

When you have finished the above steps, check the queues are assigned.

12 Press the 【ESC】 key until "Exit?" appears, and then click [Yes] to close PCONSOLE.

13 **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

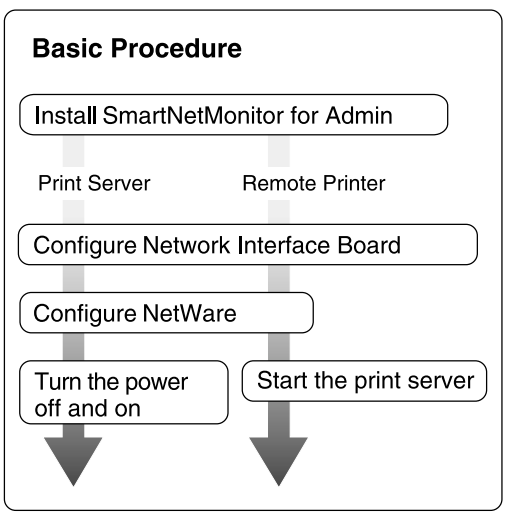
❒ If the printer works as configured, “Waiting for job” appears.

NetWare 4.x, 5/5.1, 6 - 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 environment.

❖ To use NetWare 5/5.1, 6

- Use the printer as a print server.
  Do not use as a remote printer.
- If you use Pure IP, configure the printer to use TCP/IP. For more information about how to make the settings, see p.72 “Configuring NetWare Using the Control Panel”.



Installing SmartNetMonitor for Admin

Install SmartNetMonitor for Admin on your computer. For the installation procedure, see p.95 “Installing SmartNetMonitor for Admin”.

After installing SmartNetMonitor for Admin, go to p.85 “Setting Up as a Print Server” to use this computer as a print server, or to p.89 “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.

1 Log on to the file server as a Supervisor or the equivalent of a Supervisor.

2 Run SmartNetMonitor for Admin.

3 On the [Group] menu, point to [Search Device], and then click [IPX/SPX] or [TCP/IP].

A list of printers appears.

Note

- 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.134 “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.72 “Configuring NetWare Using the Control Panel”.

4 **Select the printer you want to configure, and then click [NIB Setup Tool] on the [Tools] menu.**

Note

❒ If you use Pure IP, see p.87 “Using Pure IP in the NetWare 5/5.1, 6 Environment”.

5 **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>].**

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

8 **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”.

9 **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]**.

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

The settings take effect, and NIB Setup Tool closes.

11 Exit SmartNetMonitor 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 Environment

Note

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

1 Log on to the file server as an Admin or the Equivalent of an Admin.

2 Run SmartNetMonitor for Admin.

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

The **[NIB Setup Tool]** dialog box appears.

4 Click the [NetWare] tab, and make the following settings:

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

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

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

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

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”:

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

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

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

5 Exit SmartNetMonitor for Admin.

After this step, proceed to step 8 on p.89 “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 SmartNetMonitor for Admin.**
3. **On the [Group] menu, point to [Search Device], and then click [IPX/SPX].**

   A list of printers appears.

   Note

   - 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.134 "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.72 "Configuring NetWare Using the Control Panel".

4. **Select the printer you want to configure, and then click [NIB Setup Tool] on the [Tools] menu.**
5. **Click [Property Sheet], and then click [OK].**
6. **Click the [NetWare] tab, and make the following settings:**

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

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

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

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

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”:

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

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

Important

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

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

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:**

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

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

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

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

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

❻ After confirming the settings, click [Create].

10 Create a printer as follows:

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

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

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

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

11 Assign print queues to the created printer as follows:

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

❷ In the [Available objects] box, click the queue created in step 9, and then click [OK].

❸ Click [Configuration], and in the [Printer type] list, click [Parallel], and then click [Communication].

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

❺ After confirming the settings, click [OK].

12 Create a print server as follows:

❶ Select the context specified using NIB Setup Tool (Step 9 - ❶), and on the [Object] menu, click [Create].

❷ **In the [Class of new object] box, click [Print Server], and then click [OK]. When you are using NetWare 5/5.1, 6, click [Print Server (Non NPDS)].**

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

Important

❒ Use the same name as that specified using NIB Setup Tool. (Step 6 - ❶).

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

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

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

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

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

❹ **Enter the printer number, and then click [OK].**

Important

❒ Use the same number as that specified as Remote Printer No. using NIB Setup Tool. (Step 6 - ❺).

❺ **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 SmartNetMonitor for Admin

Using SmartNetMonitor 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.

SmartNetMonitor 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 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 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

Note

❒ Select the appropriate protocol stack for your operating system.

Installing SmartNetMonitor 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.

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 [SmartNetMonitor 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 SmartNetMonitor for Admin, restart and continue configuration.

Changing the Network Interface Board Configuration

1 Run SmartNetMonitor 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 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.

5 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]

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

Selecting [Property Sheet]

❶ **A configuration list appears in the dialog box.**

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

Selecting **[Web Browser]**

❶ **For the Web browser setting, see** **p.109 “Configuring the Network Interface Board Settings”****.**

Changing Names and Comments

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

SmartNetMonitor for Admin allows you to change names and comments when TCP/IP or IPX/SPX is available. You can install SmartNetMonitor for Admin from the CD-ROM provided. For more information about installing SmartNetMonitor for Admin, see p.85 “Installing SmartNetMonitor for Admin”.

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. **Run SmartNetMonitor 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.
3. **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.

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

TCP/IP

❶ **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

❶ **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.

❷ **Click the [NetBEUI] tab.**

❸ **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.

6 Click [OK].

NIB Setup Tool closes, and the setting is transmitted to the printer.

7 Exit SmartNetMonitor for Admin.

Displaying Printer Status

You can view the status of printers using SmartNetMonitor for Admin, SmartNetMonitor for Client, or a Web browser.

1. **Run SmartNetMonitor 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 SmartNetMonitor for Admin Help.

3. **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.

   Note

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

Locking Menus on the Printer's Control Panel

1. **Start SmartNetMonitor 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].**
   The Web browser starts, and a screen prompting you to enter the user name and password appears.
5. **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 the Web browser.**

Changing the Paper Type

1. **Start SmartNetMonitor 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.
3. **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].**
   The Web browser starts, and a screen prompting you to enter the user name and a password appears.
5. **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 the Web browser.**

Managing the Number of Copies to be Printed

Preparation

Optional User Account Enhance Unit Type C must be installed to manage the number of copies to be printed. For more information about installing User Account Enhance Unit Type C, see “User Account Enhance Unit Type C”, *Setup Guide*.

1. **Run SmartNetMonitor 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. **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].**

   Note

   ❒ The factory default password is “password”.

   The User Management Tool starts.

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

Configuring Energy Save Mode

1. **Start SmartNetMonitor 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 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].**
5. **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 SmartNetMonitor 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.
3. **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]**.
5. **Click [Property Sheet], and then click [OK].**
6. **Click the [Password] tab.**
7. **Select the [Change Password] check box, enter a password, and then click [OK].**

6. Using a Web Browser

The network interface board functions as a Web server or network printer. You can use a Web browser to view printer status and configure the network interface board.

❖ 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 a Web browser.

Reference

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 4.01 or later
- Netscape Navigator 4.06 or later

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

Limitation

❒ 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 Navigator, and “Medium” or smaller with Internet Explorer.

Going to the Top Page

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

http://192.168.15.16/

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

Note

- 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 the Web browser 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

- Help is stored in the following folder on the CD-ROM in HTML format: The third folder,"(Language)" may be substituted by an appropriate language name.

  \HELP\WSMHLP\(Language)

2. Menu buttons

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

Note

❒ When you click **[Network Config]**, a dialog box appears requesting the user name and password. Enter only the password in this dialog box. The factory default password is "password".

❒ The password is the same as that used for remote maintenance and NIB Setup Tool. If you change a password with the Web browser, other passwords are also changed.

3. Status

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

Configuring the Network Interface Board Settings

1 Start the Web browser.

2 Point your browser at the URL or IP address of the printer (e.g. http://XXX.XXX.XXX.XXX where the Xs are the number of the IP address).

The status of the chosen printer appears on the Web browser.

3 Click [Configuration].

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

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

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

5 Click the item you want to configure, and then make all the settings.

The following items can be configured:

❖ **[General]**
Configure general settings for the machine here.

❖ **[TCP/IP]**
Configure TCP/IP-related settings for the network interface board, the optional 802.11b interface unit, and the optional 1394 interface unit.

❖ **[SNMP]**
Configure community settings here. Up to 10 types of community name can be registered.

❖ **[NetWare]**
Configure settings for printing in a NetWare environment here.

❖ **[AppleTalk]**
Configure the network interface board or the optional 802.11b interface unit settings related to AppleTalk.

❖ **[NetBEUI]**
Configure the network interface board or the optional 802.11b interface unit settings related to NetBEUI here.

❖ **[IEEE 1394]**
Configure the optional 1394 interface unit settings related to IP over 1394 and SCSI print (SBP-2).

Limitation

❒ This page is displayed only when the optional 1394 interface unit is installed.

❖ **[IPP Authentication]**
If using IPP, configure authentication settings for printing here.

❖ **[Paper Type]**
Select the paper type loaded in the machine from the drop-down menu.

❖ **[Password]**
Follow the procedure below to change the password.
Enter the password to change the network and machine settings or delete spooled print jobs.

❖ **[IEEE 802.11b (Wireless LAN)]**
Configure the optional 802.11b interface unit settings related to communication.

Limitation

❒ This page is displayed only when the optional 802.11b interface unit is installed.

Verifying the Network Interface Board Settings

1 **Start the Web browser.**

2 **Point your browser at the URL or printer's IP address (e.g. http://XXX.XXX.XXX.XXX where the Xs are the number of the IP address).**

The status of the chosen printer appears on the Web browser.

3 **Click [Config. Reference].**

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

4 Click the item you want to check.

The following items can be checked:

❖ **[General]**
Displays general settings.

❖ **[TCP/IP]**
Displays TCP/IP-related settings for the network interface board, the optional 802.11b interface unit, and the optional 1394 interface unit.

❖ **[NetWare]**
Displays the settings for printing in a NetWare environment.

❖ **[AppleTalk]**
Displays the network interface board or the optional 802.11b interface unit settings related to AppleTalk.

❖ **[NetBEUI]**
Displays the network interface board or the optional 802.11b interface unit settings related to NetBEUI.

❖ **[IEEE 1394]**
Displays the optional 1394 interface unit settings related to IP over 1394 and SCSI print (SBP-2).

❖ **[IEEE 802.11b (Wireless LAN)]**
Displays the optional 802.11b interface unit settings related to communication.

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

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

① Copy Helps on the CD-ROM to a desired location. Helps are located in folders labeled with abbreviated language names. For example, English Help files are in the **[EN]** folder. Be sure to copy the entire **[EN]** folder to the new location.

② Using a Web browser, navigate to the Top Page, and then click **[Configuration]**.

③ Enter your password, (it is not necessary to enter a user name), and then click **[OK]**.

④ Enter the path to Helps in the **[Help URL]** box.
If you copied Helps 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]**.
If a warning message appears, select to continue configuration.

Changing Names and Comments

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

SmartNetMonitor 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 the Web browser.**
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 the Web browser.
3. **Click [Configuration].**

   A dialog box that prompts you to enter the user name and a password 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 Change names and comments.

TCP/IP

❶ **Click the [General] tab, and then enter the name in the [Printer Name] box and comment in the [Comment] box.**

- In the **[Printer 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 using up to 13.
- In the **[Comment]** box, enter a printer comment using up to 31 characters.

❷ **Click the [IEEE 1394], and then enter the name in the [Device Name:] box when you change the device name for IEEE 1394 (IP over 1394) interface.**

- 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 5 bytes of the EUI-64 on the IEEE 1394 (IP over 1394) interface. For example, if the EUI-64 is 00:00:74:00:02:01:0A:66, the factory default name is “RNP0002010A66”. 13 character names are not permitted if the prefix is “RNP”.

NetBEUI

❶ **Click [NetBEUI].**

❷ **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 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.

6 Click [Apply].

The setting is transmitted to the printer.

7 Exit the Web browser.

Displaying Printer Status

You can view the status of printers using Web browser.

1. **Start the Web browser.**
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 the Web browser.
3. **Click [Status] to check the status of the printer.**

Note

❒ For more information about each item, see Help.

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.125 “Paper Input Menu”	Bypass Size
	Tray Paper Size
	Paper Type
	Tray Locking
	Tray Priority
List/Test Print, see p.133 “List/Test Print Menu”	Config. Page
	Menu List
	Color Demo Page
	PS Config. Page
	PCL Config.Page
	Hex Dump
	Operations Test

Category	Function menu
Maintenance, see p.140 “Maintenance Menu”	Color Regist.
	Image Density
	Registration
	HDD Format *2
	WL.LAN Signal *3
	WL.LAN Defaults *3
	4C.Graphic Mode
	Key Repeat
	Menu Protect *4
	Series Prnt.Job *4
System, see p.151 “System Menu”	MisfeedRecovery
	Prt. Err Report
	Auto Continue
	Memory Overflow
	Copies
	Printer Lang.
	Sub Paper Size
	Page Size
	Duplex *5

Category	Function menu
System, see p.151 “System Menu”	Output Tray
	Job Separation
	Energy Saver 1
	Energy Saver 2
	B&W Page Detect
	Unit of Measure
	Spool Printing *2
	Letterhead Mode
Host Interface, see p.163 “Host Interface Menu”	I/O Buffer
	I/O Timeout
	Network Setup
	IEEE 1394 Setup *6
	IEEE 802.11b *7
	USB Setting *8
PCL Menu, see p.175 “PCL Menu”	Orientation
	Form Lines
	Font Source
	Font Number
	Point Size

Category	Function menu
PCL Menu, see p.175 “PCL Menu”	Font Pitch
	Symbol Set
	Courier Font
	Ext. A4 Width
	Append CR to LF
	Resolution
PS Menu, see p.182 “PS Menu”	Data Format
	Resolution
	Color Setting
	Color Profile
Language, see p.188 “Language Menu”	

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

*2 The HDD 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 802.11b interface unit is installed.

*4 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, Series Prnt.Job on the display.

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

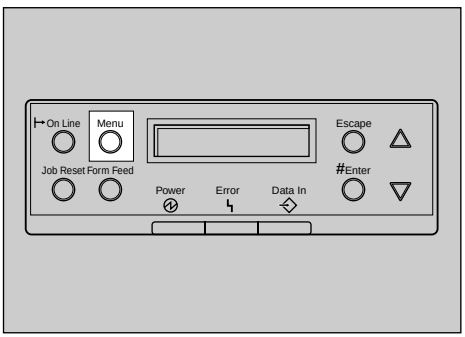
*6 The IEEE 1394 Setup menu appears only when the optional 1394 interface unit is installed.

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

*8 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 USB Setting on the display only when the optional USB 2.0 interface board is installed.

Accessing the Main Menu

Press the 【Menu】 key, and “Menu” appears on the display.



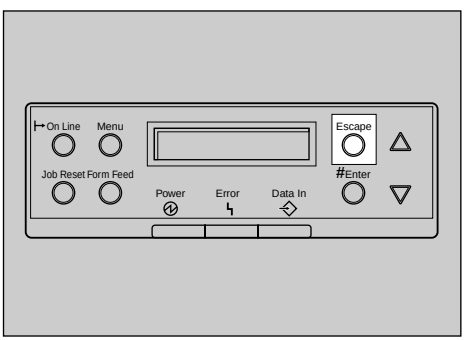
ZDJS001N

This menu shows the following nine items that can be displayed one by one by pressing the 【▲】 or 【▼】 key:

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

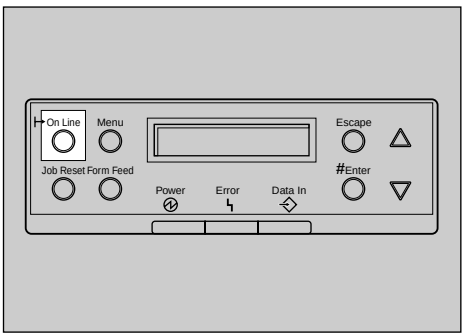
Note

- 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.



ZDJS024N

❒ After making the printer settings, press the 【On Line】 key to return to the “Ready” condition.



ZDJS022N

❒ 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”, *Maintenance Guide*. 11x17, 8 1/2x14, 8 1/ 2x11, 11x8 1/ 2, 5 1/2x8 1/2, 7 1/4x10 1/2,10 1/2x7 1/4, 8x13, 8 1/2x13, 8 1/4x13, A3 (297x420), B4 JIS (257x364),A4 (210x297), A4 (297x210), B5 JIS (182x257), B5 JIS (257x182), A5 (148x210), A5 (210x148), A6 (105x148), 8K (267x390), 16K (195x267), 16K (267x195), 4 1/8x9 1/2, 3 7/8x7 1/2, C5 Env (229x162), C6 Env (162x114), DL Env (220x110), Custom Size **Note** ❒ Default: A4 (297x210) (Metric version) 8 1/2x13 (Inch version)
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 *Maintenance Guide*. Auto, 8 1/2x14, 7 1/4x10 1/2, 8x13, 8 1/2x13, 8 1/4x13, B4JIS (257x364), B5JIS (182x257), 8K (267x390), 16K (195x267), 16K (267x195) **Note** ❒ Only installed trays appear on the display.

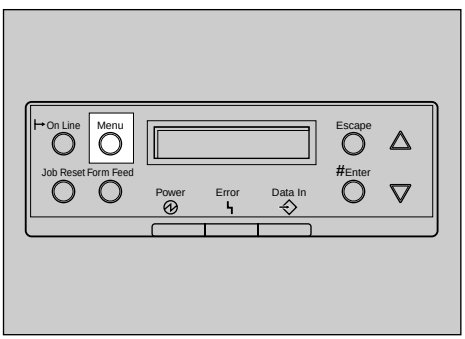
Menu	Description
Paper Type	If you are using different kinds of paper, set the paper type for Tray 1, Tray 2, Tray 3 or bypass tray. For more information about paper sizes that can be set in each tray, see *Maintenance Guide*. ❖ **Tray 1, Tray 2, Tray 3, Tray 4** Plain Paper, Recycled Paper, Special Paper, Color Paper, Letterhead, Preprinted ❖ **Bypass Tray** Plain Paper, Recycled Paper, Special Paper, Color Paper, Letterhead, Preprinted, 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

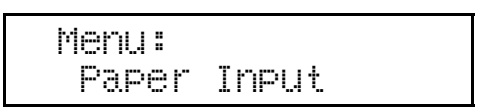
Tray Locking

1 **Press the【Menu】key.**

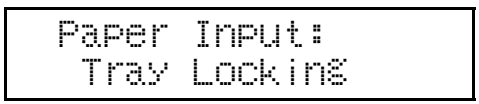


"Menu" appears on the display.

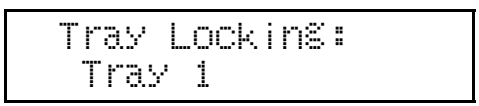
2 **Press the【▲】or【▼】key to display "Paper Input", and then press the【Enter #】key.**



3 **Press the【▲】or【▼】key to display "Tray Locking", and then press the【Enter #】key.**



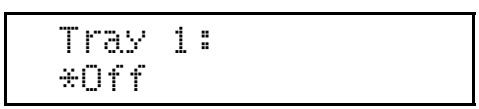
4 **Press the【▲】or【▼】key to display the tray to change tray locking to off, and then press the【Enter #】key.**



Note

❒ The bypass tray cannot be locked.

5 **Press the【▲】or【▼】key to display "Off", and then press the【Enter #】key.**



Wait for two seconds.

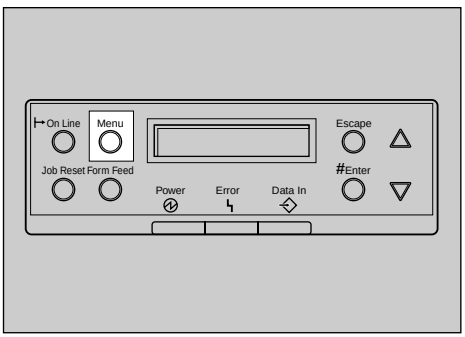
"Paper Input" appears on the display.

6 **Press the【On Line】key.**

"Ready" appears on the display.

Tray Priority

1 **Press the【Menu】key.**



"Menu" appears on the display.

2 **Press the【▲】or【▼】key to display "Paper Input", and then press the【Enter #】key.**

```
Menu:
 Paper Input
```

3 **Press the【▲】or【▼】key to display "Tray Priority", and then press the【Enter #】key.**

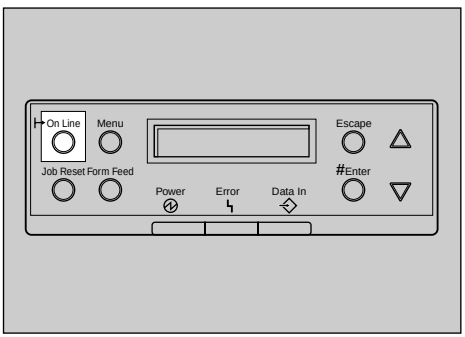
```
Paper Input:
 Tray Priority
```

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.



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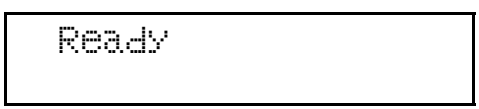
"Ready" appears on the display.



List/Test Print Menu

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

- Config. Page
- Menu List
- Color Demo Page
- PS Config. Page
- PCL Config.Page
- Hex Dump
- Operations Test

List/Test Print Parameters

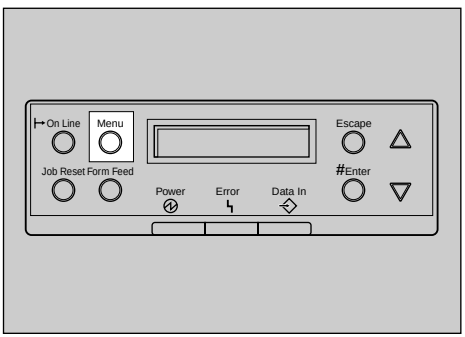
Menu	Description
Config. Page	You can print the printer's current configuration. See p.134 “Printing a Configuration Page”.
Menu List	You can print the Menu List which shows the function menus of this printer.
Color Demo Page	You can print the Color Demo Page.
PS Config. Page	You can print a list of installed PS Fonts.
PCL Config.Page	You can print the PCL's current configuration.
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.

Printing a Configuration Page

Reference

For more information, see p.137 “Interpreting the Configuration Page”.

1 **Press the 【Menu】 key.**



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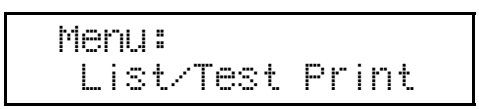
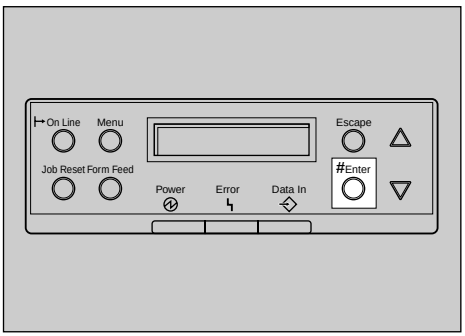
“Menu” appears on the display.

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



3 **Press the [Enter #] key.**



The following message appears on the display:

```
List/Test Print:
  Confi&. Pa&e
```

4 **Press the [Enter #] key.**

The following message appears on the display:

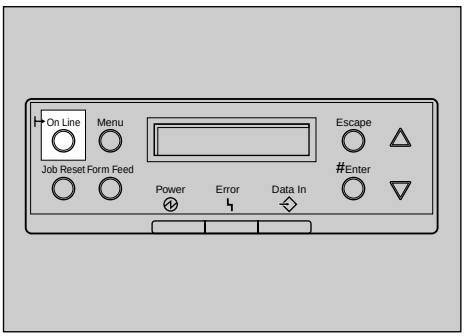
```
  Printin&...
```

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*.

5 **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.125 “Paper Input Menu”.

Maintenance

Displays the settings made under the Maintenance menu.

Reference
For more information, see p.140 “Maintenance Menu”.

System

Displays the settings made under the System menu.

Reference
For more information, see p.151 “System Menu”.

PCL Menu

Displays the settings made under the PCL Menu.

Reference
For more information, see p.175 “PCL Menu”.

PS Menu

Displays the settings made under the PS menu.

Reference

For more information, see p.182 “PS Menu”.

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.163 “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.
- Image Density
- Registration
- HDD Format
- WL.LAN Signal
- WL.LAN Defaults
- 4C.Graphic Mode
- Key Repeat
- Menu Protect
- Series Prnt.Job

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*.
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. Bak -5 to +5 (Every 0.1 mm) **Note** ❒ Registration values are not default. ❒ Only installed trays appear on the display.

Menu	Description
HDD Format	You can format the printer hard disk. Available when the optional printer hard disk is installed. **Reference** For more information about formatting the printer hard disk, see "Printer Hard Disk Type 7000", *Setup Guide*.
WL.LAN Signal	You can check signal quality when using wireless LAN. **Reference** For more information about displaying signal quality, see p.147 "Displaying the Signal Quality".
WL.LAN Defaults	You can reset wireless LAN settings to the default.
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	Description
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.
Series Prnt.Job *1	You can print a series of jobs without time intervals between them when jobs are sent from the same computer, PDL, and interface. **Note** ❒ Default: *On* ❒ When the Job Reset key is pressed, all jobs sent to the machine will be canceled.

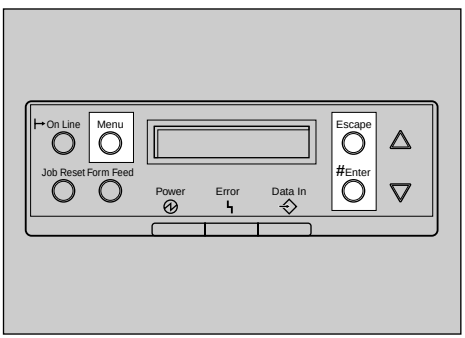
*1 While the printer is On Line, press the 【Enter #】key, and then press the 【Escape】key. Finally, press the 【Menu】key. You can access the Menu Protect, and Series Prnt.Job menu on the display.

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.**



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"Menu" appears on the display.

3 **Press the 【▲】 or 【▼】 key to display the Maintenance menu, and then press the 【Enter #】 key.**

The following message appears on the display:

```
Maintenance:
 Color Regist.
```

4 **Press the [▲] or [▼] key to display "Menu Protect".**

```
Maintenance:
 Menu Protect
```

5 **Press the [Enter #] key.**

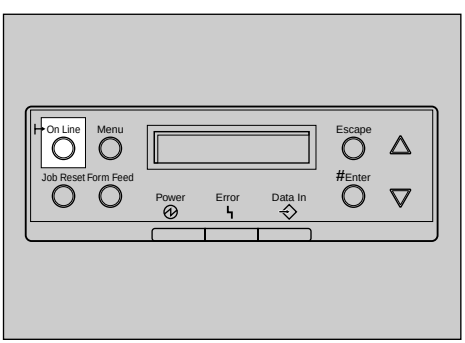
The following message appears on the display:

```
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.**



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"Ready" appears on the display.

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.

3 Press the 【▲】 or 【▼】 key to display the Maintenance menu, and then press the 【Enter #】 key.

The following message appears on the display:

4 Press the 【▲】 or 【▼】 key to display "Menu Protect", and then press the 【Enter #】 key.

5 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:

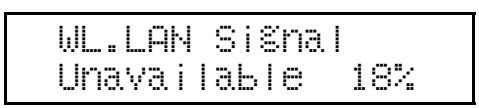
```
Maintenance:
 Color Regist.
```

4 Press the 【▼】 or 【▲】 key to display “WL.LAN Signal”.

```
Maintenance:
 WL.LAN Signal
```

5 **Press the [Enter #] key.**

One of the following messages appears on the display:



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.

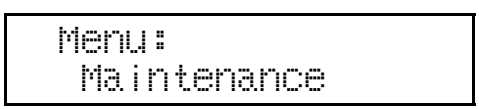
Note

❒ 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.



3 **Press the [Enter #] key.**

The following message appears on the display:

```
Maintenance:
 Color Regist.
```

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:

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

System Parameters

Menu	Description
MisfeedRecovery	You can have Misfeed Recovery enabled. When it is on, printing restarts after the misfed paper has been cleared. • On • Off **Note** ❒ Default: *On*
Prt. Err Report	You can have an error report printed when a printer error or memory error occurs. • On • Off **Note** ❒ Default: *Off*

Menu	Description
Auto Continue	You can have Auto Continue enabled. When it is on, printing continues after a system error occurs. • Off • 0 minutes • 1 minute • 5 minutes • 10 minutes • 15 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. • Not Print • Error Report **Note** ❒ Default: *Not Print*
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

Menu	Description
Printer Lang.	You can specify the printer language. • Auto Detect • PCL • PS **Note** ❒ 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 **Note** ❒ Default: *Off*
Page Size	You can specify the default paper size. 11 x 17, 8 1/2 x 14, 8 1/2 x 11, 5 1/2 x 8 1/2, 7 1/4 x 10 1/2, 8 x 13, 8 1/2 x 13, 8 1/4 x 13, B4JIS, A4, B5JIS, A5, A6, 8K, 16K, 4 1/8 x 9 1/2, 3 7/8 x7 1/2, C5 Env(162x229), C6 Env(114x162), DL Env(110x220), Custom Size **Note** ❒ Default: • Metric: A4

Menu	Description
Duplex	You can select to print on both sides of each page. • Off • Short Edge Bind • Long Edge Bind **Note** ❒ Default: *Off* ❒ This menu appears only if the optional duplex unit is installed.
Output Tray	You can select the default output tray. When you select “Auto Tray SW”, the printer automatically changes to another output tray when the output tray becomes full. This function is available only when Mailbox is installed. Standard Tray, External Tray, Mailbox Tray 1, Mailbox Tray 2, Mailbox Tray 3, Mailbox Tray 4, Finisher Tray 1, Finisher Tray 2, Auto Tray SW **Note** ❒ Default: *Standard Tray* ❒ Only installed trays appear on the display.
Job Separation	You can enable Job Separation. • Off • On **Note** ❒ Default: *Off* ❒ This menu appears only when the optional 2 tray finisher is installed.

Menu	Description
Energy Saver 1	You can set On/Off for the Energy Save Mode level 1. This is Preheat mode. • On • Off **Note** ❒ Default: *Off*
Energy Saver 2	❖ **E.Saver2 On/Off** You can set On/ Off for the Energy Save Mode level 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 indicator turns off, while the On Line indicator stays on and “Energy Save Mode” appears on the display.

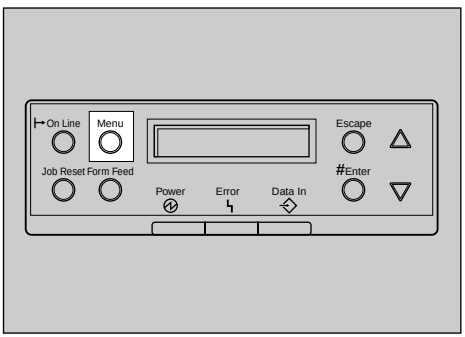
Menu	Description
B&W Page Detect	You can have the Black & White Page Detect feature enabled. • On • Off **Note** ❒ Default: *On*
Unit of Measure	You can select “mm” or “inch” for units of custom paper size. **Note** ❒ Default: *mm* (Metric version)
Spool Printing	You can select to enable spool printing. Spool Printing allows print jobs sent from a computer to be temporarily stored and printed after they have been sent. • On • Off **Note** ❒ 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.192 “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) **Note** ❒ 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.

Changing the System Menu

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

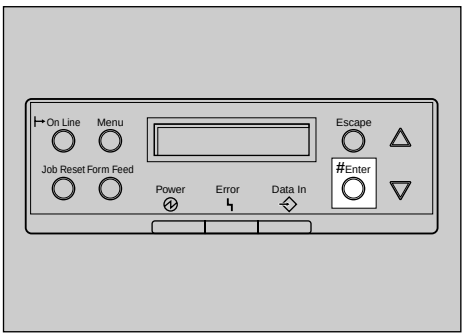
1 Press [Menu].



“Menu” appears on the display.

2 Press [▲] or [▼] to display “System ”.

3 **Press [Enter #].**



ZDJS021N

The following message appears on the display:

```
System :
 MisfeedRecovery
```

4 **Press [▲] or [▼] to display "E. Saver2", and then press [Enter #].**

```
System:
Energy Saver 2
```

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

The following message appears on the display:

```
Energy Saver 2:
E. Saver2 Timer
```

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

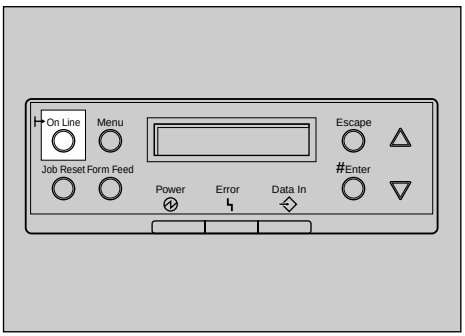
The following message appears on the display:

```
E. Saver2 Timer
*60 minutes
```

7 **Press [Enter]. Wait for two seconds.**

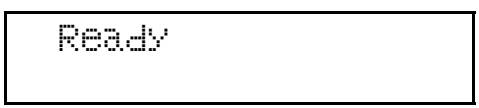
"Menu" appears on the display.

8 Press【On Line】.



ZDJS022N

"Ready" appears on the display.



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

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*
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*

Menu	Description
Network Setup	❖ **DHCP** You can set how the network interface board acquires TCP/IP settings. **Note** ❒ Default: *On* **Reference** “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. **Note** ❒ Default: 011.022.033.044 **Reference** “Configuring the printer for the Network”, *Setup Guide*

Menu	Description
	❖ **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: 000.000.000.000 **Reference** "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: 000.000.000.000 **Reference** "Configuring the printer for the Network", *Setup Guide*

Menu	Description
	❖ **Frame Type (NW)** You can set the Frame type for NetWare. Auto, Ethernet II, Ethernet802.2, Ethernet802.3, Ethernet SNAP **Note** ❒ Default: *Auto* ❖ **Active Protocol** You can set the active protocol. TCP/IP, NetWare, NetBEUI, AppleTalk **Note** ❒ Default: All *Active*

Menu	Description
	❖ **Ethernet** You can select the speed of the network that the printer is connected to. Auto , 10 Mbps, 100 Mbps **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 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 board is installed. ❖ **IP Address1394** You can set the IP address for IEEE 1394 (IP over 1394). **Note** ❒ Default: 000.000.000.000 ❖ **Subnet Mask1394** You can set the subnet mask for IEEE 1394 (IP over 1394). **Note** ❒ Default: 000.000.000.000 ❖ **IP over 1394** You can activate IP over 1394. **Note** ❒ Default: *Active* ❖ **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 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). **Note** ❒ Default: 11 ❖ **Trans. Speed** You can set the transmission speed for IEEE 802.11b. **Note** ❒ Default: *Auto*

Menu	Description
	❖ **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 automatically 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]**.

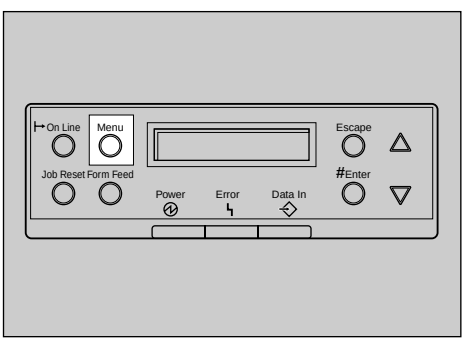
Menu	Description
USB Setting	You can set the transmission speed for USB. Auto, Full Speed **Note** ❒ Default: *Auto*

*1 Appears only when the optional 1394 interface unit is installed.
*2 Appears only when the optional 802.11b 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.



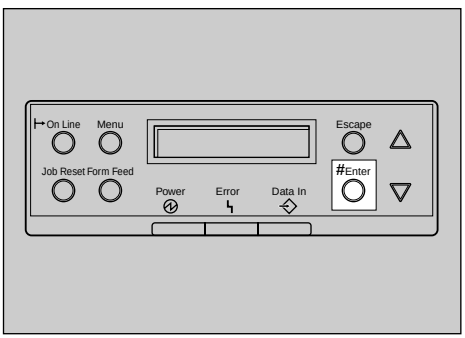
ZDJS001N

“Menu” appears on the display.

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

```
Menu:
  Host Interface
```

3 **Press the [Enter #] key.**



ZDJS021N

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
```

5 Press the [Enter #] key.

The following message appears on the display:

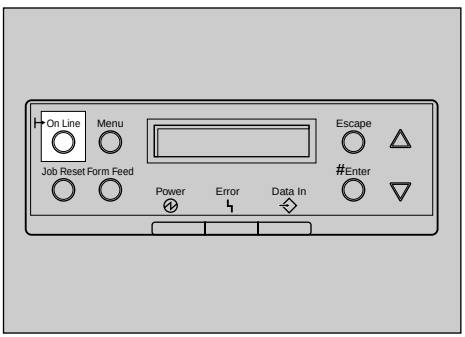
```
I/O Timeout:
*15 seconds
```

6 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.



ZDJS022N

"Ready" appears on the display.

```
Ready
```

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 **Note** ❒ Default: *Portrait*
Form Lines	You can set the number of lines per page. 5-128 **Note** ❒ Default: 64 (Metric version)
Font Source	You can set the location of the default font. • Resident • RAM • HDD • Slot DIMM **Note** ❒ Default: *Resident* ❒ When you select “RAM”, you can select only fonts downloaded to the printer RAM. ❒ 1 to n (for Download source)

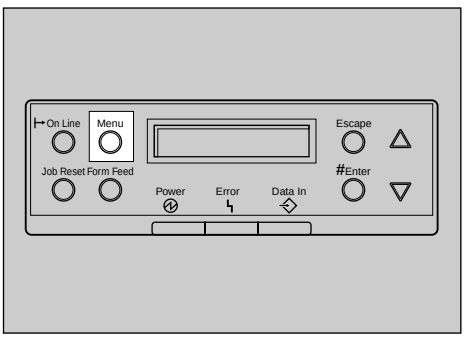
Menu	Description
Font Number	You can set the ID of the default font you want to use. • 0 to 50: (for Internal) • 1 to n: (for Download) **Note** ❒ Default: 0
Point Size	You can set the point size you want to use for the default font. 4 to 999.75 by 0.25 **Note** ❒ Default: *12.00 points* ❒ This setting 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 **Note** ❒ 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*

Menu	Description
Courier Font	You can select a courier font type. • Regular • Dark **Note** ❒ Default: *Regular*
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 × 300 dpi • 600 × 600 dpi **Note** ❒ Default: 600 × 600 dpi

Changing the PCL Menu

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

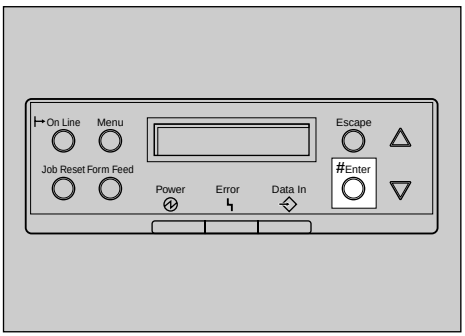
1 Press the【Menu】key.



ZDJS001N

“Menu” appears on the display.

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



ZDJS021N

The following message appears on the display:

```
PCL Menu:
 Orientation
```

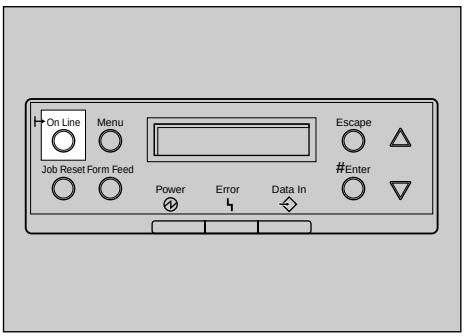
3 Press the [Enter #] key.

```
Orientation:
*Portrait
```

4 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

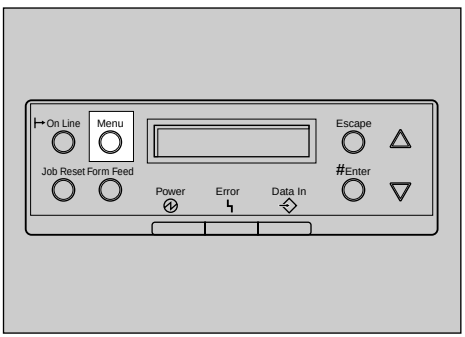
Menu	Description
Data Format	You can select the data format. • Binary Data • TBCP **Limitation** ❒ This setting is effective when operating the machine with a parallel, USB or EtherTalk connection. ❒ When operating the machine with a parallel or USB connection, if binary data is sent from the printer 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*

Menu	Description
Resolution	You can select the resolution. • 600 dpi Std. • 600 dpi Fast • 1200 dpi **Note** ❒ Default: *600 dpi Std.*
Color Setting	You can select the RGB Color adjustment quality. • None • Fine • Super Fine **Note** ❒ Default: *Super Fine*
Color Profile	You can select the color profile. • Auto • Presentation • Solid Color • Photographic • User Setting **Note** ❒ Default: *Auto*

Changing the PS Menu

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

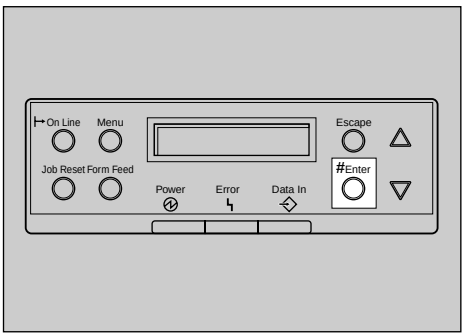
1 Press the【Menu】key.



ZDJS001N

“Menu” appears on the display.

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



ZDJS021N

The following message appears on the display:

```
PS Menu:
  Data Format
```

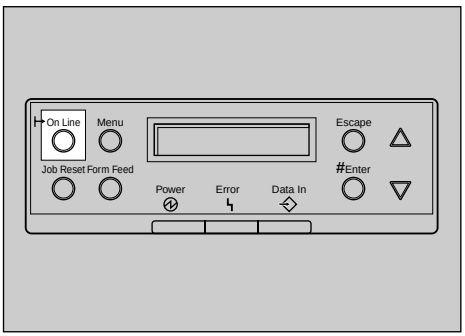
3 Press the [Enter #] key.

```
Data Format:
*Binary Data
```

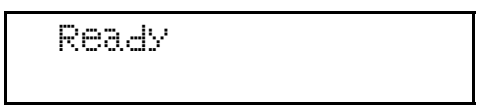
4 Press the [▲] or [▼] key to select the TBCP desired, and then press the [Enter #] key. Wait for two seconds.

"PS Menu" appears on the display.

5 **Press the【On Line】key.**



"Ready" appears on the display.



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.

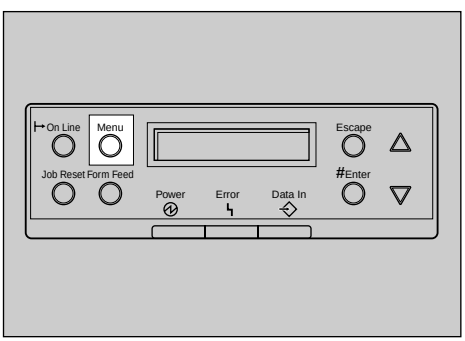
Note

❒ Default: *English*

Changing the Language Menu

You can change the language by the following procedures:

1 Press the【Menu】key.

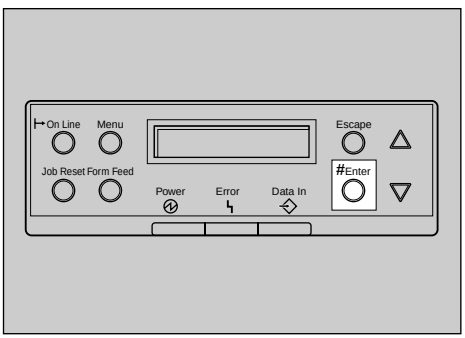


"Menu" appears on the display.

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

```
Menu:
  Language
```

3 Press the [Enter #] key.



ZDJS021N

The following message appears on the display:

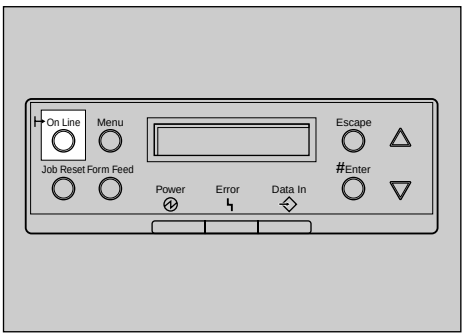
```
Language:
*English
```

4 Press the [▲] or [▼] key until the language you want to select appears on the display.

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.

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.204 “SNMP”.

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

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

Limitation

- ❒ The optional 1394 interface unit 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.151 “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 LPD or IPP cannot be spooled.
- Up to 50 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 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.

Note

- Spool jobs stored in the machine can be viewed or deleted using a Web browser.

Viewing/Deleting spool jobs in a Web browser

Launch the Web browser and enter the machine's IP address in the address bar. This displays the top page.

Example: `http://192.168.0.10`

(In this example, the IP address of the machine is 192.168.0.10)

Click **[Admin Info]**, and then **[Spool Printing Job List (Printer)]** to display the spool jobs. To delete, check the box next to the name of the file you want to delete. Enter the password *1, and then click **[Delete]**.
For more information, see p.109 “Configuring the Network Interface Board Settings”.

*1 The default password is “password”.

Setting Spool Printing

Spool Printing can be set using telnet or a Web browser.

- Using a Web browser
  Click **[Configuration]**, and then **[General]**. Set **[Spool Printing]** to **[Enable]**.
- Using telnet
  Enter “spoolsw spool on” to set Spool Printing.

Reference

For more information about how to set up the spool printing, see Help.

Remote Maintenance by telnet

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

Note

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

Using telnet

The following is a sample procedure of using telnet:

Limitation

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

1 Use the printer's IP address or host name to start telnet.

```
% telnet IP_address
```

Note

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

2 Enter the password.

Note

❒ The factory default is “password”.

3 Enter a command.

Reference

For more information about telnet commands, see p.195 “Commands List”.

4 **Exit telnet.**

```
msh> logout
```

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

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

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

Note

- 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 settings are changed.
- When the network interface board is reset, active point jobs already sent will finish printing. However, jobs not yet sent are canceled.

Commands List

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

Note

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

```
msh> help
```

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

```
msh> help command_name
```

TCP/IP address

Use the “ifconfig” command to configure TCP/IP (IP address, subnet mask, broadcast address, default gateway address) for the machine.

❖ Reference

```
msh> ifconfig
```

❖ Configuration

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

Interface name	Interface to be configured
ether naf0	Ethernet Interface *1
ip1394 *2 fwip0 *2	IEEE 1394 Interface
wlan *3 wi0 *3	IEEE 802.11b Interface

*1 If you did not enter the interface name, it will be automatically set to the Ethernet interface.
*2 Available when the optional 1394 interface unit is installed.
*3 You can specify an interface when installing the optional 802.11b interface unit.

Parameter	Meaning
(no parameter)	IP address
netmask	Subnet mask
broadcast	Broadcast address

❖ Changing the Interface

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

```
msh> ifconfig interface up
```

Note

❒ You cannot specify the IEEE 1394 interface.

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

```
msh> ifconfig ether 192.168.15.16
```

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

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

Note

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

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

❒ To enter an address using hexadecimal, prefix it with “0x”.

Address

❖ **Subnet Mask**

A number used to numerically “mask” or hide the IP address by eliminating those parts of the address that are alike for all the machines on a particular network.

Note

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

❒ The subnet mask is the same as that for the LAN interface and IEEE 802.11b interface.

❒ When installing the optional 1394 interface unit, set the subnet so that it does not overlap with the LAN interface or the 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
```

- ☆ 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 workstations from which printing is possible by 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.
- When using a Web browser, telnet or SmartNetMonitor for Client/Admin, you can use an IP address that has not been restricted by access control.

❖ **Access Control Initialization**

```
msh> access flush
```

Note

- This restores the factory-default settings so that all access ranges become “0.0.0.0”.

Protocol

Use the “set” command to allow/prevent remote access for each protocol:

msh> set *protocol* {up | down}

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

*1 Available when the optional 1394 interface unit 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”, and “ipp”.

DHCP

Use the “set” command to configure the boot method:

msh> set *dhcp* {on|off}

(“on” means active and “off” means inactive.)

Parameter	Meaning
dhcp	DHCP (Dynamic Host Configuration Protocol)

Note

- The default is “on”.
- When you are using DHCP, the server also needs to be configured.
- DHCP takes precedence over all other settings.

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.

Note

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

Reference

For more information about the meaning of data that is returned with these commands, see p.231 “Understanding the Displayed Information”.

Network interface board configuration settings information

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

```
msh> show [-p]
```

Note

❒ Add “-p” to the show command to have information displayed on screen at one time.

Reference

For more information about the meaning of data that is returned with this command, see p.233 “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.238 “System Log Information”.

SNMP

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

Note

- ❒ You can configure the ten SNMP access settings numbered 1–10.
- ❒ Default access settings 1 and 2 are as follows:

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

❖ Display

Displays 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*

Note

❒ The community name can be a maximum of 15 characters.

❖ Access type configuration

You can select the access type from these listed below:

msh> snmp *number* type *access_type*

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

❖ Protocol configuration

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

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

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

Command syntax:

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

Note

- ❒ To specify TCP/IP, enter “ip” followed by a space, and then the IP address.
- ❒ To specify IPX/SPX, enter “ipx” followed by a space, then the IPX address followed by a decimal, and then the MAC address of the network interface board.

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

msh> snmp 3 ip 192.168.15.16

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

msh> snmp 3 ipx 7390A448:000074625C65

IPP

Use the “ipp” command to configure IPP settings.

❖ Viewing setting

The following command displays the current IPP 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 can be made.
- The “auth” setting indicates the user authorization mode.

❖ IPP timeout configuration

Specifies how many seconds to wait before canceling a print job if it has been interrupted for some reason. The range of time can be changed between 30 to 65,535 seconds.

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

❖ IPP user authorization configuration

Use IPP user authorization to restrict users to print with IPP. The factory default is “off”.

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

- The settings of user authorization are “basic” and “digest”.
- Use “off” to remove a user's authorization.

Note

❒ If you select “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.
```

SPRINT

To make setting for IEEE 1394 (SCSI print), use the “sprint” command.

❖ **View settings**

The IEEE 1394 (SCSI print) settings are displayed.

```
msh> sprint
```

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

Use this setting to set the IEEE 1394 (SCSI print) to bidirectional.
The factory default is “on”.

```
msh> sprint bidi [on/off]
```

Direct Printing Port

The direct printing port allows printing direct from a computer, connected to the network, to the printer. Use the “diprint” command to change the direct printing port settings.

❖ View settings

The following command displays the current direct printing port settings:

```
msh> diprint
```

Example output:

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

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

❖ Setting timeout

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

```
msh> diprint [30~65535]
```

Note

❒ The factory default is 300 seconds.

❒ If 0 is set, timeout is disabled.

❖ Bidirectional configuration for the direct printing port

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

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

SMB

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

msh >smb *parameter*

Parameter	Settings
smb comp	Your computer name, consisting of up to 13 characters
smb group	Workgroup name, consisting of up to 15 characters
smb comment	Comment, consisting of up to 31 characters
smb clear comp	Clears the complete name
smb clear group	Clears Workgroup name
smb clear comment	Clears comment

web

Use the “web” command to display and configure the parameters on the Web browser.

❖ View Settings

msh> web

❖ URL Configuration

The link address reached by pressing **[URL]** on the Web browser can be set.

web url *The URL or IP address you want to register.*

Example:

(Xs represent the IP address.)

msh> web url http://XXX.XXX.XXX.XXX/

❖ **Link Name Configuration**

You can enter the name for **[URL]** that appears on the Web browser.

msh> web name *Name you want to display*

Example:

(Xs represent the name you want to display.)

msh> web name XXX

❖ **Help URL Configuration**

The link address reached by pressing **[Help]** or "?" on the Web browser can be set.

msh>web help Help URL or IP address

Example:

(Xs represent the IP address.)

msh> web url http://XXX.XXX.XXX.XXX/help/

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.

Note

❒ The maximum number of routing tables are 16.

Parameter	Topics of setting
route add {host | net} destination gateway	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}	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

SLP

Use this command to configure SLP settings.

You can search the NetWare server using SLP in the Pure IP environment of NetWare 5/5.1, 6. Using the “slp” command, you can configure the value of TTL which can be used by SLP multi-cast-packet.

Note

- The default value of TTL is “1”. A search is executed only using up to a local segment. If the router does not support multi-cast, the settings are not available even if the TTL value is increased.
- The acceptable TTL value is 1 - 255.

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

Setting IEEE 802.11b

To make setting for IEEE 802.11b, use the “wiconfig” command.

Limitation

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

❖ View settings

The following command displays the current IEEE 802.11b settings:

```
msh> wiconfig
```

The IEEE 802.11b card information is displayed.

```
msh> wiconfig cardinfo
```

Note

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

❖ **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 make settings for SSID in infrastructure mode. The characters that can be used are ASCII 0x20-0x7e (32 bytes). 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 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 select 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.

Parameter	Value to be configured
key [*key value*]	With 64-bit WEP, you can use 10 digit hexadecimal. With 128-bit WEP, you can use 26 digit hexadecimal. To use this function, set the same WEP key for all ports that transmit to each other.
auth [open|shared]	You can set the authorized mode when using WEP. The specified value and 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

Spool Job

Use the “spoolsw” command to configure the Job Spool settings. Spool printing supports the “lpr” and “ipp” protocols.

❖ **View Setting**

The Job Spool settings appear.

```
msh>spoolsw
```

❖ **Configuration**

Select [on] to enable Job Spool, or [off] to disable it.

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

❖ **Clearing a Spool Job**

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

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

❖ **Protocol configuration**

To change the protocol settings, use the following command. You can specify the settings for “lpr” or “ipp”.

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

WINS

Use the “wins” command to configure the WINS server settings.

For more information about WINS server settings, see p.252 “Configuring a WINS Server”.

❖ Configuration

Use the set command to make WINS active or inactive.

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

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

❖ Viewing setting

The following command displays the WINS server IP address:

```
msh> wins
```

Example out put:

```
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.

❖ Address configuration

Use this command to configure a WINS server IP address:

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

Note

❒ Use the “primary” to configure a primary WINS server IP address.

❒ Use the “secondary” to configure a secondary WINS server IP address.

AutoNet

Use the “set” command to configure AutoNet.

Note

❒ For more information about AutoNet, see p.251 “Using AutoNet”.

msh> set autonet {on|off}

Select “on” to activate AutoNet, and “off” to deactivate it.

Changing the Host Name

Use the “hostname” command to change the printer name.

msh> hostname [*interface_name*] *printer_name*

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

*1 If you did not enter the interface name, it will be automatically set to the Ethernet interface.
*2 If you install the optional 802.11b interface unit, you can set the command.
*3 If you install the optional 1394 interface unit, you can set the command.

Note

❒ Enter the printer name using up to 13 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.

SNTP

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

Limitation

❒ SNTP supports NTP servers running xnptd V3 and V4.

❖ Reference

```
msh> sntp
```

❖ NTP Server Address Configuration

You can specify the NTP server's IP address.

```
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
```

Note

❒ The factory default setting is 3,600 seconds.

❒ You can set the interval from 16 to 16,384 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 NTP server clock.

```
msh> sntp timezone +/-hour_time
```

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

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

Note

❒ 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 factory password is “password”.

1 **Enter “passwd”.**

```
msh> passwd
```

2 **Enter the current password.**

```
Old password:
```

3 **Enter the new password.**

```
New password:
```

Note

- The password must consist of three to eight alphanumeric characters and symbols. Upper and lower case characters are differentiated. For example, “R” is different from “r”.
- The password is the same as that used in the configuration of the network interface board using a Web browser and that used in NIB Setup Tool. If you change a password with telnet, other passwords are also changed.

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

```
Retype new password:
```

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
Calibrating	The printer is calibrating, or the photoconductor unit is being supplied.
Call Service Center	There is a malfunction in the printer.
Duplex Cover Open	The optional duplex unit 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.
Empty: Yellow Toner	The toner cartridge is almost empty.
Energy Saver Mode	The printer is in Energy Saver Mode.
Error: DIMM	An error has occurred in the optional DIMM.
Error: Ethernet	An error has occurred in the Ethernet interface.
Error: Finisher	An error has occurred in the optional finisher.
Error: HDD	An error has occurred in the optional Printer Hard Disk.
Error: IEEE1394	An error has occurred in the IEEE 1394 interface.

Message	Description
Error: NVRAM	An error has occurred in the optional account enhance unit.
Error: Optional RAM	An error has occurred in the optional memory unit.
Error: Parallel I/F	An error has occurred in the parallel interface.
Error: Stapler	There is paper left in the 2 tray finisher, or an error has occurred in the stapler.
Error: Tray 1	An error has occurred in the tray 1.
Error: Tray 2	An error has occurred in the tray 2.
Error: Tray 3	An error has occurred in the tray 3.
Error: Tray 4	An error has occurred in the tray 4.
Error: USB I/F	An error has occurred in the USB interface.
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.
Finisher 1 Full	Output tray 1 of the optional Finisher is full.
Finisher 2 Full	Output tray 2 of the optional Finisher is full.
Finisher Cover Open	The finisher cover is open.
Front Cover Open	The front cover is open.
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.
Low: Magenta Toner	The toner cartridge is not set correctly, or toner is almost running out.
Low: Staples	The staple is not set correctly, or staple is almost running out.

Message	Description
Low: Yellow Toner	The toner cartridge is not set correctly, or toner is almost running out.
Lower R Cover Open	The lower R cover is open.
Mailbox 1 Full	Output tray 1 of the optional Mailbox is full.
Mailbox 2 Full	Output tray 2 of the optional Mailbox is full.
Mailbox 3 Full	Output tray 3 of the optional Mailbox is full.
Mailbox 4 Full	Output tray 4 of the optional Mailbox is full.
Mailbox Cover Open	The mailbox cover is open.
Misfeed: Duplex Feed	Paper is jammed in the duplex paper.
Misfeed: Duplex Unit	There is misfeed in the Duplex Unit.
Misfeed: Finisher	There is paper in the optional Finisher.
Misfeed: Fusing Unit	Paper is jammed in the fusing unit.
Misfeed: Input Tray	feed unit.
Misfeed: Mailbox	There is misfeed in the Mailbox.
No Input Tray	There is no paper in the paper tray.
No Paper	There is no paper.
Output Tray Full	All output trays are full.
Paper in Finisher	There is paper left in the finisher.
Paper Type Mismatch	The paper type setting of the tray differs from that of the actual type in the tray.
Punch Full	Punch Chip receptacle of the 2 tray finisher is full.

Message	Description
Ready	The printer is ready to use.
Replace Develop. C	It is time to replace the color development unit.
Replace Develop. K	It is time to replace the black development unit.
Replace Feed Roller	It is time to replace the feed roller.
Replace Fuser Oil	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 Trans. Unit	It is time to replace the transfer unit.
Reset Black Toner	The toner cartridge is not set correctly.
Reset Cyan Toner	The toner cartridge is not set correctly.
Reset Develop. C	The indicated development unit(s) is/are not set correctly, or is not set.
Reset Develop. K	The indicated development unit(s) is/are not set correctly, or is not set.
Reset Develop. M	The indicated development unit(s) is/are not set correctly, or is not set.
Reset Develop. Y	The indicated development unit(s) is/are not set correctly, or is not set.
Reset Duplex Feed	The duplex paper feed unit is not set correctly, or is not set.
Reset Finisher	Finisher is not set correctly, or is not set.
Reset Fuser Oil	The fuser oil unit is not set correctly, or is not set.
Reset Fusing Unit	The fusing unit is not set correctly, or is not set, or your fusing unit is improper.
Reset Magenta Toner	The toner cartridge is not set correctly.

Message	Description
Reset PCU C	The indicated PCU(s) is/are not set correctly, or is not set.
Reset PCU K	The indicated PCU(s) is/are not set correctly, or is not set.
Reset PCU M	The indicated PCU(s) is/are not set correctly, or is not set.
Reset PCU Y	The indicated PCU(s) is/are not set correctly, or is not set.
Reset Transfer Unit	The transfer unit is not set correctly, or is not set.
Reset Waste Oil	The waste oil bottle is not set correctly, or is not set.
Reset Waste Toner	The waste toner is not set correctly, or is not set.
Reset Yellow Toner	The toner cartridge is not set correctly.
Right Cover Open	The right cover is open.
Size Mismatch	The paper size setting of the tray differs from that of the actual size in the tray.
Size/Type Mismatch	The paper type setting of the tray differs from that of the actual type in the tray.
Standard Tray Full	The standard tray is full.
Toner Nearly Full	The waste toner is almost full.
Upper L Cover Open	The upper L cover is open.
Upper R Cover Open	The upper R cover is open.
Warming Up	The printer is warming up.
Waste Oil Full	The waste oil is full.
Waste Oil Nearly Full	The waste oil is almost full.
Waste Toner Full	The waste toner is full.

Printer configuration

You can check the printer configuration using telnet.

❖ **telnet**

Use the “info” command.

Note

❒ “*” (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)	Tray3 (LCT)
Bypass Tray	Bypass Tray

❖ *2 Input Tray: PaperSize

Paper size	Description
A3 (297 × 420 mm)	A3 (297 × 420)
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)

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 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)
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
Mailbox Tray 1-4	Mailbox Tray 1-4
Finisher Shift Tray 1	Finisher Shift Tray 1
Finisher Shift Tray 2	Finisher Shift Tray 2

❖ *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.202 “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 16 jobs that have been printed.

This log can be displayed using the following commands:

- telnet: Use the “prnlog” command. See p.202 “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.203 “Network interface board configuration settings information”.

Item name	Meaning
Common	
Mode	
Protocol Up/Down	Up means active, Down means inactive.
AppleTalk	
TCP/IP	
NetWare	
NetBEUI	
IP over 1394 *1 *4	
SCSI print *4	
Ethernet interface	
Syslog priority	Internal version number
NVRAM version	
Device name	Printer name
Comment	
Location	
Contact	
Soft switch	

Item name	Meaning
AppleTalk	
Mode	AppleTalk protocol is selected.
Net	Network number
Object	Macintosh printer name
Type	The type of printer
Zone	Name of the zone the printer belongs to
TCP/IP	
Mode	Up means active, Down means inactive.
ftp	
lpr	
rsh	
diprint	
web	
ftpc	
telnet	
snmp	
ipp	
EncapType	Frame type
dhcp	Dynamic Host Configuration Protocol (on/off)
Address	IP address
Netmask	Subnet mask
Broadcast	Broadcast address
Gateway	Default gateway address
Access Range[☆] *2	Access Control Range

Item name	Meaning
Primary WINS	Primary WINS server address
Secondary WINS	Secondary WINS server address
Time server	NTP server address
Time Zone	NTP server time difference
Time server polling time	Synchronizes interval
Home page URL	URL of homepage
SYSLOG server	
Home page link name	URL name of homepage
Help page URL	URL of help page
SNMP protocol	Protocol used with SNMP
NetWare	
EncapType	Frame type
RPRINTER number	Remote printer number
Print server name	Print server name
File server name	Name of the connect file server
Context name	Context of print server
Switch	
Mode	Active mode
NDS/Bindery	(this value is fixed)
Packet negotiation	
Print job timeout	Time of the job timeout
Protocol	
SAP interval time	

Item name	Meaning
NetBEUI	
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)
IEEE 802.11b *3	
Device name	Printer name
SSID	SSID being used
Channel range	Channels available for use
Channel	Channel being used
Communication mode	IEEE 802.11b interface transmitting mode
Rate	IEEE 802.11b interface speed
WEP encryption	Whether WEP is enabled or disabled
Authentication	Validity or invalidity of the authorized mode setting when using WEP
Encryption key	WEP key

Item name	Meaning
IP over 1394 *1 *4	
Device name	
Address	IP address
Netmask	Subnet mask
Broadcast	Broadcast address
SCSI print *4	
Bidi.	Bidirectional setting (on/off)
Shell mode	Mode of the remote maintenance tool

*1 The optional 1394 interface unit supports TCP/IP only.
*2 ☆ represents a target number between 1 and 5.
*3 You can display the item names when installing the optional 802.11b interface unit.
*4 You can display the item names when installing the optional 1394 interface unit.

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.195 “Commands List”.

Message	Causes and solutions
Access to NetWare server <file server name> denied. Either there is no account for this print server on the NetWare server or the password was incorrect.	(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.	The same community name already exists. Use another one.
add_sess: session<community name>already defined.	The requested community name is not defined.
add_sess: bad trap addr:<IpAddress>, community:<community name>	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>	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.	The same community name already exists. Use another one.

Message	Causes and solutions
add_sess_ipx: session_ipx<community name> not defined.	The requested community name is not defined.
anpd start. (AppleTalk)	An anpd (AppleTalk Network Package Daemon) has started.
Attach FileServer =<file server name>	Attached to the file server as a nearest server.
Attach to print queue <print queue name>	(In print server mode) Attached to the print queue name.
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.
Cannot find rprinter (<print server name>/<printer number>)	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 server address>).	The IP address was successfully received from the DHCP server.
connection from <IP address>	Logged on from the host <IP address>.
Could not attach to FileServer<error number>	(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>	(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 IP address>	The IP address <current IP address> was received from the DHCP server.
Current IPX address<IPX address>	The current IPX address
DHCP lease time expired.	DHCP lease time has expired. The printer tries to locate the DHCP server again. The IP address used till now becomes invalid.
DHCP server not found.	The DHCP server cannot be found. Make sure the DHCP server is running on the network.
dhcpcd start.	A dhcpcd (DHCP client service) has started.
Duplicate IP=<IP address>(from <MAC address>).	The same IP address is in use. Every IP address must be unique. Check the address of the device indicated in <MAC address>.
Established SPX Connection with PServer, (RPSocket=<socket number>, connID= <connection ID>)	(In remote printer mode) A connection 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.

Message	Causes and solutions
Frametype =<frame type name>	The <frame type name> is configured to be used on NetWare.
httpd start.	An httpd has started.
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>	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>	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>)	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:xx)
IEEE 802.11b <transmission mode> mode	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 ad hoc mode • IEEE 802.11b **[ad hoc]** mode : in ad hoc mode

Message	Causes and solutions
IEEE 802.11b Tx Rate <Transfer Speed>	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.
inetd start.	An inetd has started.
<interface> started with IP: <IP address>	<IP address> has been set for <Interface> and <Interface> started.
<Interface>: Subnet overlap.	Subnet from Netmask and the IP address you tried to set for <Interface> overlap the subnet of another interface. Set Subnet so 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).	The resource lease time received from the DHCP server is <lease time> in seconds. The renewal time is also <renew time> in seconds.

Message	Causes and solutions
Login to fileserver <file server name> (<IPX|IP>,<NDS|BINDERY>)	(In print server mode) Logged on to the file server with NDS or BINDERY mode.
multid start.	Data transmission service for multiprotocols has started.
nbstart start. (NetBEUI)	The service for NetBEUI stack setting has started.
NBT Registration Broadcast(<NetBIOS name>)	Use a local broadcast to map <NetBIOS name> with the IP address.
nbtd start.	An nbtd (NetBIOS over TCP/IP Daemon) has started. (Available only in DHCP mode)
NetBEUI Computer Name =<computer name>	The NetBEUI Computer Name is defined as <computer name>.
nmsd start. (NetBEUI)	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>	(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.

Message	Causes and solutions
Print queue <print queue name> cannot be serviced by printer 0, <print server name>	(In print server mode) The print queue name cannot be serviced. Make sure that print queue volume exists on the specified file server.
Print server <print server name> has no printer.	(In print server mode) The printer object is not assigned to the print server <print server name>. Using NWadmin, assign the printer object, and then restart the printer device.
Print session full	Cannot accept the print session.
Printer <printer name> has no queue	(In print server mode) The print queue is not assigned to the printer. Using 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	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 server name>) not found	Cannot find the required file server.
restarted.	LPD has started.
sap enable, saptype=<SAP type>, sapname=<SAP name>	The SAP function has started. The SAP (SAP type and SAP name) packet is issued to advertise the service on the SAP table on the NetWare server.
Set context to <NDS context name>	A <NDS context name> has been set.
shutdown signal received. network service rebooting...	Rebooting the network service.

Message	Causes and solutions
smbd start. (NetBEUI)	An smbd (SMB (Server Message Block) service) has started.
Snmp over ip is ready.	Communication over TCP/IP with SNMP is available.
Snmp over IP over 1394 is ready.	Communication over IP over 1394 with SNMP is available.
Snmp over ipx is ready.	Communication over IPX with SNMP is available.
snmpd start.	SNMP service has started.
started.	Direct print service has started.
The print server received error <error number> during attempt to log in to the network. Access to the network was denied. Verify that the print server name and password are correct.	Cannot log 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.

Message	Causes and solutions
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	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.
WINS Server=<WINS server address> NetBIOS Name=<NetBIOS name>	The printer name has been successfully registered in <WINS server address>.
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.

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.

Note

- 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.72 “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 NetWare to inactive.**

Reference

For more information about selecting a protocol, see p.72 “Configuring NetWare Using the Control Panel”.

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

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

Limitation

❒ DHCP cannot be used with IEEE 1394 (IP over 1394). Set a fixed IP address using the control panel, telnet, or a Web browser.

- See *Setup Guide*.
- See p.196 “TCP/IP address”.
- See p.109 “Configuring the Network Interface Board Settings”.

Note

- Printers that register the printer NetBIOS name on a WINS server must be configured for the WINS server. See p.217 “WINS”.
- Supported DHCP server is Windows NT 4.0 Server Service Pack 4 or later, Windows 2000 Server, and NetWare 5/5.1, 6.
- If you do not use the WINS server, reserve the printer's IP address in the DHCP server so the same IP address is assigned every time.
- DHCP relay-agent is not supported. If you use DHCP relay-agent on a network via ISDN line, it will result in expensive line charges. This is because your computer connects to the ISDN line whenever a packet is transferred from the printer.

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.218 “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.134 “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 SmartNetMonitor 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 browser

1. **Start the Web browser.**
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 the Web browser.
3. **Click Network Config.**

   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.

5. Click TCP/IP.
6. Set WINS to “active” and enter the IP address of the WINS server in [Primary WINS Server] and [Secondary WINS Server].
7. Click [Refresh].
8. Exit the Web browser.

Using telnet

1. Connect to the remote printer using telnet.
2. Use the “set” command to make WINS active.

```
msh> set wins on
```

3. 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	Paper Size	Non-Duplex Printing		Duplex Printing	
		Can print	Guaranteed	Can print	Guaranteed
600 × 600 dpi *1	A3	64 MB (Standard)	64 MB (Standard)	64 MB (Standard)	128 MB (Standard+64 MB)
	B4				
	A4				
	B5				
	A5				
1200 × 600 dpi *2	A3	64 MB (Standard)	128 MB (Standard+64 MB)	64 MB (Standard)	192 MB (Standard+128 MB)
	B4				
	A4		64 MB (Standard)		128 MB (Standard+64 MB)
	B5				
	A5				
1200 × 1200 dpi *3	A3	64 MB (Standard)	192 MB (Standard+128 MB)	128 MB (Standard+64 MB)	384 MB (128 MB+256 MB)
	B4				320 MB (Standard+256 MB)
	A4		128 MB (Standard+64 MB)	64 MB (Standard)	192 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: **[600dpi]** 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: **[600dpi]** on **[Resolution]** and **[Standard]** on **[Gradation]**

Reference

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 1200dpi]** on **[Resolution]**
- PostScript 3: **[1200dpi]** on **[Resolution]** and **[Fast]** on **[Gradation]**

Reference

For more information about how to set the printer driver, see the printer driver Help.

Specifications

Main Unit

❖ **Configuration:**
Desktop

❖ **Print Process:**
Laser beam scanning & Electrophotographic printing
Dual component toner development

❖ **Printing Speed:**
Monochrome: Maximum 38 pages per minute (A4), (11 × 8 1/2)
Color: Maximum 28 pages per minute (A4), (11 × 8 1/2)

❖ **Interface:**

- Parallel (Bidirectional IEEE1284)
- Ethernet (10/100Base-TX)

Optional:

- IEEE 1394 (SCSI print, IP over 1394)
- IEEE 802.11b (wireless LAN)
- USB (USB1.1, USB2.0 *1)

*1 Requires a USB port and cable that support USB 2.0.

- Bluetooth

❖ **Resolution:**
1200 × 1200 dpi (RPCS, PostScript 3)
1200 × 600 dpi (RPCS, PostScript 3)
600 × 600 dpi (PCL 5c, RPCS, PostScript 3)
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	1,500 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	25 dB (A)
During Printing	55 dB (A)

*1 The preceding measurement, made in accordance with ISO7779, are actual values.
*2 Measured at the position of a bystander.

❖ 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 3800C or Paper Bank PS470, and SR770	1,450 mm (57.2 inches)	678 mm (26.7 inches)	1060 mm (41.7 inches)
With Paper Feed Unit Type 3800C or Paper Bank PS470, and Mail Bin Type 3800C	575 mm (22.7 inches)	678 mm (26.7 inches)	1400 mm (55.0 inches)

❖ Weight:

Approximately 85 kg (184 lb) (toner cartridge and power cord included)

❖ Warm-up Time:

Less than 99 seconds (23°C, 73F) *1

*1 When no error.

❖ Paper Input Capacity:

Standard Paper Tray	500 sheets × 2 *1
Bypass Tray	100 sheets *1
Optional Paper Feed Units	500 sheets × 1, 500 sheets × 2 *1
Paper Bank PS470	2,000 sheets *1

*1 Paper weight: 80 g/m^2 (20 lb)

*2 You can load up to 10 envelopes at the same time.

❖ **Paper Output Capacity:**
Face down: 500 sheets (80 g/m^2, 20 lb)
Face up: 100 sheets (80 g/m^2, 20 lb)

❖ **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 3800C (500 × 1)	60-105 g/ m^2 (16-28 lb)	500 (80 g/m^2, 20 lb)
Paper Feed Unit Type 3800C (500 × 2)	60-105 g/ m^2 (16-28 lb)	500 (80 g/m^2, 20 lb)
Paper Bank PS470	60-105 g/ m^2 (16-28 lb)	2000 (80 g/m^2, 20 lb)

❖ **Memory:**
Standard 64 MB, up to 384 MB (with the optional memory unit)

❖ **Network:**
Protocol: TCP/IP, NetBEUI*1, IPX/SPX, AppleTalk
*1 To use NetBEUI, use the SmartNetMonitor for Client port.

Options

Paper Feed Unit Type 3800C (500 × 1)

❖ **Dimensions (W × D × H):**
540 × 600 × 172 mm (21.3 × 23.7 × 6.8 in)

❖ **Paper Weight:**
60 - 105 g/m^2 (16 - 28 lb)

❖ **Paper Size:**
A5 (Long edge feed) - A3, 8$^1/_2$ × 11 - 11 × 17 (Short edge feed)

Paper Feed Unit Type 3800C (500 × 2)

❖ **Dimensions (W × D × H):**
540 × 600 × 270 mm (21.3 × 23.7 × 10.7 in)

❖ **Paper Weight:**
60 - 105 g/m^2 (16 - 28 lb)

❖ **Paper Size:**
A5 (Long edge feed) - A3, 8$^1/_2$ × 11 - 11 × 17 (Short edge feed)

Paper Bank PS470 (Large Capacity Tray)

❖ **Dimensions (W × D × H):**
540 × 600 × 270 mm (21.3 × 23.7 × 10.7 in)

❖ **Paper Weight:**
60 - 105 g/m^2 (16 - 28 lb)

❖ **Paper Size:**
A4 (Long edge feed) or 8$^1/_2$ × 11 (Short edge feed)

SR770 (2 Tray Finisher)

❖ **Dimensions (W × D × H):**
680 × 620 × 1,030 mm (26.8 × 24.4 × 40.6 in)

❖ **Paper Size:**
A5 (Long edge feed) - A3, 8$^1/_2$ × 11 - 11 × 17 (Short edge feed)

❖ **Paper Weight:**
60 - 105 g/m^2 (16 - 28 lb)

❖ **Stack Capacity:**

- Upper Tray:
  500 sheets (A4/11 × 8 1/2/B5/A5 (Long edge feed) - 80 g/m^2, 20 lbs.)
- Lower Tray
  2,000 sheets (A4/11 × 8 1/2 (Long edge feed) - 80 g/m^2, 20 lbs.)
  750 sheets (A3, B4, A4 (Short edge feed), B5, 8 1/2 × 14, 11 × 17, 8 1/2 × 11 (Short edge feed))
  500 sheets (A5 (Long edge feed))

❖ **Weight:**
53 kg (116.9 lb)

Mail Bin Type 3800C (4bin Mail Box)

❖ **Dimensions (W × D × H):**
540 × 600 × 400 mm (21.3 × 23.6 × 15.8 in)

❖ **Paper Size:**
A5 (Long edge feed) - A3, 8 1/2 × 11 - 11 × 17 (Short edge feed)

❖ **Paper Weight:**
60 - 105 g/m^2 (16 - 28 lb)

❖ **Stack Capacity:**
125 sheets / bin (A4 (Long edge feed) 80 g/m^2)

❖ **Weight:**
7 kg (15.5 lb)

Duplex Unit Type 7000

❖ **Dimensions (W × D × 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 - $10^1/_2 \times 7^1/_4$ (Long edge feed)

❖ **Weight:**
8 kg (3.6 lb)

Printer Hard Disk Type 7000

❖ **Storage Capacity (Formatted):**
20 GB, 40 GB

- Spool print data to collate
- Spool Sample/Locked Print data
- Store PostScript fonts
- Store log data

Note

❒ 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.

❒ When you install the optional scanner unit, the 40 GB printer hard disk must be required to use the Document Server function.

Memory Unit TypeC 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 C

❖ **Capacity:**
64 KB

- Store User Code (Up to 400 users)

USB2.0 Interface Board Type A

❖ **Transmission spec:**
USB1.1 and USB2.0

❖ **Data transfer speed:**
High speed (USB2.0): 480 Mbps
Full speed: 12 Mbps
Low speed: 1.5 Mbps

❖ **PnP (Plug and Play):**
If a USB cable is connected, the operating system will automatically recognize the printer and one of the following:

① USB driver is installed: the operating system automatically sets up the printer.

② USB driver is not installed: a pop-up menu appears which recommends you to install the driver.

❖ **Supported operating systems:**
USB1.1: Windows 98/2000/Me/XP, Mac OS 9.x, Mac OS X classic mode
USB2.0 *1 : Windows 2000/Me/XP

*1 Depends on Microsoft's driver support schedule.

❖ **USB cable:**
USB cable should be procured locally.

Note

❒ USB2.0 incorporates USB1.0 specification.

❒ USB2.0 port is required for the computer.

1394 Interface Unit Type 4510

❖ **Interface:**
IEEE Std. 1394-1955 compliant, IEEE Std. 1394-2000 compliant.

❖ **Interface Connector:**
IEEE 1394 (6 × 2 pins)

❖ **Required cable:**
IEEE 1394 interface cable (6 × 4 pins, 6 × 6 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)

802.11b Interface Unit TypeA

❖ **Transmission Spec.:**
Based on IEEE 802.11b (wireless LAN)

❖ **Protocol:**
TCP/IP, NetBEUI, IPX/SPX, AppleTalk

Note

❒ SmartNetMonitor and WebStatusMonitor 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

*1 These figures are a guideline for outdoor use. In general, the transmittable distance indoors is 10-100 m, depending on the environment.

❖ **Transmission Mode:**
ad hoc and infrastructure mode

Information about Installed Software

expat

Use of the software installed on this product, including the controller (hereinafter “software”) and the expat Version 1.95.2 application software (hereinafter “expat 1.95.2”), is subject to the following conditions:

The product manufacturer provides warranty and support to the software of the product including expat 1.95.2 and the product manufacturer allows the initial developer of expat 1.95.2 to be free from these obligations.

Note

- Information on expat 1.95.2 is available at:

  http://expat.sourceforge.net/

JPEG LIBRARY

- The software installed on this product is based in part on the work of the Independent JPEG Group.

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