

Notes to Users

This manual describes the procedures and provides necessary information about printing using IEEE 1394.

IEEE 1394 Configuration

Use this procedure to configure the printer for use in the IEEE 1394 environment. The following table shows the control panel settings and their default values. These items are included in the "Host Interface" menu.

Setting Name	Value
IP Address1394	000.000.000.000
Subnet Mask1394	000.000.000.000
IP over 1394	Active
SCSI print	Active
Bidi-SCSI print	Active

Depending on the protocol you use, procedures vary. See the following table.

IP over 1394	Steps 1-3 and then go to steps 6 to 7
SCSI print	Steps 1-3 and then go to steps 9 to 10

1 Press [Menu].

"Menu" appears on the panel display.

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

```
Menu:
Host Interface
```

3 Press [Enter #].

The following message appears on the panel display.

```
Host Interface:
I/O Buffer
```

4 Press [▲] or [▼] to display "IEEE 1394 Setup".

```
Host Interface:
IEEE 1394 Setup
```

5 Press [Enter #].

The following message appears on the panel display.

```
IEEE 1394 Setup:
IP Address1394
```

6 Press [▲] or [▼] to display "IP over 1394".

```
IEEE 1394 Setup:
IP over 1394
```

1 Press [Enter #].

2 Press [▲] or [▼] to select either "Active" or "Not Active".

3 Press [Enter #].

The display returns to the previous menu in a few seconds.

7 Assign the IP address to the printer.

Do not overlap the IP address in the same subnet or the same IP address in the network setting.

 **Note**

- To get the IP address for the printer, contact your network administrator.

1 Press **[▲]** or **[▼]** until the following message appears.

```
IEEE 1394 Setup:
IP Address1394
```

2 Press **[Enter #]**.

The current IP address appears on the panel display.

```
IP Address1394:
000.000.000.000
```

3 Press **[▲]** or **[▼]** to enter the leftmost entry field of the IP address.

```
IP Address1394:
192.000.000.000
```

4 Press **[Enter #]**.

The pointer (█) moves to the next entry field automatically.

```
IP Address1394:
192.02█.000.000
```

 **Note**

- The value moves by 10 if **[▲]** or **[▼]** is kept pressed.
- You can return the pointer (█) to the previous (left) entry field by pressing **[Escape]**.
- If you press **[Escape]** when the pointer (█) is on the leftmost position, the selected IP address is reset.

5 Repeat steps **3** and **4** to enter the IP address.

```
IP Address1394:
192.168.000.011
```

Check if the pointer (█) is at the rightmost position, and press **[Enter #]** to register the IP address you selected.

```
IEEE 1394 Setup:
IP Address1394
```

8 Set "Subnet Mask1394" in the same way.

9 Set "SCSI print" and "Bidi-SCSI print" if necessary.

 **Note**

- The default setting is "Active".

10 Press **[▲]** or **[▼]** to display "SCSI print".

```
IEEE 1394 Setup:
SCSI Print
```

11 Press **[Enter #]**.

The following message appears on the panel display.

```
SCSI Print:
*Active
```

12 Press **[▲]** or **[▼]** to select either "Active" or "Not Active", and then press **[Enter #]**.

Set "Bidi-SCSI print" in the same way.

 **Note**

- Depending on the model type, you may not be able to make "Bidi-SCSI print" setting. For more information, see p.11 "Bi-directional Transmission".

"Ready" appears on the panel display.



 Press **[On Line]**.

14 Print a configuration page to confirm the settings made. See "Printing a Configuration Page" in the Printer Reference.

The settings are now complete. Go to p.3 "Installing the Printer Driver Using IEEE 1394".

Installing the Printer Driver Using IEEE 1394

This section gives basic instructions for installing the printer drivers using IEEE 1394. The printer drivers can be installed from the CD-ROM provided.

 **Important**

- Be sure that all other applications are closed and that the computer is not printing before installation.

Printing with SCSI Print

Printing using a SCSI print device with the optional 1394 Interface Unit is possible under Windows 2000 and Windows XP.

 **Important**

- Do not connect new IEEE 1394 or USB devices to the printer or turn on the printer while installing the printer driver.
- Before uninstalling the printer driver, be sure to disconnect the 1394 interface cable from the computer.
- "SCSI print" must be set active from the control panel. For more information, see p.1 "IEEE 1394 Configuration".

 **Note**

- This machine cannot receive print data from more than one computer at the same time. If you send data from your computer when data is being received from another computer, an error or a warning message may appear on the computer display.

Installing the Printer Driver

Note

- If **[Found New Hardware Wizard]** appears every time the computer is started or the cable is connected with Windows 2000/Windows XP, inactivate the device. See p.7 "Inactivating the Device". If you want to install another printer driver after setting the "1394_00n" port, select the "1394_00n" port by following the procedures of installing a printer driver. ("n" is the number of printers connected.")
- When the printer connected via the 1394 Interface Unit is installed properly, the appearance of the icon in the printer folder changes according to whether the cable is plugged in or not.

Windows 2000

- 1** Connect the printer and the computer using the IEEE 1394 interface cable.
- 2** The **[Found New Hardware Wizard]** dialog box appears. Click **[Next>]**.
- 3** When the **[This wizard will complete the installation for this Device: Unknown]** message appears, select **[Optional search locations:]**, and then click **[Next>]**.
- 4** When the **[Locate Driver Files]** message appears, select the **[Optional search locations.]** check box, and then select **[Specify a location]**, and then click **[Next>]**.
- 5** Hold down the left **[SHIFT]** key and insert the CD-ROM into the CD-ROM drive.

Note

- Keep the left **[SHIFT]** key held down until the computer has finished accessing the CD-ROM.
 - If the Auto Run program starts, click **[Cancel]**, and then **[Exit]**.
- 6** Click **[Browse]**.
 - 7** Select the printer driver that you want to use. The following are locations where printer drivers are stored:
 - RPCS
/DRIVERS/RPCS/(Language)/WIN2000/DISK1
 - PCL 6
/DRIVERS/PCL6/(Language)/WIN2000/DISK1
 - PCL 5e
/DRIVERS/PCL5e/(Language)/WIN2000/DISK1
 - PostScript 3
/DRIVERS/PS3/(Language)/WIN2000/DISK1

8 Click **[Open]**.

9 Click **[OK]**.

A printer model selection dialog box appears.

10 Follow the instructions on the screen.

 **Note**

- During installation, the **[Digital Signature Not Found]** dialog box may appear. In this case, click **[Yes]** to continue the installation.
- If the printer driver is already installed, the printer icon is automatically added to the **[Printer]** folder. In such a case, installation of the printer driver is not necessary.
- When the installation is complete, the printer with its port directed to "1394_00n" appears on the **[Printers]** folder. ("n" is the number of printers connected.")

Windows XP

1 Connect the printer and the computer using the IEEE 1394 interface cable.

2 In the **[Found New Hardware Wizard]** dialog box, confirm that **[This wizard helps you install software for: Unknown]** is displayed, and select **[Install from a list on specific location (Advanced)]**, and then click **[Next>]**.

3 When the **[Please choose your search and installation option.]** messages appears, select the **[Search for the best driver in these locations.]** check box, and then select the **[Include this location in the search:]** check box, and then select the **[Include this location in the search:]** check box.

4 Install the printer driver following the same procedures as steps **5-10** in Windows 2000.

 **Note**

- During installation in Windows XP, the **[Hardware Installation]** dialog box may appear. In this case, click **[Continue Anyway]** to continue the installation.
- When the installation is complete, the printer with its port directed to "1394_00n" appears on the **[Printers and Faxes]** folder. ("n" is the number of printers connected.)
- If the printer driver is already installed, the printer icon is automatically added to the **[Printer]** folder. In this case, installation of the printer driver is not necessary.

- Even if the printer driver has already been installed, **[Found New Hardware Wizard]** may start when connecting the printer and the computer with the IEEE 1394 interface cable for the first time. In this case, install the printer driver by following the procedure.

Printing with IP over 1394

You can print by setting the IP address for this machine and the computer on which Windows XP is installed.

Preparation

Depending on the version of SmartNetMonitor for Client, you can print with Windows Me. For more information, see p.6 “Use of the IP over 1394 Environment”.

“IP over 1394” must be set on the control panel and an IP address for the IEEE 1394 must be specified.

For more information about how to make printer settings, see p.1 “IEEE 1394 Configuration”.

Limitation

- When using the IEEE 1394 (IP over 1394) interface in a network, the Ethernet interface cannot be used in the same subnet.

Note

- The maximum number of simultaneous print requests when connecting with IP over 1394 includes the print requests from the Ethernet interface. For more information, see the Network Printing Guide.

Installing the Printer Driver

To Print using Standard TCP/IP port. For more information about Standard TCP/IP port settings, see Network Printing Guide.

Use of the IP over 1394 Environment

Available Operating System

Available Operating System	Available Ports
Windows XP	<ul style="list-style-type: none"> • Standard TCP/IP port • SmartNetMonitor port ^{*1}
Windows Me	<ul style="list-style-type: none"> • SmartNetMonitor port ^{*1}

^{*1} You can use SmartNetMonitor port when SmartNetMonitor for Client version is 5.0.0.0 or later.

❖ **Confirming the SmartNetMonitor Version**

- ① Run SmartNetMonitor for Client.
The SmartNetMonitor for Client icon appears at the right end of the taskbar.
- ② Right-click the SmartNetMonitor for Client icon, and check if the desired printer is configured on the pop-up menu that appears.
- ③ Click **[Version]** on the pop-up menu.



Inactivating the Device

❖ **When [Add New Hardware Wizard] starts every time you restart the computer with an operating system, which does not support SCSI print or plug in or out the cable, inactivate the device by following procedures.**

- Windows Me
 - ① In the **[Add New Hardware Wizard]** dialog box, confirm that **[Windows has found the following new Hardware: IEEE SBP-2 Device]** is displayed, and select **[Recommended search for a better driver [Recommended]]**, and then click **[Next>]**.
 - ② When the **[Windows was unable to locate the software for this device.]** message appears, click **[Finish]**.

❖ **If you do not want to install the printer when [Found New Hardware Wizard] starts with an operating system, which supports SCSI print, inactivate the device by following the procedures.**

- Windows XP
 - ① In the **[Found New Hardware Wizard]** dialog box, confirm that **[This wizard helps you install software for: Unknown]** is displayed, and select **[Install from a list on specific location (Advanced)]**, and then click **[Next>]**.
 - ② When the **[Please choose your search and installation option.]** message appears, remove all the selections from **[Search for the best driver in these locations.]**, and then click **[Next>]**.
 - ③ When the **[The wizard could not find the software on your computer for..]** message appears, click **[OK]**.
 - ④ When the **[Cannot Install this Hardware]** message appears, select the **[Don't prompt again to install the software]** check box, and then click **[Finish]**.
- Windows 2000
 - ① In **[Found New Hardware Wizard]** dialog box, and then click **[Next>]**.
 - ② When the **[This wizard will complete the installation for this Device: Unknown]** message appears, and select **[Search for a suitable driver for my device [recommended]]**, and then click **[Next>]**.

- ③ When the **[Locate Driver Files]** message appears, remove all the selections from **[Optional search locations.]**, and then click **[Next>]**.
- ④ When the **[Driver Files Search Results]** message appears, select the **[Disable the device. The Add/Remove Hardware Wizard in the control Panel can be able to complete the driver installations.]** check box, and then click **[Finish]**.

❖ When **[Found New Hardware Wizard]** appears every time you restart the computer with an operating system which does not support IP over 1394, plug in or take out the cable, inactivate the device with the following procedure.

- Windows 2000

- ① In **[Found New Hardware Wizard]** dialog box, and then click **[Next>]**.
- ② When the **[This wizard will complete the installation for this Device:]** message appears and "IP over 1394" appears select **[Search for a suitable driver for my device [recommended]]**, and then click **[Next>]**.
- ③ When the **[Locate Driver Files]** message appears, remove all the selections from **[Optional search locations.]**, and then click **[Next>]**.
- ④ When the **[Driver Files Search Results]** message appears, select the **[Disable the device. The Add/Remove Hardware Wizard in the control Panel can be able to complete the driver installations.]** check box, and then click **[Finish]**.



Printer Does not Print

Possible Cause	Solution
If you use IEEE 1394, check for the following.	<ol style="list-style-type: none"> ① Make sure the 1394 Interface Unit is installed properly. ② Make sure the IEEE 1394 cable is connected properly. ③ Restart the computer. If the problem still exists when SCSI print is used with Windows 2000 and Windows XP, go to step ④. ④ Disconnect all the IEEE 1394 cables from the computer. ⑤ If you uninstall the printer driver when the printer is connected to a computer with "SCSI print", the printer driver may not be uninstalled properly. To uninstall the driver properly, use the IEEE 1394 Printer Removal Utility on the CD-ROM that comes with the printer. Stored in: CD-ROM labeled "Printer Driver and Utilities"/UTILITY/1394/ <p> Note</p> <ul style="list-style-type: none"> <input type="checkbox"/> For more information about the IEEE 1394 Printer Removal Utility, see the README file in the same folder as the program. <ol style="list-style-type: none"> ⑥ Restart the computer.

Remote Maintenance by telnet

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 configure whether the IEEE 1394 (SCSI print) is bidirectional. The factory default is "on".

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

 **Note**

- Depending on the model type, you may not be able to use this command. For more information, see p.11 "Bidirectional Transmission".

Configuring the Network Interface Board

Item name	Meaning
IP over 1394 Device name Address Netmask Broadcast	IP address. Subnet mask. Broadcast address.
SCSI print Bidi. ^{*1}	Bidirectional setting (on/off).

^{*1} Depending on the model type, the item may not appear on the display panel. For more information, see p.11 "Bidirectional Transmission".

Using DHCP

 **Limitation**

- DHCP cannot be used with IEEE 1394 (IP over 1394). Set a fixed IP address with the control panel, telnet or a Web browser.
 - See p.1 "IEEE 1394 Configuration".
 - See "TCP/IP address" in the Network Printing Guide.
 - See "Configuring the Network Interface Board Settings" in the Network Printing Guide.

Specifications

1394 Interface Unit Type 4510

◆ **Transmission Mode:**

IEEE 1394

◆ **Device Class:**

SCSI print, IP over 1394

◆ **Interface Connector:**

IEEE 1394 (6 pins x 2)

◆ **Required cable:**

1394 Interface cable (6 pins x 4 pins, 6 pins x 6 pins)

Important

- You cannot plug devices together to create loops.
- Do not use a cable more than 4.5 meters (14.8 feet) long.

❖ **Connectable number of device in a bus:**

Maximum 63

❖ **Allowed cable hops in a bus:**

Maximum 16

❖ **Power supply:**

Nonpower supply

Cable Power repeated (IEEE 1394a-2000 compliant)



Bidirectional Transmission

The following models do not support bidirectional transmission. Check the model.

- RICOH Aficio AP4510
 - Savin MLP45
 - Gestetner P7145
 - nashuatec P7145
 - Rex-Rotary P7145
 - LANIER 2145
- 

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