



Network Guide

Introduction

This manual contains detailed instructions and notes on the operation and use of this machine. For your safety and benefit, read this manual carefully before using the machine. Keep this manual in a handy place for quick reference.

Important

Contents of this manual are subject to change without prior notice.

To the maximum extent permitted by applicable laws, in no event will the manufacturer be liable for any damages whatsoever arising out of failures of this machine, losses of the registered data, or the use of this product and operation manuals provided with it.

Make sure that you always copy or have backups of the data registered in this machine. Documents or data might be erased due to your operational errors or malfunctions of the machine.

In no event will the manufacturer be responsible for any documents created by you using this machine or any results from the data executed by you.

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

Trademarks

Microsoft, Windows, and Windows Server are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.

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

- The product names of Windows XP are as follows:

Microsoft® Windows® XP Professional

Microsoft® Windows® XP Home Edition

Microsoft® Windows® XP Media Center Edition

Microsoft® Windows® XP Tablet PC Edition

Microsoft® Windows® XP Professional x64 Edition

- The product names of Windows Server 2003 are as follows:

Microsoft® Windows Server® 2003 Standard Edition

Microsoft® Windows Server® 2003 Enterprise Edition

- The product names of Windows Server 2003 R2 are as follows:

Microsoft® Windows Server® 2003 R2 Standard Edition

Microsoft® Windows Server® 2003 R2 Enterprise Edition

Other product names used herein are for identification purposes only and might be trademarks of their respective companies. We disclaim any and all rights to those marks.

Note:

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

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Manuals for This Machine

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

Note

- Manuals provided are specific to machine type.
- Adobe® Acrobat® Reader®/Adobe Reader must be installed in order to view the manuals as PDF files.

General Settings Guide

Provides an overview of the machine and describes System Settings (paper trays, Administrator Tools, etc.), and troubleshooting.

Network Guide (this manual)

Describes procedures for configuring the machine and computers in a network environment.

Copy Reference

Describes operations, functions, and troubleshooting for the machine's copier function.

Printer/Scanner Reference

Describes system settings, functions, troubleshooting and operations for the machine's printer and scanner functions.

How to Read This Manual

Symbols

In this manual, the following symbols are used:

WARNING

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

CAUTION

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

* The statements above are notes for your safety.

Important

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

Preparation

This symbol indicates prior knowledge or preparation is required before operation.

Note

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

Limitation

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

Reference

This symbol indicates a reference.

[]

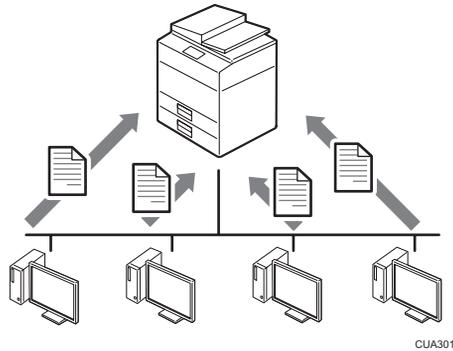
Indicates the names of keys on the machine's display or control panels.

1. Functions Available over a Network

This machine provides printer and scanner functions over a network.

Using the Printer

You can connect this machine to a network and use it as a network printer.



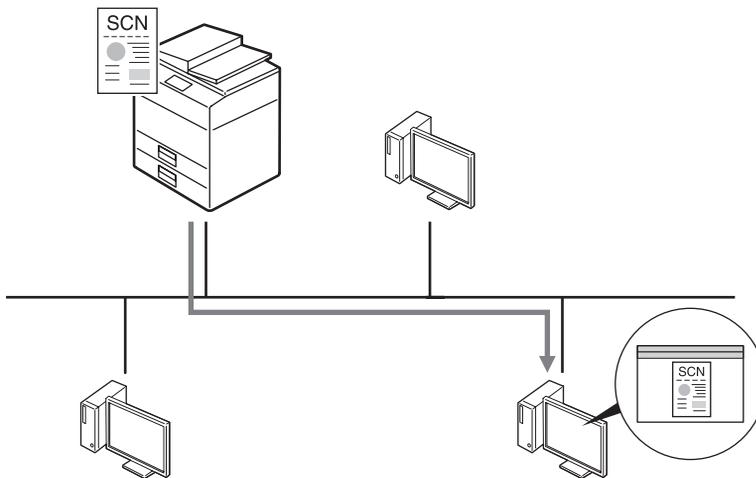
Reference

- For details about what settings to make, see page 9 "User Tools Menu (Interface Settings)".
- For details about using this function, see page 15 "Printing with a Print Server".

Network TWAIN Scanner

1

You can use the scanning function of this machine from a computer connected via a network. You can scan documents the same way you would if you were using a scanner connected directly to your computer.



CUA302

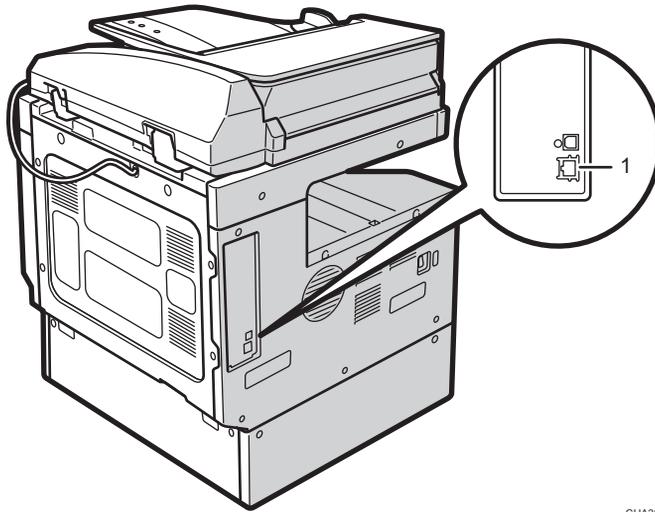
Reference

- For details about what settings to make, see page 9 "User Tools Menu (Interface Settings)".
- For details about using this function, see "Using the TWAIN Scanner Function", Printer/Scanner Reference.

2. Connecting the Network Cable to the Network

Confirming the Connection

2



CUA303

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

Port for connecting the network interface cable.

Connecting to the Ethernet Interface

Caution:

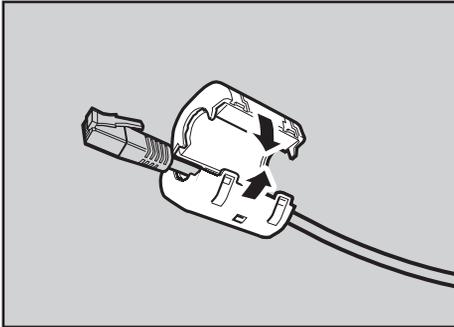
A network interface cable with a ferrite core must be used for RF interference suppression. The network interface board supports 10BASE-T or 100BASE-TX connections.

1. Turn off the main power switch.

★ Important

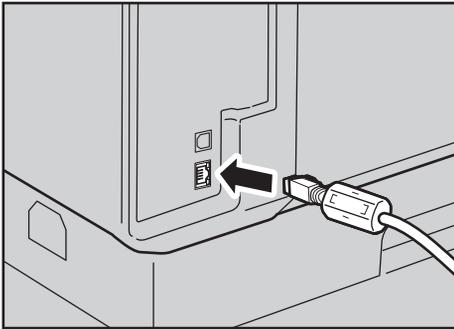
- Make sure the main power is off. See "Turning On the Power", Copy Reference.

2. Attach the supplied ferrite core with the machine to the end of an Ethernet interface cable.



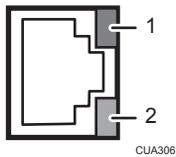
CUA304

3. Connect the network interface cable to the 10BASE-T/100BASE-TX port.



CUA305

4. Turn on the main power switch.



CUA306

1. Indicator (orange)

When data is transmitted or received, the LED is lit orange. When data is not transmitted or received, it is turned off.

2. Indicator (green)

When 10BASE-T or 100BASE-TX is operating, the LED is lit green. When the machine is not connected to the network, it is turned off.

3. Setting Up the Machine on a Network

User Tools Menu (Interface Settings)

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

★ Important

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

📖 Reference

- For details about settings, see page 11 "Settings You Can Change with User Tools".

Viewing the Information Displayed in the List

- These items must be set to use the function. Be sure to set them before attempting to use the corresponding function.
- These items must be set if required.

Printer

Settings		
Interface Settings/ Network See page 11 "Interface Settings".	IP Address	●
	Gateway Address	○
	Ethernet Speed	○

Network TWAIN Scanner

Settings		
Interface Settings/ Network See page 11 "Interface Settings".	IP Address	●
	Gateway Address	○
	Ethernet Speed	○

Network Configuration

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

Configuring the network using the control panel

↓ Note

- Operations for Interface Settings are different from normal operations. After using User Tools, press the [User Tools/Counter] key to exit.
- If the administrator code has been set, the administrator code entry screen appears. Enter the code, and then press the [OK] key. For details about the administrator code, see General Settings Guide.

1. Press the [User Tools/Counter] key.
2. Select [Interface Settings] using the [▲] or [▼] key, and then press the [OK] key.
3. Select the setting you want to change, and then press the [OK] key.
4. Change the setting, and then press the [OK] key.

↓ Note

- Press the [Escape] key to cancel the setting.

5. Press the [User Tools/Counter] key.

Configuring the network using other utilities

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

↓ Note

- ○ Indicates machine settings can be changed.
- - Indicates the setting cannot be changed from that device.

Name on the control panel				Web browser	
Interface Settings	Network	IP Address	Auto-Obtain (DHCP)	<input type="radio"/>	
			Specify	IP Add.	<input type="radio"/>
				Subnet M	<input type="radio"/>
				Mac Add.	-
		Gateway Address			<input type="radio"/>
		Ethernet Speed			-

Settings You Can Change with User Tools

Interface Settings

IP Address

Before using this machine in the network environment, you must configure the IP address and subnet mask.

- Auto-Obtain (DHCP)
- Specify

When you select [Specify], enter "IP Address:" and "Sub-net Mask:" as "xxx.xxx.xxx.xxx" ("x" indicates a number).

- IP Address: 011.022.033.044
- Sub-net Mask: 000.000.000.000

⬇ Note

- Default: Auto-Obtain (DHCP)
- When you select [Specify], be sure not to set the same "IP Address:" as that of another machines on the network.
- The physical address (MAC address) also appears.

Gateway Address

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

- Gateway Address:000.000.000.000

⬇ Note

- Default: 000.000.000.000

Ethernet Speed

Set the access speed for networks.

Select a speed that matches your network environment. [Auto Select] should usually be selected.

- Auto Select
- 100Mbps Fixed
- 10Mbps Fixed

Note

- Default: Auto Select

4. Windows Configuration

Configuring TCP/IP

This describes how to configure Windows for TCP/IP and IPP.

Configuring a Windows XP Computer

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

1. On the [Start] menu, click [Control Panel], and then click [Network Connections].
2. Click [Network Connections], and then double-click [Local Area Connection].
3. On the [General] tab, click [Properties].
4. Make sure [Internet Protocol (TCP/IP)] is selected in the [This connection uses the following items] box on the [General] tab.

 **Note**

- Select TCP/IP if it is not already selected.
- If TCP/IP is not installed, click [Install] on the [General] tab to install it. For details about installing TCP/IP, see Windows XP Help.

5. Click [Properties].
6. Configure TCP/IP using the appropriate IP address, subnet mask, and other settings.

Check with the network administrator that the settings are correct.

Configuring a Windows Server 2003 computer

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

1. On the [Start] menu, point to [Control Panel], point to [Network Connections], and then click [Local Area Connection].
2. On the [General] tab, click [Properties].
3. Make sure [Internet Protocol (TCP/IP)] is selected in the [This connection uses the following items] box on the [General] tab.

 **Note**

- Select TCP/IP if it is not already selected.
- If TCP/IP is not installed, click [Install] on the [General] tab to install it. For details about installing TCP/IP, see Windows Server 2003 Help.

4. Click [Properties].
5. Configure TCP/IP using the appropriate IP address, subnet mask, and other settings.
Check with the network administrator that the settings are correct.

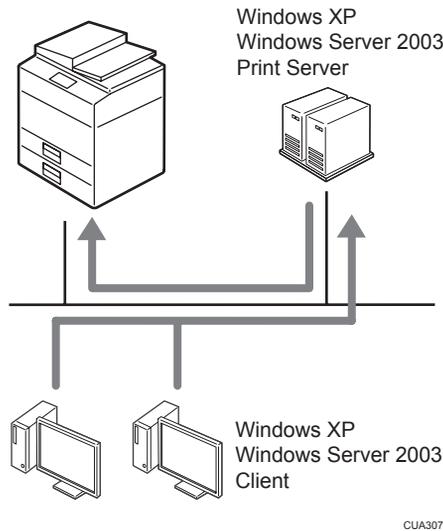
5. Using the Printer Function

Printing with a Print Server

This describes how to configure a client computer on a network using Windows XP or Windows Server 2003 as a print server.

When using a Windows XP, or Windows Server 2003 print server, select a shared printer on Windows XP, or Windows Server 2003.

This section describes running [Add Printer Wizard] on each client computer, and adding the Windows XP and Windows Server 2003 print servers as the network printer.



This section assumes the client is already configured to communicate with a Windows XP, or Windows Server 2003 print server. Do not begin the following procedure until the client computer is set up and configured correctly.

1. Right-click [Network Neighborhood], and then click [Explore] in the context menu.
2. On the network tree, double-click the name of the computer used as the print server. The printers connected to the network are displayed.
3. Double-click the name of the printer you want to use, and then click [Yes].

The printer icon appears in the [Printers] window.

Printing without a Print Server

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

You can configure the following ports:

Standard TCP/IP port

You can print via TCP/IP using a standard TCP/IP port.

↓ Note

- A standard TCP/IP port can be used with Windows XP or Windows Server 2003.

LPR port

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

↓ Note

- An LPR port can be used with Windows XP, or Windows Server 2003.

IPP port

You can print via ipp or http using an IPP port.

↓ Note

- An IPP port can be used with Windows XP, or Windows Server 2003.

Using Standard TCP/IP Port

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

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 [Add Port].
3. Click [Standard TCP/IP Port], and then click [New Port].
4. In the [Add Standard TCP/IP Printer Port Wizard] dialog box, click [Next >].
5. In the [Printer Name or IP Address] box, enter the printer name or IP address, and then click [Next >].
6. In the [Add Standard TCP/IP Printer Port Wizard] dialog box, click [Finish].
7. In the [Printer Ports] dialog box, click [Close].
8. Check the location for the selected printer, and click [Close].

Using LPR Port

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

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 [Add Port].
3. Click [LPR Port], and then click [New Port].
4. In the [Name or address of server providing lpd] box, enter the printer's IP address.
5. In the [Name of printer or print queue on that server] box, enter "lp", and then click [OK].
6. Click [OK].
7. In the [Printer Ports] dialog box, click [Close].
8. Check the location for the selected printer, and click [Close].

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Using the IPP Port

An IPP port can be used with Windows XP, or Windows Server 2003.

This describes how to set the port settings under Windows XP.

1. In the [Printers and Faxes] window, click [Add printer] on the [File] menu.
Add Printer Wizard will start.
2. Click [Next >].
3. Click [A network printer or a attached to another computer] radio button, and then click [Next >].
4. Click the [Connect to a printer on the Internet or on a home or office network:] radio button, and then enter "http:// printer's IP address/ipp/port1" or "ipp://printer's IP address/ipp/port1" in the [URL:] box.
(Example: IP address is 192.168.15.16)
http://192.168.15.16/ipp/port1
ipp://192.168.15.16/ipp/port1
5. Click [Next >].
6. Click [Have Disk], and then click [Browse].
7. Select the printer driver.

The drivers are in the following folders on the supplied CD-ROM.

- Printer driver for the 32-bit Windows

DRIVERS\X86\DRIVERS\DDST\XP_VISTA\(\language)\DISK1

- Printer driver for the 64-bit Windows

DRIVERS\X64\DRIVERS\DDST\X64\(\language)\DISK1

8. Click [OK], and then click [OK].

9. Click [Next >], and then [Finish].

6. Configuring the Network Interface Board Using a Web Browser

Features

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

What can it do?

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

The following functions are available with Web browser:

- Displaying machine status/settings
- Resetting network settings
- Making machine settings

Configuring the machine

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

Reference

- For details about configuring the machine to use TCP/IP, see page 9 "User Tools Menu (Interface Settings)".

Browser

Note

- If you are using a proxy server, change the Web browser settings. Consult your network administrator about the settings.
- This machine information cannot be refreshed automatically. Click [Reload] or [Refresh] on the Web browser.

Specifying the address

In the [Address] box, enter the address (for example `http://XXX.XXX.XXX.XXX` where the Xs are the numbers of the IP address).

If the host name of the machine is registered on the DNS server or WINS server, you can enter it.

Settings You Can Change with a Web Browser

System

- **Reset**
Reset the settings of this machine.
- **Factory Defaults**
Reset the settings of this machine to default.
- **Unit Status**
Display the network settings of this machine.
- **Network Address**
Display the serial number and Ethernet address (MAC address) of this machine.
- **Change Password**
Change the password.

Protocols

- **Setup TCP/IP**
Configure the settings of TCP/IP of this machine.
- **Setup IPP**
Configure the IPP settings of this machine.

Others

- **Printer Status**
Display the printer status of this machine.

Configuring the Network Interface Board Settings

1. Start the Web browser.
2. In the [Address] box, enter the machine's IP address (for example `http://XXX.XXX.XXX.XXX` where the Xs are the numbers of the IP address).

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

3. In the menu area, select the item, and then make the necessary settings.

 **Note**

- Enter a password if necessary.
- Default password is "sysadm".

7. Appendix

Using DHCP

If this machine is configured for DHCP, and the DHCP request fails four times, BOOTP takes over the request. If the BOOTP request fails three times, the Default IP address is used.

SNMP

The machine is equipped with an SNMP (Simple Network Management Protocol) agent that operates under UDP and IPX on the Ethernet interface. Using the SNMP manager you can get information about the machine.

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

Supported MIBs

- MIB-II
- PrinterMIB
- HostResourceMIB

Error Messages on the Display

This section describes the most common network-related messages that appear on the display. If a message not described here appears, act according to that message.

Messages without Code Numbers

Reference

- Before turning the main power off, see "Turning On the Power", Copy Reference.

Message	Causes	Solutions
"⚠ Cannot connect to network" "Check IP Address."	Cannot connect to the network.	Check the machine's IP address.
"⚠ Cannot connect to network" "Contact the administrator."	Cannot connect to the network.	Check the network. If this message continues to appear, contact the administrator.
"Ethernet Board Error"	An Ethernet board error has occurred.	Turn off the main power switch, and then turn it back on. If the message continues to appear, contact your sales or service representative.
"⚠ Server communicat. failed" "Contact the administrator."	Cannot communicate with the server.	Check the server. If this message continues to appear, contact the administrator.

Messages with Code Numbers

Note

- A message reporting an error appears on the display as shown.

Message	Causes	Solutions	Code numbers
"Cannot connect with DHCP server"	The DHCP server cannot be found.	Check the DHCP server is running on the network.	101

Message	Causes	Solutions	Code numbers
"The same IP Address already exists"	The specified IP address overlaps another IP address.	The IP address specified for the machine overlaps another IP address in use. Check the address of the device indicated in <MAC address>.	102
"Check network settings"	An unauthorized value is specified as the IP address or gateway address.	Change the IP address, subnet mask, or gateway address to the correct value.	103
"The same IP Address exists on several interfaces"	IP addresses overlap across multiple interfaces. IP addresses of simultaneously operating interfaces overlap.	The IP address of the specified interface overlaps the IP address of another interface. Configure the IP address so it does not overlap.	004
"Cannot set within the same subnet range"	Subnet masks overlap across multiple interfaces. The subnet masks of simultaneously operating interfaces overlap.	The subnet range of the specified interface overlaps the subnet range of another interface. Configure the subnet mask so it does not overlap.	005

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Code Numbers

The problem interface is displayed.

- 1XX: Ethernet
- OXX: Independent of interface

Specifications

Interface	100BASE-TX, 10BASE-T
Protocol	<ul style="list-style-type: none">• Printer TCP/IP LPR IPP• Network Scanner TCP/IP• Management Function TCP/IP SNMP HTTP DHCP
SNMP	MIB-II, PrinterMIB, HostResourceMIB

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MEMO

MEMO

MEMO

