

SP C240DN

Operating Instructions Software Guide



- 1 Preparing for Printing
- 2 Setting Up the Printer Driver
- 3 Other Print Operations
- 4 Direct Printing from a Digital Camera (PictBridge)
- 5 Making Printer Settings Using the Control Panel
- 6 Monitoring and Configuring the Printer
- 7 Using a Print Server
- 8 Special Operations under Windows
- 9 Mac OS X Configuration
- 10 Appendix

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.

Do not copy or print any item for which reproduction is prohibited by law.

Copying or printing the following items is generally prohibited by local law:

bank notes, revenue stamps, bonds, stock certificates, bank drafts, checks, passports, driver's licenses.

The preceding list is meant as a guide only and is not inclusive. We assume no responsibility for its completeness or accuracy. If you have any questions concerning the legality of copying or printing certain items, consult with your legal advisor.

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.

For good print quality, the manufacturer recommends that you use genuine toner from the manufacturer.

The manufacturer shall not be responsible for any damage or expense that might result from the use of parts other than genuine parts from the manufacturer with your office products.

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

TABLE OF CONTENTS

How to Read This Manual	
Symbols	5
About IP Address	5
Model-Specific Information	6
Manuals for This Printer	7
List of Option	8
1. Preparing for Printing	
Confirming the Connection Method.	
Network Connection	9
USB Connection	10
Configuring Option and Paper Settings	11
2. Setting Up the Printer Driver	
Accessing the Printer Properties	
Windows XP and Windows Server 2003/2003 R2 - Making Printer Settings	13
Windows Vista/7 and Windows Server 2008/2008 R2 - Making Printer Settings	15
3. Other Print Operations	
If a Paper Mismatch Occurs	17
Performing Form Feed	17
Canceling a Print Job	17
Canceling a Print Job	18
Canceling a Print Job Using the Control Panel	18
Windows - Canceling a Print Job from the Computer	18
Combining Multiple Pages into Single Page	19
Types of Combine Printing	19
Collate	22
Cover	23
Saving on Toner When Printing	24
Printing a Document Using Only Specific CMYK Colors	25
Watermark	26
4. Direct Printing from a Digital Camera (PictBridge)	
What Is PictBridge?	27
PictBridge Printing	28
What Can Be Done on This Printer	29

Index Printing	29
Paper Size	29
N-up Layout	30
Image Print Size	30
Exiting PictBridge	31
When PictBridge Printing Does Not Work	32
5. Making Printer Settings Using the Control Panel	
Menu Chart	35
Paper Input Menu	37
Changing the Paper Input Menu	37
Paper Input Menu Parameters	37
List/Test Print Menu	40
Printing the Configuration Page	40
List/Test Print Menu Parameters	41
Maintenance Menu	42
Adjusting the Color Registration	42
Maintenance Menu Parameters	42
System Menu	44
Changing the System Menu	44
System Menu Parameters	44
Host Interface Menu	47
Changing the Host Interface Menu	47
Host Interface Menu Parameters	48
Language Menu	52
Changing the Language Menu	52
Language Menu Parameters	52
6. Monitoring and Configuring the Printer	
Using Web Image Monitor	53
Displaying Top Page	55
Displaying Top Page of Web Image Monitor	55
Top Page	55
Changing the Interface Language	56
Checking the System Information	57

Checking the Status Information	57
Checking the Counter Information	58
Checking the Machine Information	60
Configuring the System Settings	62
Configuring the Paper Settings	62
Configuring I/O Timeout Settings	64
Configuring the Black-and-White Print Priority Settings	65
Configuring the Network Settings	67
Checking the Network Status	67
Configuring the IPv6 Settings	68
Configuring the Network Application Settings	69
Configuring the DNS Settings	70
Configuring the Auto E-mail Notification Settings	71
Configuring the SNMP Settings	72
Configuring the SMTP Settings	73
Configuring the POP3 Settings	74
Configuring the IPsec Settings	76
Configuring the IPsec Global Settings	76
Configuring the IPsec Policy	77
Printing Lists/Reports	82
Configuring the Administrator Settings	83
Configuring the Administrator Password	83
Resetting the Printer's Settings	83
Backing Up the Printer's Settings	84
Restoring the Printer's Settings from a Backup File	85
Configuring the Energy Saver Mode Settings	86
Printer Status Notification by E-Mail	88
Mail Authentication	88
SNMP	90
Reading the Configuration Page	91
7. Using a Print Server	
Preparing Print Server	93

8. Special Operations under Windows

Printing Files Directly from Windows	95
Setup	95
Using a Host Name Instead of an IPv4 Address	95
Printing Commands	96
9. Mac OS X Configuration	
Setting Up Options	99
Setting Up for Printing	100
Making Paper Settings from an Application	100
Printing from an Application	100
Canceling a Print Job from the Computer	101
10. Appendix	
Functions and Network Settings Available in an IPv6 Environment	103
Available Functions	103
Transmission Using IPsec	104
Encryption and Authentication by IPsec	104
Security Association	105
Encryption Key Exchange Settings Configuration Flow	106
Specifying Encryption Key Exchange Settings	106
Specifying IPsec Settings on the Computer	107
Enabling and Disabling IPsec Using the Control Panel	109
Cautions to Take When Using in a Network	110
Using DHCP	110
When Using Windows Terminal Service/MetaFrame	111
Operating Environment	111
Supported Printer Drivers	111
Limitations	111
Copyright Information about Installed Applications	113
expat	113
JPEG LIBRARY	113
Trademarks	114
INDEX	117

How to Read This Manual

Symbols

This manual uses the following symbols:



Indicates points to pay attention to when using the machine, and explanations of likely causes of paper misfeeds, damage to originals, or loss of data. Be sure to read these explanations.



Indicates supplementary explanations of the machine's functions, and instructions on resolving user errors.

Reference

This symbol is located at the end of sections. It indicates where you can find further relevant information.

[]

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

Region A (mainly Europe and Asia)

Region B (mainly North America)

Differences in the functions of Region A and Region B models are indicated by two symbols. Read the information indicated by the symbol that corresponds to the region of the model you are using. For details about which symbol corresponds to the model you are using, see p.6 "Model-Specific Information".

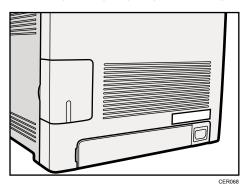
About IP Address

In this manual, "IP address" covers both IPv4 and IPv6 environments. Read the instructions that are relevant to the environment you are using.

Model-Specific Information

This section explains how you can identify the region your printer belongs to.

There is a label on the rear of the printer, located in the position shown below. The label contains details that identify the region your printer belongs to. Read the label.



The following information is region-specific. Read the information under the symbol that corresponds to the region of your printer.

Region A (mainly Europe and Asia)

If the label contains the following, your printer is a region A model:

- CODE XXXX -22, -27
- 220-240V

Region B (mainly North America)

If the label contains the following, your printer is a region B model:

- CODE XXXX -17
- 120 V



Dimensions in this manual are given in two units of measure: metric and inch. If your printer is a
Region A model, refer to the metric units. If your printer is a Region B model, refer to the inch units.

Manuals for This Printer

Read this manual carefully before you use this printer.

Refer to the manuals that are relevant to what you want to do with the printer.

Mportant !

- Media differ according to manual.
- The printed and electronic versions of a manual have the same contents.
- Adobe Acrobat Reader/Adobe Reader must be installed in order to view the manuals as PDF files.
- A Web browser must be installed in order to view the html manuals.

Safety Information

Contains information about safe usage of this printer.

To avoid injury and prevent damage to the printer, be sure to read this.

Quick Installation Guide

Contains procedures for removing the printer from its box, and connecting it to a computer.

Hardware Guide

Contains information about paper; names and functions of the parts of this printer; and procedures such as installing options, replacing consumables, responding to error messages, and resolving jams.

Driver Installation Guide

Contains procedures for installing the PCL and DDST printer drivers. This manual is included on the driver CD-ROM.

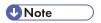
Software Guide (This manual)

Contains information about using this printer, its software, and its security functions.

List of Option

This section provides a list of option for this printer, and how it is referred to as in this manual.

Option List	Referred to as
Paper Feed Unit TK1010	Paper feed unit



• For details about the specifications of this option, see "Specifications", Hardware Guide.

1. Preparing for Printing

This chapter explains the preparation procedure to use this printer.

Confirming the Connection Method

This printer supports network and USB connection.

Before installing the printer driver, check how the printer is connected. Follow the driver installation procedure that is appropriate to the connection method.

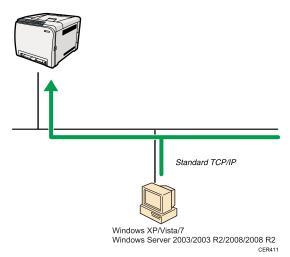
The printer driver can be installed from the driver CD-ROM provided with this printer.

Network Connection

This printer can be used as a Windows printing port or network printer.

Using this printer as the Windows printing port

Network connections can be established via Ethernet.



Operating system

Windows XP/Vista/7, and Windows Server 2003/2003 R2/2008/2008 R2

Connection method

Ethernet (10BASE-T/100BASE-TX)

Available ports

Standard TCP/IP

9

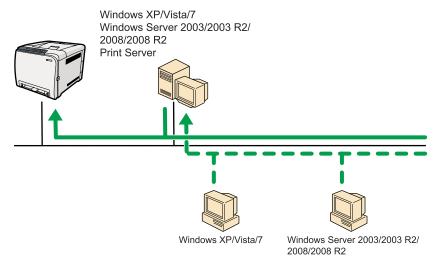
G

■ Reference

• For details about how to use this printer as the Windows printing port, see "Installing the Printer Driver When Using the Network Connection (Windows)", Driver Installation Guide.

Using as a network printer

This printer can be used as the Windows network printer.



CFR503

■ Reference

For details about how to use this printer as a Windows network printer, see "Installing the Printer
Driver to Use As a Windows Network Printer", Driver Installation Guide.

USB Connection

This printer can be connected directly to a computer using a USB cable.

Reference

 For details about how to install the printer driver, see "Installing the Printer Driver When Using the USB Connection (Windows)", Driver Installation Guide.

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Configuring Option and Paper Settings

Configure the printer driver according to the printer's option and paper settings.

- Manage Printers permission is required to change the printer properties in the [Printers] folder. Log
 on as an Administrators group member to acquire this permission.
- Make sure that [Enable bidirectional support] in the [Port] tab of the printer properties is selected.
 The printer cannot print if [Enable bidirectional support] is not selected.

Conditions for Bidirectional Communication

Bidirectional communication allows the computer to retrieve the printer's paper settings, current status, and other information.

To establish bidirectional communication, the following conditions must be met:

- Operating system of the computer: Windows XP/Vista/7, and Windows Server 2003/2003 R2/2008/2008 R2
- When connected via a network

The printer is connected via a standard TCP/IP port, and the default port name must not be changed.

[Enable bidirectional support] in the [Port] tab of the printer properties is selected.

• When connected via USB

The printer is connected to the computer's USB port using a USB interface.

[Enable bidirectional support] in the [Port] tab of the printer properties is selected.

The following procedure is based on Windows XP as an example.

Printing is possible without bidirectional communication, but the computer will not be able to retrieve the status of print jobs. For this reason, we recommend you enable bidirectional communication when possible.

- 1. On the [Start] menu, click [Printers and Faxes].
- 2. Click the printer icon you want to use.
- 3. On the [File] menu, click [Properties].
- 4. Click the [Accessories] tab.
- Click [Update Now].

If bidirectional communication is not established, select the installed option manually.

- 6. Click the [Paper Size Settings] tab.
- 7. Select the tray you want to use, then select the paper size, and then click [Update Now].
 If bidirectional communication is not established, select the tray and paper size manually.

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

2. Setting Up the Printer Driver

This chapter explains about accessing the printer properties and making the printer settings.

Accessing the Printer Properties

Windows XP and Windows Server 2003/2003 R2 - Making Printer Settings

Making the printer default settings - the [Printers and Faxes] window

Important

- To change the printer default settings including option configuration settings, log on using an
 account that has Manage Printers permission. Members of the Administrators group have Manage
 Printers permission by default.
- You cannot change the printer default settings for each user. Settings made in the printer properties dialog box are applied to all users.
- On the [Start] menu, click [Printers and Faxes].
 The [Printers and Faxes] window appears.
- 2. Click the icon of the printer you want to use.
- On the [File] menu, click [Properties].
 The printer properties dialog box appears.
- 4. Make the necessary settings, and then click [OK].



• Settings you make here are used as the default settings for all applications.

Reference

• For details about settings, see the printer driver Help.

Making the printer default settings - Printing Preferences



- You cannot change the printer default settings for each user. Settings made in the printer properties dialog box are applied to all users.
- On the [Start] menu, click [Printers and Faxes].

The [Printers and Faxes] window appears.

- 2. Click the icon of the printer you want to use.
- On the [File] menu, click [Printing Preferences...].
 The [Printing Preferences] dialog box appears.
- 4. Make the necessary settings, and then click [OK].



• Settings you make here are used as the default settings for all applications.

Reference

• For details about settings, see the printer driver Help.

Making printer settings from an application

You can make printer settings for a specific application.

To make printer settings for a specific application, open the [Printing Preferences] dialog box from that application. The following explains how to make settings for the WordPad application provided with Windows XP.

- On the [File] menu, click [Print...].
 The [Print] dialog box appears.
- 2. Select the printer you want to use in the [Select Printer] list, and then click [Preferences].
- 3. Make the necessary settings, and then click [OK].



- The procedure to open the [Printing Preferences] dialog box may vary depending on the application. For details, see the manuals provided with the application you use.
- Any settings you make in the procedure above are valid for the current application only.
- General users can change the properties displayed in the [Print] dialog box of an application.
 Settings made here are used as defaults when printing from this application.

Reference

For details about settings, see the printer driver Help.

Windows Vista/7 and Windows Server 2008/2008 R2 - Making Printer Settings

Making the printer default settings - the printer properties

Mportant !

- To change the printer default settings including option configuration settings, log on using an
 account that has Manage Printers permission. Members of the Administrators group have Manage
 Printers permission by default.
- You cannot change the printer default settings for each user. Settings made in the printer properties dialog box are applied to all users.
- 1. On the [Start] menu, click [Control Panel].

The [Control Panel] window appears.

- 2. Click [Printer] in "Hardware and Sound".
 - If using Windows 7, click [View devices and printers] in "Hardware and Sound".
 - If using Windows Server 2008 R2, click [View devices and printers] in "Hardware".
- 3. Right-click the icon of the printer you want to use, and then click the [Properties].

If using Windows 7 or Windows Server 2008 R2, right-click the icon of the printer you want to use, and then click [Printer properties].

The printer properties dialog box appears.

4. Make the necessary settings, and then click [OK].



• Settings you make here are used as the default settings for all applications.

■ Reference

• For details about settings, see the printer driver Help.

Making the printer default settings - Printing Preferences

Mportant 🕽

- You cannot change the printer default settings for each user. Settings made in the printer properties dialog box are applied to all users.
- 1. On the [Start] menu, click [Control Panel].

The [Control Panel] window appears.

- 2. Click [Printer] in "Hardware and Sound".
 - If using Windows 7, click [View devices and printers] in "Hardware and Sound".

- If using Windows Server 2008 R2, click [View devices and printers] in "Hardware".
- 3. Right-click the icon of the printer you want to use, and then click [Printing Preferences...].

If using Windows 7 or Windows Server 2008 R2, right-click the icon of the printer you want to use, and then click [Printing preferences].

The [Printing Preferences] dialog box appears.

4. Make the necessary settings, and then click [OK].



• Settings you make here are used as the default settings for all applications.

Reference

• For details about settings, see the printer driver Help.

Making printer settings from an application

You can make printer settings for a specific application.

To make printer settings for a specific application, open the [Printing Preferences] dialog box from that application. The following explains how to make settings for the WordPad application.

- On the [File] menu, click [Print...].
 The [Print] dialog box appears.
- 2. Select the printer you want to use in the [Select Printer] list, and then click [Preferences].
- 3. Make the necessary settings, and then click [OK].



- The procedure to open the [Printing Preferences] dialog box may vary depending on the application. For details, see the manuals provided with the application you use.
- Any settings you make in the procedure above are valid for the current application only.
- General users can change the properties displayed in the [Print] dialog box of an application.
 Settings made here are used as defaults when printing from this application.

Reference

• For details about settings, see the printer driver Help.

3. Other Print Operations

If a Paper Mismatch Occurs

Use the form feed function to continue printing when a paper size or paper type error occurred.

This function can be performed using the control panel.



If the [Auto Continue] setting under [System] is enabled, the printer ignores the paper type and size
settings and prints on whatever paper is loaded. Printing stops temporarily when the error is
detected, and restarts automatically after about ten seconds using the settings made on the control
panel.

Reference

• For details about [Auto Continue], see p.44 "System Menu".

Performing Form Feed

Use the following procedure to perform form feed.

 While an error message is displayed on the control panel, press the [Stop/Start] key. Printing start.



- If you want to print after adding paper to the tray, load the correct paper, and then press the [Stop/Start] key.
- If a tray with a smaller paper size is selected, the print job may be cut short, or other problems may occur.

Canceling a Print Job

Use the following procedure to cancel a print job that is related to the printer error occurred.

- 1. Press the [Job Reset] key.
- 2. Press the [OK] key.

Canceling a Print Job

This section describes how to stop printing from the control panel or computer.

Canceling a Print Job Using the Control Panel

You can cancel a print job using the control panel, if transferring print job is not completed.

- 1. Press the [Job Reset] key.
- 2. Press the [OK] key.

Windows - Canceling a Print Job from the Computer

You can cancel a print job from the computer if the transferring print job is not completed.

The following procedure is based on Windows XP as an example.

- 1. Double-click the printer icon on the Windows task tray.
 - A window appears, showing all print jobs currently queued for printing.
 - Check the current status of the job you want to cancel.
- 2. Select the name of the job you want to cancel.
- 3. On the [Document] menu, click [Cancel].



- In Windows Vista/7 and Windows Server 2008/2008 R2, click [Cancel Printing] on the [Document] menu.
- You can also open the print job queue window by double-clicking the printer icon in the [Printers and Faxes] window (the [Printers] window under Vista/7 and Windows Server 2008/2008 R2).
- You cannot stop printing data that has already been processed. For this reason, printing may continue for a few pages after you cancel printing.
- A print job containing a large volume of data may take considerable time to stop.

3

Combining Multiple Pages into Single Page

This section explains how to print multiple pages onto a single sheet. The combine printing function allows you to economize on paper by printing multiple sheets at reduced size onto a single sheet.

Mportant ...

- The following procedure is based on Windows XP as an example. Procedures might vary depending on the operating system you are using.
- This function is not available under Mac OS X.
- This function is not available if [Booklet] is selected from [Duplex:], or [Zoom %] is selected in [Paper].
- In the application, on the [File] menu, click [Print].
 The [Print] dialog box appears.
- 2. Select the printer, and then open the [Printing Preferences] dialog box in the document's native application.

The [Printing Preferences] dialog box appears.

- 3. On the [Setup] tab, in the [Layout:] list, select a layout type.
- 4. Select [Draw Frame Border] if you need a frame around each page.
- 5. After making any additional settings, click [OK].
- 6. Start printing.



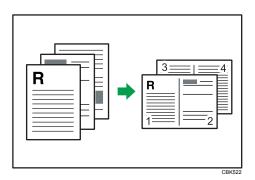
- If the document contains pages with different original sizes, page breaks may occur.
- If the application you are using also has a combine function, disable it. If the application's combine
 function is also enabled when the driver's combine function enabled, incorrect printing is likely.

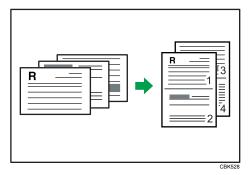
Types of Combine Printing

This section explains the different methods of combine printing that are available. Combine printing allows you to print 2, 4, 6, 9, or 16 pages at reduced size onto a single sheet and to specify a page ordering pattern for the combination. For 2 pages per sheet combine, you can select from two patterns. When combining 4 or more pages onto a single sheet of paper, four patterns are available. The following illustrations show examples of page ordering patterns for 2- and 4- page combinations.

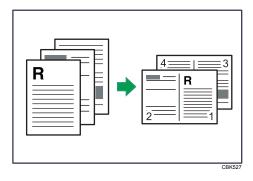
2 Pages per Sheet

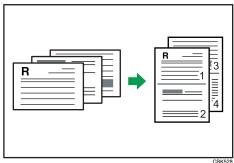
· Right, then Down





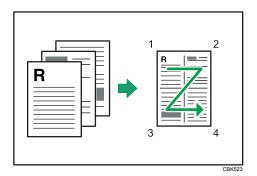
• Left, then Down



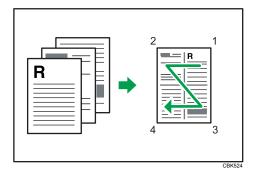


4 Pages per Sheet

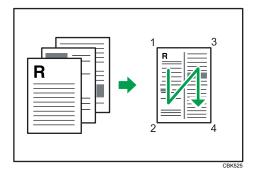
• Right, then Down



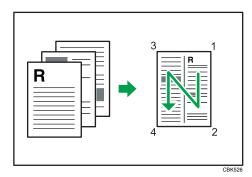
• Left, then Down



• Down, then Right



• Down, then Left

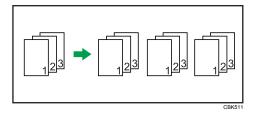


Collate

Use the Collate function to print documents into page-ordered sets.

• If the [Ignore Application Collate] check box is cleared, the application's collate settings are applied.

Output can be assembled as sets in sequential order.



UNote

- If Auto Continue occurs on the first set, the Collate will be canceled.
- If a form feed occurs on the first set, the Collate will be canceled.

Reference

• For details about printing method, see the printer driver Help.

Cover

Use the Cover function to insert cover sheets using paper in a specified tray.



• The cover sheet's size and orientation must be the same as those of the body paper.

■ Reference

• For details about printing methods, see the printer driver Help.

Use the Economy Color function to save on toner.



• This function is not available under Mac OS X.



• For details about the setting method, see the printer driver Help.

3

Printing a Document Using Only Specific CMYK Colors

When you print a color document, usually the cyan, magenta, yellow, and black colors are used. However, you can choose to use only a specific color or colors when printing.



• This function is not available under Mac OS X.



• This function is available only if color printing is specified.



• For details about the setting method, see the printer driver Help.

Watermark

Use the Watermark function to print watermark text.



• This function is not available under Mac OS X.



• If the watermark size is larger than the paper size, watermarks cannot be printed properly.

Reference

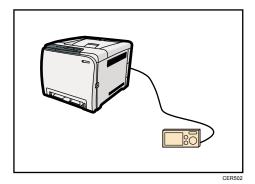
• For details about the setting method, see the printer driver Help.

4. Direct Printing from a Digital Camera (PictBridge)

This chapter explains how to print directly from a digital camera.

What Is PictBridge?

You can connect a PictBridge-compatible digital camera to this printer using a USB cable. This allows you to print photographs taken using the digital camera directly by operating the digital camera.



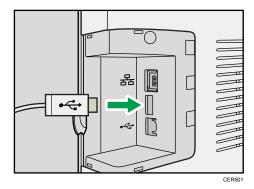
- ●Note
 - Check your digital camera is PictBridge-compatible.
 - Up to 999 images can be sent from the digital camera to the printer during one print transaction. If
 an attempt is made to send more images, an error message is sent to the camera and printing fails.
 - Since printing conditions are specified on the digital camera, specifiable parameters depend on the digital camera. For details, see the manuals provided with the digital camera.
 - This function is compatible with USB 2.0.

PictBridge Printing

Use the following procedure to start PictBridge printing on this printer.

Mportant !

- Memory overflow errors can occur when printing a high-resolution image. If this happens, reduce
 the size of the data, and then try the operation again.
- Use the USB cable bundled with your digital camera.
- Make sure your digital camera supports PictBridge.
- Do not disconnect the USB cable while data is being sent. If you do, printing will fail.
- 1. Confirm that both the printer and the digital camera are turned on.
- Connect the USB cable to the USB host interface board on the printer and to your digital camera.



When the printer recognizes the digital camera as a PictBridge device, "PictBridge Connecting...", then "Ready" will appear on the printer's control panel.

- 3. On your digital camera, select the images you want to print, and then specify the printing conditions.
- 4. The printer receives settings from the digital camera and starts printing.



- Some digital cameras require settings for manual PictBridge operation. For details, see the manual provided with the digital camera.
- Some digital cameras require to turn the power switch off for a manual PictBridge operation. For details, see the manual provided with the digital camera.
- Some digital cameras need to be switched off when connecting to the printer. For details, see the manual provided with the digital camera.

■ Reference

• For details about how to stop printing data, see p.17 "Canceling a Print Job".

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What Can Be Done on This Printer

This printer can perform the following functions using its PictBridge feature.

The settings available for these functions are as follows:

- Single image printing
- Selected image printing
- All image printing
- Index printing
- Copies
- Paper size
- N-up layout



The setting parameters and their names may vary depending on the digital camera. For details, see
the manuals provided with the digital camera.

Index Printing

Use this function to print all images at a reduced size.

- A4 (210 x 297 mm, 8.3 x 11.7 in)
 - Horizontal images x vertical images: 8 x 13
- Letter (215.9 x 279.4 mm, $8^{-1}/_{2}$ x 11 in)

Horizontal images x vertical images: 8 x 12



- Depending on the digital camera, a form feed may be inserted after one set of images belonging to one type ends.
- The number of images for each size of paper is fixed.

Paper Size

Use this function to print on paper with the size specified on the digital camera.

Paper size name	Actual size
A4	210 x 297 mm (8.3 x 11.7 in)
Letter (8 ¹ / ₂ " x 11")	$215.9 \times 279.4 \text{ mm } (8^{-1}/_2 \times 11 \text{ in})$

■ Reference

• For details about specifying custom sizes, see "Loading Paper", Hardware Guide.

N-up Layout

Use this function to print 2 or 4 images on the specified paper.



• Depending on the digital camera, a form feed may be inserted after one set of images belonging to one type ends.

Image Print Size

Images will be reduced or enlarged automatically according to the size of paper that will be used for printing.

Images will be reduced to up to 25% of original size, or enlarged to up to 400% of original size.

4

Exiting PictBridge

Use the following procedure to quit the PictBridge mode.

- Do not disconnect the USB cable while data is being sent to the printer. If you do, printing will fail.
- 1. Check that "Ready" is shown on the screen.
- 2. Disconnect the USB cable from the printer.

When PictBridge Printing Does Not Work

This section explains likely causes and possible solutions for problems that can occur at PictBridge printing.

Problem	Cause	Solution
PictBridge is not available.	There is a problem with the USB connection or the PictBridge settings.	Use the following procedure to check the connection and settings:
		Disconnect and then reconnect the USB cable.
		Check the PictBridge settings are enabled.
		Disconnect the USB cable, and then turn off the printer.
		Turn the printer back on. When the printer has fully booted up, reconnect the USB cable.
When two or more digital cameras are connected, the second and subsequent cameras are not recognized.	You have connected multiple digital cameras.	Connect one digital camera only. Do not connect multiple cameras.
Printing is disabled.	The specified number exceeds the maximum number that can be printed at a time.	The maximum specifiable print quantity at a time is 999. Respecify the quantity to 999 or less, and then retry printing.
Printing is disabled.	There is no paper of the specified size remaining.	There is no paper of the specified size remaining.
		If you have to use paper that is not of the specified size, continue printing using mismatched paper. To cancel printing, perform Job Cancel.
		For details, see p.17 "If a Paper Mismatch Occurs".

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Problem	Cause	Solution
Printing is disabled.	The paper size setting for this tray cannot be printed on the printer.	Select the paper size setting that can be printed on the printer.

5. Making Printer Settings Using the Control Panel

This chapter explains the menu displayed on the control panel and how to change the printer's settings.

Menu Chart

Paper Input

This section explains how to change the default settings of the printer and provides information about the parameters included in each menu.

-FF	
Paper Size	
Paper Type	
Tray Priority	
Bypass Priority	
ist/Test Print	
Config. Page	
Maintenance Pg.	
Naintenance	
Color Dens/Reg	
TonerAlmstEmpty	
Anti-Humid Lvl	
ystem	
Auto Continue	
Blank Pg. Print	
Energy Saver 1	
Energy Saver 2	
Restore Default	
BW Prt Priority	

Host Interface

Timeout: USB
Timeout: NW
Network Setting
Fixed USB Port

Language

glish
ench
erman
lian
panish
utch
vedish
orwegian
anish
nnish
rtuguese
panese

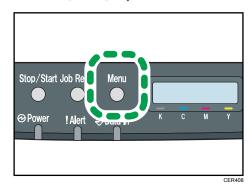
Paper Input Menu

This section explains about paper settings on the Paper Input menu such as paper sizes and types on each tray.

Changing the Paper Input Menu

Use the following procedure to change the tray priority.

1. Press the [Menu] key.



The menu screen appears.

- 2. Press the [▲][▼] keys to select [Paper Input], and then press the [OK] key.
- 3. Press the [▲][▼] keys to select [Tray Priority], and then press the [OK] key.
- 4. Press the [▲][▼] keys to select the tray you want to use.
- 5. Press the [OK] key.

The selected item is displayed for two seconds with an asterisk, and then the [Tray Priority] screen appears.

6. Press the [Menu] key to return to the initial screen.

Paper Input Menu Parameters

This section explains about parameters that can be set on the Paper Input menu.

Paper Size: Tray 1

Specifies the paper size for tray 1.

Default: Region A [A4], Region B [8 1/2 x 11]

A4, B5 JIS, A5, 8 1/2 x 14, 8 1/2 x 11, 7 1/4 x 10 1/2, 8 x 13, 8 1/2 x 13, 8 1/4 x 13, 16K, Custom Size, 4 1/8 x 9 1/2, 3 7/8 x 7 1/2, C5 Env, C6 Env, DL Env, 5 1/2 x 8 1/2, B6 JIS, A6

Paper Size: Tray 2

Specifies the paper size for tray 2.

This setting appears only when the optional paper feed unit is installed.

Default: Region A [A4], Region B [8 1/2 x 11]

• A4, 8 1/2 x 11

Paper Size: Bypass Tray

Specifies the paper size for the bypass tray.

Default: Region A [A4], Region B [8 1/2 x 11]

A4, B5 JIS, A5, 8 1/2 x 14, 8 1/2 x 11, 7 1/4 x 10 1/2, 8 x 13, 8 1/2 x 13, 8 1/4 x 13, 16K, Custom Size, 4 1/8 x 9 1/2, 3 7/8 x 7 1/2, C5 Env, C6 Env, DL Env, 5 1/2 x 8 1/2, B6 JIS, A6

Paper Type: Tray 1

Specifies the paper type for tray 1.

Default: [Middle Thick]

 Middle Thick, Thick Paper 1, Recycled Paper, Color Paper, Preprinted, Prepunched, Letterhead, Thick Paper 2, Bond Paper, Cardstock, Label Paper, Envelope, Thin Paper, Plain Paper

Paper Type: Tray 2

Specifies the paper type for tray 2.

This setting appears only when the optional paper feed unit is installed.

Default: [Middle Thick]

 Middle Thick, Thick Paper 1, Recycled Paper, Color Paper, Preprinted, Prepunched, Letterhead, Thin Paper, Plain Paper

Paper Type: Bypass Tray

Specifies the paper type for the bypass tray.

Default: [Middle Thick]

 Middle Thick, Thick Paper 1, Recycled Paper, Color Paper, Prepunched, Letterhead, Thick Paper 2, Bond Paper, Cardstock, Label Paper, Envelope, Thin Paper, Plain Paper

Tray Priority

Selects the tray that the printer uses first for printer jobs from tray 1 or tray 2.

If automatic tray selection is specified for the print job and both tray 1 and tray 2 contain paper that matches the print job, the printer starts to print from the specified tray. If that tray runs out of paper, the printer automatically switches to the other tray to continue printing.

[Tray 2] appears only when the optional paper feed unit is installed.

Default: [Tray 1]

- Tray 1
- Tray 2

Bypass Priority

Specifies how print jobs using the bypass tray are handled.

Default: [Machine Setting]

· Machine Setting

The printer prints all print jobs according to the printer's settings.

An error will occur if the paper size/type settings of the printer and printer driver do not match.

• Any Size/Type

The printer prints all print jobs according to the printer driver's settings.

Printing proceeds even if the paper size/type settings of the printer and printer driver do not match. However, if the paper is too small for the print job, the printed image will be cropped.

Any Custom S/T

The printer prints custom size print jobs according to the printer driver's settings and prints standard size print jobs according to the printer's settings.

For custom size print jobs, printing proceeds even if the paper size/type settings of the printer and printer driver do not match. However, if the paper is too small for the print job, the printed image will be cropped.

For standard size print jobs, an error will occur if the paper size/type settings of the printer and printer driver do not match.



• JIS stands for "Japanese Industrial Standard".

Reference

• For details about the type of paper loaded in each tray, see Hardware Guide.

List/Test Print Menu

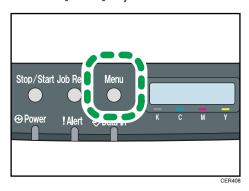
You can print lists of configurations on printer or the paper printings.

Printing the Configuration Page

Use the following procedure to print the configuration page.



- The configuration page is printed on A4 or Letter (8¹/₂ " x 11 ") size paper from the priority tray.
 Load this size of paper into the priority tray before printing the configuration page.
- 1. Press the [Menu] key.



The menu screen appears.

- 2. Press the [▲][▼] keys to select [List/Test Print], and then press the [OK] key.
- Press the [♠][▼] keys to select [Config. Page], and then press the [OK] key.
 The configuration page is printed. The [List/Test Print] screen appears on completion of printing.
- 4. Press the [Menu] key to return to the initial screen.



 If you start configuration page printing when appropriate paper is not loaded, an error message appears. If this happens, load appropriate paper in a tray, and then perform a form feed, or cancel the job.

Reference

• For details about the items displayed on the configuration page, see p.91 "Reading the Configuration Page".

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List/Test Print Menu Parameters

This section explains about parameter that can be set on the List/Test Print menu.

Config. Page

Prints the current configurations and general information of the printer.

Maintenance Pg.

Prints the maintenance page.

Maintenance Menu

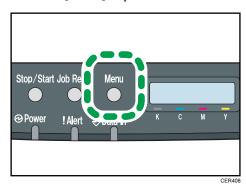
You can adjust the color registration or specify the toner near-end notification timing.

Adjusting the Color Registration

After moving the printer, printing on thick paper, or printing repeatedly for some time, color degradation may occur. By performing color registration adjustment, you can restore optimum print quality.

If documents show color degradation after the printer is moved, perform automatic color adjustment.

1. Press the [Menu] key.



The menu screen appears.

- 2. Press the [▲][▼] keys to select [Maintenance], and then press the [OK] key.
- 3. Press the [▲][▼] keys to select [Color Dens/Reg], and then press the [OK] key.
- 4. On the confirmation screen, press the [OK] key.

Automatic color adjustment begins.

A confirmation message appears when the adjustment is complete.

5. Press the [Menu] key to return to the initial screen.

Maintenance Menu Parameters

This section explains about parameters that can be set on the Maintenance menu.

Color Dens/Reg

Adjust color density and registration automatically.

TonerAlmstEmpty

Specifies the low toner level notification timing.

Default: [Normal]

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• Normal

A low toner level notification will be made when the number of pages that can be printed with the remaining toner is approximately 200.

Notify Later

A low toner level notification will be made when the number of pages that can be printed with the remaining toner is approximately 100.

• Notify Sooner

A low toner level notification will be made when the number of pages that can be printed with the remaining toner is approximately 300.

Anti-Humid Lvl

You can set the printer to produce prints in consistent quality even when humidity is high.

Default: [Off]

- Off
- Level 1

Select this mode if printouts are blurred.

• Level 2

Select this mode if printouts are curled and/or blurred. Note that if you select this mode, the first print takes longer than subsequent prints to complete.

• Level 3

Select this mode if printouts are still curled and/or blurred even when prints are made in [Level 2]. Note that this mode requires more time to produce the first print than [Level 2].

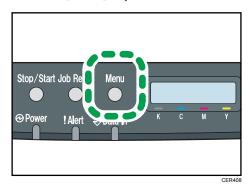
System Menu

You can set basic functions required to use the printer. The printer can be used on factory default, but the configuration can be changed depending on the condition of the user. The changed condition holds even if the printer is turned off.

Changing the System Menu

Use the following procedure to change the settings for Energy Saver timer.

1. Press the [Menu] key.



The menu screen appears.

- 2. Press the [▲][▼] keys to select [System], and then press the [OK] key.
- 3. Press the [▲][▼] keys to select [Energy Saver 2], and then press the [OK] key twice.
- Press the [[▲]][[▼]] keys to select [On], and then press the [OK] key.
- 5. Press the [▲][▼] keys to select [E.Saver2 Timer], and then press the [OK] key.
- Specify the lead time needed to switch to the Energy Saver mode using [▲][▼] keys.
- 7. Press the [OK] key.

The selected lead time is displayed for two seconds with an asterisk, and then the [Energy Saver 2] screen appears.

8. Press the [Menu] key to return to the initial screen.

System Menu Parameters

This section explains about parameters that can be set on the System menu.

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Auto Continue

Sets the printer to ignore an error with paper size or type and continue printing. The printing stops temporarily when an error is detected, and restarts automatically after about ten seconds using the settings made on the control panel.

However, even if you set to [On] and certain errors occur, the current job may be canceled, and the printer automatically performs the next queued job.

Default: [Off]

- Off
- On

Blank Pg. Print

Sets the printer to print blank pages.

When cover sheet printing is enabled from the printer driver, cover sheets are inserted even if you select [Off].

Default: [On]

- On
- Off

Energy Saver 1

Sets the printer to enter Energy Saver mode 1 if the printer has been idle for about 30 seconds. It takes less time to recover from Energy Saver mode 1 than from power-off state or Energy Saver mode 2, but power consumption is higher in Energy Saver mode 1 than in Energy Saver mode 2.

Default: [Off]

- Off
- On (30 seconds)

Energy Saver 2

Sets the printer to enter Energy Saver mode 2 after the period of time specified for this setting is passed. The printer consumes less power in Energy Saver mode 2 than in Energy Saver mode 1, but it takes longer to recover from Energy Saver mode 2 than from Energy Saver mode 1.

Default: [On] (10.1 minutes)

- On (1 to 240 minutes, in 1 minute increments)
- Off

Restore Default

Resets the printer settings to their factory-set defaults.

BW Prt Priority

Sets the printer to suppress the consumption of color toner when printing black-and-white pages.

Also, the amount of color toner consumed during warm-up time for maintenance will also be lowered.

Default: [Off]

- Off
- On

Host Interface Menu

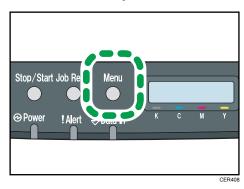
You can set configurations about network connections and communication.

The changed configuration holds even if the printer is turned off.

Changing the Host Interface Menu

Use the following procedure to change the network settings.

1. Press the [Menu] key.



The menu screen appears.

- 2. Press the [▲][▼] keys to select [Host Interface], and then press the [OK] key.
- 3. Press the [▲][▼] keys to select [Network Setting], and then press the [OK] key.
- Press the [▲][▼] keys to select [IPv4 Config.], and then press the [OK] key.
- Press the [▲][▼] keys to select [DHCP], and then press the [OK] key.
- Press the [♠][▼] keys to select [Active] or [Inactive] according to the network environment, and then press the [OK] key.

If you select [Active], proceed to step 10.

- 7. Press the [▲][▼] keys to select [IP Address], and then press the [OK] key.
- 8. Specify the printer's IPv4 address using [▲][▼] keys, and then press the [OK] key.
 - To go to the next field, press the [OK] key.
 - To go back to the previous field, press the [Escape] key.
- 9. Set the subnet mask and gateway address.

Set values for each setting following the same procedure as for the IPv4 address.

10. Press the [Menu] key to return to the initial screen.

Host Interface Menu Parameters

This section explains parameters that can be set on the Host Interface menu.

Timeout: USB

Specifies how many seconds the printer should wait before ending a print job that is receiving via USB. If printing is frequently interrupted by data from other ports, increase the timeout period.

Default: [60 sec.]

- 60 sec.
- 300 sec.
- 15 sec.

Timeout: NW

Specifies how many seconds the printer should wait before ending a print job that is receiving via Ethernet. If printing operation is frequently interrupted by data from other ports, you can increase the timeout period.

Default: [60 sec.]

- 60 sec.
- 300 sec.
- 15 sec.

Network Setting

Specifies the network-related settings.

• Ethernet Speed

Select the network speed to operate the printer.

Default: [Auto Select]

- Auto Select
- 10Mbps Half D.
- 10Mbps Full D.
- 100Mbps Half D.
- 100Mbps Full D.
- IPsec

Selects whether to enable or disable IPsec.

Default: [Off]

- Off
- On
- MAC Address

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Check the MAC address.

- IPv4 Config.
 - DHCP

Selects whether to set the IPv4 address, subnet mask, and default gateway address automatically or manually.

Default: [Active]

- Active
- Inactive
- IP Address

Specifies the IPv4 address.

When [DHCP] is set to [Active], the IP address cannot be changed.

To change it, set [DHCP] to [Inactive].

Default: XXX.XXX.XXX.XXX

The numbers represented by "X" vary according to your network environment.

Subnet Mask

Specifies the subnet mask.

When [DHCP] is set to [Active], the subnet mask cannot be changed.

To change it, set [DHCP] to [Inactive].

Default: XXX.XXX.XXX.XXX

The numbers represented by "X" vary according to your network environment.

Gateway Address

Specifies the gateway address.

When [DHCP] is set to [Active], the gateway address cannot be changed.

To change it, set [DHCP] to [Inactive].

Default: XXX.XXX.XXX.XXX

The numbers represented by "X" vary according to your network environment.

• IP Addr. Method

Displays the IP address acquisition method.

- DHCP
- Auto IP
- · Manual Config.
- Default IP
- IPv6 Config.

IPv6

Selects whether to enable or disable IPv6.

Default: [On]

- On
- Off
- IP Ad. (DHCP)

Displays the IPv6 address obtained from a DHCP server.

- Manual Address
 - Manual Address

Specifies the printer's IPv6 address when DHCP is not used. Can contain up to 39 characters.

• Prefix Length

Specifies the prefix length, using a value between 1 and 128.

Gateway Address

Specifies the IPv6 address of the default gateway. Can contain up to 39 characters.

Stateless Ad.

Displays the IPv6 stateless addresses obtained from a Router Advertisement.

- Address 1
- Address 2
- Address 3
- Address 4
- Link-local Ad.

Displays the IPv6 link local address.

DHCP

Sets the printer to receive its IPv6 address from a DHCP server.

When DHCP is used, you cannot specify the IPv6 address manually.

Default: [Off]

- Off
- On

Fixed USB Port

Specifies whether the same printer driver can be used for multiple printers or not under USB connection.

Default: [Off]

On

The same printer driver you have installed in your computer can be used with any printer other than the one originally used for installation, if the printer is of the same model.

Off

You must install the printer driver separately for individual printers, because the printer other than the original will be recognized as a new device upon USB connection.



• Contact your network administrator for information about the network configuration.

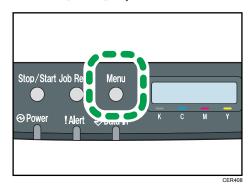
Language Menu

You can set language displayed on the menu.

Changing the Language Menu

Use the following procedure to change the language.

1. Press the [Menu] key.



The menu screen appears.

- 2. Press the [A][V] keys to select [Language], and then press the [OK] key.
- 3. Press the [♠][▼] keys to select the language, and then press the [OK] key.
 The selected item is displayed for two seconds with an asterisk, and then the [Language] screen appears.
- 4. Press the [Menu] key to return to the initial screen.

Language Menu Parameters

You can select the language you want to use. Available languages are as follows:

English, French, German, Italian, Spanish, Dutch, Swedish, Norwegian, Danish, Finnish, Portuguese, Japanese.

Default: [English]

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6. Monitoring and Configuring the Printer

This chapter explains how to use Web Image Monitor to monitor the printer or change its settings.

Using Web Image Monitor

Using Web Image Monitor, you can check the printer status and change settings.

Available operations

The following operations can be remotely performed using Web Image Monitor on a computer:

- Displaying the printer's status or settings
- · Configuring the printer's settings
- · Configuring the network settings
- · Configuring the IPsec settings
- Printing reports
- · Setting the administrator password
- Resetting the printer's configuration to the factory default
- Creating backup files of the printer's configuration
- · Restoring the printer's configuration from backup files
- Configuring the printer's Energy Saver mode setting

Configuring the printer

To perform the operations from Web Image Monitor, TCP/IP is required.

After the printer is configured to use TCP/IP, operations from Web Image Monitor become available.

Recommended Web browser

- Internet Explorer 6 or later
- Firefox 3.0 or later
- Safari 3.0 or later



- If the previous versions of the Web browser above are used or JavaScript and cookies are not enabled with the Web browser used, display and operation problems may occur.
- If you are using a proxy server, change the Web browser settings. Contact your network administrator for information about the settings.

- The previous page may not appear even after the back button of the Web browser is clicked. If this happens, click the refresh button of the Web browser.
- Updating the printer information is not automatically performed. Click [Refresh] in the main area to update the printer information.
- We recommend using Web Image Monitor in the same network.
- When using the printer under DHCP, the IP address may be automatically changed by the DHCP server settings.
- If the HTTP port is disabled, connection to the printer using the printer's URL cannot be established.

Displaying Top Page

This section explains how to display Web Image Monitor and its Top Page.

Displaying Top Page of Web Image Monitor

- 1. Start your Web browser.
- 2. Enter "http://(printer's address)/" in the address bar of the Web browser.

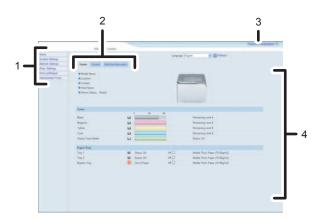


Top Page of Web Image Monitor appears.

If the printer's host name has been registered on the DNS server, you can enter it.

Top Page

Every Web Image Monitor page is divided into the following areas:



CER409

1. Menu area

If you select menu, its content will be shown on the work area, or the sub area.

2. Tab area

Contains menus for the Status and Counter modes and tabs for switching between them.

3. FAQs/Knowledge Base

Provides answers to commonly asked questions and other useful information about using this printer.

Click [FAQs/Knowledge Base] to view the Frequently Asked Questions. An internet connection is required to view the Frequently Asked Questions.

4. Main area

Displays the contents of the item selected in the menu area.

Printer information in the main area is not automatically updated. Click [Refresh] at the upper right in the main area to update the printer information. Click the Web browser's [Refresh] button to refresh the entire browser screen.



The FAQs/Knowledge Base are not available in certain languages.

6

Changing the Interface Language

Select the desired interface language from the [Language] list.

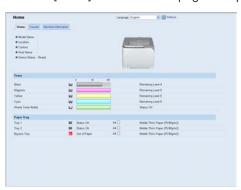
Checking the System Information

Click [Home] to display the main page of Web Image Monitor. You can check the current system information on this page.

This page contains the following tabs: [Status], [Counter], and [Machine Information].

Checking the Status Information

Click the [Status] tab on the main page to display system information, paper tray status and toner levels.



ltem	Description
Model Name	Shows the name of the printer.
Location	Shows the location of the printer as registered on the [SNMP] page.
Contact	Shows the contact information of the printer as registered on the [SNMP] page.
Host Name	Shows the host name specified in [Host Name] on the [DNS] page.
Device Status	Shows the current messages on the printer's display.

Toner

101101	
ltem	Description
Black	Shows the amount of black toner remaining.
Magenta	Shows the amount of magenta toner remaining.
Yellow	Shows the amount of yellow toner remaining.
Cyan	Shows the amount of cyan toner remaining.

Paper Tray

ltem	Description
Tray 1	Shows the current state and paper size/type setting of tray 1.
Tray 2	Shows the current state and paper size/type setting of tray 2.
Bypass Tray	Shows the current state and paper size/type setting of the bypass tray.



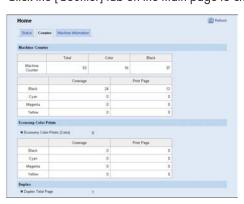
- The information about tray 2 appears only when the optional paper feed unit is installed.
- If non-genuine print cartridges are installed, toner life cannot be reliably indicated.

Reference

- For details about the printer's location and contact information, see p.72 "Configuring the SNMP Settings".
- For details about the printer's host name, see p.70 "Configuring the DNS Settings".

Checking the Counter Information

Click the [Counter] tab on the main page to check the counter information.



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Machine Counter

ltem	Description
Machine Counter	Shows the following for pages printed, including lists/reports:
	Total number of pages
	Number of color pages
	Number of black-and-white pages
Black	Shows the following for pages printed, including lists/reports:
	Accumulated value of black toner A4 page coverage (in percent)
	 Accumulated value of black toner consumption (converted into fully- covered A4 pages)
Cyan	Shows the following for pages printed, including lists/reports:
	Accumulated value of cyan toner A4 page coverage (in percent)
	 Accumulated value of cyan toner consumption (converted into fully- covered A4 pages)
Magenta	Shows the following for pages printed, including lists/reports:
	Accumulated value of magenta toner A4 page coverage (in percent)
	 Accumulated value of magenta toner consumption (converted into fully-covered A4 pages)
Yellow	Shows the following for pages printed, including lists/reports:
	Accumulated value of yellow toner A4 page coverage (in percent)
	Accumulated value of yellow toner consumption (converted into fully- covered A4 pages)

Economy Color Prints

ltem	Description
Economy Color Prints (Color)	Shows the pages printed in Economy Color Printing mode.
Black	Shows the following for pages printed in Economy Color Printing mode: Accumulated value of black toner A4 page coverage (in percent) Accumulated value of black toner consumption (converted into fully-covered A4 pages)

ltem	Description
Cyan	Shows the following for pages printed in Economy Color Printing mode: • Accumulated value of cyan toner A4 page coverage (in percent) • Accumulated value of cyan toner consumption (converted into fully-covered A4 pages)
Magenta	Shows the following for pages printed in Economy Color Printing mode: • Accumulated value of magenta toner A4 page coverage (in percent) • Accumulated value of magenta toner consumption (converted into fully-covered A4 pages)
Yellow	Shows the following for pages printed in Economy Color Printing mode: • Accumulated value of yellow toner A4 page coverage (in percent) • Accumulated value of yellow toner consumption (converted into fully-covered A4 pages)

Duplex

ltem	Description
Duplex Total Page	Shows the total number of pages printed on both sides.



• A sheet printed on both sides counts as two printed pages.

Checking the Machine Information

Click the [Machine Information] tab on the main page to display printer information.



Machine Information

Machine information	
ltem	Description
Firmware Version	Shows the version of firmware installed on the printer.
Engine FW Version	Shows the version of firmware for the printer engine.
Machine ID	Shows the serial number of the printer.
Total Memory	Shows the total memory installed on the printer.

Configuring the System Settings

Click [System Settings] to display the page for configuring the system settings.

This page contains the following tabs: [Tray Paper Settings], [I/O Timeout], and [B&W Print Priority].

Configuring the Paper Settings

Click the [Tray Paper Settings] tab on the system settings page to configure the paper settings.



Tray 1

ltem	Description
Paper Size	Select the paper size for tray 1 from the following: [A4], [B5 JIS], [A5], [B6 JIS], [A6], [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], [16K], [4 1/8 x 9 1/2], [3 7/8 x 7 1/2], [C5 Env], [C6 Env], [DL Env], [Custom Size]
Paper Type	Select the paper type for tray 1 from the following: [Thin Paper (60-65g/m2)], [Plain Paper (66-74g/m2)], [Middle Thick Paper (75-90g/m2)], [Thick Paper 1 (91-105g/m2)], [Recycled Paper], [Color Paper], [Letterhead], [Preprinted Paper], [Prepunched Paper], [Label Paper], [Bond Paper], [Cardstock], [Envelope], [Thick Paper 2 (106-160g/m2)]

Tray 2

ltem	Description
Paper Size	Select the paper size for tray 2 from the following:
	[A4], [8 1/2 x 11]

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ltem	Description
Paper Type	Select the paper type for tray 2 from the following:
	[Thin Paper (60-65g/m2)], [Plain Paper (66-74g/m2)], [Middle Thick Paper (75-90g/m2)], [Thick Paper 1 (91-105g/m2)], [Recycled Paper], [Color Paper], [Letterhead], [Preprinted Paper], [Prepunched Paper]

Bypass Tray

bypuss may	
ltem	Description
Paper Size	Select the paper size for the bypass tray from the following: [A4], [B5 JIS], [A5], [B6 JIS], [A6], [8 $1/2 \times 14$], [8 $1/2 \times 11$], [5 $1/2 \times 8$ $1/2$], [7 $1/4 \times 10$ $1/2$], [8 $\times 13$], [8 $1/2 \times 13$], [8 $1/4 \times 13$], [16K], [4 $1/8 \times 9$ $1/2$], [3 $7/8 \times 7$ $1/2$], [C5 Env], [C6 Env], [DL Env], [Custom Size]
Paper Type	Select the paper type for the bypass tray from the following: [Thin Paper (60-65g/m2)], [Plain Paper (66-74g/m2)], [Middle Thick Paper (75-90g/m2)], [Thick Paper 1 (91-105g/m2)], [Recycled Paper], [Color Paper], [Letterhead], [Prepunched Paper], [Label Paper], [Bond Paper], [Cardstock], [Envelope], [Thick Paper 2 (106-160g/m2)]

Priority Tray

ltem	Description
Priority Tray	Select the tray that the printer uses first for printer jobs from tray 1 or tray 2.
	If automatic tray selection is specified for the print job and both tray 1 and tray 2 contain paper that matches the print job, the printer starts to print from the specified tray. If that tray runs out of paper, the printer automatically switches to the other tray to continue printing.

Bypass Tray Setting Priority

ltem	Description
Bypass Tray Setting Priority	Select how print jobs using the bypass tray are handled. • [System Settings]
	The printer prints all print jobs according to the printer's settings. An error will occur if the paper size/type settings of the printer and printer driver do not match.
	• [Any Size/Type]
	The printer prints all print jobs according to the printer driver's settings. Printing proceeds even if the paper size/type settings of the printer and printer driver do not match, but If the paper is too small for the print job, the printed image will be cropped.
	• [Any Custom Size/Type]
	The printer prints custom size print jobs according to the printer driver's settings and prints standard size print jobs according to the printer's settings.
	For custom size print jobs, printing proceeds even if the paper size/ type settings of the printer and printer driver do not match, but if the paper is too small for the print job, the printed image will be cropped.
	For standard size print jobs, an error will occur if the paper size/type settings of the printer and printer driver do not match.



• The information about tray 2 appears only when the optional paper feed unit is installed.

Configuring I/O Timeout Settings

Click the [I/O Timeout] tab on the system settings page to configure the I/O timeout settings.



I/O Timeout

ltem	Description
Fixed USB Port	Specifies whether the same printer driver can be used for multiple printers or not under USB connection.
	If this setting is enabled, the same printer driver you have installed in your computer can be used with any printer other than the one originally used for installation, if the printer is of the same model.
	If disabled, you must install the printer driver separately for individual printers, because the printer other than the original will be recognized as a new device upon USB connection.

Configuring the Black-and-White Print Priority Settings

Click the [B&W Print Priority] tab on the system settings page to configure the B&W print priority settings.



B&W Print Priority

ltem	Description
B&W Print Priority	Enable this setting to suppress the consumption of color toner when printing black-and-white pages. Also, amount of color toner consumed during warm-up time for maintenance will also be lowered.

Configuring the Network Settings

Click [Network Settings] to display the page for configuring the network settings.

This page contains the following tabs: [Network Status], [IPv6 Configuration], [Network Application], [DNS], [Auto E-mail Notification], [SNMP], [SMTP], and [POP3].

Checking the Network Status

Click the [Network Status] tab on the network settings page to display network information.



General Status

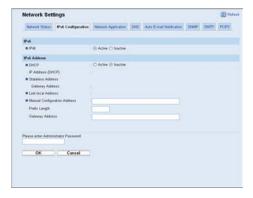
ltem	Description
Ethernet Speed	Shows the type and speed of the network connection.
IPP Printer Name	Shows the name used to identify the printer on the network.
Network Version	Shows the version of the printer's network module (a part of the printer firmware).
MAC Address	Shows the MAC address of the printer.

TCP/IP Status

101/11 014105	
ltem	Description
DHCP	Select whether the printer should receive a dynamic IPv4 address automatically using DHCP. To use DHCP, select [Active]. When enabled, the items below cannot be configured.
IP Address	Enter the IPv4 address for the printer.
Subnet Mask	Enter the subnet mask of the network.

Configuring the IPv6 Settings

Click the [IPv6 Configuration] tab on the network settings page to configure the IPv6 settings.



IPv6

ltem	Description
IPv6	Select whether to enable or disable IPv6. You cannot disable IPv6 using Web Image Monitor if the printer is currently in use in an IPv6 environment. In this case, use the control panel to disable [IPv6] under [Network Setting]. When disabled, [DHCP], [Manual Configuration Address], [Prefix Length],
	and [Gateway Address] below cannot be configured.

IPv6 Address

Item	Description
DHCP	Select whether or not the printer obtains its IPv6 address from a DHCP server. To specify the printer's IPv6 address manually, select [Inactive] and enter the printer's IPv6 address in [Manual Configuration Address].
IP Address (DHCP)	Displays the IPv6 address obtained from the DHCP server when [DHCP] is set to [Active].
Stateless Address	Displays up to four stateless auto addresses.
Gateway Address	Displays the printer's default gateway address.

6

ltem	Description
Link-local Address	Displays the link local address of the printer. The link local address is an address that is valid only inside the local network (local segment).
Manual Configuration Address	Enter the printer's IPv6 address. Can contain up to 39 characters.
Prefix Length	Enter the prefix length using a value between 1 and 128.
Gateway Address	Enter the default gateway's IPv6 address. Can contain up to 39 characters.

■ Reference

• For details about [IPv6], see p.48 "Host Interface Menu Parameters".

Configuring the Network Application Settings

Click the [Network Application] tab on the network settings page to configure the network application settings.



Network Print Setting

Ttorwork Triiii Sching		
ltem	Description	
IPP	Select to enable network printing using Internet Print Protocol (via TCP port 631/80).	
FTP	Select to enable network printing using an embedded FTP server in the printer (via TCP port 20/21).	
RAW	Select to enable network raw printing.	
Port No.	Enter the TCP port number to use for raw printing. The valid range is 1024 to 65535, except 53550 (default is 9100).	

mDNS Setting

ltem	Description
mDNS	Select to enable Multicast DNS (via UDP port 5353). If disabled, the item below cannot be configured.
Printer Name	Enter the name of the printer. Can contain up to 32 characters.

Configuring the DNS Settings

Click the [DNS] tab on the network settings page to configure the DNS settings.



DNS

ltem	Description
DNS Method	Select whether to specify domain name servers manually or receive DNS information from the network automatically. When set to [Auto-Obtain (DHCP)], [Primary DNS Server], [Secondary DNS Server], and [Domain Name] below become unavailable.
Primary DNS Server	Enter the IPv4 address of the primary DNS.
Secondary DNS Server	Enter the IPv4 address of the secondary DNS.
Domain Name	Enter the IPv4 domain name for the printer. Can contain up to 32 characters.

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ltem	Description
IPv6 DNS Method	Select whether to specify the domain server manually or have the printer obtain its DNS information automatically.
	When set to [Auto-Obtain (DHCP)], [Primary IPv6 DNS Server], [Secondary IPv6 DNS Server], and [IPv6 Domain Name] below become unavailable.
Primary IPv6 DNS Server	Enter the IPv6 address of the primary IPv6 DNS server. Can contain up to 39 characters.
Secondary IPv6 DNS Server	Enter the IPv6 address of the secondary IPv6 DNS server. Can contain up to 39 characters.
IPv6 Domain Name	Enter the IPv6 domain name of the printer. Can contain up to 32 characters.
DNS Resolve Priority	Select whether to give priority to IPv4 or IPv6 for DNS name resolution.
DNS Timeout (seconds)	Enter the number of seconds the printer waits before considering a DNS request to have timed out (1 to 999 seconds).
Host Name	Enter a host name for the printer. Can contain up to 15 characters.



• For details about each setting, see Web Image Monitor Help.

Configuring the Auto E-mail Notification Settings

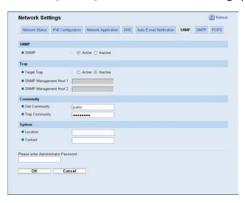
Click the [Auto E-mail Notification] tab on the network settings page to configure the auto e-mail notification settings.



Item	Description
Display Name	Enter a sender name for alert e-mail. Can contain up to 32 characters.
E-mail Address	Enter the address of the recipient of the alert email. Can contain up to 64 characters.
Paper Misfeed	Select to send an alert e-mail to the specified address if a paper jam occurs.
Out of Paper	Select to send an alert e-mail to the specified address if paper runs out.
Toner Almost Empty	Select to send an alert e-mail to the specified address if toner becomes low.
Call Service	Select to send an alert e-mail to the specified address if the printer requires servicing.
Out of Toner	Select to send an alert e-mail to the specified address if toner runs out.
Cover Open	Select to send an alert e-mail to the specified address if a cover is open.

Configuring the SNMP Settings

Click the [SNMP] tab on the network settings page to configure the SNMP settings.



SNMP

ltem	Description
SNMP	Select whether to enable the printer to use SNMP services.

Trap

Item	Description
Target Trap	Select whether to enable the printer to send traps to the management host (NMS). When set to [Inactive], [SNMP Management Host 1] and [SNMP Management Host 2] below become unavailable.
SNMP Management Host 1	Enter the IP address or host name of a management host. Can contain up to 64 characters.
SNMP Management Host 2	Enter the IP address or host name of a management host. Can contain up to 64 characters.

Community

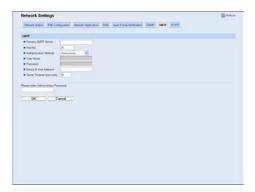
ltem	Description
Get Community	Enter the community name to use for authentication of Get requests. Can contain up to 32 characters.
Trap Community	Enter the community name to use for authentication of Trap requests. Can contain up to 32 characters.

System

ltem	Description
Location	Enter the location of the printer. The location entered here is displayed on the main page. Can contain up to 64 characters.
Contact	Enter the contact information of the printer. The contact information entered here is displayed on the main page. Can contain up to 64 characters.

Configuring the SMTP Settings

Click the [SMTP] tab on the network settings page to configure the SMTP settings.

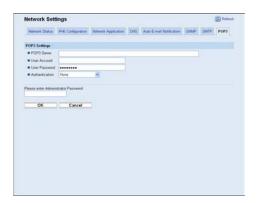


SMTP

ltem	Description
Primary SMTP Server	Enter the IP address or host name of the SMTP server. Can contain up to 64 characters.
Port No.	Enter the port number for SMTP (1 to 65535).
Authentication Method	Select an authentication method from the following:
	[Anonymous]: The user name and password are not necessary.
	[SMTP]: The printer supports NTLM and LOGIN authentication.
	[POP before SMTP]: The POP3 server is used for authentication. When sending e-mails to an SMTP server, you can enhance the SMTP server security level by connecting to the POP server for authentication.
User Name	Enter the user name for logging in to the SMTP server. Can contain up to 32 characters.
Password	Enter the password for logging in to the SMTP server. Can contain up to 32 characters.
Device E-mail Address	Enter the system administrator's e-mail address.
	This address is used as the sender's address of alert e-mail messages sent from this printer. Can contain up to 64 characters.
Server Timeout (seconds)	Enter the number of seconds the printer waits before considering an SMTP operation to have timed out (1 to 999).

Configuring the POP3 Settings

Click the [POP3] tab on the network settings page to configure the POP3 settings.



POP3 Settings

ltem	Description
POP3 Server	Enter the IP address or host name of the POP3 server for authentication. The POP3 server specified here will be used for [POP before SMTP]. Can contain up to 64 characters.
User Account	Enter the user name for logging in to the POP3 server. Can contain up to 32 characters.
User Password	Enter the password for logging in to the POP3 server. Can contain up to 32 characters.
Authentication	Select an authentication method from the following:
	[None]: Password will not be encrypted.
	[APOP Authentication]: Password will be encrypted.
	[Auto]: Password will be encrypted or not encrypted according to the POP3 server's settings.

Configuring the IPsec Settings

Click [IPsec Settings] to display the page for configuring the IPsec settings.

This page contains the following tabs: [IPsec Global Settings] and [IPsec Policy List].



• This function is available only when an administrator password is specified.

Configuring the IPsec Global Settings

Click the [IPsec Global Settings] tab on the IPsec settings page to configure the IPsec global settings.



ltem	Description
IPsec Function	Select whether to enable or disable IPsec.
Default Policy	Select whether to allow for the default IPsec policy.
Broadcast and Multicast Bypass	Select the services that you do not want to apply IPsec from the following: [DHCPv4], [DHCPv6], [SNMP], [mDNS], [NetBIOS], [UDP Port 53550]
All ICMP Bypass	Select whether to apply IPsec to ICMP packets (IPv4 and IPv6) from the following:
	[Active]: All ICMP packets will be bypassed without IPsec protection.
	"ping" command (echo request and echo reply) is not encapsulated by IPsec.
	[Inactive]: Some ICMP message types will be bypassed without IPsec protection.





• For details about which ICMP message types will be bypassed when setting [All ICMP Bypass] to [Inactive], see Web Image Monitor Help.

Configuring the IPsec Policy

Click the [IPsec Policy List] tab on the IPsec settings page to display the list of the registered IPsec policies.



ltem	Description
No.	IPsec policy number.
Name	Displays the name of the IPsec policy.
Address Settings	Displays the IP address filter of the IPsec policy as below: Remote address/Prefix length
Action	Displays the action of the IPsec policy as "Allow", "Drop", or "Require Security".
Status	Displays the status of the IPsec policy as "Active" or "Inactive".

To configure IPsec policies, select the desired IPsec policy, and then click [Change] to open the "IPsec Policy Settings" page. The following settings can be made on the "IPsec Policy Settings" page.

IP Policy Settings

Description ltem No. Specify a number between 1 and 10 for the IPsec policy. The number you specify will determine the position of the policy in the IPsec Policy List. Policy searching is performed according to the order of the list. If the number you specify is already assigned to another policy, the policy you are configuring will take the number of the earlier policy, and the earlier policy and any subsequent policies will be renumbered accordingly. Activity Select whether to enable or disable the policy. Name Enter the name of the policy. Can contain up to 16 characters. Select IPv4 or IPv6 as the type of IP address to be used in IPsec Address Type communication. Local Address Displays the IP address of this printer. Remote Address Enter the IPv4 or IPv6 address of the device with which to communicate. Can contain up to 39 characters. Prefix Length Enter the prefix length of the Remote Address, using a value between 1 and 128. If this setting is left blank, "32" (IPv4) or "128" (IPv6) will be automatically selected.

ltem	Description
Action	Specify how the IP packets are processed from the following: I [Allow]: IP packets are both sent and received without IPsec applied to them. Ipperiod Grant Allowing to the IPsech to the income and the IPsech to the IPsech to the IPsech to the IPsech to
	 [Require Security]: IPsec is applied to IP packets that are both sent and received. If you have selected [Require Security], you must configure [IPsec Settings] and [IKE Settings].

IPsec Settings

Item	Description
Encapsulation Type	Specify the encapsulation type from the following: Iransport: Select this mode to secure only the payload section of each IP packet when communicating with IPsec compliant devices. Irunnel: Select this mode to secure every section of each IP packet. We recommend this type for communication between security gateways (such as VPN devices).
Security Protocol	 Select the security protocol from the following: [AH]: Establishes secure communication that supports authentication only. [ESP]: Establishes secure communication that supports both authentication and data encryption. [ESP&AH]: Establishes secure communication that supports both data encryption and authentication of packets, including packet headers. Note that you cannot specify this protocol when [Tunnel] is selected for [Encapsulation Type].
Authentication Algorithm for AH	Specify the authentication algorithm to be applied when [AH] or [ESP&AH] is selected for [Security Protocol] from the following: [MD5], [SHA1]
Encryption Algorithm for ESP	Specify the encryption algorithm to be applied when [ESP] or [ESP&AH] is selected for [Security Protocol] from the following: [None], [DES], [3DES], [AES-128], [AES-192], [AES-256]

ltem	Description
Authentication Algorithm for ESP	Specify the authentication algorithm to be applied when [ESP] is selected for [Security Protocol] from the following: [MD5], [SHA1]
Life Time	Specify the life time of the IPsec SA (Security Association) as a time period or data volume. The SA will expire when the time period you specify elapses or the volume of data you specify reaches the volume carried.
	If you specify both a time period and a data volume, the SA will expire as soon as either is reached, and a new SA will then be obtained by negotiation.
	To specify the life time of the SA as a time period, enter a number of seconds.
	To specify the life time of the SA as a data volume, enter a number of KBs.
Key Perfect Forward Secrecy	Select whether to enable or disable PFS (Perfect Forward Secrecy).

IKE Settings

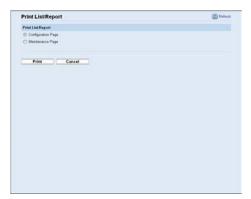
ltem	Description
IKE Version	Displays the IKE version.
Encryption Algorithm	Specify the encryption algorithm from the following: [DES], [3DES], [AES-128], [AES-192], [AES-256]
Authentication Algorithm	Specify the authentication algorithm from the following: [MD5], [SHA1]
IKE Life Time	Specify the life time of the ISAKMP SA as a time period. Enter a number of seconds.
IKE Diffie-Hellman Group	Select the IKE Diffie-Hellman Group to be used in the generation of the IKE encryption key from the following: [DH1], [DH2]
Pre-Shared Key	Specify the PSK (Pre-Shared Key) to be used for authentication of a communicating device. Can contain up to 32 characters.
Key Perfect Forward Secrecy	Select whether to enable or disable PFS (Perfect Forward Secrecy).



• For details about IPsec, see p.104 "Transmission Using IPsec".

Printing Lists/Reports

Click [Print List/Report] to display the page for printing reports. Then, select an item and click [Print] to print out information for that item.



Print List/Report

ltem	Description	
Configuration Page	Prints general information about the printer and its current configuration.	
Maintenance Page	Prints the maintenance page.	

UNote

- Reports cannot be printed via Web Image Monitor if other jobs are printing. Before printing reports, confirm that printer is not printing.
- Reports will be printed on A4 or Letter size paper. Load one of these sizes of paper into the priority tray before printing reports.

Reference

- For details about priority tray settings, see p.62 "Configuring the Paper Settings".
- For details about loading paper, see "Loading Paper" Hardware Guide.

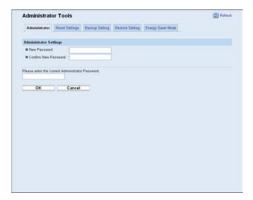
Configuring the Administrator Settings

Click [Administrator Tools] to display the page for configuring the administrator settings.

This page contains the following tabs: [Administrator], [Reset Settings], [Backup Setting], [Restore Setting], and [Energy Saver Mode].

Configuring the Administrator Password

Click the [Administrator] tab on the administrator settings page to configure the administrator password.

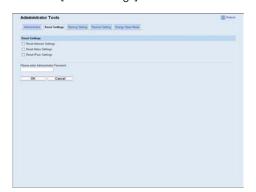


Administrator Settings

ltem	Description
New Password	Enter the new administrator password. Can contain up to 16 characters.
Confirm New Password	Enter the same password again, to confirm.

Resetting the Printer's Settings

Click the [Reset Settings] tab on the administrator settings page to reset the printer's settings.





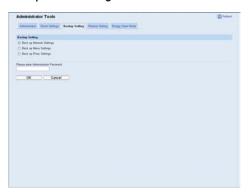
• [Reset IPsec Settings] appears only when a password is specified in [Administrator].

Backing Up the Printer's Settings

Click the [Backup Setting] tab on the administrator settings page to create backup files containing the printer's configuration settings. If necessary, these backup files can be used to restore previous configurations.



When sending the printer for repair, it is important that you create backup files in advance. The
printer's settings are returned to the default after repair.



Backup Setting

ltem	Description	
Back up Network Settings	Backs up the network settings.	
Back up Menu Settings	Backs up settings that are not related to the network.	
Back up IPsec Settings	Backs up the IP security settings to a file.	

Follow the procedure below to create configuration backup files.



- 1. Select the radio button for the type of data you wish to back up.
- 2. Enter the administrator password if required.
- 3. Click [OK].
- 4. Click [Save] in the confirmation dialog box.
- 5. Navigate to the location to save the backup file.
- 6. Specify a name for the file, and click [Save].



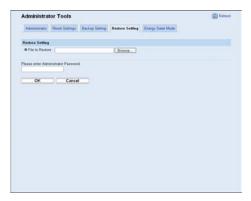
• [Back up IPsec Settings] appears only when a password is specified in [Administrator].

Restoring the Printer's Settings from a Backup File

Click the [Restore Setting] tab on the administrator settings page to restore the printer's settings from a previously created backup file.



 When the printer is returned from repair, it is important that you restore the printer's settings from the backup files. The printer's settings are returned to the default after repair.



Restore Setting

ltem	Description
File to Restore	Enter the path and name of the file to restore, or click [Browse] to select the file.

Follow the procedure below to restore configuration backup files.

- 1. Click [Browse].
- 2. Navigate to the directory containing the backup file to restore.
- 3. Select the backup file, and click [Open].

6

- 4. Enter the administrator password if required.
- 5. Click [OK].



• If the settings are not restored successfully, an error message appears. Try again to restore the file completely.

Configuring the Energy Saver Mode Settings

Click the [Energy Saver Mode] tab on the administrator settings page to set the printer to enter Energy Saver mode, Energy Saver mode 1 or Energy Saver mode 2, to reduce power consumption.



Energy Saver Mode

ltem	Description
Energy Saver Mode 1	Select [Active] to set the printer to enter Energy Saver mode 1 if the printer has been idle for about 30 seconds.
	It takes less time to recover from Energy Saver mode 1 than from power-off state or Energy Saver mode 2, but power consumption is higher in Energy Saver mode 1 than in Energy Saver mode 2.
Energy Saver Mode 2	Select [Active] to set the printer to enter Energy Saver mode 2 after the period of time specified for [Waiting Time (1-240)] is passed (1 to 240 minutes).
	The printer consumes less power in Energy Saver mode 2 than in Energy Saver mode 1, but it takes longer to recover from Energy Saver mode 2 than from Energy Saver mode 1.



• The printer recovers from Energy Saver mode when it receives a print job or when any key on the printer is pressed.

Printer Status Notification by E-Mail

Whenever a toner cartridge becomes empty or paper is jammed, an e-mail alert is issued to the registered addresses to notify the printer status.

- This function is available only if you are using this printer in a network environment.
- Depending on your e-mail application, a phishing warning might appear after you receive an e-mail message. To prevent phishing warnings appearing after you receive an e-mail from a specified sender, you must add the sender to your e-mail application's exclusion list. For details about how to do this, refer to your e-mail application's Help.

For this notification, you can make the e-mail notification settings.

You can be notified of the following events:

- Paper Jam
- Toner Low
- No Toner
- No Paper
- Service Required
- Cover Open

Also you can see the information of the printer, such as printer name and serial number.

- 1. Start the Web browser, and access the printer by entering its IP address.
- 2. In the menu area, click [Network Settings].

The "Network Settings" page appears.

- 3. Click the [Auto E-mail Notification] tab.
- 4. Enter a sender name for alert e-mail and the address of the recipient of the alert e-mail.

You can set up to 2 e-mail notification settings.

- 5. Select the checkbox in which event you want to notify.
- 6. Enter the administrator password if required.
- 7. Click [OK].

Mail Authentication

You can configure mail authentication to prevent illegal use of the mail server.

When mail is sent to the SMTP server, authentication is performed using the SMTP AUTH protocol by prompting the mail originator to enter the user name and password.

Use the following procedure to specify SMTP authentication.

- 1. Start the Web browser, and access the printer by entering its IP address.
- 2. In the menu area, click [Network Settings].

The "Network Settings" page appears

- 3. Click the [SMTP] tab.
- 4. Make the following settings:
 - Authentication Method: Select [SMTP] or [POP before SMTP].
 - User Name: Enter the user name for SMTP Authentication.
 - Password: Enter the password set for the SMTP User Name.
 - Device E-mail Address: Enter the e-mail address.
- 5. Enter the administrator password if required.
- 6. Click [OK].
- 7. Quit Web Image Monitor.

SNMP

You can use the SNMP manager to obtain information about the printer.

The SNMP agent operating on UDP is built into the Ethernet board that is installed in this printer.



 If you change the printer's community name, use Web Image Monitor to change the computer's settings accordingly.



• The default community name is [public]. You can use this community name to obtain MIB information.

Reading the Configuration Page

The configuration page contains the information shown below.

System Reference

- Model Name
 - Shows the printer model name.
- Machine ID
 - Shows the serial number assigned to the printer by the manufacturer.
- Total Memory
 - Shows the total amount of memory installed on the printer.
- Bootloader Version
 - Shows the version of the printer's bootloader.
- Firmware Version
 - Shows the version of the printer's firmware.
- Engine FW Version
 - Shows the version of firmware for the printer engine.

Paper Input

Shows settings made in the [Paper Input] menu. For details, see "Paper Input Menu".

Supplies Status

Shows information about supply levels.

- Toner (Black)
- Toner (Magenta)
- Toner (Yellow)
- Toner (Cyan)
- Waste Toner Bottle

System Settings

Shows the printer's operational settings.

- I/O Timeout
- Auto Continue

Counter

Shows counter information.

Admin Tools

Shows the following settings.

- IPsec
- Energy Saver Mode
- Language

Network Settings

Shows network-related settings.

IPv6 Configuration

Shows the IPv6 settings.



• The configuration page can be printed using the control panel or Web Image Monitor, see "Printing the Configuration Page" or "Printing Lists/Reports".

■ Reference

- p.40 "Printing the Configuration Page"
- p.82 "Printing Lists/Reports"
- p.37 "Paper Input Menu"

7. Using a Print Server

This chapter explains how to configure this printer to work as a network printer.

Preparing Print Server

This section explains how to configure this printer as a Windows network printer.

The printer is configured to enable network clients to use it.

- Under Windows XP Professional or Windows Server 2003/2003 R2/2008/2008 R2, to change
 printer properties in the [Printer] folder, you need Printer Management access authentication; under
 Windows Vista/7, Full Control access authentication. Log on to the file server as an Administrator
 group.
- 1. Open the [Printers and Faxes] window from the [Start] menu.
 - The [Printers and Faxes] window appears.
 - Under Windows Vista or Windows Server 2008, open the [Printers] window.
- 2. Click the icon of this printer. On the [File] menu, click [Properties].
 - The printer properties appears.
- 3. On the [Sharing] tab, click [Share this printer].
- 4. To share this printer with users using a different version of Windows, click [Additional Drivers...].
 - If you have installed an alternative driver by selecting [Share this Printer] during the printer driver installation, this step can be ignored.
- 5. On the [Advanced] tab, click the [Printing Defaults...] button. Specify the default values for the printer driver that will be distributed to client computers, and then click [OK].
- 6. Click [OK] to close the printer properties.

8. Special Operations under Windows

Printing Files Directly from Windows

You can print files directly using Windows commands; "lpr" or "ftp".

Setup

Use the following procedure to make network environment settings.

 Enable TCP/IP using the control panel, and then set up the printer's network environment about TCP/IP including IP addresses.

TCP/IP of the printer is set as default.

- 2. Install a TCP/IP in Windows to set up the network environment.
 - Consult the network administrator for the local setting information.
- 3. To print, install "Printing service for UNIX" as the network application.

Reference

- For details about setting an IP address, see Hardware Guide.
- For details about setting an IP address of the printer using DHCP, see p.110 "Using DHCP".
- This completes the setup for specifying a printer using an IPv4 address when printing. When using a
 host name to specify a printer, proceed to p.95 "Using a Host Name Instead of an IPv4 Address"
 and continue the setup.

Using a Host Name Instead of an IPv4 Address

When a host name is defined, you can specify a printer by host name instead of an IPv4 address. The host names vary depending on the network environment.

When using DNS

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

When setting the IPv4 address of a printer using DHCP

Use the printer name on the configuration page as the host name.

- For details about printing configuration page using the control panel, see p.40 "Printing the Configuration Page".
- For details about printing configuration page using Web Image Monitor, see p.82 "Printing Lists/ Reports".

In other cases

Add the IPv4 address and host name of the network printer to the hosts file on the computer used for printing.

1. Open the hosts file using memo pad files, for instance.

The hosts file is in the following location:

\WINDOWS\SYSTEM32\DRIVERS\ETC\HOSTS

2. Add an IPv4 address and host name to the hosts file using the following format:

192.168.15.16 host# NP

"192.168.15.16" is the IPv4 address, "host" is this printer's host name, and "#NP" is replaced by comments. Insert a space or tab between "192.168.15.16" and "host", between "host" and "#NP" respectively, using one line for this format.

3. Save the file.

Printing Commands

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

Enter commands using the command prompt window. The location of the command prompt varies depending on operating systems:

Windows XP/Vista/7, Windows Server 2003/2003 R2/2008/2008 R2
 [Start] - [All Programs] - [Accessories] - [Command Prompt]



- Match the data format of the file to be printed with the emulation mode of this printer.
- If the message "print requests full" appears, no print jobs can be accepted. Try again when sessions end. For each command, the amount of possible sessions is indicated as follows:
 - lpr: 10
- Enter the file name in a format including the path from the directory executing commands.

■ Reference

• The "option" specified in a command is an intrinsic printer option and its syntax is similar to printing from UNIX.

lpr

When specifying a printer by an IP address

c:\> lpr -Sprinter's IP address -Pprinter name [-ol] \pass name\file name

When specifying a printer by host name instead of an IP address

c:\> |pr -Sprinter host name -Pprinter's name [-ol] \pass name\file name

To print a binary file, include the "-ol" switch (a dash followed by a lowercase O and L) after the printer name.

ftp

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

When one file is printed

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

When multiple files are printed

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

 Formulate the printer's IP address or the host name of the hosts file printer as an argument and use the "ftp" command.

% ftp printer's IP address

2. Enter the user name and password, and then press the [OK] key.

User: sysadm

Password: sysadm

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

ftp> bin

When printing a binary file in ASCII mode, print may not come out correctly.

4. Specify files to be printed.

The following shows the examples of printing file 1 and file 2.

ftp> mput C:\PRINT\file1.prn C:\PRINT\file2.prn

5. Quit ftp.

ftp> bye



- "=", ",", "_", and ";"cannot be used for file names. File names will be read as option strings.
- For "mput" command, option can not be defined.
- For "mput" command, "*" and "?" can be used as wild cards in file names.
- When printing a binary file in ASCII mode, print may not come out correctly.

9. Mac OS X Configuration

This chapter explains how to use this printer under Mac OS X.

The example procedures in this chapter explain configuration under Mac OS X 10.4.

The procedure might be different according to the version of OS.

Setting Up Options

Use this procedure to configure the printer's options.

- 1. From the Apple menu, select [System Preferences...].
- 2. Under "Hardware", click [Print & Fax].
- 3. Select the printer from "Printer", and then click [Printer Setup...].
- 4. In the [Printer Info] dialog box, select [Installable Options] from the list.
- 5. Check the tray 2 configuration, and then click [Apply Changes].
- 6. Click the close button at the upper left corner to close the [Printer Info] dialog box.
- 7. From the [System Preferences] menu, click [Quit System Preferences].

Setting Up for Printing

Use the following procedures to configure the printer.

Making Paper Settings from an Application

- 1. Open the file you want to print.
- 2. On the [File] menu, click [Page Setup...].
- Check that the printer you want to use is displayed in [Format for], and then select the paper size you want to use in [Paper Size].
 - If this printer is not displayed in [Format for], select the printer you want to use.
- 4. Configure the settings, and then click [OK].

Reference

• The [Page Setup...] dialog box varies depending on the application you use. For details, see the manuals provided with the Mac OS X.

Printing from an Application

- 1. Open the file you want to print.
- 2. On the [File] menu, click [Print...].
- 3. In the [Printer] list, select the printer.
- 4. Configure the print settings, and then click [Print].

Q

Canceling a Print Job from the Computer

- 1. From the Apple menu, select [System Preferences...].
- 2. Under "Hardware", click [Print & Fax].
- 3. Double-click the printer from "Printer".
- 4. Select the print job you want to cancel, and then click [Delete].

U Note

- If the printer is shared by multiple computers, be careful not to cancel a print job of other user.
- You cannot stop printing data that has already been processed. For this reason, printing may continue for a few pages after you cancel printing.
- To stop a large data size print job may take a while.

Functions and Network Settings Available in an IPv6 Environment

The functions and network settings of this printer that are available in an IPv6 environment differ from those available in an IPv4 environment. Make sure the functions you use are supported in an IPv6 environment, and then configure the necessary network settings.

Reference

• For details about specifying the IPv6 settings, see p.47 "Host Interface Menu" or p.67 "Configuring the Network Settings".

Available Functions

Print via FTP

Prints documents via FTP using the EPRT and EPSV commands. Windows Vista/7 and an FTP application that supports IPv6 are required to use these commands.

Printer

Prints documents using the printer driver.

Bonjour

Allows the printer to communicate with Bonjour protocol-supported computers on the network. The IP address of the multi-cast group supported by IPv6 is ff02::fb.

Web Image Monitor

Allows you to check the printer's status and configure its settings using a Web browser.

Configuration Page

Prints a configuration page that shows you the printer's configuration, IP address, and other details.

Transmission Using IPsec

For securer communications, this printer supports the IPsec protocol. When applied, IPsec encrypts data packets at the network layer using shared key encryption. The printer uses encryption key exchange to create a shared key for both sender and receiver. To achieve even higher security, you can also renew the shared key on a validity period basis.

Mportant !

- IPsec is not applied to data obtained through DHCP, DNS, or WINS.
- IPsec compatible operating systems are Windows XP SP2, Windows Vista/7, Windows Server 2003/2003 R2/2008/2008 R2, Mac OS X 10.4 and later, Red Hat Enterprise Linux WS 4.0, and Solaris 10. However, some setting items are not supported depending on the operating system. Make sure the IPsec settings you specify are consistent with the operating system's IPsec settings.
- If you cannot access Web Image Monitor due to IPsec configuration problems, disable IPsec under [Network Setting] on the control panel, and then access Web Image Monitor.

■ Reference

- For details about specifying the IPsec settings using Web Image Monitor, see p.76 "Configuring the IPsec Settings".
- For details about enabling and disabling IPsec using the control panel, see p.109 "Enabling and Disabling IPsec Using the Control Panel".

Encryption and Authentication by IPsec

IPsec consists of two main functions: the encryption function, which ensures the confidentiality of data, and the authentication function, which verifies the sender of the data and the data's integrity. This printer's IPsec function supports two security protocols: the ESP protocol, which enables both of the IPsec functions at the same time, and the AH protocol, which enables only the authentication function.

FSP Protocol

The ESP protocol provides secure transmission through both encryption and authentication. This protocol does not provide header authentication.

- For successful encryption, both the sender and receiver must specify the same encryption
 algorithm and encryption key. The encryption algorithm and encryption key are specified
 automatically.
- For successful authentication, the sender and receiver must specify the same authentication algorithm and authentication key. The authentication algorithm and authentication key are specified automatically.

AH Protocol

The AH protocol provides secure transmission through authentication of packets only, including headers.

 For successful authentication, the sender and receiver must specify the same authentication algorithm and authentication key. The authentication algorithm and authentication key are specified automatically.

AH Protocol + ESP Protocol

When combined, the ESP and AH protocols provide secure transmission through both encryption and authentication. These protocols provide header authentication.

- For successful encryption, both the sender and receiver must specify the same encryption
 algorithm and encryption key. The encryption algorithm and encryption key are specified
 automatically.
- For successful authentication, the sender and receiver must specify the same authentication
 algorithm and authentication key. The authentication algorithm and authentication key are
 specified automatically.



• Some operating systems use the term "Compliance" in place of "Authentication".

Security Association

This printer uses encryption key exchange as the key setting method. With this method, agreements such as the IPsec algorithm and key must be specified for both sender and receiver. Such agreements form what is known as an SA (Security Association). IPsec communication is possible only if the receiver's and sender's SA settings are identical.

The SA settings are auto-configured on both parties' printers. However, before the IPsec SA can be established, the ISAKMP SA (Phase 1) settings must be auto-configured. When this is done, the IPsec SA (Phase 2) settings, which allow actual IPsec transmission, will be auto-configured.

Also, for further security, the SA can be periodically auto updated by applying a validity period (time limit) for its settings. This printer only supports IKEv1 for encryption key exchange.

Multiple settings can be configured in the SA.

Settings 1-10

You can configure ten separate sets of SA details (such as different shared keys and IPsec algorithms).

IPsec policies are searched through one by one, starting at [No.1].

Encryption Key Exchange Settings Configuration Flow

This section explains the procedure for specifying encryption key exchange settings.

Printer	PC	
1. Set the IPsec settings on Web Image Monitor.	1. Set the same IPsec settings as the printer on PC.	
2. Enable IPsec settings.	2. Enable IPsec settings.	
3. Confirm IPsec transmission.		



- After configuring IPsec, you can use "ping" command to check if the connection is established
 correctly. Also, because the response is slow during initial key exchange, it may take some time to
 confirm that transmission has been established.
- If you cannot access Web Image Monitor due to IPsec configuration problems, disable IPsec on the control panel, and then access Web Image Monitor.

■ Reference

• p.109 "Enabling and Disabling IPsec Using the Control Panel"

Specifying Encryption Key Exchange Settings

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- To display [IPsec Settings] menu, specifying an administrator password is required.
- 1. Start the Web browser, and access the printer by entering its IP address.
- 2. Click "IPsec Settings".
- 3. Click the [IPsec Policy List] tab.
- 4. Select the number of the setting you want to modify in the list, and then click [Change].
- 5. Modify the IPsec related settings as necessary.
- 6. Enter the administrator password, and then click [Apply].
- 7. Click the [IPsec Global Settings] tab, and then select [Active] in [IPsec Function].
- 8. If necessary, specify [Default Policy], [Broadcast and Multicast Bypass], and [All ICMP Bypass] also.
- 9. Enter the administrator password, and then click [Apply].

Specifying IPsec Settings on the Computer

Specify exactly the same settings for IPsec SA settings on your computer as are specified for the IPsec Settings on the printer. Setting methods differ according to the computer's operating system. The following procedure is based on Windows XP in an IPv4 environment as an example.

- On the [Start] menu, click [Control Panel], [Performance and Maintenance], and then click [Administrative Tools].
- 2. Double-click [Local Security Policy].
- 3. Click [IP Security Policies on Local Computer].
- In the "Action" menu, click [Create IP Security Policy].
 The IP Security Policy Wizard appears.
- 5. Click [Next].
- 6. Enter a security policy name in "Name", and then click [Next].
- 7. Clear the "Activate the default response rule" check box, and then click [Next].
- 8. Select "Edit properties", and then click [Finish].
- 9. In the "General" tab, click [Advanced].
- In "Authenticate and generate a new key after every", enter the same validity period (in minutes) that is specified on the printer in [IKE Life Time], and then click [Methods].
- Confirm that the Encryption Algorithm ("Encryption"), Hash Algorithm ("Integrity"), and IKE Diffie-Hellman Group ("Diffie-Hellman Group") settings in "Security method preference order" all match those specified on the printer in [IKE Settings].
 - If the settings are not displayed, click [Add].
- 12. Click [OK] twice.
- 13. Click [Add] in the "Rules" tab.
 The Security Rule Wizard appears.
- 14. Click [Next].
- 15. Select "This rule does not specify a tunnel", and then click [Next].
- 16. Select the type of network for IPsec, and then click [Next].
- 17. Select "Use this string to protect the key exchange (preshared key)", and then enter the same PSK text specified on the printer with the pre-shared key.
- 18. Click [Next].
- 19. Click [Add] in the IP Filter List.
- 20. In [Name], enter an IP Filter name, and then click [Add].
 The IP Filter Wizard appears.
- 21. Click [Next].

- 22. Select "My IP Address" in "Source address", and then click [Next].
- 23. Select "A specific IP Address" in "Destination address", enter the printer's IP address, and then click [Next].
- 24. For the IPsec protocol type, select "Any", and then click [Next].
- 25. Click [Finish].
- 26. Click [OK].
- 27. Select the IP filter that you have just created, and then click [Next].
- 28. Select the IPsec security filter, and then click [Edit].
- 29. In the "Security Methods" tab, check "Negotiate security" and then click [Add].
- 30. Select "Custom" and click [Settings].
- 31. When [ESP] is selected for the printer in [Security Protocol] under [IPsec Settings], select [Data integrity and encryption (ESP)], and configure the following settings:
 - Set the value of [Integrity algorithm] to the same value as the [Authentication Algorithm for ESP] specified on the printer.
 - Set the value of [Encryption algorithm] to the same value as the [Encryption Algorithm for ESP] specified on the printer.
- 32. When [AH] is selected for the printer in [Security Protocol] under [IPsec Settings], select [Data and address integrity without encryption (AH)], and configure the following settings:
 - Set the value of [Integrity algorithm] to the same value as the [Authentication Algorithm for AH] specified on the printer.
 - Clear the [Data integrity and encryption (ESP)] check box.
- 33. When [ESP&AH] is selected for the printer in [Security Protocol] under [IPsec Settings], select [Data and address integrity without encryption (AH)], and configure the following settings:
 - Set the value of [Integrity algorithm] under [Data and address integrity without encryption (AH)] to the same value as [Authentication Algorithm for AH] specified on the printer.
 - Set the value of [Encryption algorithm] under [Data integrity and encryption (ESP)] to the same value as [Encryption Algorithm for ESP] specified on the printer.
- 34. In the Session key settings, select "Generate a new key every", and enter the same validity period (in seconds or Kbytes) as that specified for [Life Time] on the printer.
- 35. Click [OK] three times.
- 36. Click [Next].
- 37. Click [Finish].

If you are using IPv6 under Windows Vista or a newer version of Windows, you must repeat this procedure from step 13 and specify ICMPv6 as an exception. When you reach step 24, select

[58] as the protocol number for the "Other" target protocol type, and then set [Negotiate security] to [Permit].

- 38. Click [OK].
- 39. Click [Close].

The new IP security policy (IPsec settings) is specified.

40. Select the security policy that you have just created, right click on it, and then click [Assign].

IPsec settings on the computer are enabled.



To disable the computer's IPsec settings, select the security policy, right click, and then click [Unassign].

Enabling and Disabling IPsec Using the Control Panel

- 1. Press the [Menu] key.
- 2. Press the [▲][▼] keys to select [Host Interface], and then press the [OK] key.
- Press the [▲][▼] keys to select [Network Setting], and then press the [OK] key.
- 4. Press the [▲][▼] keys to select [IPsec], and then press the [OK] key.
- 5. Press the [▲][▼] keys to select [On] or [Off], and then press the [OK] key.
- 6. Press the [Menu] key to return to the initial screen.



• You can press the [Escape] key to exit to the previous level of the menu tree.

Cautions to Take When Using in a Network

Using DHCP

You can use this printer in a DHCP environment.

- Supported DHCP servers are those which are included with Windows Server 2003/2003 R2/2008/2008 R2.
- DHCP relay-agent is not supported. If you use DHCP relay-agent on a network via ISDN, it will
 result in increased line charges. This is because your computer connects to the ISDN line whenever
 a packet is transferred from the printer.
- If there is more than one DHCP server, use the same setting for all servers.
 The printer operates using data from the DHCP server that responds first.

Using AutoNet

If the printer IPv4 address is not assigned by a DHCP server automatically, a temporary IPv4 address starting with 169.254, which is not used on the network, can be automatically selected by the printer.

If an AutoNet address is set as the printer's IP address, it changes every time you turn on the printer. Configure the TCP/IP settings according to your network environment.

You must change this setting to "on" to use AutoNet.



- The IP address assigned by the DHCP server is given priority over that selected by AutoNet.
- You can confirm the current IPv4 address on the configuration page.
- The printer cannot communicate with devices that do not have the AutoNet function. However, this
 printer can communicate with Macintosh computers running Mac OS X 10.3 or later.

When Using Windows Terminal Service/ MetaFrame

The following explains how to use Windows Terminal Service and MetaFrame.

Operating Environment

The following operating systems and MetaFrame versions are supported.

Windows Server 2003/2003 R2

- MetaFrame XP 1.0 FR3
- MetaFrame Presentation Server 3.0
- Citrix Presentation Server 4.0

Supported Printer Drivers

When Windows Terminal Service is operating

DDST printer driver



Some DDST printer driver functions do not work if Windows Terminal Service is installed.

Limitations

The following limitations apply to the Windows Terminal Service environment.

These limitations are built in Windows Terminal Service or MetaFrame.

MetaFrame's [Auto-creating client printers]

Using [Auto-creating client printers], you can select a logical printer created by copying the client's local printer data to the MetaFrame server. We strongly recommend testing this function in your network environment before using it for your work.

- The settings for optional equipment will not be stored in the server after the equipment is
 disconnected. The settings for optional equipment will be restored to its defaults each time the
 client computer logs on to the server.
- When printing a large number of bitmap images or using the server in a WAN environment over dial-up lines such as ISDN, printing may not be possible or errors may occur, depending on data transfer rates.

- When using MetaFrame XP 1.0 or higher versions, we recommend making settings in [Client Printer bandwidth] under [Citrix Management Console] according to the environment.
- If a print error occurs on the MetaFrame XP 1.0 SP1/FR1 and the print job or a printer
 created in [Auto-creating client printers] cannot be deleted, we recommend making settings in
 [Delete unfinished print jobs] in the registry. For details, see the Readme file provided with
 MetaFrame.
- If a print error occurs on the MetaFrame XP 1.0 FR2 and the print job or a printer created in [Auto-creating client printers] cannot be deleted, we recommend making settings in [Delete unfinished print jobs at logout] of Citrix Management Console.

MetaFrame's [Printer driver replication]

Using [Printer driver replication], you can distribute printer drivers across all servers in a server farm. We strongly recommend testing this function in your network environment before using it for your work.

• If the printer drivers are not properly copied, install them directly onto each server.

Copyright Information about Installed Applications

expat

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10

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

• The product names of Windows XP are as follows:

Microsoft® Windows® XP Professional Edition

Microsoft® Windows® XP Home Edition

Microsoft® Windows® XP Professional x64 Edition

• The product names of Windows Vista are as follows:

Microsoft® Windows Vista® Ultimate

Microsoft® Windows Vista® Business

Microsoft® Windows Vista® Home Premium

Microsoft® Windows Vista® Home Basic

Microsoft® Windows Vista® Enterprise

• The product names of Windows 7 are as follows:

Microsoft® Windows® 7 Starter

Microsoft® Windows® 7 Home Premium

Microsoft® Windows® 7 Professional

Microsoft® Windows® 7 Ultimate

Microsoft® Windows® 7 Enterprise

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

Microsoft® Windows Server® 2003 Standard Edition

Microsoft® Windows Server® 2003 Enterprise Edition

Microsoft® Windows Server® 2003 Web Edition

Microsoft® Windows Server® 2003 Datacenter 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

Microsoft® Windows Server® 2003 R2 Datacenter Edition

• The product names of Windows Server 2008 are as follows:

Microsoft® Windows Server® 2008 Foundation

Microsoft® Windows Server® 2008 Standard

Microsoft® Windows Server® 2008 Enterprise

Microsoft® Windows Server® 2008 Datacenter

Microsoft® Windows Server® 2008 for Itanium-based Systems

Microsoft® Windows® Web Server 2008

Microsoft® Windows® HPC Server 2008

Microsoft[®] Windows Server[®] 2008 Standard without Hyper-VTM

Microsoft® Windows Server® 2008 Enterprise without Hyper-VTM

Microsoft® Windows Server® 2008 Datacenter without Hyper-VTM

• The product names of Windows Server 2008 R2 are as follows:

Microsoft® Windows Server® 2008 R2 Foundation

Microsoft® Windows Server® 2008 R2 Standard

Microsoft® Windows Server® 2008 R2 Enterprise

Microsoft® Windows Server® 2008 R2 Datacenter

Microsoft® Windows Server® 2008 R2 for Itanium-based Systems

Microsoft® Windows® Web Server R2 2008

Microsoft® Windows® HPC Server R2 2008

INDEX

	Energy saver timer	44
100baseTX	Ethernet	9
10baseT	expat	113
	F	
<u>A</u>	Form Feed	17
Adjusting	42 ftp	
Alert message settings	71	
Authentication		
AutoNet	110 General status	67
В	н	
Bidirectional communication	Host Interface	47
Windows	1 1031 Hullie	95
Bypass tray setting priority	62 How to read this manual	
С		
Collate	22 Index Printing	29
Color registration		
Combine printing		
Command95		
Community		
Configuration Page		
Connection method		
Control panel setting		
Copyright information	.113	
Counter information	58	
Cover	23 Job cancel	17, 18, 101
Coverage		
D	JPEG LIBRARY	113
DHCP server95,	110 L	
Digital camera	27 Language	52, 56
Direct printing	27 List of options	8
DNS server	95 List/Test Print	40
DNS setting	70 lpr	95
Duplex	58 M	
E	Mac OS X	99
E-Mail	88 Machine counter	58
E-Mail notification	88 Machine information	60
Economy color	24 Maintenance Menu	42
Economy color counter		7
Encryption		69
Encryption key exchange	.106 Menu	35

MetaFrame111
Model-specific information6
N
N-up Layout30
Network application69
Network connection9
Network environment95
Network print settings69
Network settings47, 67
Network status
P
Paper Input Menu37
Paper mismatch
Paper settings
Paper size
Paper tray
Paper type
PictBridge27, 28, 29, 30, 31, 32
PictBridge feature
POP3 settings
Print server
Printer configuration91
Printer properties13, 15
Printer settings
Printers and Faxes window13
Printing Preferences
R
Region A model
Region B model6
S
SA105
Saving toner24
Service call88
SMTP authentication88
SMTP settings73
SNMP90
SNMP settings72
Sort
Specific color printing25
Standard TCP/IP9

Status information	57
Symbols	5
System	72
System information	57
System Menu	44
г	
TCP/IP status	67
oner	57
Top Page	55
Frademarks	114
Ггар	72
Froubleshooting	32
J	
JDP	90
JSB connection	9, 10
W	
Watermark	26
Web Image Monitor	53, 55
Windows 7	15
Windows network printer	10
Windows printing port	9
Windows Server 2003/2003 R2	13
Windows Server 2008	15
Windows Server 2008 R2	
Windows Terminal Service	
Windows Vista	
Windows XP	13

MEMO

MEMO

