



KONICA MINOLTA

bizhub 28e

Plain-paper digital Fax / Copier / Printer / Scanner

Printer Guide

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How to read this manual

Symbols

In this manual, the following symbols are used with the items where important operational and safety information must be observed.


Symbol	Meaning
 WARNING	Describes warnings to protect yourself and others from serious or potentially fatal injury if you handle the machine incorrectly. For safe operation, please follow instructions carefully.
 CAUTION	Notes a caution to protect yourself and others from personal injury or damage to properties if you handle the machine incorrectly. For safe operation, please follow instructions carefully.
 IMPORTANT	Describes important conditions or restrictions you should carefully observe to avoid problems caused by incorrect operations.
 NOTE	Describes reference information and additional notes for operation.

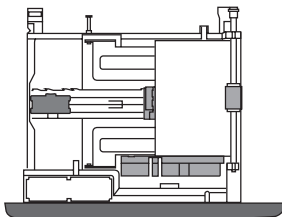
Key descriptions


In this manual, the operating keys are described as follows:

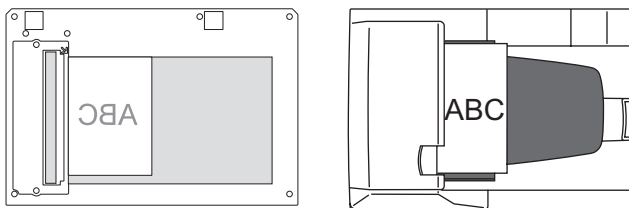
- < > : Keys on the control panel.
For example, the start key → <Start>
- [] : Buttons on the display and computer.
For example, the “Setting” button → [Setting]

Descriptions for paper and documents

 symbol : This shows that paper should be set with the shorter side positioned at the top.



 symbol : This shows that the document should be set with the shorter side positioned at the top.



Screens

This manual uses the screens of the bizhub 28e standard model, unless otherwise stated. The screens you see may differ, depending on the options installed.

Chapter 1

Installing the driver

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Drivers and utilities introduction

Drivers and utilities included on the installation disk

Following drivers and utilities are included on the installation disk that is supplied with the machine.

In this guide, we describe how to use the printer drivers. To see how to use other drivers and utilities, see the guides mentioned in the table.

Name	Description
GDI printer driver	This is the standard Windows printer driver.
PCL 6 printer driver	This printer driver uses the page description language PCL 6.
PCL 5e printer driver	This printer driver is for ensuring compatibility with legacy PCL printers.
PostScript 3 printer driver ^{*1}	This printer driver is for printing documents that include PostScript fonts and EPS data.
PDF direct print application ^{*1}	This utility enables you to print PDF files without using an application.
FAX driver	This driver is for sending created documents to a fax destination or e-mail address directly from a computer. For details, see chapter 3, "Transmitting faxes from a computer" in the Scanner and Fax Guide.
Scanner driver	This driver is for scanning documents from an applications that supports TWAIN. For details, see chapter 1, "Scanning with a TWAIN driver" in the Scanner and Fax Guide.
Scan to Print Monitor	This utility application is to print color documents scanned on the machine in color from a color printer on the network. For details, refer to Chapter 1, "Scan to printer" in "Basic scanning" in the Scanner and Fax Guide.

*1 To use the driver, the optional "PostScript Enabler" is required.

Supported operating system for the drivers

You can install the following types of drivers and utilities.

Item	Windows 10 Windows 8 Windows 7 Windows Vista	Windows XP	Windows Server 2012 R2 Windows Server 2012 Windows Server 2008 R2 Windows Server 2008 Windows Server 2003	Mac OS X
GDI printer driver	✓	✓	✓	
PCL printer driver	✓	✓	✓	
PostScript 3 printer driver	✓	✓	✓	✓
PDF direct print application	✓	✓	✓	
Fax driver	✓	✓	✓	
Scanner driver	✓	✓	✓ For Windows Server 2012 R2, Windows Server 2012, Windows Server 2008 R2, and Windows Server 2008, network connection only.	
Scan to Print Monitor	✓	✓	✓	

✓ : Supported, Blank : Not supported

System requirements

Windows environment

To use your machine as a printer or a scanner, use a computer meeting the following specifications.

Item	Specifications
CPU	Any processor of the same or higher specifications as recommended for your operating system.
Operating System ^{*1}	Windows 10 Enterprise (x86/x64) Windows 10 Education (x86/x64) Windows 10 Pro (x86/x64) Windows 10 Home (x86/x64) Windows 8 (x86/x64) Windows 8 Pro (x86/x64) Windows 8 Enterprise (x86/x64) Windows 7 Home Premium (x86/x64) Windows 7 Ultimate (x86/x64) Windows 7 Professional (x86/x64) Windows 7 Enterprise (x86/x64) Windows Vista Home Basic (x86/x64) Windows Vista Home Premium (x86/x64) Windows Vista Ultimate (x86/x64) Windows Vista Business (x86/x64) Windows Vista Enterprise (x86/x64) Windows XP Home Edition Windows XP Professional Windows XP Professional x64 Edition Windows Server 2012 R2 Datacenter (x64) Windows Server 2012 R2 Standard (x64) Windows Server 2012 R2 Essentials (x64) Windows Server 2012 R2 Foundation (x64) Windows Server 2012 Datacenter (x64) Windows Server 2012 Standard (x64) Windows Server 2012 Essentials (x64) Windows Server 2012 Foundation (x64) Windows Server 2008 R2 Standard (x64) Windows Server 2008 R2 Enterprise (x64) Windows Server 2008 R2 Datacenter (x64) Windows Server 2008 Standard (x86/x64) Windows Server 2008 Enterprise (x86/x64) Windows Server 2008 Datacenter (x86/x64) Windows Server 2003 Standard Edition Windows Server 2003 Standard x64 Edition Windows Server 2003 Enterprise Edition Windows Server 2003 Enterprise x64 Edition Windows Server 2003 Datacenter Edition Windows Server 2003 Datacenter x64 Edition
Free hard disk space	10 MB or more
Memory	Memory capacity as recommended for your operating system.
Drive	CD/DVD drive
Interface	Ethernet 10BASE-T/100BASE-TX USB 2.0 (Hi speed)
Protocol	Standard TCP/IP (LPR/LPD, Port9100), IPP

*1 Please see the latest supported OS on our home page.

Macintosh environment

The system requirements for the installer are as follows.

Item	Specifications
CPU	Any processor of the same or higher specifications as recommended for your operating system.
Operating System ^{*1}	Mac OS X (10.2, 10.3, 10.4, 10.5, 10.6, 10.7, 10.8, 10.9, 10.10, 10.11)
Free hard disk space	10 MB or more
Memory	Memory capacity as recommended for your operating system.
Drive	CD/DVD drive
Interface	Ethernet 10BASE-T/100BASE-TX USB 2.0 (Hi speed)

*1 Please see the latest supported OS on our home page.

NOTE

- Only “PostScript 3 printer driver” is available on Macintosh environment.
- To use the PostScript 3 printer driver, the optional “PostScript Enabler” is required.

Installing to Windows

Please read the following instructions to install printer drivers to Windows operating system. When you connect the machine via network, see [“Installing via network connection” \(page 1-6\)](#). When you connect the machine and computer with USB cable, see [“Installing via local connection” \(page 1-16\)](#).

Installing via network connection

An IP address is required to install the network driver and use your machine as a network printer and network scanner. You need to obtain the IP address from your network administrator and register it. For details on the IP address settings, see chapter 2, “Specifying the network settings” in the Administrator’s Guide.

■ Installing driver

NOTE

- You must have administrator privileges in order to install the printer driver.
- If the [User Account Control] window appears when installing on Windows 10 / Windows 8 / Windows 7 / Windows Vista / Windows Server 2012 R2 / Windows Server 2012 / Windows Server 2008 R2 / Windows Server 2008, click [Continue] or [Yes].
- If a message regarding the certificate is displayed during installation, click [Install this driver software anyway], [Continue Anyway] or [Yes]. (The displayed message and button names may differ according to the version of the operating system you are using.)

- 1** Insert the installation disk into the CD-ROM drive of the computer.
 - The installer starts automatically.
 - If the installation top screen is not displayed, double-click the “InstMenu.exe” file on the disk.
 - If the “AutoPlay” dialog box appears, click [InstMenu.exe].
- 2** Select your machine name from the “Select Model” menu, and click [Install Drivers].
Click the “Select Language” menu to select the language to display the installer in.
- 3** Read the license agreement, and click [I agree] if you agree with the terms.
 - Click [I disagree] return to the installation top screen.
 - Click [< Back] to return to the installation top screen.
- 4** Select “Network (connected via LAN cable)”, and click [Next >].
- 5** Select the installation type, and click [Next >].
 - If you selected “Typical Installation (Recommended)”, PCL 6 printer driver and scanner driver will be installed. Proceed to step 12.
 - If you selected “Custom Installation”, proceed to step 6.
- 6** Select the drivers to install, and click [Next >].
Clicking the “+” allows to expand the menu.
- 7** Select the utilities to install, and click [Next >].

- 8** Specify the location to install the utilities, and click [Next >].
 - This screen may be displayed, depending on the selected drivers and utilities.
 - You can click [Browse] to display the folder browsing dialog and specify the installation location.
- 9** Select the program folder, and click [Next >].
 - This screen may be displayed, depending on the selected utilities.
 - When you register utilities in the Start menu, specify the program category you want them to belong to.
- 10** Select the utilities to start automatically, and click [Next >].
 - This screen may be displayed, depending on the selected drivers and utilities.
 - The utilities registered here are automatically started when the computer starts.
- 11** Select the utilities to create a shortcut for, and click [Next >].

This screen may be displayed, depending on the selected drivers and utilities.
- 12** Enter the IP address of the machine to connect to, and click [Next >].
 - If you do not know the IP address, you can detect the IP address of connected devices on the “Device Search” screen. First, click [Search] to display the device search screen. If the “Windows Security Alert” screen is displayed, click [Unblock] or [Allow access], and then click [Refresh] if the device is not detected. Select the device name from the list, and click [OK]. (The “Windows Security Alert” screen is not displayed from the second time you perform this operation.)
 - If you want to create a shortcut to Message Board on the desktop, select “Create the shortcut to Message Board”.
- 13** Click [Install].
- 14** When the installation completes, a screen indicating that the installation is complete is displayed. Click [Finish].
- 15** Set up user authentication and security print test print as needed.
 - For details on the user authentication, see “[Setting up user authentication](#)” (page 1-8).
 - For details on the security printing test, see “[Security printing test](#)” (page 1-9).
- 16** Click [Exit] to complete the installation.
- 17** Remove the installation disk from the CD-ROM drive.

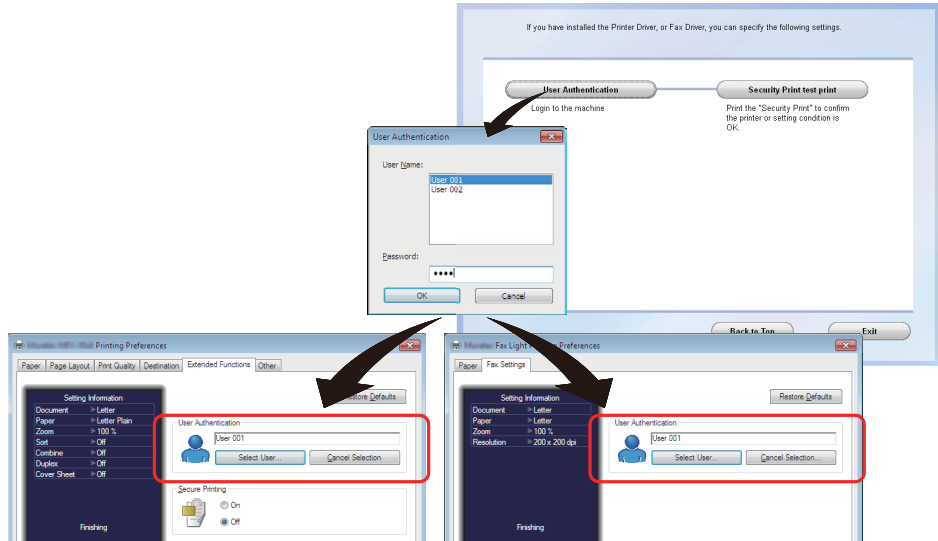
NOTE

When the optional devices are attached to your machine, see “[Setting up printer options](#)” (page 1-22) to enable these device.

■ Setting up user authentication

The following screen appears after installing the driver.

When you set up user authentication here, authentication user set the printer drivers (except PCL printer driver), and fax driver can be set at one time.



“Extended Functions” tab of the printer driver.

“Fax Settings” tab of the fax driver.

- 1 Click [User Authentication].
- 2 Select user name, and enter the password.
- 3 Click [OK].

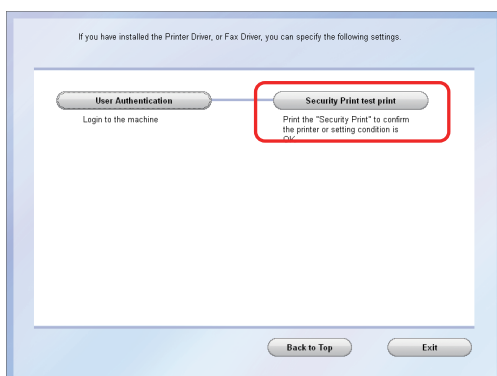
The selected user is set as the authenticated user to all installed printer and fax driver, except PCL printer driver.

NOTE

To be an authenticated user, you should be a registered user of Message Board in advance. For details on the registering users, see chapter 2, “Registering users” in the Message Board Guide.

■ Security printing test

The following screen appears after installing the driver.
To test security printing, click [Security Print test print].



- 1** Click [User Authentication], and set up the user authentication.
For details, see “[Setting up user authentication](#)” (page 1-8).
- 2** Click [Security Print test print].
Click [OK] to close the confirmation screen.
- 3** Log in to the machine.
Press <Login> → select your user ID → [Enter] → if necessary, enter the password → [Enter].
- 4** Start security printing.
Press [Print] on My MFP Menu screen → [Security Print] → [Print] → [Yes].
If My MFP Menu screen is not displayed, press <Mode> repeatedly until My MFP Menu screen is displayed.
- 5** Log out the machine.
Press <Login>, then press [Yes].

Using the machine as a shared printer

If you are going to use the machine as a shared printer on a Windows network with the printer driver installed on a print server, follow the steps below to install the printer driver on the print server and the client computers.

NOTE

- For details on the configuring settings on the print server, see the operation manual or the help file of the operating system. The “print server” explained here is a computer that is connected directly to the machine, and “clients” are other computers connected to the print server on the same network.
- Install the same printer driver on client computers as the printer driver that is installed on the print server.

■ Sharing the printer on the print server

The “print server” explained here is using Windows Server 2008.

- 1 Install the printer driver.
- 2 Right-click the printer icon to share, then click “Sharing...”.
- 3 Click the [Change sharing options].
- 4 Enter the share name.

If the client computer is using a different version of Windows from the printer server, install the additional driver following the steps below.

1. Click [Additional Drivers...] on the “Sharing” tab.
2. Click the check box of the system you want to install, then click [OK].
3. Insert the driver CD and select the driver from the following folders on the CD.

- GDI driver location:
D:\Package\ENU\bizhub28e\GDI\INSTDATA\Printer\NT
- PCL 5e driver location:
D:\Package\ENU\bizhub28e\PCL\INSTDATA\Printer\5e\NT
- PCL 6 driver location:
D:\Package\ENU\bizhub28e\PCL\INSTDATA\Printer\6\NT
- PostScript 3 driver location:
D:\Package\ENU\bizhub28e\PS3\INSTDATA\Printer\NT

In this description, the letter of CD drive is “D”. Substitute the letter of your CD-ROM drive for “D”.

4. Follow the instructions that appears on the screen.

- 5 Click [Close].

■ Installing the printer on the client computers

NOTE

Ask your network administrator for the server name and printer name of the machine on the network.

- 1** Open the network computer window, and double-click the print server.
- 2** Double-click the shared printer name.
The printer driver will be installed automatically.

Installing a printer driver via IPP (Internet Printing Protocol)

To use your machine as a printer with IPP, install the printer drivers using the “Add Printer” wizard.

NOTE

- You must have administrator privileges in order to install the printer driver.
- To use the printer driver via IPP, confirm in advance that your network environment can use the HTTP protocol.
- Enable the IPP port from Message Board screen in advance. Log on to Message Board as an administrator, click [Machine Mgmt. Settings] → [Secure Settings] → [Machine Policy Settings], then open “Service setting”, and set the “IPP” setting underneath “PC Print” to ON.
- To specify the printer name, confirm in advance that your network environment can use DNS.
- When using the GDI printer driver via IPP, you cannot use the enlarge/reduce, combine, and booklet functions.
- When using the FAX driver via IPP, you cannot use the enlarge/reduce function.

■ Preparation for Windows Server 2012 R2 / Windows Server 2012 / Windows Server 2008 R2 / Windows Server 2008

When using Windows Server 2012 R2, Windows Server 2012, Windows Server 2008 R2 or Windows Server 2008, settings must be specified in the operating system before the printer driver is installed.

When using Windows Server 2012 R2 and Windows Server 2012

- 1 Click “Server Manager” icon on the task bar on the “Desktop” screen.
If the “Server Manager” icon is not displayed on the task bar, click “Control Panel” on the “Start” screen, then click “Administrative Tools”, and double-click “Server Manager”.
- 2 Click “Add roles and features” in the “Dashboard” windows.
- 3 Click [Next], until the “Features” screen appears.
- 4 Select the [Internet Printing Client] check box to install the feature.
- 5 Restart the computer.

When using Windows Server 2008 R2 and Windows Server 2008

- 1 Click the [Start].
- 2 Point to [Administrative Tools], and then click [Server Manager].
If the [User Account Control] dialog box appears, click the [Continue] or the [Yes].
- 3 In the [Server Manager] main window, click [Add Features] in the [Features Summary] section.
- 4 Select the [Internet Printing Client] check box to install the feature.
- 5 Restart the computer.

■ Adding an IPP port using “Add Printer Wizard”

(Windows 10 / Windows 8 / Windows 7 / Windows Vista / Windows Server 2012 R2 / Windows Server 2012 / Windows Server 2008 R2 / Windows Server 2008)

- 1** Insert the setup disk into the CD-ROM drive of the computer.
When the driver installer screen appears, click [Close].
- 2** Click [Start], and then click [Control Panel].
 - When using Windows 10, click “All apps” in Start menu, then “Windows System”, and then “Control Panel”.
 - When using Windows 8, click “Desktop” in Start screen, then “Settings” in charm, and then “Control Panel”.
 - When using Windows Server 2012 R2, Windows Server 2012, click “Control Panel” on the “Start” screen.
- 3** Click [Printer] under [Hardware and Sound].
 - When using Windows 10, Windows 8 and Windows 7, click [View devices and printers] under [Hardware and Sound].
 - When using Windows Server 2012 R2 and Windows Server 2012 and Windows Server 2008 R2, click [View devices and printers] under [Hardware].
- 4** Click [Add a printer].
- 5** Click [Add a network, wireless or Bluetooth printer].
When using Windows Server 2012 R2, Windows Server 2012, Windows Server 2008 R2, Windows Server 2008, skip this step.
- 6** Click [The printer that I want isn’t listed].
- 7** Select “Select a shared printer by name”, and enter the machine’s network path in the following format, then click [Next]:
`http://IP address:HTTP port number/ipp`
Example: When the machine’s IP address is 192.168.1.20, and HTTP port number is 80, enter
`http://192.168.1.20:80/ipp`.
- 8** Click [Have Disk].
- 9** Click [Browse].
- 10** Locate the directory on the CD-ROM where the printer driver files are located and then click [Open].
 - GDI driver location:
D:\Package\ENU\bizhub28e\GDI\INSTDATA\Printer\NT
 - PCL 5e driver location:
D:\Package\ENU\bizhub28e\PCL\INSTDATA\Printer\5e\NT
 - PCL 6 driver location:
D:\Package\ENU\bizhub28e\PCL\INSTDATA\Printer\6\NT
 - PostScript 3 driver location:
D:\Package\ENU\bizhub28e\PS3\INSTDATA\Printer\NT
 - Fax driver location:
D:\Package\ENU\COMMON\FAX\INSTDATA\Printer\NTIn this description, the letter of CD drive is “D”. Substitute the letter of your CD-ROM drive for “D”.
- 11** Click [OK].

12 Click [OK].

13 Follow the instructions on the screen.

- If the [User Account Control] dialog box appears, click the [Continue] or the [Yes].
- If the Windows Security screen is displayed, click [Install this driver software anyway].

14 Click [Finish].

 **NOTE**

When the optional devices are attached in your machine, see “[Setting up printer options](#)” (page 1-22) to enable these device.

■ Adding an IPP port using “Add Printer Wizard” (Windows Server 2003 / Windows XP)

1 Insert the setup disk into the CD-ROM drive of the computer.

When the driver installer screen appears, click [Close].

2 Open the “Add Printer Wizard” dialog box.

Click [Start], select [Printers and Faxes], and then click [Add a Printer].

3 Click [Next].

4 Select the “Network Printer”, and then click [Next].

5 Enter the machine’s network path in the following format, then click [Next].

http://IP address:HTTP port number/ipp

Example: When the machine’s IP address is 192.168.1.20, and HTTP port number is 80, enter
http://192.168.1.20:80/ipp.

6 Click [Have Disk].

7 Click [Browse].

8 Locate the directory on the CD-ROM where the printer driver files are located and then click [Open].

• GDI driver location:

D:\Package\ENU\bizhub28e\GDI\INSTDATA\Printer\NT

• PCL 5e driver location:

D:\Package\ENU\bizhub28e\PCL\INSTDATA\Printer\5e\NT

• PCL 6 driver location:

D:\Package\ENU\bizhub28e\PCL\INSTDATA\Printer\6\NT

• PostScript 3 driver location:

D:\Package\ENU\bizhub28e\PS3\INSTDATA\Printer\NT

• Fax driver location:

D:\Package\ENU\COMMON\FAX\INSTDATA\Printer\NT

In this description, the letter of CD drive is “D”. Substitute the letter of your CD-ROM drive for “D”.

9 Click [OK].

- 10 Click [OK].
- 11 Follow the instructions on the screen.
- 12 Click [Finish].
- 13 When the installation is finished, confirm that “Printers” is displayed for the name of the installed printer driver.

NOTE

When the optional devices are attached in your machine, see [“Setting up printer options” \(page 1-22\)](#) to enable these device.

Installing via local connection

■ Installing driver

NOTE

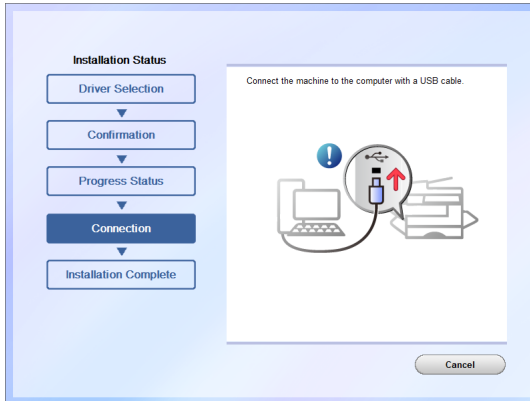
- Do NOT connect the USB cable before installing the driver.
- You must have administrator privileges in order to install the printer driver.
- When you are a Windows 10, Windows 8, Windows 7, Windows Server 2012 R2, Windows Server 2012 or Windows Server 2008 R2 user, please change the Windows setting in advance to installation. For details, see [“Preparation for local installation” \(page 1-18\)](#).
- If the [User Account Control] window appears when installing on Windows 10 / Windows 8 / Windows 7 / Windows Vista / Windows Server 2012 R2 / Windows Server 2012 / Windows Server 2008 R2 / Windows Server 2008, click the [Continue] or the [Yes].
- If a message regarding the certificate is displayed during installation, click [Install this driver software anyway], [Continue Anyway] or [Yes]. (The displayed message and button names may differ according to the version of the operating system you are using.)

- 1** Insert the installation disk into the CD-ROM drive of the computer.
 - The installer starts automatically.
 - If the installation top screen is not displayed, double-click the “InstMenu.exe” file on the disk.
 - If the “AutoPlay” dialog box appears, click [InstMenu.exe].
- 2** Select your machine name from the “Select Model” menu, and click [Install Drivers].

Click the “Select Language” menu to select the language to display the installer in.
- 3** Read the license agreement, and click [I agree] if you agree with the terms.
 - Click [I disagree] return to the installation top screen.
 - Click [< Back] to return to the installation top screen.
- 4** Select “Local (connected via USB)”, and click [Next >].
- 5** Select the installation type, and click [Next >].
 - If you selected “Typical Installation (Recommended)”, PCL6 Printer / Scanner Driver will be installed. Proceed to step 7.
 - If you selected “Custom Installation”, proceed to step 6.
- 6** Select the driver to install, and click [Next >].

Clicking the “+” allows to expand the menu.
- 7** Click [Install].

- 8 When the following screen is displayed, connect the computer and the machine with a USB cable.



When you are using Windows XP or Windows Server 2003, the “Found New Hardware Wizard” may appear by connecting the USB cable. In such case, see [“When found new hardware wizard appears”](#) (page 1-19).

- 9 When the installation is complete, a screen indicates that the installation is completed. Click [Finish].

NOTE

When the optional devices are attached to your machine, see [“Setting up printer options”](#) (page 1-22) to enable these device.

■ Preparation for local installation

Before you start the installation, please change the setting of Windows not to download the driver from the web site. If you do not change this setting, installation may take longer time.

NOTE

After you have finished the installation, you may better return the setting that you changed.

Windows 10, Windows 8, Windows Server 2012 R2 and Windows Server 2012 users

- 1** Display the “Desktop” screen, and start “Explore”.
When using Windows 10, click the Start menu and start “Explore”.
- 2** Right-click “Computer” or “My PC” and click “Properties”.
- 3** Click “Advanced system settings” in the navigation window.
- 4** Click the “Hardware” tab, then [Device Installation Settings].
- 5** Check “No, let me choose what to do”, then “Never install driver software from Windows Update”.
- 6** Click [Save Changes] and close the “System Properties” screen.

Windows 7 and Windows Server 2008 R2 users

- 1** Click [Start], right-click [Computer], and click “Properties” from the list.
- 2** Click “Advanced system settings”.
When the “User Account Control” dialog box appears, enter an administrator password or provide confirmation.
- 3** Click “Hardware” tab, and click [Device Installation Settings].
- 4** Select “No, let me choose what to do” and choose “Never install driver software from Windows Update”.
- 5** Click [Save Changes], and close the “System Properties” screen.

■ When found new hardware wizard appears

For Windows XP and Windows Server 2003, when the “Found New Hardware Wizard” appears during driver installation, please follow the following procedures.

- 1** When the “Found New Hardware Wizard” appears, select “No, not this time” and click [Next].
- 2** Select “Install from a list or specific location (Advanced)” and click [Next].
- 3** Select “Include this location in the search”, and specify the CD-ROM drive. Clear any other choices.
- 4** Click [Next].
If a message regarding the certificate is displayed, click [Continue Anyway] to install the driver.
- 5** Follow the instructions that appear on the window until you can click [Finish].
- 6** The “Found New Hardware Wizard” will appear again. Repeat the same procedures from steps 1 to 5.

■ Installing printer drivers using the “Add Printer” wizard

We recommend you to install the printer drivers using the installer, however install the drivers using the “Add Printer” wizard in following cases:

- To install multiple printer drivers on a computer while the computer and printer are connected with USB cable
- When you failed to install a correct printer driver by using plug-and-play while a network printer driver has already been installed

To install multiple printer drivers on a computer while the computer and printer are connected with USB cable

1 Install the first printer driver using the installation disk.

For details, see “[Installing driver](#)” (page 1-16).

2 Start the “Add Printer” wizard.

- Windows 10
Click “All apps” in Start menu → “Windows System” → “Control Panel” → “Hardware and Sound” → “Devices and Printers” → “Add a printer”.
- Windows 8
Click “Desktop” in Start screen → “Settings” in charm → “Control Panel” → “Hardware and Sound” → “Devices and Printers” → “Add a printer”.
- Windows 7
Click [Devices and Printers] from the start menu, and click “Add a printer”.
- Windows Server 2012 R2 / Windows Server 2012
Click “Control Panel” on the “Start” screen → “Hardware” → “Devices and Printers” → “Add a printer”.
- Windows Vista / Windows Server 2008 R2 / Windows Server 2008
Click [Control Panel] from the start menu, and click “Hardware and Sound” → “Printers” → “Add a printer” in that order.
When the control panel is at “Classic View”, double-click “Printers” and then click “Add a printer”.
- Windows XP Professional / Windows Server 2003
Click [Printers and Faxes] from the start menu, and click [Add a printer] (on Windows Server 2003, double-click “Add printer”). Click [Next].
- Windows XP Home Edition
Click [Control Panel] from the start menu, and click “Printers and Other Hardware” → “Printers and Faxes” → “Add a printer” in that order.

3 Select local printer as printer type.

- Windows 10 / Windows 8 / Windows Server 2012 R2 / Windows Server 2012
Click “The printer that I want isn’t listed”, and then click “Add a local printer or network printer with manual settings.” and click [Next].
- Windows 7 / Windows Vista / Windows Server 2008 R2 / Windows Server 2008
Click “Add a local printer”.
- Windows XP / Windows Server 2003
Select “Local printer attached to this computer”. Check to leave free the checkbox “Automatically detect and install my Plug and Play printer”. Click [Next].

4 Select the USB port to connect the printer, and click [Next].

- Windows 10 / Windows 8 / Windows 7 / Windows Vista / Windows Server 2012 R2 / Windows Server 2012 / Windows Server 2008 R2 / Windows Server 2008
Click “Use an existing port”, and select the USB port.
- Windows XP / Windows Server 2003
Click “Use the following port”, and select the USB port.

- 5 Confirm that the installation disk is in the CD-ROM drive, and click [Have Disk].
- 6 Click [Browse], and select the folder in the CD-ROM. Then click [Open].
For details on the driver type, see “Drivers and utilities introduction” (page 1-2).
 - GDI driver location:
D:\Package\ENU\bizhub28e\GDI\INSTDATA\Printer\NT
 - PCL 5e driver location:
D:\Package\ENU\bizhub28e\PCL\INSTDATA\Printer\5e\NT
 - PCL 6 driver location:
D:\Package\ENU\bizhub28e\PCL\INSTDATA\Printer\6\NT
 - PS3 driver location:
D:\Package\ENU\bizhub28e\PS3\INSTDATA\Printer\NT
 - Fax driver location:
D:\Package\ENU\COMMON\FAX\INSTDATA\Printer\NTIn this description, the letter of CD drive is “D”. Substitute the letter of your CD-ROM drive for “D”.
- 7 Click [OK].
- 8 Confirm the selected printer driver, and click [Next].
- 9 Follow the instructions on the screen and install the printer driver.
When the installation is complete, a new printer icon will be added on the printer screen.

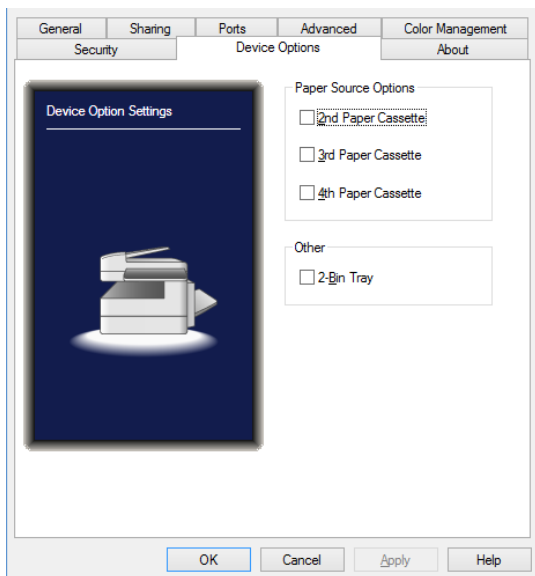
When you failed to install a correct printer driver by using plug-and-play while a network printer driver has already been installed

- 1 Uninstall the incorrect printer driver.
Right-click the printer icon, and then select “Delete”. For Windows 10, Windows 8, Windows 7, Windows Server 2012 R2 and Windows Server 2012, select “Remove device”.
- 2 Install the correct printer driver using the “Add Printer” wizard.
For details, see “To install multiple printer drivers on a computer while the computer and printer are connected with USB cable” (page 1-20) from step 2.

Setting up printer options

When the optional devices are attached to your machine, enable these devices. The procedure may slightly vary according to the version of the operating system.

- 1** In the printers window, right-click your printer icon, then click [Properties].
For Windows 10, Windows 8, Windows 7, Windows Server 2012 R2 and Windows Server 2012, right-click your printer icon, then click [Printer Properties]. When multiple printer drivers are installed for your printer, right-click your printer icon and select the printer driver from “Printer Properties”.
- 2** Select the “Device Options” tab.




- 3** Check the options equipped on your machine.
- 4** Click [OK].

Installing to Mac OS X

With a Macintosh, install the PPD file using the installer.
The installation procedure may slightly vary according to the version of the operating system.

Installing via network connection

■ Installing to Mac OS X 10.4, 10.5, 10.6, 10.7, 10.8, 10.9, 10.10, or 10.11

- 1 Insert the installation disk into the CD-ROM drive of the computer.
- 2 Double-click the CD-ROM and open the folder with the name that has the OS version of your computer.
- 3 Launch the installer “KONICA MINOLTA bizhub 28e PS.pkg”.
- 4 Follow the instructions in the installer to perform the procedure.
- 5 After the installation is finished, restart the computer.
- 6 Remove the installation disk from the CD-ROM drive after restarting the computer.
- 7 Select “System Preferences” from  menu.
- 8 Click [Print & Fax] (or [Print & Scan] for OS X 10.7 and 10.8, or [Printers & Scanners] for OS X 10.9, 10.10, and 10.11) in “Hardware”.
- 9 Click [+].
For OS X 10.7, then select “Add Other Printer or Scanner”.
- 10 Click [IP] (or [IP Printer] for OS X 10.4), and enter the required items.
 - In the “Protocol” field, select “Line Printer Daemon - LPD” from the pull-down menu.
 - Enter the IP address or DNS name for the printer to connect in the “Address” field.
 - If necessary, enter the name to display in the print job list in the “Queue” field.
 - If necessary, enter the location that the printer is installed in the “Location” field.
- 11 Select “KONICA MINOLTA bizhub 28e PS” in the “Print Using” field, and click [Add].
 - For OS X 10.4, select “KONICA MINOLTA” from the pull-down menu in the “Print Using” field, and then select “KONICA MINOLTA bizhub 28e PS”.
 - For OS X 10.5, select “Select a driver to use” from the pull-down menu in the “Print Using” field, and then select “KONICA MINOLTA bizhub 28e PS”. You can filter the drivers by entering “KONICA MINOLTA” in the search field.
 - For OS X 10.6, 10.7 and 10.8, select “Select Printer Software” from the pull-down menu in the “Print Using” field, and then select “KONICA MINOLTA bizhub 28e PS”. You can filter the drivers by entering “KONICA MINOLTA” in the search field.

- For OS X 10.9, 10.10 and 10.11, select “Select Software...” from the pull-down menu in the “Use” field, and then select “KONICA MINOLTA bizhub 28e PS”. You can filter the drivers by entering “KONICA MINOLTA” in the search field.
- If the driver is not found, select “Other” in the “Print Using” field, and browse to [Library] → [Printers] → [PPDs] → [Contents] → [Resources] folder, then select “KONICA MINOLTA bizhub 28e PS.ppd.gz”.

12 When the optional devices are attached to your machine, select the device name from the pull-down menu.

13 Click [Continue] (or [OK] for OS X 10.7, 10.8, 10.9, 10.10, and 10.11).

- The printer name is added to the list of registered printers on the left of the “Print & Fax” (or “Print & Scan” for OS X 10.7, 10.8, “Printers & Scanners” for OS X 10.9, 10.10 and 10.11) screen.
- If you click [Cancel], the settings are canceled and the display returns to the optional unit selection screen.

14 Click [×] to close the screen.

■ Installing to Mac OS X 10.2 or 10.3

1 Insert the installation disk into the CD-ROM drive of the computer.

2 Double-click the CD-ROM and open the folder with the name that has the OS version of your computer.

3 Launch the installer “KONICA MINOLTA bizhub 28e PS.pkg”.

4 Follow the instructions in the installer to perform the procedure.

5 After the installation is finished, restart the computer.

6 Remove the installation disk from the CD-ROM drive after restarting the computer.

7 Select “Utilities” from the “Go” menu.
For OS X 10.2, select “Applications” from the “Go” menu.

8 Click “Printer Setup Utility”.
For OS X 10.2, click “Print Center”.

9 Click [Add] displayed on the “Printer List” screen.

10 Select “IP Printing” from the pull-down menu, and enter the required items.

- For OS X 10.3, select “LPD/LPR” from the “Printer Type” pull-down menu.
- Enter the IP address or DNS name for the printer to connect in the “Printer Address” (for OS X 10.3) or “Printer’s Address” (for OS X 10.2) field.
- If necessary, for OS X 10.2, deselect “Use default queue on server”, and enter the name to display in “Queue Name” field.
- If you click [Cancel], the settings are canceled and the display returns to the IP print settings screen.

- 11** Select “KONICA MINOLTA bizhub 28e PS” in the “Printer Model” field, and click [Add].
 - Select “KONICA MINOLTA” from the pull-down menu in the “Printer Model” field, and then select “KONICA MINOLTA bizhub 28e PS”.
 - If the driver is not found, select “Other” in the “Printer Model” field, and browse to [Library] → [Printers] → [PPDs] → [Contents] → [Resources] → [en.lproj] folder, then select “KONICA MINOLTA bizhub 28e PS.ppd.gz”.
- 12** Select “KONICA MINOLTA bizhub 28e PS” in the “Printer List”, and then select “Show Info” from the [Printers] menu.
- 13** Setup the printer information, and then click [Apply Changes].
 - Select “Name & Location” and then enter the printer name and location as necessary.
 - When the optional devices are attached to your machine, select “Installable Options” and then select the device name from the pull-down menu.
- 14** Click [×] to close the screen.

Installing via a local connection

- 1** Insert the installation disk into the CD-ROM drive of the computer.
- 2** Double-click the CD-ROM and open the folder with the name that has the OS version of your computer.
- 3** Launch the installer.
- 4** Follow the instructions in the installer to perform the procedure.
- 5** After the installation is finished, restart the computer.
- 6** Remove the installation disk from the CD-ROM drive after restarting the computer.
- 7** Connect the computer and the machine with a USB cable.
- 8** Select the printer to use on “Print & Fax”, “Print & Scan”, “Printer List” or “Printers or Scanners” screen.

For details on the procedure for displaying the “Printer List” screen, see the manual for the operating system.

Using the machine as a shared printer

■ Setting up a shared printer server

- 1** Install the printer drivers on the printer server.
For details, see “[Installing via network connection](#)” (page 1-23).
- 2** Select “System Preferences” from menu.
- 3** Click [Print & Fax].
 - For OS X 10.2, 10.3 and 10.4, click [Sharing].
 - For OS X 10.7 and 10.8, click [Print & Scan].
 - For OS X 10.9, 10.10 and 10.11, click [Printers & Scanners].
- 4** Select the printer to share, and check “Share this printer”.
 - For OS X 10.2, 10.3 and 10.4, check “Printer Sharing”.
 - For OS X 10.6, 10.7, 10.8, 10.9, 10.10 and 10.11, check “Share this printer on the network”.
 - If the screen is locked, click the key and enter the user name and password to unlock the screen.
- 5** Click [×] to close the screen.

■ Specifying the client side settings (Mac OS X 10.4, 10.5, 10.6, 10.7, 10.8, 10.9, 10.10, 10.11)

- 1** Select “System Preferences” from menu.
- 2** Click [Print & Fax].
 - For OS X 10.7 and 10.8, click [Print & Scan].
 - For OS X 10.9, 10.10 and 10.11, click [Printers & Scanners].
- 3** Click the [+] below the list on the left.
- 4** Click [Default].
For OS X 10.4, click [Default Browser].
- 5** Select a printer to share, and click [Add].
- 6** When the optional devices are attached to your machine, select the device name from the pull-down menu, then click [Continue].
 - For OS X 10.4, click [Printer Setup] and then [Installable Options] to setup the optional devices.
 - For OS X 10.5, click [Option & Supplies] and then [Driver] to setup the optional devices.
 - For OS X 10.7 and 10.8, click [OK].
 - For OS X 10.9, 10.10 and 10.11, skip this step.
- 7** Click [×] to close the screen.

■ Specifying the client side settings (Mac OS X 10.3)

Confirm the printer server name and shared printer name to your network administrator.

- 1 Select “Applications” from the “Go” menu.
- 2 Double-click “Utilities”.
- 3 Double-click the “Printer Setup Utility”.
- 4 Select a printer to share in the printer list.
- 5 Click [×] to close the screen.

■ Specifying the client side settings (Mac OS X 10.2)

For Mac OS X 10.2, when you set up the printer server, you can use the shared printer with no set up.

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Chapter 2

Printing from Windows

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Basic printing operation

From most application software, you can print by selecting “Print” from the “File” menu.

NOTE

- The “Print” screen differs according to the application software you are using.
- Names in menu or button names differ according to the application software you are using.

- 1** Open the data in the application software, and select “Print” from the “File” menu.
- 2** Confirm that the name of the printer you want to output from is selected in “Select Printer”.
The screen differs according to the application software you are using.
- 3** Set the number of copies to print, etc.
If necessary, click [Preferences] to specify the printer driver settings. For details on the printer driver settings, see [“Setting the printer” \(page 2-4\)](#).
- 4** Click [Print].

Canceling a print job

When canceling a print job, first try to cancel it on the computer. If you cannot cancel printing on the computer, cancel it on the machine.

NOTE

The procedure may slightly vary according to the version of the operating system. This section describes the procedure using Windows 7.

Canceling printing on the computer

- 1 Click [Start] → [Devices and Printers].
- 2 Double click the printer icon.
 - The print queue is displayed.
 - When multiple printer drivers are installed, right-click the printer icon, then select “See what’s printing” and select the printer driver.
- 3 Right click on the print job you wish to cancel, and click [Cancel].

Canceling printing on the machine

- 1 Press [Print] on My MFP Menu screen.
If My MFP Menu screen is not displayed, press <Mode> repeatedly until “Online Mode” (Print Ready) screen is displayed.
- 2 Press [On Line].
- 3 Select the print job you wish to cancel, and press [Delete].
- 4 Press [Yes] to cancel printing.
 - Printing will be completed for the page that is currently being printed.
 - Press [No] to continue printing.

Setting the printer

Displaying the printer settings screen

This section describes the procedure for displaying the printer settings screen for setting the printer function.

The printer settings screen is displayed by clicking “Properties” or “Preferences” in the print dialog box of the application software or by right-clicking the printer icon on the printers screen of Windows and clicking “Printing Preference”.

NOTE

- If you change the settings by opening the printer settings screen from the application software, the settings are applied only while you use that application software, and the settings return to the default values when that application software is closed.
- To register the settings as the default values, open the printer settings screen from the printers screen of Windows.

■ From application software

- 1 Select “Print” from the “File” menu of the application software.
- 2 Click [Preferences].

■ From the “Printers” screen

NOTE

- It is necessary to log in with administrator privileges to change the print settings.
- This section describes the procedure using Windows 7. The procedure may slightly vary according to the version of the operating system.

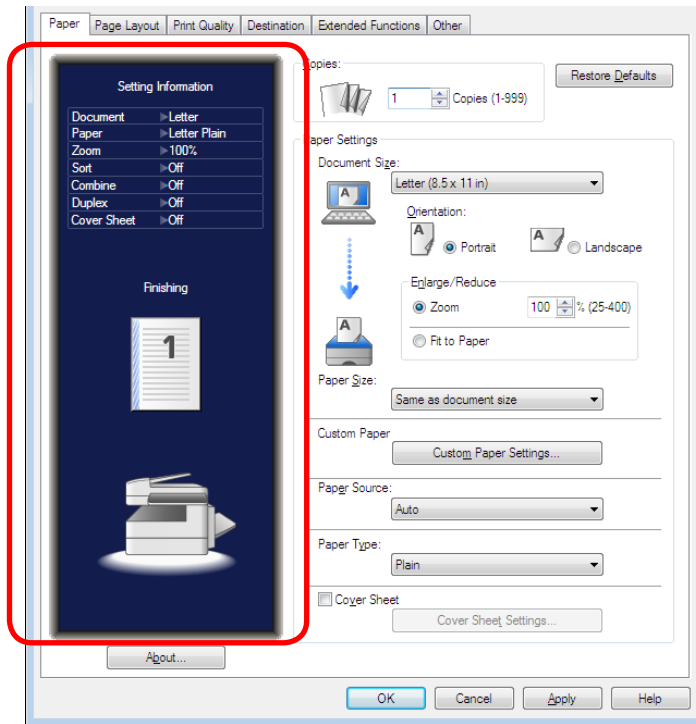
- 1 Click [Start] → [Devices and Printers].
- 2 Right-click the printer icon, and click “Printing preferences” from the menu.
When multiple printer drivers are installed, right-click the printer icon, then select “Printing preferences” and select the printer driver.

Printer setting screen details

■ Common settings

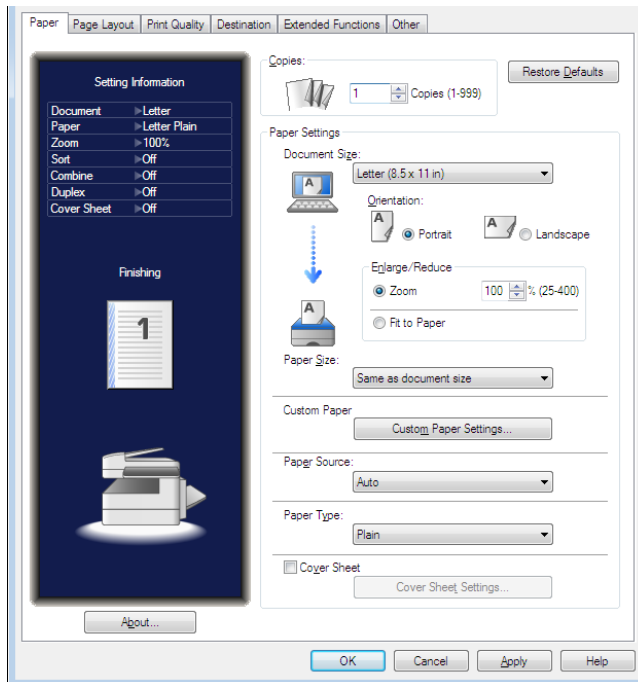
This section describes the items displayed for all tabs.

Setting Information



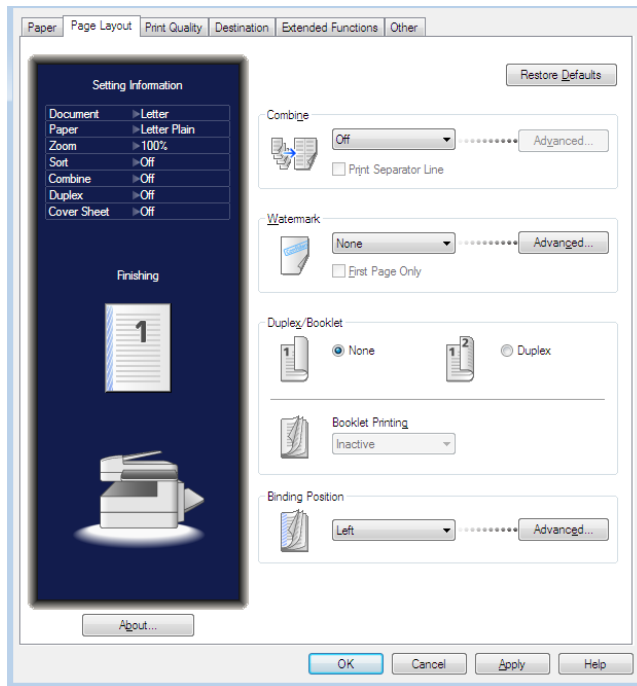
Item	Description
Setting Information	Displays current setting.
About	Click this to display the version information for the driver.
Restore Defaults	Click this to restore all of the settings on the currently displayed tab to their initial defaults.
OK	Click this to save the settings and close the dialog box.
Cancel	Click this to close the dialog box without saving the settings.
Apply	Click this to apply all settings you changed without exiting the dialog box.
Help	Click this to display the help for the driver.

■ “Paper” tab



Item	Description
Copies	This specifies the number of copies printed.
Paper Settings	This specifies settings related to the paper to print on.
Document Size	Select the document size from the pull-down menu.
Orientation	This specifies the orientation (portrait / landscape) of the paper to print on.
Enlarge / Reduce	Select either “Zoom” or “Fit to Paper”. <ul style="list-style-type: none"> • If you select “Zoom”, specify a zoom ratio (between 25 and 400 %). • If you select “Fit to Paper”, the zoom ratio is automatically adjusted to fit the paper size to print on.
Paper Size	Set the paper size to print on from the pull-down menu.
Custom Paper	If you click [Custom Paper Settings], the “Custom Paper Settings” dialog box is displayed.
Paper Source	Select a paper source in which the paper to print on is loaded from the pull-down menu.
Paper Type	Select the paper type to print on from the pull-down menu.
Cover Sheet	Select this to insert a cover sheet from the specified paper cassette in the first page. Click [Cover Sheet Settings], and select the paper source the cover sheet is loaded in. However, you cannot insert a cover sheet when combined printing or booklet printing is set.

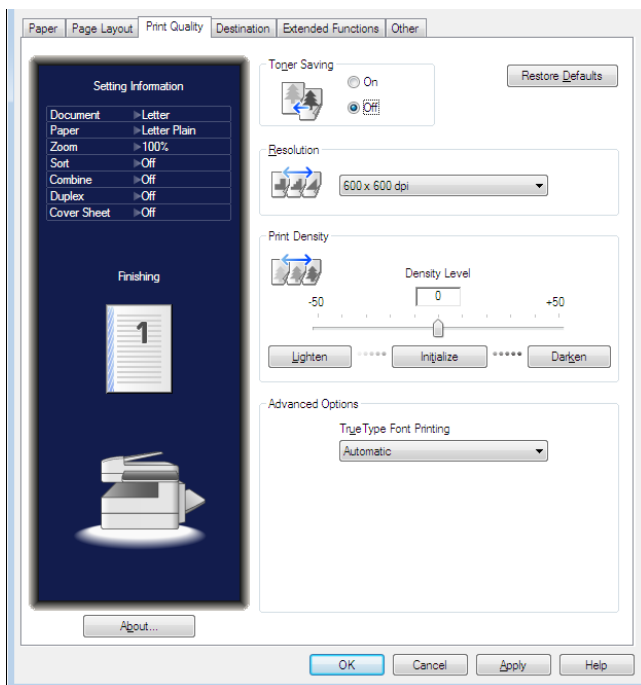
■ “Page Layout” tab



Item	Description
Combine	Select the number of document pages to combine from the pull-down menu.
Print Separator Line	Select this to print a separator line between each combined page.
Advanced	Click [Advanced] to display the “Layout Settings” dialog.
Watermark ^{*1}	Select the watermark to print from the pull-down menu. You can click [Advanced] to create, edit, or delete watermarks. For details, see “ Registering / Editing a watermark ” (page 2-29).
First Page Only	Select this to only print the watermark on the first page.
Advanced	Click [Advanced] to display the “Watermark Settings” dialog.
Duplex / Booklet	You can specify the settings for duplex printing and booklet printing.
None / Duplex	Select whether to perform one-sided or duplex printing.
Booklet Printing	Use this option for multi-page documents to be printed and stacked to create a booklet when folded in half in the center.
Binding Position	Select the binding position for the document from the pull-down menu. You can click [Advanced] to set the margin width.
Advanced	Click [Advanced] to display the “Binding Margin Settings” dialog box.

*1 This setting is available on PCL 5e, PCL 6 and PostScript 3 printer driver.

■ “Print Quality” tab



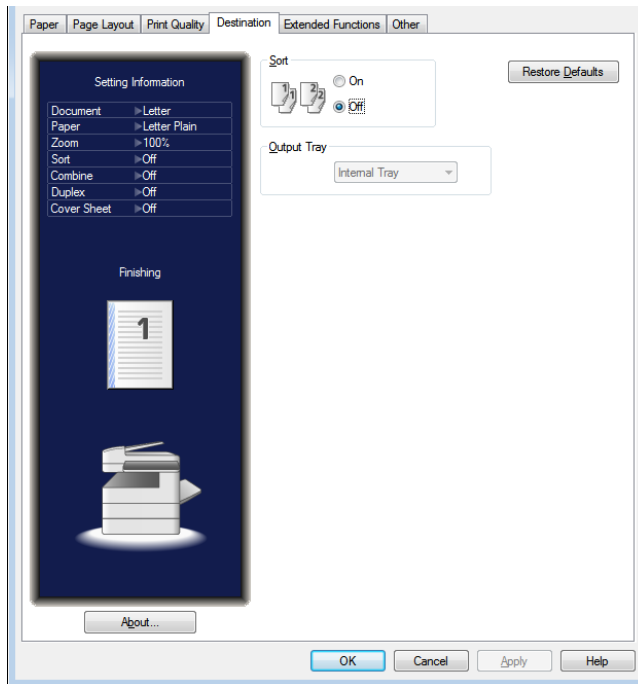
Item	Description
Toner Saving	Select “On” to restrict toner consumption.
Resolution	Select the printing resolution.
Print Density	Set the print density level (between -50 and 50).
Advanced Options	
True Type Font Printing ^{*1}	Select the print processing method when using TrueType fonts.
PostScript Pass Through ^{*2}	When PostScript Pass Through is enabled, functions such as watermark, combine, and booklet printing may not be printed correctly in some application software. For some applications, this is because PostScript data sent to printer cannot be controlled by the driver. In this case, disable “PostScript Pass Through”. If you disable “PostScript Pass Through”, application software may perform unexpected operations. It is recommended that you normally enable this function.
Graphic enhanced mode ^{*3}	The processing of the image data may become slower or printing may not be performed correctly, depending on the application. In such cases, printing may be performed correctly by enabling this setting. However, it is recommended that you usually use the machine with this setting disabled because it may cause printing not correctly. Click [Advanced] and then check the box for “Graphic enhanced mode” to enable this setting.

*1 This setting is available on PCL 5e and PCL 6 printer drivers, and PostScript 3 printer driver.

*2 This setting is available on PostScript 3 printer driver.

*3 This setting is available on GDI the printer driver.

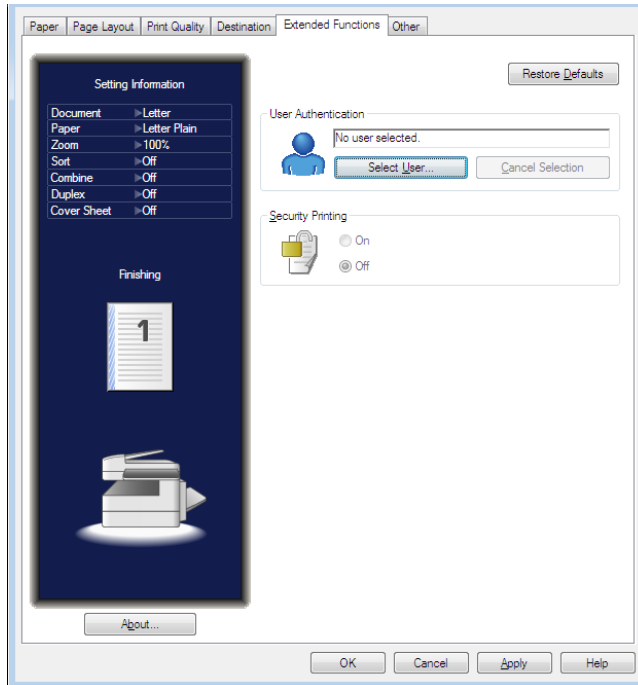
■ “Destination” tab



Item	Description
Sort	Select “On” to sort the output into copy sets.
Output Tray ^{*1}	Select a paper output destination.

*1 This function is available only when the optional 2-bin tray is equipped.

■ “Extended Functions” tab

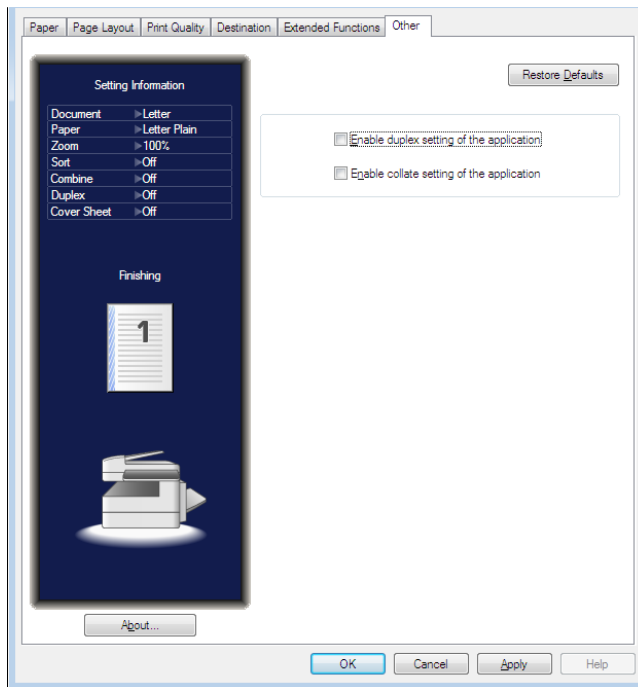


Item	Description
User Authentication ^{*1}	<p>Displays the name of the user that is currently logged in.</p> <p>To change the user, click [Select User], and change the user in the “User Authentication” dialog box.</p> <p>To cancel a user, click [Cancel Selection], and click [OK].</p> <p>User authentication is required in the following cases:</p> <ul style="list-style-type: none"> •Using the security printing function •When user login is required by the machine policy setting. For details on the machine policy, see chapter 4, “Setting the machine policy” in “Setting security” in the Message Board Guide.
Security Printing ^{*1}	<p>Select “On” to execute security printing.</p> <p>To use this function, select the authentication user in advance.</p>

*1 This can only be used when the machine is connected to a network.

■ “Other” tab

The “Other” tab is displayed on PCL 5e, PCL 6, and GDI printer drivers only.



Item	Description
Enable duplex setting of the application	Check this box when you have set duplex printing on the application software but cannot print it correctly.
Enable collate setting of the application	Check this box when you have set “collate” (sorting) on the application software but cannot sort them correctly.

Various printing methods

Printing on special paper

You can print on special types of paper.

The following types of paper can be used.

- Paste Board
- OHP
- Envelope / Postcard
- Custom size paper

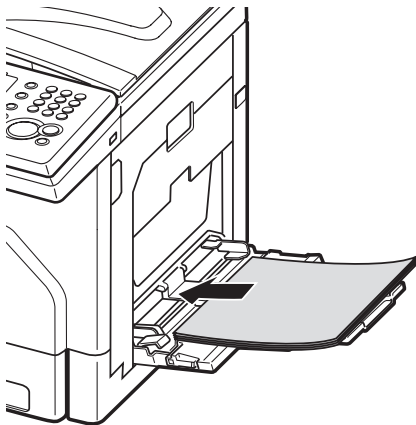
NOTE

You cannot use “Combine”, “Duplex” and “Booklet” functions when custom size paper is selected.

■ Printing on special paper

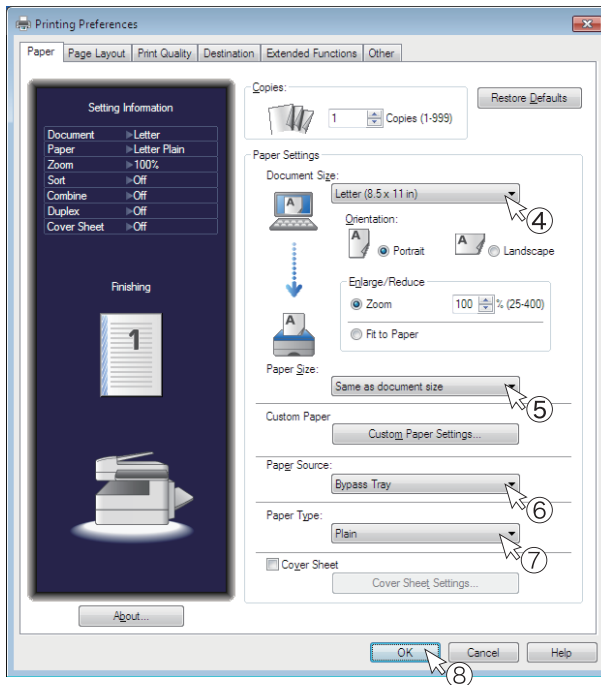
- 1** Load the paper into the bypass tray, and set the paper size on the machine control panel.

For details, see “Loading paper” in the User’s Guide.



- 2** Open the printer settings screen on the computer ([page 2-4](#)).

3 Confirm that the “Paper” tab is selected.



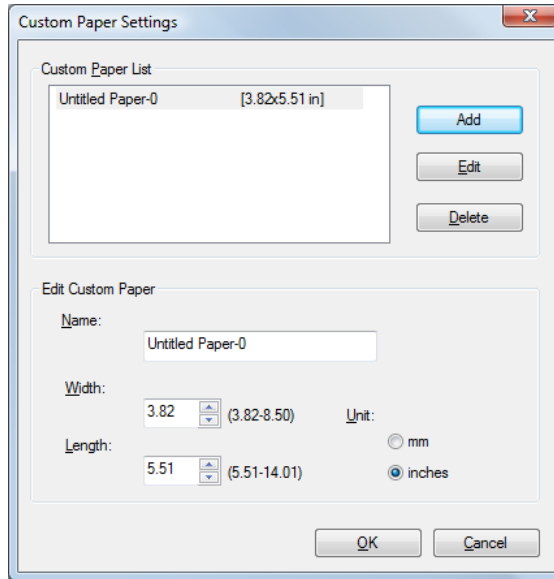
- 4 Select the document size from “Document Size”.
Specify the zoom setting, as necessary.
- 5 Select the paper size from “Paper Size”.
When you use custom size paper, register the paper size in advance. For details, see [“Registering custom paper settings”](#) (page 2-14).
- 6 Select “Bypass Tray” in “Paper Source”.
- 7 Select the paper type in “Paper Type”.
- 8 Click [OK].

■ Registering custom paper settings

You can register / edit custom paper sizes.

- 1 Open the printer settings screen on the computer (page 2-4).
- 2 Confirm that the “Paper” tab is selected.
- 3 Click [Custom Paper Settings].
- 4 Click [Add] and then specify the paper settings.

To change a registered setting, select the custom paper size to change and click [Edit].



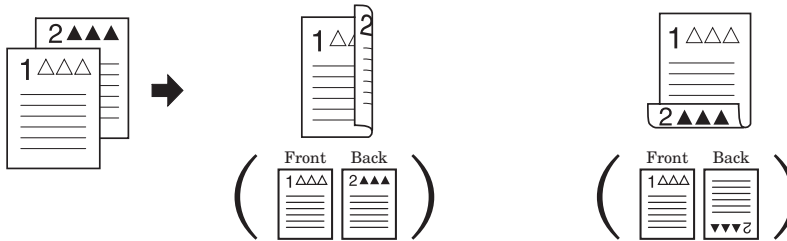
Item	Description
Custom Paper List	A list of the registered custom paper sizes is displayed.
Add	Click this to register a new custom paper size. Up to 50 sizes can be registered. When 50 sizes are registered, this button is grayed out.
Edit	Select a registered custom paper size, and then click this button to edit.
Delete	Select a registered custom paper size, and then click this button to delete.
Edit Custom Paper	You can specify the settings for the custom paper size. This area becomes active when you click [Add] or [Edit].
Name	Enter a name for the custom paper size. Up to 20 characters can be entered.
Width	Set the width of the custom paper size. The width value cannot be set to a value larger than that of the length, even if it is within the setting range.
Length	Set the length of the custom paper size. The length value cannot be set to a value smaller than that of the width, even if it is within the setting range.
Unit	Select the unit to use for the width and length.

- 5 Click [OK].

Printing on both sides of the paper (Duplex)

You can print on both sides of the paper.

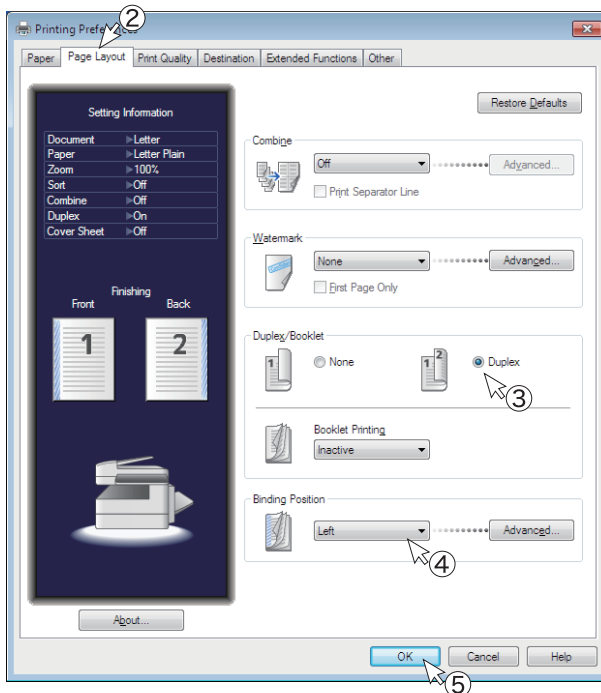
Left or right binding Upper or lower binding



NOTE

You cannot use custom size paper for duplex printing.

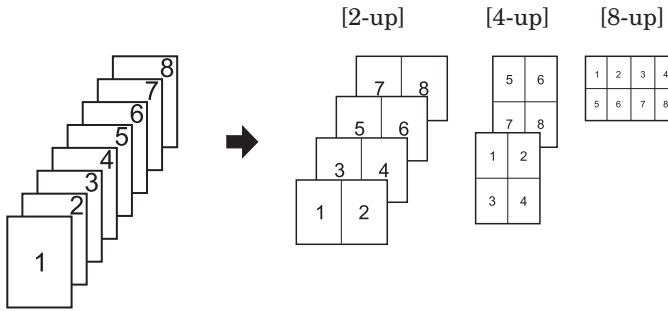
- 1 Open the printer settings screen on the computer (page 2-4).



- 2 Click the “Page Layout” tab.
- 3 Select “Duplex” in “Duplex / Booklet”.
- 4 Select the binding position in “Binding Position”.
For details, see “[Printing with a margin \(Binding position\)](#)” (page 2-19) on how to add margin to the binding position.
- 5 Click [OK].

Printing multiple pages on one sheet (Combine)

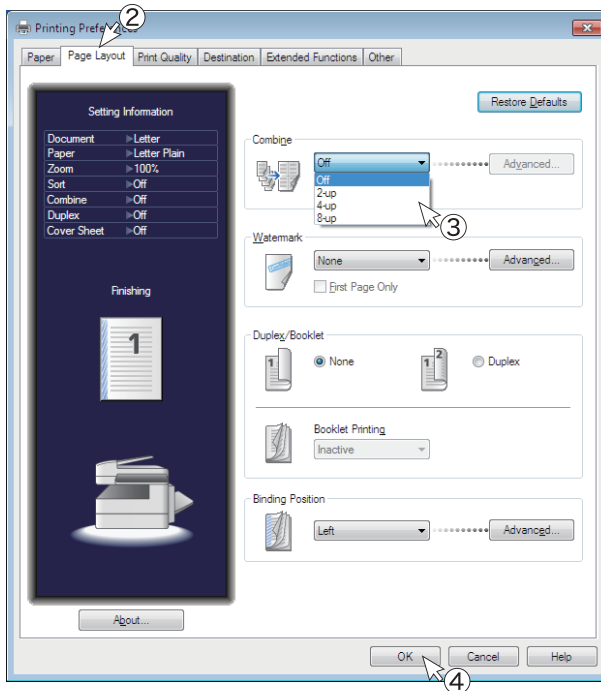
A specific number of consecutive pages (two, four, or eight) can be combined and printed on one sheet of paper.



NOTE

- The zoom ratio is always fixed to auto zoom with the “Combine” function. A user-defined zoom ratio cannot be set.
- You cannot use custom size paper for combine printing.

1 Open the printer settings screen on the computer (page 2-4).



2 Click the “Page Layout” tab.

3 Select “2-up”, “4-up”, or “8-up” from the “Combine” menu.

- To add separator line to the printout, check “Print Separator Line”.
- To change the layout order of the combined sheet, click [Advanced] and select your desired order. Then click [OK].

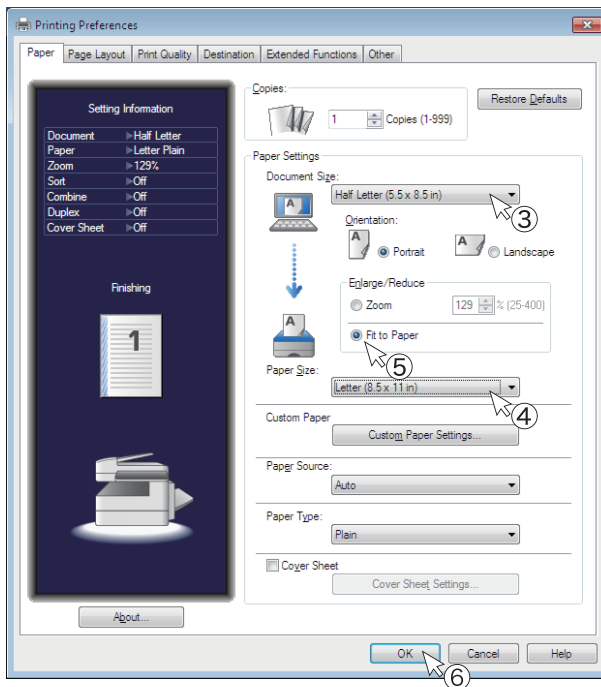
4 Click [OK].

Reducing / Enlarging printing

■ Fitting the zoom ratio to the paper size

You can automatically set the printing zoom ratio according to a specified paper size. This section describes the procedure for printing an half letter size document on letter size paper as an example.

- 1 Open the printer settings screen on the computer (page 2-4).
- 2 Confirm that the “Paper” tab is selected.

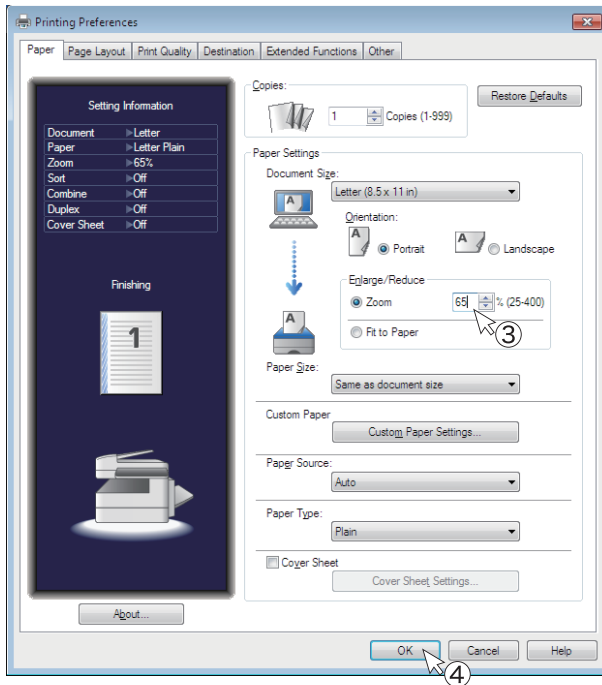


- 3 Select “Half Letter (5.5 × 8.5 in)” from the “Document Size” menu.
- 4 Select “Letter (8.5 × 11 in)” from the “Paper Size” menu.
- 5 Check “Fit to Paper” in “Enlarge / Reduce”.
- 6 Click [OK].

■ Printing with a custom zoom ratio

You can specify the document zoom ratio when printing within 25% to 400%.

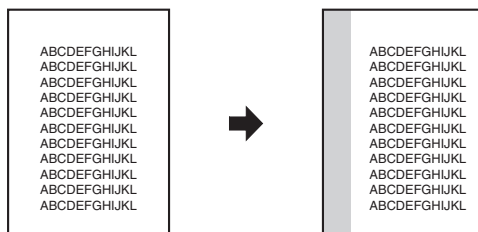
- 1 Open the printer settings screen on the computer ([page 2-4](#)).
- 2 Confirm that the “Paper” tab is selected.



- 3 Check “Zoom” in “Enlarge / Reduce”, and specify the custom zoom ratio in the entry box.
- 4 Click [OK].

Printing with a margin (Binding position)

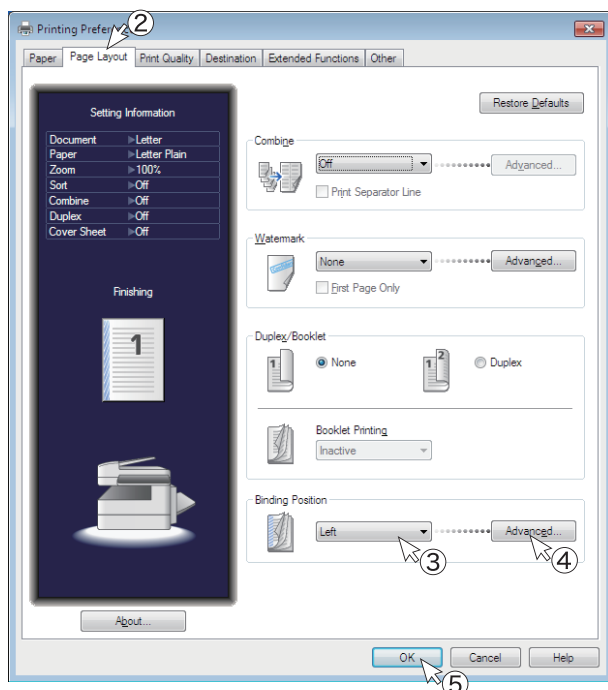
You can set the binding position and margin for the paper.
You can specify these settings for one side or both sides of the paper.



NOTE

The image is shifted according to the set margin, so a part of the image could run off the paper when the margin is added.

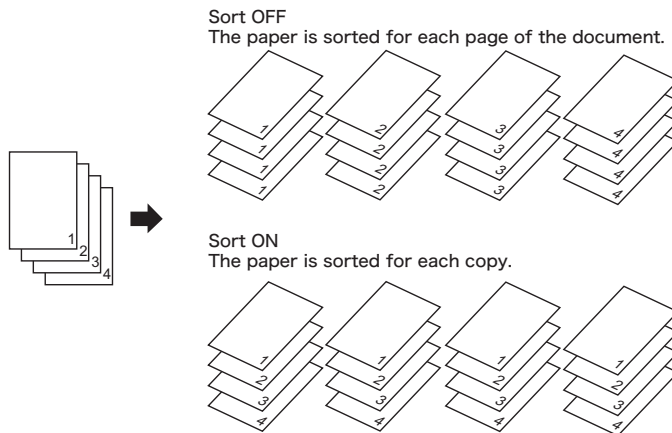
- 1 Open the printer settings screen on the computer (page 2-4).



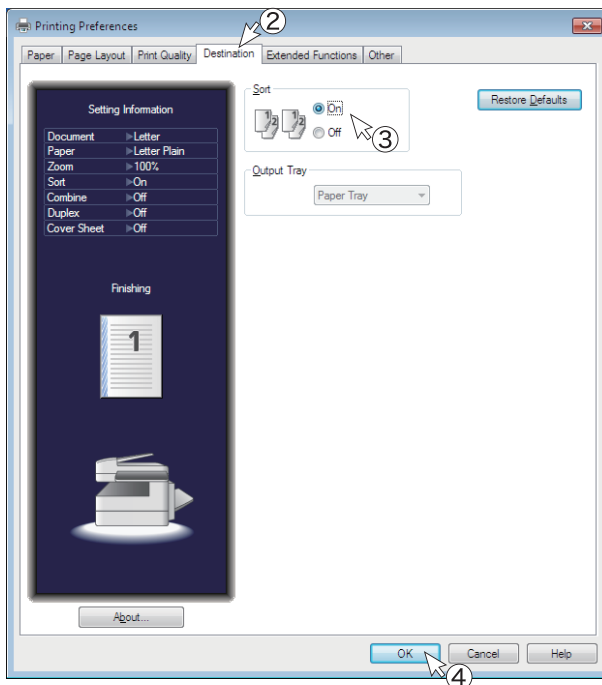
- 2 Click the “Page Layout” tab.
- 3 Select the binding position from the “Binding Position” menu.
- 4 Click [Advanced], specify the margin width, and then click [OK].
- 5 Click [OK].

Finishing the output

You can sort the sets when outputting multiple print sets.



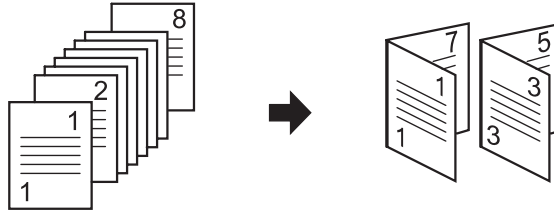
- 1 Open the printer settings screen on the computer (page 2-4).



- 2 Click the "Destination" tab.
- 3 Select "On" for "Sort" to perform sorting.
- 4 Click [OK].

Printing a booklet

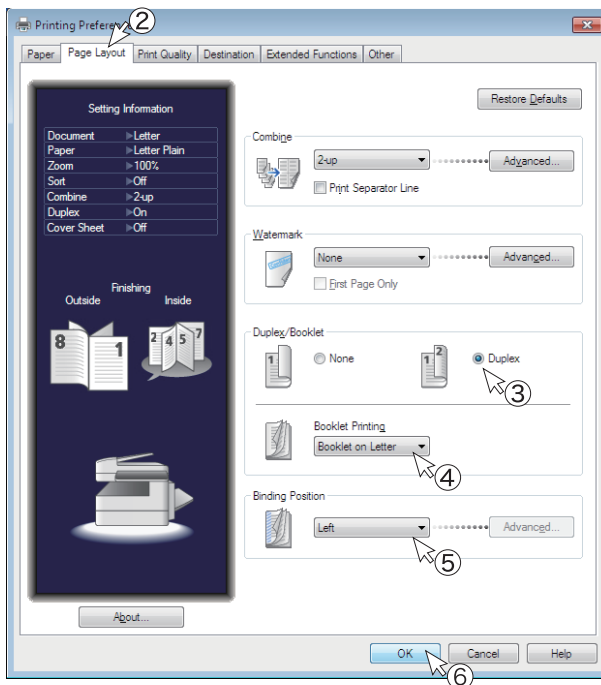
Use this option for multi-page documents to be printed and stacked to create a booklet when folded in half in the center.



NOTE

You cannot use custom size paper for duplex printing.

- 1 Open the printer settings screen on the computer (page 2-4).

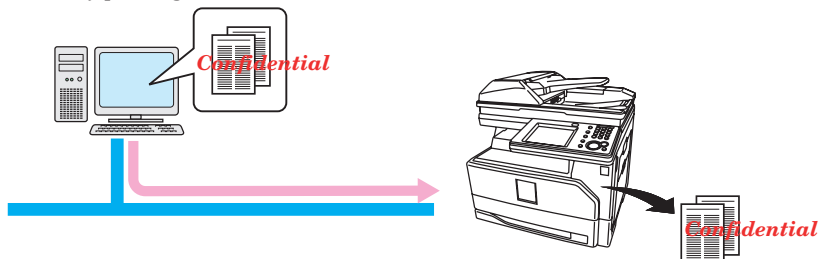


- 2 Click the “Page Layout” tab.
- 3 Select “Duplex” in “Duplex/Booklet”.
- 4 Select the booklet size from the menu in “Booklet Printing”. Confirm that “2-up” is selected in “Combine”.
- 5 Select the binding position from the “Binding Position” menu. To specify the margin width, click [Advanced].
- 6 Click [OK].

Printing documents securely

The “Security Printing” function temporarily saves the print data in the memory of the machine, and resumes printing after the user is authenticated by the machine. This enables you to prevent the content of printed documents being read by others before you retrieve the documents.

Select a user to perform the security printing.

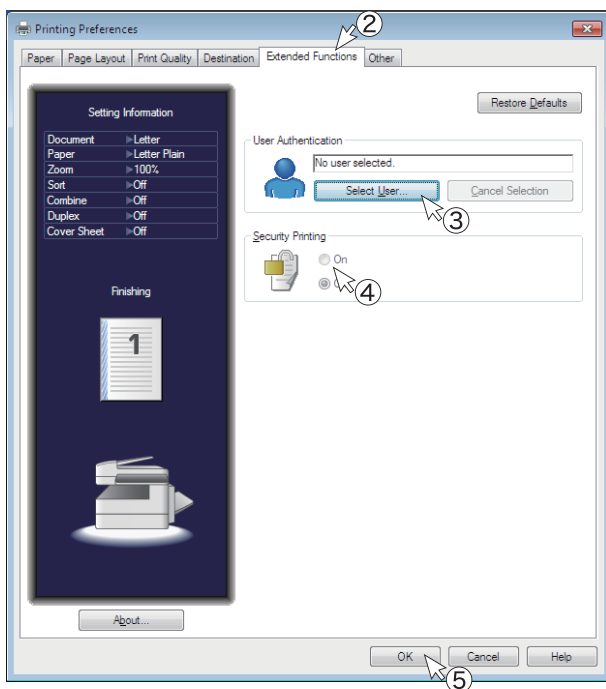


Log in as the user, and print the security printing document.

NOTE

Message Board user should be registered in advance to use the security printing function. For details on the Message Board user registration, see chapter 2, “Registering users” in the Message Board Guide.

- 1 Open the printer settings screen on the computer ([page 2-4](#)).



- 2 Click the “Extended Functions” tab.
- 3 Click [Select User] and specify the user, then click [OK].
If the login password is required, enter the password.

- 4 Select “On” for “Security Printing”.
- 5 Click [OK].
The print data is stored in the machine.
- 6 Click [Print].
- 7 Log in to the machine.
Press <Login> → select your user ID → [Enter] → if necessary, enter the password → [Enter].
- 8 Start security printing.
Press [Print] on My MFP Menu screen → [Security Print] → [Print] → [Yes].
If My MFP Menu screen is not displayed, press <Mode> repeatedly until My MFP Menu screen is displayed.
- 9 Log out the machine.
Press <Login>, then press [Yes].

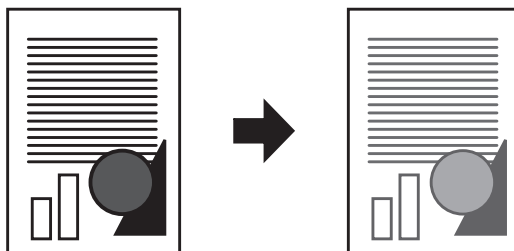
NOTE

- You cannot print or delete the document individually.
- When the document is printed, data of the document will be erased from machine memory.
- The data are stored in the machine for 24 hours at default, and will be deleted after that. You can change the time to store the data. For details, see “[Setting the auto deletion time](#)” (page 4-10).

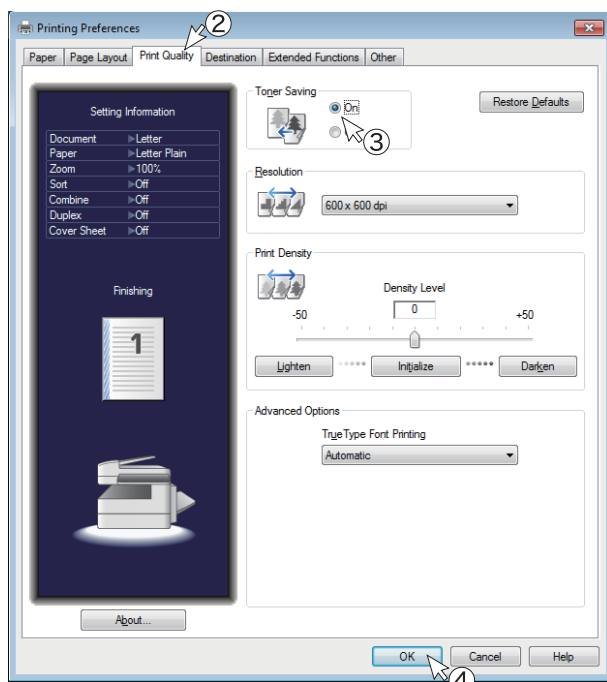
Changing the print quality

■ Saving toner

The toner saving function enables you to adjust toner consumption and lengthen the toner replacement cycle, while retaining the print quality.



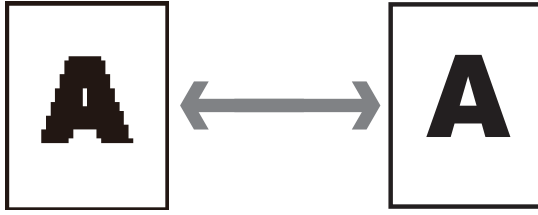
- 1 Open the printer settings screen on the computer ([page 2-4](#)).



- 2 Click the “Print Quality” tab.
- 3 Select “On” for “Toner Saving”.
- 4 Click [OK].

■ Changing the resolution

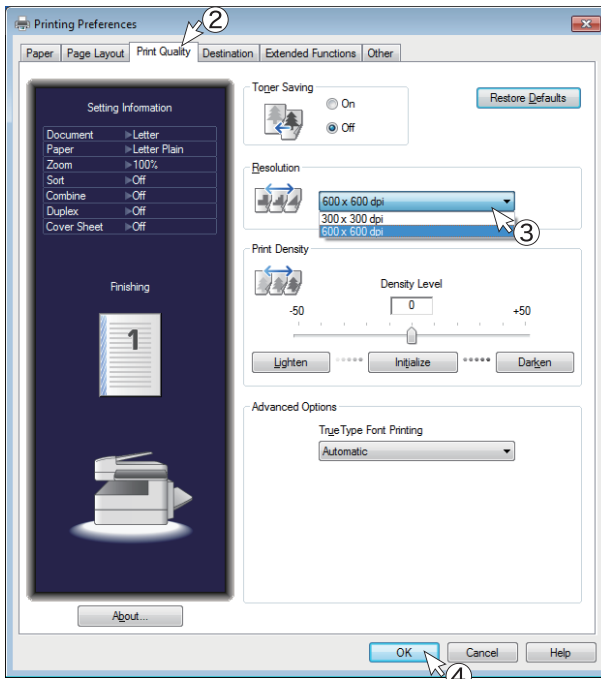
You can change the resolution (600 × 600 dpi or 300 × 300 dpi) for printing.



NOTE

If you perform combined printing or reduced printing with the resolution set to “300 × 300 dpi”, the text may appear faint, lines may be difficult to see, or watermarks may not be printed correctly. In this case, change the resolution to “600 × 600 dpi”.

- 1 Open the printer settings screen on the computer (page 2-4).

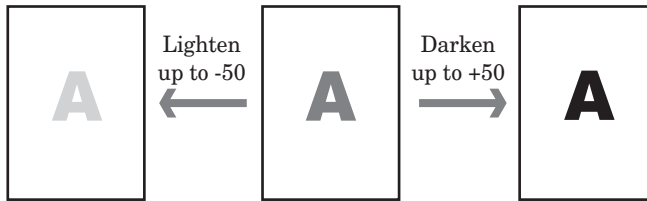


- 2 Click the “Print Quality” tab.
- 3 Select the printing resolution from the menu in “Resolution”.
- 4 Click [OK].

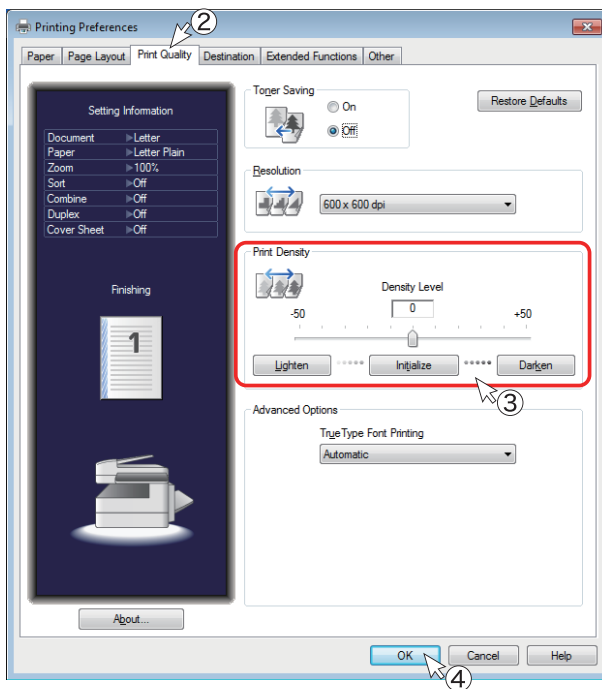
■ Changing the print density

You can adjust the density level of the printing result.

You can set adjust the density level to 50 levels of lightness or darkness.



1 Open the printer settings screen on the computer (page 2-4).



2 Click the “Print Quality” tab.

3 Adjust the density in “Print Density”.

- To increase the density level, click [Darken].
- To decrease the density level, click [Lighten].
- You can also adjust the density level by dragging the slider in the center to the left or right.
- Click [Initialize] to return to the default setting.

4 Click [OK].

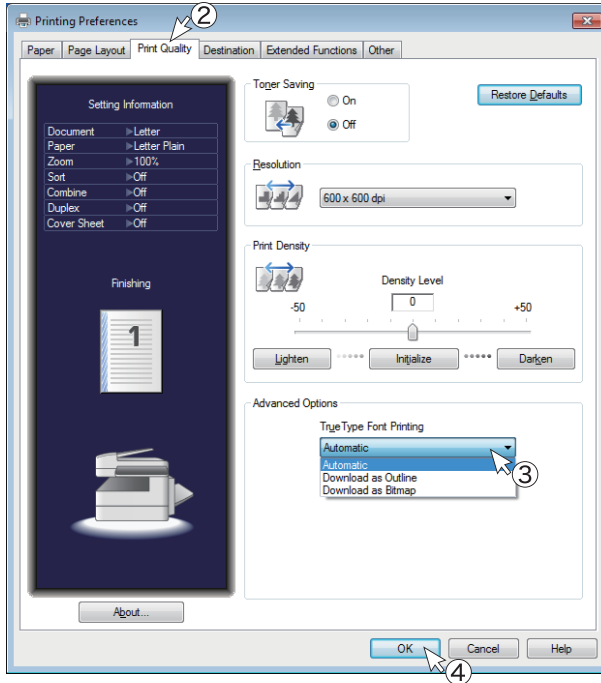
■ Printing with a computer font

You can print a TrueType font as it is displayed on the screen.

NOTE

- This setting is available on PCL 5e and PCL 6 printer driver or the optional PostScript 3 printer driver.
- The printing speed may decrease, depending on the settings.

1 Open the printer settings screen on the computer (page 2-4).



2 Click the “Print Quality” tab.

3 Select the printing method from the “TrueType Font Printing” menu.

- Automatic: Fonts not included in the machine will be downloaded from the computer for printing. (Printing is faster.)
- Download as Outline: All the TrueType fonts are downloaded to the machine for printing. (Printing may be slower.)
- Download as Bitmap: All the TrueType fonts are sent to the machine as bitmap images. (Printing is slower.)

4 Click [OK].

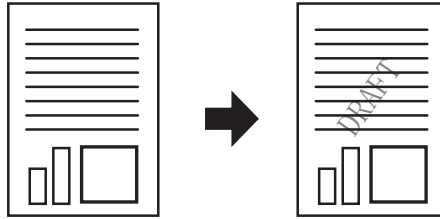
NOTE

When “Download as Bitmap” is selected, the text may appear faint if combined printing or reduced printing is performed in “300 × 300 dpi” resolution. In this case, change the resolution to “600 × 600 dpi”.

Printing a watermark

You can overlay a watermark (text printed in the background) when printing data created in application software.

You can select a watermark provided by default, or register a new watermark.

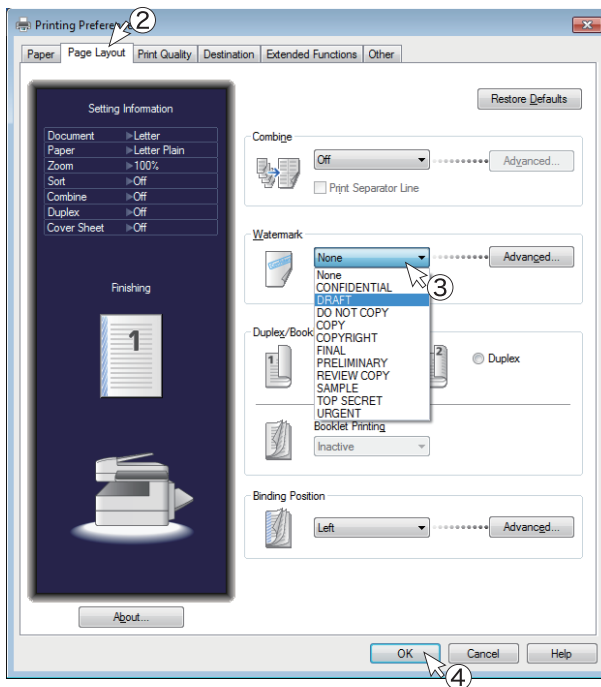


NOTE

This setting is available on PCL 5e and PCL 6 printer driver or the optional PostScript 3 printer driver.

■ Printing a Watermark

- 1 Open the printer settings screen on the computer (page 2-4).



- 2 Click the “Page Layout” tab.

- 3 Select the watermark to print from the menu in “Watermark”.

- Check “First Page Only” to print the watermark only on the first page.
- Click [Advanced] to edit the watermark. For details, see [“Registering / Editing a watermark”](#) (page 2-29).

- 4 Click [OK].

■ Registering / Editing a watermark

You can register, edit, or delete watermarks.

1 Open the printer settings screen on the computer ([page 2-4](#)).

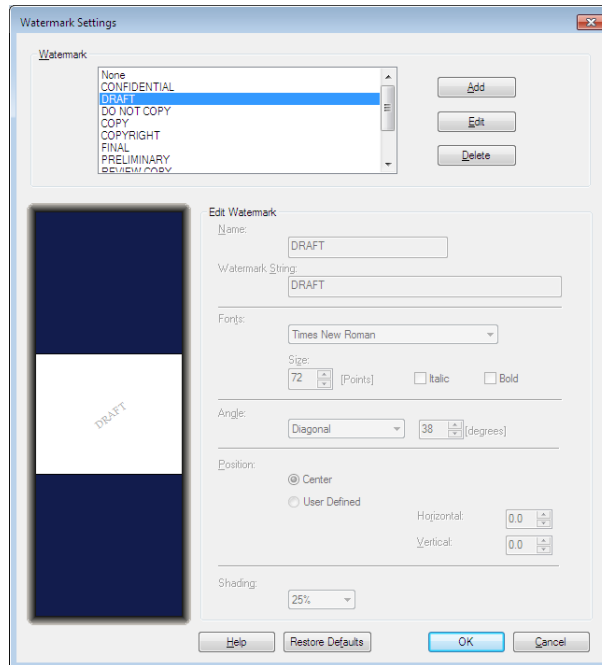
2 Click the “Page Layout” tab.

3 Click [Advanced] in “Watermark”.

4 Click [Add].

To change a registered setting, select the custom paper size to change and click [Edit].

5 Specify the various items in the “Edit Watermark” field.



Item	Description
Watermark	Displays a list of the registered watermarks.
Add	Click this to register a new watermark.
Edit	Click this to edit the selected watermark.
Delete	Click this to delete the selected watermark.
Name	Enter the name to register for the watermark. (Maximum of 30 characters.)
Watermark String	Enter a text string to be printed as the watermark. (Maximum of 30 characters.)
Fonts	Select the font to use from the pull-down menu.
Size	Set the size of the string (10 to 144 point).
Italic	Select this to set the italic style for the string.
Bold	Select this to set the bold style for the string.

Item	Description
Angle	Select the angle for the string from the pull-down menu. You can select the following angles for the string: Horizontal / Vertical / Diagonal / User Set If you select "User Set", you can set a custom angle. (Between -180 and 180 degrees)
Position	Select "Center" or "User Defined". If you select "User Set", you can set a horizontal position (between -10.0 and 10.0) and a vertical position (between -10.0 and 10.0) based on the center of the paper.
Shading	Select the density for the string from the pull-down menu.

6 Click [OK] twice.

NOTE

To delete a registered setting, select the registered setting in step 4 and click [Delete].

PDF direct printing

You can print PDF files without opening them in an application such as Adobe Reader.

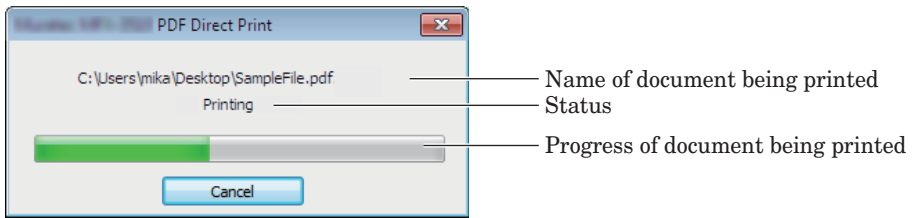
NOTE

- To use PDF direct printing, the optional “PostScript Enabler” is required.
- You cannot print encrypted PDF files with PDF direct printing.
- An optional “PostScript Memory” is required to print PDF files that include JPEG2000 format images.

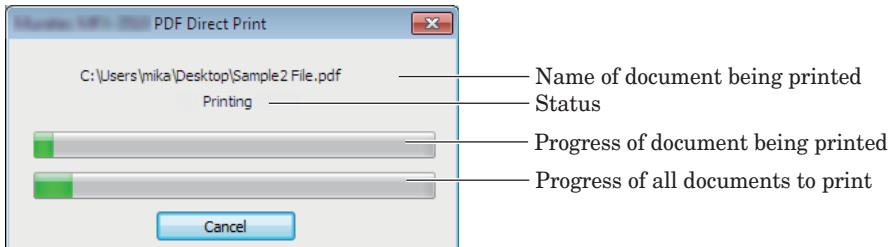
Printing

- 1 Drag-and-drop the file you want to print to the “bizhub 28e PDF Printing” shortcut icon on the desktop.

The “KONICA MINOLTA bizhub 28e PDF DirectPrint” screen is displayed.



For multiple documents



You can click [Cancel] to cancel printing.

If you are printing multiple documents, not only the document being printed but all documents waiting to be printed are also canceled.

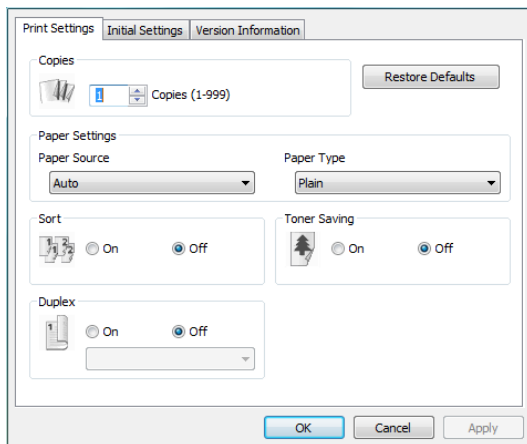
- 2 When the printing finishes, click [Close].

Printer settings

■ Modifying the Print Setting

1 Double-click the “bizhub 28e PDF Printing” shortcut icon on the desktop.

2 Specify the print settings.



- If you click [Restore Defaults], all the settings return to their default values.
- If you click [Apply], the specified settings are applied.

3 Click [OK].

■ “Print Settings” tab

Function	Description	Settings
Copies	This specifies the number of copies printed.	1 to 999: <u>1</u>
Paper Source	This specifies the paper source.	<u>Auto</u> Bypass Tray 1st Paper Cassette 2nd Paper Cassette ^{*1} 3rd Paper Cassette ^{*1} 4th Paper Cassette ^{*1}
Paper Type	This sets the paper type.	<u>Plain</u> Pasteboard OHP Envelope / Postcard
Sort	This sets sorting.	On <u>Off</u>
Toner Saving	This sets printing with reduced toner consumption.	On <u>Off</u>
Duplex	This sets duplex printing.	On <u>Off</u>

*1 This item is only displayed when it is installed in the machine.

NOTE

Underlined settings are the factory default values.

■ “Initial Settings” tab

Function	Description	Settings
IP Address or Host Name	Enter the name or IP address of the printer. You can search the IP address or printer name from [Search].	
Startup Method	<ul style="list-style-type: none"> • Create Shortcut on “Desktop” Select this to add a shortcut icon for direct printing to the desktop. • Add a Shortcut to the “Send to” Menu Select this to enable direct printing by selecting “bizhub 28e PDF Printing” from “Send” in the menu displayed when a PDF file is right-clicked. 	<p><u>O</u>n, Off</p> <p>On, <u>O</u>ff</p>
Installed Options	Select this when optional paper cassettes is installed in the destination printer.	Not selected by default.

■ “Version Information” tab

Displays the application name, application version, and copyright information.

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Chapter 3

Printing from Macintosh

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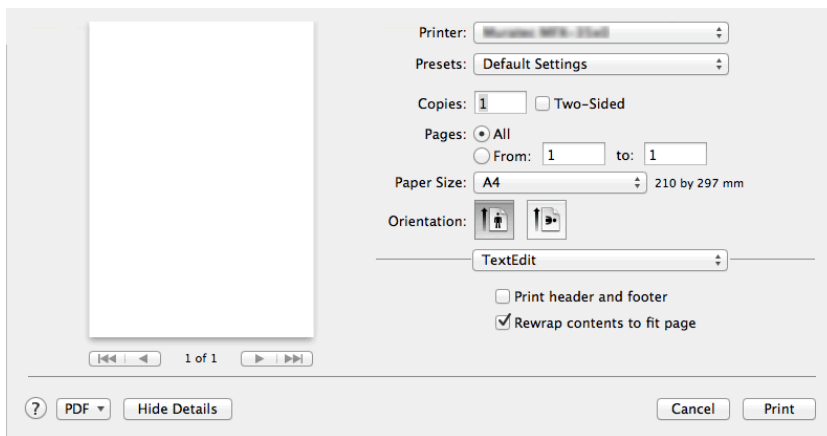
Basic printing operation

From most application software, you can execute printing by selecting “Print” from the “File” menu.

NOTE

The “Print” screen differs according to the application software you are using.

- 1 Open the data in the application software, and select “Print” from the “File” menu.
- 2 Confirm that the name of the printer you want to output from is selected in “Printer”.



- 3 Set the number of copies to print and the range of pages to print.
If necessary, switch to the settings screen to specify the printer driver settings.
- 4 Click [Print].



Canceling printing

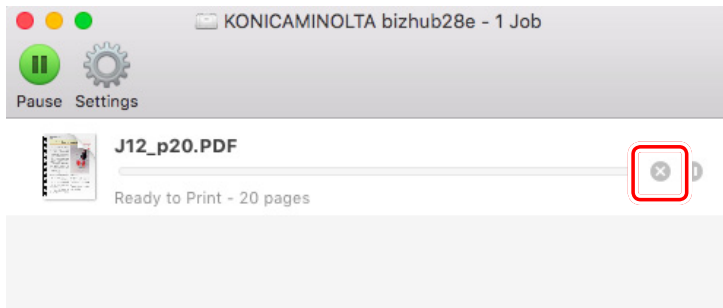
To cancel printing, try to cancel it on computer first. If you cannot cancel printing on computer, cancel it on the machine.

NOTE

The procedure may slightly vary according to the version of the operating system.

Canceling printing on computer

- 1 Select “System Preferences” → “Print & Fax” from the  menu.
- 2 Click the icon of the printer that is printing.
- 3 Click [Open Print Queue].
- 4 Click  of the document you want to cancel printing.



Canceling printing on the machine

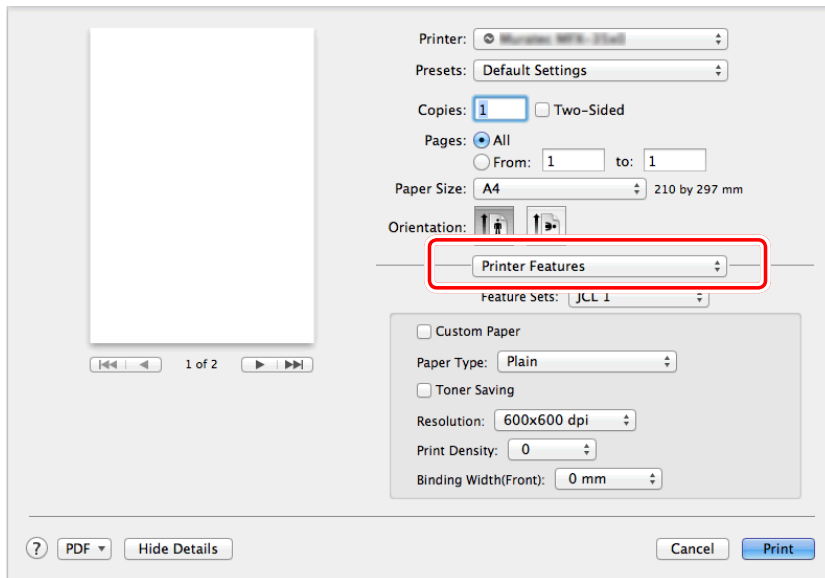
- 1** Press [Print] on My MFP Menu screen.
If My MFP Menu screen is not displayed, press <Mode> repeatedly until “Online Mode” (Print Ready) screen is displayed.
- 2** Press [On Line].
- 3** Select the print job you wish to cancel, and press [Delete].
- 4** Press [Yes] to cancel printing.
 - Printing will be completed for the page that is currently being printed.
 - Press [No] to continue printing.

Setting the printer

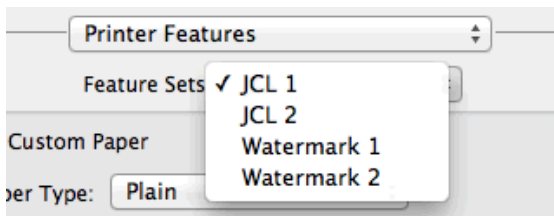
Displaying the printer settings screen

The procedure for displaying the printer settings screen for setting the print function is indicated below.

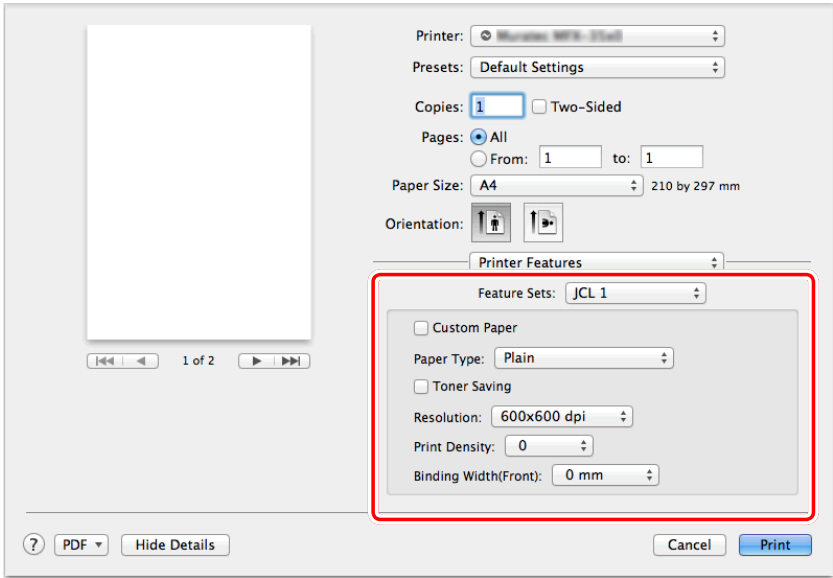
- 1 Select “Print” from the “File” menu of the application software.
- 2 Select the driver to use in “Printer”.
- 3 Select “Printer Features”.



- 4 Select the feature set.

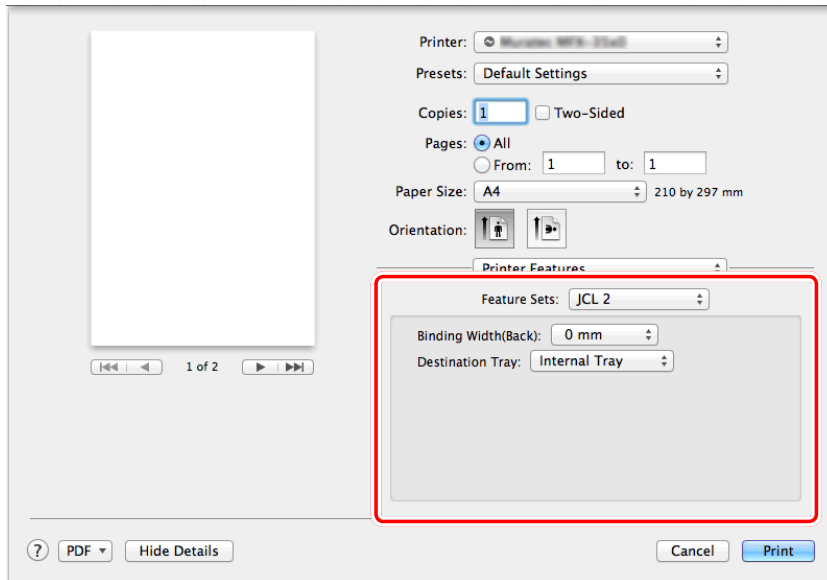


Feature set: JCL 1



Item	Description
Custom Paper	Select this to print on registered custom size paper.
Paper Type	Select the paper type to print on.
Toner Saving	Select this to restrict toner consumption.
Resolution	Select the printing resolution.
Print Density	Set the print density level (between -50 and +50).
Binding Width (Front)	Set the margin on the front (0 to 30 mm).

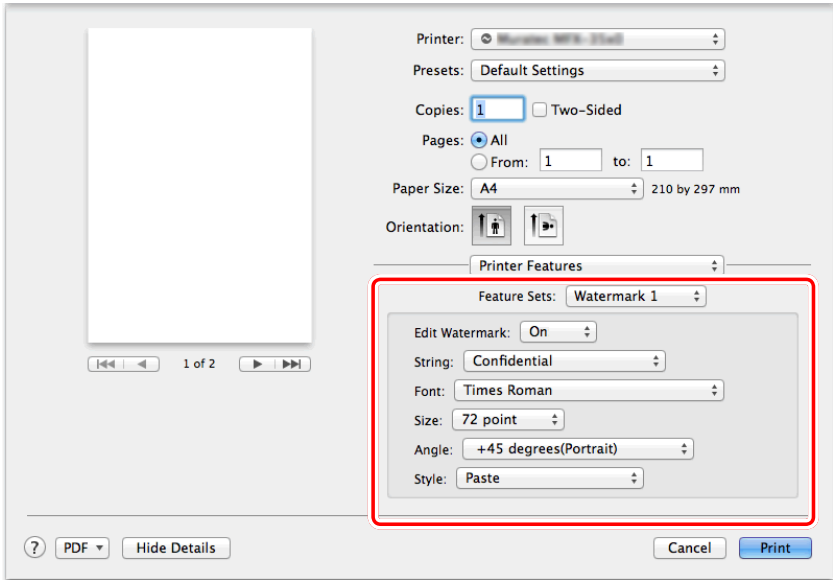
Feature set: JCL 2



Item	Description
Binding Width(Back)	Set the margin on the back (0 to 30 mm).
Output Tray ^{*1}	Select a paper output destination.

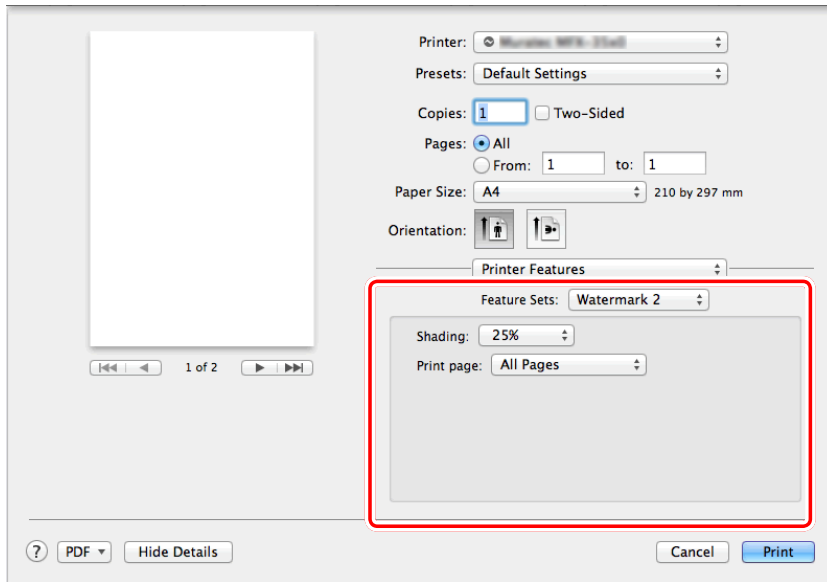
*1 This function is available only when the optional 2-bin tray is equipped.

Feature set: Watermark 1



Item	Description
Edit Watermark	Select this to overlay a watermark (text printed in the background of the print data) when printing data created in application software.
String	Select the string to use for the watermark.
Font	Select the font to use for the watermark string.
Size	Set the font size for the watermark string (24 to 90 point).
Angle	Set the angle for the watermark string (-180° (Landscape) to +180° (Portrait)).
Style	Select the style for the watermark string.

Feature set: Watermark 2



Item	Description
Shading	Select the density for the watermark.
Print Page (Only Mac OS X 10.5, 10.6, 10.7 10.8, 10.9, 10.10 and 10.11)	If you select “All Pages”, the watermark is printed on all the pages. If you select “First Page Only”, the watermark is printed on the first page only.

Various printing methods

The procedure may slightly vary according to the version of the Macintosh you are using. This section describes the procedure using Mac OS X 10.7.

Printing on special paper

You can print on special types of paper. The following types of paper can be used.

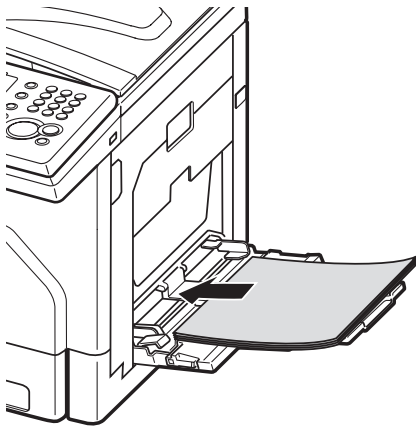
- PasteBoard
- OHP
- Envelope / Postcard
- Custom size paper

NOTE

You cannot use “Duplex” and “Booklet” functions when custom size paper is selected.

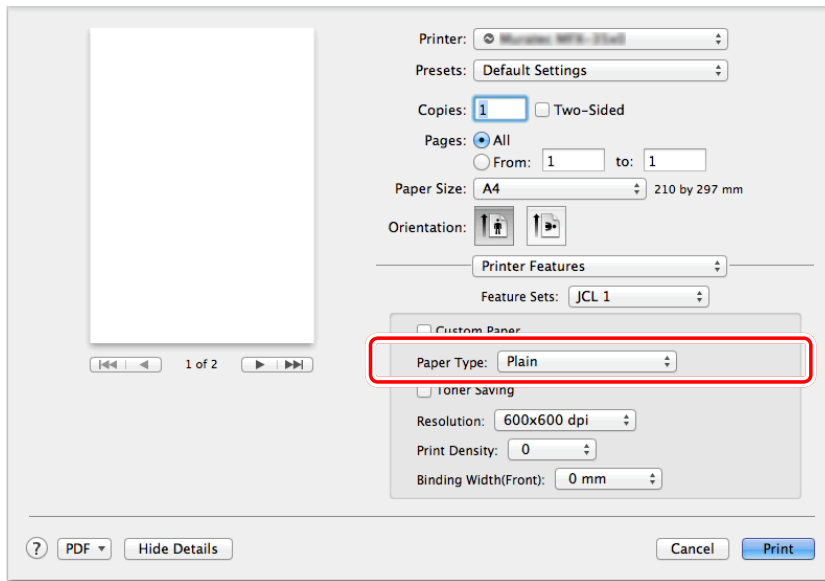
- 1** Load the paper into the bypass tray, and set the paper size on the machine control panel.

For details, see “Loading paper” in the User’s Guide.



- 2** Open the printer settings screen on the computer ([page 3-5](#)).
- 3** Select “Printer Features”.

4 Select the paper type to print on in “Paper Type”.



5 Click [Print].

Printing on a custom size paper

NOTE

Register the custom paper size in advance. You can register them either by the following two procedures:

- “Paper Size” → “Manage Custom Sizes” in the “Print” dialog box
- “Page Setup” → “Paper Size” → “Manage Custom Sizes” in the “File” menu.

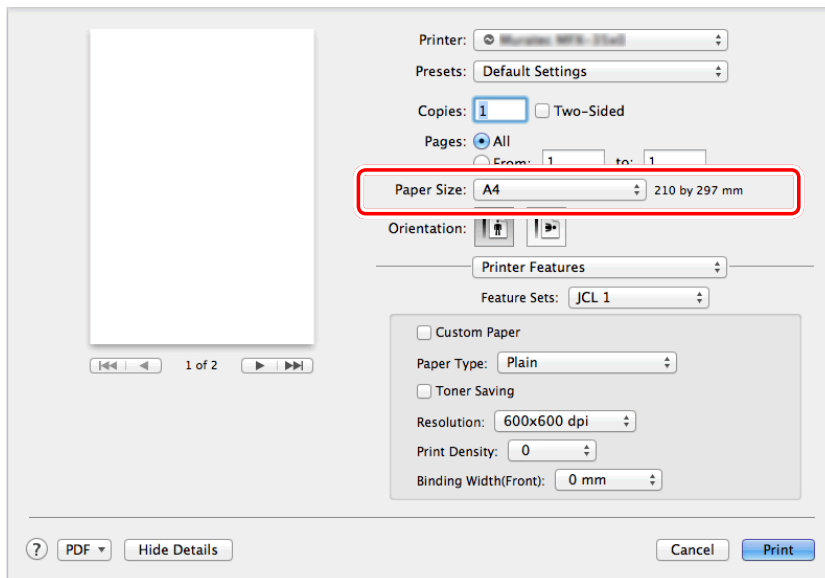
1 Load the paper into the bypass tray, and set the paper size you loaded on the machine control panel.

For details, see “Loading paper” in the User’s Guide.

2 Open the printer settings screen on the computer ([page 3-5](#)).

3 Select “Printer Features”.

4 Select the custom paper size to print on from the menu in “Paper Size”.



5 Click [Print].

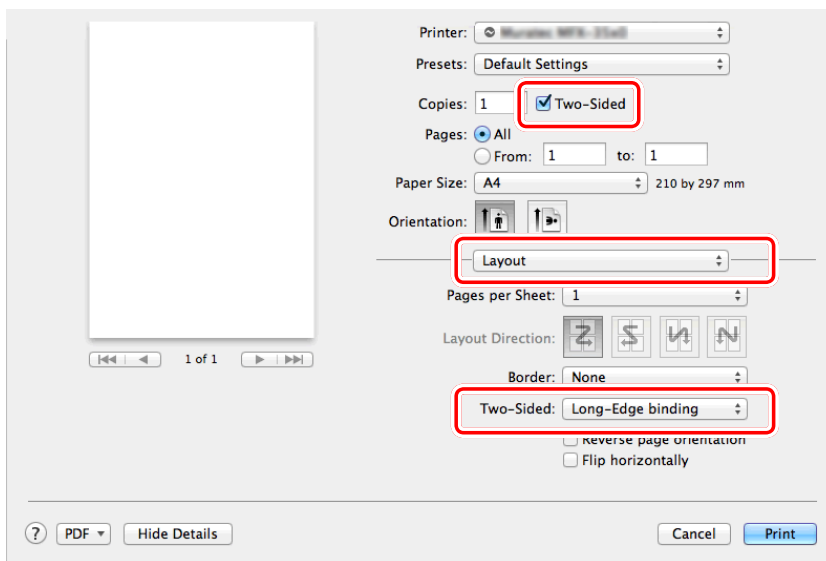
Printing on both sides of the paper

You can print on both sides of the paper.

NOTE

You cannot use custom size paper for duplex printing.

- 1 Open the printer settings screen on the computer (page 3-5).
- 2 Click “Two-Sided”.
- 3 Select “Layout”.
- 4 Select the binding position from the “Two-Sided” pull-down menu.



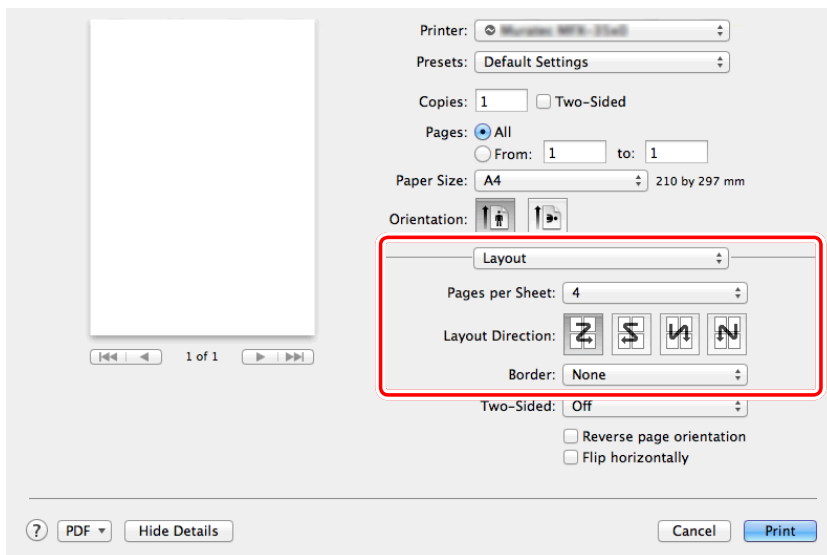
- 5 Click [Print].

Printing multiple pages on one sheet

A specific number of consecutive pages (two, four, six, nine, or 16) can be combined and printed on one sheet of paper.



- 1 Open the printer settings screen on the computer ([page 3-5](#)).
- 2 Select “Layout”.
- 3 Select the number to combine from the “Pages per Sheet” menu.
To add separator line to the printout, select the type of the line from “Border” menu.
- 4 Select the page layout order in “Layout Direction”.
The image for the page layout order varies according to the number of pages to combine and the orientation of the paper.



- 5 Click [Print].

Reducing / Enlarging printing

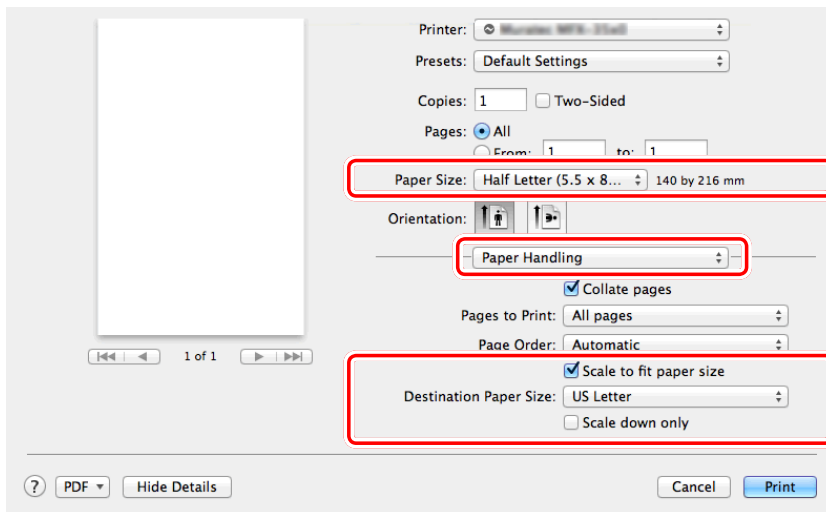
■ Fitting the zoom ratio to a paper size

You can automatically set the printing zoom ratio according to a specified paper size. This section describes the procedure for printing an half letter size document on letter size paper as an example.

NOTE

This function is only for Mac OS X 10.4 or later.

- 1 Open the printer settings screen on the computer (page 3-5).
- 2 Select “Paper Handling”.
- 3 Select “Half Letter (5.5 × 8.5 in)” from the pull-down menu in “Paper Size”.
- 4 Select “Scale to fit paper size”.
- 5 Select “US Letter” from the pull-down menu in “Destination Paper Size”.
- 6 Deselect “Scale down only”.
If “Scale down only” is selected, the document will be printed with its original size (100 %).



- 7 Click [Print].

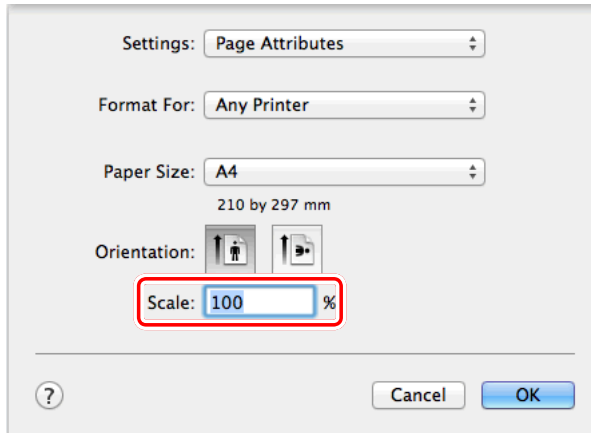
■ Printing with a custom zoom ratio

You can specify the document zoom ratio when printing.

NOTE

You may be able to specify the zoom ratio on the “Print” screen, depending on the application.

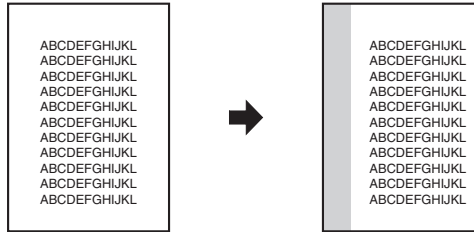
- 1 Select “Page Setup” from the “File” menu of the application software.
- 2 Specify a custom zoom ratio in the “Scale” entry box.



- 3 Click [OK].
- 4 Select “Print” from the “File” menu.
- 5 Click [Print].

Printing with a margin

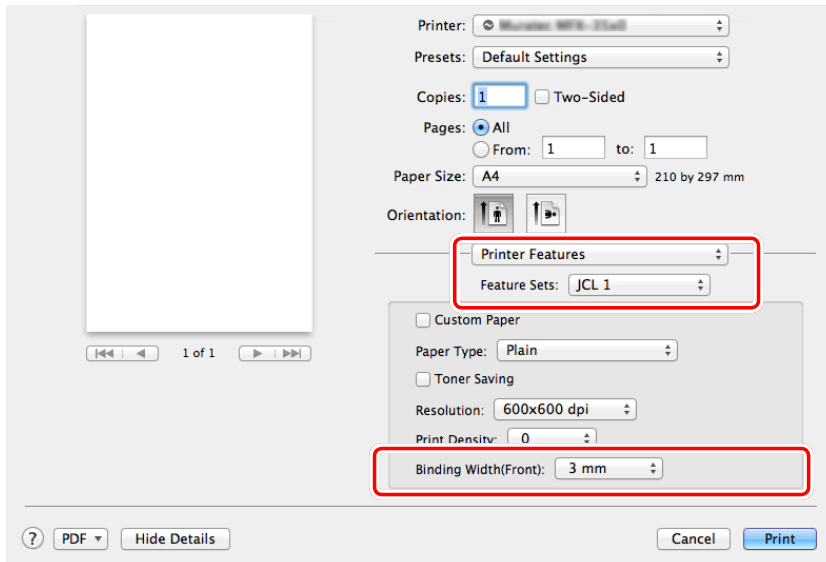
You can set the binding position and margin for the paper.
You can specify these settings for one side or both sides of the paper.



NOTE

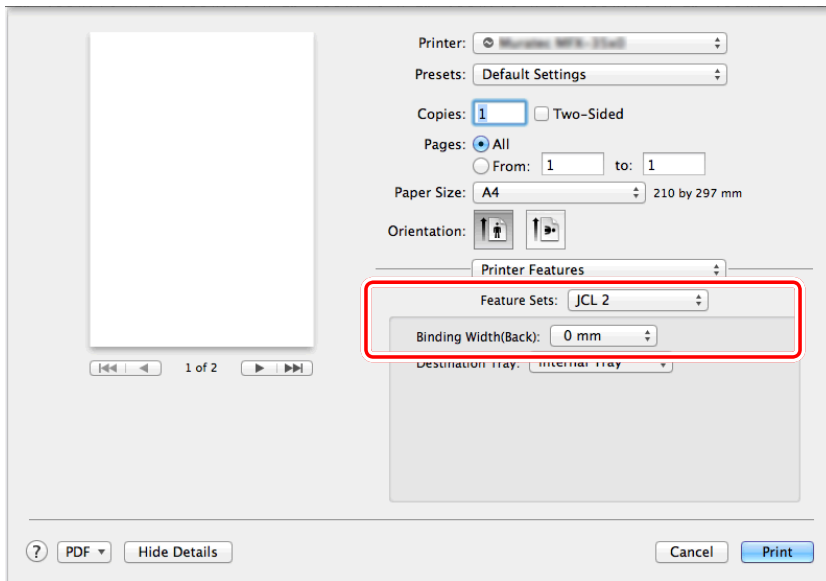
The image is shifted according to the set margin, so a part of the image could run off the paper when the margin is added.

- 1 Open the printer settings screen on the computer (page 3-5).
- 2 Select “Printer Features”.
- 3 Select “JCL 1” in “Feature Sets”.
- 4 Specify the margin in “Binding Width (Front)”.



- 5 To add margin on the backside of the paper, select “JCL 2”.
When you print only on the front side of the paper, proceed to step 7.

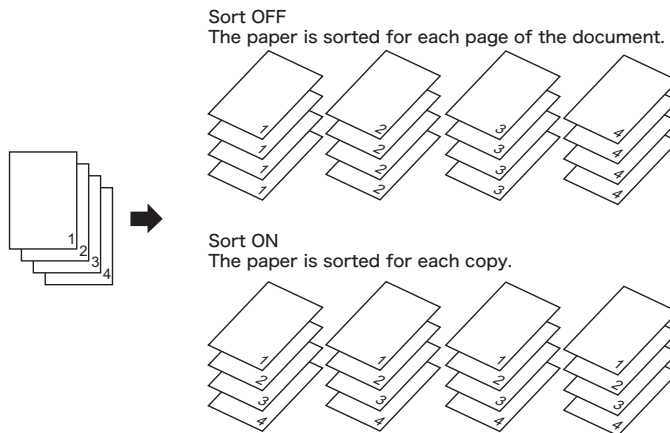
6 Specify the margin in “Binding Width (Back)”.



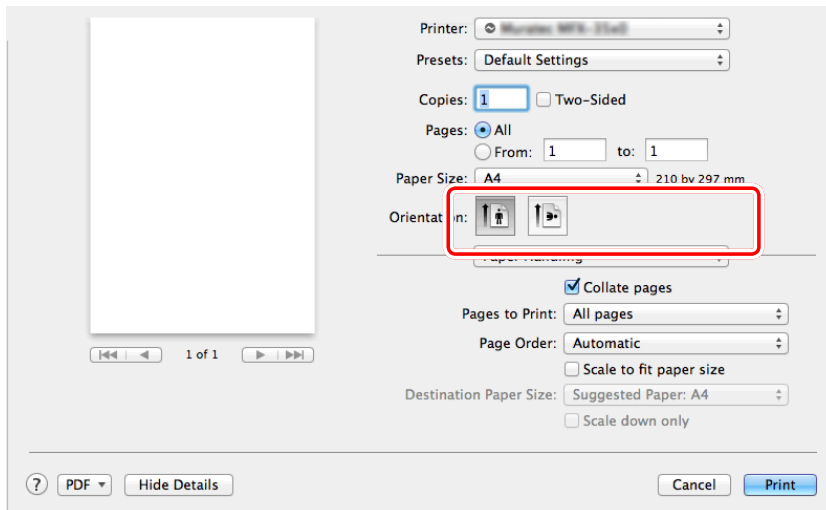
7 Click [Print].

Finishing the output

You can sort the sets when outputting multiple print sets.



- 1 Open the printer settings screen on the computer ([page 3-5](#)).
- 2 Select “Paper Handling”.
- 3 Check the “Collate pages” check box on the “Print” screen to sort. To disable sorting, deselect “Collate pages”.

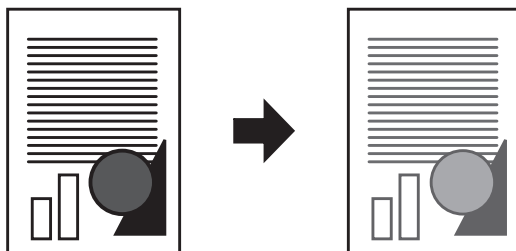


- 4 Click [Print].

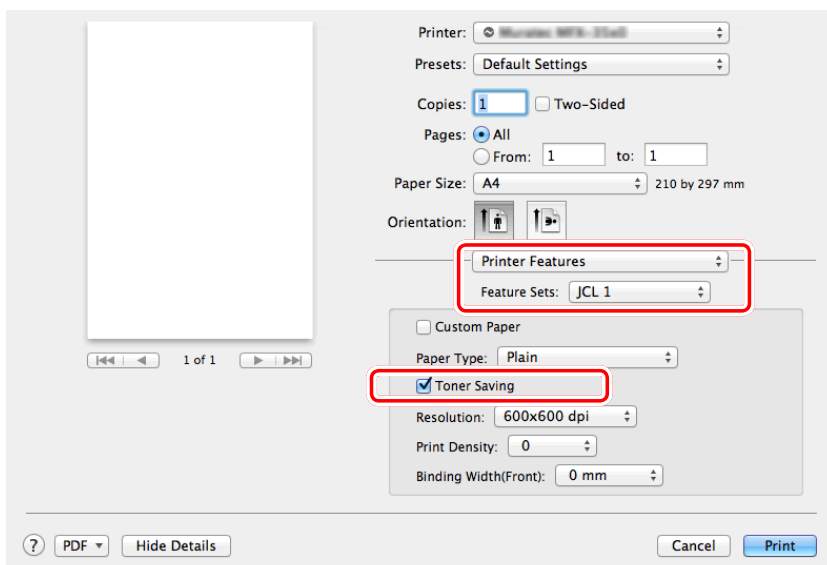
Changing the print quality

■ Saving toner

The toner saving function enables you to adjust toner consumption and lengthen the toner replacement cycle, while retaining the print quality.



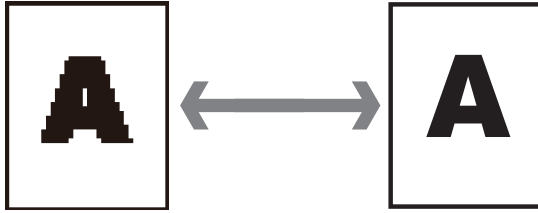
- 1 Open the printer settings screen on the computer ([page 3-5](#)).
- 2 Select “Printer Features”.
- 3 Select “JCL 1” in “Feature Sets”.
- 4 Check “Toner Saving”.



- 5 Click [Print].

■ Changing the resolution

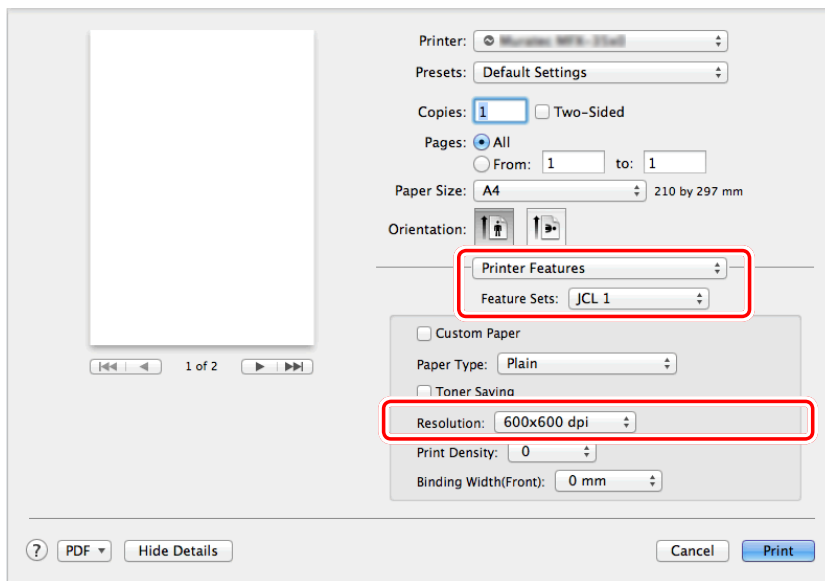
You can change the resolution (600 × 600 dpi or 300 × 300 dpi) for printing.



NOTE

If you perform combined printing or reduced printing with the resolution set to “300 × 300 dpi”, the text may appear faint, lines may be difficult to see, and watermarks may not be printed correctly. In this case, change the resolution to “600 × 600 dpi”.

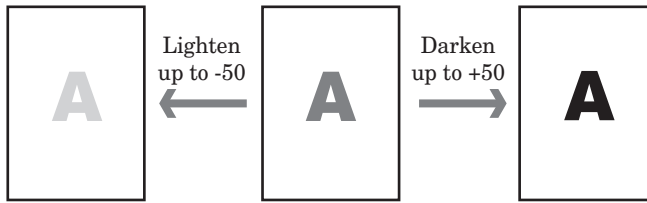
- 1 Open the printer settings screen on the computer (page 3-5).
- 2 Select “Printer Features”.
- 3 Select “JCL 1” in “Feature Sets”.
- 4 Select the printing resolution from the menu in “Resolution”.



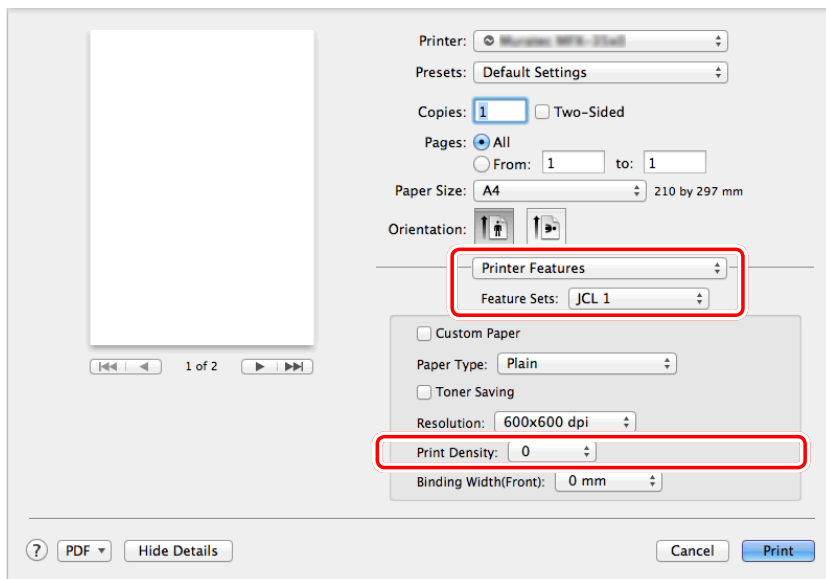
- 5 Click [Print].

■ Changing the print density

You can adjust the density level to 50 levels of lightness or darkness.



- 1 Open the printer settings screen on the computer (page 3-5).
- 2 Select “Printer Features”.
- 3 Select “JCL 1” in “Feature Sets”.
- 4 Adjust the density in “Print Density”.

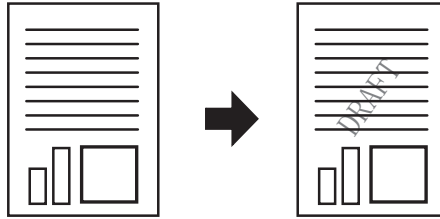


- 5 Click [Print].

Printing a watermark

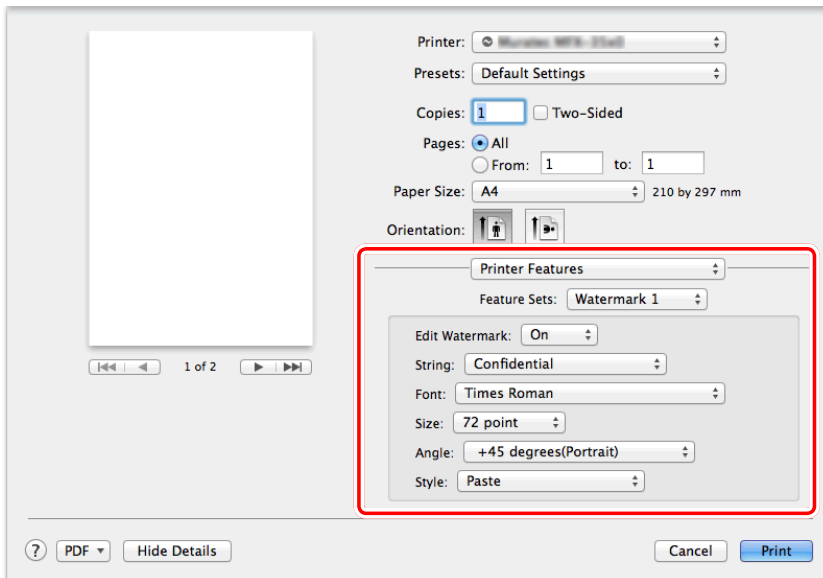
You can overlay a watermark (text printed in the background) when printing data created in application software.

You can select a watermark that has been prepared in advance.



- 1 Open the printer settings screen on the computer (page 3-5).
- 2 Select “Printer Features”.
- 3 Select “Watermark 1” in “Feature Sets”.
- 4 Select “On” for “Edit Watermark”.
- 5 Select the text and font, etc.

To select the shading and the pages to print on, select “Watermark 2” in “Feature Sets”. (The “Print page” setting is only available for Mac OS X 10.5 or later.)



- 6 Click [Print].

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Chapter 4

Operating on control panel

Printing documents saved in USB memory	4-2
Print PC folder documents (Print On Demand)	4-5
Setting the print controller	4-7
Setting procedure	4-7
List of print controller settings	4-8
Setting the auto deletion time.....	4-10

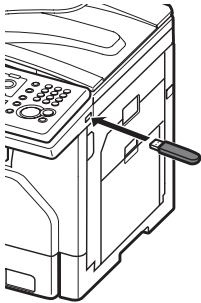
Printing documents saved in USB memory

You can print PDF or TIFF files located in the root directory of the USB memory device.

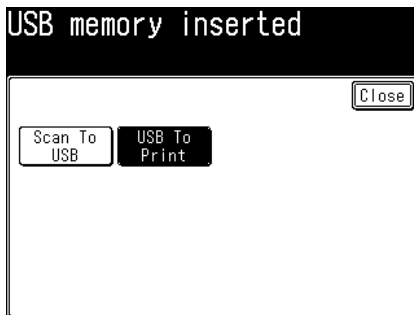
NOTE

- You can print a file up to 20 MB in size.
- PDF and TIFF files that were scanned and saved with this model in black and white format can be printed.
- When the optional “PostScript Enabler” is installed, you can print color PDF document. Documents are printed in black and white.
- Encrypted PDF documents that were scanned and saved with this model in black and white format can be printed.
- Only USB memory formatted with FAT12, FAT16, or FAT32 can be used.

1 Connect the USB memory device to the machine.



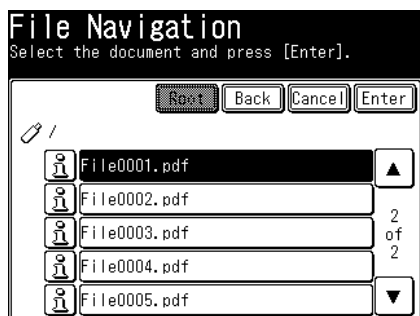
2 Press [USB To Print].




3 Press [Browse].



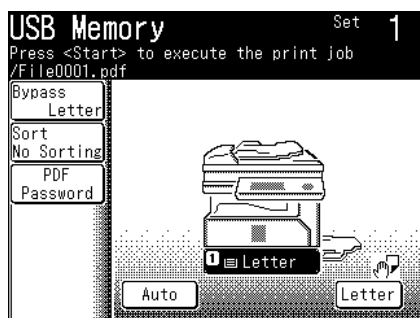
- 4 Select the document you want to print, and press [Enter].



- To review the document properties, press the  located next to the file. You can check the filename, file path, file size, and date and time the file was updated.
- Press [Root] to return to the root directory of the USB memory.
- Press [Back] to return to the previous screen.
- Press [Cancel] to close the screen.
- You cannot select multiple files at the same time.

- 5 Enter the number of copies to print using the numeric keys.

- 6 To specify the paper to use for printing, select a paper cassette.



To set the bypass paper, press [Bypass] and set the paper.

- 7 To sort the output, press [Sort]. Select the sorting method, and press [Enter].

- 8 If the document to print is an encrypted PDF, press [PDF Password]. Enter the password, and press [Enter].

- 9 Press <Start>.

- To cancel the printing, press <Stop>.
- To continue printing other files, press [USB Memory] and repeat the steps from step 3.

- 10 When printing is finished, disconnect the USB memory device.

NOTE

Also, you can perform the “USB to Print” by following procedure.

- 1** Press [Print] on My MFP Menu screen.
If My MFP Menu screen is not displayed, press <Mode> repeatedly until “Online Mode” (Print Ready) screen is displayed.
- 2** Press [USB Memory].
- 3** Connect the USB memory device to the machine.
- 4** The remaining procedures are the same as from step 3 on [page 4-2](#).

Print PC folder documents (Print On Demand)

Documents scanned by your machine can be stored in a shared folder on a personal computer. You can then browse your network from your machine and print them.

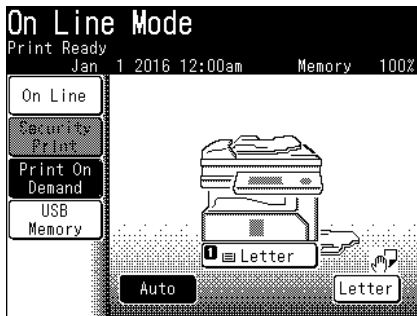
NOTE

- You can print documents up to 20 MB in size.
- PDF and TIFF files that were scanned and saved with this model in black and white format can be printed.
- When the optional “PostScript Enabler” is installed, you can print color PDF document. Documents are printed in black and white.
- Encrypted PDF documents that were scanned and saved with this model in black and white format can be printed. Encrypted PDF documents in color cannot be printed.

1 Press [Print] on My MFP Menu screen.

If My MFP Menu screen is not displayed, press <Mode> repeatedly until “Online Mode” (Print Ready) screen is displayed.

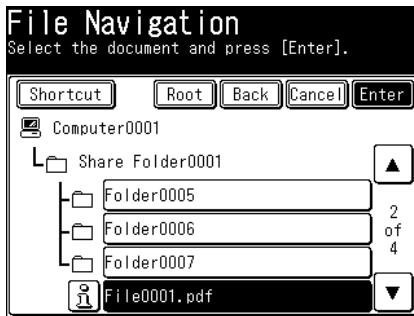
2 Press [Print On Demand].



3 Press [Browse].

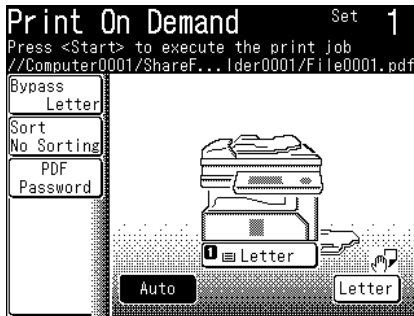
If the target folder has been registered as a shortcut in advance, select it from the list of shortcuts and proceed to step 4.

- 4 Select the document you want to print, and press [Enter].



- To review the document properties, press the **[i]** located next to the file. You can check the filename, file path, file size, and date and time the file was updated.
- Press [Shortcut] to display the list of registered folder shortcuts.
- Press [Root] to return to the list of root directory.
- Press [Back] to return to the former screen.
- You cannot select multiple files at the same time.
- You may be required to enter your user name and password while browsing. In that case, enter the user name and password to access the PC or folder.

- 5 Enter the number of copies to print using the numeric keys.



- 6 To specify the paper for printing, select a paper cassette or bypass tray.
To set the bypass paper, press [Bypass] and set the paper.
- 7 To sort the output, press [Sort]. Select the sorting method, and press [Enter].
- 8 If the document to print is an encrypted PDF, press [PDF Password]. Enter the password, and press [Enter].
- 9 Press <Start>.
To cancel the printing, press <Stop>.

Setting the print controller

NOTE

- This setting is used only when you cannot specify the settings on the printer drivers. When settings are available on printer drivers, those settings will be used.
- This setting is displayed only for PCL 5e or 6 printer drivers is installed.

Setting procedure

- 1** Press [Setting] on My MFP Menu screen.
If My MFP Menu screen is not displayed, press <Mode> repeatedly until “My MFP Menu” screen is displayed.
- 2** Press [Default Settings].
- 3** Press [Printer Settings].
- 4** Press [Print Controller Setting].
- 5** Select the item you want to set.
For details about setting items, see the [“List of print controller settings”](#) (page 4-8).
- 6** After setting, press [Close].

List of print controller settings

Function	Description	Settings
Copies	Set the number of copies.	1 to 999: <u>1 set</u>
Orientation	Set the print orientation.	<u>Portrait</u> Landscape
Paper Size	Set the paper size.	<u>Letter</u> , Legal, H.LTR, A4, A5, A6, F4, Executive, DL, COM10, Monarch, Postcard, OHP (LTR)
Paper Source	Set the paper source.	<u>Auto</u> Cassette 1 Cassette 2 ^{*1} Cassette 3 ^{*1} Cassette 4 ^{*1} Bypass
Output Tray ^{*1}	Select a paper output destination.	<u>Internal Tray</u> External Tray
Duplex	Set whether to use duplex printing.	<u>OFF</u> ON
Binding	Set the binding position for duplex printing.	<u>Long Edge</u> Short Edge
Font	Set the font to use for printing.	<u>Courier</u> , CG Times, LetterGothic, CG Omega, Coronet, NwCentSchlbk, ITC AvantGard, Clarendon, Universe, AntiqOlive, Garamond, Marigold, Albertus, Arial, Symbol, TimesNewRmn, CourierPS, Helvetica, Palatino, ITCBookman, Times, Windings, ZapfChancery, ZapfDingbats, SymbolPS
Symbol Set	Set the symbol set for the font.	ISO 60, ISO 15, ISO L1, ISO 11, ISO 6, ISO 4, ISO 69, ISO 21, Legal, ISO L2, ISO 17, PS Math, ISO L5, Win L5, MS Publ, ISO L6, DeskTop, Math-8, Roman-8, Win L2, PC-1004, PC-8TK, Win 3.0, PS Text, PC-8, PC-8 D / N, MC Text, PC-850, ITC Zapf, PI Font, PC-852, Win 3.1j, Win 3.1 Balt, Symbol, Win L1, PC-775, Windings, PC-Cyrillic, PC-Ukrainian, ISO L / Cyr, WIN L / Cyr
Font Pitch	Set the width for the font. ^{*2}	0.44 to 99.99: <u>10.00 pitch</u>
Font Point	Set the font size. ^{*2}	4.00 to 999.75: <u>12.00 point</u>
Resolution	Set the resolution.	300 dpi <u>600 dpi</u>
Timeout	Set the time until the machine forcibly prints the document when it stops receiving data.	1 to 65535: <u>300 sec</u>

Function	Description	Settings
CR / LF	Set the operation to perform when CR / LF is received. (Only available for PCL5)	<u>CR / LF only</u> CR + LF / LF only CR only / LF + CR CR + LF / LF + CR
Form Lines	Sets the number of lines that can be printed on a single page. (Only available for PCL5)	<u>Auto</u> Manual (5 to 128)

*1 This item is only displayed when it is installed in the machine.

*2 The font pitch and font size settings may not be available, depending on the font that is set.

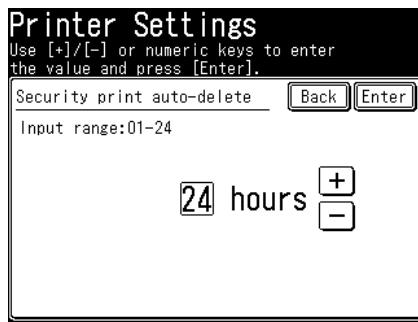
NOTE

Underlined values are the default settings specified at the time of shipment.

Setting the auto deletion time

You can set the time until stored security print documents are automatically deleted.

- 1** Press [Setting] on My MFP Menu screen.
If My MFP Menu screen is not displayed, press <Mode> repeatedly until “My MFP Menu” screen is displayed.
- 2** Press [Default Settings].
- 3** Press [Printer Settings].
- 4** Press [Security print auto-delete].
- 5** Enter the automatic deletion time, and press [Enter].



Chapter 5

Barcode / OCR Font Settings

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About barcode and OCR fonts

This chapter provides descriptions for types of barcode, character code and samples of font usage, etc. for models equipped with the Barcode / OCR font option. The content of this chapter assumes the reader has a basic understanding of barcodes and barcode standards.

The barcode relies heavily on printer paper and on the performance of the Barcode Reader. Please read thoroughly before using.

NOTE

To use barcode and OCR fonts, you need the optional Barcode Font Enabler.

Precautions for use

IMPORTANT

- Barcode can only be used with PCL5e.
- In order to correctly print and use the barcode font, the application software must support the barcode font.
- It may not be possible to read the printed barcode with all scanners due to variations in toner density and paper quality, therefore we recommend that you verify the reading ability of the scanner before use.

■ 8-bit code and control code

In order assign the PCL5 command and barcode data character strings, hexadecimal digits (00 to 1F) control code and 8-bit code (AA, etc.) must be assigned. The use of "~" (tilde) instead of <ESC> and expressing the control code with ASCII character strings by the <ESC>***#J (Alternate Escape Code) command is not supported.

■ Start / Stop / Check Digit

Start, Stop and guard bar must be assigned as a character string while being aware of the Barcode type. The user must knowingly insert the spaces around the Barcode. Also, the check digit should be calculated manually from the data that is going to be expressed based on the barcode code and the check digit must be inserted into the correct position of the data character string. (Generally before the Stop character.)

■ Caption

Caption input is not supported. The user must insert captions as a PCL5 command.

Types of barcode / OCR fonts

The internal code for the barcode fonts is coded in the barcode symbologies listed below. In general, assign a barcode font and data that is going to be expressed based on the ASCII character set. However, be aware that the internal code for fonts may at times be encoded using code that is different from ASCII code.

UPC / EAN

UPC and EAN (JAN) are numeric barcodes. The barcode pattern is defined so that both can be expressed as fonts even though they have different standards. They come in standard and abbreviated formats and may be augmented with add-ons. The check digit is modulus 10 with weight 3.

The check digit for a 5-digit add-on is modulus 10 (no check digit with a 2-digit add-on). Use ASCII characters 0 to 9 for the font of the left odd parity. Use Hex 41 to 4A (A to J) for the right even parity. Use Hex 61 to 6A (a to j) for the left even parity. Show all numerals 0 to 9.

The gap used for the add-on is defined to Space: Hex 20. The guard bar, center bar, Stop for abbreviated format, Start for add-on and delineator for the add-on are come in two types: 1) the height is the same as numerals and 2) the bar is underneath the numerals and extends out past the numeral. Each are defined in (: Hex28, - : Hex2D,) : Hex29, * : Hex2A, + : Hex2B and X : Hex58,] : Hex5D, Y : Hex59, Z : Hex5A, [: Hex5B.

Interleave25

Interleave25 is a numeric barcode. The barcode must always contain an even number of digits because the code represents two numbers, one number encoded in the bar and the next number encoded in the space between the bars. There are multiple check digits that are based on standards such as modulus 10 with weight 3 and so on. Define the font for the 00 to 99-pattern by Hex21 to Hex7A. Start is HexAB and Stop is HexAC.

Code39

Code39 is a barcode represented in numerals, upper-case characters and symbols (\$, %, *, +, -, ., /, space). The check digit is modulus 43. The font is the same as ASCII code, with the exception of the Space symbol. The Space is defined as !: Hex21, , : Hex2C, and _ : Hex5F.

Code128

Code128 is a barcode that includes all ASCII characters. Express CodeA, CodeB and CodeC with the same bar pattern. The check digit is modulus 103. As a font, ! to ~ (Hex21 to 7E) for CodeB is the same as ASCII. Space is defined as HexAE. DEL: Hex95 to StartC: HexAB based on CodeB. Stop is HexAC.

Postnet (ZIP)

Postnet (ZIP) is a barcode represented as postal code for the United States (ZIP code). The check digit is modulus 10. Postnet font consists of numerals (ASCII) contained within Framebars (*: Hex2A and): Hex7C).

Codabar (NW-7)

Codabar (NW-7) is a barcode represented in numerals and symbols (\$, +, -, ., /.). Most standards do not define a check digit. Codabar is defined with ASCII code that includes numerals, symbols and Start/Stop characters (A, B, C, D).

MSI Plessey

MSI Plessey is a numeric barcode. It is framed by a Start, numeral, check digit, Stop pattern and has a modulus 10 check digit. MSI Plessey fonts are 0 to 9 ASCII code with Start (<:Hex3C) and Stop(>:Hex3E) characters.

Barcode / OCR font calling and available parameters

■ **Parameters**

Parameters v, b and s are available as options for Barcode control. Operate these parameters using a different interpretation than the general PCL5 only if the T-parameter (Typeface number) shows the Barcode.

The v-parameter assigns the font height. The b-parameter changes the stroke weight (width) of the bars. The s-parameter changes the width of the open space between bars.

Example. <ESC>(s16v4b4s24670T

Numeric values for each parameter can be omitted. If omitted, use the default numeric value.

Changing the b and s-parameters does not change OCR-A, OCR-B, MSI Plessey and PostNet. Also, for PostNet, assigning the v-parameter does not change the height. For Barcode fonts, parameters p and h are disregarded. For the OCR font, the p-parameter is disregarded and the h-parameter is always interpreted as 10.

■ **Typeface number**

In the barcode, a pattern for the required Bar to express a specific barcode standard is assigned to the character code. If the Bar pattern within the font is the same pattern as another Barcode standard, even if the Typeface number of a certain barcode is not supported, the Typeface number of the Bar that is not supported can be displayed by using the Typeface number that is supported.

For example, the UPC-A for Typeface number 24600 can display UPC-E. In many cases, one Barcode font supports two or more Typeface numbers.

24600	UPC-A
24601	UPC-A +2
24602	UPC-A +5
24620	EAN / JAN-8
24621	EAN / JAN-8 +2
24622	EAN / JAN-8 +5
24630	EAN / JAN-13

24631	EAN / JAN-13 +2
24632	EAN / JAN-13 +5
24640	Interleaved 2 of 5
24641	Interleaved 2 of 5 CHK
24670	Code 39 (3of9)
24671	Code 39 + CHK
24672	Code 39 (3of9) encode space before data
24673	Code 39 + CHK encode space before data
24702	Code 128 B
24704	Code 128 C
24770	ZIP+4 Postnet 5
24771	ZIP+4 Postnet 9
24772	ZIP+4 Postnet 11
24750	Codabar
24751	Codabar +CHKmod16
24760	MSI
24761	MSI +CHKmod10
24762	MSI +Mod10+CHKmod10
24763	MSI +Mod11+CHKmod10

The CHK in the chart refers to presence or non-presence of a check digit but does not support the automatic addition of a check digit. The user must calculate the check digit and describe the check digit as data.

The existing / non-existing CHK that has a Typeface name is nominal. Similarly, the descriptions of -13, -8, +2, +5 Typeface names means the number of digits but because the user requires a description of the correct barcode notation by using fonts, if the number of digits for the barcode with the correct data string is entered, these numbers are nominal.

Character code list

List the character codes used when assigning the Barcode character.

UPC / EAN

A character code that is used when printing the Barcode Character for UPC/EAN.

Character	Character code					
	Left side odd parity		Left side even parity		Right side even parity	
	HEX notation	ASCII notation	HEX notation	ASCII notation	HEX notation	ASCII notation
0	30	0	61	a	41	A
1	31	1	62	b	42	B
2	32	2	63	c	43	C
3	33	3	64	d	44	D
4	34	4	65	e	45	E
5	35	5	66	f	46	F
6	36	6	67	g	47	G
7	37	7	68	h	48	H
8	38	8	69	i	49	I
9	39	9	6A	j	4A	J
Guard bar	28	(
Center bar	2D	-				
Stop for abbreviated format	29)				
Start for add-on	2A	*				
Delineator for add-on	2B	+				
Gap for add-on	20	SP				

Interleave25

A character code that is used when printing the Barcode Character for Interleave25.

Character	Character code		Character	Character code		Character	Character code	
	HEX notation	ASCII notation		HEX notation	ASCII notation		HEX notation	ASCII notation
00	21	!	34	43	C	68	65	e
01	22	"	35	44	D	69	66	f
02	23	#	36	45	E	70	67	g
03	24	\$	37	46	F	71	68	h
04	25	%	38	47	G	72	69	i
05	26	&	39	48	H	73	6A	j
06	27	'	40	49	I	74	6B	k
07	28	(	41	4A	J	75	6C	l
08	29	)	42	4B	K	76	6D	m
09	2A	*	43	4C	L	77	6E	n
10	2B	+	44	4D	M	78	6F	o
11	2C	,	45	4E	N	79	70	p
12	2D	-	46	4F	O	80	71	q
13	2E	.	47	50	P	81	72	r
14	2F	/	48	51	Q	82	73	s
15	30	0	49	52	R	83	74	t
16	31	1	50	53	S	84	75	u
17	32	2	51	54	T	85	76	v
18	33	3	52	55	U	86	77	w
19	34	4	53	56	V	87	78	x
20	35	5	54	57	W	88	79	y
21	36	6	55	58	X	89	7A	z
22	37	7	56	59	Y	90	A1	
23	38	8	57	5A	Z	91	A2	
24	39	9	58	5B	[	92	A3	
25	3A	:	59	5C	]	93	A4	
26	3B	+	60	5D	{	94	A5	
27	3C	<	61	5E	^	95	A6	
28	3D	=	62	5F	_	96	A7	
29	3E	>	63	60	`	97	A8	
30	3F	?	64	61	a	98	A9	
31	40	@	65	62	b	99	AA	
32	41	A	66	63	c	Start	AB	
33	42	B	67	64	d	Stop	AC	

NOTE

Assign two character sets for the bar character and space character by a single character code. However, assign the start character and stop character by a single character code.

Example: If a bar with a meaning of “3” and a space character set with a meaning of “7” is printed, assign “46” (HEX notation).

Code39

A character code that is used when printing the Barcode Character for Code39.

Character	Character code		Character	Character code		Character	Character code	
	HEX notation	ASCII notation		HEX notation	ASCII notation		HEX notation	ASCII notation
\$	24	\$	8	38	8	N	4E	N
%	25	%	9	39	9	O	4F	O
*	2A	*	A	41	A	P	50	P
+	2B	+	B	42	B	Q	51	Q
-	2D	-	C	43	C	R	52	R
.	2E	.	D	44	D	S	53	S
/	2F	/	E	45	E	T	54	T
0	30	0	F	46	F	U	55	U
1	31	1	G	47	G	V	56	V
2	32	2	H	48	H	W	57	W
3	33	3	I	49	I	X	58	X
4	34	4	J	4A	J	Y	59	Y
5	35	5	K	4B	K	Z	5A	Z
6	36	6	L	4C	L	SP	21	!
7	37	7	M	4D	M			

Codabar (NW-7)

A character code that is used when printing the Barcode Character for Codabar (NW-7).

Character	Character code		Character	Character code		Character	Character code	
	HEX notation	ASCII notation		HEX notation	ASCII notation		HEX notation	ASCII notation
\$	24	\$	0	30	0	A	41	A
+	2B	+	1	31	1	B	42	B
-	2D	-	2	32	2	C	43	C
.	2E	.	3	33	3	D	44	D
/	2F	/	4	34	4			
			5	35	5			
			6	36	6			
			7	37	7			
			8	38	8			
			9	39	9			
			:	3A	:			

Code128

A character code that is used when printing the Barcode Character for Code128.

Numeric value	Character			Character code	
	Code A	Code B	Code C	HEX notation	ASCII notation
0	SP	SP	00	20	SP
1	!	!	01	21	!
2	"	"	02	22	"
3	#	#	03	23	#
4	\$	\$	04	24	\$
5	%	%	05	25	%
6	&	&	06	26	&
7	'	'	07	27	'
8	(	(	08	28	(
9	)	)	09	29)
10	*	*	10	2A	*
11	+	+	11	2B	+
12	,	,	12	2C	,
13	-	-	13	2D	-
14	.	.	14	2E	.
15	/	/	15	2F	/
16	0	0	16	30	0
17	1	1	17	31	1
18	2	2	18	32	2
19	3	3	19	33	3
20	4	4	20	34	4
21	5	5	21	35	5
22	6	6	22	36	6
23	7	7	23	37	7
24	8	8	24	38	8
25	9	9	25	39	9
26	:	:	26	3A	:
27	;	;	27	3B	;
28	<	<	28	3C	<
29	=	=	29	3D	=
30	>	>	30	3E	>
31	?	?	31	3F	?
32	@	@	32	40	@
33	A	A	33	41	A
34	B	B	34	42	B
35	C	C	35	43	C
36	D	D	36	44	D
37	E	E	37	45	E
38	F	F	38	46	F
39	G	G	39	47	G

Numeric value	Character			Character code	
	Code A	Code B	Code C	HEX notation	ASCII notation
40	H	H	40	48	H
41	I	I	41	49	I
42	J	J	42	4A	J
43	K	K	43	4B	K
44	L	L	44	4C	L
45	M	M	45	4D	M
46	N	N	46	4E	N
47	O	O	47	4F	O
48	P	P	48	50	P
49	Q	Q	49	51	Q
50	R	R	50	52	R
51	S	S	51	53	S
52	T	T	52	54	T
53	U	U	53	55	U
54	V	V	54	56	V
55	W	W	55	57	W
56	X	X	56	58	X
57	Y	Y	57	59	Y
58	Z	Z	58	5A	Z
59	[	[	59	5B	[
60	\	\	60	5C	\
61	]	]	61	5D]
62	^	^	62	5E	^
63	_	_	63	5F	_
64	NUL	'	64	60	'
65	SOH	a	65	61	a
66	STX	b	66	62	b
67	ETX	c	67	63	c
68	EOT	d	68	64	d
69	ENQ	e	69	65	e
70	ACK	f	70	66	f
71	BEL	g	71	67	g
72	BS	h	72	68	h
73	HT	i	73	69	i
74	LF	j	74	6A	j
75	VT	k	75	6B	k
76	FF	l	76	6C	l
77	CR	m	77	6D	m
78	SO	n	78	6E	n
79	SI	o	79	6F	o
80	DLE	p	80	70	p
81	DC1	q	81	71	q
82	DC2	r	82	72	r

Numeric value	Character			Character code	
	Code A	Code B	Code C	HEX notation	ASCII notation
83	DC3	s	83	73	s
84	DC4	t	84	74	t
85	NAK	u	85	75	u
86	SYN	v	86	76	v
87	ETB	w	87	77	w
88	CAN	x	88	78	x
89	EM	y	89	79	y
90	SUB	z	90	7A	z
91	ESC	{	91	7B	{
92	FS	|	92	7C	|
93	GS	}	93	7D	}
94	RS	~	94	7E	~
95	US	DEL	95	A1	
96	FNC3	FNC3	96	A2	
97	FNC2	FNC2	97	A3	
98	SHIFT	SHIFT	98	A4	
99	CODE C	CODE C	99	A5	
100	CODE B	FNC4	CODE B	A6	
101	FNC4	CODE A	CODE A	A7	
102	FNC1	FNC1	FNC1	A8	
103	START (CODE A)			A9	
104	START (CODE B)			AA	
105	START (CODE C)			AB	
106	STOP			AC	

Postnet (ZIP)

A character code that is used when printing the Barcode Character for Postnet (ZIP).

Character	Character code	
	HEX notation	ASCII notation
0	30	0
1	31	1
2	32	2
3	33	3
4	34	4
5	35	5
6	36	6
7	37	7
8	38	8
9	39	9
Framebar	2A	*
Framebar	7C	|

MSI Plessy

A character code that is used when printing the Barcode Character for MSI Plessy.

Character	Character code	
	HEX notation	ASCII notation
0	30	0
1	31	1
2	32	2
3	33	3
4	34	4
5	35	5
6	36	6
7	37	7
8	38	8
9	39	9
Start	3C	<
Stop	3E	>

Sample of barcode / OCR font use

The surrounding blank area and caption are not included in the following example. Escape code <ESC> and carriage return code <CR> are required for code value input. The value of nn is a hexadecimal digit for items listed as <Hexnn>. Input for the corresponding code is required.

Generally for these samples, first a position set command is needed to choose the preferred Barcode font. Afterwards, this position set command is needed to return to the general text font from the Barcode font.

UPC-A

Data to be displayed

03600029145(Check Digit 2)

<ESC>(8Y<ESC>(s12vbs24600T(036000-CJBEFC(<CR>

UPC-E

Data to be displayed

654321 (Check Digit 7 in EOEOEO:E(Even), O (Odd))

<ESC>(8Y<ESC>(s12vbs24600T(g5e3c1)<CR>

EAN13

Data to be displayed

491234567890 (The prefix for 4 in OEOOEE, Check Digit 4)

<ESC>(8Y<ESC>(s12vbs24630T(9b23ef-GHIJAE(<CR>

EAN8

Data to be displayed

4912345 (Check Digit 6)

<ESC>(8Y<ESC>(s12vbs24620T(4912-DEFG(<CR>

Interleave25

Data to be displayed

0400763000011 (Check Digit 6)

<ESC>(4Y<ESC>(s12vbs24640T<HexAB>%!m?!"1<HexAC><CR>

Code39

Data to be displayed

01234567890123 (Check Digit 8)

<ESC>(0Y<ESC>(s12vbs24670T*012345678901238*<CR>

Code128

Data to be displayed

<StartC><FNC1>123456<CodeB>A1(Check Digit C)

<ESC>(19Y<ESC>(s12vbs24702T<HexAB><HexA8>,BX<HexA6>A1C<HexAE><CR>

Postnet

Data to be displayed

123456789 (Check Digit 5)

<ESC>(15Y<ESC>(s12vbs24771T1234567895<CR>

Codabar

Data to be displayed

A19+1243B (Check Digit :)

<ESC>(5Y<ESC>(s12vbs24750TA1941243:B<CR>

MSI Plessy

Data to be displayed

1234567 (No Check Digit)

<ESC>(6Y<ESC>(s12vbs24760T<1234567><CR>

OCR-A

Data to be displayed

12345ABCDE

<ESC>(0O<ESC>(s12vbs104T12345ABCDE<CR>

OCR-B

Data to be displayed

12345ABCDE

<ESC>(1O<ESC>(s12vbs110T12345ABCDE<CR>

Chapter 6

In this case

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Troubleshooting

Read this section if trouble occurs. Contact your authorized local dealer if the following steps do not solve the problem.

Cannot install the driver

Status	Things to check	Countermeasure
Cannot install the driver	Did you follow the installation procedure?	Perform the installation by following the procedure indicated in the manual.
	Are you logged in as a restricted user (with User privileges)?	Log in with a user account that has Administrator privileges, and perform the installation.
	Is there a problem with the computer? <ul style="list-style-type: none">• Is Windows unstable?• Is the CD-ROM drive operating correctly?	Try performing the installation again after restarting the computer. Check the operation of the CD-ROM drive. See the help, etc. for your computer.
	Is there a problem with the installation CD-ROM?	Check whether the CD-ROM can be read in the Explorer of Windows. If there is a problem with the installation disk, contact your authorized local dealer.
	Did you perform the installation in a supported environment?	Check the list of supported operating systems. For details, see “System requirements” (page 1-4) .
	Is there any security software or port monitoring software running?	Close any security software or port monitoring software, and perform the installation again. See the help, etc. for your computer.

Cannot print documents

Status	Things to check	Countermeasure
Cannot print documents	Have you checked the network environment?	See chapter 4, “Cannot connect to the network” in “Troubleshooting” in the Administrator’s Guide to check the network environment.
	Is paper loaded?	Load the paper properly. For details, see “Loading Paper” in the User’s Guide.
	Has the toner run out? Has the drum cartridge reached the end of its life?	Check the screen of the machine, and if a message is displayed, replace the toner cartridge and drum cartridge. For details, see chapter 3, “Replacing consumables” in the Administrator’s Guide.
	Is the system memory of the computer insufficient?	Check whether the memory capacity of the computer meets the requirements. If the requirements are not met, increase the memory of the computer. If multiple applications or unnecessary resident programs are running, close them.
	Is the printer driver installed?	Install the printer drivers. For details, see “Installing the driver” (page 1-1) .
	Is the correct printer selected?	Select your desired printer in the print menu of the application.
	Is the printing port correct?	Check whether the printing port is correct in the properties screen of the printer driver. See the help, etc. for your computer. If the machine is connected via a USB cable, confirm that “USBxx” (where “xx” refers to the port number) is selected. If the machine is connected via a network, confirm that an lpr port with the same address as the IP address set in the machine is selected.
	Are you printing from Mac OS X 10.2 via USB cable?	When you print from Mac via USB cable, the following settings are not available: Paper Type, Toner Saving, Print Density, Binding Width (Front), and Binding Width (Back). Print via network or upgrade your Mac version to Mac OS X 10.3 or later.
	Is the right printer driver installed on your computer?	When you have installed a network printer driver in advance and then tried to install a driver using plug-and-play, the correct printer driver may not be installed. If the correct printer driver is not installed, reinstall it using the “Add Printer” wizard. For details, see “Installing printer drivers using the “Add Printer” wizard” (page 1-20) .
Is user authentication set?	According to the machine policy, you cannot print documents when user authentication is not set. Set the user authentication in such case. For details, see ““Extended Functions” tab” (page 2-10) .	

Status	Things to check	Countermeasure
Cannot print documents	Is the machine online?	Printing is available when the machine is online. To switch the machine to online: Press [Off Line] on the print ready screen. (If the print ready screen is not displayed, press <Mode> repeatedly until "Print Ready" screen is displayed.)
Cannot print correctly	Are the paper size and orientation settings, etc. set in the application being prioritized?	The settings of the application software may be prioritized, depending on the settings of the printer driver. Specify the correct settings in the application software.
	Does the machine have sufficient memory for printing?	If you are printing multiple sets, first check whether you can print one set. Set a lower image resolution. Alternatively, reduce the size of the data by simplifying the image.
Cannot print PDF documents correctly using KONICA MINOLTA bizhub 28e PDF DirectPrint or operating from machine control panel.	Is the optional PostScript Memory attached?	You may print them correctly when the optional PostScript Memory is attached.
	Are the fonts embedded in the PDF file?	When the characters are garbled, you may print them correctly by creating a PDF file with the fonts embedded in the file.

Uninstalling the printer driver

For Windows

This section describes the procedure using Windows 7. The procedure may slightly vary according to the version of the operating system. You must have administrator privileges in order to uninstall the printer driver or utilities.

- 1 Select [Control Panel] from [Start] menu.
- 2 Click [Programs], and then [Uninstall a program].
The procedures are when your control panel is set to “View by: Category”. When it is set either to “View by: Large icons” or “View by: Small icons”, click [Programs and Features].
- 3 Select the printer driver you want to delete, and click [Uninstall].
- 4 Click [Yes].
- 5 Follow the instructions on the screen.

For Macintosh

This section describes the procedure using OS X 10.5. The procedure may slightly vary according to the version of the operating system.

- 1** Open the “Print & Fax” window.
The “Print & Fax” window can be opened from the “System Preferences” in the “Apple Menu”
- 2** Select the printer name to be deleted, and then click [-].
The selected printer is deleted.
- 3** Close the [Print & Fax] window.

NOTE

- You can delete the files installed by using the “KONICA MINOLTA bizhub 28e PS.pkg” when you double-click the “uninstall_bizhub28e (or “uninstall_bizhub28e.command” for 10.2, 10.3, and 10.4) file on the installation disk.
To delete, open the folder with the name of your operating system version, and then double-click “uninstall bizhub 28e” (or “uninstall_bizhub28e.command” for 10.2, 10.3, and 10.4).

