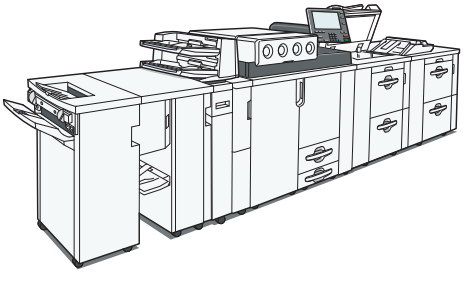
Pro C900s

Operating Instructions

Security Reference



Read this manual carefully before you use this machine and keep it handy for future reference. For safe and correct use, be sure to read the Safety Information in "About This Machine" before using the machine.

Introduction

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

Important

Contents of this manual are subject to change without prior notice. In no event will the company be liable for direct, indirect, special, incidental, or consequential damages as a result of handling or operating the machine.

Do not copy or print any item for which reproduction is prohibited by law.
Copying or printing the following items is generally prohibited by local law:
bank notes, revenue stamps, bonds, stock certificates, bank drafts, checks, passports, driver's licenses.
The preceding list is meant as a guide only and is not inclusive. We assume no responsibility for its completeness or accuracy. If you have any questions concerning the legality of copying or printing certain items, consult with your legal advisor.

Notes:

Some illustrations in this manual might be slightly different from the machine.
Certain options might not be available in some countries. For details, please contact your local dealer.
Depending on which country you are in, certain units may be optional. For details, please contact your local dealer.

Caution:

Use of controls or adjustments or performance of procedures other than those specified in this manual might result in hazardous radiation exposure.

Manuals for This Machine

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

Important

- Media differ according to manual.
- The printed and electronic versions of a manual have the same contents.
- Adobe Acrobat Reader/Adobe Reader must be installed in order to view the manuals as PDF files.
- A Web browser must be installed in order to view the html manuals.
- For enhanced security, we recommend that you first make the following settings. For details, see "Setting Up the Machine", Security Reference.
  - Install the Device Certificate.
  - Enable SSL (Secure Sockets Layer) Encryption.
  - Change the user name and password of the administrator using Web Image Monitor.

About This Machine

Be sure to read the Safety Information in this manual before using the machine.

This manual provides an introduction to the functions of the machine. It also explains the control panel, preparation procedures for using the machine, how to enter text, and how to install the CD-ROMs provided.

Troubleshooting

Provides a guide to solving common problems, and explains how to replace paper, toner, staples, and other consumables.

Copy/Document Server Reference

Explains Copier and Document Server functions and operations. Also refer to this manual for explanations on how to place originals.

Scanner Reference

Explains Scanner functions and operations.

Network Guide

Explains how to configure and operate the machine in a network environment.

General Settings Guide

Explains User Tools settings, and Address Book procedures such as registering user codes. Also refer to this manual for explanations on how to connect the machine.

Security Reference

This manual is for administrators of the machine. It explains security functions that you can use to prevent unauthorized use of the machine, data tampering, or information leakage. Be sure to read this manual when setting the enhanced security functions, or user and administrator authentication.

Information

Contains general notes on the machine, and information about the trademarks of product names used in the manuals.

Note

- In addition to the above, manuals are also provided for the Printer function.

TABLE OF CONTENTS

3. Ensuring Information Security

4. Managing Access to the Machine

5. Enhanced Network Security

6. Specifying the Extended Security Functions

7. Troubleshooting

8. Appendix

How to Read This Manual

Symbols

This manual uses the following symbols:

Important

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

Note

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

Reference

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

[ ]

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

IP Address

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

1. Getting Started

This chapter describes the machine's security features and how to specify initial security settings.

Before Using the Security Functions

Important

- **If security settings are not made, there is a risk of damage resulting from malicious activity. For this reason, be sure to make the security settings shown in this manual.**

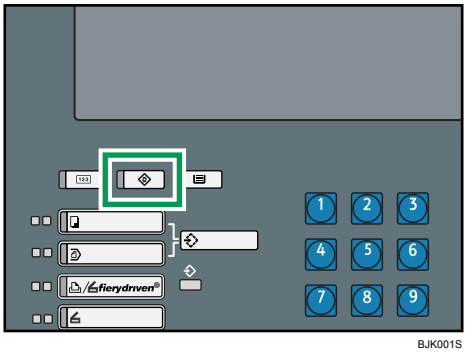
1. To prevent this machine being stolen or willfully damaged, etc., install it in a secure location.
2. Purchasers of this machine must make sure that people who use it do so appropriately, in accordance with operations determined by the machine administrator. If the administrator does not make the required security settings, there is a risk of security breaches by users.
3. Before setting this machine's security features and to ensure appropriate operation by users, administrators must read the Security Reference completely and thoroughly, paying particular attention to the section entitled “Before Using the Security Functions”.
4. Administrators must inform users regarding proper usage of the security functions.
5. Administrators should routinely examine the machine's logs to check for irregular and unusual events.
6. If this machine is connected to a network, its environment must be protected by a firewall or similar.
7. For protection of data during the communication stage, apply the machine's communication security functions and connect it to devices that support security functions such as encrypted communication.

Setting Up the Machine

This section explains how to enable encryption of transmitted data and configure the administrator account.

If you want higher security, make the following setting before using the machine:

1. **Turn the machine on.**
2. **Press the [User Tools] key.**



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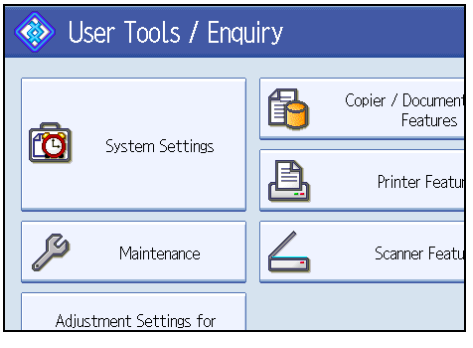
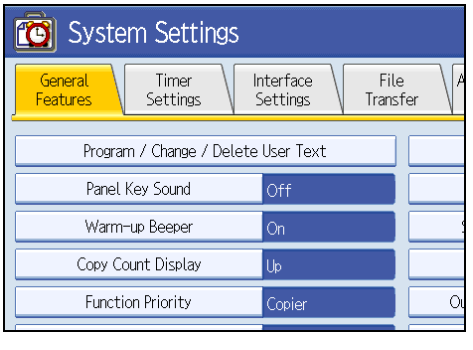
3. **Press [System Settings].**



4. **Press [Interface Settings].**



5. **Specify IPv4 Address.**

   For details on how to specify the IPv4 address, see “Interface Settings”, General Settings Guide.

6. **Connect the machine to the network.**
7. **Start Web Image Monitor, and then log on to the machine as the administrator.**

   For details about logging on to Web Image Monitor as an administrator, see “Using Web Image Monitor”.
8. **Install the device certificate.**

   For information on how to install the device certificate, see “Protection Using Encryption”.
9. **Enable secure sockets layer (SSL).**

   For details about enabling SSL, see “Protection Using Encryption”.
10. **Enter the administrator's user name and password.**

    For details about specifying the administrator user name and password, see “Registering the Administrator”.

    The administrator's default account (user name: “admin”; password: blank) is unencrypted between steps 6 to 9. If acquired during this time, this account information could be used to gain unauthorized access to the machine over the network.

    If you consider this risky, we recommend that you specify a temporary administrator password for accessing Web Image Monitor for the first time, before connecting to the network in step 6.

Reference

- p.38 "Using Web Image Monitor"
- p.147 "Protection Using Encryption"
- p.28 "Registering the Administrator"

Enhanced Security

This machine's security functions can be enhanced by managing the machine and its users using the improved authentication functions.

By specifying access limits for the machine's functions and the documents and data stored in the machine, information leaks and unauthorized access can be prevented.

Data encryption also prevents unauthorized data access and tampering via the network.

The machine also automatically checks the configuration and supplier of the firmware each time the main power is switched on and whenever firmware is installed.

Authentication and Access Limits

Using authentication, administrators manage the machine and its users. To enable authentication, information about both administrators and users must be registered in order to authenticate users via their login user names and passwords.

Four types of administrators manage specific areas of machine usage, such as settings and user registration.

Access limits for each user are specified by the administrator responsible for user access to machine functions and data stored in the machine.

For details about the administrator and user roles, see “Administrators and Users”.

Encryption Technology

This machine can establish secure communication paths by encrypting transmitted data and passwords.

Reference

- p.17 "Administrators and Users"

Glossary

Administrator

There are four types of administrators according to administrative function: machine administrator, network administrator, file administrator, and user administrator. We recommend that only one person takes each administrator role.

In this way, you can spread the workload and limit unauthorized operation by a single administrator.

Basically, administrators make machine settings and manage the machine; but they cannot perform normal operations.

User

A user performs normal operations on the machine.

File Creator (Owner)

This is a user who can store files in the machine and authorize other users to view, edit, or delete those files.

Registered User

Users with personal information registered in the address book who have a login password and user name.

Administrator Authentication

Administrators are authenticated by their login user name and login password, supplied by the administrator, when specifying the machine's settings or accessing the machine over the network.

User Authentication

Users are authenticated by a login user name and login password, supplied by the user, when specifying the machine's settings or accessing the machine over the network.

The user's login user name and password are stored in the machine's address book. The personal information can be obtained from the Windows domain controller (Windows authentication), LDAP Server (LDAP authentication), or Integration Server (Integration Server authentication) connected to the machine via the network. The “Integration Server” is the computer on which Authentication Manager is installed.

Login

This action is required for administrator authentication and user authentication. Enter your login user name and login password on the machine's control panel. You might have to enter your login user name and password when accessing the machine over a network or using utilities such as Web Image Monitor.

Logout

This action is required with administrator and user authentication. This action is required when you have finished using the machine or changing the settings.

Security Measures Provided by this Machine

1

Using Authentication and Managing Users

Enabling Authentication

To control administrators' and users' access to the machine, perform administrator authentication and user authentication using login user names and login passwords. To perform authentication, the authentication function must be enabled. For details about authentication settings, see “Enabling Authentication”.

Specifying Authentication Information to Log on

Users are managed using the personal information managed in the machine's Address Book. By enabling user authentication, you can allow only people registered in the Address Book to use the machine. Users can be managed in the Address Book by the user administrator. For information on specifying information to log on, see “Basic Authentication”.

Specifying Which Functions are Available

This can be specified by the user administrator. Specify the functions available to registered users. By making this setting, you can limit the functions available to users. For information on how to specify which functions are available, see “Limiting Available Functions”.

Reference

- p.23 "Enabling Authentication"
- p.44 "Basic Authentication"
- p.130 "Limiting Available Functions"

Ensuring Information Security

Protecting Stored Files from Unauthorized Access

You can specify who is allowed to use and access scanned files and the files in Document Server.

You can prevent activities such as the printing of stored files by unauthorized users. For details about protecting stored files from unauthorized access, see “Specifying Access Permission for Stored Files”.

Protecting Stored Files from Theft

You can specify who is allowed to use and access scanned files and the files in Document Server.

You can prevent activities such as the sending and downloading of stored files by unauthorized users.

For details about protecting stored files from theft, see “Specifying Access Permission for Stored Files”.

Preventing Data Leaks Due to Unauthorized Transmission

You can specify in the Address Book which users are allowed to send files using the scanner function. You can also limit the direct entry of destinations to prevent files from being sent to destinations not registered in the Address Book. For details about preventing data leaks due to unauthorized transmission, see “Preventing Data Leaks Due to Unauthorized Transmission”.

Using S/MIME to Protect E-mail Transmission

When sending mail from the scanner to a user registered in the Address Book, you can use S/MIME to protect its contents from interception and alteration, and attach an electronic signature to guarantee the sender's identity. For details about using S/MIME to protect e-mail transmission, see "Using S/MIME to Protect Email Transmission".

Protecting Registered Information in the Address Book

You can specify who is allowed to access the data in the address book. You can prevent the data in the address book being used by unregistered users.

To protect the data from unauthorized reading, you can also encrypt the data in the address book. For details about protecting registered information in the address book, see “Protecting the Address Book”.

Overwriting the Data on the Hard Disk

To prevent data leaks, you can set the machine to automatically overwrite temporary data. We recommend that before disposing of the machine, you overwrite all the data on the hard disk.

To overwrite the hard disk data, the optional DataOverwriteSecurity Unit is required. For details about overwriting the data on the hard disk, see “Deleting Data on the Hard Disk”.

Reference

- p.83 "Specifying Access Permission for Stored Files"
- p.98 "Preventing Data Leaks Due to Unauthorized Transmission"
- p.101 "Using S/MIME to Protect E-mail Transmission"
- p.109 "Protecting the Address Book"
- p.116 "Deleting Data on the Hard Disk"

Limiting and Controlling Access

Preventing Modification or Deletion of Stored Data

You can allow selected users to access stored scan files and files stored in Document Server.

You can permit selected users who are allowed to access stored files to modify or delete the files. For details about limiting and controlling access, see “Specifying Access Permission for Stored Files”.

Preventing Modification of Machine Settings

The machine settings that can be modified depend on the type of administrator account.

Register the administrators so that users cannot change the administrator settings. For details about preventing modification of machine settings, see “Preventing Modification of Machine Settings”.

Limiting Available Functions

To prevent unauthorized operation, you can specify who is allowed to access each of the machine's functions. For details about limiting available functions for users and groups, see “Limiting Available Functions”.

Reference

- p.83 "Specifying Access Permission for Stored Files"
- p.125 "Preventing Modification of Machine Settings"
- p.130 "Limiting Available Functions"

Enhanced Network Security

Preventing Unauthorized Access

You can limit IP addresses or disable ports to prevent unauthorized access over the network and protect the address book, stored files, and default settings. For details about preventing unauthorized access, see “Preventing Unauthorized Access”.

Safer Communication Using SSL, SNMPv3 and IPsec

You can encrypt this machine's transmissions using SSL, SNMPv3, and IPsec. By encrypting transmitted data and safeguarding the transmission route, you can prevent sent data from being intercepted, analyzed, and tampered with. For details about safer communication using SSL, SNMPv3 and IPsec, see “Protection Using Encryption”.

Reference

- p.133 "Preventing Unauthorized Access"
- p.147 "Protection Using Encryption"

2. Authentication and its Application

This chapter describes how to register the administrator and specify the authentication methods. How to log on and log off once authentication is enabled is also described here.

Administrators and Users

When controlling access using the authentication method specified by an administrator, select the machine's administrator, enable the authentication function, and then use the machine.

The administrators manage access to the allocated functions, and users can use only the functions they are permitted to access. When the authentication function is enabled, the login user name and login password are required in order to use the machine.

Specify administrator authentication, and then specify user authentication.

For details about specifying a login user name and password, see "Specifying Login User Name and Login Password".

Important

- **If user authentication is not possible because of a problem with the hard disk or network, you can use the machine by accessing it using administrator authentication and disabling user authentication. Do this if, for instance, you need to use the machine urgently.**

Reference

- p.47 "Specifying Login User Name and Login Password"

Administrators

There are four types of administrators: machine administrator, network administrator, file administrator, and user administrator.

Sharing administrator tasks eases the burden on individual administrators while also limiting unauthorized operation by administrators. You can also specify a supervisor who can change each administrator's password. Administrators are limited to managing the machine's settings and controlling user access, so they cannot use functions such as copying and scanning. To use these functions, the administrator must register as a user in the Address Book and then be authenticated as the user.

User Administrator

This is the administrator who manages personal information in the address book.

A user administrator can register/delete users in the address book or change users' personal information.

Users registered in the address book can also change and delete their own information.

If any of the users forget their password, the user administrator can delete it and create a new one, allowing the user to access the machine again.

For instructions on registering the user administrator, see “Registering the Administrator”.

Machine Administrator

This is the administrator who mainly manages the machine's default settings. You can set the machine so that the default for each function can only be specified by the machine administrator. By making this setting, you can prevent unauthorized people from changing the settings and allow the machine to be used securely by its many users.

For instructions on registering the machine administrator, see “Registering the Administrator”.

Network Administrator

This is the administrator who manages the network settings. You can set the machine so that network settings such as the IP address and settings for sending and receiving e-mail can only be specified by the network administrator.

By making this setting, you can prevent unauthorized users from changing the settings and disabling the machine, and thus ensure correct network operation.

For instructions on registering the network administrator, see “Registering the Administrator”.

File Administrator

This is the administrator who manages permission to access stored files. You can specify passwords to allow only registered users with permission to view and edit files stored in Document Server. By making this setting, you can prevent data leaks and tampering due to unauthorized users viewing and using the registered data.

For instructions on registering the file administrator, see “Registering the Administrator”.

Supervisor

The supervisor can delete an administrator's password and specify a new one. The supervisor cannot specify defaults or use normal functions. However, if any of the administrators forget their password and cannot access the machine, the supervisor can provide support.

For instructions on registering the supervisor, see “Supervisor Operations”.

Reference

- p.28 "Registering the Administrator"
- p.217 "Supervisor Operations"

User

Users are managed using the personal information in the machine's address book.

By enabling user authentication, you can allow only people registered in the address book to use the machine. Users can be managed in the address book by the user administrator.

For details about registering users in the address book, see “Administrator Tools”, General Settings Guide, or Web Image Monitor Help.

The Management Function

The machine has an authentication function requiring a login user name and login password. By using the authentication function, you can specify access limits for individual users and groups of users. Using access limits, you can not only limit the machine's available functions but also protect the machine settings and files and data stored in the machine. For instructions on changing the administrator's password, see "Supervisor Operations".

Important

- **If you have enabled [Administrator Authentication Management], make sure not to forget the administrator login user name and login password. If an administrator login user name or login password is forgotten, a new password must be specified using the supervisor's authority.**
- **Be sure not to forget the supervisor login user name and login password. If you do forget them, a service representative will have to return the machine to its default state. This will result in all data in the machine being lost and the service call may not be free of charge.**

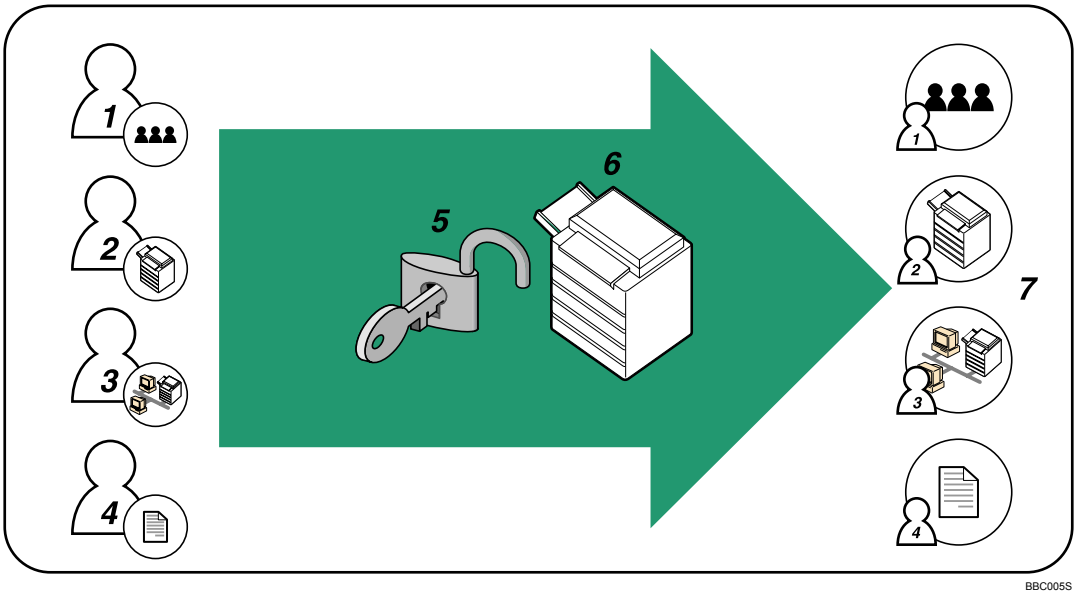
Reference

- p.217 "Supervisor Operations"

About Administrator Authentication

There are four types of administrators: user administrator, machine administrator, network administrator, and file administrator.

For details about each administrator, see "Administrators and Users".



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1. **User Administrator**

   This administrator manages personal information in the address book. You can register/delete users in the address book or change users' personal information.

2. **Machine Administrator**

   This administrator manages the machine's default settings. You can specify a security setting to allow only the machine administrator to configure system settings such as tray paper settings.

3. **Network Administrator**

   This administrator manages the network settings. You can set the machine so that network settings such as the IP address and settings for sending and receiving e-mail can be specified by the network administrator only.

4. **File Administrator**

   This is the administrator who manages permission to access stored files. You can specify passwords to allow only registered users with permission to view and edit files stored in Document Server. By making this setting, you can prevent data leaks and tampering due to unauthorized users viewing and using the registered data.

   For instructions on registering the file administrator, see “Registering the Administrator”.

5. **Authentication**

   Administrators must enter their login user name and password to be authenticated.

6. **This machine**

7. **Administrators manage the machine's settings and access limits.**

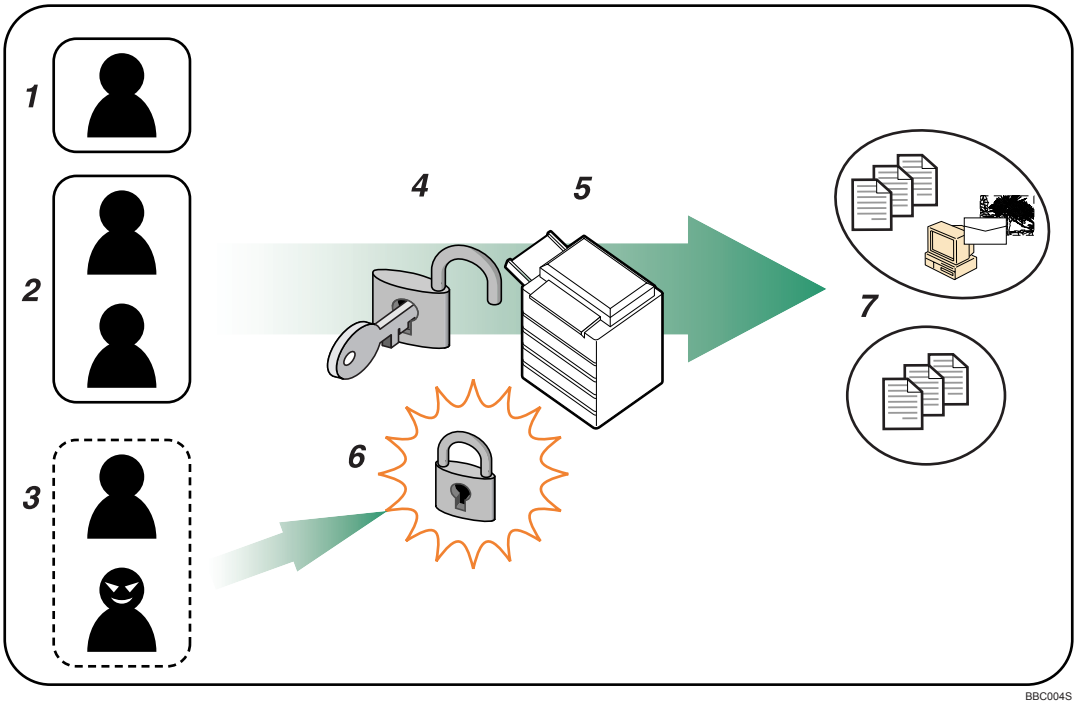
Reference

- p.17 "Administrators and Users"

About User Authentication

This machine has an authentication function to prevent unauthorized access.

By using login user name and login password, you can specify access limits for individual users and groups of users.



1. **User**

   A user performs normal operations on the machine, such as copying and printing.

2. **Group**

   A group performs normal operations on the machine, such as copying and printing.

3. **Unauthorized User**

4. **Authentication**

   Using a login user name and password, user authentication is performed.

5. **This Machine**

6. **Access Limit**

   Using authentication, unauthorized users are prevented from accessing the machine.

7. **Authorized users and groups can use only those functions permitted by the administrator.**

Enabling Authentication

To control administrators' and users' access to the machine, perform administrator or user authentication using login user names and passwords. To perform authentication, the authentication function must be enabled. To specify authentication, you need to register administrators.

For instructions on registering the administrator, see “Registering the Administrator”.

Reference

- p.28 "Registering the Administrator"

Authentication Setting Procedure

Specify administrator authentication and user authentication according to the following chart:

Administrator Authentication See “Administrator Authentication”.	Specifying Administrator Privileges See “Specifying Administrator Privileges”. Registering the Administrator See “Registering the Administrator”.
User Authentication See “User Authentication”.	Specifying User Authentication **Authentication that requires only the machine:** • User Code Authentication See “User Code Authentication”. • Basic Authentication See “Basic Authentication”. **Authentication that requires external devices:** • Windows Authentication See “Windows Authentication”. • LDAP Authentication See “LDAP Authentication”. • Integration Server Authentication See “Integration Server Authentication”.

Note

- To specify Basic Authentication, Windows Authentication, LDAP Authentication, or Integration Server Authentication, you must first enable user administrator privileges in Administrator Authentication Management.

- You can specify User Code Authentication without specifying administrator authentication.

Reference

- p.25 "Administrator Authentication"
- p.40 "User Authentication"
- p.25 "Specifying Administrator Privileges"
- p.28 "Registering the Administrator"
- p.41 "User Code Authentication"
- p.44 "Basic Authentication"
- p.53 "Windows Authentication"
- p.61 "LDAP Authentication"
- p.67 "Integration Server Authentication"

Administrator Authentication

Administrators are handled differently from the users registered in the address book. When registering an administrator, you cannot use a login user name already registered in the address book. Windows Authentication, LDAP Authentication and Integration Server Authentication are not performed for an administrator, so an administrator can log on even if the server is unreachable due to a network problem.

Each administrator is identified by a login user name. One person can act as more than one type of administrator if multiple administrator authorities are granted to a single login user name. You can specify the login user name, login password, and encryption password for each administrator. The encryption password is a password for performing encryption when specifying settings using Web Image Monitor.

The password registered in the machine must be entered when using applications such as Web Image Monitor.

Administrators are limited to managing the machine's settings and controlling user access, so they cannot use functions such as copying and scanning. To use these functions, the administrator must register as a user in the Address Book and then be authenticated as the user.

Note

- Administrator authentication can also be specified via Web Image Monitor. For details see Web Image Monitor Help.

Specifying Administrator Privileges

To specify administrator authentication, set Administrator Authentication Management to [On]. In addition, if enabled in the settings, you can choose how the initial settings are divided among the administrators as controlled items.

To log on as an administrator, use the default login user name and login password.

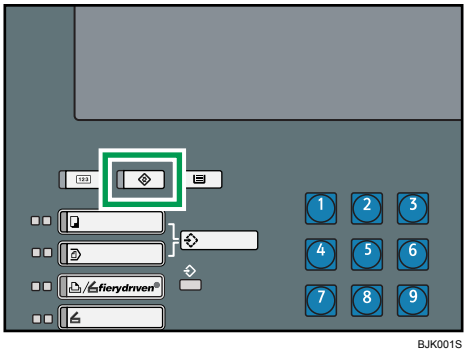
The defaults are “admin” for the login name and blank for the password. For details about changing the administrator password using the supervisor's authority, see “Supervisor Operations”.

For details about logging on and logging off with administrator authentication, see “Logging on Using Administrator Authentication”, “Logging off Using Administrator Authentication”.

Important

- **If you have enabled [Administrator Authentication Management], make sure not to forget the administrator login user name and login password. If an administrator login user name or login password is forgotten, a new password must be specified using the supervisor's authority.**

1. **Press the [User Tools] key.**



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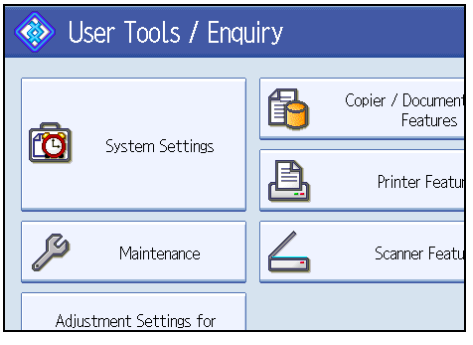
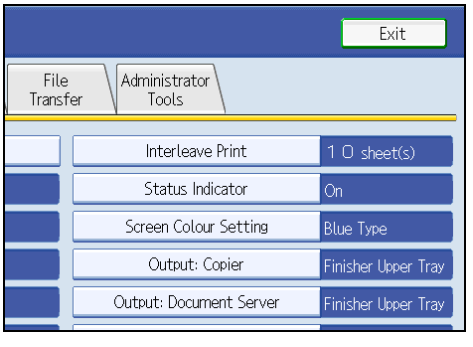
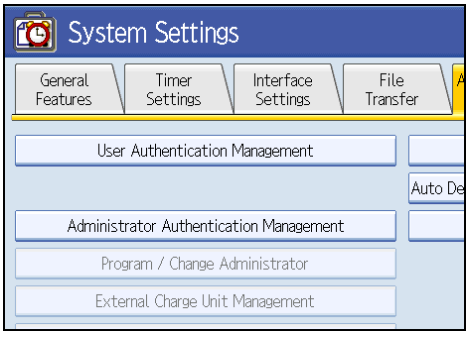
2. **Press [System Settings].**



3. **Press [Administrator Tools].**

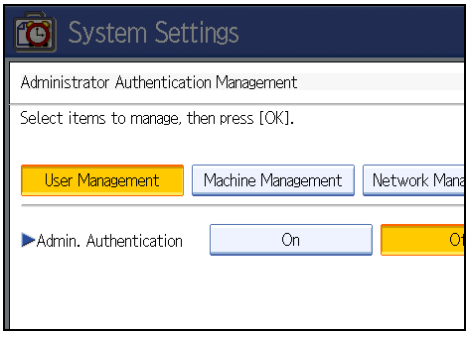


4. **Press [Administrator Authentication Management].**

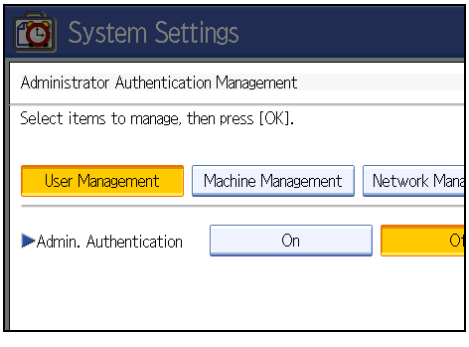


If the setting to be specified does not appear, press [▼Next] to scroll down to other settings.

5. **Press [User Management], [Machine Management], [Network Management], or [File Management] key to select which settings to manage.**

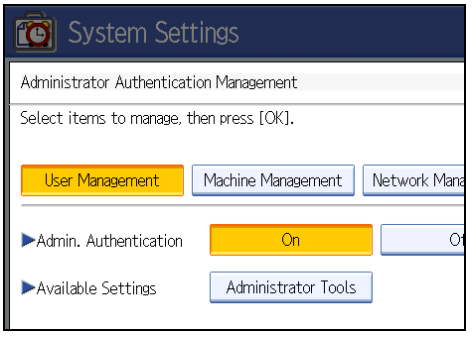


6. **Set "Admin. Authentication" to [On].**



"Available Settings" appears.

7. **Select the settings to manage from "Available Settings".**



The selected settings will be unavailable to users.

"Available Settings" varies depending on the administrator.

For details about "Available Settings", see "Limiting Available Functions".

To specify administrator authentication for more than one category, repeat steps 5 to 7.

8. **Press [OK].**
9. **Press the [User Tools] key.**

Reference

- p.217 "Supervisor Operations"
- p.33 "Logging on Using Administrator Authentication"
- p.35 "Logging off Using Administrator Authentication"
- p.130 "Limiting Available Functions"

Registering the Administrator

If administrator authentication has been specified, we recommend only one person take each administrator role.

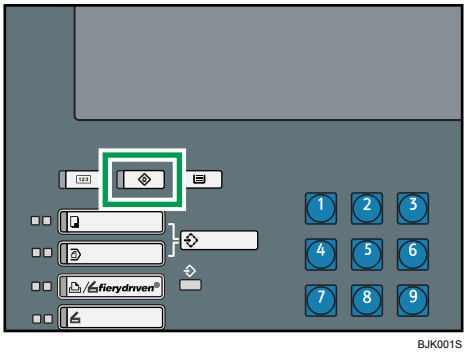
The sharing of administrator tasks eases the burden on individual administrators while also limiting unauthorized operation by a single administrator. You can register up to four login user names (Administrators 1-4) to which you can grant administrator privileges.

Administrator authentication can also be specified via Web Image Monitor. For details, see Web Image Monitor Help.

If administrator authentication has already been specified, log on using a registered administrator name and password.

For details about logging on and logging off with administrator authentication, see "Logging on Using Administrator Authentication", "Logging off Using Administrator Authentication".

1. **Press the [User Tools] key.**



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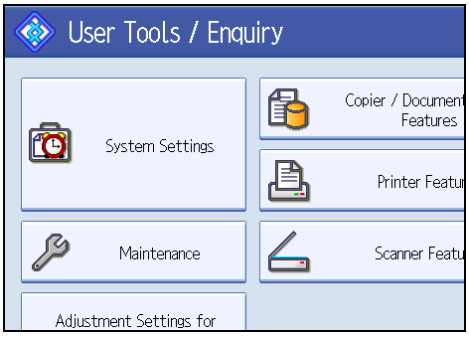
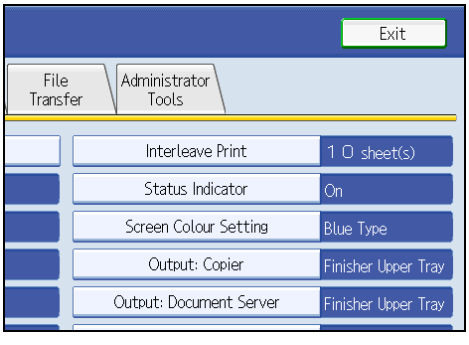
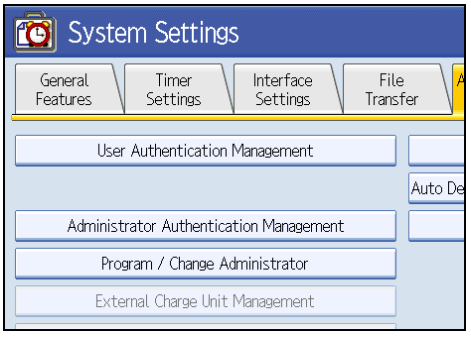
2. **Press [System Settings].**



3. **Press [Administrator Tools].**

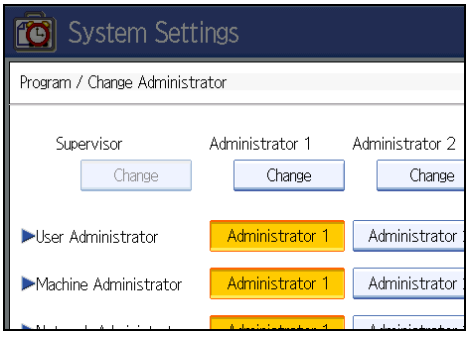


4. **Press [Program / Change Administrator].**

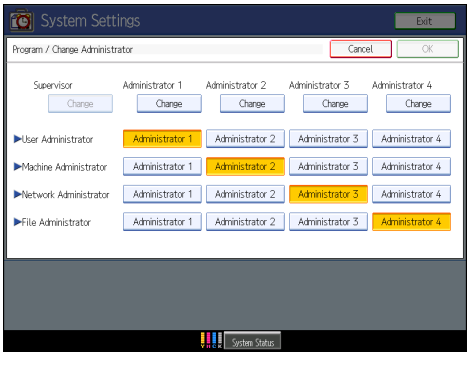


If the setting to be specified does not appear, press [▼Next] to scroll down to other settings.

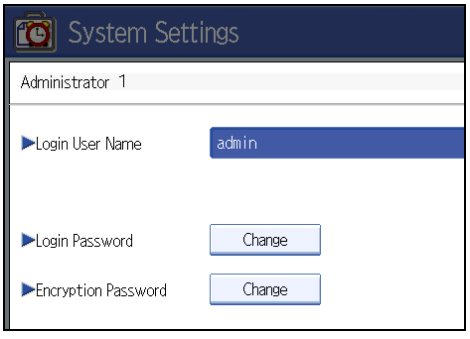
5. **In the line for the administrator whose authority you want to specify, press [Administrator 1], [Administrator 2], [Administrator 3] or [Administrator 4], and then press [Change].**



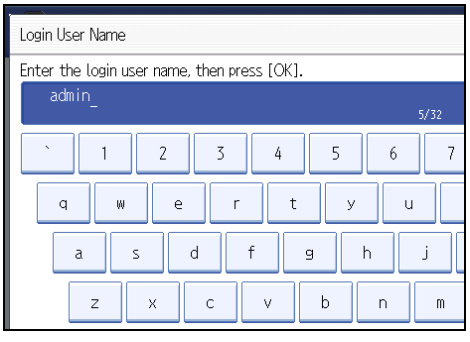
If you allocate each administrator's authority to a different person, the screen appears as follows:



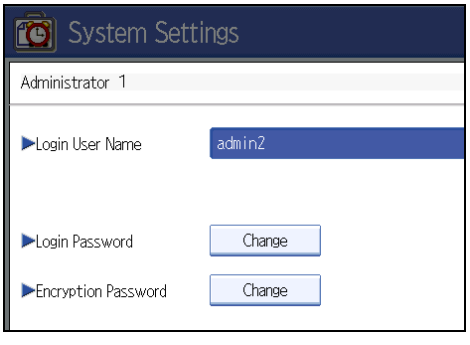
6. **Press [Change] for the login user name.**



7. **Enter the login user name, and then press [OK].**



8. **Press [Change] for the login password.**

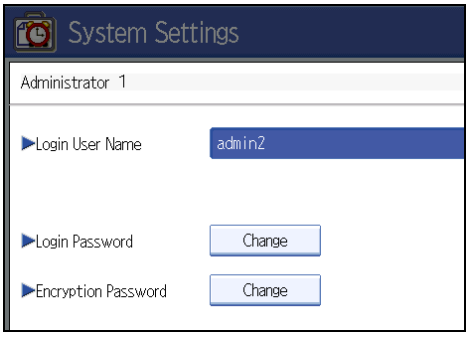


9. **Enter the login password, and then press [OK].**

Follow the password policy to make the login password more secure.

For details about the password policy and how to specify it, see "Specifying the Extended Security Functions".

10. **If a password reentry screen appears, enter the login password, and then press [OK].**
11. **Press [Change] for the encryption password.**



12. **Enter the encryption password, and then press [OK].**

13. **If a password reentry screen appears, enter the encryption password, and then press [OK].**
14. **Press [OK] twice.**

    You will be logged off.
15. **Press the [User Tools] key.**

Note

- You can use up to 32 alphanumeric characters and symbols when registering login user names and login passwords. Keep in mind that passwords are case-sensitive.
- User names cannot contain numbers only, a space, colon (:), or quotation mark ("), nor can they be left blank.
- Do not use Japanese, Traditional Chinese, Simplified Chinese, or Hangul double-byte characters when entering the login user name or password. If you use multi-byte characters when entering the login user name or password, you cannot authenticate using Web Image Monitor.

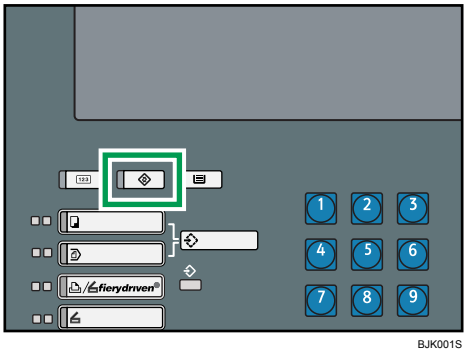
Reference

- p.33 "Logging on Using Administrator Authentication"
- p.35 "Logging off Using Administrator Authentication"
- p.181 "Specifying the Extended Security Functions"

Logging on Using Administrator Authentication

If administrator authentication has been specified, log on using an administrator's user name and password. This section describes how to log on.

1. **Press [User Tools] key.**



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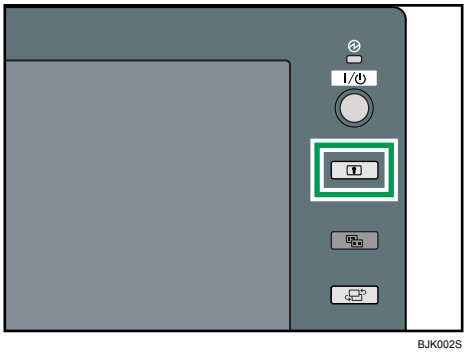
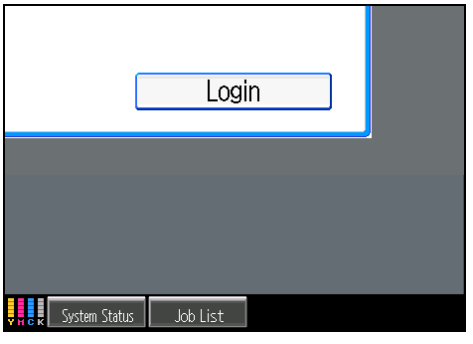
2. **Press the [Login/Logout] key.**



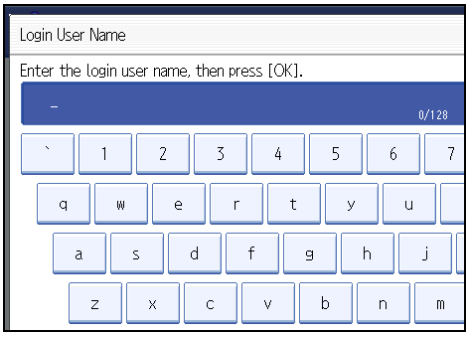
The message, "Press [Login], then enter the login user name and login password." appears.

3. **Press [Login].**



If you do not want to log in, press [Cancel].

4. **Enter the login user name, and then press [OK].**



When you log on to the machine for the first time as the administrator, enter “admin”.

5. **Enter the login password, and then press [OK].**

"Authenticating... Please wait." appears, followed by the screen for specifying the default.

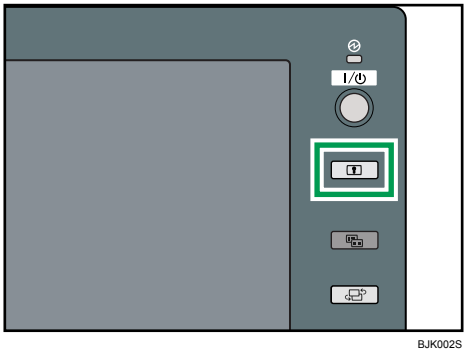
Note

- If user authentication has already been specified, a screen for authentication appears.
- To log on as an administrator, enter the administrator's login user name and login password.
- If you log on using administrator authority, the name of the administrator logging on appears.
- If you log on using a login user name with the authority of more than one administrator, “Administrator” appears.
- If you try to log on from an operating screen, "You do not have the privileges to use this function. You can only change setting(s) as an administrator." appears. Press the [User Tools] key to change the default.

Logging off Using Administrator Authentication

If administrator authentication has been specified, be sure to log off after completing settings. This section explains how to log off after completing settings.

1. **Press the [Login/Logout] key.**



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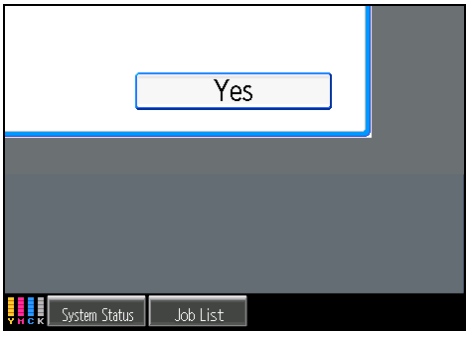
2. **Press [Yes].**



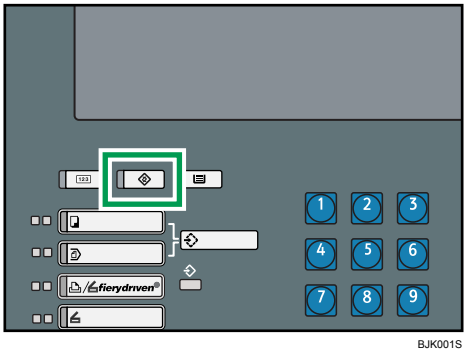
Changing the Administrator

Change the administrator's login user name and login password. You can also assign administrator authority to the login user names [Administrator 1] to [Administrator 4]. To combine the authorities of multiple administrators, assign multiple administrators to a single administrator.

For example, to assign machine administrator authority and user administrator authority to [Administrator 1], press [Administrator 1] in the lines for the machine administrator and the user administrator.

For details about logging on and logging off with administrator authentication, see "Logging on Using Administrator Authentication", "Logging off Using Administrator Authentication".

1. **Press the [User Tools] key.**



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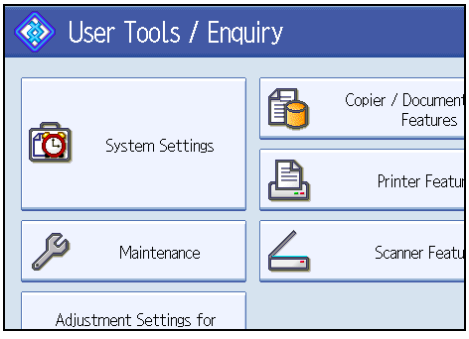
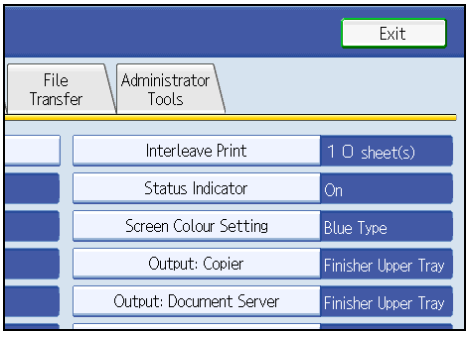
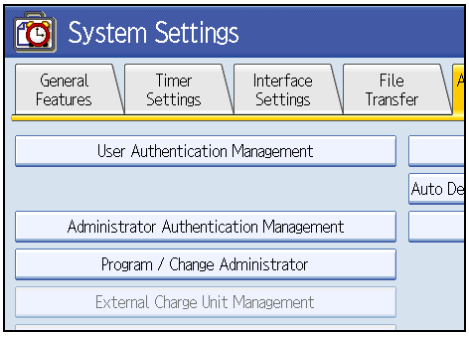
2. **Press [System Settings].**



3. **Press [Administrator Tools].**

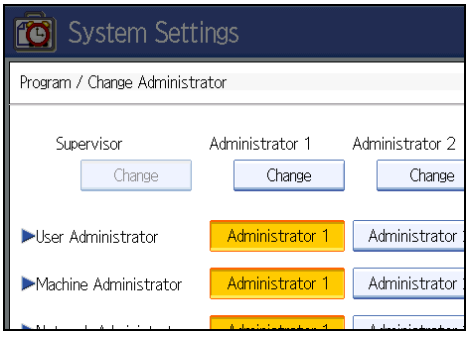


4. **Press [Program / Change Administrator].**



If the setting to be specified does not appear, press [▼Next] to scroll down to other settings.

5. **In the line for the administrator you want to change, press [Administrator 1], [Administrator 2], [Administrator 3] or [Administrator 4], and then press [Change].**



6. **Press [Change] for the setting you want to change, and re-enter the setting.**
7. **Press [OK].**
8. **Press [OK] twice.**

   You will be logged off.
9. **Press the [User Tools] key.**

Reference

- p.33 "Logging on Using Administrator Authentication"
- p.35 "Logging off Using Administrator Authentication"

Using Web Image Monitor

Using Web Image Monitor, you can log on to the machine and change the administrator settings. This section describes how to access Web Image Monitor.

For details about Web Image Monitor, see Web Image Monitor Help.

1. **Open a Web browser.**
2. **Enter "http://(the machine's IP address or host name)/" in the address bar.**

   When entering an IPv4 address, do not begin segments with zeros. For example: If the address is "192.168.001.010", you must enter it as "192.168.1.10" to connect to the machine.

   The top page of Web Image Monitor appears.
3. **Click [Login].**
4. **Enter the login name and password of an administrator, and then click [Login].**
5. **Make settings as desired.**

Note

- When logging on as an administrator use the login name and password of an administrator set in the machine. The default login name is “admin” and the password is blank.

User Authentication

There are five types of user authentication methods: User Code authentication, Basic authentication, Windows authentication, LDAP authentication, and Integration Server authentication. To use user authentication, select an authentication method on the control panel, and then make the required settings for the authentication. The settings depend on the authentication method.

Note

- User Code authentication is used for authenticating on the basis of a user code, and Basic authentication, Windows authentication, LDAP authentication, and Integration Server authentication are used for authenticating individual users.
- A user code account, that has no more than eight digits and is used for User Code authentication, can be carried over and used as a login user name even after the authentication method has switched from User Code authentication to Basic authentication, Windows authentication, LDAP authentication, or Integration Server authentication. In this case, since the User Code authentication does not have a password, the login password is set as blank.
- When authentication switches to an external authentication method (Windows authentication, LDAP authentication, or Integration Server authentication), authentication will not occur, unless the external authentication device has the carried over user code account previously registered. However, the user code account will remain in the address book of the machine despite an authentication failure. From a security perspective, when switching from User Code authentication to another authentication method, we recommend that you delete accounts you are not going to use, or set up a login password. For details about deleting accounts, see “Deleting a Registered Name”, General Settings Guide. For details about changing passwords, see “Specifying Login User Name and Login Password”.
- You cannot use more than one authentication method at the same time.
- User authentication can also be specified via Web Image Monitor. For details see Web Image Monitor Help.
- You can apply User Code authentication to control access to print jobs.
- If you enable LDAP authentication, you can use an LDAP server to manage user authentication more easily. For example, LDAP can force users to enter a user name and password before they can use the copier or scanner functions or change the printer function's system settings by pressing the [fierydriven] key. For details about using LDAP to control user access to the machine's printer function, see the section on the printer function in the supplied manual.

Reference

- p.47 "Specifying Login User Name and Login Password"

User Code Authentication

This is an authentication method for limiting access to functions according to a user code. The same user code can be used by more than one user. By specifying user code authentication, you can limit the printer functions available under each user code.

For details about specifying user codes, see "Authentication Information", General Settings Guide.

For details about specifying the TWAIN driver user code, see the TWAIN driver Help.

Important

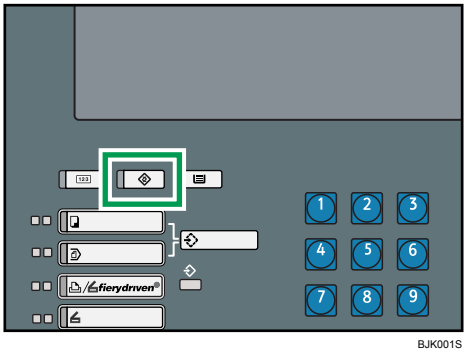
- **To control the use of DeskTopBinder Professional for the delivery of files stored in the machine, select Basic Authentication, Windows Authentication, LDAP Authentication, or Integration Server Authentication.**

Specifying User Code Authentication

This can be specified by the machine administrator.

For details about logging on and logging off with administrator authentication, see "Logging on Using Administrator Authentication", "Logging off Using Administrator Authentication".

1. **Press the [User Tools] key.**



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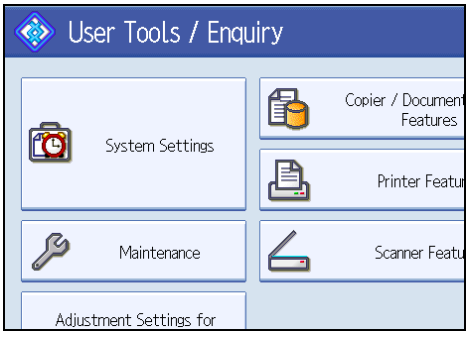
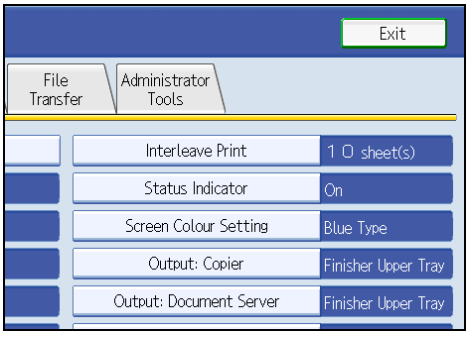
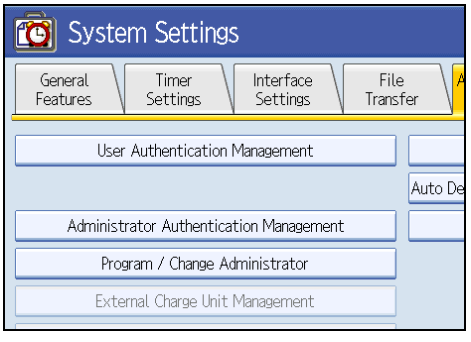
2. **Press [System Settings].**



3. **Press [Administrator Tools].**

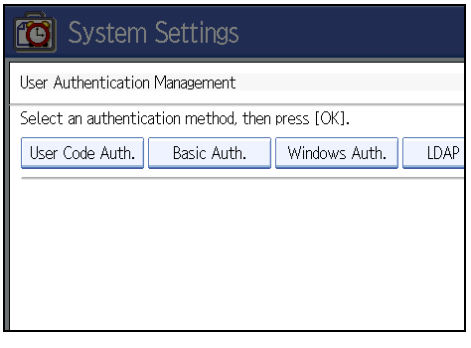


4. **Press [User Authentication Management].**



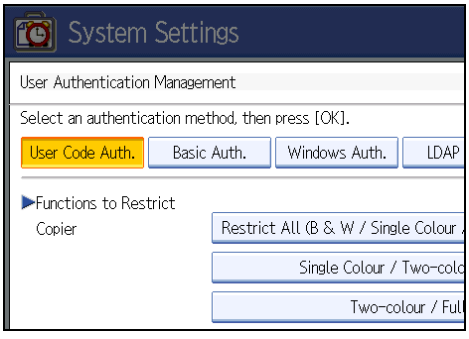
If the setting to be specified does not appear, press [▼Next] to scroll down to other settings.

5. **Select [User Code Auth.].**



If you do not want to use user authentication management, select [Off].

6. **Select which of the machine's functions you want to limit.**



The selected settings will be unavailable to users.

For details about specifying available functions for individuals or groups, see "Limiting Available Functions".

7. **Press [OK].**
8. **Press the [User Tools] key.**

A confirmation message appears.

If you press [Yes], you will be automatically logged out.

Reference

- p.33 "Logging on Using Administrator Authentication"
- p.35 "Logging off Using Administrator Authentication"
- p.130 "Limiting Available Functions"

Basic Authentication

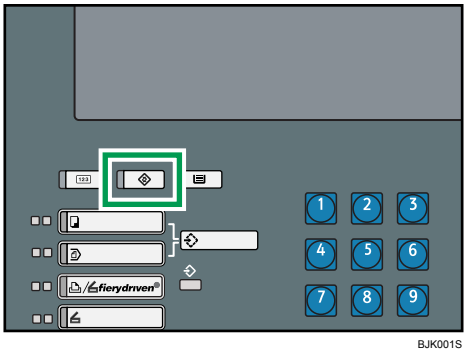
Specify this authentication method when using the machine's address book to authenticate each user. Using Basic authentication, you can not only manage the machine's available functions but also limit access to stored files and to the personal data in the address book. Under Basic authentication, the administrator must specify the functions available to each user registered in the address book.

Specifying Basic Authentication

This can be specified by the machine administrator.

For details about logging on and logging off with administrator authentication, see “Logging on Using Administrator Authentication”, “Logging off Using Administrator Authentication”.

1. **Press the [User Tools] key.**



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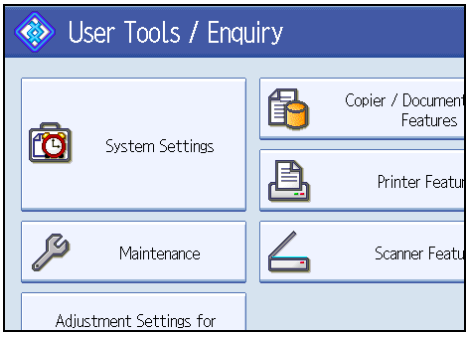
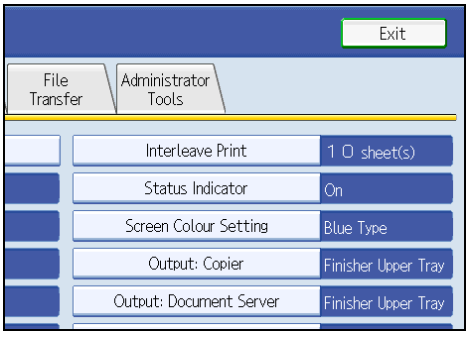
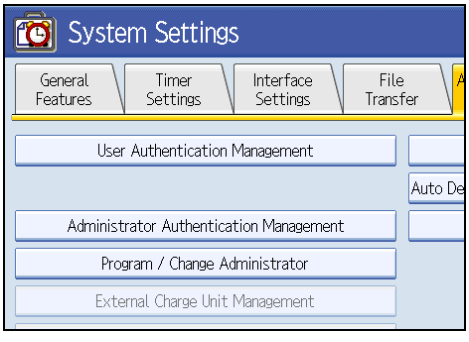
2. **Press [System Settings].**



3. **Press [Administrator Tools].**

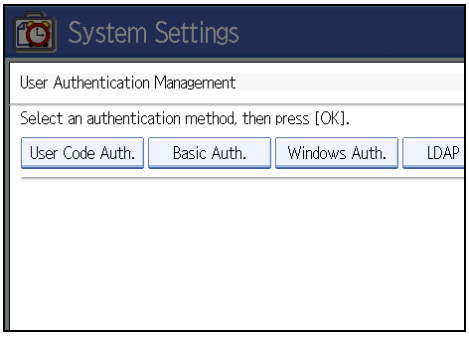


4. **Press [User Authentication Management].**



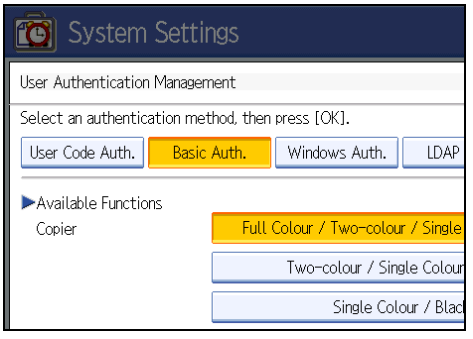
If the setting to be specified does not appear, press [▼Next] to scroll down to other settings.

5. **Select [Basic Auth.].**



If you do not want to use user authentication management, select [Off].

6. **Select which of the machine's functions you want to permit.**



If the setting to be specified does not appear, press [▼Next] to scroll down to other settings.

The selected functions are registered as the initial settings for "Available Functions", in the address book. By specifying "Available Functions", you can limit the functions available to each user under Basic Authentication.

For details about specifying available functions for individuals or groups, see "Limiting Available Functions".

For details about printer job authentication, see "User Code Authentication".

7. **Press [OK].**
8. **Press the [User Tools] key.**

A confirmation message appears.

If you press [Yes], you will be automatically logged out.

Reference

- p.33 "Logging on Using Administrator Authentication"
- p.35 "Logging off Using Administrator Authentication"
- p.130 "Limiting Available Functions"
- p.41 "User Code Authentication"

Authentication Information Stored in the Address Book

This can be specified by the user administrator. For details about logging on and logging off with administrator authentication, see "Logging on Using Administrator Authentication", "Logging off Using Administrator Authentication".

If you have specified User Authentication, you can specify access limits for individual users and groups of users. Specify the setting in the address book for each user.

Users must have a registered account in the address book in order to use the machine when User Authentication is specified. For details about user registration, see "Registering Names", General Settings Guide.

User authentication can also be specified via Web Image Monitor.

Reference

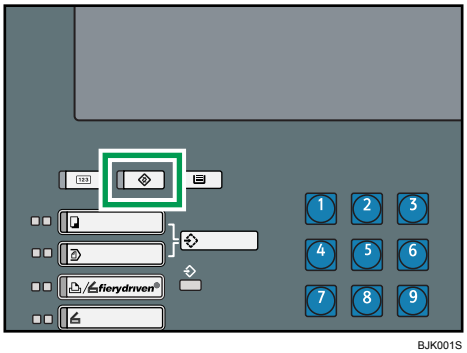
- p.33 "Logging on Using Administrator Authentication"
- p.35 "Logging off Using Administrator Authentication"

Specifying Login User Name and Login Password

In [Address Book Management], specify the login user name and login password to be used for User Authentication Management.

Login user names can contain up to 32 characters; passwords can contain up to 128 characters. Both user names and passwords can contain alphanumeric characters and symbols. User names cannot contain spaces, colons, or quotation marks, and cannot be blank.

1. **Press the [User Tools] key.**



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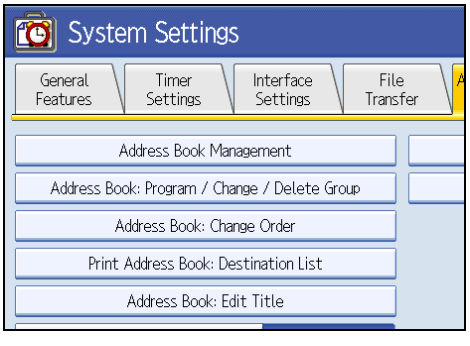
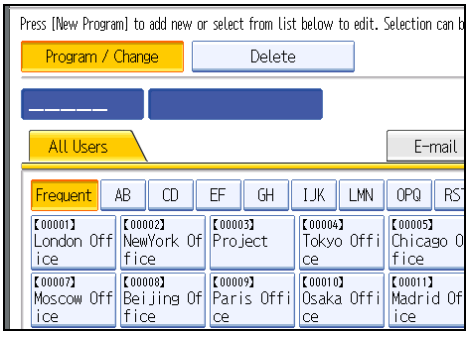
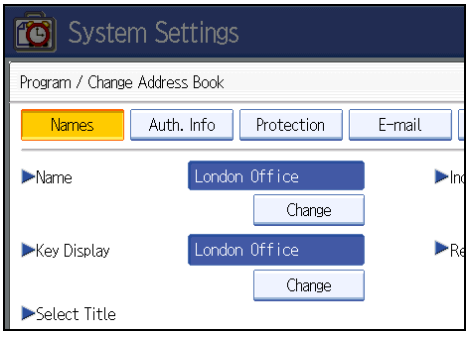
2. **Press [System Settings].**
3. **Press [Administrator Tools].**
4. **Press [Address Book Management].**



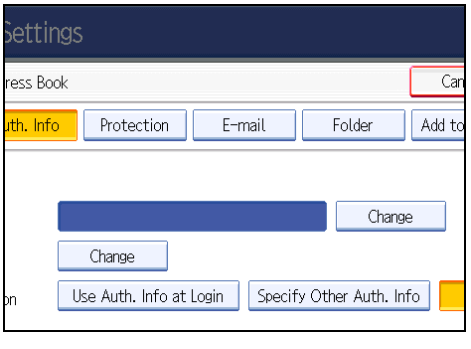
5. **Select the user or group.**



6. **Press [Auth. Info].**

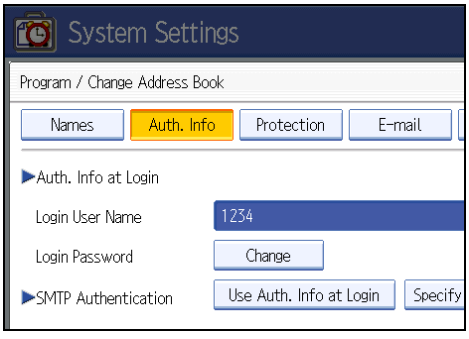


7. **Press [Change] for "Login User Name".**



8. **Enter a login user name, and then press [OK].**

9. Press [Change] for "Login Password".



10. Enter a login password, and then press [OK].
11. If a password reentry screen appears, enter the login password, and then press [OK].
12. Press [OK].
13. Press [Exit] twice.
14. Press the [User Tools] key.

Specifying Authentication Information to Log on

The login user name and password specified in [Address Book Management] can be used as the login information for "SMTP Authentication", "Folder Authentication", and "LDAP Authentication".

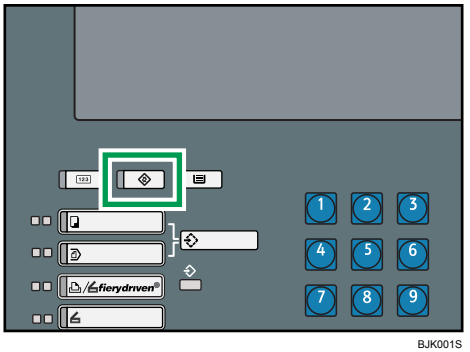
If you do not want to use the login user name and password specified in [Address Book Management] for "SMTP Authentication", "Folder Authentication", or "LDAP Authentication", see "Address Book" General Settings Guide.

For details about specifying login user name and login password, see "Specifying Login User Name and Login Password".

Important

- When using [Use Auth. Info at Login] for "SMTP Authentication", "Folder Authentication", or "LDAP Authentication", a user name other than "other", "admin", "supervisor" or "HIDE***" must be specified. The symbol "***" represents any character.
- To use [Use Auth. Info at Login] for "SMTP Authentication", a login password up to 128 characters in length must be specified.

1. **Press the [User Tools] key.**



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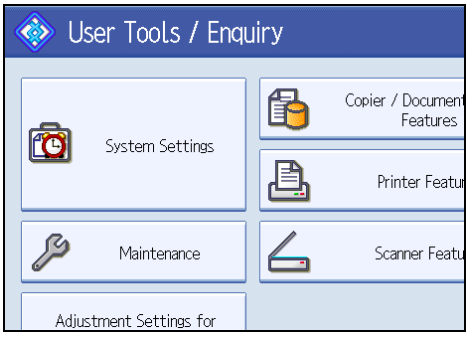
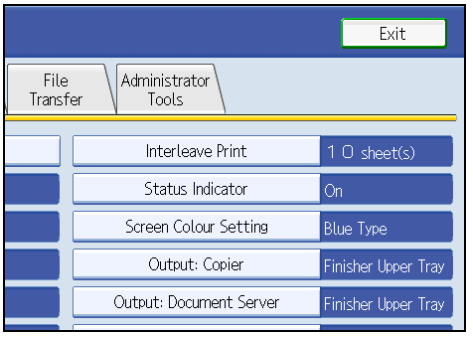
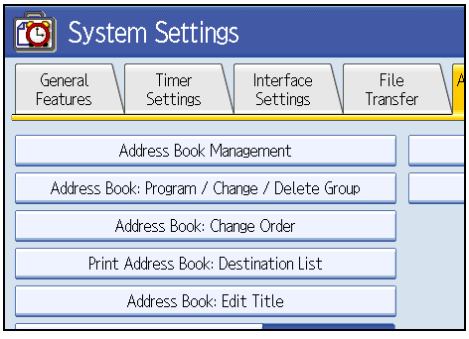
2. **Press [System Settings].**



3. **Press [Administrator Tools].**

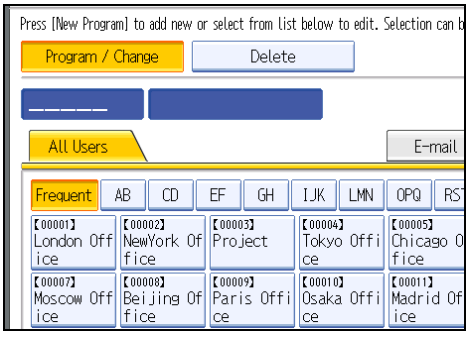


4. **Press [Address Book Management].**

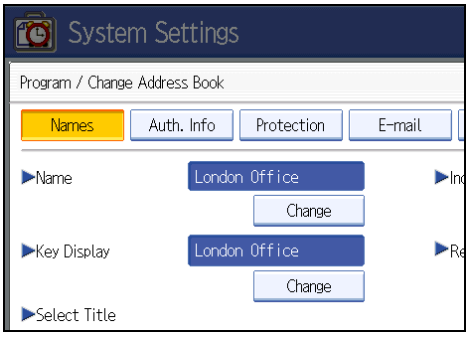


If the setting to be specified does not appear, press [▼Next] to scroll down to other settings.

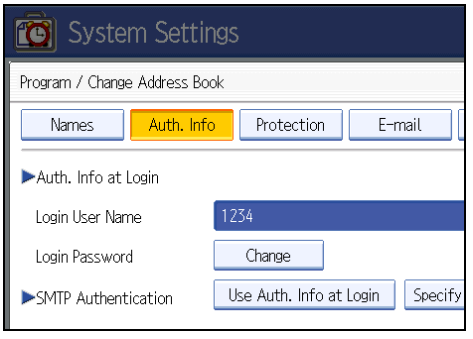
5. **Select the user or group.**



6. **Press [Auth. Info].**



7. **Select [Use Auth. Info at Login] in "SMTP Authentication".**



If the setting to be specified does not appear, press [▼Next] to scroll down to other settings.

For folder authentication, select [Use Auth. Info at Login] in "Folder Authentication".

For LDAP authentication, select [Use Auth. Info at Login] in "LDAP Authentication".

8. **Press [OK].**
9. **Press [Exit].**
10. **Press the [User Tools] key.**

Reference

- p.47 "Specifying Login User Name and Login Password"

Windows Authentication

Specify this authentication when using the Windows domain controller to authenticate users who have their accounts on the directory server. Users cannot be authenticated if they do not have their accounts in the directory server. Under Windows authentication, you can specify the access limit for each group registered in the directory server. The address book stored in the directory server can be registered to the machine, enabling user authentication without first using the machine to register individual settings in the address book. If you can obtain user information, the sender's address (From:) is fixed to prevent unauthorized access when sending e-mails under the scanner function.

Operational Requirements for Windows Authentication

To specify Windows authentication, the following requirements must be met:

- This machine only supports NTLMv1 authentication.
- A domain controller has been set up in a designated domain.
- This function is supported by the operating systems listed below. To obtain user information when running Active Directory, use LDAP. If SSL is being used, a version of Windows that supports TLS v1, SSL v2, or SSL v3 is required.
  - Windows NT 4.0 Server
  - Windows 2000 Server
  - Windows Server 2003

Important

- **During Windows Authentication, data registered in the directory server is automatically registered in the machine. If user information on the server is changed, information registered in the machine may be overwritten when authentication is performed.**
- **If you have created a new user in the domain controller and selected "User must change password at next logon", log on to the machine from the computer to change the password before logging on from the machine's control panel.**

Note

- Remember that the login user names and passwords are case-sensitive.
- The first time you access the machine, you can use the functions available to your group. If you are not registered in a group, you can use the functions available under [*Default Group]. To limit which functions are available to which users, first make settings in advance in the address book.
- When accessing the machine subsequently, you can use all the functions available to your group and to you as an individual user.
- Users who are registered in multiple groups can use all the functions available to those groups.
- A user registered in two or more global groups can use all the functions available to members of those groups.

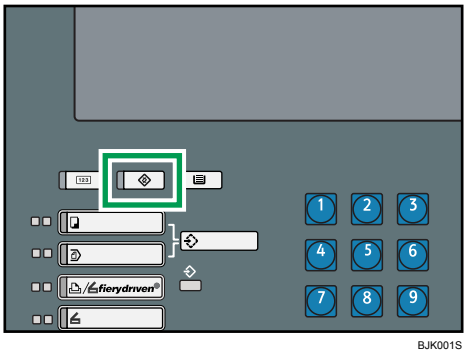
- If the "Guest" account on the Windows server is enabled, even users not registered in the domain controller can be authenticated. When this account is enabled, users are registered in the address book and can use the functions available under [*Default Group].

Specifying Windows Authentication

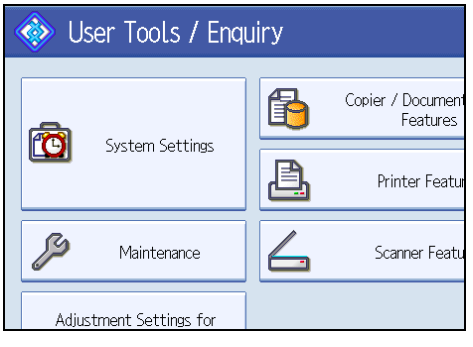
This can be specified by the machine administrator.

For details about logging on and logging off with administrator authentication, see "Logging on Using Administrator Authentication", "Logging off Using Administrator Authentication".

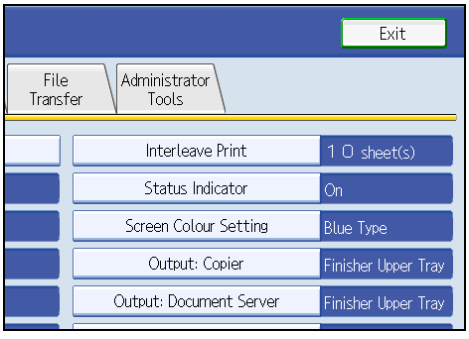
1. **Press the [User Tools] key.**



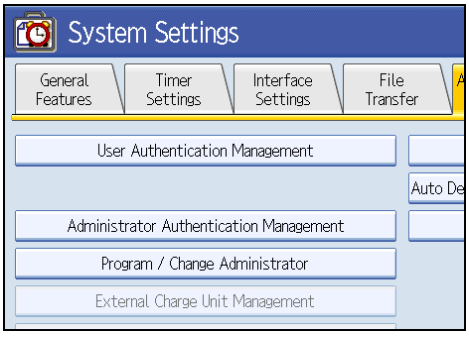
2. **Press [System Settings].**



3. **Press [Administrator Tools].**

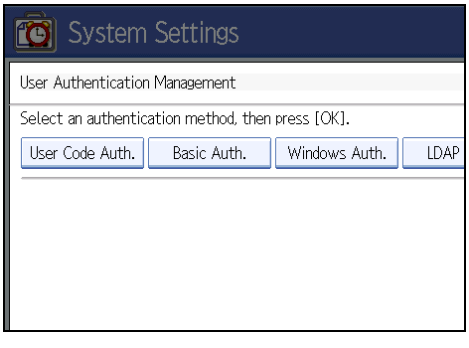


4. **Press [User Authentication Management].**



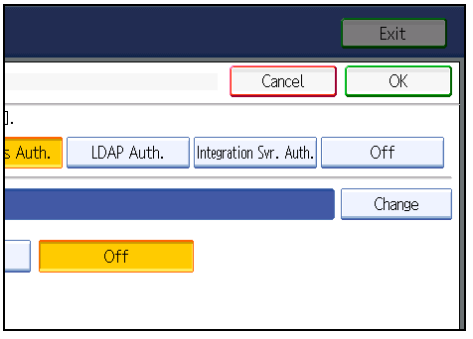
If the setting to be specified does not appear, press [▼Next] to scroll down to other settings.

5. **Select [Windows Auth.].**

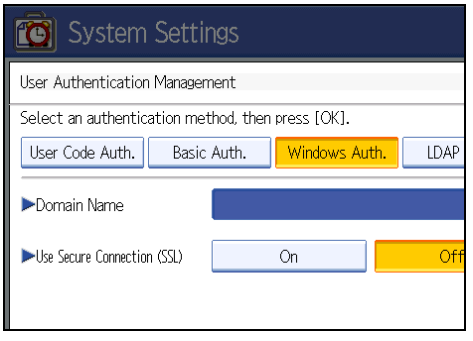


If you do not want to use user authentication management, select [Off].

6. **Press [Change] for "Domain Name", enter the name of the domain controller to be authenticated, and then press [OK].**



7. **Press [On] for "Use Secure Connection (SSL)".**



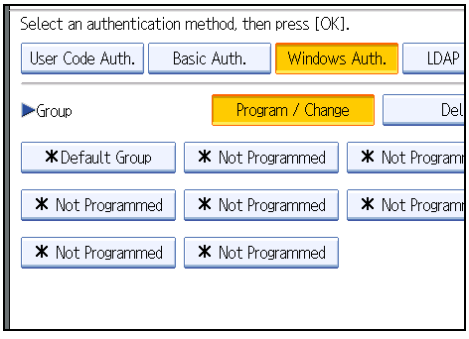
If you are not using secure sockets layer (SSL) for authentication, press [Off].

If global groups have been registered under Windows server, you can limit the use of functions for each global group.

You need to create global groups in the Windows server in advance and register in each group the users to be authenticated. You also need to register in the machine the functions available to the global group members. Create global groups in the machine by entering the names of the global groups registered in the Windows Server. (Keep in mind that group names are case sensitive.) Then specify the machine functions available to each group.

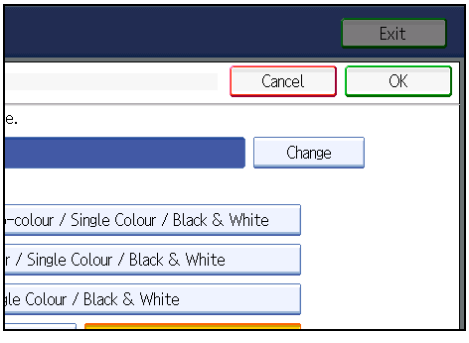
If global groups are not specified, users can use the available functions specified in [*Default Group]. If global groups are specified, users not registered in global groups can use the available functions specified in [*Default Group]. By default, all functions are available to *Default Group members. Specify the limitation on available functions according to user needs.

8. **Under "Group", press [Program / Change], and then press [* Not Programmed].**

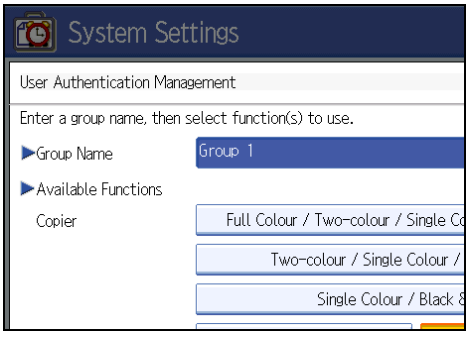


If the setting to be specified does not appear, press [▼Next] to scroll down to other settings.

9. **Under "Group Name", press [Change], and then enter the group name.**



10. **Press [OK].**
11. **Select which of the machine's functions you want to permit.**



If the setting to be specified does not appear, press [▼Next] to scroll down to other settings.

Windows Authentication will be applied to the selected functions.

Users can use the selected functions only.

For details about specifying available functions for individuals or groups, see "Limiting Available Functions".

For details about printer job authentication, see "User Code Authentication".

12. **Press [OK] twice.**
13. **Press the [User Tools] key.**

    A confirmation message appears.

    If you press [Yes], you will be automatically logged out.

Note

- Under Windows Authentication, you can select whether or not to use secure sockets layer (SSL) authentication.
- To automatically register user information under Windows authentication, we recommend that communication between the machine and domain controller is encrypted by SSL.
- Under Windows Authentication, you do not have to create a server certificate unless you want to automatically register user information.

Reference

- p.33 "Logging on Using Administrator Authentication"
- p.35 "Logging off Using Administrator Authentication"
- p.130 "Limiting Available Functions"
- p.41 "User Code Authentication"

Installing Internet Information Services (IIS) and Certificate services

Specify this setting if you want the machine to automatically obtain e-mail addresses registered in Active Directory.

We recommended you install Internet Information Services (IIS) and Certificate services as the Windows components.

Install the components, and then create the server certificate.

If they are not installed, install them as follows:

1. **Select [Add/Remove Programs] on the Control Panel.**
2. **Select [Add/Remove Windows Components].**
3. **Select the "Internet Information Services (IIS)" check box.**
4. **Select the "Certificate Services" check box, and then click [Next].**
5. **Installation of the selected Windows components starts, and a warning message appears.**
6. **Click [Yes].**
7. **Click [Next].**
8. **Select the "Certificate Authority", and then click [Next].**

   On the displayed screen, "Enterprise root CA" is selected.

9. **Enter the Certificate Authority name (optional) in "CA Identifying Information", and then click [Next].**
10. **Leave "Data Storage Location" at its default, and then click [Next].**

    Internet Information Services and Certificate services are installed.

Creating the Server Certificate

After installing Internet Information Services (IIS) and Certificate services Windows components, create the Server Certificate as follows:

1. **Start Internet Services Manager.**
2. **Right-click [Default Web Site], and then click [Properties].**
3. **On the "Directory Security" tab, click [Server Certificate].**

   Web Server Certificate Wizard starts.
4. **Click [Next].**
5. **Select [Create a new certificate], and then click [Next].**
6. **Select [Prepare the request now, but send it later], and then click [Next].**
7. **Enter the required information according to the instructions given by Web Server Certificate Wizard.**
8. **Check the specified data, which appears as "Request File Summary", and then click [Next].**

   The server certificate is created.

Installing the Device Certificate (Certificate Issued by a Certificate Authority)

Install the device certificate using Web Image Monitor.

This section explains the use of a certificate issued by a certificate authority as the device certificate.

Enter the device certificate contents issued by the certificate authority.

1. **Open a Web browser.**
2. **Enter "http://(the machine's IP address or host name)/" in the address bar.**

   When entering an IPv4 address, do not begin segments with zeros. For example: If the address is "192.168.001.010", you must enter it as "192.168.1.10" to connect to the machine.

   The top page of Web Image Monitor appears.
3. **Click [Login].**

   The network administrator can log on.

   Enter the login user name and password.

4. **Click [Configuration], and then click [Device Certificate] under “Security”.**

   The Device Certificate page appears.

5. **Check the radio button next to the number of the certificate you want to install.**
6. **Click [Install].**
7. **Enter the contents of the device certificate.**
8. **In the “Certificate Request” box, enter the contents of the device certificate received from the certificate authority.**
9. **Click [OK].**

   "Installed" appears under “Certificate Status” to show that a device certificate for the machine has been installed.

10. **Click [Logout].**

LDAP Authentication

Specify this authentication method when using the LDAP server to authenticate users who have their accounts on the LDAP server. Users cannot be authenticated if they do not have their accounts on the LDAP server. The address book stored in the LDAP server can be registered to the machine, enabling user authentication without first using the machine to register individual settings in the address book. When using LDAP authentication, to prevent the password information being sent over the network unencrypted, it is recommended that communication between the machine and LDAP server be encrypted using SSL. You can specify on the LDAP server whether or not to enable SSL. To do this, you must create a server certificate for the LDAP server.

Using Web Image Monitor, you can specify whether or not to check the reliability of the connecting SSL server. For details about specifying LDAP authentication using Web Image Monitor, see Web Image Monitor Help.

Important

- **During LDAP authentication, the data registered in the LDAP server such as the user's e-mail address, is automatically registered in the machine. If user information on the server is changed, information registered in the machine may be overwritten when authentication is performed.**
- **Under LDAP authentication, you cannot specify access limits for groups registered in the LDAP server.**
- **Enter the user's login user name using up to 32 characters and login password using up to 128 characters.**

Operational Requirements for LDAP Authentication

To specify LDAP authentication, the following requirements must be met:

- The network configuration must allow the machine to detect the presence of the LDAP server.
- When SSL is being used, TLSv1, SSLv2, or SSLv3 can function on the LDAP server.
- The LDAP server must be registered in the machine.
- When registering the LDAP server, the following setting must be specified.
  - Server Name
  - Search Base
  - Port Number
  - SSL Communication
  - Authentication

    Select either DIGEST, or Cleartext authentication.
  - User Name

    You do not have to enter the user name if the LDAP server supports “Anonymous Authentication”.
  - Password

You do not have to enter the password if the LDAP server supports "Anonymous Authentication".

Note

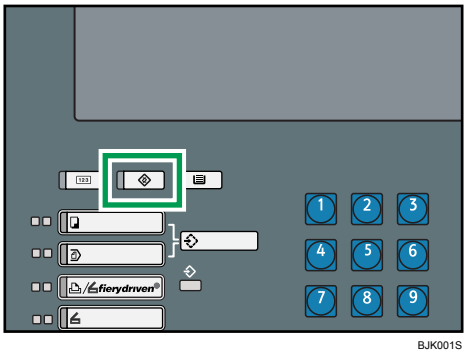
- Under LDAP Authentication, if "Anonymous Authentication" in the LDAP server's settings is not set to Prohibit, users who do not have an LDAP server account might still be able to gain access.
- If the LDAP server is configured using Windows Active Directory, "Anonymous Authentication" might be available. If Windows authentication is available, we recommend you use it.
- The first time an unregistered user accesses the machine after LDAP authentication has been specified, the user is registered in the machine and can use the functions available under "Available Functions" during LDAP Authentication. To limit the available functions for each user, register each user and corresponding "Available Functions" setting in the address book, or specify "Available Functions" for each registered user. The "Available Functions" setting becomes effective when the user accesses the machine subsequently.

Specifying LDAP Authentication

This can be specified by the machine administrator.

For details about logging on and logging off with administrator authentication, see "Logging on Using Administrator Authentication", "Logging off Using Administrator Authentication".

1. **Press the [User Tools] key.**



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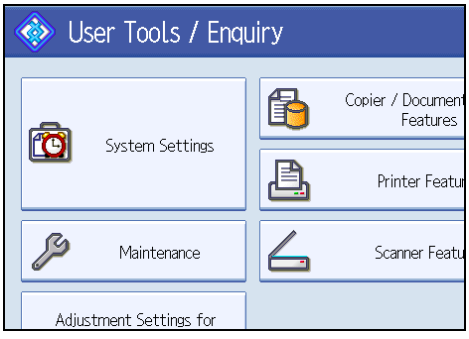
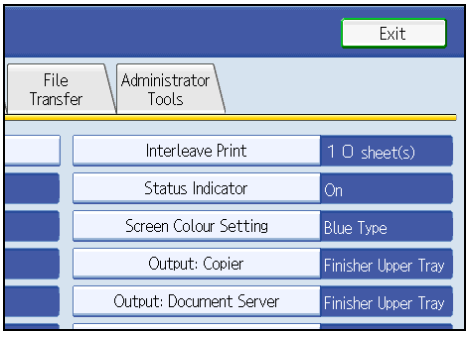
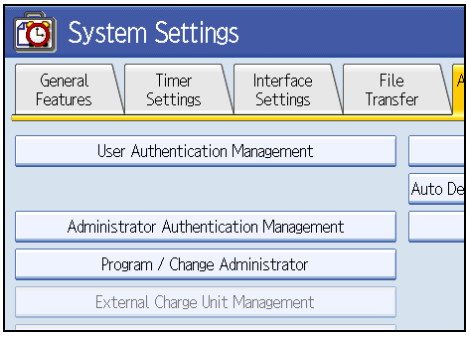
2. **Press [System Settings].**



3. **Press [Administrator Tools].**

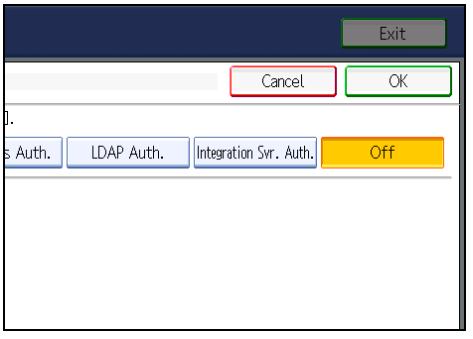


4. **Press [User Authentication Management].**



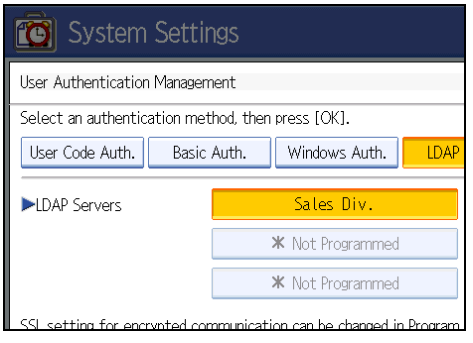
If the setting to be specified does not appear, press [▼Next] to scroll down to other settings.

5. **Select [LDAP Auth.].**

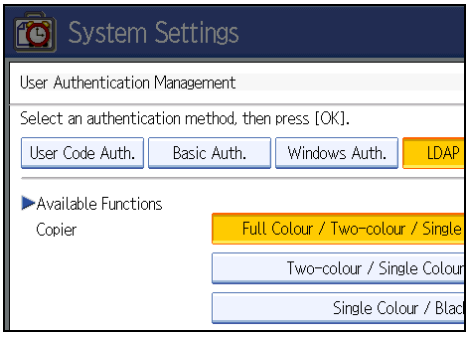


If you do not want to use user authentication management, select [Off].

6. **Select the LDAP server to be used for LDAP authentication.**



7. **Select which of the machine's functions you want to permit.**



If the setting to be specified does not appear, press [▼Next] to scroll down to other settings.

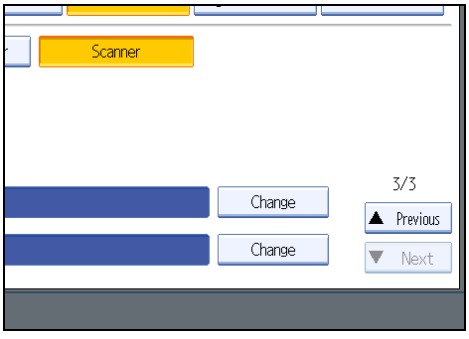
LDAP Authentication will be applied to the selected functions.

Users can use the selected functions only.

For details about specifying available functions for individuals or groups, see “Limiting Available Functions”.

For details about printer job authentication, see “User Code Authentication”.

8. **Press [Change] for "Login Name Attribute".**



9. **Enter the login name attribute, and then press [OK].**

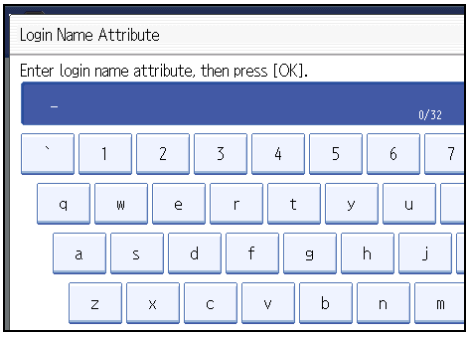
Use the Login Name Attribute as a search criterion to obtain information about an authenticated user. You can create a search filter based on the Login Name Attribute, select a user, and then retrieve the user information from the LDAP server so it is transferred to the machine's address book.

To specify multiple login attributes, place a comma (,) between them. The search will return hits for either or both attributes.

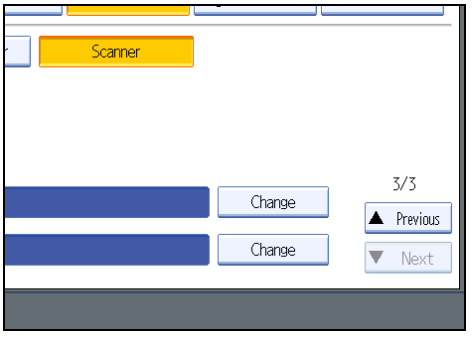
Also, if you place an equals sign (=) between two login attributes (for example: cn=abcde, uid=xyz), the search will return only hits that match the attributes. This search function can also be applied when Cleartext authentication is specified.

When authenticating using the DN format, login attributes do not need to be registered.

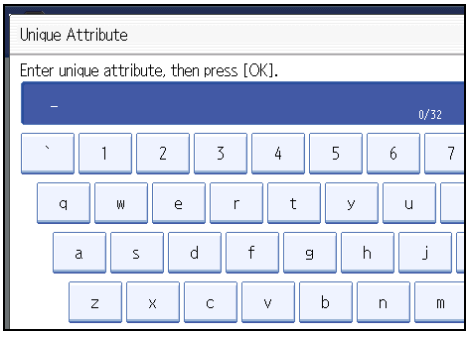
The method for selecting the user name depends on the server environment. Check the server environment and enter the user name accordingly.



10. **Press [Change] for "Unique Attribute".**



11. **Enter the unique attribute and then press [OK].**



Specify Unique Attribute on the machine to match the user information in the LDAP server with that in the machine. By doing this, if the Unique Attribute of a user registered in the LDAP server matches that of a user registered in the machine, the two instances are treated as referring to the same user. You can enter an attribute such as "serialNumber" or "uid". Additionally, you can enter "cn" or "employeeNumber", provided it is unique. If you do not specify the Unique Attribute, an account with the same user information but with a different login user name will be created in the machine.

12. **Press [OK].**

13. **Press the [User Tools] key.**

A confirmation message appears.

If you press [Yes], you will be automatically logged out.

Reference

- p.33 "Logging on Using Administrator Authentication"
- p.35 "Logging off Using Administrator Authentication"
- p.130 "Limiting Available Functions"
- p.41 "User Code Authentication"

Integration Server Authentication

To use Integration Server authentication with this machine, you need a server on which Authentication Manager or another application that supports authentication is installed.

For external authentication, the Integration Server authentication collectively authenticates users accessing the server over the network, providing a server-independent, centralized user authentication system that is safe and convenient.

For example, if the delivery server and the machine share the same Integration Server authentication, single sign-on is possible using DeskTopBinder Professional.

Using Web Image Monitor, you can specify that the server reliability and site certificate are checked every time you access the SSL server. For details about specifying SSL using Web Image Monitor, see Web Image Monitor Help.

Important

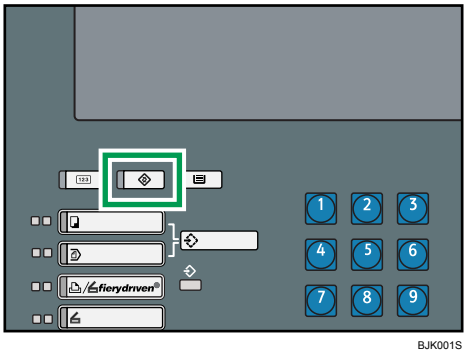
- **During Integration Server Authentication, the data registered in the server such as the user's e-mail address, is automatically registered in the machine.**
- **If user information on the server is changed, information registered in the machine may be overwritten when authentication is performed.**

Specifying Integration Server Authentication

This can be specified by the machine administrator.

For details about logging on and logging off with administrator authentication, see "Logging on Using Administrator Authentication", "Logging off Using Administrator Authentication".

1. **Press the [User Tools] key.**



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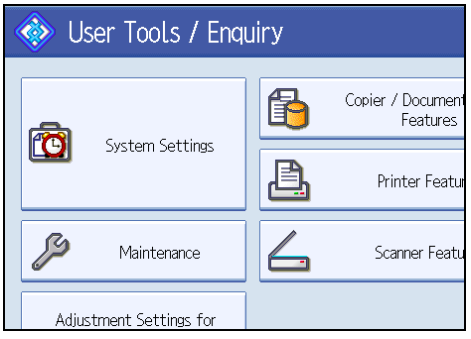
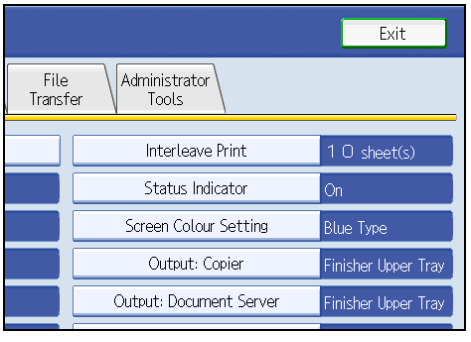
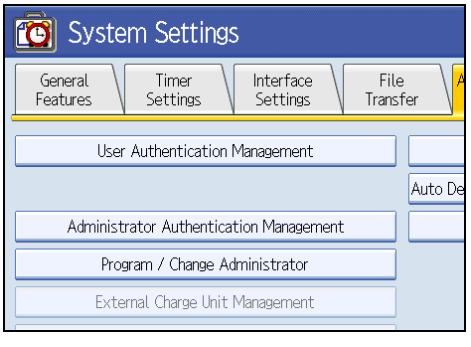
2. **Press [System Settings].**



3. **Press [Administrator Tools].**



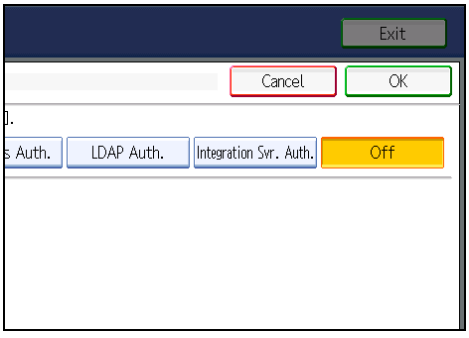
4. **Press [User Authentication Management].**



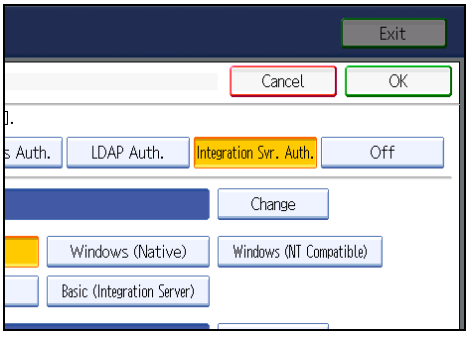
If the setting to be specified does not appear, press [▼Next] to scroll down to other settings.

5. **Select [Integration Svr. Auth.].**

If you do not want to use User Authentication Management, select [Off].

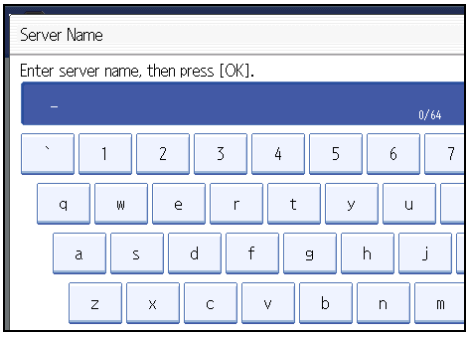


6. **Press [Change] for "Server Name".**



Specify the name of the server for external authentication.

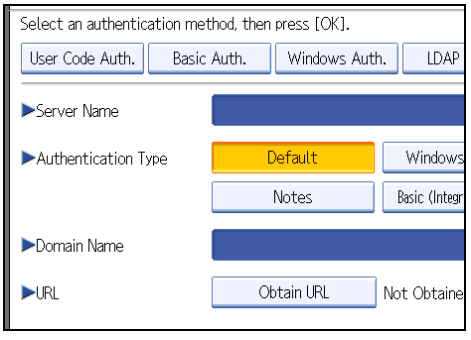
7. **Enter the server name, and then press [OK].**



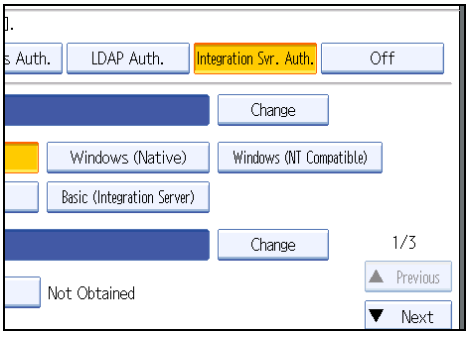
Enter the IPv4 address or host name.

8. **In "Authentication Type", select the authentication system for external authentication.**

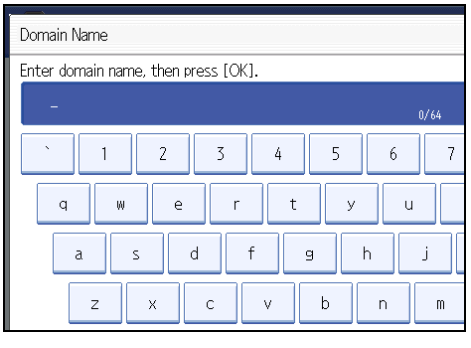
Select an available authentication system. For general usage, select [Default].



9. **Press [Change] for "Domain Name".**

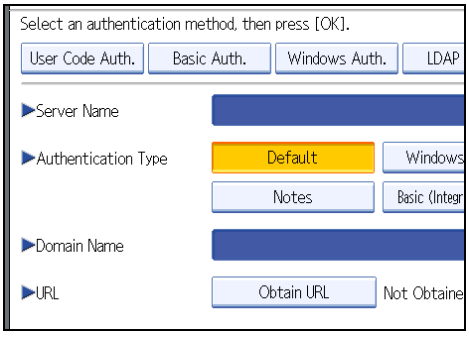


10. **Enter the domain name, and then press [OK].**



You cannot specify a domain name under an authentication system that does not support domain login.

11. **Press [Obtain URL].**



The machine obtains the URL of the server specified in "Server Name".

If the setting to be specified does not appear, press [▼Next] to scroll down to other settings.

If "Server Name" or the setting for enabling SSL is changed after obtaining the URL, the URL is "Not Obtained".

12. **Press [Exit].**

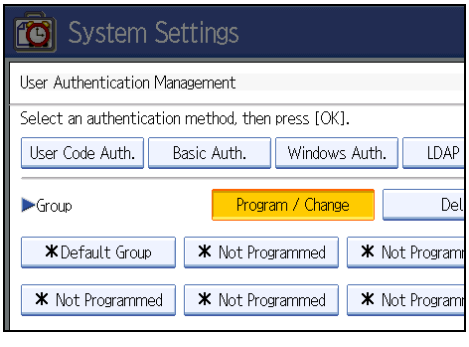
In the "Authentication Type", if you have not registered a group, proceed to step 17.

If you have registered a group, proceed to step 13.

If you set "Authentication Type" to [Windows (Native)] or [Windows (NT Compatible)], you can use the global group.

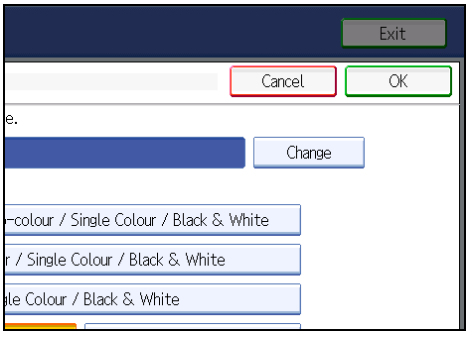
If you set "Authentication Type" to [Notes], you can use the Notes group. If you set "Authentication Type" to [Basic (Integration Server)], you can use the groups created using the Authentication Manager.

13. **Under "Group", press [Program / Change], and then press [* Not Programmed].**



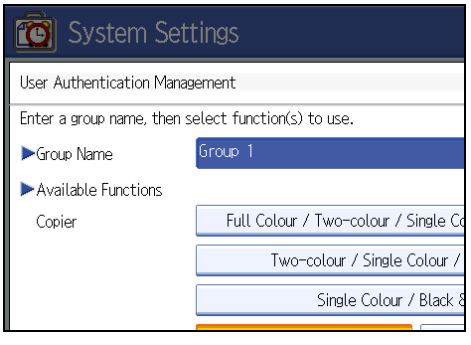
If the setting to be specified does not appear, press [▼Next] to scroll down to other settings.

14. **Under "Group Name", press [Change], and then enter the group name.**



15. **Press [OK].**

16. **Select which of the machine's functions you want to permit.**



If the setting to be specified does not appear, press [▼Next] to scroll down to other settings.

Authentication will be applied to the selected functions.

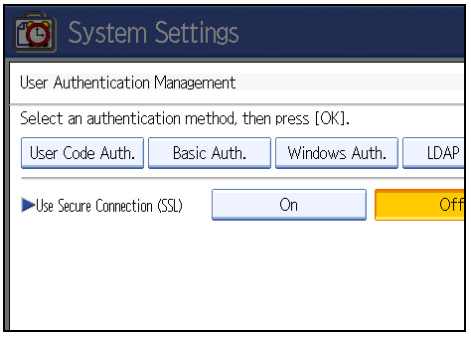
Users can use the selected functions only.

For details about specifying available functions for individuals or groups, see "Limiting Available Functions".

For details about printer job authentication, see "User Code Authentication".

17. **Press [OK].**

18. **Press [On] for "Use Secure Connection (SSL)", and then press [OK].**



If the setting to be specified does not appear, press [▼Next] to scroll down to other settings.

To not use secure sockets layer (SSL) for authentication, press [Off].

19. **Press the [User Tools] key.**

A confirmation message appears.

If you press [Yes], you will be automatically logged out.

Reference

- p.33 "Logging on Using Administrator Authentication"
- p.35 "Logging off Using Administrator Authentication"
- p.130 "Limiting Available Functions"
- p.41 "User Code Authentication"

If User Authentication is Specified

If user authentication (User Code Authentication, Basic Authentication, Windows Authentication, LDAP Authentication, or Integration Server Authentication) is set, the authentication screen is displayed. Unless a valid user name and password are entered, operations are not possible with the machine. Log on to operate the machine, and log off when you are finished operations. Be sure to log off to prevent unauthorized users from using the machine. When auto logout timer is specified, the machine automatically logs you off if you do not use the control panel within a given time. Additionally, you can authenticate using an external device. For details about using an external device for user authentication, see “Authentication Using an External Device”.

Note

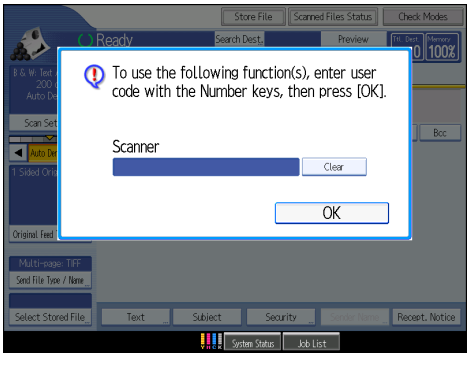
- Consult the User Administrator about your login user name, password, and user code.
- For user code authentication, enter a number registered in the address book as [User Code].

Reference

- p.81 "Authentication Using an External Device"

User Code Authentication (Using the Control Panel)

When User Code Authentication is set, the following screen appears.



Enter a user code (up to 8 digits), and then press the [OK] key.

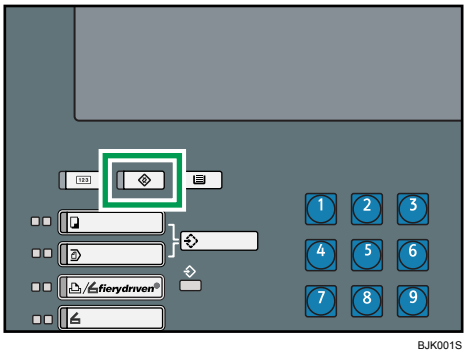
Note

- To log off, do one of the following:
  - Press the Operation switch.
  - Press the [Energy Saver] key after jobs are completed.
  - Press the [Clear] key and the [Clear Modes] key at the same time.

Login (Using the Control Panel)

Use the following procedure to log in when Basic Authentication, Windows Authentication, LDAP Authentication, or Integration Server Authentication is enabled.

1. **Press [User Tools] key.**



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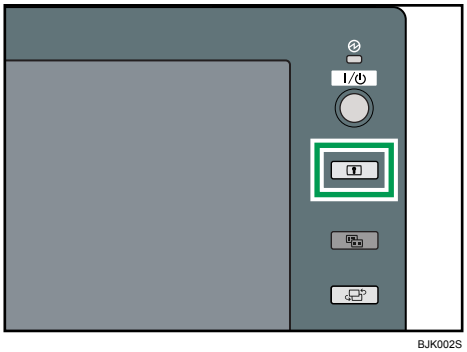
2. **Press the [Login/Logout] key.**



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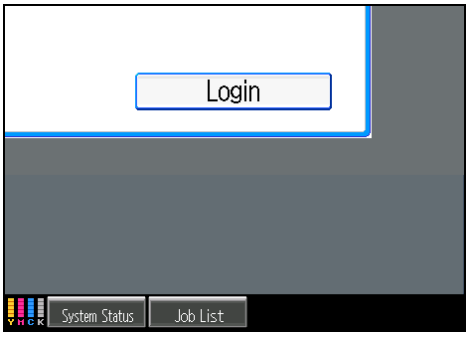
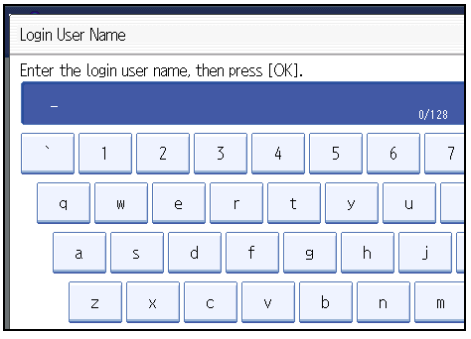
3. **Press [Login].**



4. **Enter the login user name, and then press [OK].**



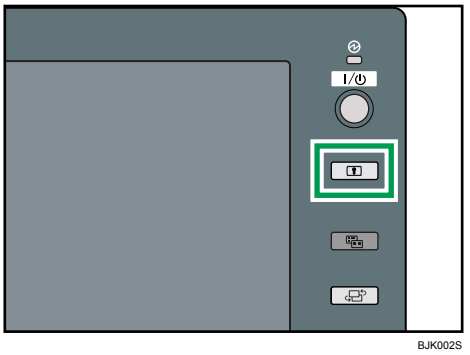
5. **Enter the login password, and then press [OK].**

The message, "Authenticating... Please wait." appears.

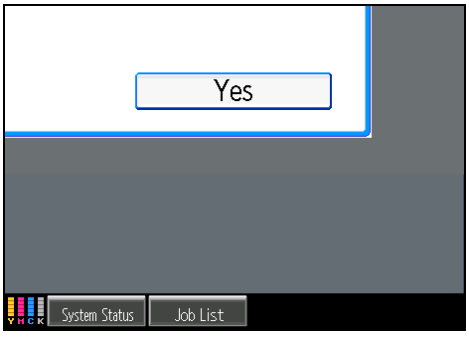
Log Off (Using the Control Panel)

Follow the procedure below to log off when Basic Authentication, Windows Authentication, Authentication, LDAP Authentication, or Integration Server Authentication is set.

1. **Press the [Login/Logout] key.**



2. **Press [Yes].**



The message, "Logging out... Please wait." appears.

Note

- You can log off using the following procedures also.
  - Press the [Power] key.
  - Press the [Energy Saver] key.

Login (Using Web Image Monitor)

This section explains how to log on to the machine via Web Image Monitor.

1. **Click [Login] on the top page of the Web Image Monitor.**
2. **Enter a login user name and password, and then click [Login].**

Note

- For user code authentication, enter a user code in “Login User Name”, and then click [Login].

Log Off (Using Web Image Monitor)

1. **Click [Logout] to log off.**

Note

- Delete the cache memory in the Web Image Monitor after logging off.

Auto Logout

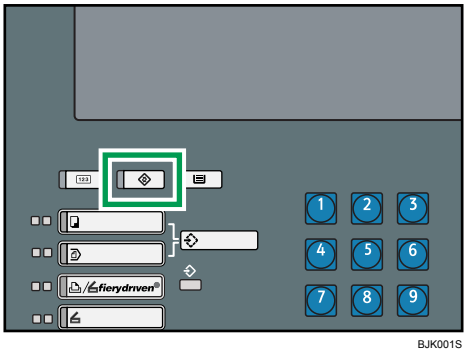
This can be specified by the machine administrator.

When using Basic Authentication, Windows Authentication, LDAP Authentication or Integration Server Authentication, the machine automatically logs you off if you do not use the control panel within a given

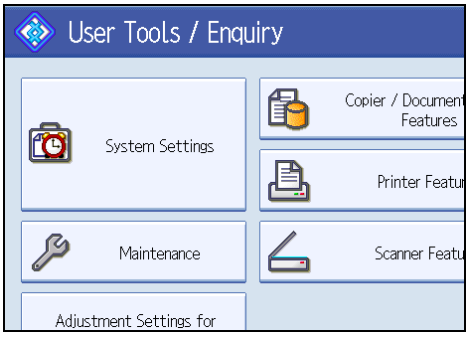
time. This feature is called "Auto Logout". Specify how long the machine is to wait before performing Auto Logout.

For details about logging on and logging off with administrator authentication, see "Logging on Using Administrator Authentication", "Logging off Using Administrator Authentication".

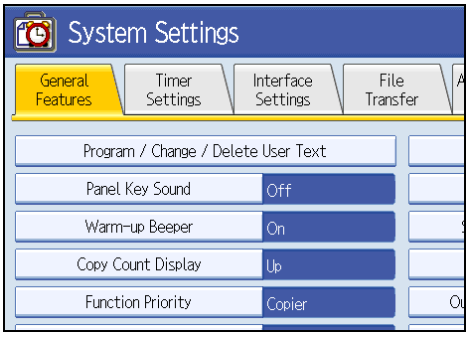
1. **Press the [User Tools] key.**



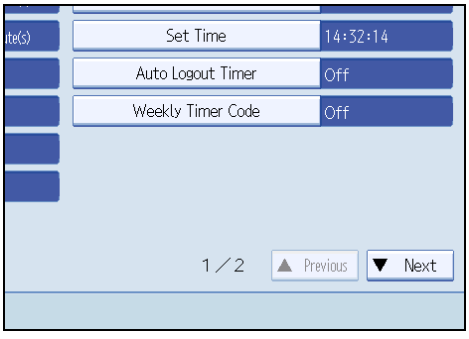
2. **Press [System Settings].**



3. **Press [Timer Settings].**

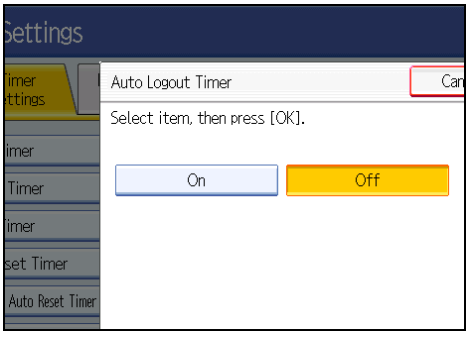


4. **Press [Auto Logout Timer].**



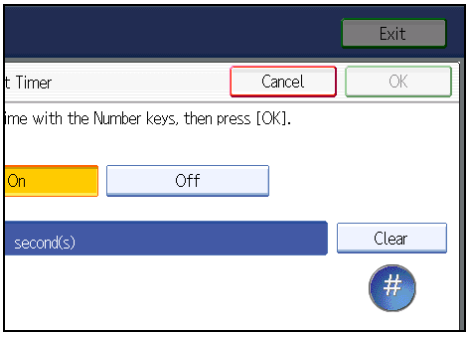
If the setting to be specified does not appear, press [▼Next] to scroll down to other settings.

5. **Select [On].**



If you do not want to specify [Auto Logout Timer], select [Off].

6. **Enter "60" to "999" (seconds) using the number keys, and then press [#].**



7. **Press the [User Tools] key.**

A confirmation message appears.

If you press [Yes], you will be automatically logged out.

Note

- If a paper jam occurs or a print cartridge runs out of toner, the machine might not be able to perform the Auto Log function.

Reference

- p.33 "Logging on Using Administrator Authentication"
- p.35 "Logging off Using Administrator Authentication"

Authentication Using an External Device

To authenticate using an external device, see the device manual.

For details, contact your sales representative.

3. Ensuring Information Security

This chapter describes how to protect data that is stored on the machine and transmitted information from unauthorized viewing and modification.

Specifying Access Permission for Stored Files

This section describes Specifying Access Permission for Stored Files.

You can specify who is allowed to access stored scan files and files stored in the Document Server.

This can prevent activities such as printing or sending of stored files by unauthorized users.

You can also specify which users can change or delete stored files.

Access Permission

To limit the use of stored files, you can specify four types of access permissions.

Read-only	In addition to checking the content of and information about stored files, you can also print and send the files.
Edit	You can change the print settings for stored files. This includes permission to view files.
Edit / Delete	You can delete stored files. This includes permission to view and edit files.
Full Control	You can specify the user and access permission. This includes permission to view, edit, and edit / delete files.

Note

- Files can be stored by any user who is allowed to use the Document Server, copy function, or scanner function.
- Using Web Image Monitor, you can check the content of stored files. For details, see Web Image Monitor Help.
- Access permission to documents sent from the printer driver and stored on the machine can only be set on Web Image Monitor.
- The default access permission for the file creator (owner) is "Read-only". You can also specify the access permission.

Password for Stored Files

- Passwords for stored files can be specified by the file creator (owner) or file administrator.
- You can obtain greater protection against the unauthorized use of files.

- Even if User Authentication is not set, passwords for stored files can be set.

Assigning Users and Access Permission for Stored Files

This can be specified by the file creator (owner) or file administrator.

Specify the users and their access permissions for each stored file.

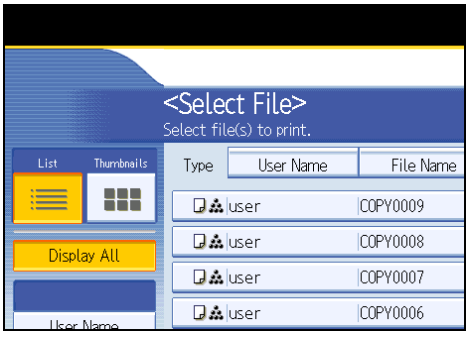
By making this setting, only users granted access permission can access stored files.

For details about logging on and logging off with administrator authentication, see "Logging on Using Administrator Authentication", "Logging off Using Administrator Authentication".

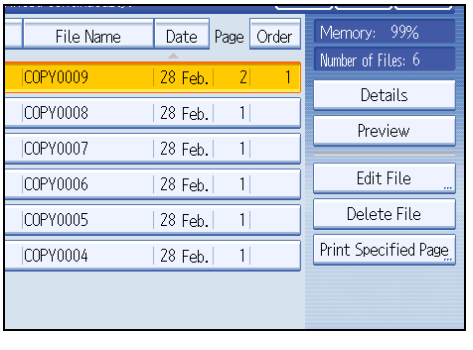
Important

- **If files become inaccessible, reset their access permission as the file creator (owner). This can also be done by the file administrator. If you want to access a file but do not have access permission, ask the file creator (owner).**

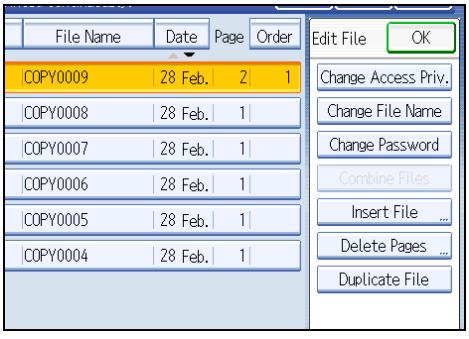
1. **Press the [Document Server] key.**
2. **Select the file.**



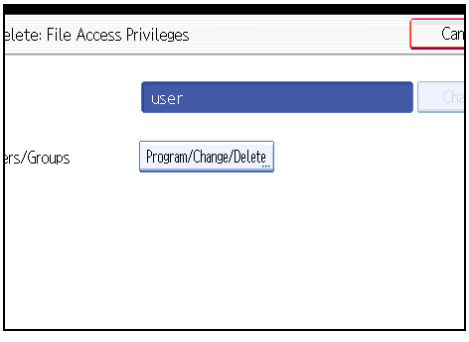
3. **Press [Edit File].**



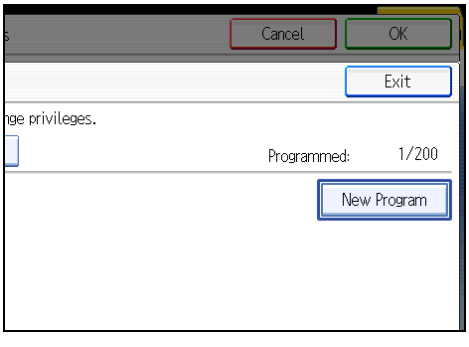
4. **Press [Change Access Priv.].**



5. **Press [Program/Change/Delete].**



6. **Press [New Program].**



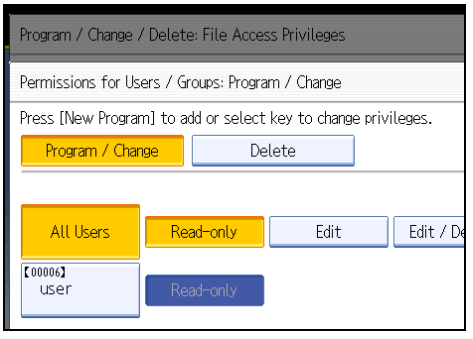
7. **Select the users or groups you want to assign permission to.**

   You can select more than one user.

   By pressing [All Users], you can select all the users.

8. **Press [Exit].**

9. **Select the user who you want to assign access permission to, and then select the permission.**



Select the access permission from [Read-only], [Edit], [Edit / Delete], or [Full Control].

10. **Press [Exit].**
11. **Press [OK].**

Reference

- p.33 "Logging on Using Administrator Authentication"
- p.35 "Logging off Using Administrator Authentication"

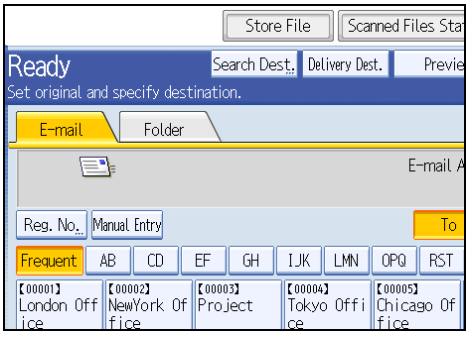
Specifying Access Privileges for Files Stored using the Scanner Function

If user authentication is set for the scanner function, you can specify access privileges for stored files when storing them in the Document Server. You can also change the access privileges for the file.

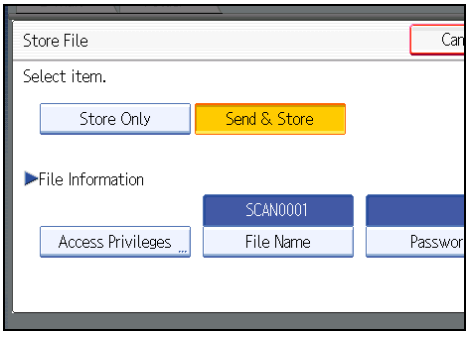
Specifying Access Privileges When Storing Files

This section explains how to specify the access privileges and then store a file in the Document Server under the scanner.

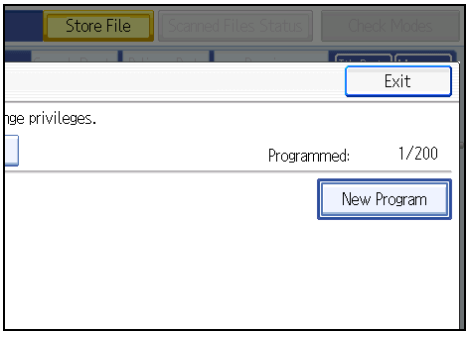
1. **Press [Store File].**



2. **Press [Access Privileges].**



3. **Press [New Program].**



4. **Select the users or groups you want to assign permission to.**

   You can select more than one user.

   By pressing [All Users], you can select all the users.

5. **Press [Exit].**
6. **Select the user who you want to assign access permission to, and then select the permission.**

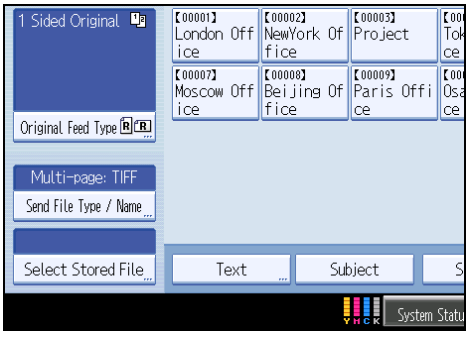
   Select the access permission from [Read-only], [Edit], [Edit / Delete], or [Full Control].

7. **Press [Exit].**
8. **Press [OK].**
9. **Store files in the Document Server.**

Changing Access Privileges for Previously Stored Files

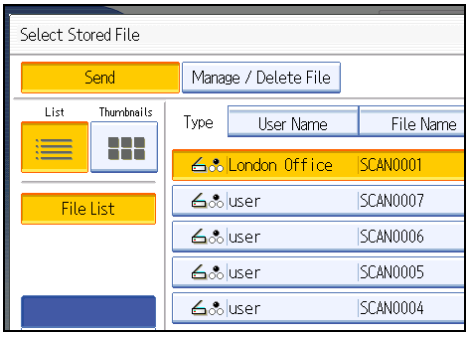
This section explains how to change access privileges for a file stored in the Document Server under the scanner.

1. **Press [Select Stored File].**

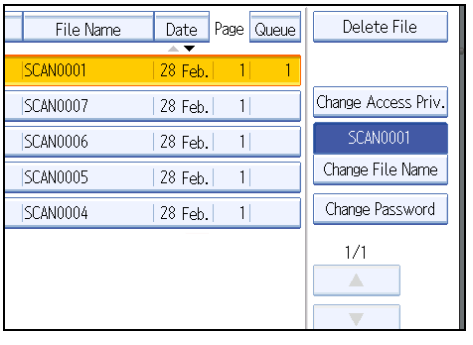


2. **Select the file.**

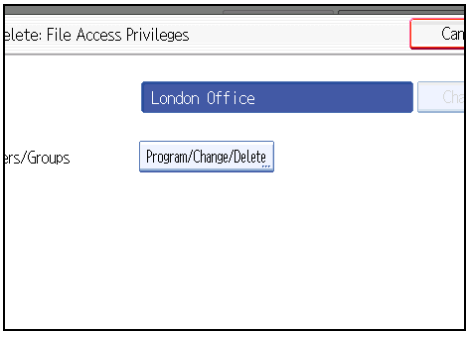
3. **Press [Manage / Delete File].**



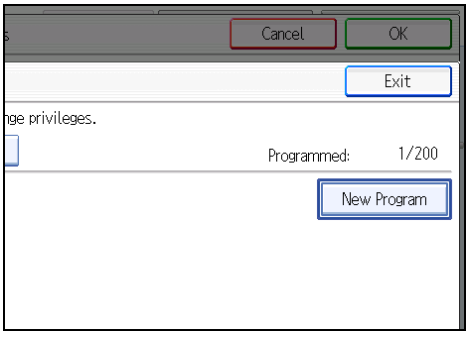
4. **Press [Change Access Priv.].**



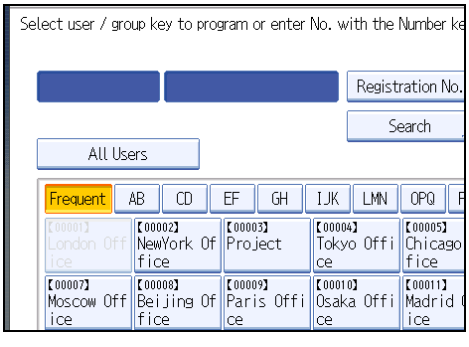
5. **Press [Program/Change/Delete].**



6. **Press [New Program].**



7. **Select the users or groups you want to assign permission to.**



You can select more than one user.

By pressing [All Users], you can select all the users.

8. **Press [Exit].**
9. **Select the user who you want to assign access permission to, and then select the permission.**

Select the access permission from [Read-only], [Edit], [Edit / Delete], or [Full Control].

10. **Press [Exit].**
11. **Press [OK].**

12. Press [Exit].

Assigning the User and the Access Permission for the User's Stored Files

This can be specified by the file creator (owner) or user administrator.

Specify the users and their access permission to files stored by a particular user.

Only those users granted access permission can access stored files.

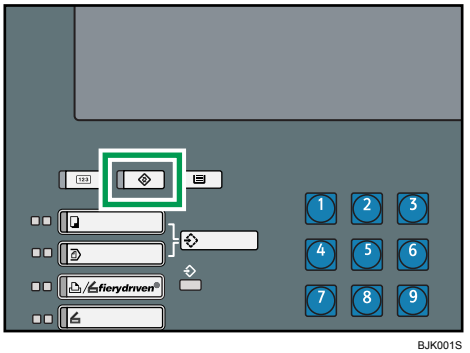
This makes managing access permission easier than specifying and managing access permissions for each stored file.

For details about logging on and logging off with administrator authentication, see "Logging on Using Administrator Authentication", "Logging off Using Administrator Authentication".

Important

- **If files become inaccessible, be sure to enable the user administrator, so that the user administrator can reset the access permission for the files in question.**

1. Press the [User Tools] key.



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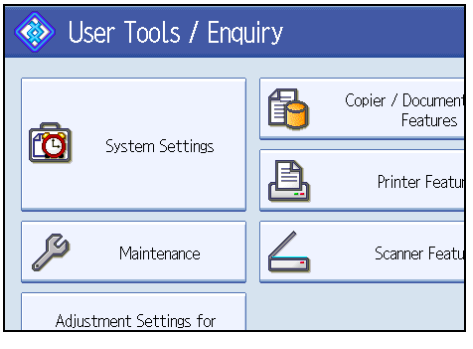
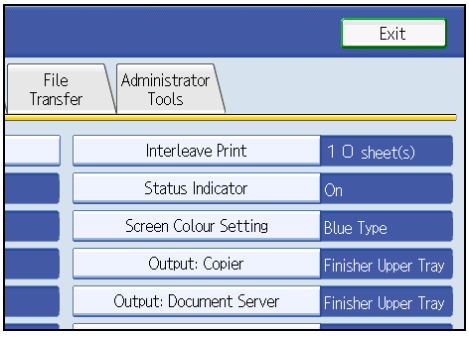
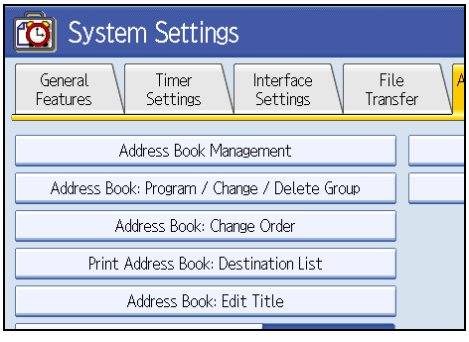
2. Press [System Settings].



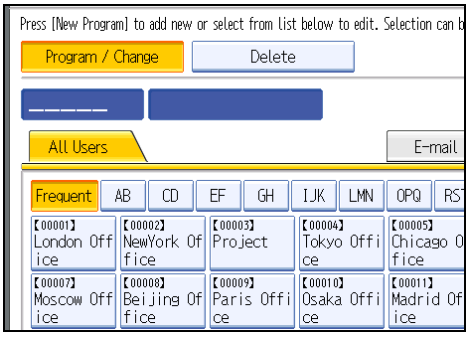
3. **Press [Administrator Tools].**



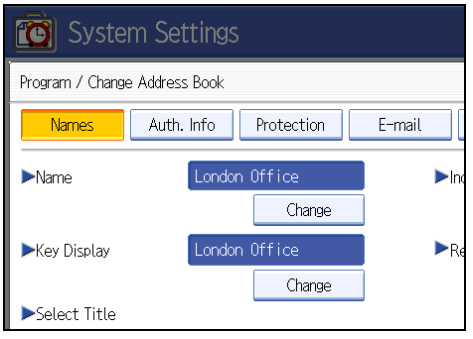
4. **Press [Address Book Management].**



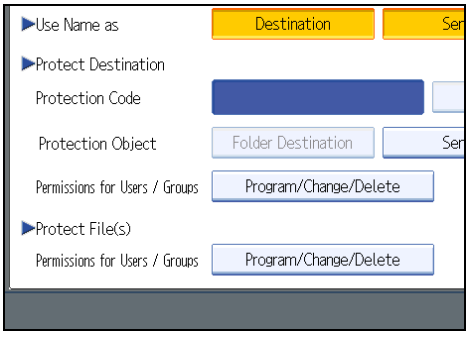
5. **Select the user or group.**



6. **Press [Protection].**

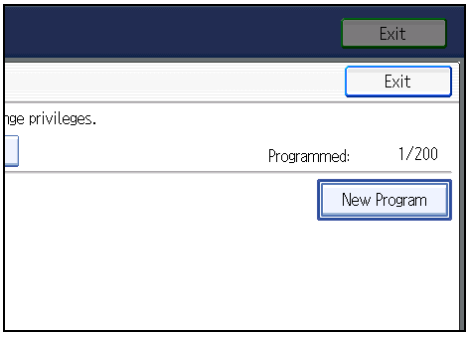


7. **Under "Protect File(s)", press [Program/Change/Delete] for "Permissions for Users/Groups".**

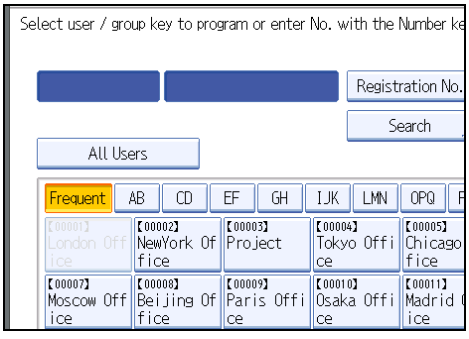


If the setting to be specified does not appear, press [▼Next] to scroll down to other settings.

8. **Press [New Program].**



9. **Select the users or groups to register.**



You can select more than one user.

By pressing [All Users], you can select all the users.

10. **Press [Exit].**
11. **Select the user who you want to assign access permission to, and then select the permission.**

Select the access permission from [Read-only], [Edit], [Edit / Delete], or [Full Control].

12. **Press [Exit].**
13. **Press [OK].**
14. **Press [Exit].**
15. **Press the [User Tools] key.**

Reference

- p.33 "Logging on Using Administrator Authentication"
- p.35 "Logging off Using Administrator Authentication"

Specifying Passwords for Stored Files

This can be specified by the file creator (owner) or file administrator.

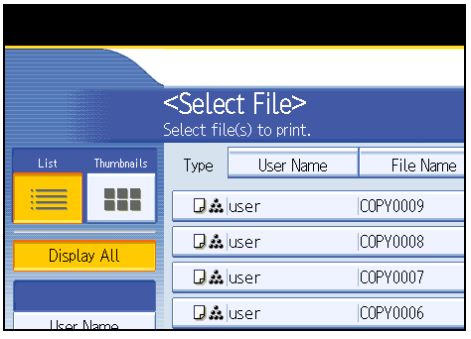
Specify passwords for stored files.

This provides increased protection against unauthorized use of files.

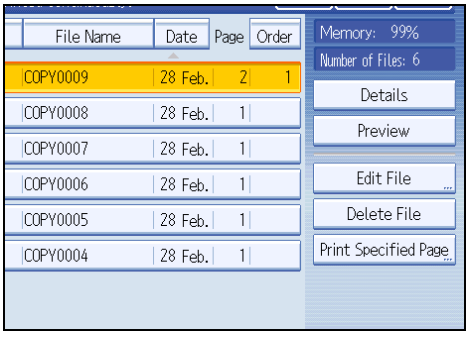
For details about logging on and logging off with administrator authentication, see “Logging on Using Administrator Authentication”, “Logging off Using Administrator Authentication”.

1. **Press the [Document Server] key.**

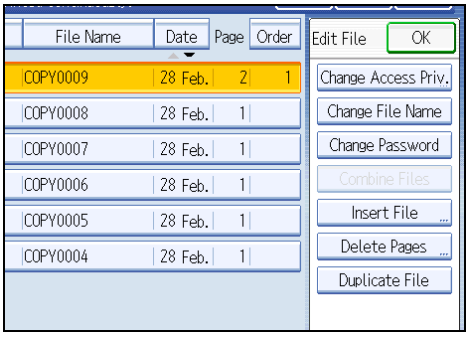
2. **Select the file.**



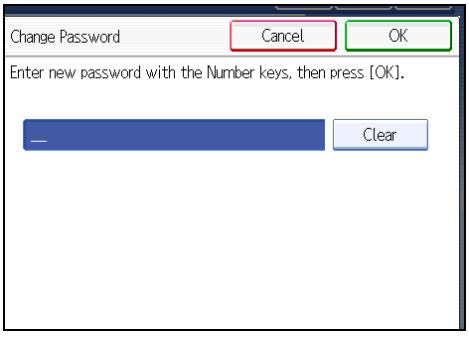
3. **Press [Edit File].**



4. **Press [Change Password].**



5. **Enter the password using the number keys.**



You can use 4 to 8 numbers as the password for the stored file.

6. **Press [OK].**
7. **Confirm the password by re-entering it using the number keys.**
8. **Press [OK].**

The icon appears next to a stored file protected by password.

Reference

- p.33 "Logging on Using Administrator Authentication"
- p.35 "Logging off Using Administrator Authentication"

Unlocking Files

If you specify “Enhance File Protection”, the file will be locked and become inaccessible if an invalid password is entered ten times. This section explains how to unlock files.

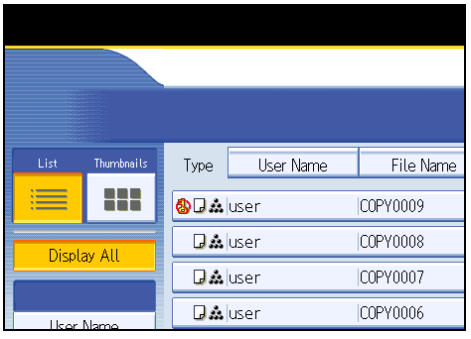
“Enhance File Protection” is one of the extended security functions. For details about this and other extended security functions, see “Specifying the Extended Security Functions”.

Only the file administrator can unlock files.

For details about logging on and logging off with administrator authentication, see “Logging on Using Administrator Authentication”, “Logging off Using Administrator Authentication”.

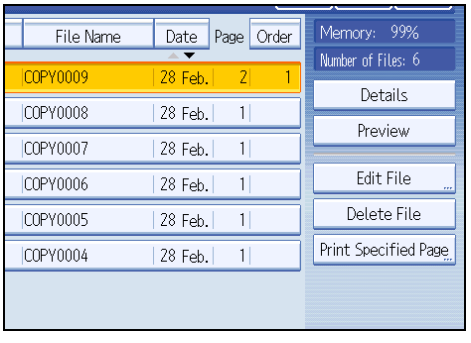
1. **Press the [Document Server] key.**

2. **Select the file.**

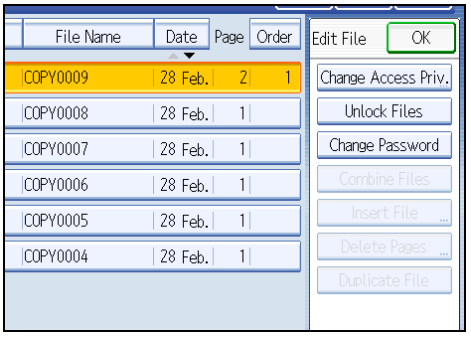


The icon appears next to a file locked by the Enhance File Protection function.

3. **Press [Edit File].**



4. **Press [Unlock Files].**



5. **Press [Yes].**

The icon changes to the icon.

6. **Press [OK].**

Reference

- p.181 "Specifying the Extended Security Functions"
- p.33 "Logging on Using Administrator Authentication"

- p.35 "Logging off Using Administrator Authentication"

Preventing Data Leaks Due to Unauthorized Transmission

This section describes Preventing Data Leaks Due to Unauthorized Transmission.

If user authentication is specified, the user who has logged on will be designated as the sender to prevent data from being sent by an unauthorized person masquerading as the user.

You can also limit the direct entry of destinations to prevent files from being sent to destinations not registered in the Address Book.

Restrictions on Destinations

This can be specified by the user administrator.

Make the setting to disable the direct entry of e-mail addresses under the scanner function.

By making this setting, the destinations are restricted to addresses registered in the Address Book.

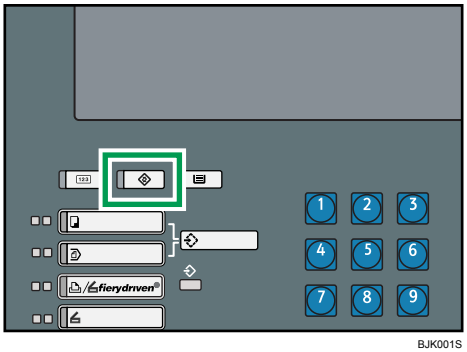
If you set "Restrict Use of Destinations" to [On], you can prohibit users from directly entering e-mail addresses, or Folder Path in order to send files. If you set "Restrict Use of Destinations" to [Off], "Restrict Adding of User Destinations" appears. In "Restrict Adding of User Destinations", you can restrict users from registering data in the Address Book.

If you set "Restrict Adding of User Destinations" to [Off], users can directly enter e-mail addresses, and Folder Path in "Prg. Dest." on the scanner screens. If you set "Restrict Adding of User Destinations" to [On], users can specify destinations directly, but cannot use "Prg. Dest." to register data in the Address Book. When this setting is made, only the user administrator can change the Address Book. "Restrict Use of Destinations" and "Restrict Adding of User Destinations" are extended security functions. For more information about these and the extended security functions, see "Specifying the Extended Security Functions".

"Restrictions on Destinations" can also be specified using Web Image Monitor. For details, see Web Image Monitor Help.

For details about logging on and logging off with administrator authentication, see "Logging on Using Administrator Authentication", "Logging off Using Administrator Authentication".

1. **Press the [User Tools] key.**



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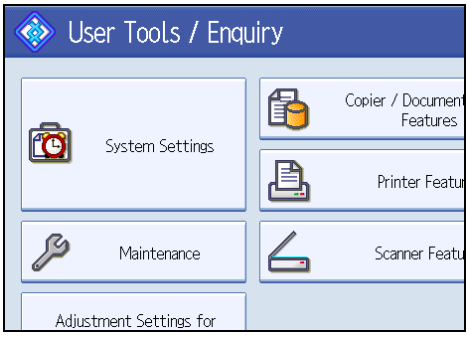
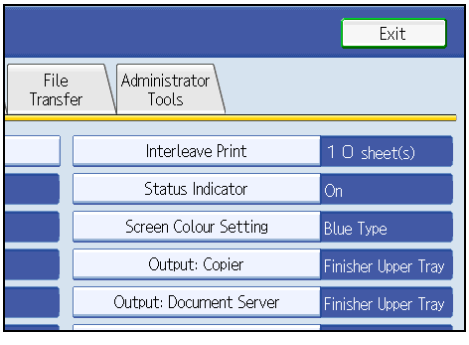
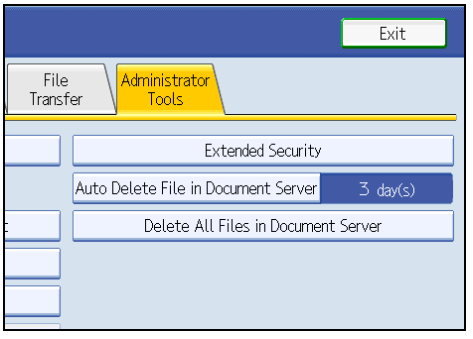
2. **Press [System Settings].**



3. **Press [Administrator Tools].**



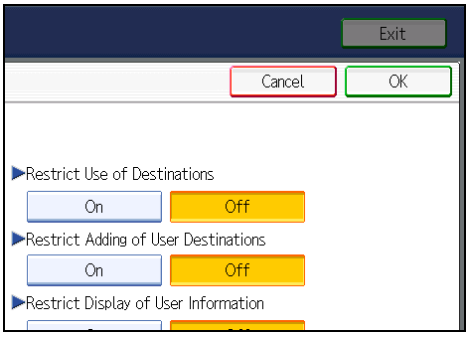
4. **Press [Extended Security].**



If the setting to be specified does not appear, press [▼Next] to scroll down to other settings.

5. **Press [On] for "Restrict Use of Destinations".**

If "Restrict Use of Destinations" is set to [On], "Restrict Adding of User Destinations" does not appear.



6. **Press [OK].**
7. **Press the [User Tools] key.**

Reference

- p.181 "Specifying the Extended Security Functions"
- p.33 "Logging on Using Administrator Authentication"
- p.35 "Logging off Using Administrator Authentication"

Using S/MIME to Protect E-mail Transmission

By registering a user certificate in the Address Book, you can send e-mail that is encrypted with a public key which prevents its content from being altered during transmission. You can also prevent sender impersonation (spoofing) by installing a device certificate on the machine, and attaching an electronic signature created with a private key. You can apply these functions separately or, for stronger security, together.

To send encrypted e-mail, both the sender (this machine) and the receiver must support S/MIME.

For details about using S/MIME with the scanner function, see "Security Settings to E-mails", Scanner Reference.

Compatible Mailer Applications

The S/MIME function can be used with the following applications:

- Microsoft Outlook 98 and later
- Microsoft Outlook Express 5.5 and later
- Netscape Messenger 7.1 and later
- Lotus Notes R5 and later

Important

- **To use S/MIME, you must first specify "Administrator's E-mail Address" in [System Settings].**

Note

- If an electronic signature is specified for an e-mail, the administrator's address appears in the "From" field and the address of the user specified as "sender" appears in the "Reply To" field.
- When sending e-mail to users that support S/MIME and users that do not support S/MIME at the same time, the e-mail is separated into encrypted and unencrypted groups and then sent.
- When using S/MIME, the e-mail size is larger than normal.

E-mail Encryption

To send encrypted e-mail using S/MIME, the user certificate must first be prepared using Web Image Monitor and registered in the Address Book by the user administrator. Registering the certificate in the Address Book specifies each user's public key. After installing the certificate, specify the encryption algorithm using Web Image Monitor. The network administrator can specify the algorithm.

E-mail Encryption

1. Prepare the user certificate.
2. Install the user certificate in the Address Book using Web Image Monitor. (The public key on the certificate is specified in the Address Book.)
3. Specify the encryption algorithm using Web Image Monitor.

4. Using the shared key, encrypt the e-mail message.
5. The shared key is encrypted using the user's public key.
6. The encrypted e-mail is sent.
7. The receiver decrypts the shared key using a secret key that corresponds to the public key.
8. The e-mail is decrypted using the shared key.

Note

- There are three types of user certificates that can be installed on this machine, "DER encoded binary X.509", "Base 64 encoded X.509", and "PKCS #7 certificate".
- When installing a user certificate to the Address Book using Web Image Monitor, an error message appears if the certificate file contains more than one certificates. In such cases, install one certificate at a time.

Specifying the User Certificate

This can be specified by the user administrator. Each user certificate must be prepared in advance.

1. **Open a Web browser.**
2. **Enter "http://(the machine's IP address or host name)/" in the address bar.**

   When entering an IPv4 address, do not begin segments with zeros. For example: If the address is "192.168.001.010", you must enter it as "192.168.1.10" to connect to the machine.

   The top page of Web Image Monitor appears.
3. **Click [Login].**

   The user administrator can log on.

   Enter the login user name and login password.
4. **Click [Address Book].**

   The Address Book page appears.
5. **Select the user for whom the certificate will be installed, and then click [Change].**

   The Change User Information screen appears.
6. **Enter the user address in the "E-mail Address" field under "E-mail".**
7. **Click [Change] in "User Certificate".**
8. **Click [Browse], select the user certificate file, and then click [Open].**
9. **Click [OK].**

   The user certificate is installed.
10. **Click [OK].**
11. **Click [Logout].**

Specifying the Encryption Algorithm

This can be specified by the network administrator.

1. **Open a Web browser.**
2. **Enter "http://(the machine's IP address or host name)/" in the address bar.**

   When entering an IPv4 address, do not begin segments with zeros. For example: If the address is "192.168.001.010", you must enter it as "192.168.1.10" to connect to the machine.

   The top page of Web Image Monitor appears.
3. **Click [Login].**

   The network administrator can log on.

   Enter the login user name and login password.
4. **Click [Configuration], and then click [S/MIME] under "Security".**

   The S/MIME settings page appears.
5. **Select the encryption algorithm from the drop down menu next to "Encryption Algorithm" under "Encryption".**
6. **Click [OK].**

   The algorithm for S/MIME is set.
7. **Click [Logout].**

Attaching an Electronic Signature

To attach an electronic signature to sent e-mail, a device certificate must be installed in advance.

It is possible to use either a self-signed certificate created by the machine, or a certificate issued by a certificate authority.

Important

- **To install an S/MIME device certificate, you must first register "Administrator's E-mail Address" in [System Settings] as the e-mail address for the device certificate. Note that even if you will not be using S/MIME, you must still specify an e-mail address for the S/MIME device certificate.**

Electronic Signature

1. Install a device certificate on the machine. (The secret key on the certificate is configured on the machine.)
2. Attach the electronic signature to an e-mail using the secret key provided by the device certificate.
3. Send the e-mail with the electronic signature attached to the user.
4. The receiver requests the public key and device certificate from the machine.
5. Using the public key, you can determine the authenticity of the attached electronic signature to see if the message has been altered.

Configuration flow (self-signed certificate)

1. Creating and installing the device certificate.

   Create and install the device certificate using Web Image Monitor.

2. Make certificate settings.

   Make settings for the certificate to be used for S/MIME using Web Image Monitor.

3. Make electronic signature settings.

   Make settings for the electronic signature using Web Image Monitor.

Configuration flow (certificate issued by a certificate authority)

1. Create the device certificate.

   Create the device certificate using Web Image Monitor.

   The application procedure for a created certificate depends on the certificate authority. Follow the procedure specified by the certificate authority.

2. Install the device certificate.

   Install the device certificate using Web Image Monitor.

3. Make certificate settings.

   Make settings for the certificate to be used for S/MIME using Web Image Monitor.

4. Make electronic signature settings.

   Make settings for the electronic signature using Web Image Monitor.

Creating and Installing the Self-Signed Certificate

This can be specified by the network administrator.

Create and install the device certificate using Web Image Monitor. For details about the displayed items and selectable items, see Web Image Monitor Help.

This section explains the use of a self-signed certificate as the device certificate.

1. **Open a Web browser.**
2. **Enter "http://(the machine's IP address or host name)/" in the address bar.**

   When entering an IPv4 address, do not begin segments with zeros. For example: If the address is "192.168.001.010", you must enter it as "192.168.1.10" to connect to the machine.

   The top page of Web Image Monitor appears.

3. **Click [Login].**

   The network administrator can log on.

   Enter the login user name and login password.

4. **Click [Configuration], and then click [Device Certificate] under "Security".**

5. **Check the radio button next to the number of the certificate you want to create.**
6. **Click [Create].**
7. **Make the necessary settings.**
8. **Click [OK].**

   The setting is changed.
9. **Click [OK].**

   A security warning dialog box appears.
10. **Check the details, and then click [OK].**

    "Installed" appears under "Certificate Status" to show that a device certificate for the printer has been installed.
11. **Click [Logout].**

Note

- Click [Delete] to delete the device certificate from the machine.

Creating the Device Certificate (Certificate Issued by a Certificate Authority)

This can be specified by the network administrator.

Create the device certificate using Web Image Monitor. For details about the displayed and selectable items and settings, see Web Image Monitor Help.

Use this procedure to create a device certificate issued by a certificate authority.

1. **Open a Web browser.**
2. **Enter "http://(the machine's IP address or host name)/" in the address bar.**

   When entering an IPv4 address, do not begin segments with zeros. For example: If the address is "192.168.001.010", you must enter it as "192.168.1.10" to connect to the machine.

   The top page of Web Image Monitor appears.
3. **Click [Login].**

   The network administrator can log on.

   Enter the login user name and login password.
4. **Click [Configuration], and then click [Device Certificate] under "Security".**

   The Device Certificate page appears.
5. **Check the radio button next to the number of the certificate you want to request.**
6. **Click [Request].**
7. **Make the necessary settings.**

8. **Click [OK].**

   "Requesting" appears for Certificate Status in the “Certificates” area.

9. **Click [Logout].**

10. **Apply to the certificate authority for the device certificate.**

    The application procedure depends on the certificate authority. For details, contact the certificate authority.

    For application details, click the Web Image Monitor Details icon and use the information shown in “Certificate Details”.

Note

- The issuing location may not be displayed if you request two certificates at the same time. When you install a certificate, be sure to check the certificate destination and installation procedure.
- Using Web Image Monitor, you can create the contents of the device certificate but you cannot send the certificate application.
- Click [Cancel Request] to cancel the request for the device certificate.

Installing the Device Certificate (Certificate Issued by a Certificate Authority)

This can be specified by the network administrator.

Install the device certificate using Web Image Monitor. For details about displayed and selectable items and settings, see Web Image Monitor Help.

Use this procedure to install a server certificate issued by a certificate authority.

Enter the details of the device certificate issued by the certificate authority.

1. **Open a Web browser.**
2. **Enter “http://(the machine's IP address or host name)/” in the address bar.**

   When entering an IPv4 address, do not begin segments with zeros. For example: If the address is “192.168.001.010”, you must enter it as “192.168.1.10” to connect to the machine.

   The top page of Web Image Monitor appears.

3. **Click [Login].**

   The network administrator can log on.

   Enter the login user name and login password.

4. **Click [Configuration], and then click [Device Certificate] under “Security”.**

   The Device Certificate page appears.

5. **Check the radio button next to the number of the certificate you want to install.**
6. **Click [Install].**

7. **Enter the details of the device certificate.**

   In the Certificate Request box, enter the details of the device certificate received from the certificate authority.

8. **Click [OK].**

   "Installed" appears under “Certificate Status” to show that a device certificate for the machine has been installed.

9. **Click [Logout].**

Selecting the Device Certificate

This can be specified by the network administrator.

Select the device certificate to be used for S/MIME using Web Image Monitor.

1. **Open a Web browser.**
2. **Enter “http://(the machine's IP address or host name)/” in the address bar.**

   When entering an IPv4 address, do not begin segments with zeros. For example: If the address is “192.168.001.010”, you must enter it as “192.168.1.10” to connect to the machine.

   The top page of Web Image Monitor appears.

3. **Click [Login].**

   The network administrator can logon.

   Enter the login user name and login password.

4. **Click [Configuration], and then click [Device Certificate] under “Security”.**

   The Device Certificate page appears.

5. **Select the certificate to be used for the electronic signature from the drop down box in “S/MIME” under “Certification”.**
6. **Click [OK].**

   The certificate to be used for the S/MIME electronic signature is set.

7. **Click [OK].**
8. **Click [Logout].**

Specifying the Electronic Signature

This can be specified by the network administrator.

After installing the device certificate on the machine, configure the electronic signature using Web Image Monitor. The configuration procedure is the same regardless of whether you are using a self-signed certificate or a certificate issued by a certificate authority.

1. **Open a Web browser.**

2. **Enter "http://(the machine's IP address or host name)/" in the address bar.**

   When entering an IPv4 address, do not begin segments with zeros. For example: If the address is "192.168.001.010", you must enter it as "192.168.1.10" to connect to the machine.

   The top page of Web Image Monitor appears.

3. **Click [Login].**

   The network administrator can logon.

   Enter the login user name and login password.

4. **Click [Configuration], and then click [S/MIME] under "Security".**

   The S/MIME settings page appears.

5. **Select the digest algorithm to be used in the electronic signature next to "Digest Algorithm" under "Signature".**

6. **Select the method for attaching the electronic signature when sending e-mail from the scanner next to "When Sending E-mail by Scanner" under "Signature".**

7. **Select the method for attaching the electronic signature when forwarding stored documents next to "When Transferring Files Stored in Document Server (Utility)" under "Signature".**

8. **Click [OK].**

   The settings for the S/MIME electronic signature are enabled.

9. **Click [OK].**

10. **Click [Logout].**

Note

- If the machine does not support the scanner, S/MIME will not appear on Web Image Monitor.

Protecting the Address Book

If user authentication is specified, the user who has logged on will be designated as the sender to prevent data from being sent by an unauthorized person masquerading as the user.

To protect the data from unauthorized reading, you can also encrypt the data in the address book.

Address Book Access Permission

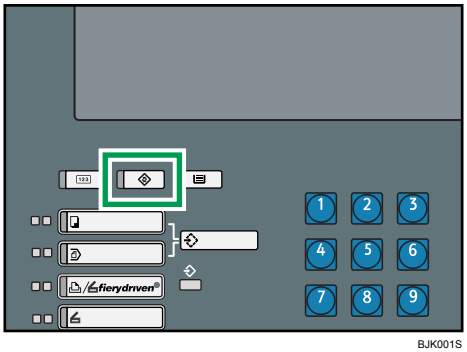
This can be specified by the registered user. Access permission can also be specified by a user granted full control or the user administrator.

You can specify who is allowed to access the data in the address book.

By making this setting, you can prevent the data in the address book being used by unregistered users.

For details about logging on and logging off with administrator authentication, see “Logging on Using Administrator Authentication”, “Logging off Using Administrator Authentication”.

1. **Press the [User Tools] key.**



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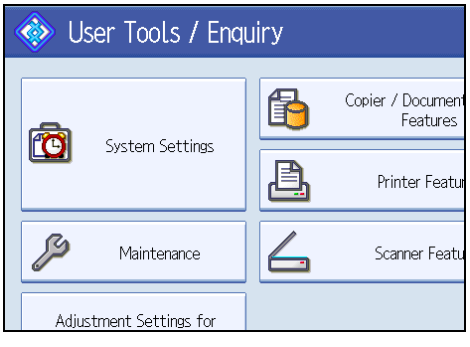
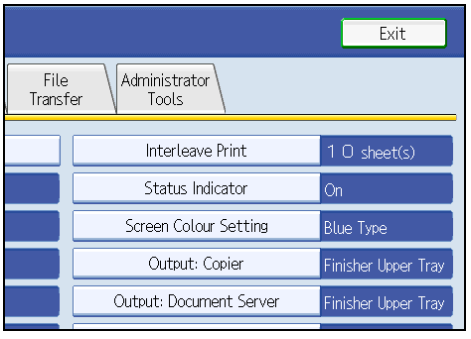
2. **Press [System Settings].**

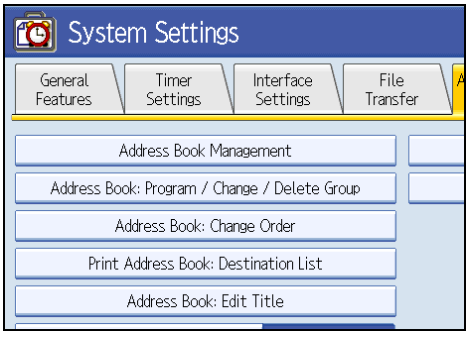


3

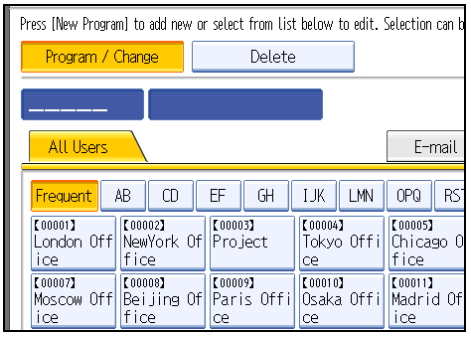
3. **Press [Administrator Tools].**



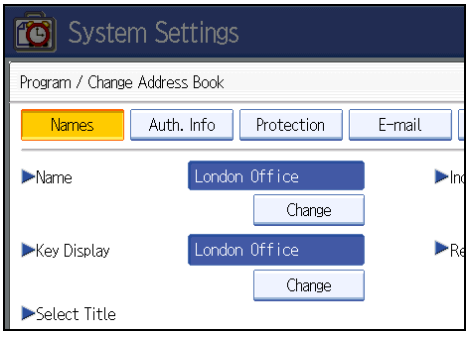
4. **Press [Address Book Management].**



5. **Select the user or group.**

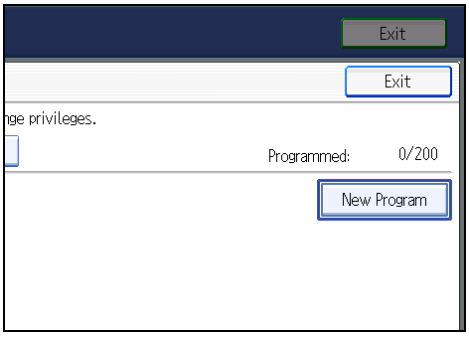


6. **Press [Protection].**

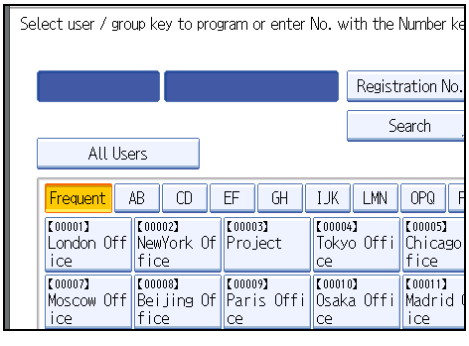


7. **Press [Program/Change/Delete] for "Permissions for Users/Groups", under "Protect Destination".**

8. **Press [New Program].**



9. **Select the users or groups to register.**

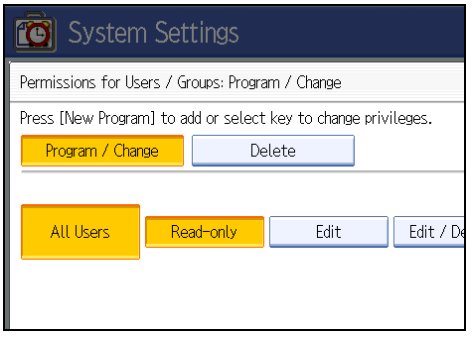


You can select more than one user.

By pressing [All Users], you can select all the users.

10. **Press [Exit].**

11. **Select the user who you want to assign access permission to, and then select the permission.**



Select the permission, from [Read-only], [Edit], [Edit / Delete], or [Full Control].

12. **Press [Exit].**
13. **Press [OK].**
14. **Press [Exit].**
15. **Press the [User Tools] key.**

Reference

- p.33 "Logging on Using Administrator Authentication"
- p.35 "Logging off Using Administrator Authentication"

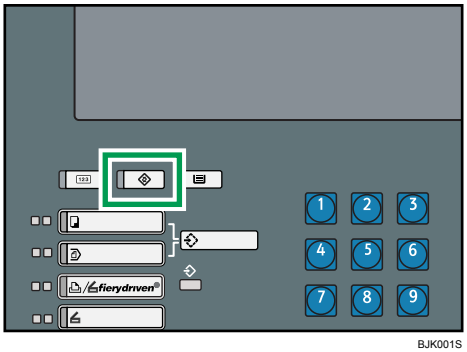
Encrypting Data in the Address Book

This can be specified by the user administrator.

You can encrypt the data in the address book using the extended security function, “Encrypt Address Book”. For details about this and other extended security functions, see “Specifying the Extended Security Functions”.

For details about logging on and logging off with administrator authentication, see “Logging on Using Administrator Authentication”, “Logging off Using Administrator Authentication”.

1. **Press the [User Tools] key.**



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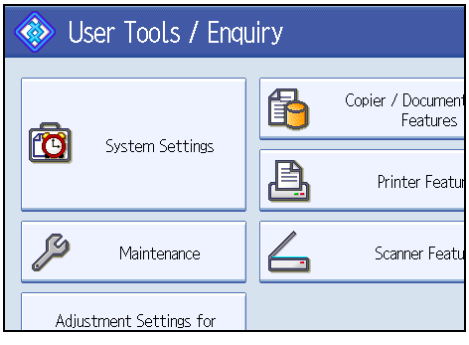
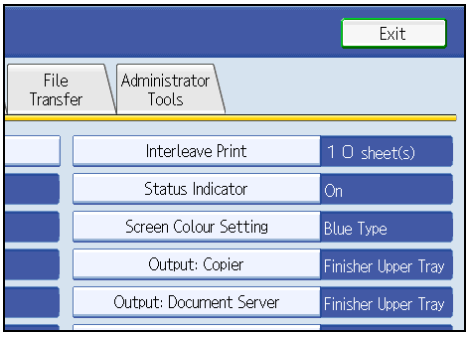
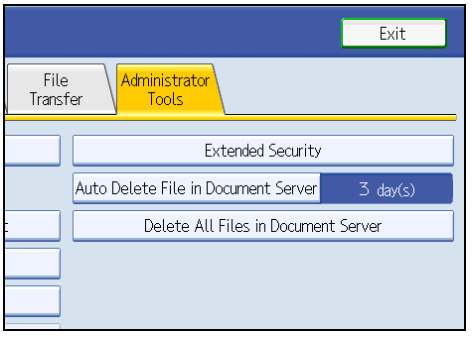
2. **Press [System Settings].**



3. **Press [Administrator Tools].**

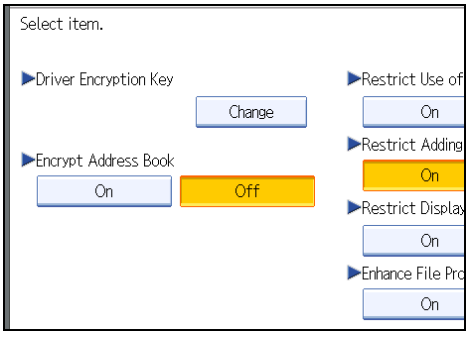


4. **Press [Extended Security].**

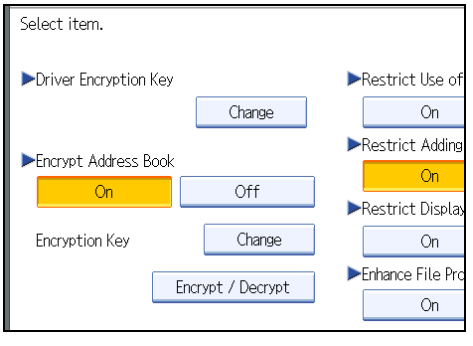


If the setting to be specified does not appear, press [▼Next] to scroll down to other settings.

5. **Press [On] for "Encrypt Address Book".**



6. **Press [Change] for "Encryption Key".**



7. **Enter the encryption key, and then press [OK].**

Enter the encryption key using up to 32 alphanumeric characters.

8. **Press [Encrypt / Decrypt].**

9. **Press [Yes].**

Do not switch the main power off during encryption, as doing so may corrupt the data.

Encrypting the data in the address book may take a long time.

The time it takes to encrypt the data in the address book depends on the number of registered users.

The machine cannot be used during encryption.

Normally, once encryption is complete, "Encryption / Decryption is successfully complete. Press [Exit]." appears.

If you press [Stop] during encryption, the data is not encrypted.

If you press [Stop] during decryption, the data stays encrypted.

10. **Press [Exit].**
11. **Press [OK].**
12. **Press the [User Tools] key.**

Note

- If you register additional users after encrypting the data in the address book, those users are also encrypted.

Reference

- p.33 "Logging on Using Administrator Authentication"
- p.35 "Logging off Using Administrator Authentication"
- p.181 "Specifying the Extended Security Functions"

Deleting Data on the Hard Disk

This can be specified by the machine administrator.

To use this function, the optional DataOverwriteSecurity Unit must be installed.

The machine's hard disk stores all document data from the copier, printer, and scanner functions. It also stores the data of users' document server and code counters, and the Address Book.

To prevent data on the hard disk being leaked before disposing of the machine, you can overwrite all data stored on the hard disk. You can also automatically overwrite temporarily-stored data.

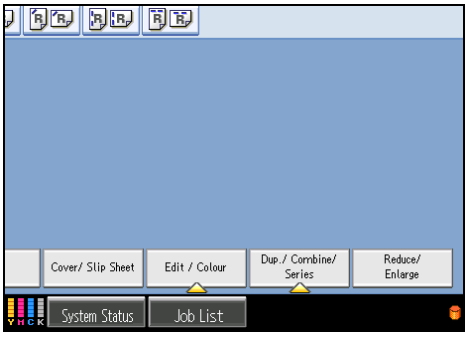
Auto Erase Memory

A document scanned in copier, or scanner mode, or print data sent from a printer driver is temporarily stored on the machine's hard disk. Even after the job is completed, it remains in the hard disk as temporary data. Auto Erase Memory erases the temporary data on the hard disk by writing over it.

Overwriting starts automatically once the job is completed. The Copier and Printer functions take priority over the Auto Erase Memory function. If a copy or print job is in progress, overwriting will only be done after the job is completed.

Overwrite Icon

If this option has been correctly installed and is functioning properly, the Data Overwrite icon will be indicated in the bottom right hand corner of the panel display of your machine when Auto Erase Memory is set to [On].



	Dirty	This icon is lit when there is temporary data to be overwritten, and blinks during overwriting.
	Clear	This icon is lit when there is no temporary data to be overwritten.

Note

- If the Data Overwrite icon is not displayed, first check if Auto Erase Memory has been set to [Off]. If the icon is not displayed even though Auto Erase Memory is [On], contact your service representative.

Methods of Overwriting

You can select a method of overwriting from the following:

[NSA] *1

Temporary data is overwritten twice with random numbers and once with zeros.

[DoD] *2

Temporary data is overwritten with a fixed value, the fixed value's complement, and random numbers. It is then verified.

[Random Numbers]

Temporary data is overwritten multiple times with random numbers. The number of overwrites can be selected from 1 to 9. The default is 3 times.

*1 National Security Agency, U.S.A.

*2 Department of Defense, U.S.A.

Note

- Default: Random Numbers

Using Auto Erase Memory

This can be specified by the machine administrator.

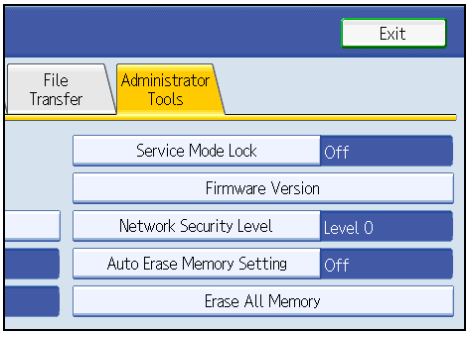
For details about logging on and logging off with administrator authentication, see "Logging on Using Administrator Authentication", "Logging off Using Administrator Authentication".

Important

- **When Auto Erase Memory is set to [On], temporary data that remained on the hard disk when Auto Erase Memory was [Off] might not be overwritten.**

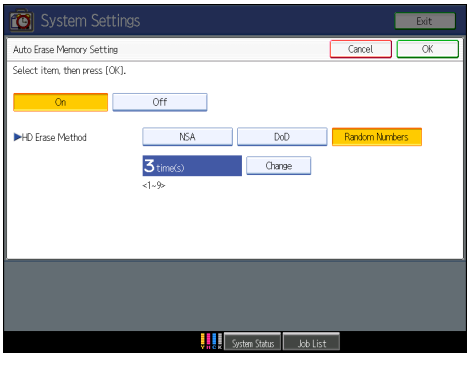
1. **Press the [User Tools] key.**
2. **Press [System Settings].**
3. **Press [Administrator Tools].**
4. **Press [▼Next] repeatedly until [Auto Erase Memory Setting] appears.**

5. **Press [Auto Erase Memory Setting].**



6. **Press [On].**

7. **Select the method of overwriting.**



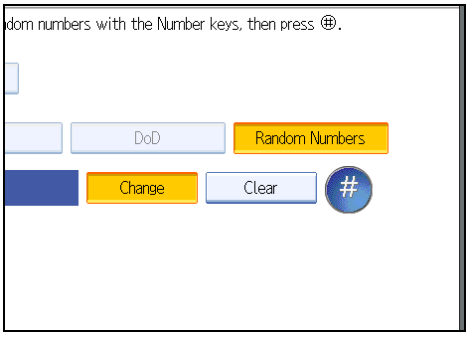
If you select [NSA] or [DoD], proceed to step 10.

If you select [Random Numbers], proceed to step 8.

For details about the methods of overwriting, see "Methods of Overwriting".

8. **Press [Change].**

9. **Enter the number of times that you want to overwrite using the number keys, and then press [#].**



10. **Press [OK].**

    Auto Erase Memory is set.

Note

- If the main power switch is turned to [Off] before Auto Erase Memory is completed, overwriting will stop and data will be left on the hard disk.
- Do not stop the overwrite mid-process. Doing so will damage the hard disk.
- Should the main power of the machine be turned off before overwriting is completed, the temporary data will remain on the hard disk until the main power is next turned on and overwriting is resumed.
- If an error occurs before overwriting is completed, turn off the main power. Turn it on, and then repeat from step 1.

Reference

- p.33 "Logging on Using Administrator Authentication"
- p.35 "Logging off Using Administrator Authentication"
- p.117 "Methods of Overwriting"

Canceling Auto Erase Memory

This can be specified by the machine administrator.

For details about logging on and logging off with administrator authentication, see “Logging on Using Administrator Authentication”, “Logging off Using Administrator Authentication”.

1. **Follow steps 1 to 5 in “Using Auto Erase Memory”.**
2. **Press [Off].**
3. **Press [OK].**

   Auto Erase Memory is disabled.

Note

- To set Auto Erase Memory to [On] again, repeat the procedure in “Using Auto Erase Memory”.

Reference

- p.33 "Logging on Using Administrator Authentication"
- p.35 "Logging off Using Administrator Authentication"

Types of Data that Can or Cannot Be Overwritten

The following table shows the types of data that can or cannot be overwritten by “Auto Erase Memory”.

Data Overwritten by Auto Erase Memory

- Copier

- Copy jobs
- Printer
  - Print jobs

Scanner[*1]

- Scanned files sent by e-mail
- Files sent by Scan to Folder
- Documents sent using DeskTopBinder Professional, or Web Image Monitor

Data Not Overwritten by Auto Erase Memory

Documents stored by the user in the Document Server using the Copier, Printer or Scanner functions[*2]

- Information registered in the Address Book[*3]

  Data stored in the Address Book can be encrypted for security. For details, see "Encrypting Data in the Address Book".
- Counters stored under each user code
- Image overlay data[*4]

  Image overlay data is overwritten after it is deleted.

*1 Data scanned with network TWAIN scanner will not be overwritten by Auto Erase Memory.

*2 A stored document can only be overwritten after it has been printed or deleted from the Document Server.

*3 Data stored in the Address Book can be encrypted for security. For details, see "Protecting the Address Book".

*4 Image overlay data can be overwritten by Auto Erase Memory only if it is deleted in advance.

Reference

- p.109 "Protecting the Address Book"

Erase All Memory

You can erase all the data on the hard disk by writing over it. This is useful if you relocate or dispose of your machine.

Important

- **If you select "Erase All Memory", the following are also deleted: user codes, counters under each user code, user stamps, data stored in the Address Book, printer fonts downloaded by users, applications using Embedded Software Architecture, SSL server certificates, and the machine's network settings.**
- **If the main power switch is turned to [Off] before Auto Erase Memory is completed, overwriting will be stopped and data will be left on the hard disk.**
- **Do not stop the overwrite mid-process. Doing so will damage the hard disk.**

- While the Erase All Memory function is in progress, you cannot use the machine-except to pause the "Erase All Memory" function momentarily. If you select Random Numbers as the overwrite method and specify three overwrites, the machine will need about 5 hours to erase its entire memory.

Using Erase All Memory

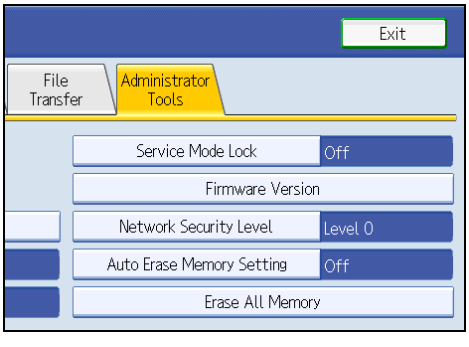
This can be specified by the machine administrator.

For details about logging on and logging off with administrator authentication, see "Logging on Using Administrator Authentication", "Logging off Using Administrator Authentication".

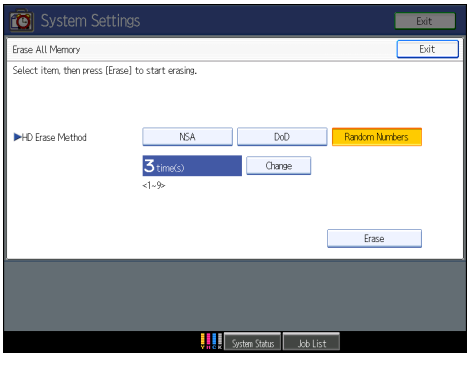
Important

- Should the main power of the machine be turned off before Erase All Memory is completed, data will remain on the hard disk. Make sure the main power is not turned off during overwriting.

1. Disconnect communication cables connected to the machine.
2. Press the [User Tools] key.
3. Press [System Settings].
4. Press [Administrator Tools].
5. Press [▼Next] repeatedly until [Erase All Memory] appears.
6. Press [Erase All Memory].



7. Select the method of overwriting.

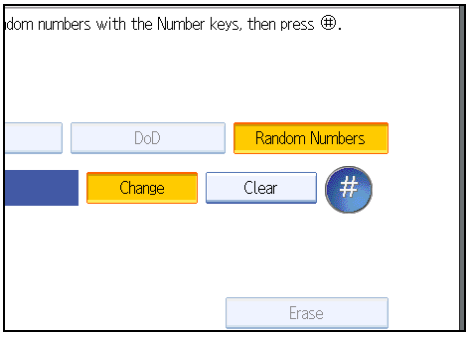


If you select [NSA] or [DoD], proceed to step 10.

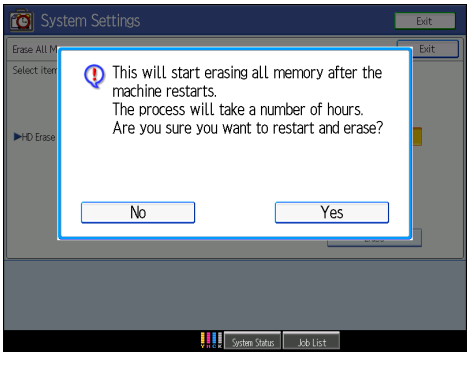
If you select [Random Numbers], proceed to step 8.

For details about the methods of overwriting, see "Methods of Overwriting".

8. **Press [Change].**
9. **Enter the number of times that you want to overwrite using the number keys, and then press [#].**



10. **Press [Erase].**
11. **Press [Yes].**



The machine restarts automatically, and overwriting begins.

12. **When overwriting is completed, press [Exit], and then turn off the main power.**

Before turning the power off, see "Turning On the Power", About This Machine.

Note

- During overwriting, the machine cannot be operated.
- If the main power is turned off when Erase All Memory is in progress, overwriting will start again when you next turn on the main power.
- If an error occurs before overwriting is completed, turn off the main power. Turn it on again, and then repeat from step 2.

Reference

- p.33 "Logging on Using Administrator Authentication"
- p.35 "Logging off Using Administrator Authentication"
- p.117 "Methods of Overwriting"

Suspending Erase All Memory

The overwriting process can be suspended temporarily.

Important

- Erase All Memory cannot be canceled.

1. **Press [Suspend] while Erase All Memory is in progress.**
2. **Press [Yes].**

   Overwriting is suspended.
3. **Turn off the main power.**

   Before turning the power off, see “Turning On the Power”, About This Machine.

Note

- To resume overwriting, turn on the main power.

4. Managing Access to the Machine

This chapter describes how to prevent unauthorized access to and modification of the machine's settings.

Preventing Modification of Machine Settings

This section describes Preventing Modification of Machine Settings.

The administrator type determines which machine settings can be modified. Users cannot change the administrator settings. In “Admin. Authentication”, [Available Settings], the administrator can select which settings users cannot specify. For details about the administrator roles, see “Administrators and Users”.

Register the administrators before using the machine. For instructions on registering the administrator, see “Administrator Authentication”.

Type of Administrator

Register the administrator on the machine, and then authenticate the administrator using the administrator's login user name and password. The administrator can also specify [Available Settings] in “Admin. Authentication” to prevent users from specifying certain settings. Administrator type determines which machine settings can be modified. The following administrator types are possible:

- User Administrator

  For a list of settings that the user administrator can specify, see “User Administrator Settings”.

- Machine Administrator

  For a list of settings that the machine administrator can specify, see “Machine Administrator Settings”.

- Network Administrator

  For a list of settings that the network administrator can specify, see “Network Administrator Settings”.

- File Administrator

  For a list of settings that the file administrator can specify, see “File Administrator Settings”.

Menu Protect

Use this function to specify the permission level for users to change those settings accessible by non administrators.

You can specify Menu Protect for the following settings:

- Copier / Document Server Features
- Scanner Features

For a list of settings that users can specify according to the Menu Protect level, see “User Settings - Control Panel Settings”, “User Settings - Web Image Monitor Settings”.

Reference

- p.17 "Administrators and Users"
- p.25 "Administrator Authentication"
- p.237 "User Administrator Settings"
- p.224 "Machine Administrator Settings"
- p.231 "Network Administrator Settings"
- p.235 "File Administrator Settings"
- p.244 "User Settings - Control Panel Settings"
- p.259 "User Settings - Web Image Monitor Settings"

Menu Protect

The administrator can also limit users' access permission to the machine's settings. This is done by locking the machine's system settings menu. This function is also effective when management is not based on user authentication. For a list of settings that users can specify according to the Menu Protect level, see “User Settings - Control Panel Settings”, or “User Settings - Web Image Monitor Settings”.

Reference

- p.244 "User Settings - Control Panel Settings"
- p.259 "User Settings - Web Image Monitor Settings"

Menu Protect

You can set menu protect to [Off], [Level 1], or [Level 2]. If you set it to [Off], no menu protect limitation is applied. To limit access to the fullest extent, select [Level 2].

For details about logging on and logging off with administrator authentication, see “Logging on Using Administrator Authentication”, “Logging off Using Administrator Authentication”.

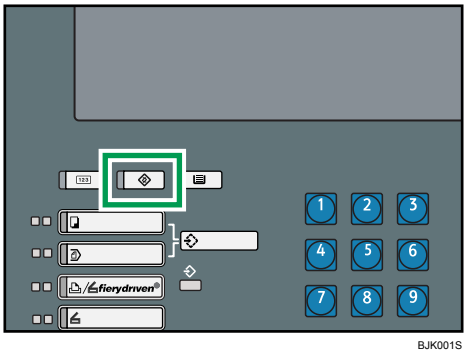
Reference

- p.33 "Logging on Using Administrator Authentication"
- p.35 "Logging off Using Administrator Authentication"

Copying Functions

To specify [Menu Protect] in [Copier / Document Server Features], set [Machine Management] to [On] in [Administrator Authentication Management] in [Administrator Tools] in [System Settings].

1. **Press the [User Tools] key.**



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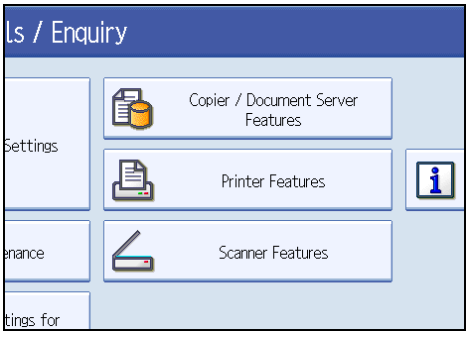
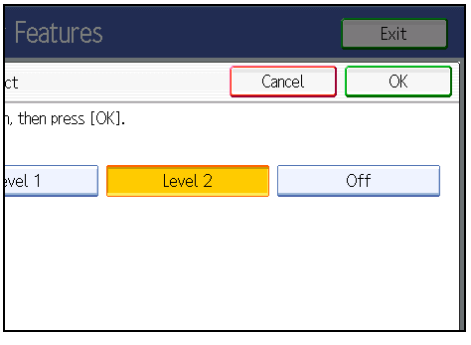
2. **Press [Copier / Document Server Features].**



3. **Press [Administrator Tools].**
4. **Press [Menu Protect].**
5. **Select the menu protect level, and then press [OK].**

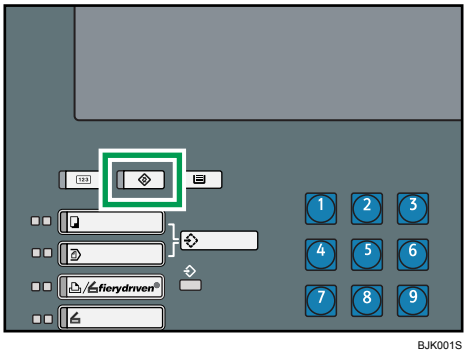


6. **Press the [User Tools] key.**

Scanner Functions

To specify [Menu Protect] in [Scanner Features], set [Machine Management] to [On] in [Administrator Authentication Management] in [Administrator Tools] in [System Settings].

1. **Press the [User Tools] key.**



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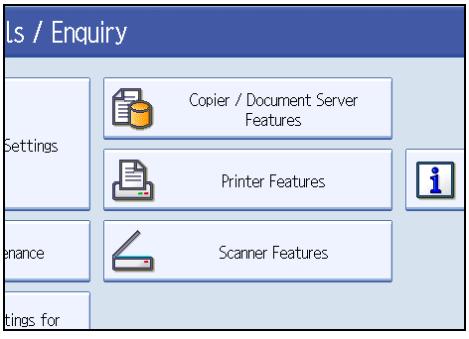
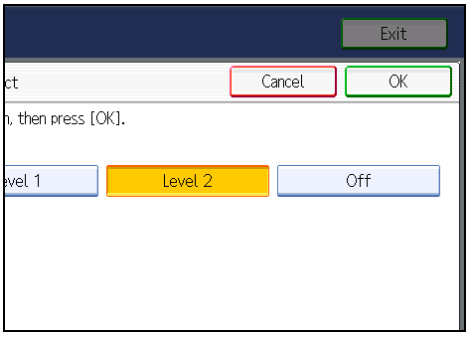
2. Press [Scanner Features].



3. Press [Initial Settings].
4. Press [Menu Protect].
5. Select the menu protect level, and then press [OK].



6. Press the [User Tools] key.

Limiting Available Functions

To prevent unauthorized operation, you can specify who is allowed to access each of the machine's functions.

Available Functions

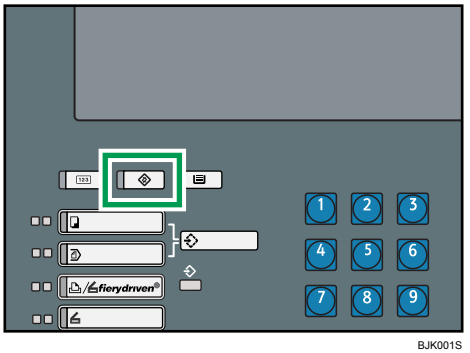
Specify the available functions from the copier, Document Server, Printer, and Scanner functions.

Specifying Which Functions are Available

This can be specified by the user administrator. Specify the functions available to registered users. By making this setting, you can limit the functions available to users.

For details about logging on and logging off with administrator authentication, see "Logging on Using Administrator Authentication", "Logging off Using Administrator Authentication".

1. **Press the [User Tools] key.**



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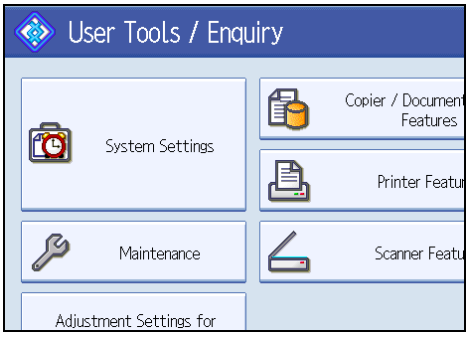
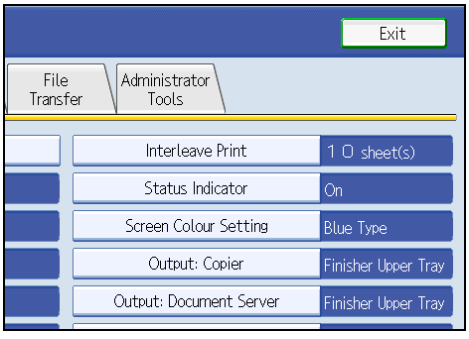
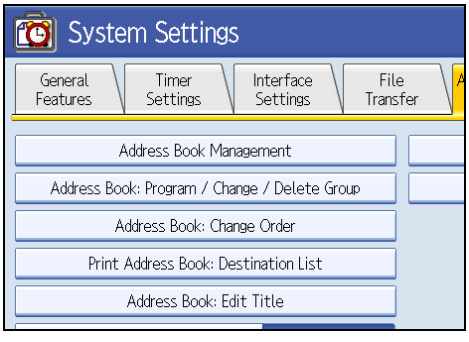
2. **Press [System Settings].**



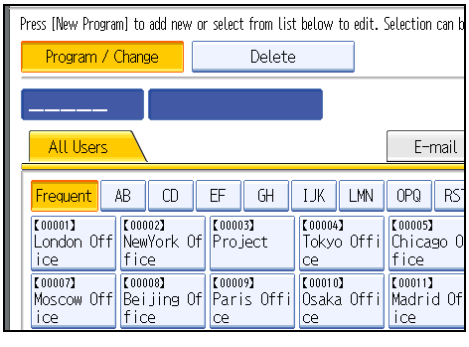
3. Press [Administrator Tools].



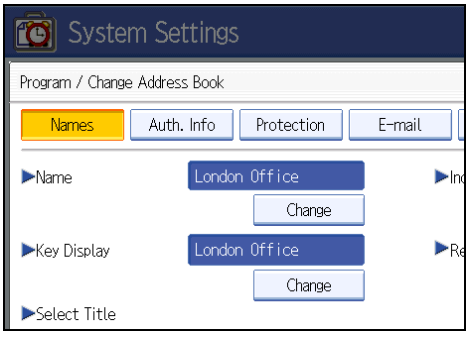
4. Press [Address Book Management].



5. Select the user.



6. **Press [Auth. Info].**



7. **In "Available Functions", select the functions you want to specify.**

   If the setting to be specified does not appear, press [▼Next] to scroll down to other settings.

   For details about printer job authentication, "User Code Authentication".

8. **Press [OK].**
9. **Press [Exit].**
10. **Press the [User Tools] key.**

Reference

- p.33 "Logging on Using Administrator Authentication"
- p.35 "Logging off Using Administrator Authentication"
- p.41 "User Code Authentication"

5. Enhanced Network Security

This chapter describes how to increase security over the network using the machine's functions.

Preventing Unauthorized Access

You can limit IP addresses, disable ports and protocols, or use Web Image Monitor to specify the network security level to prevent unauthorized access over the network and protect the address book, stored files, and default settings.

Access Control

This can be specified by the network administrator using Web Image Monitor. For details, see Web Image Monitor Help.

The machine can control TCP/IP access.

Limit the IP addresses from which access is possible by specifying the access control range.

For example, if you specify the access control range as [192.168.15.16]-[192.168.15.20], the client PC addresses from which access is possible will be from [192.168.15.16] to [192.168.15.20].

Important

- **Using access control, you can limit access involving RCP/RSH, FTP, Web Image Monitor or DeskTopBinder Professional. You cannot limit access involving telnet.**

1. **Open a Web browser.**
2. **Enter "http://(the machine's IP address or host name)/" in the address bar.**

   When entering an IPv4 address, do not begin segments with zeros. For example: If the address is "192.168.001.010", you must enter it as "192.168.1.10" to connect to the machine.

   The top page of Web Image Monitor appears.
3. **Click [Login].**

   The network administrator can log on using the appropriate login user name and login password.
4. **Click [Configuration], and then click [Access Control] under "Security".**

   The Access Control page appears.
5. **To specify the IPv4 Address, enter an IP address that has access to the machine in "Access Control Range".**

   To specify the IPv6 Address, enter an IP address that has access to the machine in "Range" under "Access Control Range", or enter an IP address in "Mask" and specify the "Mask Length".
6. **Click [OK].**

   Access control is set.

7. Click [Logout].

Enabling/Disabling Protocols

This can be specified by the network administrator.

Specify whether to enable or disable the function for each protocol. By making this setting, you can specify which protocols are available and so prevent unauthorized access over the network. Network settings can be specified on the control panel, or using Web Image Monitor or telnet. For details about making settings using telnet, see "Remote Maintenance by telnet", Network Guide. To disable SMTP on Web Image Monitor, in E-mail settings, set the protocol to anything other than SMTP. For details, see Web Image Monitor Help.

For details about logging on and logging off with administrator authentication, see "Logging on Using Administrator Authentication", "Logging off Using Administrator Authentication".

Protocol	Port	Setting Method	Disabled Condition
IPv4	-	• Control Panel • Web Image Monitor • telnet	All applications that operate over IPv4 cannot be used. IPv4 cannot be disabled from Web Image Monitor when using IPv4 transmission.
IPv6	-	• Control Panel • Web Image Monitor • telnet	All applications that operate over IPv6 cannot be used.
IPsec	-	• Control Panel • Web Image Monitor • telnet	Encrypted transmission using IPsec is disabled.
FTP	TCP:21	• Web Image Monitor • telnet	Functions that require FTP cannot be used. You can restrict personal information from being displayed by making settings on the control panel using "Restrict Display of User Information".*1

Protocol	Port	Setting Method	Disabled Condition
sshd/sftpd	TCP:22	• Web Image Monitor • telnet	Functions that require sftp cannot be used. You can restrict personal information from being displayed by making settings on the control panel using "Restrict Display of User Information".*1
telnet	TCP:23	• Web Image Monitor	Commands using telnet are disabled.
SMTP	TCP:25 (variable)	• Control Panel • Web Image Monitor	E-mail notification that requires SMTP reception cannot be used.
HTTP	TCP:80	• Web Image Monitor • telnet	Functions that require HTTP cannot be used.
HTTPS	TCP:443	• Web Image Monitor • telnet	Functions that require HTTPS cannot be used. @Remote functions are unavailable. You can also make settings to require SSL transmission and restrict the use of other transmission methods using the control panel or Web Image Monitor.
SMB	TCP:139	• Control Panel • Web Image Monitor • telnet	SMB printing functions cannot be used.

Protocol	Port	Setting Method	Disabled Condition
NBT	UDP:137 UDP:138	• telnet	SMB printing functions via TCP/IP, as well as NetBIOS designated functions on the WINS server cannot be used.
SNMPv1,v2	UDP:161	• Web Image Monitor • telnet	Functions that require SNMPv1, v2 cannot be used. Using the control panel, Web Image Monitor or telnet, you can specify that SNMPv1, v2 settings are read-only, and cannot be edited.
SNMPv3	UDP:161	• Web Image Monitor • telnet	Functions that require SNMPv3 cannot be used. You can also make settings to require SNMPv3 encrypted transmission and restrict the use of other transmission methods using the control panel, Web Image Monitor, or telnet.
RSH/RCP	TCP:514	• Web Image Monitor • telnet	Functions that require remote shell (RSH) cannot be used. You can restrict personal information from being displayed by making settings on the control panel using “Restrict Display of User Information”.*1

Protocol	Port	Setting Method	Disabled Condition
SSDP	UDP:1900	• Web Image Monitor • telnet	Device discovery using UPnP from Windows cannot be used.
@Remote	TCP:7443 TCP:7444	• telnet	@Remote cannot be used.
RFU	TCP:10021	• telnet	You can attempt to update firmware via FTP.
NetWare	(IPX/SPX)	• Control Panel • Web Image Monitor • telnet	SNMP over IPX cannot be used.

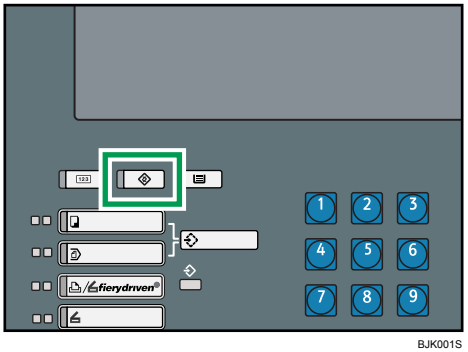
*1 "Restrict Display of User Information" is one of the Extended Security features. For details about making this setting, see "Specifying the Extended Security Functions".

Reference

- p.33 "Logging on Using Administrator Authentication"
- p.35 "Logging off Using Administrator Authentication"
- p.181 "Specifying the Extended Security Functions"

Making Settings Using the Control Panel

1. **Press the [User Tools] key.**



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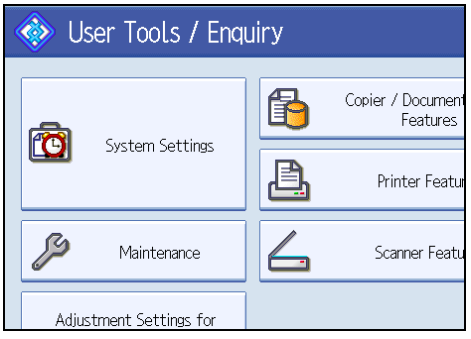
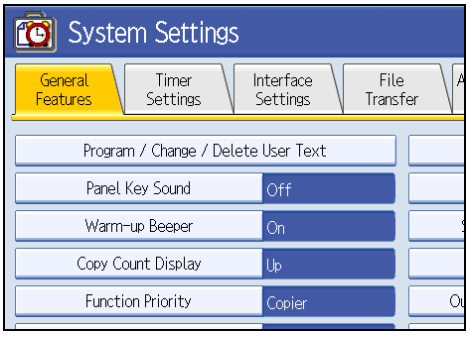
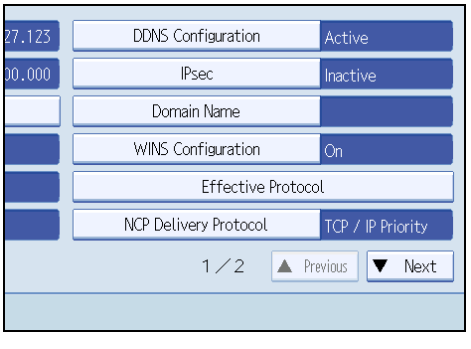
2. **Press [System Settings].**



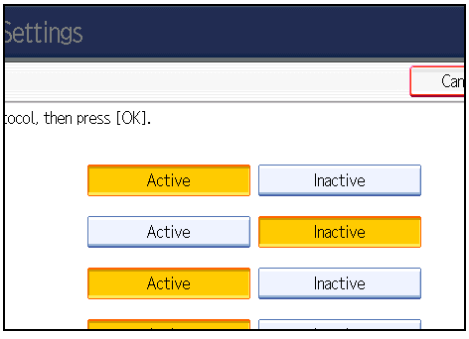
3. **Press [Interface Settings].**



4. **Press [Effective Protocol].**



5. **Press [Inactive] for the protocol you want to disable.**



6. **Press [OK].**
7. **Press the [User Tools] key.**

Reference

- p.33 "Logging on Using Administrator Authentication"
- p.35 "Logging off Using Administrator Authentication"

Making Settings Using Web Image Monitor

1. **Open a Web browser.**
2. **Enter "http://(the machine's IP address or host name)/" in the address bar.**

   When entering an IPv4 address, do not begin segments with zeros. For example: If the address is "192.168.001.010", you must enter it as "192.168.1.10" to connect to the machine.

   The top page of Web Image Monitor appears.
3. **Click [Login].**

   The network administrator can log on.

   Enter the login user name and login password.
4. **Click [Configuration], and then click [Network Security] under "Security".**
5. **Set the desired protocols to active/inactive (or open/close).**
6. **Click [OK].**
7. **Click [OK].**
8. **Click [Logout].**

Specifying Network Security Level

This can be specified by the network administrator. This setting lets you change the security level to limit unauthorized access. You can make network security level settings on the control panel, as well as Web Image Monitor. However, the protocols that can be specified differ.

Set the security level to [Level 0], [Level 1], or [Level 2].

Select [Level 2] for maximum security to protect confidential information. Make this setting when it is necessary to protect confidential information from outside threats.

Select [Level 1] for moderate security to protect important information. Use this setting if the machine is connected to the office local area network (LAN).

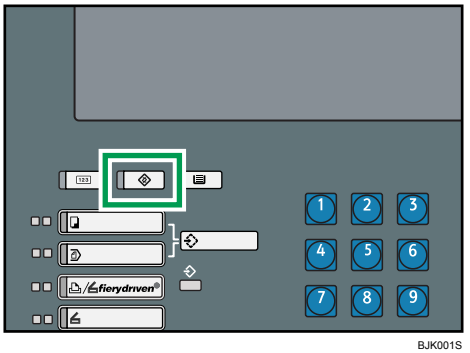
Select [Level 0] for easy use of all the features. Use this setting when you have no information that needs to be protected from outside threats.

5

Making Settings Using the Control Panel

For details about logging on and logging off with administrator authentication, see "Logging on Using Administrator Authentication", "Logging off Using Administrator Authentication".

1. **Press the [User Tools] key.**



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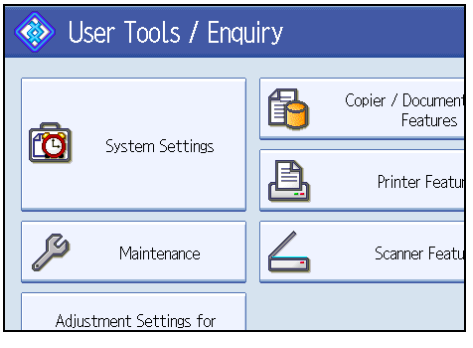
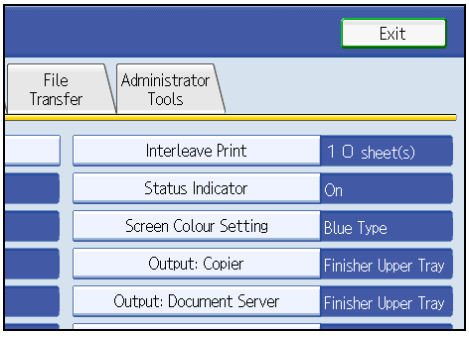
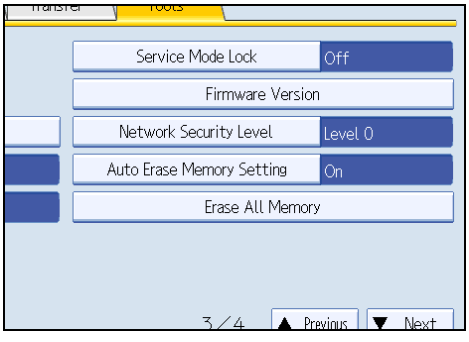
2. **Press [System Settings].**



3. **Press [Administrator Tools].**

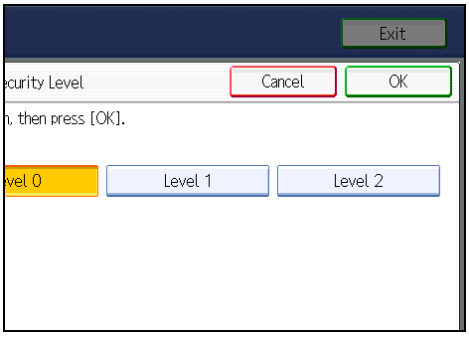


4. **Press [Network Security Level].**



If the setting you want to specify does not appear, press [▼Next] to scroll down to other settings.

5. **Select the network security level.**



Select [Level 0], [Level 1], or [Level 2].

6. **Press [OK].**
7. **Press [Exit].**
8. **Press the [User Tools] key.**

Reference

- p.33 "Logging on Using Administrator Authentication"

- p.35 "Logging off Using Administrator Authentication"

Making Settings Using Web Image Monitor

1. **Open a Web browser.**
2. **Enter "http://(the machine's IP address or host name)/" in the address bar.**

   When entering an IPv4 address, do not begin segments with zeros. For example: If the address is "192.168.001.010", you must enter it as "192.168.1.10" to connect to the machine.

   The top page of Web Image Monitor appears.
3. **Click [Login].**

   The network administrator can log on.

   Enter the login user name and login password.
4. **Click [Configuration], and then click [Network Security] under "Security".**
5. **Select the network security level in "Security Level".**
6. **Click [OK].**
7. **Click [OK].**
8. **Click [Logout].**

Status of Functions under each Network Security Level

Tab Name:TCP/IP

Function	Level 0	Level 1	Level 2
TCP/IP	Available	Available	Available
HTTP> Port 80	open	open	open
HTTP> Port 443	open	open	open
HTTP> Port 631	open	open	closed
HTTP> Port 7443/7444	open	open	open
FTP> Port 21	open	open	open
ssh> Port 22	open	open	open
sftp	open	open	open
RFU> Port 10021	open	open	open

Function	Level 0	Level 1	Level 2
RSH/RCP	Available	Available	Unavailable
SNMP	Available	Available	Available
SNMP v1v2> Setting	Available	Unavailable	Unavailable
SNMP v1v2> Browse	Available	Available	Unavailable
SNMP v3	Available	Available	Available
SNMP v3> SNMP Encryption	Automatic	Automatic	Ciphertext Only
TELNET	Available	Unavailable	Unavailable
SSDP> Port 1900	open	open	closed
NBT> Port 137/138	open	open	closed
SSL	Available	Available	Available
SSL> SSL / TLS Encryption Mode	Ciphertext Priority	Ciphertext Priority	Ciphertext Only
SMB	Available	Available	Unavailable

Tab Name:NetWare

Function	Level 0	Level 1	Level 2
NetWare	Available	Available	Unavailable

Encrypting Transmitted Passwords

Prevent login passwords from being revealed by encrypting them for transmission.

Also, encrypt the login password for administrator authentication and user authentication.

Driver Encryption Key

Encrypt the password transmitted when specifying user authentication.

To encrypt the login password, specify the driver encryption key on the machine and on the printer driver installed in the user's computer.

Driver Encryption Key

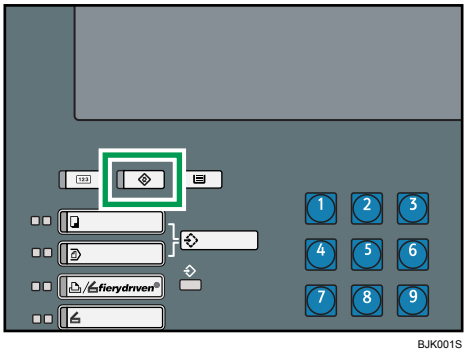
This can be specified by the network administrator.

Specify the driver encryption key on the machine.

By making this setting, you can encrypt login passwords for transmission to prevent them from being analyzed.

For details about logging on and logging off with administrator authentication, see “Logging on Using Administrator Authentication”, “Logging off Using Administrator Authentication”.

1. **Press the [User Tools] key.**



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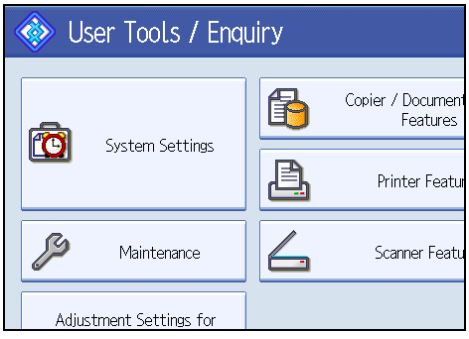
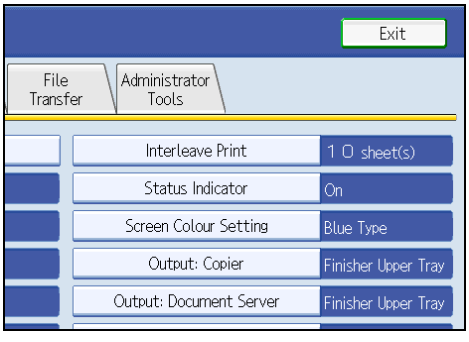
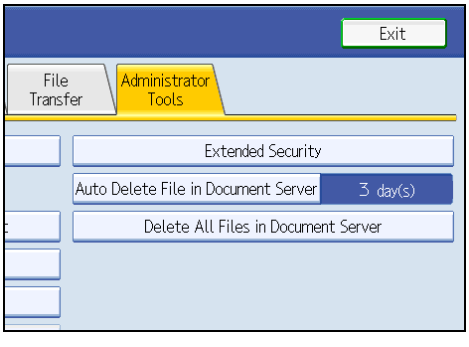
2. **Press [System Settings].**



3. **Press [Administrator Tools].**

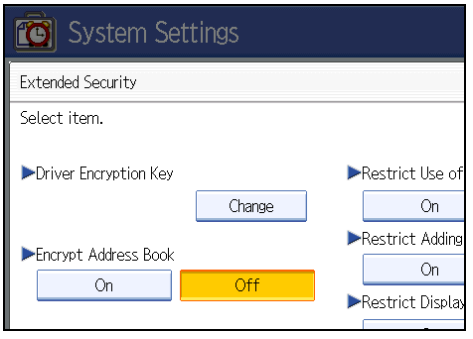


4. **Press [Extended Security].**



If the setting to be specified does not appear, press [▼Next] to scroll down to other settings.

5. **For "Driver Encryption Key", press [Change].**



"Driver Encryption Key" is one of the extended security functions. For details about this and other security functions, see "Specifying the Extended Security Functions".

6. **Enter the driver encryption key, and then press [OK].**

Enter the driver encryption key using up to 32 alphanumeric characters.

The network administrator must give users the driver encryption key specified on the machine so they can register it on their computers. Make sure to enter the same driver encryption key as that is specified on the machine.

7. **Press [OK].**

8. **Press the [User Tools] key.**

For details about specifying the encryption key on the TWAIN driver, see the TWAIN driver Help.

Reference

- p.33 "Logging on Using Administrator Authentication"
- p.35 "Logging off Using Administrator Authentication"
- p.181 "Specifying the Extended Security Functions"

Protection Using Encryption

This machine uses the SSL, SNMPv3, and IPsec protocols to protect the data that it transmits. These protocols encrypt the data, preventing it from being intercepted, analyzed, or tampered with.

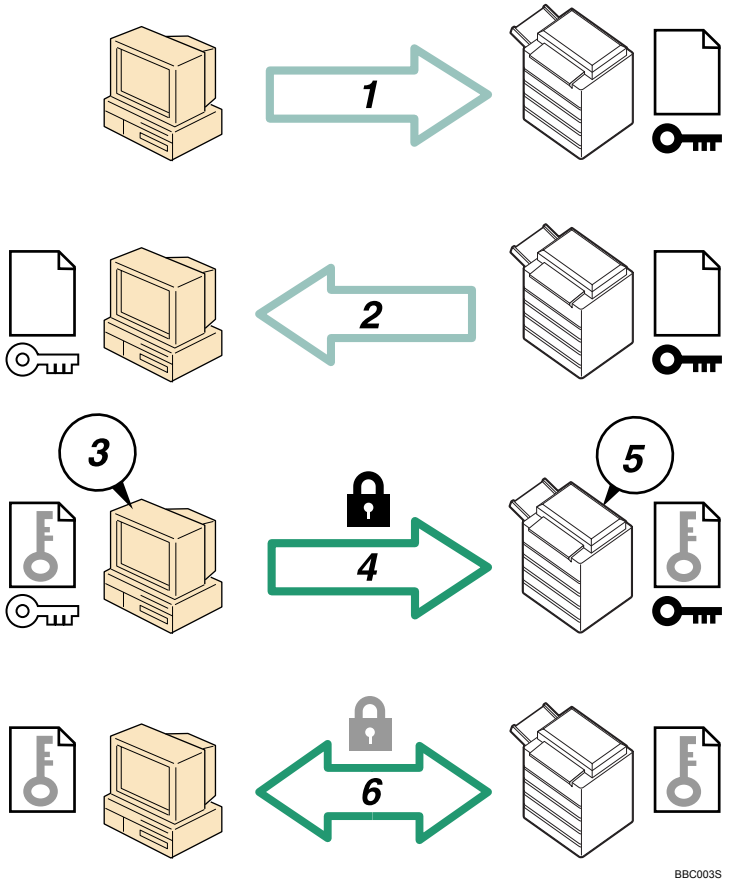
SSL (Secure Sockets Layer) Encryption

This can be specified by the network administrator.

To protect the communication path and establish encrypted communication, create and install the device certificate.

There are two ways of installing a device certificate: create and install a self-signed certificate using the machine, or request a certificate from a certificate authority and install it.

SSL (Secure Sockets Layer)



1. **To access the machine from a user's computer, request the SSL device certificate and public key.**

2. **The device certificate and public key are sent from the machine to the user's computer.**
3. **Create a shared key from the user's computer, and then encrypt it using the public key.**
4. **The encrypted shared key is sent to the machine.**
5. **The encrypted shared key is decrypted in the machine using the private key.**
6. **Transmit the encrypted data using the shared key, and the data is then decrypted at the machine to attain secure transmission.**

Configuration flow (self-signed certificate)

1. Creating and installing the device certificate

   Install the device certificate using Web Image Monitor.
2. Enabling SSL

   Enable the "SSL/TLS" setting using Web Image Monitor.

Configuration flow (certificate issued by a certificate authority)

1. Creating the device certificate

   Create the device certificate using Web Image Monitor.

   The application procedure after creating the certificate depends on the certificate authority. Follow the procedure specified by the certificate authority.
2. Installing the device certificate

   Install the device certificate using Web Image Monitor.
3. Enabling SSL

   Enable the "SSL/TLS" setting using Web Image Monitor.

Note

- To confirm whether SSL configuration is enabled, enter "https://(the machine's IP address or host name)/" in your Web browser's address bar to access this machine. If the "The page cannot be displayed" message appears, check the configuration because the current SSL configuration is invalid.

Creating and Installing the Self-Signed Certificate

Create and install the device certificate using Web Image Monitor. For details about the displayed items and selectable items, see Web Image Monitor Help.

This section explains the use of a self-signed certificate as the device certificate.

1. **Open a Web browser.**
2. **Enter "http://(the machine's IP address or host name)/" in the address bar.**

   When entering an IPv4 address, do not begin segments with zeros. For example: If the address is "192.168.001.010", you must enter it as "192.168.1.10" to connect to the machine.

   The top page of Web Image Monitor appears.

3. **Click [Login].**

   The network administrator can log on.

   Enter the login user name and login password.
4. **Click [Configuration], and then click [Device Certificate] under "Security".**
5. **Click [Certificate1].**
6. **Click [Create].**
7. **Make the necessary settings.**
8. **Click [OK].**

   The setting is changed.
9. **Click [OK].**

   A security warning dialog box appears.
10. **Check the details, and then click [OK].**

    "Installed" appears under "Certificate Status" to show that a device certificate for the machine has been installed.
11. **Click [Logout].**

Note

- Click [Delete] to delete the device certificate from the machine.

Creating the Device Certificate (Certificate Issued by a Certificate Authority)

Create the device certificate using Web Image Monitor. For details about the displayed items and selectable items, see Web Image Monitor Help.

This section explains the use of a certificate issued by a certificate authority as the device certificate.

1. **Open a Web browser.**
2. **Enter "http://(the machine's IP address or host name)/" in the address bar.**

   When entering an IPv4 address, do not begin segments with zeros. For example: If the address is "192.168.001.010", you must enter it as "192.168.1.10" to connect to the machine.

   The top page of Web Image Monitor appears.
3. **Click [Login].**

   The network administrator can log on.

   Enter the login user name and login password.
4. **Click [Configuration], and then click [Device Certificate] under "Security".**

   The Device Certificate page appears.
5. **Click [Certificate1].**

6. **Click [Request].**
7. **Make the necessary settings.**
8. **Click [OK].**

   "Requesting" appears for “Certificate Status” in the “Certificates” area.
9. **Click [Logout].**
10. **Apply to the certificate authority for the device certificate.**

    The application procedure depends on the certificate authority. For details, contact the certificate authority.

    For the application, click Web Image Monitor Details icon and use the information that appears in “Certificate Details”.

Note

- The issuing location may not be displayed if you request two certificates at the same time. When you install a certificate, be sure to check the certificate destination and installation procedure.
- Using Web Image Monitor, you can create the contents of the device certificate but you cannot send the certificate application.
- Click [Cancel Request] to cancel the request for the device certificate.

Installing the Device Certificate (Certificate Issued by a Certificate Authority)

Install the device certificate using Web Image Monitor. For details about the displayed items and selectable items, see Web Image Monitor Help.

This section explains the use of a certificate issued by a certificate authority as the device certificate.

Enter the device certificate contents issued by the certificate authority.

1. **Open a Web browser.**
2. **Enter “http://(the machine's IP address or host name)/” in the address bar.**

   When entering an IPv4 address, do not begin segments with zeros. For example: If the address is “192.168.001.010”, you must enter it as “192.168.1.10” to connect to the machine.

   The top page of Web Image Monitor appears.
3. **Click [Login].**

   The network administrator can log on.

   Enter the login user name and login password.
4. **Click [Configuration], and then click [Device Certificate] under “Security”.**

   The Device Certificate page appears.
5. **Click [Certificate1].**
6. **Click [Install].**

7. **Enter the contents of the device certificate.**

   In the "Certificate Request" box, enter the contents of the device certificate received from the certificate authority.

8. **Click [OK].**

   "Installed" appears under "Certificate Status" to show that a device certificate for the machine has been installed.

9. **Click [Logout].**

Enabling SSL

After installing the device certificate in the machine, enable the SSL setting.

This procedure is used for a self-signed certificate or a certificate issued by a certificate authority.

1. **Open a Web browser.**
2. **Enter "http://(the machine's IP address or host name)/" in the address bar.**

   When entering an IPv4 address, do not begin segments with zeros. For example: If the address is "192.168.001.010", you must enter it as "192.168.1.10" to connect to the machine.

   The top page of Web Image Monitor appears.

3. **Click [Login].**

   The network administrator can log on.

   Enter the login user name and login password.

4. **Click [Configuration], and then click [SSL/TLS] under "Security".**

   The SSL/TLS page appears.

5. **Click [Enable] for the protocol version used in "SSL/TLS".**
6. **Select the encryption communication mode for "Permit SSL/TLS Communication".**
7. **Click [OK].**

   The SSL setting is enabled.

8. **Click [OK].**
9. **Click [Logout].**

Note

- If you set "Permit SSL/TLS Communication" to [Ciphertext Only], enter "https://(the machine's IP address or host name)/" to access the machine.

User Settings for SSL (Secure Sockets Layer)

If you have installed a device certificate and enabled SSL (Secure Sockets Layer), you need to install the certificate on the user's computer.

The network administrator must explain the procedure for installing the certificate to users.

If a warning dialog box appears while accessing the machine using Web Image Monitor, start the Certificate Import Wizard and install a certificate.

1. **When the Security Alert dialog box appears, click [View Certificate].**

   The Certificate dialog box appears.

   To be able to respond to inquiries from users about such problems as expiry of the certificate, check the contents of the certificate.

2. **Click [Install Certificate...] on the "General" tab.**

   Certificate Import Wizard starts.

3. **Install the certificate by following the Certificate Import Wizard instructions.**

Note

- If a certificate issued by a certificate authority is installed in the machine, confirm the certificate store location with the certificate authority.

Setting the SSL / TLS Encryption Mode

By specifying the SSL/TLS encrypted communication mode, you can change the security level.

Encrypted Communication Mode

Using the encrypted communication mode, you can specify encrypted communication.

Ciphertext Only	Allows encrypted communication only. If encryption is not possible, the machine does not communicate.
Ciphertext Priority	Performs encrypted communication if encryption is possible. If encryption is not possible, the machine communicates without it.
Ciphertext / Cleartext	Communicates with or without encryption, according to the setting.

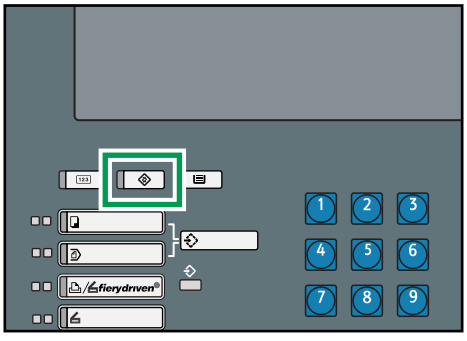
Setting the SSL / TLS Encryption Mode

This can be specified by the network administrator.

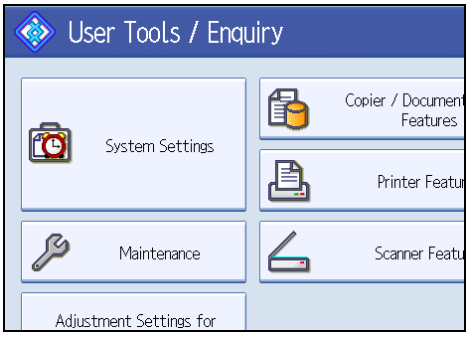
After installing the device certificate, specify the SSL/TLS encrypted communication mode. By making this setting, you can change the security level.

For details about logging on and logging off with administrator authentication, see “Logging on Using Administrator Authentication”, “Logging off Using Administrator Authentication”.

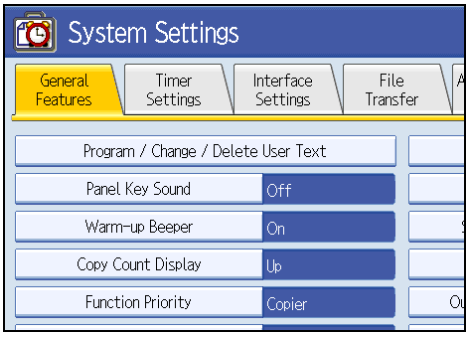
1. **Press the [User Tools] key.**



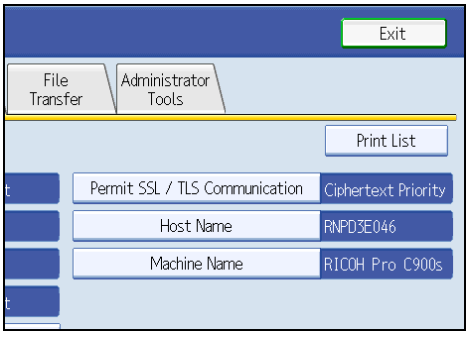
2. **Press [System Settings].**



3. **Press [Interface Settings].**

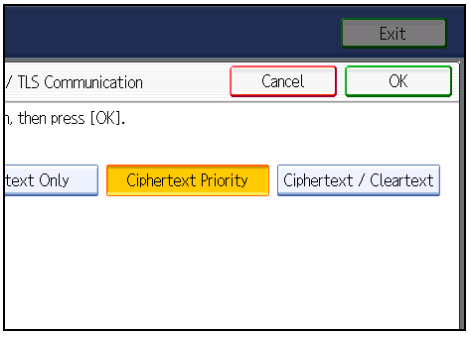


4. **Press [Permit SSL / TLS Communication].**



If the setting to be specified does not appear, press [▼Next] to scroll down to other settings.

5. **Select the encrypted communication mode.**



Select [Ciphertext Only], [Ciphertext Priority], or [Ciphertext / Cleartext] as the encrypted communication mode.

6. **Press [OK].**
7. **Press the [User Tools] key.**

Note

- The SSL/TLS encrypted communication mode can also be specified using Web Image Monitor. For details, see Web Image Monitor Help.

Reference

- p.33 "Logging on Using Administrator Authentication"
- p.35 "Logging off Using Administrator Authentication"

SNMPv3 Encryption

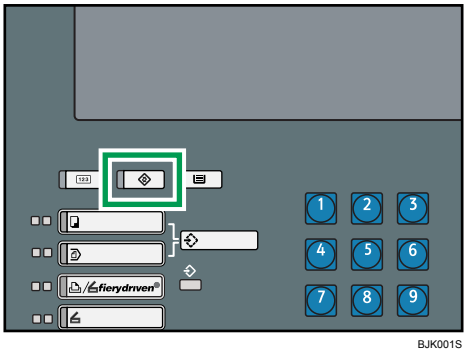
This can be specified by the network administrator.

When using Web Image Monitor or another application to make various settings, you can encrypt the data transmitted.

By making this setting, you can protect data from being tampered with.

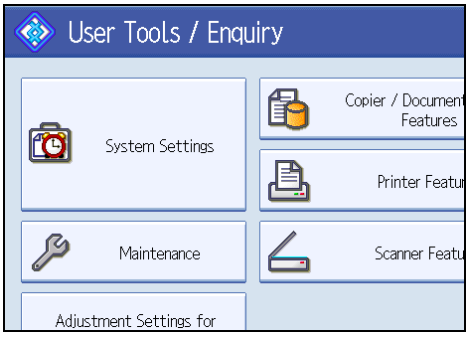
For details about logging on and logging off with administrator authentication, see “Logging on Using Administrator Authentication”, “Logging off Using Administrator Authentication”.

1. **Press the [User Tools] key.**

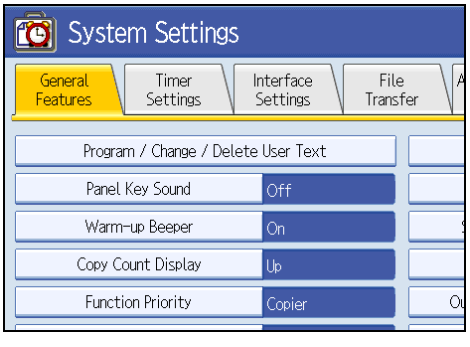


BJK001S

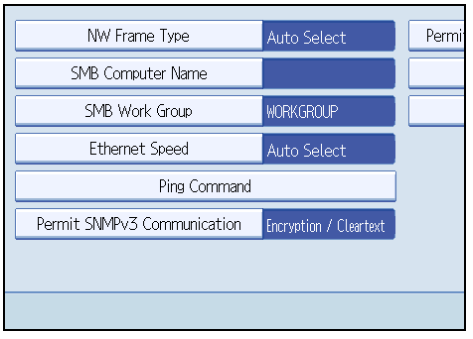
2. **Press [System Settings].**



3. **Press [Interface Settings].**

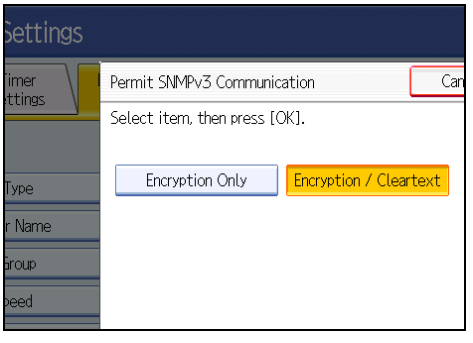


4. **Press [Permit SNMPv3 Communication].**



If the setting to be specified does not appear, press [▼Next] to scroll down to other settings.

5. **Press [Encryption Only].**



6. **Press [OK].**
7. **Press the [User Tools] key.**

Note

- To use Web Image Monitor for encrypting setting configuration data, you must first specify [Permit SNMPv3 Communication] on the machine, and then configure the network administrator's [Encryption Password] setting and specify the encryption key in Web Image Monitor. For details about specifying [Encryption Password] in Web Image Monitor, see Web Image Monitor Help.
- If network administrator's [Encryption Password] setting is not specified, the data for transmission may not be encrypted or sent. For details about specifying the network administrator's [Encryption Password] setting, see “Registering the Administrator”.

Reference

- p.33 "Logging on Using Administrator Authentication"
- p.35 "Logging off Using Administrator Authentication"
- p.28 "Registering the Administrator"

Transmission Using IPsec

This can be specified by the network administrator.

For communication security, this machine supports IPsec. IPsec transmits secure data packets at the IP protocol level using the shared key encryption method, where both the sender and receiver retain the same key. This machine has two methods that you can use to specify the shared encryption key for both parties: encryption key auto exchange and encryption key manual settings. Using the auto exchange setting, you can renew the shared key exchange settings within a specified validity period, and achieve higher transmission security.

Important

- When "Inactive" is specified for "Exclude HTTPS Communication", access to Web Image Monitor can be lost if the key settings are improperly configured. In order to prevent this, you can specify IPsec to exclude HTTPS transmission by selecting "Active". When you want to include HTTPS transmission, we recommend that you select "Inactive" for "Exclude HTTPS Communication" after confirming that IPsec is properly configured. When "Active" is selected for "Exclude HTTPS Communication", even though HTTPS transmission is not targeted by IPsec, Web Image Monitor might become unusable when TCP is targeted by IPsec from the computer side. If you cannot access Web Image Monitor due to IPsec configuration problems, disable IPsec in System Settings on the control panel, and then access Web Image Monitor. For details about enabling and disabling IPsec using the control panel, see "System Settings", General Settings Guide.
- IPsec is not applied to data obtained through DHCP, DNS, or WINS.
- IPsec compatible operating systems are Windows XP SP2, Windows Vista, Mac OSX 10.4 and later, RedHat Linux Enterprise WS 4.0, and Solaris 10. However, some setting items are not supported depending on the operating system. Make sure the IPsec settings you specify are consistent with the operating system's IPsec settings.

Encryption and Authentication by IPsec

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

ESP Protocol

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

- For successful encryption, both the sender and receiver must specify the same encryption algorithm and encryption key. If you use the encryption key auto exchange method, the encryption algorithm and encryption key are specified automatically.

- For successful authentication, the sender and receiver must specify the same authentication algorithm and authentication key. If you use the encryption key auto exchange method, the authentication algorithm and authentication key are specified automatically.

AH Protocol

The AH protocol provides header authentication only. This protocol does not provide packet encryption.

- For successful authentication, the sender and receiver must specify the same authentication algorithm and authentication key. If you use the encryption key auto exchange method, the authentication algorithm and authentication key are specified automatically.

AH Protocol + ESP Protocol

When combined, the ESP and AH protocols provide packet encryption and both packet and header authentication.

- For successful encryption, both the sender and receiver must specify the same encryption algorithm and encryption key. If you use the encryption key auto exchange method, the encryption algorithm and encryption key are specified automatically.
- For successful authentication, the sender and receiver must specify the same authentication algorithm and authentication key. If you use the encryption key auto exchange method, the authentication algorithm and authentication key are specified automatically.

Note

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

Encryption Key Auto Exchange Settings and Encryption Key Manual Settings

This machine provides two key setting methods: manual and auto exchange. Using either of these methods, agreements such as the IPsec algorithm and key must be specified for both sender and receiver. Such agreements form what is known as an SA (Security Association). IPsec communication is possible only if the receiver's and sender's SA settings are identical.

If you use the auto exchange method to specify the encryption key, the SA settings are auto configured on both parties' machines. However, before setting the IPsec SA, the ISAKMPSA (Phase 1) settings are auto configured. After this, the IPsec SA (Phase 2) settings, which allow actual IPsec transmission, are auto configured.

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

If you specify the encryption key manually, the SA settings must be shared and specified identically by both parties. To preserve the security of your SA settings, we recommend that they are not exchanged over a network.

Note that for both the manual and auto method of encryption key specification, multiple settings can be configured in the SA.

Settings 1-4 and Default Setting

Using either the manual or auto exchange method, you can configure four separate sets of SA details (such as different shared keys and IPsec algorithms). In the default settings of these sets, you can include settings that the fields of sets 1 to 4 cannot contain.

When IPsec is enabled, set 1 has the highest priority and 4 has the lowest. You can use this priority system to target IP addresses more securely. For example, set the broadest IP range at the lowest priority (4), and then set specific IP addresses at a higher priority level (3 and higher). This way, when IPsec transmission is enabled for a specific IP address, the higher level security settings will be applied.

IPsec Settings

IPsec settings for this machine can be made on Web Image Monitor. The following table explains individual setting items.

Encryption Key Auto Exchange / Manual Settings - Shared Settings

Setting	Description	Setting Value
IPsec	Specify whether to enable or disable IPsec.	• Active • Inactive
Exclude HTTPS Communication	Specify whether to enable IPsec for HTTPS transmission.	• Active • Inactive Specify "Active" if you do not want to use IPsec for HTTPS transmission.
Encryption Key Manual Settings	Specify whether to enable Encryption Key Manual Settings, or use Encryption Key Auto Exchange Settings only.	• Active • Inactive Specify "Active" if you want to use "Encryption Key Manual Exchange Settings".

Encryption Key Auto Exchange Security Level

When you select a security level, certain security settings are automatically configured. The following table explains security level features.

Security Level	Security Level Features
Authentication Only	Select this level if you want to authenticate the transmission partner and prevent unauthorized data tampering, but not perform data packet encryption. Since the data is sent in cleartext, data packets are vulnerable to eavesdropping attacks. Do not select this if you are exchanging sensitive information.
Authentication and Low Level Encryption	Select this level if you want to encrypt the data packets as well as authenticate the transmission partner and prevent unauthorized packet tampering. Packet encryption helps prevent eavesdropping attacks. This level provides less security than "Authentication and High Level Encryption".
Authentication and High Level Encryption	Select this level if you want to encrypt the data packets as well as authenticate the transmission partner and prevent unauthorized packet tampering. Packet encryption helps prevent eavesdropping attacks. This level provides higher security than "Authentication and Low Level Encryption".

The following table lists the settings that are automatically configured according to the security level.

Setting	Authentication Only	Authentication and Low Level Encryption	Authentication and High Level Encryption
Security Policy	Apply	Apply	Apply
Encapsulation Mode	Transport	Transport	Transport
IPsec Requirement Level	Use When Possible	Use When Possible	Always Require
Authentication Method	PSK	PSK	PSK
Phase 1 Hash Algorithm	MD5	SHA1	SHA1

Setting	Authentication Only	Authentication and Low Level Encryption	Authentication and High Level Encryption
Phase 1 Encryption Algorithm	DES	3DES	3DES
Phase 1 Diffie-Hellman Group	2	2	2
Phase 2 Security Protocol	AH	ESP	ESP
Phase 2 Authentication Algorithm	HMAC-MD5-96/ HMAC-SHA1-96	HMAC-MD5-96/HMAC-SHA1-96	HMAC-SHA1-96
Phase 2 Encryption Algorithm	Cleartext (NULL encryption)	DES/3DES/AES-128/ AES-192/AES-256	3DES/AES-128/ AES-192/AES-256
Phase 2 PFS	Inactive	Inactive	2

Encryption Key Auto Exchange Setting Items

When you specify a security level, the corresponding security settings are automatically configured, but other settings, such as address type, local address, and remote address must still be configured manually.

After you specify a security level, you can still make changes to the auto configured settings. When you change an auto configured setting, the security level switches automatically to “User Setting”.

Setting	Description	Setting Value
Address Type	Specify the address type for which IPsec transmission is used.	• Inactive • IPv4 • IPv6 • IPv4/IPv6 (Default Settings only)
Local Address	Specify the machine's address. If you are using multiple addresses in IPv6, you can also specify an address range.	The machine's IPv4 or IPv6 address. If you are not setting an address range, enter 32 after an IPv4 address, or enter 128 after an IPv6 address.
Remote Address	Specify the address of the IPsec transmission partner. You can also specify an address range.	The IPsec transmission partner's IPv4 or IPv6 address. If you are not setting an address range, enter 32 after an IPv4 address, or enter 128 after an IPv6 address.
Security Policy	Specify how IPsec is handled.	• Apply • Bypass • Discard
Encapsulation Mode	Specify the encapsulation mode. (auto setting)	• Transport • Tunnel (Tunnel beginning address - Tunnel ending address) If you specify "Tunnel", you must then specify the "Tunnel End Points", which are the beginning and ending IP addresses. Set the same address for the beginning point as you set in "Local Address".

Setting	Description	Setting Value
IPsec Requirement Level	Specify whether to only transmit using IPsec, or to allow cleartext transmission when IPsec cannot be established. (auto setting)	• Use When Possible • Always Require
Authentication Method	Specify the method for authenticating transmission partners. (auto setting)	• PSK • Certificate If you specify PSK, you must then set the PSK text (using ASCII characters). If you specify Certificate, the certificate for IPsec must be installed and specified before it can be used.
PSK Text	Specify the pre-shared key for PSK authentication.	Enter the pre-shared key required for PSK authentication.
Phase 1 HASH Algorithm	Specify the HASH algorithm to be used in phase 1. (auto setting)	• MD5 • SHA1
Phase 1 Encryption Algorithm	Specify the encryption algorithm to be used in phase 1. (auto setting)	• DES • 3DES
Phase 1 Diffie-Hellman Group	Select the Diffie-Hellman group number used for IKE encryption key generation. (auto setting)	• 1 • 2 • 14
Phase 1 Validity Period	Specify the time period for which the SA settings in phase 1 are valid.	Set in seconds from 300 sec. (5 min.) to 172800 sec. (48 hrs.).

Setting	Description	Setting Value
Phase 2 Security Protocol	Specify the security protocol to be used in Phase 2. To apply both encryption and authentication to sent data, specify ESP or AH + ESP. To apply authentication data only, specify AH. (auto setting)	• ESP • AH • ESP+AH
Phase 2 Authentication Algorithm	Specify the authentication algorithm to be used in phase 2. (auto setting)	• HMAC-MD5-96 • HMAC-SHA1-96
Phase 2 Encryption Algorithm Permissions	Specify the encryption algorithm to be used in phase 2. (auto setting)	• Cleartext (NULL encryption) • DES • 3DES • AES-128 • AES-192 • AES-256
Phase 2 PFS	Specify whether to activate PFS. Then, if PFS is activated, select the Diffie-Hellman group. (auto setting)	• Inactive • 1 • 2 • 14
Phase 2 Validity Period	Specify the time period for which the SA settings in phase 2 are valid.	Specify a period (in seconds) from 300 (5min.) to 172800 (48 hrs.).

Encryption Key Manual Settings Items

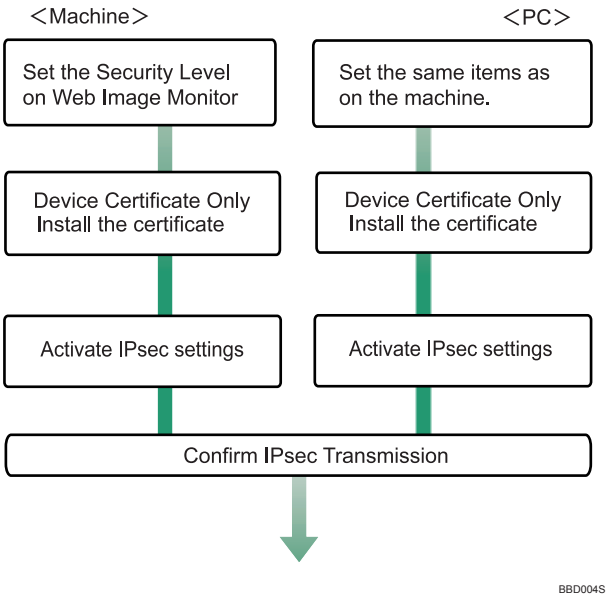
Setting	Description	Setting Value
Address Type	Specify the address type for which IPsec transmission is used.	• Inactive • IPv4 • IPv6 • IPv4/IPv6 (Default Settings only)
Local Address	Specify the machine's address. If you are using multiple IPv6 addresses, you can also specify an address range.	The machine's IPv4 or IPv6 address. If you are not setting an address range, enter 32 after an IPv4 address, or enter 128 after an IPv6 address.
Remote Address	Specify the address of the IPsec transmission partner. You can also specify an address range.	The IPsec transmission partner's IPv4 or IPv6 address. If you are not setting an address range, enter 32 after an IPv4 address, or enter 128 after an IPv6 address.
Encapsulation Mode	Select the encapsulation mode.	• Transport • Tunnel (Tunnel beginning address - Tunnel ending address) If you select “Tunnel”, set the “Tunnel End Point”, the beginning and ending IP addresses. In “Tunnel End Point”, set the same address for the beginning point as you set in “Local Address”.
SPI (Output)	Specify the same value as your transmission partner's SPI input value.	Any number between 256 and 4095

Setting	Description	Setting Value
SPI (Input)	Specify the same value as your transmission partner's SPI output value.	Any number between 256 and 4095
Security Protocol	To apply both encryption and authentication to sent data, specify ESP or AH + ESP. To apply authentication data only, specify AH.	• EPS • AH • EPS+AH
Authentication Algorithm	Specify the authentication algorithm.	• HMAC-MD5-96 • HMAC-SHA1-96
Authentication Key	Specify the key for the authentication algorithm.	Specify a value within the ranges shown below, according to the encryption algorithm. hexadecimal value 0-9, a-f, A-F • If HMAC-MD5-96, set 32 digits • If HMAC-SHA1-96, set 40 digits ASCII • If HMAC-MD5-96, set 16 characters • If HMAC-SHA1-96, set 20 characters
Encryption Algorithm	Specify the encryption algorithm.	• Cleartext (NULL encryption) • DES • 3DES • AES-128 • AES-192 • AES-256

Setting	Description	Setting Value
Encryption Key	Specify the key for the encryption algorithm.	Specify a value within the ranges shown below, according to the encryption algorithm. hexadecimal value 0-9, a-f, A-F • DES, set 16 digits • 3DES, set 48 digits • AES-128, set 32 digits • AES-192, set 48 digits • AES-256, set 64 digits ASCII • DES, set 8 characters • 3DES, set 24 characters • AES-128, set 16 characters • AES-192, set 24 characters • AES-256, set 32 characters

Encryption Key Auto Exchange Settings Configuration Flow

This section explains the procedure for specifying Encryption Key Auto Exchange Settings. This can be specified by the network administrator.



Note

- To use a certificate to authenticate the transmission partner in encryption key auto exchange settings, a device certificate must be installed.
- After configuring IPsec, you can use "Ping" command to check if the connection is established correctly. However, you cannot use "Ping" command when ICMP is excluded from IPsec transmission on the computer side. Also, because the response is slow during initial key exchange, it may take some time to confirm that transmission has been established.

Specifying Encryption Key Auto Exchange Settings

This can be specified using Web Image Monitor.

1. **Open a Web browser.**
2. **Enter "http://(the machine's IP address or host name)/" in the address bar.**

   When entering an IPv4 address, do not begin segments with zeros. For example: If the address is "192.168.001.010", you must enter it as "192.168.1.10" to connect to the machine.

   The top page of Web Image Monitor appears.
3. **Click [Login].**

   The network administrator can log on.

   Enter the login user name and login password.
4. **Click [Configuration], and then click [IPsec] under "Security".**

   The IPsec settings page appears.

5. **Click [Edit] under "Encryption Key Auto Exchange Settings".**
6. **Make encryption key auto exchange settings in [Settings 1].**

   If you want to make multiple settings, select the settings number and add settings.
7. **Click [OK].**
8. **Select [Active] for "IPsec".**
9. **Set "Exclude HTTPS Communication" to [Active] if you do not want to use IPsec for HTTPS transmission.**
10. **Click [OK].**
11. **Click [Logout].**

Note

- To change the transmission partner authentication method for encryption key auto exchange settings to "Certificate", you must first install and assign a certificate. For details about creating and installing a device certificate, see "Using S/MIME to Protect E-mail Transmission".

Reference

- p.101 "Using S/MIME to Protect E-mail Transmission"

Selecting the Certificate for IPsec

This can be specified by the network administrator.

Using Web Image Monitor, select the certificate to be used for IPsec. You must install the certificate before it can be used.

1. **Open a Web browser.**
2. **Enter "http://(the machine's IP address or host name)/" in the address bar.**

   When entering an IPv4 address, do not begin segments with zeros. For example: If the address is "192.168.001.010", you must enter it as "192.168.1.10" to connect to the machine.

   The top page of Web Image Monitor appears.
3. **Click [Login].**

   The network administrator can log on.

   Enter the login user name and login password.
4. **Click [Configuration], and then click [Device Certificate] under "Security".**

   The Device Certificate settings page appears.
5. **Select the certificate to be used for IPsec from the drop down box in "IPsec" under "Certification".**
6. **Click [OK].**

   The certificate for IPsec is specified.

7. **Click [OK].**
8. **Click [Logout].**

Specifying IPsec Settings on the Computer

Specify exactly the same settings for IPsec SA settings on your computer as are specified by the machine's security level on the machine. Setting methods differ according to the computer's operating system. The example procedure shown here uses Windows XP when the Authentication and Low Level Encryption Security level is selected.

1. **On the [Start] menu, click [Control Panel], click [Performance and Maintenance], and then click [Administrative Tools].**
2. **Click [Local Security Policy].**
3. **Click [IP Security Policies on Local Computer].**
4. **In the "Action" menu, click [Create IP Security Policy].**

   The IP Security Policy Wizard appears.
5. **Click [Next].**
6. **Enter a security policy name in "Name", and then click [Next].**
7. **Clear the "Activate the default response rule" check box, and then click [Next].**
8. **Select "Edit properties", and then click [Finish].**
9. **In the "General" tab, click [Advanced].**
10. **In "Authenticate and generate a new key after every" enter the same validity period (in minutes) that is specified on the machine in Encryption Key Auto Exchange Settings Phase 1, and then click [Methods].**
11. **Confirm that the combination of hash algorithm (on Windows XP, "Integrity"), the encryption algorithm (on Windows XP, "Encryption"), and the Diffie-Hellman group settings in "Security method preference order" match the settings specified on the machine in Encryption Key Auto Exchange Settings Phase 1.**
12. **If the settings are not displayed, click [Add].**
13. **Click [OK] twice.**
14. **Click [Add] in the "Rules" Tab.**

    The Security Rule Wizard appears.
15. **Click [Next].**
16. **Select "This rule does not specify a tunnel", and then click [Next].**
17. **Select the type of network for IPsec, and then click [Next].**
18. **Select the "initial authentication method", and then click [Next].**

19. **If you select "Certificate" for authentication method in Encryption Key Auto Exchange Settings on the machine, specify the device certificate. If you select PSK, enter the same PSK text specified on the machine with the pre-shared key.**
20. **Click [Add] in the IP Filter List.**
21. **In [Name], enter an IP Filter name, and then click [Add].**

    The IP Filter Wizard appears.
22. **Click [Next].**
23. **Select "My Address" in "Source Address", and then click [Next].**
24. **Select "A specific IP address" in "Destination Address", enter the machine's IP address, and then click [Next].**
25. **Select the protocol type for IPsec, and then click [Next].**
26. **Click [Finish].**
27. **Click [OK].**
28. **Select the IP filter that was just created, and then click [Next].**
29. **Select the IPsec security filter, and then click [Edit].**
30. **Click [Add], select the "Custom" check box, and then click [Settings].**
31. **In "Integrity algorithm", select the authentication algorithm that was specified on the machine in Encryption Key Auto Exchange Settings Phase 2.**
32. **In "Encryption algorithm", select the encryption algorithm that specified on the machine in Encryption Key Auto Exchange Settings Phase 2.**
33. **In Session Key settings, select "Generate a new key every", and enter the validity period (in seconds) that was specified on the machine in Encryption Key Auto Exchange Settings Phase 2.**
34. **Click [OK] three times.**
35. **Click [Next].**
36. **Click [Finish].**
37. **Click [OK].**
38. **Click [Close].**

    The new IP security policy (IPsec settings) is specified.
39. **Select the security policy that was just created, right click, and then click [Assign].**

    IPsec settings on the computer are enabled.

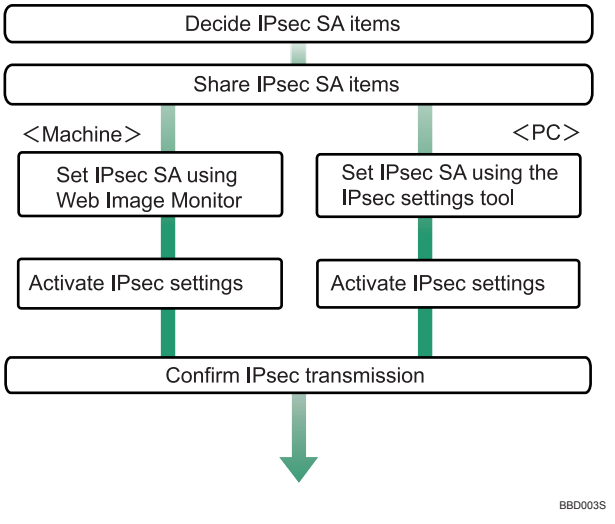
Note

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

- If you specify the "Authentication and High Level Encryption" security level in encryption key auto exchange settings, also select the "Master key perfect forward secrecy (PFS)" check box in the Security Filter Properties screen (which appears in step 29). If using PFS in Windows XP, the PFS group number used in phase 2 is automatically negotiated in phase 1 from the Diffie-Hellman group number (set in step 11). Consequently, if you change the security level specified automatic settings on the machine and "User Setting" appears, you must set the same the group number for "Phase 1 Diffie-Hellman Group" and "Phase 2 PFS" on the machine to establish IPsec transmission.

Encryption Key Manual Settings Configuration Flow

This section explains the procedure for specifying encryption key manual settings. This can be specified by the network administrator.



Note

- Before transmission, SA information is shared and specified by the sender and receiver. To prevent SA information leakage, we recommend that this exchange is not performed over the network.
- After configuring IPsec, you can use "Ping" command to check if the connection is established correctly. However, you cannot use "Ping" command when ICMP is excluded from IPsec transmission. Also, because the response is slow during initial key exchange, it may take some time to confirm that transmission has been established.

Specifying Encryption Key Manual Settings

This can be specified using Web Image Monitor.

1. **Open a Web browser.**
2. **Enter "http://(the machine's IP address or host name)/" in the address bar.**

   When entering an IPv4 address, do not begin segments with zeros. For example: If the address is "192.168.001.010", you must enter it as "192.168.1.10" to connect to the machine.

   The top page of Web Image Monitor appears.
3. **Click [Login].**

   The network administrator can log on.

   Enter the login user name and login password.
4. **Click [Configuration], and then click [IPsec] under "Security".**

   The IPsec settings page appears.
5. **Select [Active] for "Encryption Key Manual Settings".**
6. **Click [Edit] under "Encryption Key Manual Settings".**
7. **Set items for encryption key manual settings in [Settings 1].**

   If you want to make multiple settings, select the settings number and add settings.
8. **Click [OK].**
9. **Select [Active] for "IPsec:" in "IPsec".**
10. **Set "Exclude HTTPS Communication" to [Active] if you do not want to use IPsec for HTTPS communication.**
11. **Click [OK].**
12. **Click [Logout].**

telnet Setting Commands

You can use telnet to confirm IPsec settings and make setting changes. This section explains telnet commands for IPsec. To log in as an administrator using telnet, the default login user name is "admin", and the password is blank. For details about logging in to telnet and telnet operations, see "Using telnet", Network Guide.

Note

- If you are using a certificate as the authentication method in encryption key auto exchange settings (IKE), install the certificate using Web Image Monitor. A certificate cannot be installed using telnet.

ipsec

To display IPsec related settings information, use the "ipsec" command.

Display current settings

```
msh> ipsec
```

Displays the following IPsec settings information:

- IPsec shared settings values
- Encryption key manual settings, SA setting 1-4 values
- Encryption key manual settings, default setting values
- Encryption key auto exchange settings, IKE setting 1-4 values
- Encryption key auto exchange settings, IKE default setting values

Display current settings portions

```
msh> ipsec -p
```

- Displays IPsec settings information in portions.

ipsec manual mode

To display or specify encryption key manual settings, use the "ipsec manual_mode" command.

Display current settings

```
msh> ipsec manual_mode
```

- Displays the current encryption key manual settings.

Specify encryption key manual settings

```
msh> ipsec manual_mode {on|off}
```

- To enable encryption key manual settings, set to [on]. To disable settings, set to [off].

ipsec exclude

To display or specify protocols excluded by IPsec, use the "ipsec exclude" command.

Display current settings

```
msh> ipsec exclude
```

- Displays the protocols currently excluded from IPsec transmission.

Specify protocols to exclude

```
msh> ipsec exclude {https|dns|dhcp|wins|all} {on|off}
```

- Specify the protocol, and then enter [on] to exclude it, or [off] to include it for IPsec transmission. Entering [all] specifies all protocols collectively.

ipsec manual

To display or specify the encryption key manual settings, use the "ipsec manual" command.

Display current settings

```
msh> ipsec manual {1|2|3|4|default}
```

- To display the settings 1-4, specify the number [1-4].
- To display the default setting, specify [default].
- Not specifying any value displays all of the settings.

Disable settings

```
msh> ipsec manual {1|2|3|4|default} disable
```

- To disable the settings 1-4, specify the setting number [1-4].
- To disable the default settings, specify [default].

Specify the local/remote address for settings 1-4

```
msh> ipsec manual {1|2|3|4} {ipv4|ipv6} local address remote address
```

- Enter the separate setting number [1-4] or [default] and specify the local address and remote address.
- To specify the local or remote address value, specify masklen by entering [/] and an integer 0-32 if you are specifying an IPv4 address. If you are specifying an IPv6 address, specify masklen by entering [/] and an integer 0-128.
- Not specifying an address value displays the current setting.

Specify the address type in default setting

```
msh> ipsec manual default {ipv4|ipv6|any}
```

- Specify the address type for the default setting.
- To specify both IPv4 and IPv6, enter [any].

Security protocol setting

```
msh> ipsec manual {1|2|3|4|default} proto {ah|esp|dual}
```

- Enter the separate setting number [1-4] or [default] and specify the security protocol.
- To specify AH, enter [ah]. To specify ESP, enter [esp]. To specify AH and ESP, enter [dual].
- Not specifying a protocol displays the current setting.

SPI value setting

```
msh> ipsec manual {1|2|3|4|default} spi SPI input value SPI output value
```

- Enter the separate setting number [1-4] or [default] and specify the SPI input and output values.
- Specify a decimal number between 256-4095, for both the SPI input and output values.

Encapsulation mode setting

```
msh> ipsec manual {1|2|3|4|default} mode {transport|tunnel}
```

- Enter the separate setting number [1-4] or [default] and specify the encapsulation mode.
- To specify transport mode, enter [transport]. To specify tunnel mode, enter [tunnel].
- If you have set the address type in the default setting to [any], you cannot use [tunnel] in encapsulation mode.

- Not specifying an encapsulation mode displays the current setting.

Tunnel end point setting

```
msh> ipsec manual {1|2|3|4|default} tunneladdar beginning IP address ending IP
address
```

- Enter the separate setting number [1-4] or [default] and specify the tunnel end point beginning and ending IP address.
- Not specifying either the beginning or ending address displays the current settings.

Authentication algorithm and authentication key settings

```
msh> ipsec manual {1|2|3|4|default} auth {hmac-md5|hmac-sha1} authentication key
```

- Enter the separate setting number [1-4] or [default] and specify the authentication algorithm, and then set the authentication key.
- If you are setting a hexadecimal number, attach 0x at the beginning.
- If you are setting an ASCII character string, enter it as is.
- Not specifying either the authentication algorithm or key displays the current setting. (The authentication key is not displayed.)

Encryption algorithm and encryption key setting

```
msh> ipsec manual {1|2|3|4|default} encrypt {null|des|3des|aes128|aes192|aes256}
encryption key
```

- Enter the separate setting number [1-4] or [default], specify the encryption algorithm, and then set the encryption key.
- If you are setting a hexadecimal number, attach 0x at the beginning. If you have set the encryption algorithm to [null], enter an encryption key of arbitrary numbers 2-64 digits long.
- If you are setting an ASCII character string, enter it as is. If you have set the encryption algorithm to [null], enter an encryption key of arbitrary numbers 1-32 digits long.
- Not specifying an encryption algorithm or key displays the current setting. (The encryption key is not displayed.)

Reset setting values

```
msh> ipsec manual {1|2|3|4|default|all} clear
```

- Enter the separate setting number [1-4] or [default] and reset the specified setting. Specifying [all] resets all of the settings, including default.

ipsec ike

To display or specify the encryption key auto exchange settings, use the “ipsec ike” command.

Display current settings

```
msh> ipsec ike {1|2|3|4|default}
```

- To display the settings 1-4, specify the number [1-4].
- To display the default setting, specify [default].
- Not specifying any value displays all of the settings.

Disable settings

```
msh> ipsec manual {1|2|3|4|default} disable
```

- To disable the settings 1-4, specify the number [1-4].
- To disable the default settings, specify [default].

Specify the local/remote address for settings 1-4

```
msh> ipsec manual {1|2|3|4} {ipv4|ipv6} local address remote address
```

- Enter the separate setting number [1-4], and the address type to specify local and remote address.
- To set the local or remote address values, specify masklen by entering [/] and an integer 0-32 when settings an IPv4 address. When setting an IPv6 address, specify masklen by entering [/] and an integer 0-128.
- Not specifying an address value displays the current setting.

Specify the address type in default setting

```
msh> ipsec manual default {ipv4|ipv6|any}
```

- Specify the address type for the default setting.
- To specify both ipv4 and ipv6, enter [any].

Security policy setting

```
msh> ipsec ike {1|2|3|4|default} proc {apply|bypass|discard}
```

- Enter the separate setting number [1-4] or [default] and specify the security policy for the address specified in the selected setting.
- To apply IPsec to the relevant packets, specify [apply]. To not apply IPsec, specify [bypass].
- If you specify [discard], any packets that IPsec can be applied to are discarded.
- Not specifying a security policy displays the current setting.

Security protocol setting

```
msh> ipsec ike {1|2|3|4|default} proto {ah|esp|dual}
```

- Enter the separate setting number [1-4] or [default] and specify the security protocol.
- To specify AH, enter [ah]. To specify ESP, enter [esp]. To specify AH and ESP, enter [dual].
- Not specifying a protocol displays the current setting.

IPsec requirement level setting

```
msh> ipsec ike {1|2|3|4|default} level {require|use}
```

- Enter the separate setting number [1-4] or [default] and specify the IPsec requirement level.

- If you specify [require], data will not be transmitted when IPsec cannot be used. If you specify [use], data will be sent normally when IPsec cannot be used. When IPsec can be used, IPsec transmission is performed.
- Not specifying a requirement level displays the current setting.

Encapsulation mode setting

```
msh> ipsec ike {1|2|3|4|default} mode {transport|tunnel}
```

- Enter the separate setting number [1-4] or [default] and specify the encapsulation mode.
- To specify transport mode, enter [transport]. To specify tunnel mode, enter [tunnel].
- If you have set the address type in the default setting to [any], you cannot use [tunnel] in encapsulation mode.
- Not specifying an encapsulation mode displays the current setting.

Tunnel end point setting

```
msh> ipsec ike {1|2|3|4|default} tunneladdar beginning IP address ending IP
address
```

- Enter the separate setting number [1-4] or [default] and specify the tunnel end point beginning and ending IP address.
- Not specifying either the beginning or ending address displays the current setting.

IKE partner authentication method setting

```
msh> ipsec ike {1|2|3|4|default} auth {psk|rsasig}
```

- Enter the separate setting number [1-4] or [default] and specify the authentication method.
- Specify [psk] to use a shared key as the authentication method. Specify [rsasig] to use a certificate at the authentication method.
- You must also specify the PSK character string when you select [psk].
- Note that if you select "Certificate", the certificate for IPsec must be installed and specified before it can be used. To install and specify the certificate use Web Image Monitor.

PSK character string setting

```
msh> ipsec ike {1|2|3|4|default} psk PSK character string
```

- If you select PSK as the authentication method, enter the separate setting number [1-4] or [default] and specify the PSK character string.
- Specify the character string in ASCII characters. There can be no abbreviations.

ISAKMP SA (phase 1) hash algorithm setting

```
msh> ipsec ike {1|2|3|4|default} ph1 hash {md5|sha1}
```

- Enter the separate setting number [1-4] or [default] and specify the ISAKMP SA (phase 1) hash algorithm.
- To use MD5, enter [md5]. To use SHA1, enter [sha1].

- Not specifying the hash algorithm displays the current setting.

ISAKMP SA (phase 1) encryption algorithm setting

```
msh> ipsec ike {1|2|3|4|default} ph1 encrypt {des|3des}
```

- Enter the separate setting number [1-4] or [default] and specify the ISAKMP SA (phase 1) encryption algorithm.
- To use DES, enter [des]. To use 3DES, enter [3des].
- Not specifying an encryption algorithm displays the current setting.

ISAKMP SA (phase 1) Diffie-Hellman group setting

```
msh> ipsec ike {1|2|3|4|default} ph1 dhgroup {1|2|14}
```

- Enter the separate setting number [1-4] or [default] and specify the ISAKMP SA (phase 1) Diffie-Hellman group number.
- Specify the group number to be used.
- Not specifying a group number displays the current setting.

ISAKMP SA (phase 1) validity period setting

```
msh> ipsec ike {1|2|3|4|default} ph1 lifetime validity period
```

- Enter the separate setting number [1-4] or [default] and specify the ISAKMP SA (phase 1) validity period.
- Enter the validity period (in seconds) from 300 to 172800.
- Not specifying a validity period displays the current setting.

IPsec SA (phase 2) authentication algorithm setting

```
msh> ipsec ike {1|2|3|4|default} ph2 auth {hmac-md5|hmac-sha1}
```

- Enter the separate setting number [1-4] or [default] and specify the IPsec SA (phase 2) authentication algorithm.
- Separate multiple encryption algorithm entries with a comma (,). The current setting values are displayed in order of highest priority.
- Not specifying an authentication algorithm displays the current setting.

IPsec SA (phase 2) encryption algorithm setting

```
msh> ipsec ike {1|2|3|4|default} ph2 encrypt {null|des|3des|aes128|aes192|
aes256}
```

- Enter the separate setting number [1-4] or [default] and specify the IPsec SA (phase 2) encryption algorithm.
- Separate multiple encryption algorithm entries with a comma (,). The current setting values are displayed in order of highest priority.
- Not specifying an encryption algorithm displays the current setting.

IPsec SA (phase 2) PFS setting

```
msh> ipsec ike {1|2|3|4|default} ph2 pfs {none|1|2|14}
```

- Enter the separate setting number [1-4] or [default] and specify the IPsec SA (phase 2) Diffie-Hellman group number.
- Specify the group number to be used.
- Not specifying a group number displays the current setting.

IPsec SA (phase 2) validity period setting

```
msh> ipsec ike {1|2|3|4|default} ph2 lifetime validity period
```

- Enter the separate setting number [1-4] or [default] and specify the IPsec SA (phase 2) validity period.
- Enter the validity period (in seconds) from 300 to 172800.
- Not specifying a validity period displays the current setting.

Reset setting values

```
msh> ipsec ike {1|2|3|4|default|all} clear
```

- Enter the separate setting number [1-4] or [default] and reset the specified setting. Specifying [all] resets all of the settings, including default.

6. Specifying the Extended Security Functions

This chapter describes the machine's extended security features and how to specify them.

Specifying the Extended Security Functions

In addition to providing basic security through user authentication and administrator specified access limits on the machine, security can also be increased by encrypting transmitted data and data in the address book. If you need extended security, specify the machine's extended security functions before using the machine.

This section outlines the extended security functions and how to specify them.

For details about when to use each function, see the corresponding chapters.

Changing the Extended Security Functions

To change the extended security functions, display the extended security screen as follows.

Administrators can change the extended security functions according to their role.

For details about logging on and logging off with administrator authentication, see “Logging on Using Administrator Authentication”, “Logging off Using Administrator Authentication”.

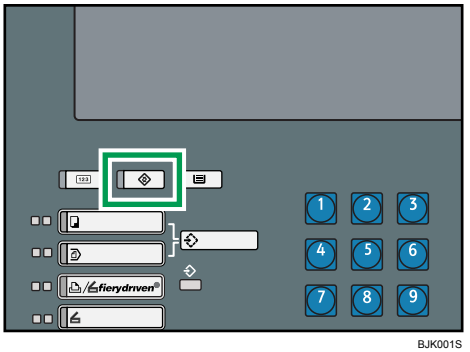
Reference

- p.33 "Logging on Using Administrator Authentication"
- p.35 "Logging off Using Administrator Authentication"

Procedure for Changing the Extended Security Functions

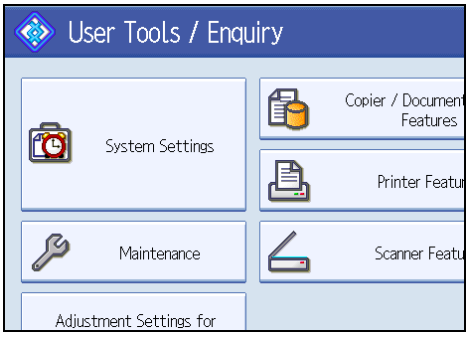
This section describes how to Change the Extended Security Functions.

1. **Press the [User Tools] key.**

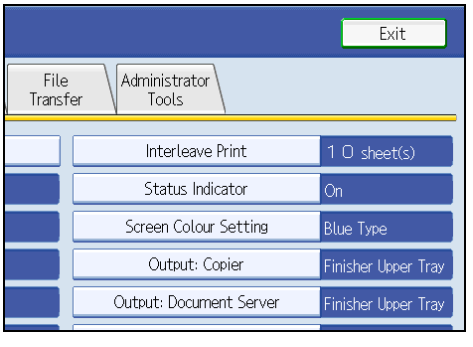


BJK001S

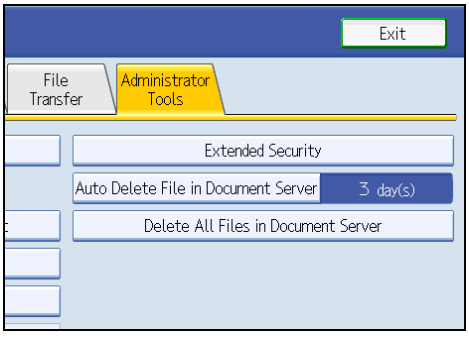
2. **Press [System Settings].**



3. **Press [Administrator Tools].**

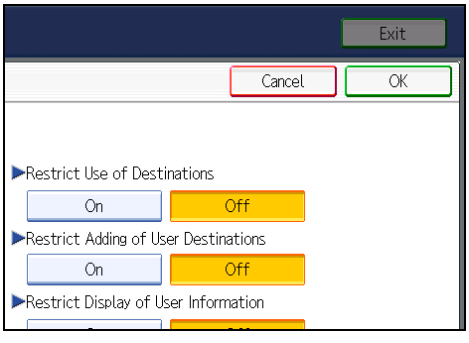


4. **Press [Extended Security].**



If the setting to be specified does not appear, press [▼Next] to scroll down to other settings.

5. **Press the setting you want to change, and change the setting.**



6. **Press [OK].**
7. **Press the [User Tools] key.**

Settings

Default settings are shown in **bold type**.

Driver Encryption Key

This can be specified by the network administrator. Encrypt the password transmitted when specifying user authentication. If you register the encryption key specified with the machine in the driver, passwords are encrypted. For details, see TWAIN driver Help.

Encrypt Address Book

This can be specified by the user administrator. Encrypt the data in the machine's address book.

For details on protecting data in the address book, see “Protecting the Address Book”.

- On
- **Off**

Restrict Use of Destinations

This can be specified by the user administrator.

The available scanner destinations are limited to the destinations registered in the Address Book.

A user cannot directly enter the destinations for transmission.

If you specify the setting to receive e-mails via SMTP, you cannot use [Restrict Use of Destinations].

The destinations searched by "Search LDAP" can be used.

For details about preventing unauthorized transmission, see "Preventing Data Leaks Due to Unauthorized Transmission".

- On
- **Off**

Restrict Adding of User Destinations

This can be specified by the user administrator.

When "Restrict Use of Destinations" is set to [Off], after entering a scanner destination directly, you can register it in the Address Book by pressing [Prg. Dest.]. If [On] is selected for this setting, [Prg. Dest.] does not appear. If you set "Restrict Adding of User Destinations" to [On], users can specify destinations directly, but cannot use [Prg. Dest.] to register data in the Address Book.

When this setting is made, only the user administrator can change the Address Book.

- On
- **Off**

Restrict Display of User Information

This can be specified if user authentication is specified. When the job history is checked using a network connection for which authentication is not available, all personal information can be displayed as "*********". Because information identifying registered users cannot be viewed, unauthorized users are prevented from obtaining information about the registered files.

- On
- **Off**

Enhance File Protection

This can be specified by the file administrator. By specifying a password, you can limit operations such as printing, deleting, and sending files, and can prevent unauthorized people from accessing the files. However, it is still possible for the password to be cracked.

By specifying "Enhance File Protection", files are locked and so become inaccessible if an invalid password is entered ten times. This can protect the files from unauthorized access attempts in which a password is repeatedly guessed.

The locked files can only be unlocked by the file administrator. When "Enhance File Protection" is specified, () appears in the lower right corner of the screen.

When files are locked, you cannot select them even if the correct password is entered.

- On
- **Off**

Settings by SNMP v1 and v2

This can be specified by the network administrator. When the machine is accessed using the SNMPv1, v2 protocol, authentication cannot be performed, allowing machine administrator settings such as the paper setting to be changed. If you select [Prohibit], the setting can be viewed but not specified with SNMPv1, v2.

- Prohibit
- **Do not Prohibit**

Restrict Use of Simple Encryption

This can be specified by the network administrator. When a ophisticated encryption method cannot be enabled, simple encryption will be applied.

For example, if SSL/TLS cannot be enabled when using an application such as DeskTopBinder Professional, change this setting to [Off].

When SSL/TLS can be enabled, make this setting [On].

For details about specifying SSL/TLS, see "Setting the SSL / TSL Encryption Mode".

If you select [On], specify the encryption setting using the printer driver.

- On
- Off

Authenticate Current Job

This can be specified by the machine administrator. Using this setting, the machine administrator can enable or disable authentication to protect operations such as canceling printer function jobs.

If you select [Login Privilege], authorized users and the machine administrator can operate the machine. When this is selected, authentication is not required for users who logged on to the machine before [Login Privilege] was selected.

If you select [Access Privilege], both the machine administrator and users who have canceled print jobs in progress can operate this machine.

Even if you select [Login Privilege] and log on to the machine, you cannot cancel print jobs that are in progress if you are not authorized to use the printer functions.

You can specify [Authenticate Current Job] only if [User Authentication Management] was specified.

- Login Privilege
- Access Privilege
- **Off**

Password Policy

This can be specified by the user administrator.

The password policy setting is effective only if [Basic Auth.] is specified.

This setting lets you specify [Complexity Setting] and [Minimum Character No.] for the password. By making this setting, you can limit the available passwords to only those that meet the conditions specified in [Complexity Setting] and [Minimum Character No.].

If you select [Level 1], specify the password using a combination of two types of characters selected from upper-case letters, lower-case letters, decimal numbers, and symbols such as #.

If you select [Level 2], specify the password using a combination of three types of characters selected from upper-case letters, lower-case letters, decimal numbers, and symbols such as #.

- Level 2
- Level 1
- **Off**
- Minimum Character No. (**0**)

@Remote Service

Communication via HTTPS for @Remote Service is disabled if you select [Prohibit].

- Prohibit
- **Do not Prohibit**

Reference

- p.109 "Protecting the Address Book"
- p.152 "Setting the SSL / TLS Encryption Mode"

Other Security Functions

This section explains settings for preventing information leaks, and functions that you can restrict to further increase security.

Scanner Function

Print & Delete Scanner Journal

To prevent personal information in the transmission/delivery history being printed automatically, set user authentication and the journal will specify [Do not Print: Disable Send] automatically. If you do this, the scanner is automatically disabled when the journal history exceeds 250 transmissions/deliveries. When this happens, click [Print Scanner Journal] or [Delete Scanner Journal]. To print the scanner journal automatically, set [On] for "Print & Delete Scanner Journal".

Weekly Timer Code

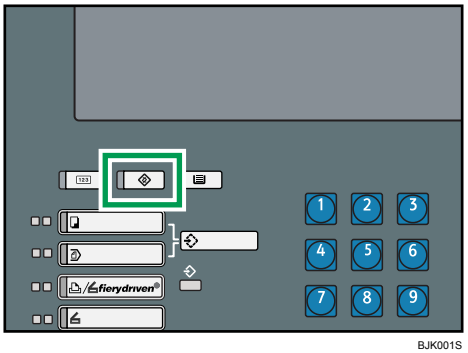
If the weekly timer is enabled and [Weekly Timer Code] is set to [On], you must enter the weekly timer code to turn the power back on after the timer has turned it off.

Specifying Weekly Timer Code

This can be specified by the machine administrator.

For details about logging on and logging off with administrator authentication, see "Logging on Using Administrator Authentication", "Logging off Using Administrator Authentication".

1. **Press the [User Tools] key.**



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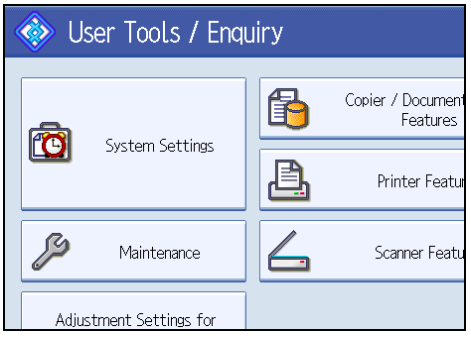
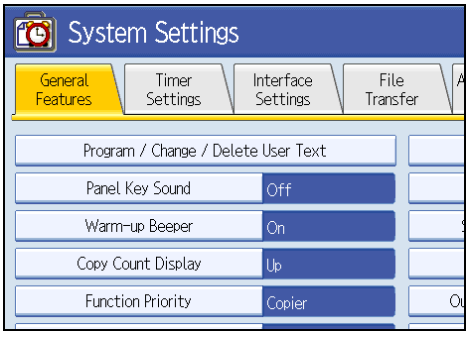
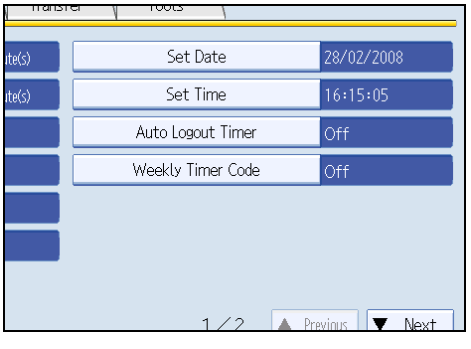
2. **Press [System Settings].**



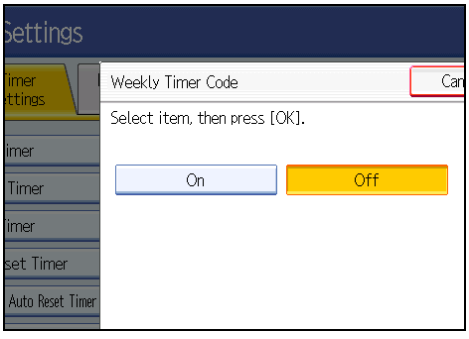
3. **Press [Timer Settings].**



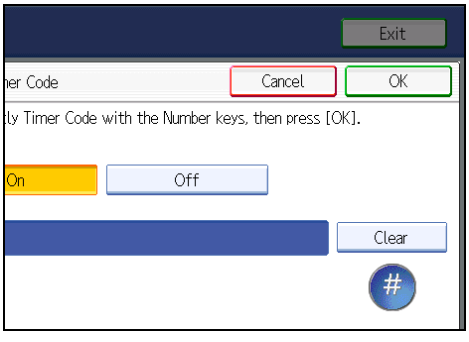
4. **Press [Weekly Timer Code].**



5. **Press [On].**



6. **Using the number keys, enter the weekly timer code.**



The weekly timer code must be one to eight digits long.

7. **Press [OK].**
8. **Press the [User Tools] key.**

Reference

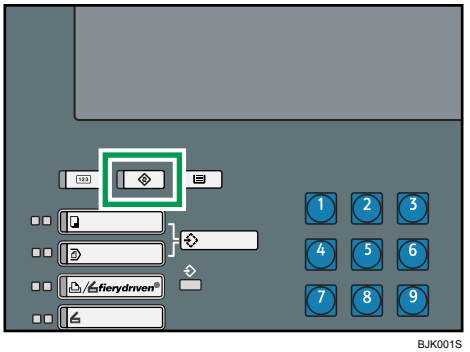
- p.33 "Logging on Using Administrator Authentication"
- p.35 "Logging off Using Administrator Authentication"

Canceling Weekly Timer Code

This can be specified by the machine administrator.

For details about logging on and logging off with administrator authentication, see “Logging on Using Administrator Authentication”, “Logging off Using Administrator Authentication”.

1. **Press the [User Tools] key.**



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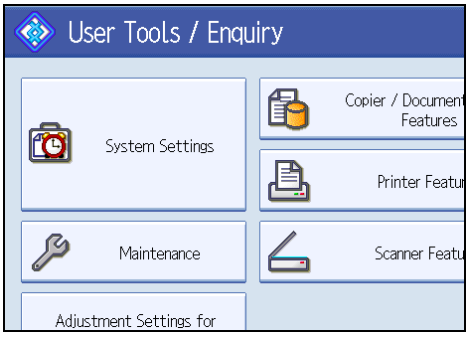
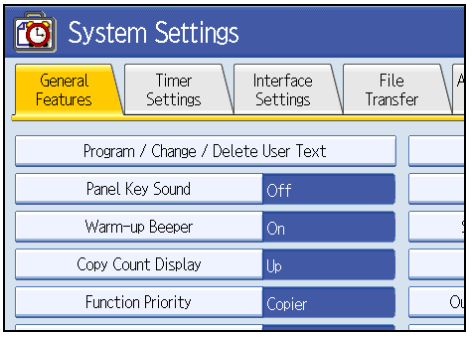
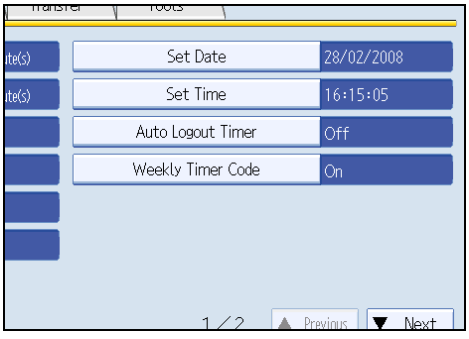
2. **Press [System Settings].**



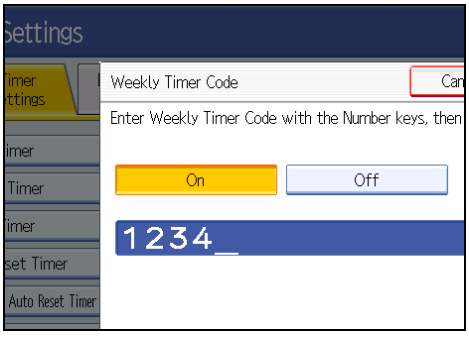
3. **Press [Timer Settings].**



4. **Press [Weekly Timer Code].**



5. **Press [Off], and then press [OK].**



6. **Press the [User Tools] key.**

Reference

- p.33 "Logging on Using Administrator Authentication"
- p.35 "Logging off Using Administrator Authentication"

Limiting Machine Operation to Customers Only

The machine can be set so that operation is impossible without administrator authentication.

The machine can be set to prohibit operation without administrator authentication and also prohibit remote registration in the address book by a service representative.

We maintain strict security when handling customers' data. Administrator authentication prevents us from operating the machine without administrator permission.

Use the following settings.

- Service Mode Lock

Settings

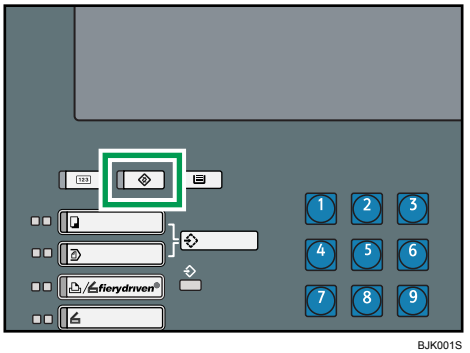
Service Mode Lock

This can be specified by the machine administrator. Service mode is used by a service representative for inspection or repair. If you set the service mode lock to [On], service mode cannot be used unless the machine administrator logs on to the machine and cancels the service mode lock to allow the service representative to operate the machine for inspection and repair. This ensures that the inspection and repair are done under the supervision of the machine administrator.

Specifying Service Mode Lock Preparation

For details about logging on and logging off with administrator authentication, see “Logging on Using Administrator Authentication”, “Logging off Using Administrator Authentication”.

1. **Press the [User Tools] key.**



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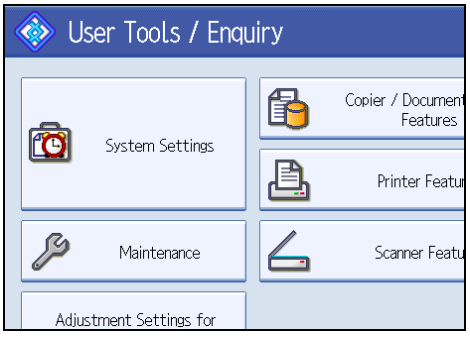
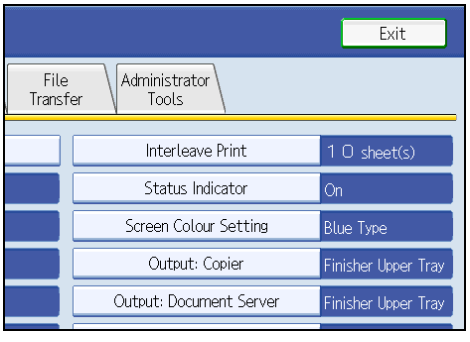
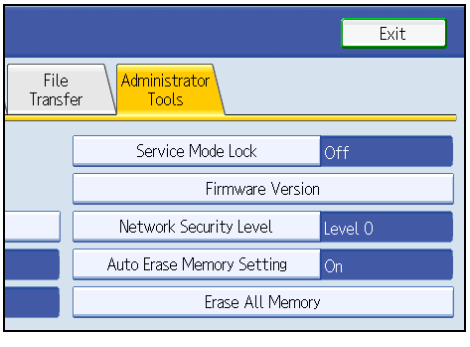
2. **Press [System Settings].**



3. **Press [Administrator Tools].**

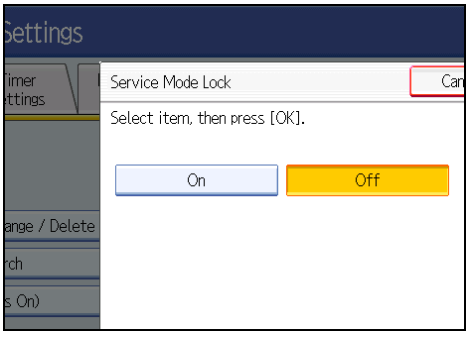


4. **Press [Service Mode Lock].**



If the setting to be specified does not appear, press [▼Next] to scroll down to other settings.

5. **Press [On], and then press [OK].**



A confirmation message appears.

6. **Press [Yes].**
7. **Press the [User Tools] key.**

Reference

- p.33 "Logging on Using Administrator Authentication"
- p.35 "Logging off Using Administrator Authentication"

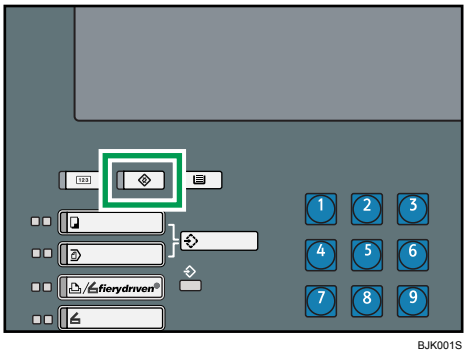
6

Canceling Service Mode Lock

For a service representative to carry out inspection or repair in service mode, the machine administrator must log on to the machine and cancel the service mode lock.

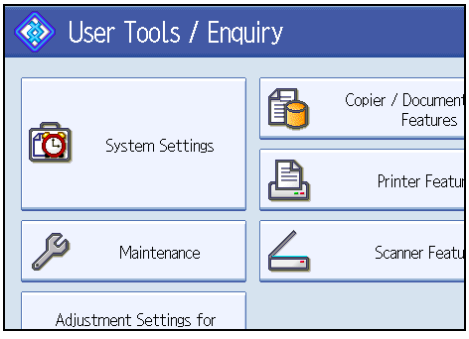
For details about logging on and logging off with administrator authentication, see “Logging on Using Administrator Authentication”, “Logging off Using Administrator Authentication”.

1. **Press the [User Tools] key.**

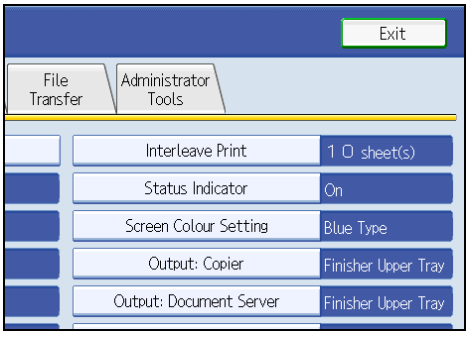


BJK001S

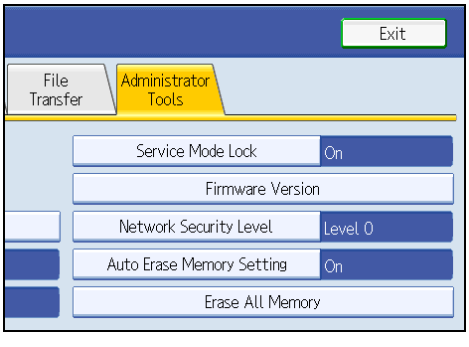
2. **Press [System Settings].**



3. **Press [Administrator Tools].**



4. **Press [Service Mode Lock].**



If the setting to be specified does not appear, press [▼Next] to scroll down to other settings.

5. **Press [Off], and then press [OK].**
6. **Press the [User Tools] key.**

The service representative can switch to service mode.

Reference

- p.33 "Logging on Using Administrator Authentication"
- p.35 "Logging off Using Administrator Authentication"

7. Troubleshooting

This chapter describes what to do if the machine does not function properly.

Authentication Does Not Work Properly

This section explains what to do if a user cannot operate the machine because of a problem related to user authentication. Refer to this section if a user comes to you with such a problem.

A Message Appears

This section explains how to deal with problems if a message appears on the screen during user authentication.

The most common messages are explained. If some other message appears, deal with the problem according to the information contained in the message.

Messages	Cause	Solutions
"You do not have the privileges to use this function."	The authority to use the function is not specified.	• If this appears when trying to use a function: The function is not specified in the Address Book Management setting as being available. The user administrator must decide whether to authorize use of the function and then assign the authority. • If this appears when trying to specify a default setting: The administrator differs depending on the default settings you wish to specify. Using the list of settings, the administrator responsible must decide whether to authorize use of the function.

Messages	Cause	Solutions
"Failed to obtain URL."	The machine cannot connect to the server or cannot establish communication.	Make sure the server's settings, such as the IP address and host name, are specified correctly on the machine. Make sure the host name of the UA Server is specified correctly.
"Failed to obtain URL."	The machine is connected to the server, but the UA service is not responding properly.	Make sure the UA service is specified correctly.
"Failed to obtain URL."	SSL is not specified correctly on the server.	Specify SSL using Authentication Manager.
"Failed to obtain URL."	Server authentication failed.	Make sure server authentication is specified correctly on the machine.
"Authentication has failed."	The entered login user name or login password is incorrect.	Ask the user administrator for the correct login user name and login password. See the error codes below for possible solutions: B,W,L,I 0206-003 W,L,I 0406-003
"Authentication has failed."	Authentication failed because no more users can be registered. (The number of users registered in the address book has reached capacity.)	Delete unnecessary user addresses. See the error codes below for possible solutions: W,L,I 0612-005
"Authentication has failed."	Cannot access the authentication server when using Windows Authentication, LDAP Authentication, or Integration Server Authentication.	A network or server error may have occurred. Confirm the network in use with the LAN administrator. If an error code appears, follow the instructions next to the error code in the table below.

Messages	Cause	Solutions
"Administrator Authentication for User Management must be set to on before this selection can be made."	User administrator privileges have not been enabled in Administrator Authentication Management.	To specify Basic Authentication, Windows Authentication, LDAP Authentication, or Integration Server Authentication, you must first enable user administrator privileges in Administrator Authentication Management. For details about authentication settings, see “Authentication Setting Procedure”.
"The selected file(s) contained file (s) without access privileges. Only file(s) with access privileges will be deleted."	You have tried to delete files without the authority to do so.	Files can be deleted by the file creator (owner) or file administrator. To delete a file which you are not authorized to delete, contact the file creator (owner).

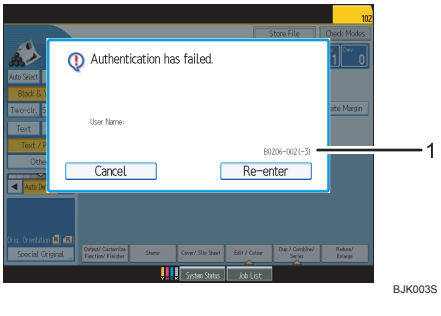
Reference

- p.23 "Authentication Setting Procedure"

An Error Code Appears

When authentication fails, the message "Authentication has failed." appears with an error code. The following tables list the error codes, likely causes of the problems they indicate, and what you can do to resolve those problems. If the error code that appears is not on this table, take a note and contact your service representative.

Error Code Display Position



1. **error code**

   An error code appears.

Basic Authentication

Error Code	Cause	Solution
B0103-000	A TWAIN operation occurred during authentication.	Make sure no other user is logged on to the machine, and then try again.
B0104-000	Failed to decrypt password.	1. A password error occurred. Make sure the password is entered correctly. 2. "Restrict Use of Simple Encryption" is enabled. The administrator has restricted use of simple encryption. You can use the encryption key if it has been specified in the driver. 3. A driver encryption key error occurred. Make sure that the encryption key is correctly specified on the driver.
B0105-000	A login user name was not specified but a DeskTopBinder Professional operation was performed.	Specify the DeskTopBinder Professional login user name correctly.
B0206-002	1. A login user name or password error occurred.	Make sure the login user name and password are entered correctly and then log in.
B0206-002	2. The user attempted authentication from an application on the "System Settings" screen, where only the administrator has authentication ability.	Only the administrator has login privileges on this screen. Log in as a general user from the application's login screen.

Error Code	Cause	Solution
B0206-003	An authentication error occurred because the user name contains a space, colon (:), or quotation mark (").	Recreate the account if the account name contains any of these prohibited characters. If the account name was entered incorrectly, enter it correctly and log in again.
B0207-001	An authentication error occurred because the address book is being used at another location.	Wait a few minutes and then try again.
B0208-000	The account is locked because you have reached the maximum number of failed authentication attempts allowed.	Ask the user administrator to unlock the account.

Windows Authentication

Error Code	Cause	Solution
W0103-000	A TWAIN operation occurred during authentication.	Make sure no other user is logged on to the machine, and then try again.
W0104-000	Failed to decrypt password.	1. A password error occurred. Make sure the password is entered correctly. 2. "Restrict Use of Simple Encryption" is enabled. The administrator has restricted use of simple encryption. You can use the encryption key if it has been specified in the driver. 3. A driver encryption key error occurred. Make sure that the encryption key is correctly specified on the driver.

Error Code	Cause	Solution
W0105-000	A login user name was not specified but a DeskTopBinder Professional operation was performed.	Specify the DeskTopBinder Professional login user name correctly.
W0206-002	The user attempted authentication from an application on the “System Settings” screen, where only the administrator has authentication ability.	Only the administrator has login privileges on this screen. Log in as a general user from the application's login screen.
W0206-003	An authentication error occurred because the user name contains a space, colon (:), or quotation mark (").	Recreate the account if the account name contains any of these prohibited characters. If the account name was entered incorrectly, enter it correctly and log in again.
W0207-001	An authentication error occurred because the address book is being used at another location.	Wait a few minutes and then try again.
W0406-101	Authentication cannot be completed because of the high number of authentication attempts.	Wait a few minutes and then try again. If the situation does not return to normal, make sure that an authentication attack is not occurring. Notify the administrator of the screen message by e-mail, and check the system log for signs of an authentication attack.
W0406-104	1. Cannot connect to the authentication server.	Make sure that connection to the authentication server is possible. Use the PING Command to check the connection.

Error Code	Cause	Solution
W0406-104	2. A login name or password error occurred.	Make sure that the user is registered on the server. Use a registered login user name and password.
W0406-104	3. A domain name error occurred.	Make sure that the Windows authentication domain name is specified correctly.
W0406-104	4. Cannot resolve the domain name.	Specify the IP address in the domain name and confirm that authentication is successful. If authentication is successful: 1. Make sure that DNS is specified in "Interface Settings", if the top-level domain name is specified in the domain name (such as domainname.xxx.com). 2. Make sure that WINS is specified in "Interface Settings", if a NetBIOS domain name is specified in domain name (such as DOMAINNAME).

Error Code	Cause	Solution
W0406-104	4. Cannot resolve the domain name.	Specify the IP address in the domain name and confirm that authentication is successful. If authentication is unsuccessful: 1. Make sure that Restrict LM/NTLM is not set in either "Domain Controller Security Policy" or "Domain Security Policy". Authentication is rejected because NTLMv2 is not supported. 2. Make sure that the ports for the domain control firewall and the firewall on the machine to the domain control connection path are open. If you are using a Windows firewall, open "Network Connection Properties". Then click detail settings, Windows firewall settings, permit exceptions settings. Click the exceptions tab and specify numbers 137, 139 as the exceptions. In "Network Connection" properties, open TCP/IP properties. Then click detail settings, WINS, and then check the "Enable NetBIOS over TCP/IP" box and set number 137 to "Open".

Error Code	Cause	Solution
W0400-105	1. The UserPrincipleName (user@domainname.xxx.com) form is being used for the login user name.	The user group cannot be obtained if the UserPrincipleName (user@domainname.xxx.com) form is used. Use "sAMAccountName (user)" to log in, because this account allows you to obtain the user group.
W0400-105	2. Current settings do not allow group retrieval.	Make sure the user group's group scope is set to "Global Group" and the group type is set to "Security" in group properties. Make sure the account has been added to user group. Make sure the user group name registered on the machine and the group name on the DC (domain controller) are exactly the same. The DC is case sensitive. Make sure that Use Auth. Info at Logon has been specified in Auth. Info in the user account registered on the machine. If there is more than one DC, make sure that a confidential relationship has been configured between each DC.
W0400-106	The domain name cannot be resolved.	Make sure that DNS/WINS is specified in the domain name in "Interface Settings".
W0400-200	Due to the high number of authentication attempts, all resources are busy.	Wait a few minutes and then try again.

Error Code	Cause	Solution
W0400-202	1. The SSL settings on the authentication server and the machine do not match.	Make sure the SSL settings on the authentication server and the machine match.
W0400-202	2. The user entered sAMAccountName in the user name to log in.	If a user enters sAMAccountName as the login user name, ldap_bind fails in a parent/subdomain environment. Use UserPrincipleName for the login name instead.
W0406-003	An authentication error occurred because the user name contains a space, colon (:), or quotation mark (").	Recreate the account if the account name contains any of these prohibited characters. If the account name was entered incorrectly, enter it correctly and log in again.
W0409-000	Authentication timed out because the server did not respond.	Check the network configuration, or settings on the authenticating server.
W0511-000	The authentication server login name is the same as a user name already registered on the machine. (Names are distinguished by the unique attribute specified in LDAP authentication settings.)	1. Delete the old, duplicated name or change the login name. 2. If the authentication server has just been changed, delete the old name on the server.
W0607-001	An authentication error occurred because the address book is being used at another location.	Wait a few minutes and then try again.
W0606-004	Authentication failed because the user name contains language that cannot be used by general users.	Do not use “other”, “admin”, “supervisor” or “HIDE*” in general user accounts.

Error Code	Cause	Solution
W0612-005	Authentication failed because no more users can be registered. (The number of users registered in the address book has reached capacity.)	Ask the user administrator to delete unused user accounts in the address book.
W0707-001	An authentication error occurred because the address book is being used at another location.	Wait a few minutes and then try again.

LDAP Authentication

Error Code	Cause	Solution
L0103-000	A TWAIN operation occurred during authentication.	Make sure no other user is logged on to the machine, and then try again.
L0104-000	Failed to decrypt password.	1. A password error occurred. Make sure the password is entered correctly. 2. "Restrict Use of Simple Encryption" is enabled. The administrator has restricted use of simple encryption. You can use the encryption key if it has been specified in the driver. 3. A driver encryption key error occurred. Make sure that the encryption key is correctly specified on the driver.
L0105-000	A login user name was not specified but a DeskTopBinder Professional operation was performed.	Specify the DeskTopBinder Professional login user name correctly.

Error Code	Cause	Solution
L0206-002	A user attempted authentication from an application on the “System Settings” screen, where only the administrator has authentication ability.	Only the administrator has login privileges on this screen. Log in as a general user from the application's login screen.
L0206-003	An authentication error occurred because the user name contains a space, colon (:), or quotation mark (").	Recreate the account if the account name contains any of these prohibited characters. If the account name was entered incorrectly, enter it correctly and log in again.
L0207-001	An authentication error occurred because the address book is being used at another location.	Wait a few minutes and then try again.
L0306-018	The LDAP server is not correctly configured.	Make sure that a connection test is successful with the current LDAP server configuration.
L0307-001	An authentication error occurred because the address book is being used at another location.	Wait a few minutes and then try again.
L0406-200	Authentication cannot be completed because of the high number of authentication attempts.	Wait a few minutes and then try again. If the situation does not return to normal, make sure that an authentication attack is not occurring. Notify the administrator of the screen message by e-mail, and check the system log for signs of an authentication attack.
L0406-201	Authentication is disabled in the LDAP server settings.	Change the LDAP server settings in administrator tools, in “System Settings”.

Error Code	Cause	Solution
L0406-202 L0406-203	1. There is an error in the LDAP authentication settings, LDAP server, or network configuration.	1. Make sure that a connection test is successful with the current LDAP server configuration. If connection is not successful, there might be an error in the network settings. Check the domain name or DNS settings in "Interface Settings". 2. Make sure the LDAP server is specified correctly in the LDAP authentication settings. 3. Make sure the login name attribute is entered correctly in the LDAP authentication settings. 4. Make sure the SSL settings are supported by the LDAP server.
L0406-202 L0406-203	2. A login user name or password error occurred.	1. Make sure the login user name and password are entered correctly. 2. Make sure a useable login name is registered on the machine. Authentication will fail in the following cases: If the login user name contains a space, colon (:), or quotation mark ("). If the login user name exceeds 128 bytes.
L0400-210	Failed to obtain user information in LDAP search.	The login attribute's search criteria might not be specified or the specified search information is unobtainable. Make sure the login name attribute is specified correctly.

Error Code	Cause	Solution
L0406-003	An authentication error occurred because the user name contains a space, colon (:), or quotation mark (").	Recreate the account if the account name contains any of these prohibited characters. If the account name was entered incorrectly, enter it correctly and log in again.
L0409-000	Authentication timed out because the server did not respond.	Contact the server or network administrator. If the situation does not return to normal, contact your service representative.
L0511-000	The authentication server login name is the same as a user name already registered on the machine. (Names are distinguished by the unique attribute specified in the LDAP authentication settings.)	1. Delete the old, duplicated name or change the login name. 2. If the authentication server has just been changed, delete the old name on the server.
L0607-001	An authentication error occurred because the address book is being used at another location.	Wait a few minutes and then try again.
L606-004	Authentication failed because the user name contains language that cannot be used by general users.	Do not use “other”, “admin”, “supervisor” or “HIDE*” in general user accounts.
L0612-005	Authentication failed because no more users can be registered. (The number of users registered in the address book has reached capacity.)	Ask the user administrator to delete unused user accounts in the address book.
L0707-001	An authentication error occurred because the address book is being used at another location.	Wait a few minutes and then try again.

Integration Server Authentication

Error Code	Cause	Solution
I0103-000	A TWAIN operation occurred during authentication.	Make sure no other user is logged on to the machine, and then try again.
I0104-000	Failed to decrypt password.	1. A password error occurred. Make sure the password is entered correctly. 2. "Restrict Use of Simple Encryption" is enabled. The administrator has restricted use of simple encryption. You can use the encryption key if it has been specified in the driver. 3. A driver encryption key error occurred. Make sure that the encryption key is correctly specified on the driver.
I0105-000	A login user name was not specified but a DeskTopBinder Professional operation was performed.	Specify the DeskTopBinder Professional login user name correctly.
I0206-002	A user attempted authentication from an application on the "System Settings" screen, where only the administrator has authentication ability.	Only the administrator has login privileges on this screen. Log in as a general user from the application's login screen.
I0206-003	An authentication error occurred because the user name contains a space, colon (:), or quotation mark (").	Recreate the account if the account name contains any of these prohibited characters. If the account name was entered incorrectly, enter it correctly and log in again.

Error Code	Cause	Solution
I0207-001	An authentication error occurred because the address book is being used at another location.	Wait a few minutes and then try again.
I0406-003	An authentication error occurred because the user name contains a space, colon (:), or quotation mark (").	Recreate the account if the account name contains any of these prohibited characters. If account name was entered incorrectly, enter it correctly and log in again.
I0406-301	1. The URL could not be obtained.	Obtain the URL using Obtain URL in Integration Server authentication.
I0406-301	2. A login user name or password error occurred.	1. Make sure the login user name and password are entered correctly. 2. Make sure that a useable login name is registered on the machine. Authentication will fail in the following cases. If the login user name contains a space, colon (:), or quotation mark ("). If the login user name exceeds 128 bytes.
I0409-000	Authentication timed out because the server did not respond.	Contact the server or network administrator. If the situation does not return to normal, contact your service representative.

Error Code	Cause	Solution
I0511-000	The authentication server login name is the same as a user name already registered on the machine. (Names are distinguished by the unique attribute specified in the LDAP authentication settings.)	1. Delete the old, duplicated name or change the login name. 2. If the authentication server has just been changed, delete the old name on the server.
I0607-001	An authentication error occurred because the address book is being used at another location.	Wait a few minutes and then try again.
I0606-004	Authentication failed because the user name contains language that cannot be used by general users.	Do not use "other", "admin", "supervisor" or "HIDE*" in general user accounts.
I0612-005	Authentication failed because no more users can be registered. (The number of users registered in the address book has reached capacity.)	Ask the user administrator to delete unused user accounts in the address book.
I0707-001	An authentication error occurred because the address book is being used at another location.	Wait a few minutes and then try again.

Machine Cannot Be Operated

If the following conditions arise while users are operating the machine, provide the instructions on how to deal with them.

Condition	Cause	Solution
Cannot authenticate using the TWAIN driver.	Another user is logging on to the machine.	Wait for the user to log off.

Condition	Cause	Solution
Cannot authenticate using the TWAIN driver.	Authentication is taking time because of operating conditions.	Make sure the LDAP server setting is correct. Make sure the network settings are correct.
Cannot authenticate using the TWAIN driver.	Authentication is not possible while the machine is editing the Address Book data.	Wait until editing of the Address Book data is complete.
After you execute "Encrypt Address Book", the "Exit" message does not appear.	The hard disk may be faulty. The file may be corrupt.	Contact your service representative.
Cannot log on to the machine using [Document Server (MFP):Authentication/ Encryption] in DeskTopBinder Professional.	"Restrict Use of Simple Encryption" is not set correctly. Alternatively, "SSL/TLS" has been enabled although the required certificate is not installed in the computer.	Set "Restrict Use of Simple Encryption" to [On]. Alternatively, enable "SSL/TLS", install the server certificate in the machine, and then install the certificate in the computer. See "Setting the SSL / TLS Encryption Mode".
Cannot log off when using the copying or scanner functions.	The original has not been scanned completely.	When the original has been scanned completely, press [#], remove the original, and then log off.
"Prg. Dest." does not appear on the scanner screen for specifying destinations.	"Restrict Adding of User Destinations" is set to [Off] in "Restrict Use of Destinations" in "Extended Security", so only the user administrator can register destinations in the Address Book.	Registration must be done by the user administrator.
User authentication is enabled, yet stored files do not appear.	User authentication may have been disabled while [All Users] is not specified.	Re-enable user authentication, and then enable [All Users] for the files that did not appear. For details about enabling [All Users], see "Specifying Access Permission for Stored Files".

Condition	Cause	Solution
User authentication is enabled, yet destinations specified using the machine do not appear.	User authentication may have been disabled while [All Users] is not specified.	Re-enable user authentication, and then enable [All Users] for the destinations that did not appear. For details about enabling [All Users], see “Protecting the Address Book”.
If you try to interrupt a job while copying or scanning, an authentication screen appears.	With this machine, you can log off while copying or scanning. If you try to interrupt copying or scanning after logging off, an authentication screen appears.	Only the user who executed a copying or scanning job can interrupt it. Wait until the job has completed or consult an administrator or the user who executed the job.

Reference

- p.152 "Setting the SSL / TLS Encryption Mode"
- p.83 "Specifying Access Permission for Stored Files"
- p.109 "Protecting the Address Book"

8. Appendix

Supervisor Operations

The supervisor can delete an administrator's password and specify a new one.

If any of the administrators forget their passwords or if any of the administrators change, the supervisor can assign a new password. If logged on using the supervisor's user name and password, you cannot use normal functions or specify defaults.

Log on as the supervisor only to change an administrator's password.

Important

- **The default login user name is "supervisor" and the login password is blank. We recommend changing the login user name and login password.**
- **When registering login user names and login passwords, you can specify up to 32 alphanumeric characters and symbols. Keep in mind that user names and passwords are case-sensitive.**
- **Be sure not to forget the supervisor login user name and login password. If you do forget them, a service representative will to have to return the machine to its default state. This will result in all data in the machine being lost and the service call may not be free of charge.**

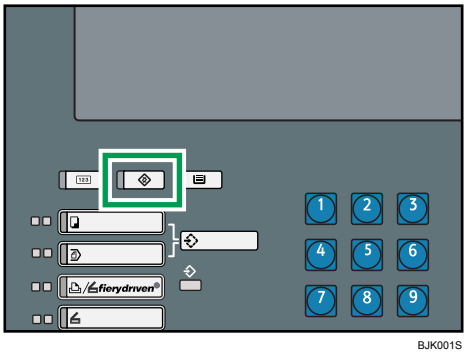
Note

- You cannot specify the same login user name for the supervisor and the administrators.
- Using Web Image Monitor, you can log on as the supervisor and delete an administrator's password or specify a new one.

Logging on as the Supervisor

If administrator authentication has been specified, log on using the supervisor login user name and login password. This section describes how to log on.

1. **Press the [User Tools] key.**



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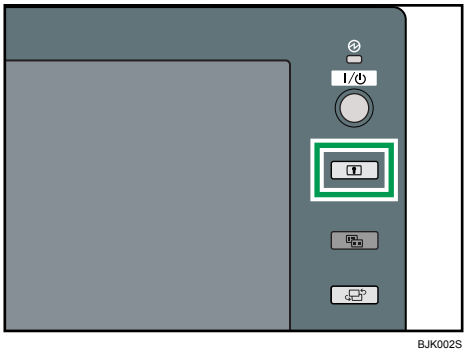
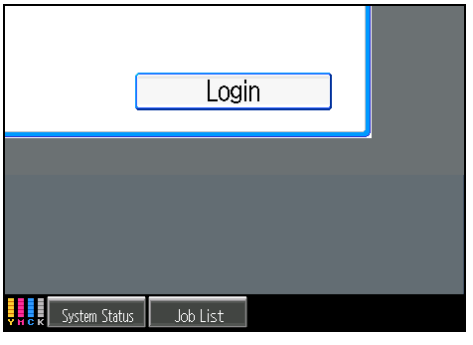
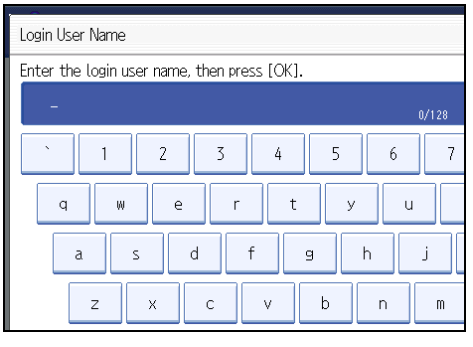
2. **Press the [Login/Logout] key.**



3. **Press [Login].**

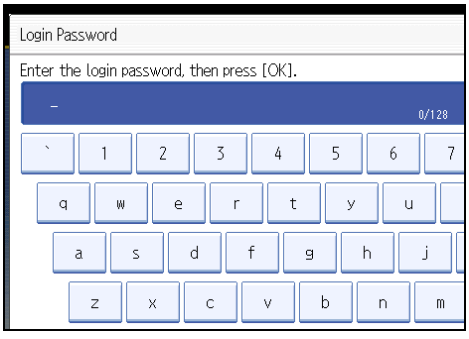


4. **Enter a login user name, and then press [OK].**



When you assign the administrator for the first time, enter “supervisor”.

5. **Enter a login password, and then press [OK].**



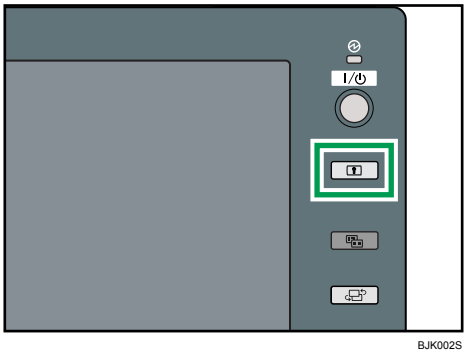
If a login password has not been specified, press [OK] without entering the password.

The message, "Authenticating... Please wait." appears.

Logging off as the Supervisor

If administrator authentication has been specified, be sure to log off after completing settings. This section describes how to log off after completing settings.

1. **Press the [Login/Logout] key.**



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2. **Press [Yes].**

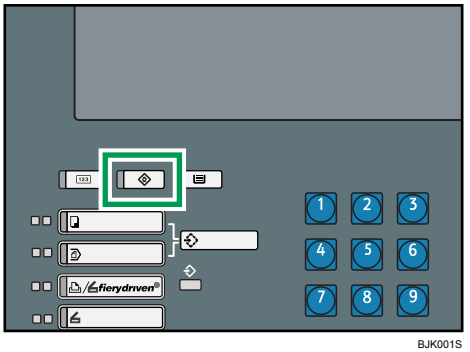
"Logging out... Please wait." appears.

Changing the Supervisor

This section describes how to change the supervisor's login name and password. To do this, you must to enable the user administrator's privileges through the settings under [Administrator Authentication Management]. For details, see “Specifying Administrator Privileges”.

For details about logging on and logging off as the supervisor, see “Supervisor Operations”.

1. **Press the [User Tools] key.**



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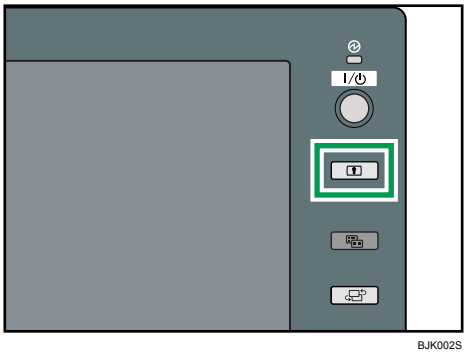
2. **Press the [Login/Logout] key.**

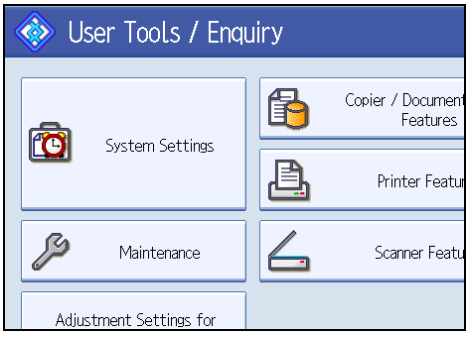


BJK002S

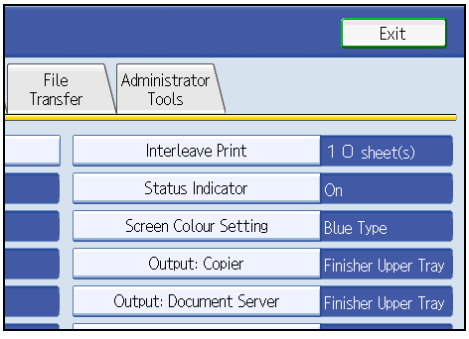
3. **Log on as the supervisor.**

   You can log on in the same way as an administrator.

4. **Press [System Settings].**



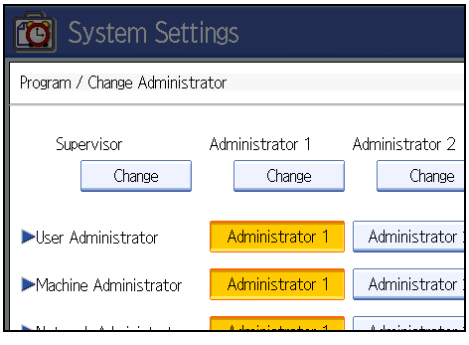
5. **Press [Administrator Tools].**



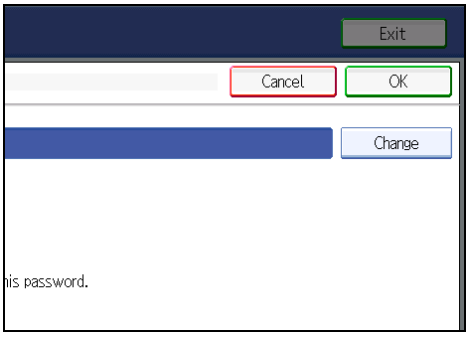
6. **Press [Program / Change Administrator].**

   If the setting to be specified does not appear, press [▼Next] to scroll down to other settings.

7. **Under "Supervisor", press [Change].**



8. **Press [Change] for the login user name.**



9. **Enter the login user name, and then press [OK].**
10. **Press [Change] for the login password.**
11. **Enter the login password, and then press [OK].**
12. **If a password reentry screen appears, enter the login password, and then press [OK].**
13. **Press [OK] twice.**

    You will be automatically logged off.

14. **Press the [User Tools] key.**

Reference

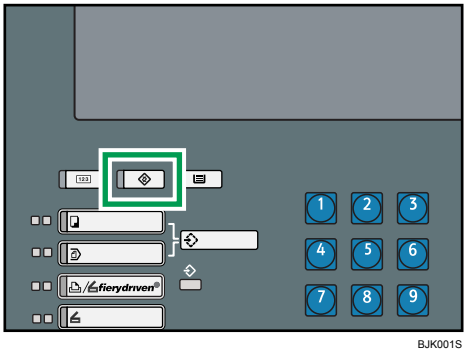
- p.25 "Specifying Administrator Privileges"
- p.217 "Supervisor Operations"

Resetting an Administrator's Password

This section describes how to reset the administrators' passwords.

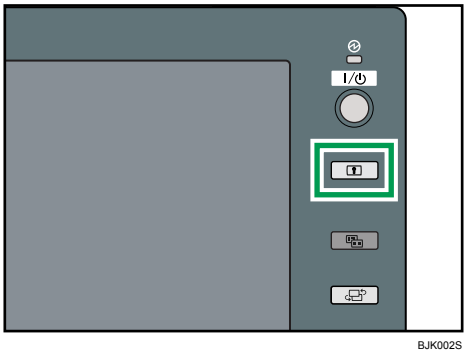
For details about logging on and logging off as the supervisor, see “Supervisor Operations”.

1. **Press the [User Tools] key.**



BJK001S

2. **Press the [Login/Logout] key.**



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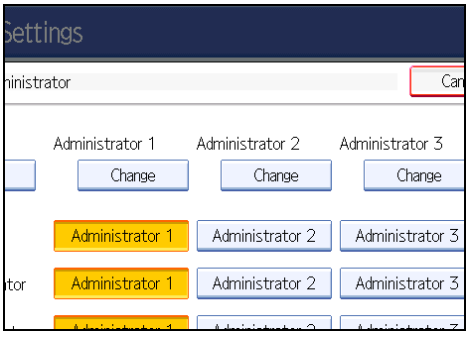
3. **Log on as the supervisor.**

   You can log on in the same way as an administrator.

4. **Press [System Settings].**
5. **Press [Administrator Tools].**
6. **Press [Program / Change Administrator].**

   If the setting to be specified does not appear, press [▼Next] to scroll down to other settings.

7. **Press [Change] for the administrator you wish to reset.**



8. **Press [Change] for the login password.**
9. **Enter the login password, and then press [OK].**
10. **If a password reentry screen appears, enter the login password, and then press [OK].**
11. **Press [OK] twice.**

    You will be automatically logged off.
12. **Press the [User Tools] key.**

Reference

- p.217 "Supervisor Operations"

Machine Administrator Settings

The machine administrator settings that can be specified are as follows:

System Settings

The following settings can be specified.

General Features

All the settings can be specified.

Tray Paper Settings

All the settings can be specified.

Timer Settings

All the settings can be specified.

File Transfer

The following settings can be specified.

- Delivery Option
- SMTP Authentication

  SMTP Authentication

  User Name

  E-mail Address

  Password

  Encryption
- POP before SMTP

  Wait Time after Authent.

  User Name

  E-mail Address

  Password
- Reception Protocol
- POP3 / IMAP4 Settings

  Server Name

  Encryption

  Connection Test
- Administrator's E-mail Address
- Default User Name / Password (Send)

SMB User Name / SMB Password

FTP User Name / FTP Password

NCP User Name / NCP Password

- Program / Change / Delete E-mail Message

Administrator Tools

The following settings can be specified.

- Address Book Management

  Search

  Switch Title
- Address Book: Program / Change / Delete Group

  Search

  Switch Title
- Display / Print Counter

  Print Counter List
- Display / Clear / Print Counter per User

  Display Counter per User

  Print Counter per User
- User Authentication Management

  You can specify which authentication to use.

  You can also edit the settings for each function.
- Enhanced Authentication Management
- Administrator Authentication Management

  Machine Management
- Program / Change Administrator

  Machine Administrator
- Extended Security

  Restrict Display of User Information

  Authenticate Current Job

  @Remote Service
- Program / Change / Delete LDAP Server

  Name

  Server Name

  Search Base

Port Number

Use Secure Connection (SSL)

Authentication

Search Conditions

Search Options

- LDAP Search
- AOF (Always On)
- Service Mode Lock
- Auto Erase Memory Setting *1
- Erase All Memory *1

*1 The DataOverwriteSecurity Unit option must be installed.

Copier / Document Server Features

The following settings can be specified.

General Features

All the settings can be specified.

Reproduction Ratio

All the settings can be specified.

Edit

All the settings can be specified.

Stamp

All the settings can be specified.

Input / Output

All the settings can be specified.

Adjust Colour Image

All the settings can be specified.

Administrator Tools

All the settings can be specified.

Scanner Features

The following settings can be specified.

General Settings

The following settings can be specified.

- Switch Title
- Update Delivery Server Destination List
- Search Destination
- TWAIN Standby Time
- Destination List Display Priority 1
- Destination List Display Priority 2
- Print & Delete Scanner Journal
- Print Scanner Journal
- Delete Scanner Journal

Scan Settings

All the settings can be specified.

Send Settings

The following settings can be specified.

- Compression (Black & White)
- Compression (Gray Scale / Full Color)
- High Compression PDF Level
- Insert Additional E-mail Info
- No. of Digits for Single Page Files
- Stored File E-mail Method

Initial Settings

All the settings can be specified.

Settings via Web Image Monitor

The following settings can be specified.

Top Page

- Reset Device

Job

All the settings can be specified.

Device Settings

- System

  Print Priority

Function Reset Timer

Permit Firmware Update

Display IP Address on Device Display Panel

Output Tray

Paper Tray Priority

Front Cover Sheet Tray

Back Cover Sheet Tray

Slip Sheet Tray

Designation Sheet 1 Tray

Designation Sheet 2 Tray

Designation Sheet 3 Tray

Designation Sheet 4 Tray

Designation Sheet 5 Tray

Designation Sheet 6 Tray

Designation Sheet 7 Tray

Designation Sheet 8 Tray

Designation Sheet 9 Tray

Separation Sheet Tray

- Paper

  All the settings can be specified.
- Date/Time

  All the settings can be specified.
- Timer

  All the settings can be specified.
- E-mail

  All the settings can be specified.
- Auto E-mail Notification

  All the settings can be specified.
- On-demand E-mail Notification

  All the settings can be specified.
- File Transfer

  All the settings can be specified.
- User Authentication Management

All the settings can be specified.

- Administrator Authentication Management

  Machine Administrator Authentication

  Available Settings for Machine Administrator

- Program/Change Administrator

  You can specify the following administrator settings as the machine administrator.

  Login User Name

  Login Password

  Encryption Password

- LDAP Server

  All the settings can be specified.

- Firmware Update

  All the settings can be specified.

Scanner

- General Settings

  All the settings can be specified.

- Send Settings

  Compression (Black & White)

  Compression (Gray Scale / Full Color)

  Insert Additional E-mail Info

  No. of Digits for Single Page Files

  Stored File E-mail Method

  High Compression PDF Level

- Initial Settings

  All the settings can be specified.

- Scan Settings

  All the settings can be specified.

- Default Settings for Normal Screens on Device

  All the settings can be specified.

- Default Settings for Simplified Screens on Device

  All the settings can be specified.

Interface Settings

- USB

Network

- SNMPv3

RC Gate

All the settings can be specified.

Webpage

- Webpage

  Download Help File

Extended Feature Settings

All the settings can be specified.

Network Administrator Settings

The network administrator settings that can be specified are as follows:

System Settings

The following settings can be specified.

Interface Settings

If DHCP is set to On, the settings that are automatically obtained via DHCP cannot be specified.

- Network

  All the settings can be specified.

File Transfer

- SMTP Server

  Server Name

  Port No.
- E-mail Communication Port

  All the settings can be specified.
- E-mail Reception Interval
- E-mail Storage in Server
- Max. Reception E-mail Size
- Auto Specify Sender Name
- Scanner Resend Interval Time
- Number of Scanner Resends

Administrator Tools

- Address Book Management

  Search

  Switch Title
- Address Book: Program / Change / Delete Group

  Search

  Switch Title
- Administrator Authentication Management

  Network Management
- Program / Change Administrator

  Network Administrator

- Extended Security

  Driver Encryption Key

  Restrict Use of Simple Encryption

  Settings by SNMP V1 and V2
- Network Security Level

Scanner Features

The following settings can be specified.

Send Settings

- Max. E-mail Size
- Divide & Send E-mail

Settings via Web Image Monitor

The following settings can be specified.

Device Settings

- System

  Device Name

  Comment

  Location
- E-mail

  Reception

  SMTP

  E-mail Communication Port
- Auto E-mail Notification

  You can select groups to notify.
- Administrator Authentication Management

  Network Administrator Authentication

  Available Settings for Network Administrator
- Program/Change Administrator

  You can specify the following administrator settings for the network administrator.

  Login User Name

  Login Password

Encryption Password

Scanner

- Send Settings

  Max E-mail Size

  Divide and Send E-mail

Network

- IPv4

  All the settings can be specified.

- IPv6

  All the settings can be specified.

- NetWare

  All the settings can be specified.

- SMB

  All the settings can be specified.

- SNMP

  All the settings can be specified.

- SNMPv3

  All the settings can be specified.

- SSDP

  All the settings can be specified.

Security

- Network Security

  All the settings can be specified.

- Access Control

  All the settings can be specified.

- SSL/TLS

  All the settings can be specified.

- Site Certificate

  All the settings can be specified.

- Device Certificate

  All the settings can be specified.

- IPsec

  All the settings can be specified.

- S/MIME

  All the settings can be specified.

Webpage

- Webpage

  Webpage Language

  Set URL Target of Link Page

  Set Help URL Target

  UPnP Setting

  Download Help File

File Administrator Settings

The file administrator settings that can be specified are as follows:

System Settings

The following settings can be specified.

Administrator Tools

- Address Book Management

  Search

  Switch Title
- Address Book: Program / Change / Delete Group

  Search

  Switch Title
- Administrator Authentication Management

  File Management
- Program / Change Administrator

  File Administrator
- Extended Security

  Enhance File Protection
- Auto Delete File in Document Server
- Delete All Files in Document Server

Settings via Web Image Monitor

The following settings can be specified.

Document Server

All the settings can be specified.

Device Settings

- Auto E-mail Notification

  You can select groups to notify.
- Administrator Authentication Management

  File Administrator Authentication

  Available Settings for File Administrator

- Program/Change Administrator

  You can specify the following administrator settings for the file administrator.

  Login User Name

  Login Password

  Change Encryption Password

Webpage

- Webpage

  Download Help File

User Administrator Settings

The user administrator settings that can be specified are as follows:

System Settings

The following settings can be specified.

Administrator Tools

- Address Book Management

  All the settings can be specified.
- Address Book: Program / Change / Delete Group

  All the settings can be specified.
- Address Book: Change Order

  All the settings can be specified.
- Address Book: Edit Title

  All the settings can be specified.
- Address Book: Switch Title
- Back Up / Restore Address Book

  All the settings can be specified.
- Display / Clear / Print Counter per User

  Clear All Users

  Clear per User
- Administrator Authentication Management

  User Management
- Program / Change Administrator

  User Administrator
- Extended Security

  Encrypt Address Book

  Restrict Use of Destinations

  Restrict Adding of User Destinations

  Password Policy

Settings via Web Image Monitor

The following settings can be specified.

Address Book

All the settings can be specified.

Device Settings

- Auto E-mail Notification

  You can select groups to notify.
- Administrator Authentication Management

  User Administrator Authentication

  Available Settings for User Administrator
- Program/Change Administrator

  The user administrator settings that can be specified are as follows:

  Login User Name

  Login Password

  Change Encryption Password

Webpage

- Webpage

  Download Help File

Document Server File Permissions

The authorities for using the files stored in Document Server are as follows.

The authority designations in the list indicate users with the following authorities.

- Read-only

  This is a user assigned "Read-only" authority.

- Edit

  This is a user assigned "Edit" authority.

- Edit / Delete

  This is a user assigned "Edit / Delete" authority.

- Full Control

  This is a user granted full control.

- Owner

  This is a user who can store files in the machine and authorize other users to view, edit, or delete those files.

- File Administrator

  This is the file administrator.

A =Granted authority to operate.

- =Not granted authority to operate.

Settings	Read-only	Edit	Edit / Delete	Full Control	Owner	File Admin.
Viewing Details About Stored Files	A	A	A	A	A *1	A
Viewing Thumbnails	A	A	A	A	A *1	A
Print/Transmission	A	A	A	A	A *1	-
Changing Information About Stored Files	-	A	A	A	A *1	-
Deleting Files	-	-	A	A	A *1	A
Specifying File Password	-	-	-	-	A	A
Specifying Permissions for Users/Groups	-	-	-	A	A	A

Settings	Read-only	Edit	Edit / Delete	Full Control	Owner	File Admin.
Unlocking Files	-	-	-	-	-	A

*1 This setting can be specified by the owner.

The Privilege for User Account Settings in the Address Book

The authorities for using the Address Book are as follows:

The authority designations in the list indicate users with the following authorities.

- Abbreviations in the table heads

  Read-only (User) = This is a user assigned "Read-only" authority.

  Edit (User) = This is a user assigned "Edit" authority.

  Edit / Delete (User) = This is a user assigned "Edit / Delete" authority.

  User Admin. = This is the user administrator.

  Registered User = This is a user that has personal information registered in the Address Book and has a login password and user name.

  Full Control = This is a user granted full control.

- Abbreviations in the table columns

  A = You can view and change the setting.

  B = You can view the setting.

  C = You cannot view or specify the setting.

Tab Name: Names

Settings	Read-only (User)	Edit (User)	Edit / Delete (User)	Full Control	Registered User	User Admin.
Registration No.	B	A	A	A	A	A
Key Display	B	A	A	A	A	A
Name	B	A	A	A	A	A
Select Title	B	A	A	A	A	A

Tab Name: Auth. Info

Settings	Read-only (User)	Edit (User)	Edit / Delete (User)	Full Control	Registered User	User Admin.
User Code	C	C	C	C	C	A

Settings	Read-only (User)	Edit (User)	Edit / Delete (User)	Full Control	Registered User	User Admin.
Login User Name	C	C	C	C	A	A
Login Password	C	C	C	C	A*1	A*1
SMTP Authentication	C	C	C	C	A*1	A*1
Folder Authentication	B	A	A	C	A	A
LDAP Authentication	C	C	C	C	A*1	A*1
Available Functions	C	C	C	C	B	A

*1 You can only enter the password.

Tab Name: Protection

Settings	Read-only (User)	Edit (User)	Edit / Delete (User)	Full Control	Registered User	User Admin.
Use Name as	B	B	B	B	A	A
Protection Code	C	C	C	C	A*1	A*1
Protection Object	B	B	B	B	A	A
Protect Dest.: Permissions for Users/Groups	C	C	C	A	A	A
Protect File(s): Permissions for Users/Groups	C	C	C	A	A	A

*1 You can only enter the password.

Tab Name: E-mail

Settings	Read-only (User)	Edit (User)	Edit / Delete (User)	Full Control	Registered User	User Admin.
E-mail Address	B	A	A	A	A	A

Tab Name: Folder

Settings	Read-only (User)	Edit (User)	Edit / Delete (User)	Full Control	Registered User	User Admin.
SMB/FTP/NCP	B	A	A	A	A	A
SMB: Path	B	A	A	A	A	A
FTP: Port No.	B	A	A	A	A	A
FTP: Server Name	B	A	A	A	A	A
FTP: Path	B	A	A	A	A	A
NCP: Path	B	A	A	A	A	A
NCP: Connection Type	B	A	A	A	A	A

User Settings - Control Panel Settings

This section displays the user settings that can be specified on the machine when user authentication is specified. Settings that can be specified by the user vary according to the menu protect level and available settings specifications.

Copier / Document Server Features

If you have specified administrator authentication, the available functions and settings depend on the menu protect setting.

The following settings can be specified by someone who is not an administrator.

- Abbreviations in the table columns

  R/W (Read and Write) = Both reading and modifying the setting are available.

  R (Read) = Reading only.

  N/A (Not Applicable) = Neither reading nor modifying the setting is available.

Note

- Settings that are not in the list can only be viewed, regardless of the menu protect level setting.

The default for [Menu Protect] is [Level 2].

General Features

Settings	Off	Level 1	Level 2
Auto Image Density Priority	R/W	R	R
Original Type Priority	R/W	R	R
Original Photo Type Priority	R/W	R	R
Original Orientation in Duplex Mode	R/W	R	R
Copy Orientation in Duplex Mode	R/W	R	R
Reserve Job Mode	R/W	R	R
Reservation Screen Auto-off Timer	R/W	R	R
Manual Original Counter Reset	R/W	R	R
Panel Features Default	R/W	R	R
Dark Background	R/W	R/W	R
Image Adjustment Priority	R/W	R	R
Paper Display	R/W	R	R
Alert Sound: Original left on Exposure Glass	R/W	R	R
Switch Original Counter Display	R/W	R	R

Settings	Off	Level 1	Level 2
Custmize Function: Copier	R/W	R/W	R
Custmize Function: Document Server Storage	R/W	R/W	R
Original Type Display	R/W	R	R
Max. Copy Quantity	R/W	R	R
Auto Tray Switching	R/W	R	R
Job End Call	R/W	R	R

Reproduction Ratio

Settings	Off	Level 1	Level 2
Shortcut Reduce/Enlarge	R/W	R	R
Reproduction Ratio	R/W	R	R
Reduce/Enlarge Ratio Priority	R/W	R	R
Ratio for Create Margin	R/W	R	R

Edit

Settings	Off	Level 1	Level 2
Front Margin: Left / Right	R/W	R	R
Back Margin: Left / Right	R/W	R	R
Front Margin: Top / Bottom	R/W	R	R
Back Margin: Top / Bottom	R/W	R	R
1 Sided→2 Sided Auto Margin: TtoT	R/W	R	R
1 Sided→2 Sided Auto Margin: TtoB	R/W	R	R
Creep Setting for Magazine	R/W	R	R
Erase Center Width	R/W	R	R
Front Cover Copy in Combine	R/W	R/W	R
Orientation: Booklet, Magazine	R/W	R/W	R

Settings	Off	Level 1	Level 2
Copy on Designating Page in Combine	R/W	R/W	R
Copy Back Cover	R/W	R/W	R
Double Copies Position	R/W	R/W	R
Erase Border Width	R/W	R	R
Erase Original Shadow in Combine	R/W	R/W	R
Image Repeat Separation Line	R/W	R/W	R
Double Copies Separation Line	R/W	R/W	R
Separation Line in Combine	R/W	R/W	R
Copy Order in Combine	R/W	R	R

Stamp

Preset Stamp

Settings	Off	Level 1	Level 2
Stamp Language	R/W	R/W	R
Stamp Priority	R/W	R	R
Stamp Format: COPY*1	R/W	R/W	R
Stamp Format: URGENT*1	R/W	R/W	R
Stamp Format: PRIORITY*1	R/W	R/W	R
Stamp Format: For Your Info. *1	R/W	R/W	R
Stamp Format: PRELIMINARY*1	R/W	R/W	R
Stamp Format: For Internal Use Only*1	R/W	R/W	R
Stamp Format: CONFIDENTIAL*1	R/W	R/W	R
Stamp Format: DRAFT*1	R/W	R/W	R
Stamp Color: COPY	R/W	R/W	R
Stamp Color: URGENT	R/W	R/W	R

Settings	Off	Level 1	Level 2
Stamp Color: PRIORITY	R/W	R/W	R
Stamp Color: For Your Info.	R/W	R/W	R
Stamp Color: PRELIMINARY	R/W	R/W	R
Stamp Color: For Internal Use Only	R/W	R/W	R
Stamp Color: CONFIDENTIAL	R/W	R/W	R
Stamp Color: DRAFT	R/W	R/W	R

*1 The print position can be adjusted but not specified.

User Stamp

Settings	Off	Level 1	Level 2
Program / Delete Stamp	R/W	R/W	R
Stamp Format: 1-5	R/W	R/W	R
Stamp Color: 1-5	R/W	R/W	R

Date Stamp

Settings	Off	Level 1	Level 2
Format	R/W	R	R
Font	R/W	R/W	R
Size	R/W	R/W	R
Superimpose	R/W	R/W	R
Stamp Color	R/W	R	R
Stamp Setting *1	R/W	R/W	R

*1 The print position can be adjusted but not specified.

Page Numbering

Settings	Off	Level 1	Level 2
Stamp Format	R/W	R	R

Settings	Off	Level 1	Level 2
Font	R/W	R/W	R
Size	R/W	R/W	R
Duplex Back Page Stamping Position	R/W	R/W	R
Page Numbering in Combine	R/W	R/W	R
Stamp on Designating Slip Sheet	R/W	R/W	R
Stamp Position: P1, P2...*1	R/W	R/W	R
Stamp Position: 1/5, 2/5...*1	R/W	R/W	R
Stamp Position: -1-, -2-...*1	R/W	R/W	R
Stamp Position: P.1, P.2...*1	R/W	R/W	R
Stamp Position: 1, 2...*1	R/W	R/W	R
Stamp Position: 1-1, 1-2...*1	R/W	R/W	R
Superimpose	R/W	R/W	R
Stamp Color	R/W	R	R
Page Numbering Initial Letter	R/W	R/W	R

*1 This function can be adjusted but not specified.

Stamp Text

Settings	Off	Level 1	Level 2
Font	R/W	R/W	R
Size	R/W	R/W	R
Superimpose	R/W	R/W	R
Stamp Color	R/W	R	R
Stamp Setting *1	R/W	R/W	R

*1 This function can be adjusted but not specified.

Input / Output

Settings	Off	Level 1	Level 2
SADF Auto Reset	R/W	R	R
Copy Eject Face Method in Glass Mode	R/W	R	R
Memory Full Auto Scan Restart	R/W	R	R
Sort / Stack Shift Tray Setting	R/W	R	R
Insert Separation Sheet	R/W	R	R
Letterhead Setting	R/W	R	R
Staple Position	R/W	R/W	R
Punch Type	R/W	R/W	R
Finisher: Staple Position	R/W	R/W	R
Finisher: Punch Type	R/W	R/W	R
Simplified Screen: Finisher Types	R/W	R/W	R

Adjust Colour Image

Settings	Off	Level 1	Level 2
Background Density of ADS (Full Color / Two-color)	R/W	R/W	R
Color Sensitivity	R/W	R/W	R
A.C.S Sensitivity	R/W	R/W	R
A.C.S Priority	R/W	R/W	R
Inkjet Output Type	R/W	R/W	R

Scanner Features

If you have specified administrator authentication, the available functions and settings depend on the menu protect setting.

The following settings can be specified by someone who is not an administrator.

- Abbreviations in the table columns

  R/W (Read and Write) = Both reading and modifying the setting are available.

  R (Read) = Reading only.

  N/A (Not Applicable) = Neither reading nor modifying the setting is available.

Note

- Settings that are not in the list can only be viewed, regardless of the menu protect level setting.

The default for [Menu Protect] is [Level 2].

General Settings

Settings	Off	Level 1	Level 2
Switch Title	R/W	R	R
Update Delivery Server Destination List	R/W	R/W	R
Search Destination	R/W	R	R
TWAIN Standby Time	R/W	R	R
Destination List Display Priority 1	R/W	R	R
Destination List Display Priority 2	R/W	R	R
Print & Delete Scanner Journal	R/W	R	R
Print Scanner Journal	R/W	R	R
Delete Scanner Journal	R/W	R	R

Scan Settings

Settings	Off	Level 1	Level 2
A.C.S. Sensitivity Level	R/W	R	R
Wait Time for Next Orig. : Exposure Glass	R/W	R	R
Wait Time for Next Original(s). : SADF	R/W	R	R

Settings	Off	Level 1	Level 2
Background Density of ADS (Full Color)	R/W	R	R

Send Settings

Settings	Off	Level 1	Level 2
Compression (Black & White)	R/W	R/W	R
Compression (Gray Scale / Full Color)	R/W	R/W	R
High Compression PDF Level	R/W	R/W	R
Insert Additional E-mail Info	R/W	R/W	R
No. of Digits for Single Page Files	R/W	R/W	R
Stored File E-mail Method	R/W	R/W	R

System Settings

When administrator authentication has been specified, the settings available to the user depend on whether or not "Available Settings" has been specified.

- Abbreviations in the table heads

  A = Authorized user when Available Settings have not been specified.

  B = Authorized user when Available Settings have been specified.

  C = Unauthorized user.

- Abbreviations in the table columns

  R/W (Read and Write) = Both reading and modifying the setting are available.

  R (Read) = Reading only.

  N/A (Not Applicable) = Neither reading nor modifying the setting is available.

General Features

Settings	A	B	C
Program / Change / Delete User Text	R/W	R	N/A
Panel Key Sound	R/W	R	N/A
Warm-up Beeper	R/W	R	N/A
Copy Count Display	R/W	R	N/A
Function Priority	R/W	R	N/A
Print Priority	R/W	R	N/A
Function Reset Timer	R/W	R	N/A
Interleave Print	R/W	R	N/A
Time Interval between Printing Jobs	R/W	R	N/A
Screen Color Setting	R/W	R	N/A
Output: Copier	R/W	R	N/A
Output: Document Server	R/W	R	N/A
Output: Printer	R/W	R	N/A
Z-fold Position *1	R/W	R	N/A

Settings	A	B	C
System Status / Job List Display Time	R/W	R	N/A
Key Repeat	R/W	R	N/A
Paper Tray Priority: Copier	R/W	R	N/A
Paper Tray Priority: Printer	R/W	R	N/A
Status Indicator	R/W	R	N/A
ADF Original Table Elevation	R/W	R	N/A
ADF Feed Speed	R/W	R	N/A

*1 the optional Z-folding unit must be installed.

Tray Paper Settings

Settings	A	B	C
Paper Size: Tray 2-7	R/W	R	N/A
Paper Thickness: Tray 1-7	R/W	R	N/A
Apply Duplex: Tray 1-7	R/W	R	N/A
Apply Auto Paper Select: Tray 1-7	R/W	R	N/A
Tray Paper Settings: Interposer Upper Tray*1	R/W	R	N/A
Tray Paper Settings: Interposer Lower Tray*1	R/W	R	N/A
Paper Type: Tray 1-7	R/W	R	N/A

*1 The optional Interposer must be installed.

Timer Settings

Settings	A	B	C
Auto Off Timer	R/W	R	N/A
Energy Saver Timer	R/W	R	N/A
Panel Off Timer	R/W	R	N/A
System Auto Reset Timer	R/W	R	N/A

Settings	A	B	C
Copier / Document Server Auto Reset Timer	R/W	R	N/A
Scanner Auto Reset Timer	R/W	R	N/A
Set Date	R/W	R	N/A
Set Time	R/W	R	N/A
Auto Logout Timer	R/W	R	N/A
Weekly Timer Code	R/W	R	N/A
Weekly Timer: (Monday-Sunday)	R/W	R	N/A

Interface Settings

Settings	A	B	C
Print List	R/W	N/A	N/A

Network

Settings	A	B	C
Machine IPv4 Address*1	R/W	R	N/A
IPv4 Gateway Address	R/W	R	N/A
IPv6 Stateless Address Autoconfiguration	R/W	R	N/A
DNS Configuration*1	R/W	R	N/A
DDNS Configuration	R/W	R	N/A
IPsec	R/W	R	N/A
Domain Name*1	R/W	R	N/A
WINS Configuration*1	R/W	R	N/A
Effective Protocol	R/W	R	N/A
NCP Delivery Protocol	R/W	R	N/A
NW Frame Type	R/W	R	N/A
SMB Computer Name	R/W	R	N/A

Settings	A	B	C
SMB Work Group	R/W	R	N/A
Ethernet Speed	R/W	R	N/A
Ping Command	R/W	R	N/A
Permit SNMPv3 Communication	R/W	R	N/A
Permit SSL / TLS Communication	R/W	R	N/A
Host Name	R/W	R	N/A
Machine Name	R/W	R	N/A

*1 If you select [Auto-Obtain (DHCP)], you can only read the setting.

File Transfer

Settings	A	B	C
Delivery Option*1	R/W	R	N/A
SMTP Server	R/W	R	N/A
SMTP Authentication*2	R/W	R	N/A
POP before SMTP	R/W	R	N/A
Reception Protocol	R/W	R	N/A
POP3 / IMAP4 Settings	R/W	R	N/A
Administrator's E-mail Address	R/W	R	N/A
E-mail Communication Port	R/W	R	N/A
E-mail Reception Interval	R/W	R	N/A
Max. Reception E-mail Size	R/W	R	N/A
E-mail Storage in Server	R/W	R	N/A
Default User Name / Password (Send)*2	R/W	R	N/A
Program / Change / Delete E-mail Message	R/W	R/W	N/A
Auto Specify Sender Name	R/W	R	N/A

Settings	A	B	C
Scanner Resend Interval Time	R/W	R	N/A
Number of Scanner Resends	R/W	R	N/A

*1 Only the Main Delivery Server IP Address and Sub Delivery Server IP Address can be viewed.

*2 You can only specify the password.

Administrator Tools

Settings	A	B	C
Address Book Management	R/W	R/W	N/A
Address Book: Program / Change / Delete Group	R/W	R/W	N/A
Address Book: Change Order	R/W	N/A	N/A
Print Address Book: Destination List	R/W	R/W	N/A
Address Book: Edit Title	R/W	N/A	N/A
Address Book: Switch Title	R/W	R	N/A
Back Up / Restore Address Book	R/W	N/A	N/A
Display / Print Counter	R/W	R	N/A
Display / Clear / Print Counter per User	R/W	N/A	N/A
User Authentication Management	R/W	R	N/A
Administrator Authentication Management	R/W	N/A	N/A
Extended Security	R/W	R	N/A
Auto Delete File in Document Server	R/W	R	N/A
Delete All Files in Document Server	R/W	N/A	N/A
Program / Change / Delete LDAP Server*1	R/W	R	N/A
LDAP Search	R/W	R	N/A
Service Test Call	R/W	N/A	N/A
Notify Machine Status	R/W	N/A	N/A

Settings	A	B	C
Extended Features	R/W	R	N/A
AOF(Always On)	R/W	R	N/A
Service Mode Lock	R/W	R	N/A
Auto Erase Memory Setting*2	R/W	R	N/A
Erase All Memory*2	R/W	R	N/A

*1 Only the password can be specified.

*2 The DataOverwriteSecurity Unit option must be installed.

User Settings - Web Image Monitor Settings

This section displays the user settings that can be specified on Web Image Monitor when user authentication is specified. Settings that can be specified by the user vary according to the menu protect level and available settings specifications.

Device Settings

When administrator authentication has been specified, the settings available to the user depend on whether or not "Available Settings" has been specified.

- Abbreviations in the table heads

  A = Authorized user when Available functions have not been specified.

  B = Authorized user when Available functions have been specified.

  C = Unauthorized user.

- Abbreviations in the table columns

  R/W (Read and Write) = Both reading and modifying the setting are available.

  R (Read) = Reading only.

  N/A (Not Applicable) = Neither reading nor modifying the setting is available.

System

Settings	A	B	C
General Settings : Device Name	R/W	R	N/A
General Settings : Comment	R/W	R	N/A
General Settings : Location	R/W	R	N/A
Output Tray : Copier	R/W	R	N/A
Output Tray : Printer	R/W	R	N/A
Output Tray : Document Server	R/W	R	N/A
Paper Tray Priority : Copier	R/W	R	N/A
Paper Tray Priority : Printer	R/W	R	N/A
Front Cover Sheet Tray : Tray to set	R/W	R	N/A
Front Cover Sheet Tray : Apply Duplex	R/W	R	N/A
Front Cover Sheet Tray : Display Time	R/W	R	N/A
Back Cover Sheet Tray : Tray to set	R/W	R	N/A
Back Cover Sheet Tray : Apply Duplex	R/W	R	N/A
Back Cover Sheet Tray : Display Time	R/W	R	N/A

Settings	A	B	C
Slip Sheet Tray : Tray to set	R/W	R	N/A
Slip Sheet Tray : Display Time	R/W	R	N/A
Designation Sheet 1-9 Tray : Tray to set	R/W	R	N/A
Designation Sheet 1-9 Tray : Apply Duplex	R/W	R	N/A
Designation Sheet 1-9 Tray : Display Time	R/W	R	N/A
Separation Sheet Tray : Tray to set	R/W	R	N/A
Separation Sheet Tray : Display Time	R/W	R	N/A

Paper

Settings	A	B	C
Tray1 : Paper Type	R/W	R	N/A
Tray1 : Paper Thickness	R/W	R	N/A
Tray1 : Apply Auto Paper Select	R/W	R	N/A
Tray1 : Apply Duplex	R/W	R	N/A
Tray2 : Paper Size	R/W	R	N/A
Tray2 : Custom Paper Size	R/W	R	N/A
Tray2 : Paper Type	R/W	R	N/A
Tray2 : Paper Thickness	R/W	R	N/A
Tray2 : Apply Auto Paper Select	R/W	R	N/A
Tray2 : Apply Duplex	R/W	R	N/A
Tray3 : Paper Size	R/W	R	N/A
Tray3 : Custom Paper Size	R/W	R	N/A
Tray3 : Paper Type	R/W	R	N/A
Tray3 : Paper Thickness	R/W	R	N/A
Tray3 : Apply Auto Paper Select	R/W	R	N/A

Settings	A	B	C
Tray3 : Apply Duplex	R/W	R	N/A
Tray4 : Paper Size	R/W	R	N/A
Tray4 : Custom Paper Size	R/W	R	N/A
Tray4 : Paper Type	R/W	R	N/A
Tray4 : Paper Thickness	R/W	R	N/A
Tray4 : Apply Auto Paper Select	R/W	R	N/A
Tray4 : Apply Duplex	R/W	R	N/A
Tray5 : Paper Size	R/W	R	N/A
Tray5 : Custom Paper Size	R/W	R	N/A
Tray5 : Paper Type	R/W	R	N/A
Tray5 : Paper Thickness	R/W	R	N/A
Tray5 : Apply Auto Paper Select	R/W	R	N/A
Tray5 : Apply Duplex	R/W	R	N/A
Tray6 : Paper Size	R/W	R	N/A
Tray6 : Custom Paper Size	R/W	R	N/A
Tray6 : Paper Type	R/W	R	N/A
Tray6 : Paper Thickness	R/W	R	N/A
Tray6 : Apply Auto Paper Select	R/W	R	N/A
Tray6 : Apply Duplex	R/W	R	N/A
Tray7 : Paper Size	R/W	R	N/A
Tray7 : Custom Paper Size	R/W	R	N/A
Tray7 : Paper Type	R/W	R	N/A
Tray7 : Paper Thickness	R/W	R	N/A
Tray7 : Apply Auto Paper Select	R/W	R	N/A
Tray7 : Apply Duplex	R/W	R	N/A

Settings	A	B	C
Interposer Upper Tray: Paper Size	R/W	R	N/A
Interposer Upper Tray: Custom Paper Size	R/W	R	N/A
Interposer Lower Tray: Paper Size	R/W	R	N/A
Interposer Lower Tray: Custom Paper Size	R/W	R	N/A

Date/Time

Settings	A	B	C
Set Date	R/W	R	N/A
Set Time	R/W	R	N/A
SNTP Server Address	R/W	R	N/A
SNTP Polling Interval	R/W	R	N/A
Time Zone	R/W	R	N/A

Timer

Settings	A	B	C
Auto Off Timer	R/W	R	N/A
Energy Saver Timer	R/W	R	N/A
Panel Off Timer	R/W	R	N/A
System Auto Reset Timer	R/W	R	N/A
Copier / Document Server Auto Reset Timer	R/W	R	N/A
Scanner Auto Reset Timer	R/W	R	N/A
Auto Logout Timer	R/W	R	N/A
Weekly Timer Code	R/W	R	N/A
Weekly Timer	R/W	R	N/A

E-mail

Settings	A	B	C
Administrator E-mail Address	R/W	R	N/A
Reception Protocol	R/W	R	N/A
E-mail Reception Interval	R/W	R	N/A
Max. Reception E-mail Size	R/W	R	N/A
E-mail Storage in Server	R/W	R	N/A
SMTP Server Name	R/W	R	N/A
SMTP Port No.	R/W	R	N/A
SMTP Authentication	R/W	R	N/A
SMTP Auth. E-mail Address	R/W	R	N/A
SMTP Auth. User Name	R/W	N/A	N/A
SMTP Auth. Password	R/W	N/A	N/A
SMTP Auth. Encryption	R/W	R	N/A
POP before SMTP	R/W	R	N/A
POP E-mail Address	R/W	R	N/A
POP User Name	R/W	N/A	N/A
POP Password	R/W	N/A	N/A
Timeout setting after POP Auth.	R/W	R	N/A
POP3/IMAP4 Server Name	R/W	R	N/A
POP3/IMAP4 Encryption	R/W	R	N/A
POP3 Reception Port No.	R/W	R	N/A
IMAP4 Reception Port No.	R/W	R	N/A
E-mail Notification E-mail Address	R/W	R	N/A
Receive E-mail Notification	R/W	N/A	N/A
E-mail Notification User Name	R/W	N/A	N/A

Settings	A	B	C
E-mail Notification Password	R/W	N/A	N/A

Auto E-mail Notification

Settings	A	B	C
Notification Message	R	R	N/A
Groups to Notify : Address List	R/W	R/W	N/A
Call Service	R	R	N/A
Out of Toner	R	R	N/A
Paper Misfeed	R	R	N/A
Cover Open	R	R	N/A
Out of Paper	R	R	N/A
Almost Out of Paper	R	R	N/A
Paper Tray Error	R	R	N/A
Output Tray Full	R	R	N/A
Unit Connection Error	R	R	N/A
Replacement Required: PCU	R	R	N/A
Waste Toner Bottle is Full	R	R	N/A
Waste Toner Bottle is Almost Full	R	R	N/A
Add Staples	R	R	N/A
Supply Required: Fusing Oil	R	R	N/A
Supply Required Soon: Fusing Oil	R	R	N/A
Replacement Required: Fusing Unit	R	R	N/A
Replacement Required: Transfer Unit	R	R	N/A
Replacement Required Soon: Fusing Unit	R	R	N/A
Replacement Required Soon: PCU	R	R	N/A

Settings	A	B	C
Hole Punch Receptacle is Full	R	R	N/A
File Storage Memory Full Soon	R	R	N/A
Waste Staple Receptacle is Full	R	R	N/A
Replacement Required Soon: Transfer Unit	R	R	N/A
Replacement Required: Charger	R	R	N/A
Replacement Required Soon: Charger	R	R	N/A
Replacement Required: Cleaning Unit for Photoconductor Unit	R	R	N/A
Replacement Required Soon: Cleaning Unit for Photoconductor Unit	R	R	N/A
Replacement Required: Cleaning Unit for Intermediate Transfer Belt	R	R	N/A
Replacement Required Soon: Cleaning Unit for Intermediate Transfer Belt	R	R	N/A
No Developer	R	R	N/A
Almost Out of Developer	R	R	N/A
Detailed Settings of Each Item	R	R	N/A

On-demand E-mail Notification

Settings	A	B	C
Notification Subject	R	R	N/A
Notification Message	R	R	N/A
Restriction to System Config. Info.	R	R	N/A
Restriction to Network Config. Info.	R	R	N/A
Restriction to Supply Info.	R	R	N/A
Restriction to Device Status Info.	R	R	N/A

Settings	A	B	C
Receivable E-mail Address/Domain Name E-mail Language	R	R	N/A

File Transfer

Settings	A	B	C
SMB User Name	R/W	N/A	N/A
SMB Password*1	R/W	N/A	N/A
FTP User Name	R/W	N/A	N/A
FTP Password*1	R/W	N/A	N/A
NCP User Name	R/W	N/A	N/A
NCP Password*1	R/W	N/A	N/A

*1 You can only specify the password.

User Authentication Management

Settings	A	B	C
User Authentication Management	R/W	R	N/A
User Code Authentication - Available Functions	R/W	R	N/A
Basic Authentication - Available Function	R/W	R	N/A
Windows Authentication - SSL	R/W	R	N/A
Windows Authentication - Domain Name	R/W	R	N/A
Windows Authentication - Group Settings for Windows Authentication	R/W	R	N/A
LDAP Authentication - LDAP Authentication	R/W	R	N/A
LDAP Authentication - Login Name Attribute	R/W	R	N/A
LDAP Authentication - Unique Attribute	R/W	R	N/A
LDAP Authentication - Available Functions	R/W	R	N/A
Integration Server Authentication - SSL	R/W	R	N/A

Settings	A	B	C
Integration Server Authentication - Integration Server Name	R/W	R	N/A
Integration Server Authentication - Authentication Type	R/W	R	N/A
Integration Server Authentication - Obtain URL	R	R	N/A
Integration Server Authentication - Domain Name	R/W	R	N/A
Integration Server Authentication - Group Settings for Integration Server Authentication	R/W	R	N/A

Administrator Authentication Management

Settings	A	B	C
User Administrator Authentication	R	R	N/A
Available Settings for User Administrator	R	R	N/A
Machine Administrator Authentication	R	R	N/A
Available Settings for Machine Administrator	R	R	N/A
Network Administrator Authentication	R	R	N/A
Available Settings for Network Administrator	R	R	N/A
File Administrator Authentication	R	R	N/A
Available Settings for File Administrator	R	R	N/A

LDAP Server

Settings	A	B	C
LDAP Search	R/W	N/A	N/A
Program/Change/Delete	R/W	N/A	N/A

Scanner

If you have specified administrator authentication, the available functions and settings depend on the menu protect setting.

The following settings can be specified by someone who is not an administrator.

- Abbreviations in the table columns

  R/W (Read and Write) = Both reading and modifying the setting are available.

  R (Read) = Reading only.

  N/A (Not Applicable) = Neither reading nor modifying the setting is available.

The default for [Menu Protect] is [Level 2].

General Settings

Settings	Off	Level 1	Level 2
Destination List Display Priority 1	R/W	R	R
Destination List Display Priority 2	R/W	R	R
TWAIN Standby Time	R/W	R	R
Print & Delete Scanner Journal	R/W	R	R
Switch Title	R/W	R	R

Scan Settings

Settings	Off	Level 1	Level 2
A.C.S. Sensitivity Level	R/W	R	R
Wait Time for Next Original(s): Exposure Glass	R/W	R	R
Wait Time for Next Original(s): SADF	R/W	R	R
Background Density of ADS (Full Color)	R/W	R	R

Send Settings

Settings	Off	Level 1	Level 2
Compression (Black & White)	R/W	R/W	R
Compression (Gray Scale/Full Color)	R/W	R/W	R

Settings	Off	Level 1	Level 2
Max. E-mail Size	R/W	R	R
Divide & Send E-mail	R/W	R	R
Insert Additional E-mail Info	R/W	R/W	R
No. of Digits for Single Page Files	R/W	R/W	R
Stored File E-mail Method	R/W	R/W	R
High Compression PDF Level	R/W	R/W	R

Default Settings for Normal Screens on Device

Settings	Off	Level 1	Level 2
Store File	R/W	R	R
Preview	R/W	R	R
Scan Type	R/W	R	R
Resolution	R/W	R	R
Auto Density	R/W	R	R
Dropout Color	R/W	R	R
Send File Type	R/W	R	R

Default Settings for Simplified Screens on Device

Settings	Off	Level 1	Level 2
Scan Type	R/W	R	R
Resolution	R/W	R	R
Send File Type	R/W	R	R

Interface

When administrator authentication has been specified, the settings available to the user depend on whether or not "Available Settings" has been specified.

- Abbreviations in the table heads

  A = Authorized user when Available functions have not been specified.

  B = Authorized user when Available functions have been specified.

  C = Unauthorized user.

- Abbreviations in the table columns

  R/W (Read and Write) = Both reading and modifying the setting are available.

  R (Read) = Reading only.

  N/A (Not Applicable) = Neither reading nor modifying the setting is available.

Interface Settings

Settings	A	B	C
Ethernet : Network	R	R	N/A
Ethernet : MAC Address	R	R	N/A
USB	R/W	R	N/A

Network

When administrator authentication has been specified, the settings available to the user depend on whether or not "Available Settings" has been specified.

- Abbreviations in the table heads

  A = Authorized user when Available functions have not been specified.

  B = Authorized user when Available functions have been specified.

  C = Unauthorized user.

- Abbreviations in the table columns

  R/W (Read and Write) = Both reading and modifying the setting are available.

  R (Read) = Reading only.

  N/A (Not Applicable) = Neither reading nor modifying the setting is available.

IPv4

Settings	A	B	C
Host Name	R/W	R	N/A
DHCP	R/W	R	N/A
Domain Name	R/W	R	N/A
IPv4 Address	R/W	R	N/A
Subnet Mask	R/W	R	N/A
DDNS	R/W	R	N/A
WINS	R/W	R	N/A
Primary WINS Server	R/W	R	N/A
Secondary WINS Server	R/W	R	N/A
Scope ID	R/W	R	N/A
Default Gateway Address	R/W	R	N/A
DNS Server	R/W	R	N/A
RSH/RCP	R/W	R	N/A
FTP	R/W	R	N/A

Settings	A	B	C
sftp	R/W	R	N/A

IPv6

Settings	A	B	C
IPv6	R/W	R	N/A
Host Name	R/W	R	N/A
Domain Name	R/W	R	N/A
Link Local Address	R	R	N/A
Stateless Address	R/W	R	N/A
Manual Configuration Address	R/W	R	N/A
DHCPv6-lite	R/W	R	N/A
DDNS	R/W	R	N/A
Default Gateway Address	R/W	R	N/A
DNS Server	R/W	R	N/A
RSH/RCP	R/W	R	N/A
FTP	R/W	R	N/A
sftp	R/W	R	N/A

NetWare

Settings	A	B	C
NetWare	R/W	R	N/A
Print Server Name	R/W	R	N/A
Logon Mode	R/W	R	N/A
File Server Name	R/W	R	N/A
NDS Tree	R/W	N/A	N/A
NDS Context Name	R/W	R	N/A

Settings	A	B	C
Operation Mode	R/W	R	N/A
Remote Printer No.	R/W	N/A	N/A
Job Timeout	R/W	N/A	N/A
Frame Type	R/W	R	N/A
Print Server Protocol	R/W	R	N/A
NCP Delivery Protocol	R/W	R	N/A

SMB

Settings	A	B	C
SMB	R/W	R	N/A
Protocol	R	R	N/A
Workgroup Name	R/W	R	N/A
Computer Name	R/W	R	N/A
Comment	R/W	R	N/A
Share Name	R	R	N/A
Notify Print Completion	R/W	R	N/A

Webpage

When administrator authentication has been specified, the settings available to the user depend on whether or not "Available Settings" has been specified.

- Abbreviations in the table heads

  A = Authorized user when Available functions have not been specified.

  B = Authorized user when Available functions have been specified.

  C = Unauthorized user.

- Abbreviations in the table columns

  R/W (Read and Write) = Both reading and modifying the setting are available.

  R (Read) = Reading only.

  N/A (Not Applicable) = Neither reading nor modifying the setting is available.

Webpage

Settings	A	B	C
Webpage Language	R/W	R	N/A
Set Help Target of Link page	R/W	R	N/A
Set Help URL Target	R/W	R	N/A
UPnP Setting	R/W	R	N/A
Download Help File	R/W	R/W	N/A

Functions That Require Options

The following functions require certain options and additional functions.

- Hard Disk overwrite erase function

  DataOverwriteSecurity Unit

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