

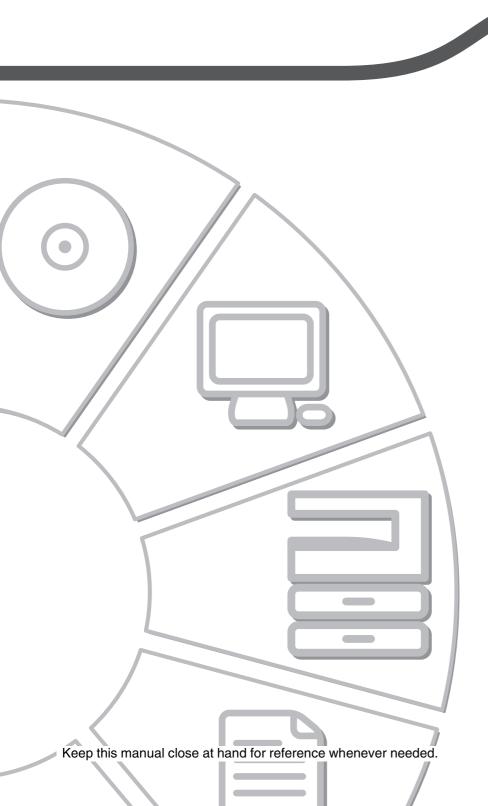
**MODEL: MX-M282N** 

MX-M362N MX-M452N

MX-M502N

## **DIGITAL MULTIFUNCTIONAL SYSTEM**

# **START GUIDE**



#### Caution!

For complete electrical disconnection, pull out the main plug.

The socket-outlet shall be installed near the equipment and shall be easily accessible.

Shielded interface cables must be used with this equipment to maintain compliance with EMC regulations.

The equipment should be installed near an accessible socket outlet for easy disconnection.

## Notice for users in the UK

#### MAINS PLUG WIRING INSTRUCTIONS

The mains lead of this equipment is already fitted with a mains plug which is either a non-rewireable (moulded) or a rewireable type. Should the fuse need to be replaced, a BSI or ASTA approved fuse to BS1362 marked or and of the same rating as the one removed from the plug must be used.

Always refit the fuse cover after replacing the fuse on the moulded plug. Never use the plug without the fuse cover fitted.

In the unlikely event of the socket outlet in your home not being compatible with the plug supplied either cut-off the moulded plug (if this type is fitted) or remove by undoing the screws if a rewireable plug is fitted and fit an appropriate type observing the wiring code below.

**DANGER:** The fuse should be removed from the cut-off plug and the plug destroyed immediately and disposed of in a safe manner. Under no circumstances should the cut-off plug be inserted elsewhere into a 13A socket outlet as a serious electric shock may occur.

To fit an appropriate plug to the mains lead, follow the instructions below:

**IMPORTANT:** The wires in this mains lead are coloured in accordance with the following code:

GREEN-AND-YELLOW: Earth BLUE: Neutral BROWN: Live

As the colours of the wires in this mains lead may not correspond with coloured markings identifying the terminals in your plug, proceed as follows:

The wire which is coloured **GREEN-AND-YELLOW** must be connected to the terminal in the plug which is marked with the letter **E**, or by the safety earth symbol  $\stackrel{\leftarrow}{=}$ , or coloured green or green-and-vellow.

The wire which is coloured **BLUE** must be connected to the terminal which is marked with the letter **N** or coloured black.

The wire which is coloured **BROWN** must be connected to the terminal which is marked with the letter **L** or coloured red.

If you have any doubt, consult a qualified electrician. WARNING: THIS APPARATUS MUST BE EARTHED.

## **EMC** (this machine and peripheral devices)

#### Warning:

This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

This machine contains the software having modules developed by Independent JPEG Group.

This product includes Adobe® Flash® technology of Adobe Systems Incorporated. Copyright© 1995-2007 Adobe Macromedia Software LLC. All rights reserved.

## For the users of the fax function

## FAX interface cable and Line cable:

These special accessories must be used with the device.

The Declaration of Conformity can be viewed at the following URL address.

http://www.sharp.de/doc/MX-FXX2.pdf

## SOFTWARE LICENCE

The SOFTWARE LICENCE will appear when you install the software from the CD-ROM. By using all or any portion of the software on the CD-ROM or in the machine, you are agreeing to be bound by the terms of the SOFTWARE LICENCE.



Products that have earned the ENERGY STAR® are designed to protect the environment through superior energy efficiency.

The products that meet the ENERGY STAR® guidelines carry the logo shown above.

The products without the logo may not meet the ENERGY STAR® guidelines.

#### Warranty

While every effort has been made to make this document as accurate and helpful as possible, SHARP Corporation makes no warranty of any kind with regard to its content. All information included herein is subject to change without notice. SHARP is not responsible for any loss or damages, direct or indirect, arising from or related to the use of this operation manual.

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#### Note:

- The explanations in this manual assume that an automatic document feeder, right tray and stand/2 x 500 sheet paper drawer are installed on the MX-M502N.
- The explanations in this manual assume that you have a working knowledge of your Windows or Macintosh computer.
- For information on your operating system, please refer to your operating system manual or the online Help function.
- The explanations of screens and procedures in this manual are primarily for Windows Vista® in Windows® environments. The screens may vary depending on the version of the operating system.
- This manual contains references to the fax function. However, please note that the fax function is not available in some countries and regions.
- This manual contains explanations of the PC-Fax driver and PPD driver. However, please note that the PC-Fax driver and PPD driver are not available and do not appear on the software for installation in some countries and regions. In this case, please install the English version if you want to use these drivers.
- Considerable care has been taken in preparing this manual. If you have any comments or concerns about the manual, please contact your dealer or nearest authorised service representative.
- This product has undergone strict quality control and inspection procedures. In the unlikely event that a defect or other problem is discovered, please contact your dealer or nearest authorised service representative.
- Aside from instances provided for by law, SHARP is not responsible for failures occurring during the use of the product or its options, or failures due to incorrect operation of the product and its options, or other failures, or for any damage that occurs due to use of the product.

# **CAUTIONS**

# Symbols in this manual

To ensure safe use of the machine, this manual uses various safety symbols. The safety symbols are classified as explained below. Be sure you understand the meaning of the symbols when reading the manual.

Symbol	Meaning		
<b>⚠ WARNING</b>	Indicates a risk of death or serious injury.		
<b>⚠</b> CAUTION	Indicates a risk of human injury or property damage.		

## Meaning of the symbols

Symbol	Meaning		
	CAUTION! HOT		
(A)	PINCH POINT KEEP CLEAR		

Symbol	Meaning		
	PROHIBITED ACTIONS		
	DO NOT DISASSEMBLE		

Symbol	Meaning	
0	MANDATORY ACTIONS	

## **Power notes**

# **WARNING**



Be sure to connect the power cord only to a power outlet that meets the specified voltage and current requirements. Also make certain the outlet is properly grounded. Do not use an extension cord or adapter to connect other devices to the power outlet used by the machine. Using an improper power supply may cause fire or electrical shock.

\*For the power supply requirements, see the name plate in the lower left corner of the left side of the machine.



Do not damage or modify the power cord.



Placing heavy objects on the power cord, pulling it, or forcibly bending it will damage the cord, resulting in fire or electrical shock.



Do not insert or remove the power plug with wet hands.

This may cause electrical shock.

# **A** CAUTION



When removing the power plug from the outlet, do not pull on the cord.

Pulling on the cord may cause damage such as wire exposure and breakage, and may result in fire or electrical shock.



When moving the machine, switch off the main power and remove the power plug from the outlet before moving.

The cord may be damaged, creating a risk of fire or electrical shock.



If you will not use the machine for a long time, be sure to remove the power plug from the outlet for safety.

## Installation notes

# **A** CAUTION



Do not install the machine on an unstable or slanted surface. Install the machine on a surface that can withstand the weight of the machine.

Risk of injury due to the machine falling or toppling. If peripheral devices are to be installed, do not install on an uneven floor, slanted surface, or otherwise unstable surface. Danger of slippage, falling, and toppling. Install the product on a flat, stable surface that can withstand the weight of the product. (Weight when various peripheral devices are installed: approx. 95 kg (209.4 lbs.))



Do not install in a location with moisture or dust.



Risk of fire and electrical shock. If dust enters the machine, dirty output and machine failure may result.



Locations that are excessively hot, cold, humid, or dry (near heaters, humidifiers, air conditioners, etc.)



The paper will become damp and condensation may form inside the machine, causing misfeeds and dirty output.

Ambient environment (page 47)

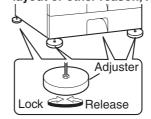
If the location has an ultrasonic humidifier, use pure water for humidifiers in the humidifier. If tap water is used, minerals and other impurities will be emitted, causing impurities to collect on the inside of the machine and create dirty output.



When the machine is installed, the adjusters (4) must be lowered to the floor to secure the machine (prevent it from moving).

Rotate the adjusters in the locking direction until they are in firm contact with the floor.

If you find it necessary to reposition the machine due to rearrangement of your office layout or other reason, retract the adjusters from



the floor, turn off the power, and then move the machine.

(After moving the machine, lower the adjusters again to secure the machine.)



Locations exposed to direct sunlight

Plastic parts may become deformed and dirty output may result.





## Locations with ammonia gas



Installing the machine next to a diazo copy machine may cause dirty output.

# Installation notes (continued)

# **CAUTION**



Do not install the machine in a location with poor ventilation. Install so that exhaust from the machine does not directly contact people.

A small amount of ozone is produced within the printer during operation. The emission level is insufficient to cause any health hazard.

The present recommended long term exposure limit for ozone is 0.1 ppm (0.2 mg/m³) calculated as an 8 hr. time-weighted average concentration.

However, since the small amount that is emitted may have an objectionable odor, it is advisable to place the copier in a ventilated area.



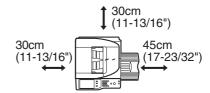
A small amount of ozone is created inside the machine during printing. The amount of ozone created is not sufficient to be harmful; however, an unpleasant odor may be noticed during large copy runs, and thus the machine should be installed in a room with a ventilation fan or windows that provide sufficient air circulation. (The odor may occasionally cause headaches.)

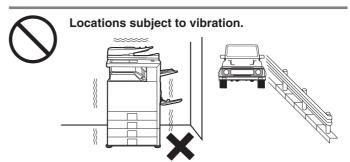
\* Install the machine so that people are not directly exposed to exhaust from the machine. If installed near a window, ensure that the machine is not exposed to direct sunlight.



#### Near a wall

Be sure to allow the required space around the machine for servicing and proper ventilation. (The machine should be no closer than the distances indicated below from walls. The indicated distances are for the case when a saddle finisher and large capacity paper tray are not installed.)





Vibration may cause failure.



The machine includes a built-in hard drive. Do not subject the machine to shock or vibration. In particular, never move the machine while the power is on.

- The machine should be installed near an accessible power outlet for easy connection.
- Connect the machine to a power outlet which is not used for other electric appliances. If a lighting fixture is connected to the same outlet, the light may flicker.

## **About consumables**

# **A** CAUTION



**Do not throw a toner cartridge into a fire.** Toner may fly and cause burns.



Store a toner cartridge out of the reach of children

# **Handling precautions**



## **WARNING**



Do not place a container of water or other liquid, or a metal object that might fall inside, on the



If the liquid spills or the object falls into the machine, fire or electrical shock may result.



If you notice smoke, a strange odor, or other abnormality, do not use the machine.



If used in this condition, fire or electrical shock may result. Immediately switch off the main power and remove the power plug from the power outlet. Contact your dealer or nearest authorised service representative.



Do not remove the machine casing.

High-voltage parts inside the machine may cause electrical shock.



Do not make any modifications to this machine.

Doing so may result in personal injury or damage to the machine.



Do not use a flammable spray to clean the machine.

If gas from the spray comes in contact with hot electrical components or the fusing unit inside the machine, fire or electrical shock may result.



If a thunder storm begins, switch off the main power and remove the power plug from the outlet to prevent electrical shock and fire due to lightning.



If a piece of metal or water enters the machine, switch off the main power and remove the power plug from the power outlet.

Contact your dealer or nearest authorised service representative. Using the machine in this condition may result in electrical shock or fire.

# **⚠** CAUTION



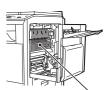
Do not look directly at the light source.



Doing so may damage your



The fusing unit and paper exit area are hot. When removing a misfeed, do not touch the fusing unit and paper exit area. Take care not to burn yourself.



Fusing unit

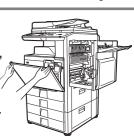


Do not block the ventilation ports on the machine. Do not install the machine in a location that will block the ventilation ports.

Blocking the ventilation ports will cause heat to build up in the machine, creating a risk of fire.



When loading paper, removing a misfeed, performing maintenance, closing the front and side covers, and inserting and removing trays, take care that your fingers are not pinched.



The machine includes the document filing function, which stores document image data on the machine's hard drive. Stored documents can be called up and printed or transmitted as needed. If a hard drive failure occurs, it will no longer be possible to call up the stored document data. To prevent the loss of important documents in the unlikely event of a hard drive failure, keep the originals of important documents or store the original data elsewhere.

With the exception of instances provided for by law, Sharp Corporation bears no responsibility for any damages or loss due to the loss of stored document data.

## **Laser information**

Wave length	790 nm ± 10 nm
Pulse times (North America and Europe)	MX-M282N/MX-M362N: 11.9 μs ± 33.0 ns /7 mm MX-M452N/MX-M502N: 9.4 μs ± 25.6 ns /7 mm
Output power	Max 0.6 mW (LD1+ LD2)

#### Caution

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

This Digital Equipment is CLASS 1 LASER PRODUCT (IEC 60825-1 Edition 1.2-2001)

#### **SAFETY PRECAUTIONS**

This Digital Equipment is rated Class 1 and complies with 21 CFR 1040.10 and 1040.11 of the CDRH standards. This means that the equipment does not produce hazardous laser radiation. For your safety, observe the precautions below.

- Do not remove the cabinet, operation panel or any other covers.
- The equipment's exterior covers contain several safety interlock switches. Do not bypass any safety interlock by inserting wedges or other items into switch slots.

#### "BATTERY DISPOSAL"

THIS PRODUCT CONTAINS A LITHIUM PRIMARY MEMORY BACK-UP BATTERY THAT MUST BE DISPOSED OF PROPERLY. PLEASE CONTACT YOUR LOCAL SHARP DEALER OR AUTHORISED SERVICE REPRESENTATIVE FOR ASSISTANCE IN DISPOSING OF THIS BATTERY.

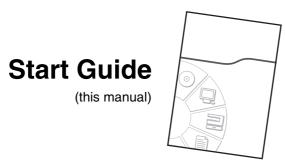
Each instruction also covers the optional units used with these products.

# **OPERATION MANUALS AND HOW TO USE THEM**

Printed manuals and a manual in PDF format are provided with the machine.

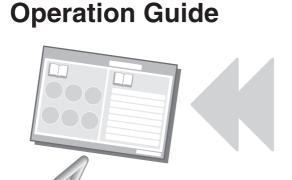
## **Printed manuals**

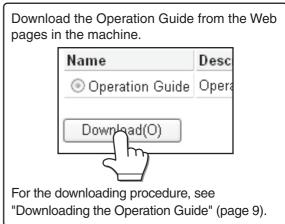
This section explains precautions to ensure safe usage, part names and functions, basic software installation, how to resolve paper jams, and daily maintenance procedures. Refer to the PDF instruction manual for instructions on how to use the machine.



## **Manuals in PDF format**

The explanation of the functions that can be used on the machine are provided in the Operation Guide in PDF format. The Operation Guide can be downloaded from the Web pages in the machine.





#### Convenient methods for using the Operation Guide

The first page contains a regular table of contents as well as an "I want to..." table of contents.

"I want to..." lets you jump to an explanation based on what you want to do. For example, "I use the copier function often, so I'd like to save paper".

Use either table of contents as appropriate based on what you want to know.

The contents of the Operation Guide are as follows:

- BEFORE USING THE MACHINE FACSIMILE
- **SYSTEM SETTINGS**

**○ COPIER** 

- SCANNER / INTERNET FAX
- **TROUBLESHOOTING**

**○ PRINTER** 

- **DOCUMENT FILING**
- \* To view the Operation Guide in PDF format, Adobe<sup>®</sup> Reader<sup>®</sup> or Acrobat<sup>®</sup> Reader<sup>®</sup> of Adobe Systems Incorporated is required. Adobe<sup>®</sup> Reader<sup>®</sup> can be downloaded from the following URL:

  http://www.adobe.com/

# **ACCESSING THE WEB SERVER IN THE MACHINE**

When the machine is connected to a network, the machine's built-in Web server can be accessed from a Web browser on your computer.

# **Opening the Web pages**





Access the Web server in the machine to open the Web pages.

Start a Web browser on a computer that is connected to the same network as the machine and enter the IP address of the machine.

Recommended Web browsers

Internet Explorer: 6.0 or higher (Windows®)

Netscape Navigator: 9 (Windows®) Firefox: 2.0 or higher (Windows®) Safari: 1.5 or higher (Macintosh) The Web page will appear.

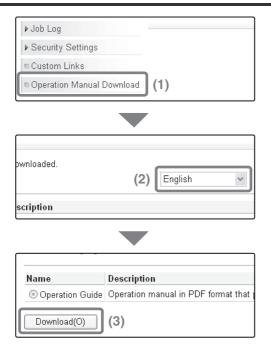
The machine settings may require that user authentication be performed in order to open the Web page. Please ask the administrator of the machine for the password that is

required for user authentication.

# **Downloading the Operation Guide**

The Operation Guide, which is a more detailed manual, can be downloaded from the machine's Web pages.

1



**Downloading the Operation Guide.** 

- (1) Click [Operation Manual Download] in the menu of the Web page.
- (2) Select the desired language.
- (3) Click the [Download] button.

The Operation Guide is downloaded.

# **CHECKING THE IP ADDRESS**

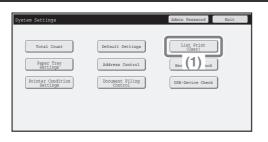
To check the IP address of the machine, print out the all custom setting list in the system settings.

1



Press the [SYSTEM SETTINGS] key.

2



Select the all custom setting list in the touch panel.

(1) Touch the [List Print (User)] key.

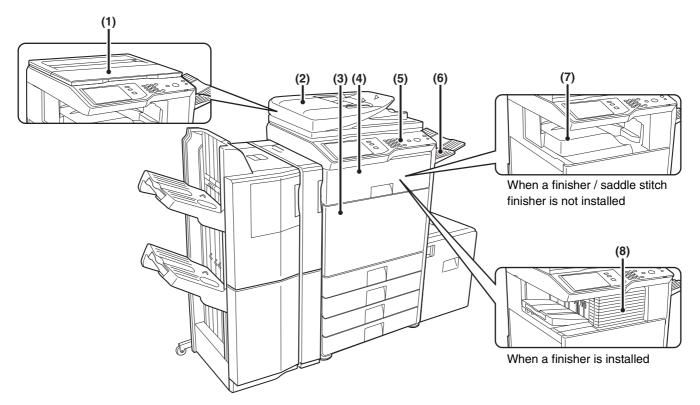


(2) Touch the [Print] key to the right of "All Custom Setting List".

The IP address is shown in the list that is printed.

# PART NAMES AND FUNCTIONS

## **EXTERIOR**



## (1) Document cover\*

Place an original on the document glass and close the document cover before copying starts.

#### (2) Automatic document feeder\*

This automatically feeds and scans multiple originals. Both sides of 2-sided originals can be automatically scanned.

#### (3) Front cover

Open this cover to switch the main power switch to "On" or "Off" or to replace a toner cartridge.

## (4) Paper pass unit\*

This transfers output to the finisher (large stacker) or saddle stitch finisher.

## \* Peripheral device.

## (5) Operation panel

This is used to select functions and enter the number of copies.

#### (6) Exit tray unit (right tray)\*

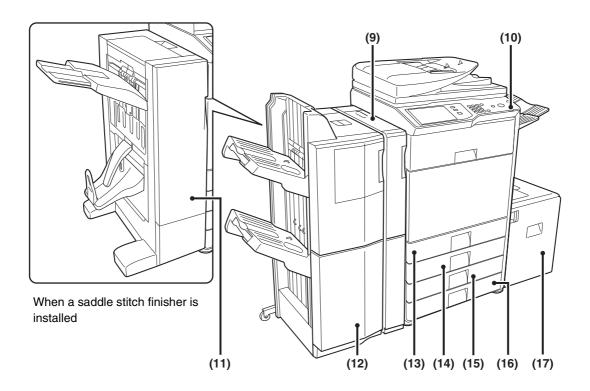
When installed, output can be delivered to this tray.

## (7) Output tray (centre tray)

Output is delivered to this tray.

## (8) Finisher\*

This can be used to staple output. A punch module can also be installed to punch holes in output.



## (9) Punch module\*

This is used to punch holes in output. Requires a finisher (large stacker).

## (10) USB connector (A type)

Supports USB 2.0 (Hi-Speed).

This is used to connect a USB device such as USB memory to the machine.

For the USB cable, use a shielded cable.

## (11) Saddle stitch finisher\*

This can be used to staple output. The saddle stitch function for folding and stapling output and the fold function for folding output in half are also available. A punch module can also be installed to punch holes in output.

#### (12) Finisher (large stacker)\*

This can be used to staple output.

(13) Tray 1

This holds paper.

#### (14) Tray 2

This holds paper.

- (15) Tray 3 (when a stand/1 x 500 sheet paper drawer or a stand/2 x 500 sheet paper drawer is installed)\*

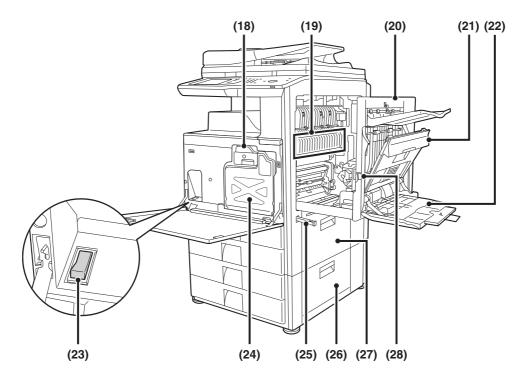
  This holds paper.
- (16) Tray 4 (when a stand/2 x 500 sheet paper drawer is installed)\*

This holds paper.

(17) Tray 5 (when a large capacity tray is installed)\*
This holds paper.

<sup>\*</sup> Peripheral device.

## **INTERIOR**



#### (18) Toner cartridges

These contain toner for printing. When the toner runs out in the cartridge, replace the cartridge with a new cartridge.

## (19) Fusing unit

Heat is applied here to fuse the transferred image onto the paper.



The fusing unit is hot. Take care not to burn yourself when removing a paper misfeed.

## (20) Right side cover

Open this cover to remove a misfeed.

## (21) Paper reversing section cover

This is used when 2-sided printing is performed. Open this cover to remove a paper misfeed.

## (22) Bypass tray

Use this tray to feed paper manually.

When loading paper larger than A4R or 8-1/2" x 11"R, be sure to pull out the bypass tray extension.

#### (23) Main power switch

This is used to power on the machine.

When using the fax or Internet fax functions, keep this switch in the "on" position.

#### (24) Toner collection container

This collects excess toner that remains after printing.



Your service technician will collect the toner collection container.

## (25) Handle

Pull this out and grasp it when moving the machine.

(26) Right cover of stand/1 x 500 sheet paper drawer Right cover of stand/2 x 500 sheet paper drawer (when a stand/1 x 500 sheet paper drawer or a stand/2 x 500 sheet paper drawer is installed)
Open this to remove a paper misfeed in tray 3 or tray 4.

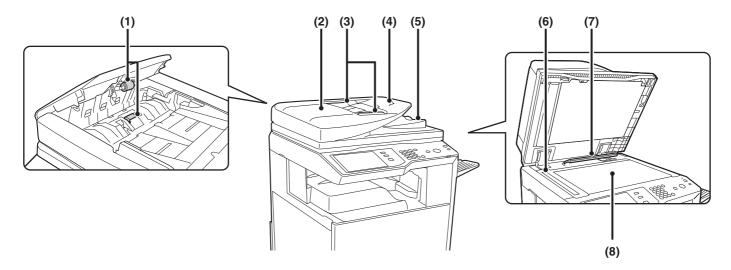
#### (27) Paper tray right side cover

Open this to remove a paper misfeed in tray 1 or tray 2.

#### (28) Right side cover release lever

To remove a paper misfeed, pull and hold this lever up to open the right side cover.

# AUTOMATIC DOCUMENT FEEDER AND DOCUMENT GLASS



## (1) Paper feed roller

This roller rotates to automatically feed the original.

#### (2) Document feeding area cover

Open this cover to remove an original misfeed or clean the paper feed roller.

## (3) Original guides

These help ensure that the original is scanned correctly. Adjust the guides to the width of the original.

## (4) Document feeder tray

Place originals in this tray. 1-sided originals must be placed face up.

#### (5) Original exit tray

Originals are delivered to this tray after scanning.

## (6) Scanning area

Originals placed in the document feeder tray are scanned here.

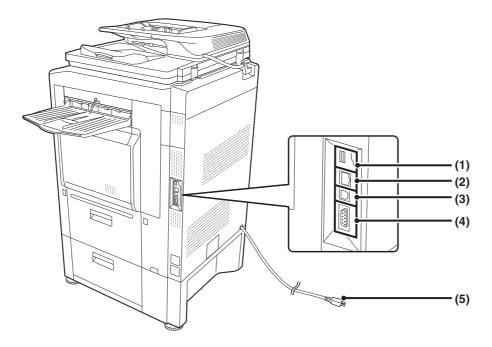
#### (7) Original size detector

This detects the size of an original placed on the document glass.

#### (8) Document glass

Use this to scan a book or other thick original that cannot be fed through the automatic document feeder.

## SIDE AND BACK



#### (1) USB connector (A type)

Supports USB 2.0 (Hi-Speed).

This is used to connect a USB device such as USB memory to the machine.

This connector is not initially available for use. If you wish to use the connector, contact your service technician.

## (2) LAN connector

Connect the LAN cable to this connector when the machine is used on a network.

For the LAN cable, use a shielded type cable.

#### (3) USB connector (B type)

Supports USB 2.0 (Hi-Speed).

A computer can be connected to this connector to use the machine as a printer.

For the USB cable, use a shielded cable.

## (4) Service-only connector



This connector is for use only by service technicians. Connecting a cable to this connector may cause the machine to malfunction.

Important note for service technicians:

The cable connected to the service connector must be less than 3 m (118") in length.

## (5) Power plug

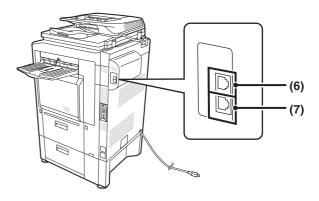
#### (6) Extension phone socket

When the fax function of the machine is used, an extension phone can be connected to this socket.

## (7) Telephone line socket

When the fax function of the machine is used, the telephone line is connected to this socket.

#### When the fax expansion kit is installed



# **OPERATION PANEL**

## Image send indicators

#### LINE indicator

This lights up during transmission or reception in fax mode. The indicator also lights up during transmission in scan mode.

#### **DATA** indicator

When a received fax cannot be printed because of a problem such as out of paper, the indicator blinks. The indicator lights steadily when there is data that is waiting to be transmitted.

## **Touch panel**

Messages and keys appear in the LCD display.
Operations are performed by touching the keys with your fingers.

## [JOB STATUS] key

Press this key to view the job status screen. You can check the status of jobs and cancel jobs in the job status screen.

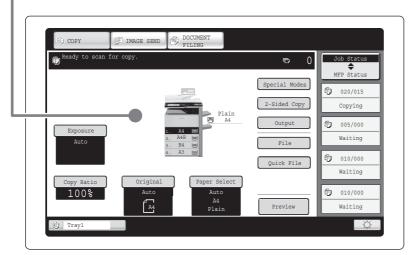
## **Print mode indicators**

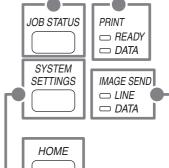
#### **READY** indicator

Print data can be received when this indicator is lit.

#### **DATA** indicator

This blinks while print data is being received and lights steadily while printing is taking place.





## [SYSTEM SETTINGS] key

Press this key to display the system settings screen. The system settings can be adjusted to make the machine easier to use, such as configuring paper tray settings and storing addresses.

## [HOME] key

Touch this key to display the home screen.

Keys of frequently used functions can be registered in this screen for quick access, making the machine easier to use.

## **Numeric keys**

These are used to enter the number of copies, fax numbers, and other numbers.

## [LOGOUT] key ( (\*))

When user authentication is enabled, press this key to log out after using the machine. When using the fax function, this key can be pressed to send tone signals on a pulse dial line.

## [#/P] key ( (#/P) )

Press this key to use a job program when using the copier function. When using the fax function, press this key to dial using a program.

## [CLEAR] key

Press this key to return settings such as the number of copies to "0".

## Main power indicator

This indicator lights when the main power is switched on.

## [START] key

Use this key to copy or scan an original. This key is also used to send a fax in fax mode.

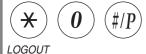
## [POWER] key

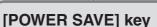
Use this key to turn the machine power on and off











1

Use this key to activate power save mode. The [POWER SAVE] key blinks when the machine is in power save mode. This key is also used to deactivate power save mode.

## [CLEAR ALL] key

Press this key to redo an operation from the beginning.

All settings will be cleared and operation will return to the initial state.

## [STOP] key

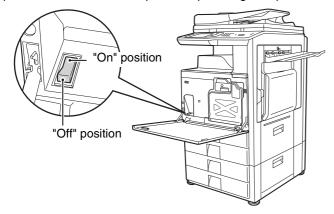
Press this key to stop a copy job or scanning of an original.

# TURNING THE POWER ON AND OFF

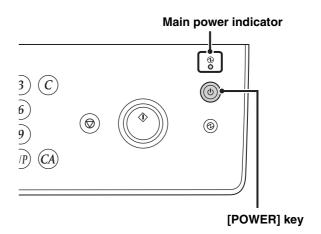
The machine has two power switches. The main power switch is at the lower left after the front cover is opened. The other power switch is the [POWER] key ( $^{\textcircled{1}}$ ) on the operation panel at the top right.

#### Main power switch

When the main power switch is switched on, the main power indicator on the operation panel lights up.



## [POWER] key



## Turning on the power

- (1) Switch the main power switch to the "on" position.
- (2) Press the [POWER] key (((a)) to turn on the power.

## **Turning off the power**

- (1) Press the [POWER] key (((a)) to turn off the power.
- (2) Switch the main power switch to the "off" position.



- Before switching off the main power switch, make sure that the DATA indicator for printing and the DATA and LINE indicators for image send are not lit or blinking on the operation panel.
   Switching off the main power switch or removing the power cord from the outlet while any of the indicators are lit or blinking may damage the hard drive and cause data to be lost.
- Switch off both the [POWER] key ((b)) and the main power switch and unplug the power cord if you suspect a machine failure, if there is a bad thunderstorm nearby, or when you are moving the machine.



When using the fax or Internet fax function, always keep the main power switch in the "on" position.

## Restarting the machine

In order for some settings to take effect, the machine must be restarted.

If a message in the touch panel prompts you to restart the machine, press the [POWER] key (0) to turn off the power and then press the key again to turn the power back on.



In some states of the machine, pressing the [POWER] key (((b)) to restart will not make the settings take effect. In this case, use the main power switch to switch the power off and then on.

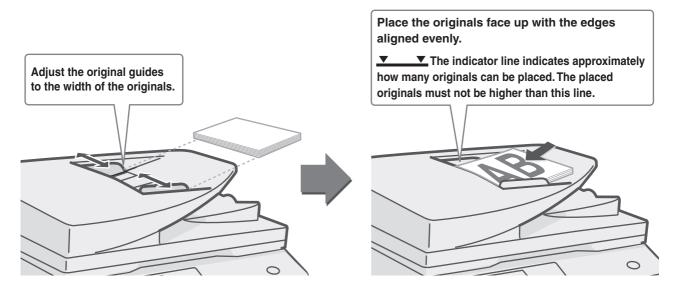
# **PLACING ORIGINALS**

The automatic document feeder can be used to automatically scan many originals at once. This saves you the trouble of manually feeding each original.

For originals that cannot be scanned using the automatic document feeder, such as a book or a document with notes attached, use the document glass.

# Using the automatic document feeder

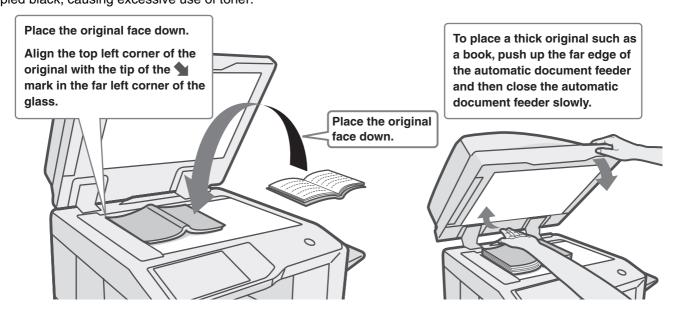
When using the automatic document feeder, place the originals in the document feeder tray. Make sure an original has not been placed on the document glass.



# Using the document glass

Take care that your fingers are not pinched when closing the automatic document feeder.

After placing the original, be sure to close the automatic document feeder. If left open, parts outside of the original will be copied black, causing excessive use of toner.



## **USEABLE PAPER**

Various types of paper are sold. This section explains what plain paper and what special media can be used with the machine. For detailed information on the sizes and types of paper that can be loaded in each tray of the machine, see the specifications in this manual and "Paper Tray Settings" in "7. SYSTEM SETTINGS" of the Operation Guide.

## Plain paper, special media

## Plain paper that can be used

- SHARP standard plain paper (80 g/m² (21 lbs.)). For paper specifications, see the specifications in this manual.
- Pain paper other than SHARP standard paper (60 g/m² to 105 g/m² (16 lbs. to 28 lbs.))
- Recycled paper, coloured paper and pre-punched paper must meet the same specifications as plain paper. Contact your dealer or nearest authorised service representative for advice on using these types of paper.

## Types of paper that can be used in each tray

The following types of paper can be loaded in each tray.

	Tray 1/Tray 2	Tray 3/Tray 4	Bypass tray	Tray 5 (large capacity tray)
Plain paper	Permitted	Permitted	Permitted	Permitted
Pre-printed	Permitted	Permitted	Permitted	Permitted
Recycle Paper	Permitted	Permitted	Permitted	Permitted
Letter head	Permitted	Permitted	Permitted	Permitted
Pre-punched	Permitted	Permitted	Permitted	Permitted
Colour	Permitted	Permitted	Permitted	Permitted
Heavy paper *1	Permitted	Permitted	Permitted	-
Labels	-	_	Permitted	-
Transparency film	-	_	Permitted	-
Tab paper	_	_	Permitted	_
Envelopes	-	_	Permitted	_
Thin paper*2	-	-	Permitted	-

<sup>\*1</sup> Heavy paper up to 209 g/m<sup>2</sup> (110 lbs.) can be used.

<sup>\*2</sup> Thin paper from 56 g/m<sup>2</sup> to 59 g/m<sup>2</sup> (15 lbs. to 16 lbs.) can be used.

## Print side face up or face down

Paper is loaded with the print side face up or face down depending on the paper type and tray.

## Trays 1 to 4

Load the paper with the print side face up.

However, if the paper type is "Letter Head" or "Pre-Printed", load the paper with the print side face down\*.

## Bypass tray and tray 5

Load the paper with the print side face down.

However, if the paper type is "Letter Head" or "Pre-Printed", load the paper with the print side face up\*.

\* If "Disabling of Duplex" is enabled in the system settings (administrator), load the paper in the normal way (face up in trays 1 to 4; face down in the bypass tray and tray 5).

## Paper that cannot be used

- Special media for inkjet printers
   (fine paper, glossy paper, glossy film, etc.)
- Carbon paper or thermal paper
- Pasted paper
- · Paper with clips
- · Paper with fold marks
- Torn paper
- Oil-feed transparency film
- Thin paper less than 56 g/m<sup>2</sup> (15 lbs.)
- Paper that is 210 g/m<sup>2</sup> (80 lbs.) or heavier

- Irregularly shaped paper
- Stapled paper
- Damp paper
- Curled paper
- Paper on which either the print side or the reverse side has been printed on by another printer or multifunction device.
- Paper with a wave-like pattern due to moisture absorption

## Non-recommended paper

- Iron-on transfer paper
- Japanese paper
- · Perforated paper



- Various types of plain paper and special media are sold. Some types cannot be used with the machine. Contact your dealer or nearest authorised service representative for advice on using these types of paper.
- The image quality and toner fusibility of paper may change due to ambient conditions, operating conditions, and paper characteristics, resulting in image quality inferior to that of SHARP standard paper. Contact your dealer or nearest authorised service representative for advice on using these types of paper.
- The use of non-recommended or prohibited paper may result in skewed feeding, misfeeds, poor toner fusing (the toner does not adhere to the paper well and can be rubbed off), or machine failure.
- The use of non-recommended paper may result in misfeeds or poor image quality. Before using non-recommended paper, check if printing can be performed properly.

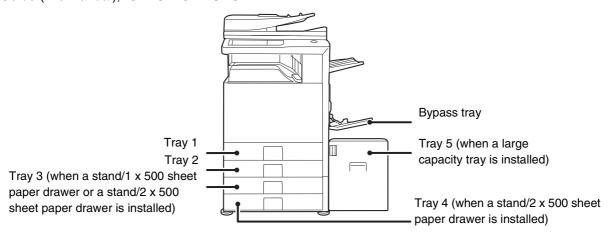
# LOADING PAPER IN A TRAY

## Names of the trays

The names of the trays are shown below.

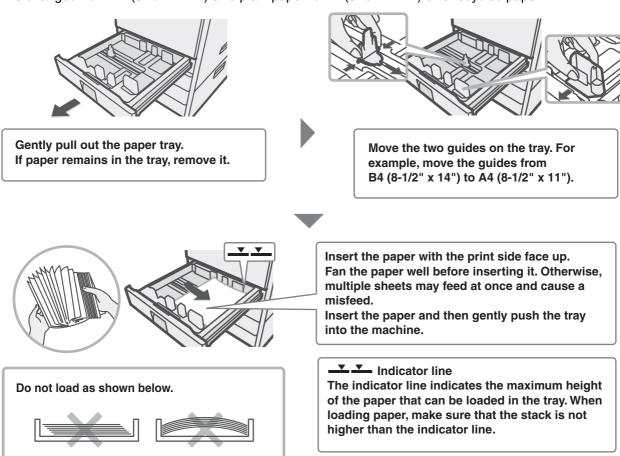
For the number of sheets of paper that can be loaded in each tray, see the following manuals:

- Operation Guide, "Paper Tray Settings" in "7. SYSTEM SETTINGS"
- Start Guide (this manual), "SPECIFICATIONS"



# Loading paper in a tray

To change the paper in a tray, load the desired paper in the tray and then change the tray settings in the machine to specify the loaded paper. The procedure for changing the tray paper size is explained below. As an example, the paper in tray 1 is changed from B4 (8-1/2" x 14") size plain paper to A4 (8-1/2" x 11") size recycled paper.



# **Changing the tray settings**

When you change the paper in a tray, the tray settings in the system settings must also be changed.





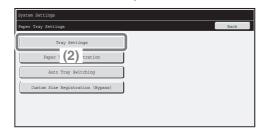
## Press the [SYSTEM SETTINGS] key.

2



Configure the tray settings in the touch panel.

(1) Touch the [Paper Tray Settings] key.



(2) Touch the [Tray Settings] key.



(3) Touch the [Change] key in "Tray 1".



- (4) Select [Recycled] from the "Type" select box.
- (5) Make sure that [Auto-AB] is selected in the "Size" select box.

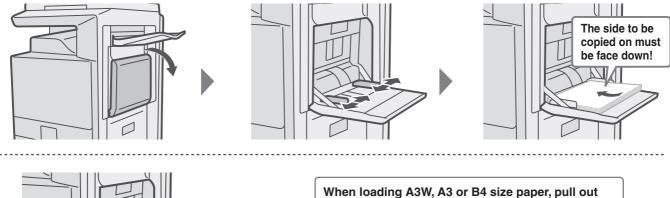
For more information, see "Paper Tray Settings" in "7. SYSTEM SETTINGS" in the Operation Guide.

(6) Touch the [OK] key.

The above steps change the paper settings for tray 1 to A4 recycled paper.

# Loading paper in other trays

## **Bypass tray**





When loading A3W, A3 or B4 size paper, pull out the tray extension.

The maximum number of sheets that can be loaded in the bypass tray is approximately 100 for plain paper and approximately 20 for envelopes.

## **Example: Loading an envelope**



Place paper that is A5 (7-1/4" x 10-1/2") or smaller in the horizontal orientation.

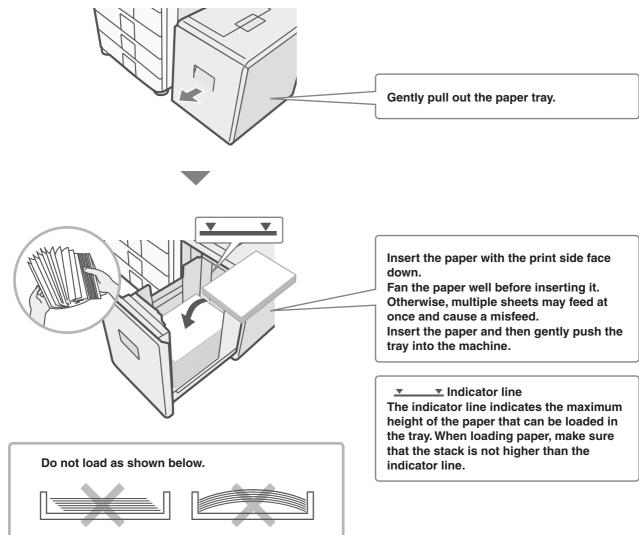


Only the address side of envelopes can be printed on. Place envelopes with the address side face down.

Special types of paper that cannot be loaded in other trays can be loaded in the bypass tray. For detailed information on the bypass tray, see "LOADING PAPER IN THE BYPASS TRAY" in "1. BEFORE USING THE MACHINE" in the Operation Guide.

## Large capacity tray

The paper size of tray 5 can only be changed by a service technician.



# BEFORE INSTALLING THE SOFTWARE

This chapter describes the software programs that allow you to use the printer and scanner functions of the machine, the CD-ROMs that contain the software, and the pages where the basic installation procedures can be found. For details on installation procedures, refer to Chapter 1 of the Operation Guide.

## CD-ROMS AND SOFTWARE

The software that can be used with the machine is on the CD-ROMs that accompany the machine and the expansion kits. Before installing the software, make sure that your computer and the machine meet the system requirements described in "VERIFYING SYSTEM REQUIREMENTS" (page 28).

## SOFTWARE CD-ROM

The "Software CD-ROM" that accompanies the machine contains the printer driver and other software. The "Software CD-ROM" consists of 2 discs.



- The CD-ROM does not include software for Mac OS 9.0 to 9.2.2/X10.2.8/X10.3.9.
   Contact your dealer or nearest authorised service representative if you want software for Mac OS 9.0 to 9.2.2/X10.2.8/X10.3.9.
- The CD-ROM does not include printer driver for PCL5e. Contact your dealer or nearest authorised service representative if you want printer driver for PCL5e.

## Disc<sub>1</sub>

## **Software for Windows**

#### Printer driver

These allow the machine to be used as a printer.

#### - PCL6 printer driver

The machine supports the Hewlett-Packard PCL6 printer control languages.

#### - PS printer driver

The PS printer driver supports the PostScript 3 page description language developed by Adobe Systems Incorporated.

## - PPD driver

The PPD driver enables the machine to use the standard Windows PS printer driver.

- WHEN THE MACHINE IS CONNECTED TO A NETWORK (page 31)
- WHEN THE MACHINE WILL BE CONNECTED WITH A USB CABLE (page 1-89 in the Operation Guide)

#### Printer Status Monitor (can only be used when the machine is connected to a network)

This allows you to monitor the status of the machine on your computer screen.

INSTALLING THE PRINTER STATUS MONITOR (page 1-99 in the Operation Guide)

## **Software for Macintosh**

#### • PPD file

This is the printer description file which enables the machine to be used as a PostScript 3 compatible printer. The PS3 expansion kit is required to use the machine in a Macintosh environment.

- MAC OS X (page 1-107 in the Operation Guide)
- MAC OS 9.0 9.2.2 (page 1-113 in the Operation Guide)
- The PS3 expansion kit is required to use the machine as a printer in a Macintosh environment. In addition, the machine must be connected to a network. A USB connection cannot be used.
- The scanner driver and PC-Fax driver cannot be used in a Macintosh environment.

## Disc 2

## **Software for Windows**

#### PC-Fax driver

This enables you to send a file from your computer as a fax using the same procedure as when printing the file. (When the fax option is installed.)

Even if the fax function is not installed, the PC-Fax driver can be updated using the CD-ROM in the Internet fax expansion kit to enable you to send a file from your computer as an Internet fax in the same way as you print a file.

INSTALLING THE PRINTER DRIVER / PC-FAX DRIVER (page 31)

Scanner driver (TWAIN driver)

(can only be used when the machine is connected to a network)

This allows you to use the scanner function of the machine from a TWAIN-compliant software application. INSTALLING THE SCANNER DRIVER (page 1-100 in the Operation Guide)

## OTHER CD-ROMS

# ► "PRINTER UTILITIES" CD-ROM that accompanies the PS3 expansion kit (for Windows/Macintosh)

This contains the display fonts that are used with the PS printer driver.

(Install the PS printer driver and Macintosh PPD file from the "Software CD-ROM".)

INSTALLING THE PS DISPLAY FONTS (page 1-102 in the Operation Guide)

# ► "PRINTER UTILITIES" CD-ROM that accompanies the Internet fax expansion kit (for Windows)

This CD-ROM is used to update the PC-Fax driver on the "Software CD-ROM" so that it can be used to send Internet faxes (PC-I-Fax function).

If you wish to use the PC-I-Fax function, first install the PC-Fax driver from the "Software CD-ROM" and then run the installer on this CD-ROM. If the PC-Fax driver is already installed, run only the installer. (There is no need to reinstall the PC-Fax driver.)

INSTALLING THE PRINTER DRIVER / PC-FAX DRIVER (page 31)

## "Sharpdesk/Network Scanner Utilities" CD-ROM (for Windows)

This contains software that helps you get the most out of the images that you scan on the machine. The software includes "Sharpdesk", a desktop document management application that enables integrated management of scanned images and files created using a variety of applications. To use the "Scan to Desktop" scanner function, the "Network Scanner Tool" must be installed from the CD-ROM.

For the system requirements of the software, see the manual (PDF format) in the "Manual" folder or the Readme file on the CD-ROM. For the procedures for installing the software, see the "Information Guide".

## **VERIFYING SYSTEM REQUIREMENTS**

## SYSTEM REQUIREMENTS

Before installing the software described in this manual, make sure that your computer satisfies the following requirements.

	Windows*1	Macintosh*4	
Operating system	Windows 2000 Professional, Windows XP Professional*2, Windows XP Home Edition, Windows 2000 Server, Windows Server 2003*2, Windows Vista*2, Windows Server 2008*2, WIndows 7*2*3	Mac OS 9.0 to 9.2.2, Mac OS X v10.2.8, Mac OS X v10.3.9, Mac OS X v10.4.11, Mac OS X v10.5 to 10.5.8, Mac OS X v10.6 to 10.6.2	
Computer type	IBM PC/AT compatible computer Equipped with a 10Base-T/100Base-TX/1000Base-T LAN board or equipped standard with a USB 2.0/1.1*3 port.	An environment in which any of the operating systems listed above can fully operate (including Macintosh computers with an Intel processor).	
Display	1024 x 768 dots resolution and 16-bit colour or higher is recommended.		
Other hardware requirements	An environment that allows any of the above operating systems to fully operate.		

<sup>\*1</sup> The PCL5e printer driver will not run on any of the 64-bit editions of the Windows operating systems, Windows Server 2008, and Windows 7.

<sup>\*4</sup> Cannot be used when the machine is connected with a USB cable. The PC-Fax driver and scanner driver cannot be used.



#### For users of Mac OS 9.0 to 9.2.2/X10.2.8/X10.3.9

The CD-ROM does not include software for Mac OS 9.0 to 9.2.2/X10.2.8/X10.3.9. Contact your dealer or nearest authorised service representative if you want software.

For users of Windows 2000/XP/Server 2003/Vista/Server 2008/7

To perform the procedures described in this manual such as installing the software and configuring settings after installation, administrator authority is required.

## **SOFTWARE REQUIREMENTS**

The following requirements must be met to use the software described in this manual.

Operating system environment*1	Software	Required expansion kits	Type of connection*1
Windows	ws PCL6 printer driver, Can be used in the standard configuration		Network/ USB
	PS printer driver, PPD driver	PS3 expansion kit	
	PC-Fax driver	Facsimile expansion kit*2	
	Scanner driver	Can be used in the standard	Network only*3 (cannot be used with a USB connection)
	Printer Status Monitor	configuration	
Macintosh	Macintosh PPD file	Printer expansion kit PS3 expansion kit	

<sup>\*1</sup> For the types of computers and operating systems that can run the software, see "SYSTEM REQUIREMENTS" (page 28).

<sup>\*2</sup> Includes the 64-bit edition.

<sup>\*3</sup> Compatible with models preinstalled with Windows 2000 Professional, Windows XP Professional, Windows XP Home Edition, Windows 2000 Server, Windows Server 2003, Windows Vista, Windows Server 2008 or Windows 7, and which are equipped standard with a USB interface.

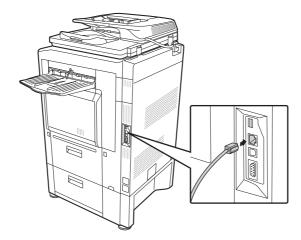
<sup>\*2</sup> When the Internet fax expansion kit is installed, the PC-Fax driver can be updated using the "PRINTER UTILITIES" CD-ROM to enable the driver to be used as a PC-I-Fax driver. In this case, the driver can be used without the facsimile expansion kit.

<sup>\*3</sup> The scanner driver and Printer Status Monitor cannot be used on an IPv6-only network.

## CONNECTING THE MACHINE

## CONNECTING TO A NETWORK

To connect the machine to a network, connect the LAN cable to the machine's network connector. Use a shielded LAN cable.



After connecting the machine to a network, be sure to configure the IP address and other network settings before installing the software. (The factory default setting for the IP address is to receive the IP address automatically when the machine is used in a DHCP environment.)

Network settings can be configured using "Network Settings" in the system settings (administrator) on the machine.



- If the machine is used in a DHCP environment, the IP address of the machine may change. If this happens, printing will not be possible. This problem can be avoided by using a WINS server or by assigning a permanent IP address to the machine
- This manual explains how to set up the software in a Windows network environment.
- To use the machine on an IPv6 network, the IPv6 setting must be enabled in "Network Settings" in the system settings (administrator).

## Checking the IP address of the machine

You can check the IP address by pressing the [SYSTEM SETTINGS] key on the machine and printing out the "All Custom Setting List" from [List Print (User)].

## **CONNECTING THE MACHINE WITH A USB CABLE (Windows)**

The machine can be connected to a computer using a USB cable if the computer is a Windows computer. (The USB interface on the machine cannot be used in a Macintosh environment.)

The machine and computer should be connected while the printer driver is being installed. If a USB cable is connected before the printer driver is installed, the printer driver will not be installed correctly. For the procedure for connecting a USB cable, see "WHEN THE MACHINE WILL BE CONNECTED WITH A USB CABLE" (page 1-89 in the Operation Guide).

# SETUP IN A WINDOWS ENVIRONMENT

This section explains how to install the software on a Windows computer. For more details regarding installation procedures and instructions for installation in Macintosh environments, see Chapter 1 of the Operation Guide.

# OPENING THE SOFTWARE SELECTION SCREEN (FOR ALL SOFTWARE)

- Insert the "Software CD-ROM" into your computer's CD-ROM drive.
  - If you are installing the printer driver or printer status monitor, insert the "Software CD-ROM" that shows "Disc 1" on the front of the CD-ROM.
  - If you are installing the PC-Fax driver or scanner driver, insert the "Software CD-ROM" that shows "Disc 2" on the front of the CD-ROM.
- 2 Click the [Start] button ( ), click [Computer], and then double-click the [CD-ROM] icon ( ).
  - In Windows XP/Server 2003, click the [start] button, click [My Computer], and then double-click the [CD-ROM] icon.
  - In Windows 2000, double-click [My Computer] and then double-click the [CD-ROM] icon.
- 3 Double-click the [Setup] icon (\$\bigsim\$).

In Windows 7, if a message screen appears asking you for confirmation, click [Yes].



In Windows Vista/Server 2008, if a message screen appears asking you for confirmation, click [Allow].

The "SOFTWARE LICENCE" window will appear. Make sure that you understand the contents of the licence agreement and then click the [Yes] button.



You can show the "SOFTWARE LICENCE" in a different language by selecting the desired language from the language menu. To install the software in the selected language, continue the installation with that language selected.

- Read the message in the "Welcome" window and then click the [Next] button.
- The software selection screen appears.

  Before installing the software, be sure to click the
  [Display Readme] button and view the detailed

information on the software.



\* The above screen appears when using the "Disc 1" CD-ROM.

For the steps that follow, see the appropriate page below for the software that you are installing.

#### **INSTALLING THE PRINTER DRIVER / PC-FAX DRIVER**

- WHEN THE MACHINE IS CONNECTED TO A NETWORK\*
  - Standard installation: page 31
  - Installation by specifying the machine's address: page 1-84 in the Operation Guide
  - Printing using the IPP function and the SSL function: page 1-87 in the Operation Guide
- WHEN THE MACHINE WILL BE CONNECTED WITH A USB CABLE: page 1-89 in the Operation Guide
- USING THE MACHINE AS A SHARED PRINTER: page 1-94 in the Operation Guide

INSTALLING THE PRINTER STATUS MONITOR: page 1-99 in the Operation Guide INSTALLING THE SCANNER DRIVER: page 1-100 in the Operation Guide

If the machine is being used on an IPv6 network, see "Installation by specifying the machine's address" (page 1-84 in the Operation Guide).

## INSTALLING THE PRINTER DRIVER / PC-FAX DRIVER

To install the printer driver or the PC-Fax driver, follow the appropriate procedure in this section depending on whether the machine is connected to a network or connected by USB cable.

WHEN THE MACHINE WILL BE CONNECTED WITH A USB CABLE (page 1-89 in the Operation Guide)

## WHEN THE MACHINE IS CONNECTED TO A NETWORK

This section explains how to install the printer driver and the PC-Fax driver when the machine is connected to a Windows network (TCP/IP network).



- The PS3 expansion kit is required to use the PS printer driver or the PPD driver.
- To print to the machine over the Internet using the IPP function when the machine is installed in a remote location, or to print using the SSL (encrypted communication) function, see "Printing using the IPP function and the SSL function" (page 1-87 in the Operation Guide) and install the printer driver or the PC-Fax driver.
- If the machine is connected to an IPv6-only network

  The software cannot be installed by detecting the machine's address from the installer. After installing the software as explained in "Installation by specifying the machine's address" (page 1-84 in the Operation Guide), change the port as explained in "Changing to a Standard TCP/IP Port" (page 1-105 in the Operation Guide).
- The installation procedure in this section is for both the printer driver and the PC-Fax driver, although the explanations are centred on the printer driver.

## **▶** Standard installation

When the software selection screen appears in step 6 of "OPENING THE SOFTWARE SELECTION SCREEN (FOR ALL SOFTWARE)" (page 30), perform the steps below.

# 1

## Click the [Printer Driver] button.

To install the PC-Fax driver, click the [PC-Fax Driver] button on the "Disc 2" CD-ROM.



<sup>\*</sup>The above screen appears when using the "Disc 1" CD-ROM.

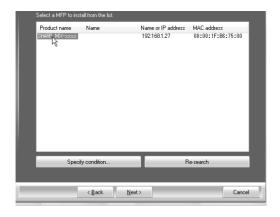
## 2 Click the [Standard installation] button.





When [Custom installation] is selected, you can change any of the items below. When [Standard installation] is selected, the installation will take place as indicated below.

- Machine connection method: LPR Direct Print (Auto Search)
- Set as default printer: Yes (excluding the PC-Fax driver)
- Printer driver name: Cannot be changed
- PCL printer display fonts: Installed If you selected [Custom installation], select [LPR Direct Print (Auto Search)] and click the [Next] button. If you selected other than [LPR Direct Print (Auto Search)], see the following pages in the Operation Guide:
- LPR Direct Print (Specify Address): page 1-84
- IPP: page 1-87 Shared printer: page 1-94
- Connected to this computer: page 1-89
- Printers connected to the network are detected. Select the machine and click the [Next] button.





- If the machine is not found, make sure that the machine is powered on and that the machine is connected to the network, and then click the [Re-search] button.
- You can also click the [Specify condition] button and search for the machine by entering the machine's name (host name) or IP address.
- Checking the IP address of the machine (page 29)
- 4 A confirmation window appears. Check the contents and then click the [Next] button.
- When the printer driver selection window appears, select the printer driver to be installed and click the [Next] button.

Click the checkbox of the printer driver to be installed so that a checkmark ( ) appears.





- When the PC-Fax driver is being installed, this screen does not appear. Go to the next step.
- The PS3 expansion kit is required to use the PS printer driver or the PPD driver.

When you are asked whether or not you want the printer to be your default printer, make a selection and click the [Next] button.

If you are installing multiple drivers, select the printer driver to be used as the default printer.

If you do not wish to set one of the printer drivers as the default printer, select [No].



If you clicked the [Custom installation] button in step 2, the following windows will appear.

- Printer name window
  - If you wish to change the printer name, enter the desired name and click the [Next] button.
- Window confirming installation of the display fonts

To install the display fonts for the PCL printer driver, select [Yes] and click the [Next] button.

- When the PC-Fax driver is being installed, this screen does not appear. Go to the next step.
- If you are not installing the PCL printer driver (you are installing the PS printer driver or the PPD driver), select [No] and click the [Next] button.
- 7

## Follow the on-screen instructions.

Read the message in the window that appears and click the [Next] button. Installation begins.



- If you are using Windows Vista/Server 2008/7
   If a security warning window appears, be sure to click [Install this driver software anyway].
- If you are using Windows 2000/XP/Server 2003
  If a warning message regarding the Windows logo test or digital signature appears, be sure to click the [Continue Anyway] or [Yes] button.

- When the installation completed screen appears, click the [OK] button.
- 9 Click the [Close] button in the window of step 1.



After the installation, a message prompting you to restart your computer may appear. If this message appears, click the [Yes] button to restart your computer.

## This completes the installation.

- After installation, see "CONFIGURING THE PRINTER DRIVER FOR THE OPTIONS INSTALLED ON THE MACHINE" (page 1-96 in the Operation Guide) to configure the printer driver settings.
- If you installed the PS printer driver or the PPD driver, the PS display fonts can be installed from the "PRINTER UTILITIES" CD-ROM that accompanies the PS3 expansion kit. See "INSTALLING THE PS DISPLAY FONTS" (page 1-102 in the Operation Guide).
- If you are using the machine as a shared printer, see "USING THE MACHINE AS A SHARED PRINTER" (page 1-94 in the Operation Guide) to install the printer driver on each of the client computers.

# **MAINTENANCE**

This section explains how to clean the machine and replace the toner cartridges and the toner collection container.

## **REGULAR MAINTENANCE**

To ensure that the machine continues to provide top quality performance, periodically clean the machine.



Do not use a flammable spray to clean the machine. If gas from the spray comes in contact with hot electrical components or the fusing unit inside the machine, fire or electrical shock may result.



- Do not use thinner, benzene, or similar volatile cleaning agents to clean the machine. These may degrade or discolour the housing.
- Use a soft cloth to gently wipe off dirt from the area on the operation panel with a mirror-like finish (shown at right). If you use a stiff cloth or rub hard, the surface may be damaged.



The area with a mirror-like finish is the area that is .

## CLEANING THE DOCUMENT GLASS AND AUTOMATIC DOCUMENT FEEDER

If the document glass or document backplate sheet becomes dirty, the dirt will appear in the scanned image. Always keep these parts clean.

Wipe the parts with a clean, soft cloth.

If necessary, moisten the cloth with water or a small amount of neutral detergent. After wiping with the moistened cloth, wipe the parts dry with a clean dry cloth.

## **Document glass**

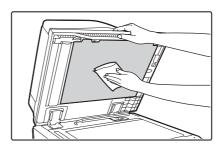


## Scanning area

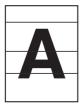
If black or white lines appear in images scanned using the automatic document feeder, clean the scanning area (the thin long glass next to the document glass).

To clean this area, use the glass cleaner that is stored in the automatic document feeder. After using the glass cleaner, be sure to return it to its storage position.

## **Document backplate sheet**



Examples of lines in the image

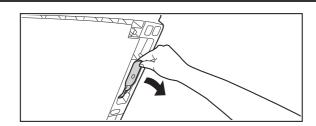




Black lines

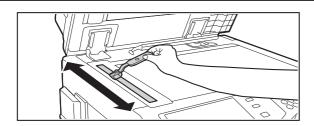
White lines





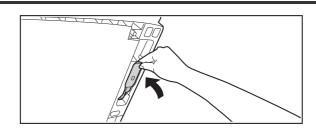
Open the automatic document feeder and remove the glass cleaner.

2



Clean the document scanning area on the document glass with the glass cleaner.

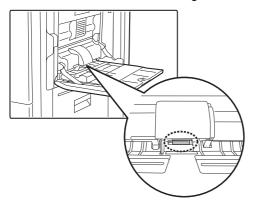




Replace the glass cleaner.

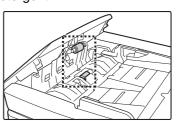
# CLEANING THE BYPASS FEED ROLLER

If paper misfeeds frequently occur when feeding envelopes or heavy paper through the bypass tray, wipe the surface of the feed roller with a clean soft cloth moistened with water or a neutral detergent.



# CLEANING THE ORIGINAL FEED ROLLER

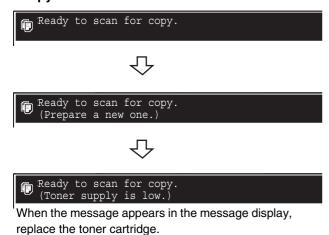
If lines or other dirt appear on the scanned original when the automatic document feeder is used, wipe the surface of the roller with a clean soft cloth moistened with water or a neutral detergent.



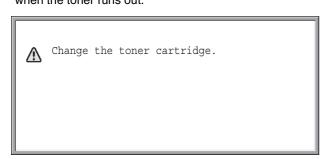
# REPLACING THE TONER CARTRIDGES

Be sure to replace the toner cartridge when the message "Change the toner cartridge." appears.

#### In copy mode



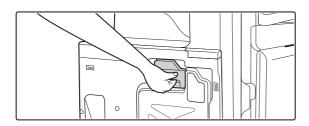
If you continue to use the machine without replacing the cartridge, the following message will appear when the toner runs out.





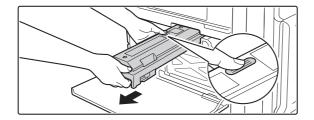
Open the front cover.

2



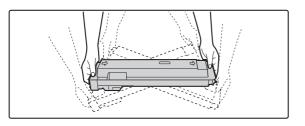
### Pull the toner cartridge toward you.

Gently pull the toner cartridge horizontally toward you. When pulling out the toner cartridge, pull it out gently. If the cartridge is pulled out abruptly, toner may spill out.



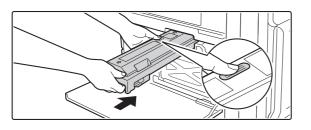
Hold the toner cartridge with both hands as shown and pull it out of the machine.

3



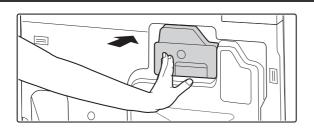
Remove the new toner cartridge from its packaging and shake it 5 or 6 times as shown.

4



Insert the new toner cartridge horizontally.

5



# Push the cartridge in until it locks securely in place.

Push the cartridge firmly in until it clicks into place.



### Close the front cover.

After the toner cartridge is replaced, the machine automatically enters image adjustment mode.

# **⚠** Caution

- Do not throw a toner cartridge into a fire. Toner may fly and cause burns.
- Store toner cartridges out of the reach of small children.
- If a toner cartridge is stored on end, the toner may harden and become unusable. Always store toner cartridges on their side with the top side up.
- If a toner cartridge other than a SHARP-recommended toner cartridge is used, the machine may not attain full quality and performance and there is a risk of damage to the machine. Be sure to use a SHARP-recommended toner cartridge.



- Keep the used toner cartridge in a plastic bag (do not discard it). Your service technician will collect the used toner cartridge.
- To view the approximate amount of toner remaining, continually touch the [COPY] key during printing or when the machine is idle. The percentage of toner remaining will appear in the display while the key is touched. When the percentage falls to "25-0%", obtain a new toner cartridge and keep it ready for replacement.
- Depending on your conditions of use, the colour may become faint or the image blurred.

# REPLACING THE TONER COLLECTION CONTAINER

The toner collection container collects excess toner that is produced during printing. When the toner collection container becomes full, "Replace used toner container." will appear. Follow the procedure below to replace the toner collection container.

1



Open the front cover.

2

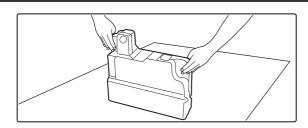


### Remove the toner collection container.

- (1) Tilt the toner collection container forward. Grasp the corners of the toner collection container with both hands as shown and tilt it forward until it stops.

(2) Slowly lift the toner collection container up.

3



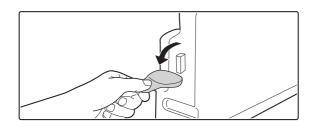
### Place the box on a flat surface.

Place a sheet of newspaper on the surface before placing the box.



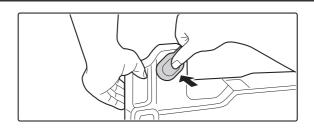
Do not point the holes down as used toner will spill out.

4



# Remove the provided cap from the side of the toner collection container.

Grasp the end of the cap and pull forward.



# Plug the hole in the toner collection container with the cap.

Push the cap in firmly so that toner will not leak out.



Do not discard the toner collection container. Place it in a plastic bag and keep it until your service technician comes to perform maintenance. Your service technician will collect the toner collection container.

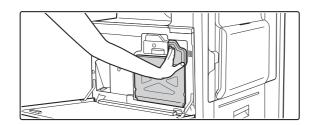
6



# Install the new toner collection container.

Insert the box from above at a slant.

7



# Push the toner collection container into the machine.

Push the box in until it clicks into place.

8



Close the front cover.

### ♠ Caution

- Do not throw the toner collection container into a fire. Toner may fly and cause burns.
- Store the toner collection container out of the reach of small children.



When replacing the toner collection container, be aware that it may soil your clothes or the immediate surroundings.

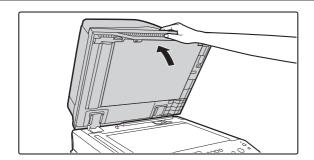
# REPLACING THE STAMP CARTRIDGE

If a stamp unit (AR-SU1) is installed on the automatic document feeder and the stamp has become faint, replace the stamp cartridge (AR-SV1).

# **Supplies**

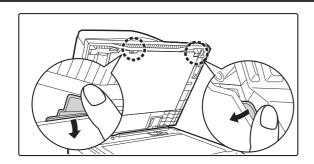
Stamp cartridge (2 in package) AR-SV1





Open the automatic document feeder.

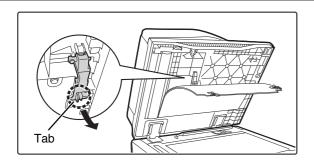
2



Open the holders on the automatic document feeder that hold the original pressure sheet.

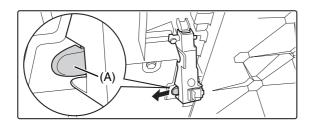
Open the holders (two) on the left and right sides.

3

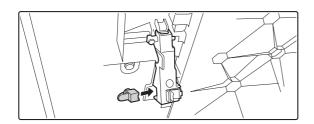


Grasp the tab on the stamp unit and pull the unit out.

4

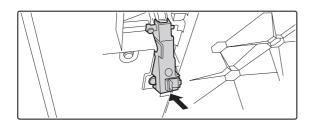


Remove the stamp cartridge (A).



Install a new stamp cartridge.

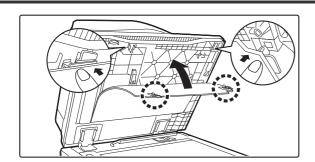
6



### Push the stamp unit back in.

Push the stamp unit in until it clicks into place.

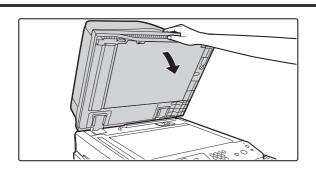
7



## Replace the original pressure sheet.

Push the holders in until they click into place.

8



Close the automatic document feeder.

# **REMOVING MISFEEDS**

When a paper misfeed occurs, the message "A misfeed has occurred." will appear in the touch panel and printing and scanning will stop. In this event, touch the [Information] key in the touch panel. When the key is touched, instructions for removing the misfeed will appear. Follow the instructions. When the misfeed is cleared, the message will automatically clear.

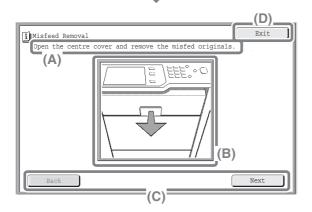
The blinking **T** mark in the image at left indicates the approximate position of the misfeed.

Misfeed location

A misfeed has occurred like the following M/C off now do luses data loss.

**i** Informati

Touch the [Information] key to display the following screen.



- (A) Instructions for removing the misfeed appear here.
- (B) Animation showing what to do.
- (C) Display the previous screen or the next screen.
- (D) This closes the information screen.

The information screen cannot be closed until the misfeed is removed.

- While the message appears, printing and scanning cannot be resumed.
- If the message does not clear even after the misfeed has been removed, the causes below are possible. Check once again.
- The misfeed was not correctly removed.
- A torn piece of paper remains in the machine.
- A cover or unit that was opened or moved to remove the misfeed was not returned to its original position.

For detailed procedures for removing misfeeds, see "REMOVING MISFEEDS" in "8. TROUBLESHOOTING" in the Operation Guide.

# **SUPPLIES**

Standard supplies for this product that can replaced by the user include paper, toner cartridges, and staple cartridges for the finisher.

Be sure to use only SHARP-specified products for the toner cartridges, finisher staple cartridge, saddle stitch finisher staple cartridge, and transparency film.

#### SHARP.



For best copying results, be sure to use only Sharp Genuine Supplies which are designed, engineered, and tested to maximize the life and performance of Sharp products. Look for the Genuine Supplies label on the toner package.

**GENUINE SUPPLIES** 

### Storage of supplies

#### Proper storage

- 1. Store the supplies in a location that is:
  - · clean and dry,
  - at a stable temperature,
  - not exposed to direct sunlight.
- 2. Store paper in the wrapper and lying flat.
- 3. Paper stored in packages standing up or out of the wrapper may curl or become damp, resulting in paper misfeeds.

#### Storing toner cartridges

Store a new toner cartridge box horizontally with the top side up. Do not store a toner cartridge standing on end. If stored standing on end, the toner may not distribute well even after shaking the cartridge vigorously, and will remain inside the cartridge without flowing out.

#### Staple cartridge

The finisher and saddle stitch finisher require the following staple cartridge:

MX-SCX1 (for finisher and saddle stitch finisher)

Approx. 5000 per cartridge x 3 cartridges

AR-SC2 (for finisher (large stacker))

Approx. 5000 per cartridge x 3 cartridges

AR-SC3 (for saddle stitch finisher only)
Approx. 2000 per cartridge x 3 cartridges

### Supply of spare parts and consumables

The supply of spare parts for repair of the machine is guaranteed for at least 7 years following the termination of production. Spare parts are those parts of the machine which may break down within the scope of the ordinary use of the product, whereas those parts which normally exceed the life of the product are not to be considered as spare parts. Consumables too, are available for 7 years following the termination of production.

# **SPECIFICATIONS**

# Machine specifications / copier specifications

Name	Digital Multifunctional System MX-M282N/MX-M362N/MX-M452N/MX-M502N		
Туре	Desktop		
Photoconductive type	OPC drum		
Printing method	Electrophotographic system (laser)		
Developer system	Dry-type two-component magnetic brush development		
Fusing system	Heat rollers		
Scanning resolution	Document glass	•	600 x 300 dpi (factory default values), 600 x 400 dpi, 600 x 600 dpi
Scalling resolution	Automatic docur	ment feeder	600 x 300 dpi (factory default values), 600 x 400 dpi, 600 x 600 dpi
Printing resolution	600 x 600 dpi		
Scanning gradation	256 levels		
Printing gradation	Equivalent to 256 levels		
Original sizes / types	Max. A3 (11" x 17") / sheets, bound documents		
Copy sizes	Maximum: A3W (12" x 18") Minimum: A5R (5-1/4" x 5-3/4")		
Print margins	Leading edge / trailing edge: total 8 mm (21/64") or less, near edge / far edge: total 4 mm ±2 mm (11/64" ±3/32") or less		
Warm-up time*1	20 seconds or less		
First-copy time*2	MX-M282N/MX-M362N: 4.6 seconds or less MX-M452N/MX-M502N: 3.9 seconds or less		
Copy ratios	Variable: 25% to 400% in increments of 1%, total 376 increments (25% to 200% when the automatic document feeder is used)  Fixed presets: 25%, 50%, 70%, 81%, 86%, 100%, 115%, 122%, 141%, 200% and 400% for AB sizes; 25%, 50%, 64%, 77%, 100%, 121%, 129%, 200% and 400% for inch sizes.  Two reduction ratios and two enlargement ratios can be stored.		
Continuous copy	999 copies		
Automatic document feeder	See "Automatic document feeder specifications".		
Tray 1 / Tray 2	Paper sizes:  A3, B4, A4, A4R, B5, B5R, A5R, 11" x 17", 8-1/2" x 14", 8-1/2" x 13-1/2", 8-1/2" x 13-2/5", 8-1/2" x 13", 8-1/2" x 11", 8-1/2" x 11"R, 7-1/4" x 10-1/2"R, 5-1/2" x 8-1/2"R, 8K, 16K, 16KR  Paper weight:  Paper weight:  Paper capacity:  Plain paper (80 g/m² (21 lbs.)) 500 sheets, heavy paper 200 sheets  Paper types:  SHARP-recommended plain paper, recycled paper, coloured paper, and heavy paper		

<sup>\*1</sup> Warm-up time may vary depending on some environments.

<sup>\*2</sup> First print time may vary depending on the status of the machine.

# Machine specifications / copier specifications (Continued)

Bypass tray	Paper sizes: A3W, A3, B4, A4, A4R, B5, B5R, A5R, envelopes, 12" x 18", 11" x 17", 8-1/2" x 14", 8-1/2" x 13-1/2", 8-1/2" x 13-2/5", 8-1/2" x 13", 8-1/2" x 11", 8-1/2" x 11"R, 7-1/4" x 10-1/2"R, 5-1/2" x 8-1/2"R, 8K, 16K, 16KR (Includes automatic paper size detection function. Entry of paper sizes up to 297 mm x 432 mm (11-5/8" x 17") is possible.)  Paper weights: Thin paper (56 g/m² to 59 g/m² (15 lbs. to 16 lbs.)), plain paper (60 g/m² to 105 g/m² (16 lbs. to 28 lbs.)), heavy paper (106 g/m² to 209 g/m² (28 lbs. bond to 110 lbs. index)),	
	envelopes (75 g/m² to 90 g/m² (20 lbs. to 24 lbs.))  Paper capacity: Standard paper 100 sheets	
	Paper types: SHARP-recommended plain paper, recycled paper, coloured paper, heavy paper, thin paper, transparency film, labels, tab paper, envelopes (Monarch, Com-10, DL, C5)	
Duplex module	Paper sizes: A3, B4, A4, A4R, B5, B5R, A5R, 11" x 17", 8-1/2" x 14", 8-1/2" x 13-1/2", 8-1/2" x 13-2/5", 8-1/2" x 13", 8-1/2" x 11", 8-1/2" x 11"R, 5-1/2" x 8-1/2"R, 8K, 16K, 16KR  Paper weight: Plain paper (60 g/m² to 105 g/m² (16 lbs. to 28 lbs.)), heavy paper (106 g/m² to 209 g/m² (28 lbs. bond to 110 lbs. index))  Paper types: SHARP-recommended plain paper, recycled paper, coloured paper, and heavy paper	
Output tray (Centre tray)*1	Output method: Face-down output (A3W and 12" x 18" paper can be output to right tray, finisher, or saddle stitch finisher)  Output capacity: 400 sheets (using SHARP-recommended A4 or 8-1/2" x 11" paper)  (The maximum number of sheets that can be held varies depending on ambient conditions in the installation location, the type of paper, and the storage conditions of the paper.)  Tray full sensor: Yes	
Interface port	LAN connectivity: 10Base-T / 100Base-TX / 1000Base-T USB connectivity: Type A connector supports USB 2.0*2 Compatibility requirements of USB memory Memory capacity: Max. 32 GB Disk Format: FAT32 only Type B connector supports USB 2.0 (Hi speed)	
Required power supply	Local voltage ±10% (For the power supply requirements, see the name plate in the lower corner of the left side of the machine.)	
Power consumption	1.84 kW (220-240 V) / 1.44 kW (100-127 V)	
Dimensions	645 mm (W) x 695 mm (D) x 953 mm (H) (25-25/64" (W) x 27-3/8" (D) x 37-33/64" (H)) (With the reversing single pass feeder installed) 645 mm (W) x 695 mm (D) x 833 mm (H) (25-25/64" (W) x 27-3/8" (D) x 32-51/64" (H)) (With the document cover installed)	
Weight	Approx. 95 kg (209.4 lbs.) (With the reversing single pass feeder installed) Approx. 88 kg (194.0 lbs.) (With the document cover installed)	
Overall dimensions	986 mm (W) x 695 mm (D) (38-53/64" (W) x 27-3/8" (D)) (when bypass tray is extended)	
	l .	

<sup>\*1</sup> Output tray (Centre tray) cannot be used when the finisher or saddle stitch finisher is installed.

Do not use the connectors simultaneously.

When a keyboard is not connected (MX-KBX2), only one connector can be used; simultaneous use is not possible. If you need to change the connector that is used, contact your service technician.

To receive power supplied from a type A connector, the total current consumption of the connected device should not exceed 500 mA.

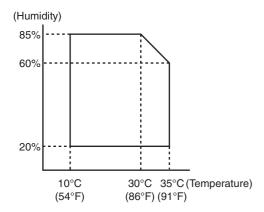
<sup>\*2</sup> Type A connectors are located on the front of the machine and on the right side of the machine at the back (total of two connectors).

# Continuous copying speeds\*

Model	MX-M282N	MX-M362N	MX-M452N	MX-M502N
Copy ratio	100% / Reduced / Enlarged			
A3, 11" x 17", 8K	15 copies/min.	17 copies/min.	20 copies/min.	22 copies/min.
B4, 8-1/2" x 14", 8-1/2" x 13-1/2", 8-1/2" x 13-2/5", 8-1/2" x 13"	17 copies/min.	20 copies/min.	23 copies/min.	25 copies/min.
A4, B5, 8-1/2" x 11", 16K	28 copies/min.	36 copies/min.	45 copies/min.	50 copies/min.
A4R, B5R, 8-1/2" x 11"R, 7-1/4" x 10-1/2"R, 16KR	20 copies/min.	25 copies/min.	30 copies/min.	30 copies/min.

<sup>\*</sup> Copy speed during output of the second copy and following copies when performing continuous one-sided copying of the same page (excluding offset output) using plain one-sided paper from a tray other than the bypass tray.

### **Ambient environment**



# Chemical emission (measured according to RAL UZ-122: Edition Jan. 2006)

Ozone	1.5 mg/h or less
Dust	4.0 mg/h or less
Styrene	1.0 mg/h or less
Benzene	less than 0.05 mg/h
TVOC	10 mg/h or less

# Acoustic noise emission (measurement according to ISO7779)

		MX-M282N	MX-M362N	MX-M452N	MX-M502N
Sound power level LwA					
Printing mode (continuous printing)		6.4 B	6.6 B	6.7 B	6.8 B
Standby mode		4.0 B	4.6 B	4.6 B	4.6 B
Sound pressure level LpA (actual measurement)					
Printing mode —	Bystander positions	50 dB (A)	52 dB (A)	53 dB (A)	54 dB (A)
	Operator positions	51 dB (A)	52 dB (A)	53 dB (A)	53 dB (A)
Standby mode	Bystander positions	27 dB (A)	32 dB (A)	32 dB (A)	32 dB (A)
	Operator positions	28 dB (A)	34 dB (A)	32 dB (A)	31 dB (A)

# Reversing single feeder specifications (MX-RP11)

Original sizes	A3 to A5, 11" x 17" to 5-1/2" x 8-1/2", long paper (max. width 297 mm (11-5/8") x max. length 1000 mm*1 (39-23/64"))
Original weight	One-sided 35 g/m² to 128 g/m² (9 lbs. to 32 lbs.)*2 Two-sided 50 g/m² to 105 g/m² (13 lbs. to 28 lbs.)
Capacity	100 sheets (80 g/m <sup>2</sup> (21 lbs.)) Maximum stack height of 13 mm (1/2")

<sup>\*1</sup> Scanning in mono 2 mode of one side only is possible in fax and scan send modes. However, when the resolution is 600 x 600 dpi in Internet fax mode, the maximum length is 800 mm (31-31/64"). When the resolution is 400 x 400 dpi or 600 x 600 dpi in scan mode, a long original cannot be scanned.

# Exit tray unit (right tray) specifications

Model	MX-TRX2
Output method	Face-down output
Output capacity*	100 sheets (using SHARP-recommended A4 or 8-1/2" x 11" paper)
Dimensions	When tray is folded up: 314 mm (W) x 405 mm (D) x 52 mm (H) (12-23/64" (W) x 15-61/64" (D) x 2-3/64" (H)) When tray is extended: 444 mm (W) x 405 mm (D) x 52 mm (H) (17-31/64" (W) x 15-61/64" (D) x 2-3/64" (H))
Weight	Approx. 0.93 kg (2 lbs.)

<sup>\*</sup> The maximum number of sheets that can be held varies depending on ambient conditions in the installation location, the type of paper, and the storage conditions of the paper. Envelopes and tab paper cannot be output.

<sup>\*2</sup> Paper weights from 35 g/m² (9 lbs.) to 49 g/m² (13 lbs.) require the use of slow scan mode.

Information that the administrator of the machine requires is printed on the back of this page.

(Separate this page from the manual and keep it in a safe place. In addition, fill in the name of the administrator and the administrator's contact information in the left hand margin.)

# TO THE ADMINISTRATOR OF THE MACHINE

(Separate this page from the manual and keep it in a safe place.)

### **Factory default passwords**

When accessing the system settings, the administrator password is required to log in with administrator rights. The system settings can be configured in the Web pages as well as on the operation panel. To access the system settings using the Web pages, a password is also required.

### Factory default administrator password

Factory default setting: admin

Store a new administrator password as soon as the machine is installed.

Once the administrator password has been changed, the new password is required to restore the factory default password. Take care to remember the new password.

### Factory default passwords (Web pages)

There are two factory default accounts: "Administrator" and "User". A person who logs in as an "Administrator" can configure all settings in the Web pages. In addition, an administrator can restrict access to other settings by enabling "User" accounts.

The factory default passwords are shown below.

	Factory default account	Factory default password	
User	users	users	
Administrator	admin	admin	

# Forwarding all transmitted and received data to the administrator (document administration function)

This function is used to forward all data transmitted and received by the machine to a specified destination (Scan to E-mail address, Scan to FTP destination, Scan to Network Folder destination, or Scan to Desktop destination).

This function can be used by the administrator of the machine to archive all transmitted and received data. To configure the document administration settings, click [Application Settings] and then [Document Administration Function] in the Web page menu. (Administrator rights are required.)



- The format, exposure, and resolution settings of transmitted and received data remain in effect when the data is forwarded.
- When forwarding is enabled for data sent in fax mode,
- The [Direct TX] key does not appear in the touch panel.
- Quick online transmission and dialling using the speaker cannot be used.

### For the users of the fax function

### Important safety instructions

- If any of your telephone equipment is not operating properly, you should immediately remove it from your telephone line, as it may cause harm to the telephone network.
- The AC power outlet shall be installed near the equipment and shall be easily accessible.
- Never install telephone wiring during a lightning storm.
- Never install telephone jacks in wet locations unless the socket is specifically designed for wet locations.
- Never touch uninsulated telephone wires or terminals unless the telephone line has been disconnected at the network interface.
- Use caution when installing or modifying telephone lines.
- Avoid using a telephone (other than a cordless type) during an electrical storm. There may be a remote risk of electric shock from lightning.
- Do not use a telephone to report a gas leak in the vicinity of the leak.
- Do not install or use the machine near water, or when you are wet. Take care not to spill any liquids on the machine.
- Save the instructions.

# INFORMATION ON DISPOSAL

### A. Information on Disposal for Users (private households)

### 1. In the European Union

Attention: If you want to dispose of this equipment, please do not use the ordinary dust bin!

Used electrical and electronic equipment must be treated separately and in accordance with legislation that requires proper treatment, recovery and recycling of used electrical and electronic equipment.

Following the implementation by member states, private households within the EU states may return their used electrical and electronic equipment to designated collection facilities free of charge\*. In some countries\* your local retailer may also take back your old product free of charge if you purchase a similar new one.

\*) Please contact your local authority for further details.

If your used electrical or electronic equipment has batteries or accumulators, please dispose of these separately beforehand according to local requirements.

By disposing of this product correctly you will help ensure that the waste undergoes the necessary treatment, recovery and recycling and thus prevent potential negative effects on the environment and human health which could otherwise arise due to inappropriate waste handling.



Attention: Your product is marked with this symbol. It means that used electrical and electronic products should not be mixed with general household waste. There is a separate collection system for these products.

### 2. In other Countries outside the EU

If you wish to discard this product, please contact your local authorities and ask for the correct method of disposal. For Switzerland: Used electrical or electronic equipment can be returned free of charge to the dealer, even if you don't purchase a new product. Further collection facilities are listed on the homepage of www.swico.ch or www.sens.ch.

# **B.** Information on Disposal for Business Users.

#### 1. In the European Union

If the product is used for business purposes and you want to discard it:

Please contact your SHARP dealer who will inform you about the take-back of the product. You might be charged for the costs arising from take-back and recycling. Small products (and small amounts) might be taken back by your local collection facilities.

For Spain: Please contact the established collection system or your local authority for take-back of your used products.

#### 2. In other Countries outside the EU

If you wish to discard of this product, please contact your local authorities and ask for the correct method of disposal.

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