SHARP®



DIGITAL LASER COPIER OPERATION MANUAL



ЦИФРОВОЙ ЛАЗЕРНЫЙ КОПИРОВАЛЬНЫЙ АППАРАТРУКОВОДСТВО ПО ЭКСПЛУАТАЦИИ



DIGITÁLIS LÉZERSUGARAS MÁSOLÓ HASZNÁLATI UTASÍTÁS



DIGITÁLNÍ LASEROVÝ KOPÍROVACÍ STROJ NÁVOD K OBSLUZE



CYFROWA KOPIARKA LASEROWA INSTRUKCJA OBSŁUGI



DIGITÁLNA LASEROVÁ KOPÍRKA NÁVOD NA OBSLUHU



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

Do not make copies of anything which is prohibited from copying by law. The following items are normally prohibited from copying by national law. Other items may be prohibited by local law.

Money

Stamps

● Bonds

Stocks

Bank drafts

● Checks

Passports

Driver's licenses

In some areas, the "POWER" switch positions are marked "I" and "O" on the copier instead of "ON" and "OFF".

The symbol "O" denotes the copier is not completely de-energized but in a standby condition at this "POWER" switch position. If your copier is so marked, please read "I" for "ON" and "O" for "OFF".

Caution!

For a complete electrical disconnection, pull out the main plug.

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

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



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.

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.

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.

CAUTIONS

Cautions on using

Follow the cautions below when using this unit.

▲ Warning:

- The fusing area is hot. Exercise care in this area when removing misfed paper.
- Do not look directly at the light source. Doing so may damage your eyes.
- Do not switch the unit rapidly on and off. After turning the unit off, wait 10 to 15 seconds before turning it back on.
- Unit power must be turned off before installing any supplies.

(!) Caution:

- · Place the unit on a firm, level surface.
- Do not install the unit in a humid or dusty location.
- When the unit is not used for a long time, for example for consecutive holidays, turn the power switch off and remove the power cord from the outlet.
- When moving the unit, be sure to turn the power switch off and remove the power cord from the outlet.
- Do not cover the unit with a dust cover, cloth or plastic film while the power is on.
 Doing so may prevent heat radiation, damaging the unit.
- Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.
- The socket-outlet shall be installed near the equipment and shall be easily accessible.

Important points when selecting an installation site Do not install your unit in areas that are:

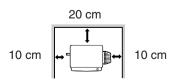
- · damp, humid, or very dusty
- · exposed to direct sunlight
- poorly ventilated
- subject to extreme temperature or humidity changes, e.g., near an air conditioner or heater.

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.



Connect the unit 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.

Be sure to allow the required space around the machine for servicing and proper ventilation.



Cautions on handling

Be careful in handling the unit as follows to maintain the performance of this unit.

Do not drop the unit, subject it to shock or strike it against any object.

Store spare toner cartridges in a cool dry place without removing from the package before use.

• If they are exposed to direct sunlight or excessive heat, poor copies may result.

Do not touch the photoconductive drum (green portion).

· Scratches or smudges on the drum will cause dirty copies.

Proper storage for supplies

Store the supplies (paper and toner cartridges) in a location that is:

- clean and dry
- · at a stable temperature
- · not exposed to direct sunlight.

Store paper in the wrapper and lying flat.

 Paper stored out of the wrapper or in packages standing on end may curl or get damp, resulting in paper misfeeds.

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- IBM and PC/AT are trademarks of International Business Machines Corporation.
- Adobe and Acrobat are trademarks of Adobe Systems Incorporated.
- All other trademarks and copyrights are the property of their respective owners.



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

Laser information

Wave length	780 nm	+10 nm -15 nm	(Four laser diodes)
Pulse times (North America)	12.88 µs	±12.88 ns/7	mm
Output power	Max 0.2 i	mW (Total P	ower)

At the production line, the output power of the scanner unit is adjusted to 1.2 MILLIWATT (Total Power) PLUS 5% and is maintained constant by the operation of the Automatic Power Control (APC).

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)

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

Note:

The present recommended long term exposure limit for ozone is 0.1 ppm (0.2 mg/m^3) 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 unit in a ventilated area.

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INTRODUCTION

This chapter provides basic information for using the unit.

USING THE MANUAL

The operation manual contains explanations of how to operate the unit, important considerations, and maintenance procedures. To get the most out of the unit, please read the operation manual. Please keep the operation manuals in a suitable location that will allow for convenient future reference.

Conventions used in the manual

In this manual, the following icons are used to provide the user with information pertinent to the use of the unit.



Warns the user that injury may result if the contents of the warning are not properly followed.



Cautions the user that damage to the unit or one of its components may result if the contents of the caution are not properly followed.

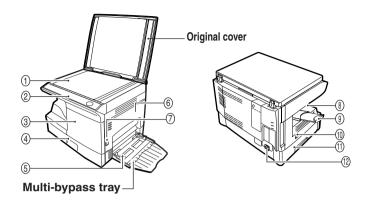


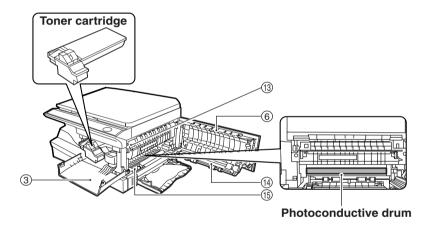
Notes provide information relevant to the unit regarding specifications, functions, performance, operation and such, that may be useful to the user.



Indicates a letter displayed in the display.

PART NAMES

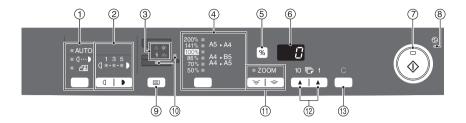




- (1) Original table
- Operation panel
- (3) Front cover
- (4) Paper tray
- S Bypass paper guides
- Side cover
- (7) Side cover open button
- (8) Paper output tray
- Paper output tray extension

- n Power switch
- (11) Handle
- Power cord socket
- (13) Fusing unit release lever
- (14) Transfer charger
- (15) Charger cleaner

OPERATION PANEL



Exposure mode selector key and indicators

Use to sequentially select the exposure modes: AUTO, MANUAL or PHOTO. Selected mode is shown by a lit indicator. (p.16)

- ② Light and dark keys and indicators Use to adjust the MANUAL or PHOTO exposure level. Selected exposure level is shown by a lit indicator. (p.16) Use to start and terminate user program setting. (p.20)
- 3 Alarm indicators
 - Developer replacement required indicator (p.32)
 - gΛ, Misfeed indicator (p.29)
 - Toner cartridge replacement required indicator (p.22)
 - Maintenance indicator (p.32)

④ Copy ratio selector key and indicators

Use to sequentially select preset reduction/enlargement copy ratios. Selected copy ratio is shown by a lit indicator. (p.18)

- (%) key (p.18)
- 6 Display

Displays the specified copy quantity, zoom copy ratio, user program code, and error code.

- Start key and indicator
 - Copying is possible when the indicator is on.
 - Press to start copying.
 - Use to set a user program. (p.20)
- (8) Power save indicator

Lights up when the unit is in a power save mode. (p.19, p.20)

Tray select key

Use to select a paper feed station (paper tray or multi-bypass tray). (p.10)

- (ii) Paper feed location indicators Light up to show the selected paper feed station.
- ① ZOOM keys and indicator
 Use to select any reduction or
 enlargement copy ratio from 25% to
 400% in 1% increments. (p.18)
- Copy quantity keys
 - Use to select the desired copy quantity (1 to 99). (p.16)
 - Use to make user program entries. (p.20)
- (13) Clear key
 - Press to clear the display, or press during a copy run to terminate copying. (p.16)
 - Press and hold down during standby to display the total number of copies made to date. (p.21)



LOADING PAPER

.Follow the steps below to load paper into the tray.

PAPER

For best results, use only paper recommended by SHARP.

Type of paper feeding	Type of media		Size	Weight
Paper tray	Standard paper		A4 A5 B5 Letter Legal Invoice	56g/m ² to 80g/m ²
Multi-bypass tray	thick paper		A4 A5 A6 B5 B6 Letter** Legal Invoice	56g/m ² to 128g/m ² **
	Special Transparency media film		A4 Letter	
		Envelope*	International DL International C5 Commercial 10 Monarch	

^{*} Do not use non-standard envelopes, and envelopes that have metal clasps, plastic snappers, string closures, windows, linings, self-adhesive, patches or synthetic materials. Do not use envelopes that are filled with air or envelopes that have labels or stamps attached. These will cause physical damage to the unit.

^{**} For paper weighing from 105g/m² to 128g/m², A4 is the maximum size that can be fed through the multi-bypass tray.

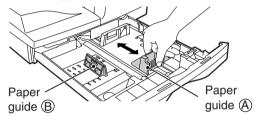
Special papers such as transparency film, labels and envelope must be fed one sheet at a time through the multi-bypass tray.

LOADING THE PAPER TRAY

Raise the handle of the paper tray and pull the paper tray out until it stops.



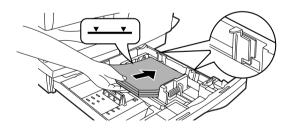
Adjust the paper guides on the paper tray to the copy paper width and length. Squeeze the lever of paper guide (A) and slide the guide to match with the width of the paper. Move paper guide (B) to the appropriate slot as marked on the tray.



Fan the paper and insert it into the tray. Make sure the edges go under the corner hooks.



Do not load paper above the maximum height line (\blacksquare). Exceeding the line will cause a paper misfeed.





Gently push the paper tray back into the unit.



- After loading paper, to cancel the blinking B without restarting copying, press the clear (©) key. The B in the display will go out and the start (\$\begin{array}{c}\$) indicator will light up.
- Be sure that paper is free of rips, dust, wrinkles, and curled or bent edges.
- Make sure all the paper in the stack is the same size and type.
- When loading paper, ensure there is no space between the paper and the guide, and check if the guide is not set too narrow causing the paper to bend. Loading paper in these ways will result in document skew or a paper jam.
- When not using the unit for an extended period, remove all paper from the paper tray and store it in a dry place. If paper is left in the unit for an extended period, the paper will absorb moisture from the air, resulting in paper jams.
- When adding new paper to the paper tray, remove the old paper already contained in the tray. Placing new paper on top of the paper already contained in the tray may result in feeding two sheets at one time.

BYPASS FEED (including special paper)

The multi-bypass tray can be used to feed standard paper, transparency film, labels, envelopes, and other special purpose paper. Paper measuring from A6 to A4 and in the weight range of $56g/m^2$ to $128g/m^2$ can be used in this tray. (For paper weighing from $105g/m^2$ to $128g/m^2$), A4 is the maximum size.)



- The multi-bypass tray can hold maximum of 50 sheets of paper. (Capacity will vary depending on the type of paper loaded.)
- The original image must be smaller than the paper or media for copying. If the original image is bigger than the paper or media, this may cause smudges on the edges of the copies.

The multi-bypass tray



Open the multi-bypass tray and extend the tray.

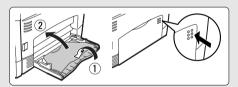




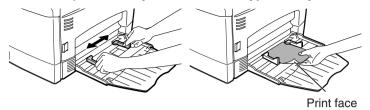




To close the multi-bypass tray, perform step ① and then step ② in the illustration and push the round projections at the right of the tray until they click.



2 Set the paper guides to the paper width. Insert the paper (print face down) all the way into the multi-bypass tray.





- Paper must be fed narrow side into the feed slot.
- Special papers such as transparency film, labels, and envelopes must be fed one sheet at a time through the multi-bypass tray.
- When copying onto transparency film, remove each copy promptly. Do not let copies stack up. When loading an envelope, make sure that it is straight and flat.
- 3 Press the tray select (
) key to select the multi-bypass tray.

Note for loading envelopes

- Envelopes must be fed narrow side into the feed slot at a time.
- Do not use non-standard envelopes, and envelopes that have metal clasps, plastic snappers, string closures, windows, linings, self-adhesive, patches or synthetic materials. Do not use envelopes that are filled with air or envelopes that have labels or stamps attached.
- Envelopes of which the surface is not flat because of embossing may cause the copies/prints to become smudged.
- Under high humidity and temperature conditions the glue flaps on some envelopes may become sticky and be sealed when copied.
- Use only envelopes which are flat and crisply folded. Curled or poorly formed envelopes may cause misfeeds.
- It is recommended that you perform a test print before performing the actual copy job.

Note for loading thick paper

Copying on thick paper requires higher fusing temperature setting. Set the user program 29 to "2 (High)" when using thick paper. (See page 20 and 21.)

MAKING COPIES

This chapter explains basic and other copying functions.

The unit is equipped with a one-page memory buffer. This memory allows the unit to scan an original once only and make up to 99 copies. This feature improves workflow, reduces operation noise from the copier, and provides higher reliability by reducing wear and tear on the scanning mechanism.



If the unit does not function properly during use, or if a function cannot be used, see "TROUBLESHOOTING THE UNIT" (p.27).

COPY FLOW

- 1 Make sure that paper has been loaded in the paper tray (p.8), or multi-bypass tray (p.10) and check the paper size (p.7).

 If paper is not loaded, see page 8.
- 2 Turn on the unit (p.13).
- 3 Place the original.

When using the original table, see "ORIGINAL PLACEMENT" (p.15). When copying onto A4 paper or a large size, pull out the paper output tray extension.



4 Select the copy settings.

If you wish to copy using the initial settings (p.14), proceed to the next step.

To set the number of copies, see page 16.

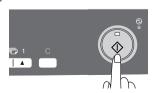
To adjust the resolution and contrast settings, see page 16.

To enlarge or reduce the copy, see page 18.

To change the tray, see page 18.

5 Start copying.

Press the start () key.

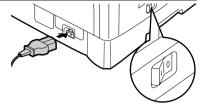


CONNECTING THE POWER CORD



If you use the unit in a country other than the country where the unit was purchased, you will need to make sure that your local power supply is compatible with your model. If you plug the unit into an incompatible power supply, irreparable damage to the unit will result.

Ensure that the power switch of the unit is in the OFF position. Insert the attached power cord into the power cord socket at the rear of the unit.



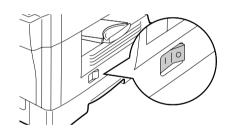
2 Plug the other end of the power cord into the nearest outlet.



Only insert the power cord into a properly grounded wall socket. Do not use extension cords or power strips.

Power on

Ensure that the power switch of the unit is in the OFF position. Plug the other end of the power cord into the nearest outlet. Turn the power switch on the left side of the unit to the "ON" position. The start (③) indicator will light up and other indicators which show the initial settings of the operation panel will also light up to indicate the ready condition. For the initial settings, see the "Initial settings of operation panel" described on the next page.





- The unit will enter a power save mode once the set time has elapsed without any unit operation. The settings of the power save modes can be modified. See "USER PROGRAMS" (p.20).
- The unit will return to the initial settings a preset amount of time after the end of copy or scanning job. The preset amount of time (auto clear time) can be changed. See "USER PROGRAMS" (p.20).

About the scan head

The scan head lamp remains on constantly when the unit is in the ready condition (when the start (③) indicator is illuminated).

The unit adjusts the scan head lamp periodically to maintain copying quality. At this time, the scan head moves automatically. This is normal and does not indicate unit trouble.

Initial settings of operation panel

When the unit power is on, the operation panel will revert to the initial settings when the time set with the "Auto clear time" setting (p.19) elapses after a copy is finished, or when the clear (()) key is pressed twice.

The initial settings of the operation panel are shown below.



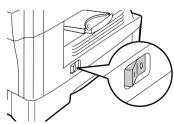
"0" is displayed in the display.

When copying is begun in this state, the settings in the following table are used.

Copy quantity	1 сору
Exposure adjustment	AUTO
Zoom	100%
Tray	Paper tray

Power off methods

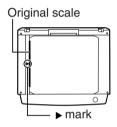
If not used for a certain period of time, the unit will automatically enter auto power shut-off mode (p.20) in order to minimise power consumption. In cases where the machine will not be used for a long time, turn off the power switch and remove the power cord from the outlet.

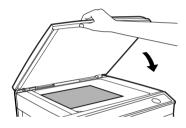


ORIGINAL PLACEMENT



- The original table can read up to A4 original.
- Image loss 4mm can occur at the leading and trailing edges of the copies. Also image loss 4.5mm in total can occur along the other edges of the copies.
- When copying a book or an original which has been folded or a crumpled original, press down the original cover lightly. If the original cover is not securely closed, the copies may be striped or blurred.
- 1 Open the original cover, and place the original.
- Place an original face down on the original table. Align it with the original scale and the centring (▶) mark. Gently close the original cover.





Setting a large original

The original cover can be removed to allow copying of bulky objects.

Simply lift the original cover straight up.



2 To reattach the original cover, reverse the above procedure.

SET THE COPY QUANTITY

Set the number of copies using the two copy quantity $(\underline{\quad},\underline{\quad})$ keys when copying from the original table.



- Press the clear (ⓒ) key to clear an entry if a mistake is made.
- A single copy can be made with the initial setting, i.e., when "0" is displayed.
- Press the right copy quantity key to set the unit digit from 0 to 9. This key will not change the tens digit.
- Press the left copy quantity key to set the tens digit from 1 to 9.



EXPOSURE ADJUSTMENT/PHOTO COPYING

Exposure adjustment

Copy density adjustment is not required for most originals in the automatic exposure mode. To adjust the copy density manually or to copy photographs, the exposure level can be adjusted in 2 steps manually.



The copy resolution used for AUTO and MANUAL ($\bigcirc \cdots \triangleright$) mode can be changed. (p.20)



Press the exposure mode selector key to select the MANUAL (((···•)) mode or PHOTO ((□□)) mode.



2 Use the light () and dark () keys to adjust the exposure level. If exposure level 2 is selected, the two left-handmost indicators for that level will light up simultaneously. Also, if level 4 is selected, the two right-handmost indicators for that level will light up simultaneously.



Automatic exposure adjustment



This automatic exposure level will remain in effect until you change it again by this procedure.

The automatic exposure level can be adjusted to suit your copying needs.

Press the exposure mode selector key to select the PHOTO (fin) mode.



Press and hold down the exposure mode selector key for approximately 5 seconds. The PHOTO (im) indicator will go out and the AUTO indicator will begin to blink. One or two light and dark indicators corresponding to the automatic exposure level which has been selected will light up.



Press the light () or dark () key to lighten or darken the automatic exposure level as desired. If exposure level 2 is selected, the two left-handmost indicators for that level will light up simultaneously. Also, if level 4 is selected, the two right-handmost indicators for that level will light up simultaneously.



4 Press the exposure selector key. The AUTO indicator will stop blinking and light up steadily.

REDUCTION/ENLARGEMENT/ZOOM

Three preset reduction ratios and two enlargement ratios can be selected. The zoom function enables copy ratio selection from 25% to 400% in 1% increments.

- 1 Set the original and check the paper size.
- Use the copy ratio selector key and/or ZOOM (☞, ☞) keys to select the desired copy ratio.



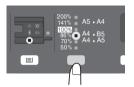
- To verify a zoom setting without changing the zoom ratio, press and hold down the copy ratio display (%) key. When the key is released, the display will return to the copy quantity display.
- To reset the ratio to 100%, press the copy ratio selector key repeatedly until the 100% indicator lights up.
- 3 Set the reduction/enlargement ratio.



To decrease or increase the zoom ratio rapidly, press and hold down the ZOOM(()) or() key. However the value will stop at the preset reduction or enlargement ratios. To move beyond these ratios, release the key and then press and hold it down again.

To select a preset copy ratio:

Preset reduction and enlargement ratios are: 50%, 70%, 86%, 141%, and 200%.



To select a zoom ratio:

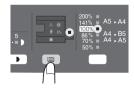
When a ZOOM (or) key is pressed, the ZOOM indicator will light up and the zoom ratio will be displayed in the display.



SELECTING THE PAPER TRAY

Press the tray select () key.

Each time you press the tray select () key, the location indicated by the paper feed location indicator changes in the following order: paper tray, multi-bypass tray.





SPECIAL FUNCTIONS

This chapter describes the special functions of this unit. Use these functions as needed.

DESCRIPTION OF SPECIAL FUNCTIONS

Toner save mode (page 19)

Reduces toner consumption by approximately 10%.

Power save modes (page 20)

The unit has two power save modes of operation: preheat mode and auto power shut-off mode.

Preheat mode

When the unit enters the preheat mode, the power save (\odot) indicator will light up and other indicators will remain on or off as before. In this condition, the fuser in the unit is maintained at a lower heat level, thereby saving power. To copy from the preheat mode, make desired copier selections and press the start (\odot) key using the normal copying procedure.

Auto power shut-off mode

When the unit enters the auto power shut-off mode, the power save (②) indicator will light up and other indicators will go out. The auto power shut-off mode saves more power than the preheat mode but requires a longer time before starting copying. To copy from the auto power shut-off mode, press the start (③) key. Then make desired copier selections and press the start (③) key using the normal copying procedure.

Auto clear (page 20)

The unit returns to the initial settings a preset amount of time after the end of copy. This preset amount of time (auto clear time) can be changed.

Resolution of AUTO & MANUAL mode (page 20)

You can set the copy resolution used for AUTO and MANUAL (${(\cite{a}\cdots\cite{b})}$ exposure mode.

TONER SAVE MODE



Press the exposure mode selector key to select the MANUAL $((\cdots))$ mode.



Press and hold down the exposure mode selector key for approximately 5 seconds. The MANUAL ((()···)) indicator will go out and the PHOTO ((in)) indicator will begin to blink. The light and dark indicator marked "5" will light up, indicating the standard toner mode is active.



To enter the toner save mode, press the light () key. The light and dark indicator marked "1" will light up, indicating the toner save mode is selected.



Press the exposure mode selector key. The PHOTO ([in]) indicator will stop blinking and will light up steadily. The light and dark indicator marked "3" will light up. The toner save mode is now active.



To return to the standard mode, repeat the procedure but use the dark () key to select exposure level "5" in step 3.

USER PROGRAMS

The user programs allow the parameters of certain functions to be set, changed, or cancelled as desired.

Setting the user programs

- Press and hold down the light (☐) key for more than 5 seconds until all the alarm indicators (☆, ৪√, ∴, ⅓) blink and ☐☐ appears in the display.
- 2 Use the left copy quantity () key to select a user program number. The selected number will blink in the left side of the display.
- Press the start () key. The entered program number will be steadily lit and the currently selected parameter number for the program will blink on the right side of the display.
- Select the desired parameter using the right copy quantity (key. The entered parameter number will blink on the right of the display.

Program No.	Mode	Parameters
1	Auto clear time	$\begin{array}{c} 1 \rightarrow 10 \text{ sec., } 2 \rightarrow 30 \text{ sec., } *3 \rightarrow 60 \text{ sec.,} \\ 4 \rightarrow 90 \text{ sec., } 5 \rightarrow 120 \text{ sec., } 6 \rightarrow \text{OFF} \end{array}$
2	Preheat mode	*1 \rightarrow 30 sec., 2 \rightarrow 60 sec., 3 \rightarrow 5 min., 4 \rightarrow 30 min., 5 \rightarrow 60 min., 6 \rightarrow 120 min., 7 \rightarrow 240 min.
3	Auto power shut- off mode	*1 \rightarrow ON, 2 \rightarrow OFF
4	Auto power shut- off timer	$^{*}1 \rightarrow 5$ min., $2 \rightarrow 30$ min., $3 \rightarrow 60$ min., $4 \rightarrow 120$ min., $5 \rightarrow 240$ min.
10	Resolution of AUTO & MANUAL mode	*1 → 300dpi, 2 → 600dpi
21	Reset factory	1 → YES, *2 → NO
25	Copy effective paper width setting function (Bypass tray)	*1 → Large (A4 width), 2 → Small (B5R width)
26	Copy effective paper width setting function (Tray 1)	*1 → Large (A4 width), 2 → Small (B5R width)
28	Selection of copy start state (Polygon rotation on/off)	*1 \rightarrow ON, 2 \rightarrow OFF
29	Fusing temperature setting when the bypass tray is used	$1 \rightarrow \text{Low, *2} \rightarrow \text{High}$

^{*} Factory default settings are indicated with an asterisk (*).

Press the start (3) key. The right-hand number in the display will be steadily lit and the entered value will be stored.



To change the setting or to set another mode, press the clear (ⓒ) key. The unit will return to step 2.

6 Press the light () to return to the normal copy mode.

DISPLAYING TOTAL NUMBER OF COPIES

Use the following procedure to display the total number of copies.

Press and hold down the clear (©) key for approximately 5 seconds. The total number of copies will appear in two steps, each with three digits.

Example: Total number of copies is 1,234.



5

MAINTENANCE

This chapter describes how to replace the toner cartridge and how to clean unit.



Be sure to use only genuine SHARP parts and supplies.



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

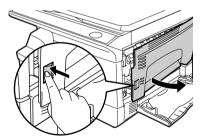
TONER CARTRIDGE REPLACEMENT

When the toner cartridge replacement required (\dot{x}) indicator lights up, replacement of the toner cartridge will be needed soon. Obtain a new cartridge. When the toner cartridge replacement required (\dot{x}) indicator blinks, the toner cartridge must be replaced before copying can be resumed. Replace the toner cartridge by following the procedure below.

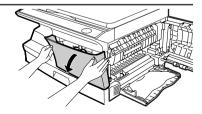


Open the multi-bypass tray, side cover, and front cover, in that order.

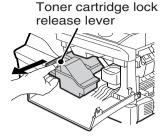
To open the multi-bypass tray, see "The multi-bypass tray" (p.10).



Push gently on both sides of the front cover to open the cover.

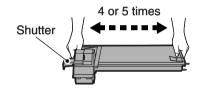


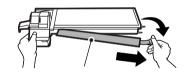
Gently pull the toner cartridge out while pressing the lock release lever.





- After removing the toner cartridge, do not shake it or tap on it. Doing so may cause toner to leak from the cartridge. Put the old cartridge immediately in the bag contained in the box of the new cartridge.
- Dispose of the old toner cartridge in accordance with local regulations.
- 4 Remove the toner cartridge from the bag. Grasp the cartridge on both sides and shake it horizontally four or five times. After shaking the cartridge, remove the toner seal.



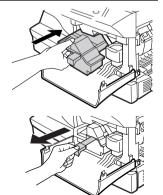


Toner seal



Grasp the toner cartridge as shown in the illustration. Do not hold the cartridge by the shutter. Be sure to only shake the cartridge before the toner seal is removed.

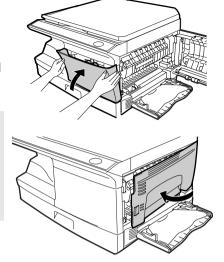
5 Gently insert the toner cartridge along the guides until it locks in place while pushing the lock release lever.
Remove the tape from the shutter. Pull the shutter out of the toner cartridge as shown in the illustration. Discard the shutter.



Close the front cover and then the side cover by pressing the round projections near the side cover open button. The indicator (::.) will go out and the start ((**)) indicator will light up.



When closing the covers, be sure to close the front cover securely and then close the side cover. If the covers are closed in the wrong order, the covers may be damaged.





Even after a new toner cartridge is installed, the start () indicator may not light up, indicating copying cannot be restarted (toner is not sufficiently fed). In this case, open and close the side cover. The copier will feed toner again approximately 2 minutes and then copying can be restarted.

TONER CARTRIDGE LIFE

To find out the approximate quantity of toner remaining, follow the procedure described below.

- Press and hold down the light (☐) key for more than 5 seconds until all the alarm indicators (☆, ৪√, ∴, ਐ) blink and "☐— appears in the display.
- Press and hold down the copy ratio display (%) key for more than 5 seconds.

The approximate quantity of toner remaining will be indicated in the display as a percentage ("100", "75", "50", "25" or "10" is displayed). When the percentage is less than 10%, ([]) will be displayed.

3 Press the light () key.
All alarm indicators wil go out.

CLEANING THE UNIT

Proper care is essential in order to get clean, sharp copies. Be sure to take a few minutes to regularly clean the unit.



Do not spray flammable cleaner gas. Gas from the spray may come in contact with the internal electrical components or high-temperature parts of the fusing unit, creating a risk of fire or electrical shock.



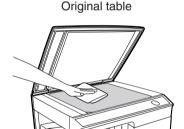
- Before cleaning, be sure to turn the power switch off and remove the power cord from the outlet.
- Do not use thinner, benzene or other volatile cleaning agents. Doing so may cause deformation, discoloration, deterioration or malfunction.

Cabinet

Wipe the cabinet with a soft, clean cloth.

Original table and the back side of the original cover

Stains on the glass or cover will also be copied. Wipe the glass and cover with a soft, clean cloth. If necessary, dampen the cloth with a glass cleaner.





Original cover

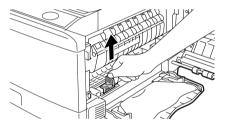
Transfer charger

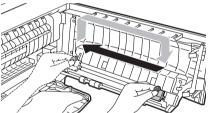
If copies start becoming streaky or blotchy, the transfer charger may be dirty. Clean the charger using the following procedure.

- Turn the power switch off. (p.14)
- Ensure that the multi-bypass tray is open and then open the side cover while pressing the side cover open button.
- Take the charger cleaner out by holding the tab. Set the charger cleaner onto the right end of the transfer charger, gently slide the cleaner to the left end, and then remove it. Repeat this operation two or three times.

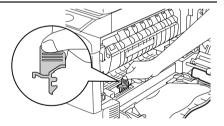


Slide the charger cleaner from the right end to the left end along the groove of the transfer charger. If the cleaner is stopped on the way, smudges on copies may occur.





Return the charger cleaner to its original position.
Close the side cover by pressing the round projections near the side cover open button.



5 Turn the power switch on. (p.13)



TROUBLESHOOTING THE UNIT

This chapter describes misfeed removal and troubleshooting.

TROUBLESHOOTING

If any problem occurs, check the list below before contacting your authorised service representative.

Problem	Possible cause	Solution	Page
	Unit plugged in?	Plug the unit into a grounded outlet.	13
l luit de ee met	Power switch on?	Turn the power switch on.	13
Unit does not operate.	Side cover closed securely?	Gently close the side cover.	24
oporato.	Front cover closed?	Gently close the front cover and then close the side cover.	24
Blank copies	Is the original placed face down on the original table?	Place the original face down on the original table.	15
Diank copies	Is the scan head locking switch locked?	Unlock the scan head locking switch.	32
	Is original image too dark or too light?	Adjust the exposure manually.	16
Copies are too dark or too light.	Is the unit in the automatic exposure mode?	Adjust the automatic exposure level.	17
	Is the unit in the photo exposure mode?	Cancel the photo exposure mode.	16
Dust, dirt, smudges appear	Original table or original cover dirty?	Clean regularly.	25
on copies.	Original smudged or blotchy?	Use a clean original.	_
Striped copies	Is transfer charger clean?	Clean the transfer charger.	26
	Non-standard paper used?	Use standard paper. If using special papers, feed the paper through the multi-bypass tray.	7
Dan an milata a da	Paper curled or damp?	Store paper flat in the wrapper in a dry location.	-
Paper misfeeds frequently.	Pieces of paper inside unit?	Remove all pieces of misfed paper.	29
moquomay.	Paper guides in the paper tray not set properly?	Set the guides properly depending on the paper size.	8
	Too much paper in the paper tray or multi-bypass tray?	Remove excessive paper from the tray.	8
	Is the paper too heavy?	Use paper within the specified range.	7
Images rub off the copy easily.	The fusing temperature is not appropriate.	In the user programs, set "Fusing temperature setting when the bypass tray is used" (program 29) to "2 (High)".	21
	Paper damp?	Replace with dry paper. If the unit is not used for long time, remove the paper from the paper tray and store it in its wrapper in a dry location.	2
Printing is not uniform between the edges of the paper and the center.	The fusing temperature is not appropriate.	In the user programs, set "Fusing temperature setting when the bypass tray is used" (program 29) to "1 (Low)".	21

STATUS INDICATORS

When the following indicators light up or blink on the operation panel or the following alphanumeric codes appear in the display, solve the problem immediately referring to both the table below and the relevant page.



Be sure to use only genuine SHARP parts and supplies.

Indication			Cause and remedy	Page
÷Ģ:	Developer replacement required indicator		Developer is required. contact your authorised service representative.	32
	Toner cartridge replacement	Steadily lit	Replacement of Toner cartridge will be needed soon. Prepare a new cartridge. (AR-208T)	22
**	required indicator	Blinking	Toner cartridge must be replaced. Replace it with a new one. (AR-208T)	22
8/\	Misfeed indicator	Blinking	A misfeed has occurred. Remove the misfed paper referring to the description of "MISFEED REMOVAL".	29
Ň	Maintenance indicator	Steadily lit	Service by an authorised SHARP service technician is required.	32
	Power save indicate	or ic	The unit is in the preheat mode. Press any key to cancel the preheat mode.	19
Power save indicator is steadily lit.		л 13	The unit is in the auto power shut-off mode. Press the start (③) key to cancel the auto power shut-off mode.	19
* *.	The paper tray indicator is blinking.		The paper tray is not installed properly. Push the tray into the unit securely.	-
EH	"CH" is blinking in the display.		The toner cartridge is not installed. Check if the cartridge is installed. If "CH" is blinking even if a cartridge is installed properly, contact your SHARP service centre immediately.	22
	"CH" is steadily lit in the display.		Side cover is open. Close the side cover securely by pressing the round projections near the side cover open button.	-
			The paper tray or multi-bypass tray is empty. Load paper.	8, 10
P	"P" is blinking in the display.		A misfeed has occurred in the paper tray or in the multi- bypass tray. Remove the misfed paper.	29
			Paper tray is not securely installed. Push the tray in securely.	-
	A letter and a number appear alternately.		The scan head locking switch is locked. Unlock the scan head locking switch and turn the power switch off/on.	ı
	alternately.		The unit will not function. Turn the power switch off and then switch it on, and if there is again an error, remove the power cord from the outlet, and contact your authorized service representative.	-
F	A letter and a number appear alternately.		The unit will not function. Turn the power switch off and then switch it on, or when the side cover is opened and then closed; and if there is again an error, check whether or not you forgot to remove the bundling tape on the cartridge.	-

MISFEED REMOVAL

When the misfeed (8%) indicator blinks or **B** blinks in the display, the unit will stop because of a misfeed.

- 1 Open the multi-bypass tray, and side cover, in that order.
 To open the multi-bypass tray, see "The multi-bypass tray" (p.10). To open the side cover, see "TONER CARTRIDGE REPLACEMENT" (p.22).
- 2 Check the misfeed location. Remove the misfed paper following the instructions for each location in the illustration below. If the misfeed (%√) indicator blinks, proceed to "A: Misfeed in the paper feed area" (p.30).

If the misfed paper is seen from this side, proceed to "C: Misfeed in the fusing area". (p.30)

If paper is misfed here, proceed to "B: Misfeed in the fusing area". (p.30)

If paper is misfed here, proceed to "A: Misfeed in the paper feed area". (p.30)

A: Misfeed in the paper feed area

1 Gently remove the misfed paper from the paper feed area as shown in the illustration. When the misfeed (৪√) indicator blinks, and the misfed paper is not seen from the paper feed area, pull out the paper tray and remove the misfed paper. If the paper cannot be removed, proceed to "B: Misfeed in the fusing area".



The fusing unit is hot. Do not touch the fusing unit when removing misfed paper. Doing so may cause a burn or other injury.



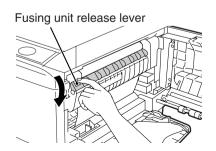
- Do not touch the photoconductive drum (green portion) when removing the misfed paper. Doing so may cause smudges on copies.
- If the paper has been fed through the multi-bypass tray, do not remove the misfed paper through the multi-bypass tray.
 Toner on the paper may stain the paper transport area, resulting in smudges on copies.



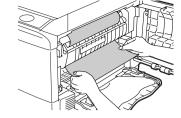
2 Close the side cover by pressing the round projections near the side cover open button. The misfeed (8\(\sigma\)) indicator will go out and the start ((\(\beta\))) indicator will light up.

B: Misfeed in the fusing area

1 Lower the fusing unit release lever.



Gently remove the misfed paper from under the fusing unit as shown in the illustration. If the paper cannot be removed, proceed to "C: Misfeed in the transport area".





The fusing unit is hot. Do not touch the fusing unit when removing misfed paper. Doing so may cause a burn or other injury.



- Do not touch the photoconductive drum (green portion) when removing the misfed paper. Doing so may cause smudges on copies.
- Do not remove the misfed paper from above the fusing unit.
 Unfixed toner on the paper may stain the paper transport area, resulting in smudges on copies.
- Raise the fusing unit release lever and then close the side cover by pressing the round projections near the side cover open button. The misfeed (%) indicator will go out and the start (3) indicator will light up.

C: Misfeed in the transport area

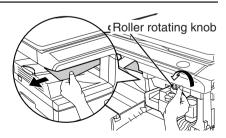
1 Lower the fusing unit release lever.

See "B: Misfeed in the fusing area" (p.30).

2 Open the front cover.

To open the front cover, see "TONER CARTRIDGE REPLACEMENT" (p.22).

Rotate the roller rotating knob in the direction of the arrow and gently remove the misfed paper from the exit area.





Raise the fusing unit release lever, close the front cover and then close the side cover by pressing the round projections near the side cover open button. The misfeed (\$%) indicator will go out and the start (\$%) indicator will light up.



When closing the covers, be sure to close the front cover securely and then close the side cover. If the covers are closed in the wrong order, the covers may be damaged.

DEVELOPER REQUIRED

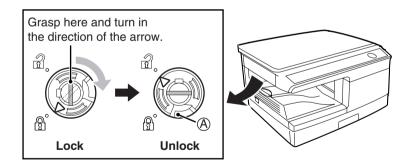
When the developer replacement required (••) indicator lights up, the developer should be replaced. DEVELOPER REPLACEMENT SHOULD ONLY BE DONE BY AN AUTORIZED SHARP SERVICE TECHNICIAN. Contact your service centre as soon as possible.

MAINTENANCE REQUIRED

When maintenance (*\vec{\psi}) indicator lights up, service by an authorised SHARP service technician is required. Contact your service centre as soon as possible.

SCAN HEAD LOCKING SWITCH

The scan head locking switch is under the original table. If the switch is locked ($\frac{1}{2}$), the unit will not operate. Unlock the switch ($\frac{1}{2}$) as shown below.



To lock the scan head locking switch, hold up the catch in illustration (A) and turn the center knob counter-clockwise 90 degrees until you hear a click.



APPENDIX

SPECIFICATIONS

Model		AR-5420		
Туре		Digital laser copier, desk-top type		
Copy system		Dry, electrostatic transfer		
Originals		Sheets, bound documents		
Paper tray		250 sheets		
Multi-bypass tray	У	50 sheets		
Paper output tra	у	200 sheets		
Original sizes		Max. A4		
Original feed		1 sheet		
Copy size		A6 to A4 *1		
Image loss		Max. 4mm * ² Max. 4.5mm * ³		
Copy speed		20 pages/min.		
Continuous copy	/ing	Max. 99 pages subtractive counter		
First-copy time (Approximately)		8.0 seconds (When user program 24 is set to OFF) 10.7 seconds (When user program 24 is set to ON) (paper: A4, exposure mode: AUTO, copy ratio: 100%)		
Copy ratio		Variable:25% to 400% in 1% increments (total 376 steps) Fixed: 50%, 70% 86%, 100%, 141%, 200%		
Exposure system		Moving optical source, slit exposure (stationary platen) with automatic exposure		
Fusing system		Heat rollers		
Development sys	stem	Magnetic brush development		
Light source		Cold cathode fluorescent lamp		
Resolution		600 x 300dpi (Auto/Manual mode) 600 x 600dpi (Photo mode)		
Gradation	Scan	256 levels		
Ciadallon	Output	2 levels		
Bit depth		1 bit or 8 bit/pixel		
Sensor		Colour CCD		
Scanning speed		Max. 2.88ms/line		
Memory		8 MB		
Power supply		Local voltage ±10% (For this copier power supply, see the name plate located on the back of the unit)		
Power consumption		1000 W		
Overall dimen-	Width	607.6mm		
sions	Depth	462.5mm		
Weight (Approximately) *4		16kg		

Model		AR-5420
Width		518mm
Unit dimensions	Depth	462.5mm
	Height	295.6mm
Operating conditions		Temperature: 10°C to 30°C Humidity: 20% to 85%
Noise level		Sound Power Level LwA (1B=10dB) Copying: 6.4 [B] Standby: 3.3 [B] Sound Pressure Level LpA (bystander positions) Copying: 48 [dB (A)] Standby: 17 [dB (A)] Sound Pressure Level LpA (operator position) Copying: 52 [dB (A)] Standby: 17 [dB (A)] Noise emission measurement in accordance with ISO 7779.
OptEmission concentration (measurement according to RAL-UZ 62)		Ozone: less than 0.02 mg/m ³ Dust: less than 0.075 mg/m ³ Styrene: less than 0.07 mg/m ³

^{*1} Feed paper lengthwise only.

^{*4} Not includes toner and drum cartridges.



As a part of our policy of continuous improvement, SHARP reserves the right to make design and specification changes for product improvement without prior notice. The performance specification figures indicated are nominal values of production units. There may be some deviations from these values in individual units.

ABOUT SUPPLIES

When ordering supplies, please use the correct part numbers as listed below.



Be sure to use only genuine SHARP parts and supplies.



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 copiers. Look for the Genuine Supplies label on the toner package.

Supply list

Supply	Part number	Usable life
Toner cartridge	AR-208T	Approx. 8,000 sheets*

^{*}Based on copying onto A4-type paper at 6% toned area.

^{*2} Leading and trailing edges.

^{*3} Along the other edges in totals.

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CAUTION

CLASS 3B INVISIBLE LASER RADIATION WHEN OPEN AND INTERLOCKS DEFEATED. AVOID EXPOSURE TO BEAM.

VORSICHT

UNSICHTBARE
LASERSTRAHLUNG DER
KLASSE 3B, WENN
ABDECKUNG GEÖFFNET UND
SICHERHEITSVERRIEGELUNG
ÜBERBRÜCKT. NICHT DEM
STRAHL AUSSETZEN.

ADVARSEL

USYNLIG LASERSTRÅLING AF KLASSE 3B VED ÅBNING, NÅR SIKKERHEDSBRYDERE ER UDE AF FUNKTION. UNDGÅ UDSÆTTELSE FOR STRÅLING.

ADVARSEL

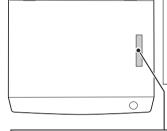
USYNLIG KLASSE 3B LASERSTRÅLING NÅR DEKSEL ÅPNES OG SIKKERHEDSLÅS BRYTES. UNNGÅ EKSPONERING FOR STRÅLEN.

VARNING

OSYNLIG LASERSTRÅLNING KLASS 3B NÄR DENNA DEL ÄR ÖPPNAD OCH SPÄRRAR ÄR URKOPPLADE. UNDVIK EXPONERING FÖR STRÅLEN.

VARO

AVATTAESSA JA SUOJALUKITUS OHITETTAESSA OLET ALTTIINA NÄKYMÄTÖNTÄ LUOKAN 3B LASERSÄTEILYLLE. ÄLÄ KATSO SÄTEESEEN.





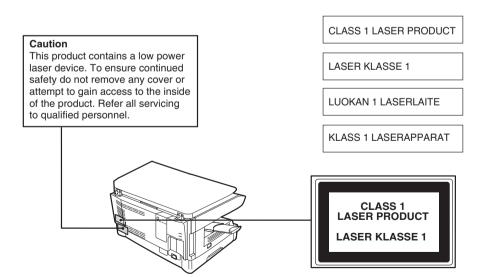
CAUTION CLASS BE INVESTIGATED FOR AN OHTERLOCKS DEFEATE.

ADVERSEL

WORKLICH INSCRIPTION HER PROMOTION WHEN OPEN AND INTERLOCKS DEFEATE.

ADVERSEL

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