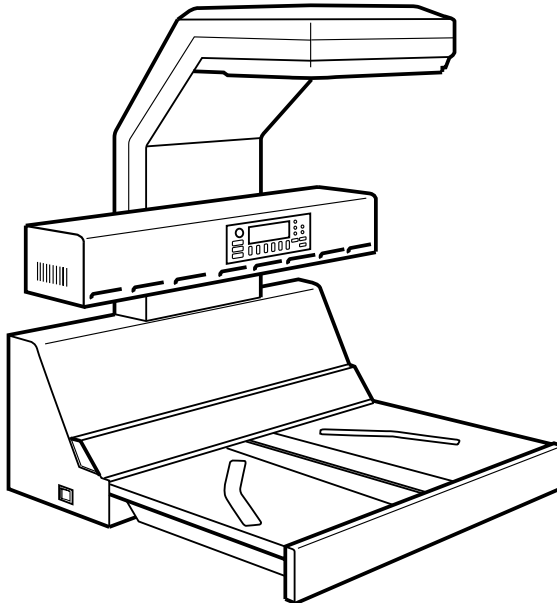




PS7000

PC version

Operator's Manual



SAFETY INFORMATION



This section contains detailed instructions on the operation and maintenance of this machine. To achieve optimum utility of this device, all operators should carefully read and follow the instructions in this manual. Please keep this manual in a handy place near the machine.

Please read the next section before using this device. It contains important information related to user safety and preventing equipment problems.

Make sure you observe all of the precautions listed in this manual.

*Please note that some parts of the contents of this section may not correspond with the purchased product.

■ Warning and Precaution Symbols

 WARNING:	Ignoring this warning could cause serious injury or even death.
 CAUTION:	Ignoring this caution could cause injury or damage to property.

■ Meaning of Symbols



A triangle indicates a danger against which you should take precaution.



This symbol warns against possible electrical shock.



A diagonal line indicates a prohibited course of action.



This symbol warns against dismantling the device.



A black circle indicates an imperative course of action.



This symbol indicates you must unplug the device.

WARNING



- Do not modify this product, as a fire, electrical shock, or breakdown could result. If the product employs a laser, the laser beam source could cause blindness.
- Do not attempt to remove the covers and panels which have been fixed to the product. Some products have a high-voltage part or a laser beam source inside that could cause an electrical shock or blindness.



- Only use the power cord supplied in the package. Failure to use this cord could result in a fire or electrical shock.
- Use only the specified power source voltage. Failure to do that could result in a fire or electrical shock.
- Do not use a multiple outlet adapter to connect any other appliances or machines. Use of a power outlet for more than the marked current value could result in a fire or electrical shock.



Do not unplug and plug in the power cord with a wet hand, as an electrical shock could result.



Plug the power cord all the way into the power outlet. Failure to do this could result in a fire or electrical shock.



- Do not scratch, abrade, place a heavy object on, heat, twist, bend, pull on, or damage the power cord. Use of a damaged power cord (exposed core wire, broken wire, etc.) could result in a fire or breakdown. Should any of these conditions be found, immediately turn OFF the power switch, unplug the power cord from the power outlet, and then call your authorized service representative.
- In principle, do not use an extension cord. Use of an extension cord could cause a fire or electrical shock. Contact your authorized service representative if an extension cord is required.

WARNING



Do not place a flower vase or other container that contains water, or metal clips or other small metallic objects on this product. Spilled water or metallic objects dropped inside the product could result in a fire, electrical shock, or breakdown.

Should a piece of metal, water, or any other similar foreign matter get inside the product, immediately turn OFF the power switch, unplug the power cord from the power outlet, and then call your authorized service representative.



- If this product becomes inordinately hot or emits smoke, or unusual odor or noise, immediately turn OFF the power switch, unplug the power cord from the power outlet, and then call your authorized service representative. If you keep on using it as is, a fire or electrical shock could result.
- If this product has been dropped or its cover damaged, immediately turn OFF the power switch, unplug the power cord from the power outlet, and then call your authorized service representative. If you keep on using it as is, a fire or electrical shock could result.



Do not throw the toner cartridge or toner into an open flame. The hot toner may scatter and cause burns or other damage.



Connect the power cord to an electrical outlet that is equipped with a grounding terminal.

CAUTION



- Do not use flammable sprays, liquids, or gases near this product, as a fire could result.
- Do not leave a toner unit or drum unit in a place within easy reach of children. Licking or ingesting any of these things could injure your health.
- Do not let any object plug the ventilation holes of this product. Heat could accumulate inside the product, resulting in a fire or malfunction.
- Do not install this product at a site that is exposed to direct sunlight, or near an air conditioner or heating apparatus. The resultant temperature changes inside the product could cause a malfunction, fire, or electrical shock.
- Do not place the product in a dusty place, or a site exposed to soot or steam, near a kitchen table, bath, or a humidifier. A fire, electrical shock, or breakdown could result.
- Do not place this product on an unstable or tilted bench, or in a location subject to a lot of vibration and shock. It could drop or fall, causing personal injury or mechanical breakdown.
- After installing this product, mount it on a secure base. If the unit moves or falls, it may cause personal injury.
- Do not store toner units and PC drum units near a floppy disk or watch that are susceptible to magnetism. They could cause these products to malfunction.



The inside of this product has areas subject to high temperature, which may cause burns. When checking the inside of the unit for malfunctions such as a paper misfeed, do not touch the locations (around the fusing unit, etc.) which are indicated by a “Caution! High Temperature!” warning label.



Do not place any objects around the power plug as the power plug may be difficult to pull out when an emergency occurs.



CAUTION



- Always use this product in a well ventilated location. Operating the product in a poorly ventilated room for an extended period of time could injure your health. Ventilate the room at regular intervals.
- Whenever moving this product, be sure to disconnect the power cord and other cables. Failure to do this could damage the cord or cable, resulting in a fire, electrical shock, or breakdown.
- When moving this product, always hold it by the locations specified in the operator's manual or other documents. If the unit falls it may cause severe personal injury. The product may also be damaged or malfunction.
- Remove the power plug from the outlet more than one time a year and clean the area between the plug terminals. Dust that accumulates between the plug terminals may cause a fire.
- When unplugging the power cord, be sure to hold onto the plug. Pulling on the power cord could damage the cord, resulting in a fire or electrical shock.

Precautions for Routine Use



- Do not store toner units, PC drum units, and other supplies and consumables in a place subject to direct sunlight and high temperature and humidity, as poor image quality and malfunction could result.
- Do not attempt to replace the toner unit and PC drum unit in a place exposed to direct sunlight. If the PC drum is exposed to intense light, poor image quality could result.
- Do not unpack a toner unit or PC drum unit until the very time of use. Do not leave an unpacked unit standing. Install it immediately or poor image quality could result.
- Do not keep toner units and PC drum units in an upright position or upside down, as poor image quality could result.
- Do not throw or drop a toner unit or PC drum unit as poor image quality could result.
- Do not use this product in an area where ammonia or other gases or chemicals are present. Failure to do so may shorten the service life of the product, cause damage or decrease performance.
- Do not use this product in an environment with a temperature outside the range specified in the operator's manual, as a breakdown or malfunction could result.
- Do not attempt to feed stapled paper, carbon paper or aluminum foil through this product, as a malfunction or fire could result.



Do not touch or scratch the surface of the toner unit developing roller and the PC drum, as poor image quality could result.



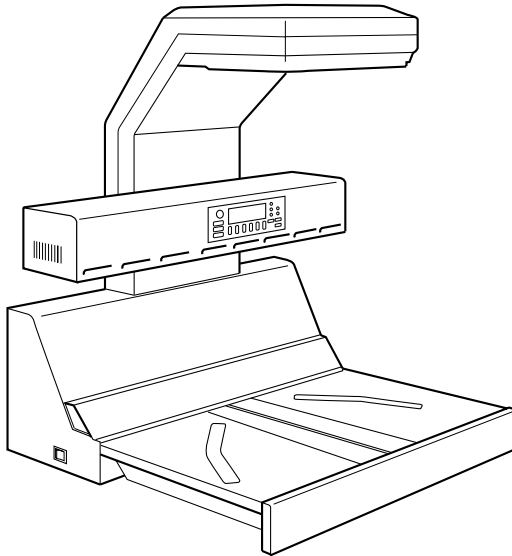
Use the supplies and consumables recommended by the dealer. Use of any supply or consumable not recommended could result in poor image quality and breakdown.

Welcome

Thank you for choosing Minolta quality. For over 30 years Minolta has been a leader on the forefront of office equipment technology and service. Our desire has always been to bring you highly reliable products. We pledge to continue to provide you, our customer with our state of the art equipment, as well as full customer service for all our products. We look forward to a long healthy relationship with you and our company. If you have any questions or comments about Minolta, our product or service, please let us know. Our fax number is 800-237-8087 (for U.S.A. and Canada). Thank you again.

This operator's manual explains how to operate the unit and replenish its supplies. It also gives some troubleshooting tips as well as general precautions to be observed when operating the unit.

To ensure the best performance and effective use of your unit, read this manual carefully until you familiarize yourself thoroughly with the unit's operation and features. Please keep this manual and use it as a quick and handy reference tool for immediately clarifying any questions that may arise.



Please follow the instructions given in this manual when handling the system and do not touch any part of the system the manual does not cover. NEVER attempt to disassemble or remodel the system.

The contents of this manual are subject to change without notice. No part of this manual may be quoted, reproduced, or translated into any other language.

Introduction

Thank you for choosing our Book Scanner (herein after referred to as the Scanner).

This operator's manual includes precautions for installation/operation of the Scanner, a system outline, an explanation of the Driver software, operation procedures for the Scanner, troubleshooting tips, maintenance, and product specifications.

Before operating the Scanner, read this manual carefully until you familiarize yourself thoroughly with its operation and features. After you have read through the manual, keep it for ready reference.

Please also note the following precautions.

Safety Information

All area

Use the shielded cable furnished with the system for this system. Use of an unshielded cable invites radio frequency interference.

Always refer to this manual when operating the scanner and do not attempt to touch the scanner parts for which no explanations are given in the text.

NEVER attempt to disassemble or remodel the scanner, as it is very dangerous.

Call your authorized dealer when you want to move a scanner which has been installed.

U.S.A. only

NOTE

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

WARNING

The design and production of this unit conform to FCC regulations, and any changes or modifications must be registered with the FCC and are subject to FCC control. Any changes made by the purchaser or user without first contacting the manufacturer will be subject to penalty under FCC regulations.

Copyright

Books, magazines, journals and other materials may be copyrighted. Unauthorized scanning into a computer and subsequent printing of such copyrighted materials may be contrary to the provisions of the United States copyright laws, title 17 of the United States Code.

You are encouraged to obtain a license from an organization such as the Copyright Clearance Center in those circumstances where it is appropriate.

Post a copy of the above notice where it will be clearly visible to users of the scanner.

Scanning into a computer and subsequent printing of the following is also prohibited by law under some circumstances.

- 1.Paper Money of the United States or any Foreign Government
- 2.Obligations or Securities of the United States
- 3.Postage stamps, Postal Money Orders or Internal Revenue Stamps
- 4.Passports
- 5.Badges, Identification Card, Passes or Insignia carried by Federal Departments
- 6.Obligations or Securities of any Foreign Government, Bank or Corporation

The above list is not all inclusive, and no liability is assumed for its completeness. In case you have doubt, consult your lawyer.

Canada only

This Class A digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

Europe only

CE Marking (Declaration of Conformity)

We declare under our sole responsibility that the scanner and options to which this declaration relates is in conformity with the specifications below.

This declaration is valid for the area of the European Union (EU) only.

Product Type	Book Scanner
Product Name	PS7000
Options	Foot Switch, Grayscale Memory Board
Accessory	PC I/F Kit
Standards	<p>Safety : EN60 950 / 1992 A1, A2, A3, A4 (Safety of information technology equipment, including electrical business equipment)</p> <p>EMC : EN55 022 (Class B) / 1998 (Information technology equipment - Radio disturbance characteristic - Limits and method for measurement) EN61000-3-2 /1995 A1, A2 Electromagnetic compatibility (EMC) — Part 3: Limits — Section 2: Limits for harmonic current emissions (equipment input current up to and including 16 A per phase) EN61000-3-3/1995 Electromagnetic compatibility (EMC) — Part 3: Limits — Section 3: Limitation of voltage fluctuations and flicker in low -voltage supply systems for equipment with rated current up to and including 16A EN50 024 / 1998 (Information technology equipment - Immunity characteristic - Limits and method for measurement) EN61000-4-2 (Electromagnetic compatibility (EMC) Part 4: Testing and measuring techniques Section 2: Electrostatic discharge immunity test) EN61000-4-3 (Section 3: Radiated, radio-frequency electromagnetic field immunity test) EN61000-4-4 (Section 4: Electrical fast transient/burst immunity test) EN61000-4-5 (Section 5: Surge immunity test) EN61000-4-6 (Section 6: Conducted disturbances induced by radio-frequency fields immunity test) EN61000-4-8 (Section 8: Power-frequency magnetic field immunity test) EN61000-4-11 (Section 11: Voltage dips, short interruptions and voltage variations immunity test)</p>
EC Directives	<p>Safety : 73 / 23 / EEC EMC : 89 / 336 / EEC and 93 / 68 / EEC</p>

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Organization

This manual consists of the following seven chapters. Chapters 1 and 2 contain basic information about the Scanner, including safety precautions for installation/operation, system configuration, and features. Be sure to read these chapters before using the Scanner.

Chapter 1 Precautions for Installation & Operation

Provides safety precautions required to ensure correct installation and operation of the Scanner.

Chapter 2 Overview

An overview of the features, system configuration, functions and part names for each section and control panel.

Chapter 3 PS7000 Twain Driver

Describes installation and start-up procedures for the Twain Driver, as well as the options available on the image scanning screen.

Chapter 4 PS7000 ISIS Driver

Describes installation and start-up procedures for the ISIS Driver, as well as the options available on the image scanning screen.

Chapter 5 Operation

Describes operation precautions and procedures (including control panel descriptions), menu flow charts, and settings for each function.

Chapter 6 Troubleshooting

Describes error and warning messages that appear on the control panel, and procedures for eliminating these problems.

Chapter 7 Maintenance

Describes daily maintenance required for satisfactory operation of the Scanner.

Chapter 8 Specifications

Complete specifications of the Scanner.

NOTE

In this manual, important points requiring special attention are described in sections marked with "NOTE". Messages and menu/command names that appear on the control panel and computer screen are shown in brackets []. Referenced chapters or their titles are enclosed by double quotation marks " ".

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Chapter 1

Precautions for Installation & Operation

Installation

Installation environment

Install the Scanner in a location which meets the following requirements to ensure safe operation and utmost performance.

- ◆ A place where the illumination onto the book table is less than 1000 lx (e.g. 4.5 m x 6.5 m area with ceiling height of 2.6 m, and 12 or less 40 W fluorescent lamps).
- ◆ A place where light from the lighting system or the outside through windows does not reflect on the steel mirror or hit the Scanner unit
- ◆ A place away from curtains or other objects that catch fire and burn easily.
- ◆ A place where there is no possibility of being splashed with water or other liquid.
- ◆ An area free from direct sunlight.
- ◆ A place not in the direct air stream from an air conditioner, heater, and/or ventilator, ensuring fairly constant temperature.
- ◆ A well-ventilated place.
- ◆ A dry place.
- ◆ A dust-free location.
- ◆ An area not subject to undue vibration.
- ◆ A stable and level surface.

Power source

The power source voltage requirements are as follows.

- ◆ Use a power source with little voltage/frequency fluctuations.

Voltage fluctuation:	120 VAC	±10%,	220-240 VAC ±10%
Frequency fluctuation:	50 Hz	±3 Hz	
	60 Hz	±3 Hz	
- ◆ If any other electrical equipment uses the same power outlet, make sure that the capacity of the outlet is not exceeded.
- ◆ The outlet should be located near the Scanner and easily accessible so that power cord can be disconnected whenever necessary.
- ◆ NEVER use a multiple adapter to connect other equipment or machines to the outlet used by the Scanner.
- ◆ If an extension cord is required, use one with a capacity higher than the power consumption of the Scanner.
- ◆ Make sure that no unusual, excessive force is applied to the power cord or extension cord.

Grounding

Connect the Scanner's ground wire to any of the following to prevent electrical shocks due to electrical leakage.

- ◆ Ground terminal of the outlet.
- ◆ Ground contact that complies with local electrical standards.

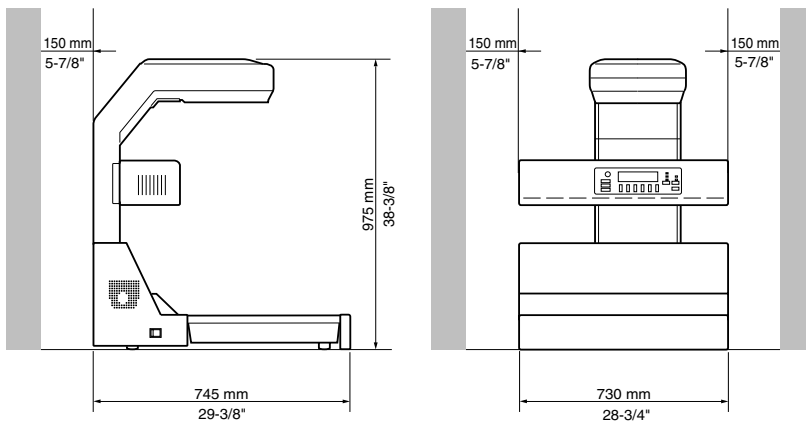
Never connect the ground cable to a gas pipe, ground wire for a telephone line, or a water pipe.

Moving the Scanner

Please contact your authorized dealer before moving the Scanner to a new installation location.

Space requirements

- ◆ Secure the recommended space shown in the figure below to ensure easy operation and maintenance of the Scanner.



Operation

Operating environment

The following environment is required for consistent performance of the Scanner.

- Temperature: 50 to 95°F (10 to 35°C) with temperature variation not exceeding 50°F (10°C) per hour
- Humidity: 15 to 85%RH with humidity variation not exceeding 20%RH per hour

Precautions when operating the Scanner

Observe the following precautions to ensure the optimum performance of the Scanner.

- ◆ NEVER place any object other than the original on the book table or apply excessive pressure to the book table.
- ◆ NEVER turn the power switch off during operation.
- ◆ NEVER bring any magnetized object or use flammable sprays/liquids near the Scanner.
- ◆ NEVER place a vase or vessel containing water on the Scanner.
- ◆ NEVER drop paper clips, staples, or other small pieces of metal into the Scanner. If this occurs, contact your authorized dealer.
- ◆ NEVER remove the shading plate (refer to page 2-3), outer cover, mirror, or control panel. Always keep the shading plate clean (refer to page 7-1).
- ◆ NEVER place the Scanner or the cabinet on the power cord or interface cables of other electrical equipment.
- ◆ NEVER leave a damaged or cracked power cord or interface cable unrepaired. If any of these conditions are found, immediately shut down the Scanner, unplug the power cord, and call your authorized dealer for appropriate action.
- ◆ NEVER place an object on the lamp unit.
- ◆ ALWAYS completely insert the power cord plug into the power outlet.
- ◆ ALWAYS make sure that the outlet into which the power cord plug is inserted is visible.
- ◆ ALWAYS be sure to turn the power switch off, unplug the power cord, and call your authorized dealer for appropriate action when the Scanner becomes excessively hot or produces abnormal noise.
- ◆ NEVER place the original or any other object in front of the exhaust outlet of the cooling fan located on either side of the product body, or the exhaust outlet will be blocked, causing the failure to the product.

NOTE

We recommend that you take a 5 minute break every hour to rest your eyes when operating the Scanner.

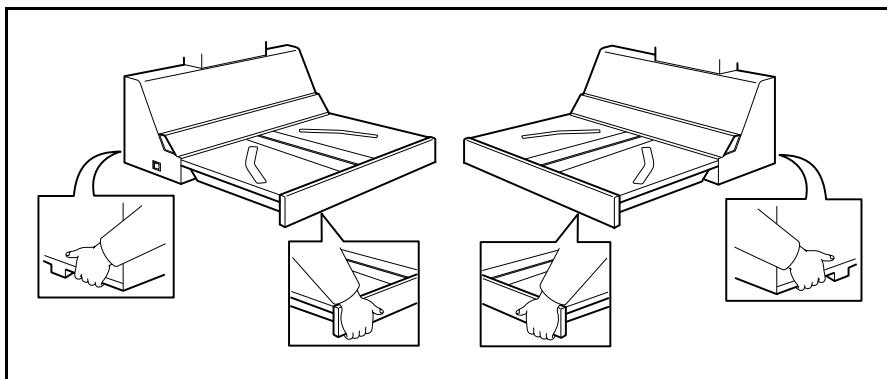
Precautions when operating the personal computer

Refer to the operation manual provided for the personal computer.

Moving the Scanner

When moving the Scanner, observe the following.

- ◆ The Scanner body weighs 64 kg. When carrying the Scanner, hold the parts identified with arrows in the below figure. Be careful not to hurt your back or waist. Do not carry the Scanner alone but with your mate or mates.
- ◆ When moving the Scanner, be sure to disconnect the power cord and the interface cable.
- ◆ When transporting the Scanner, contact your authorized Dealer.



NOTE

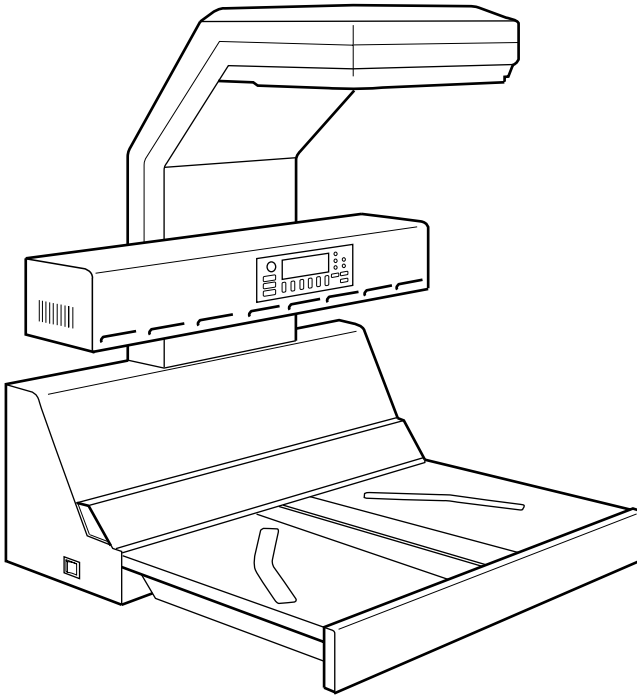
Never hold any parts other than the parts identified with arrows in the figure (e.g., lamp cover, book table), or the Scanner may have trouble.

Chapter 2

Overview

Features

The Scanner is designed to scan books set face up on the book table. This makes setting the book very easy and reduces concerns that the book may be creased or damaged. In addition, warped text lines and text compression are corrected, ensuring clearer images. Various options such as a foot switch etc. are also provided.

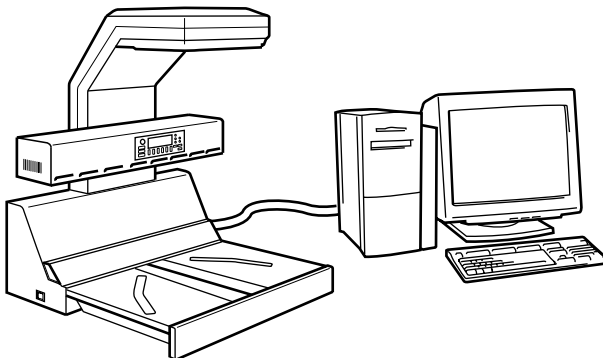


System configuration

The Scanner is available in the following configurations.

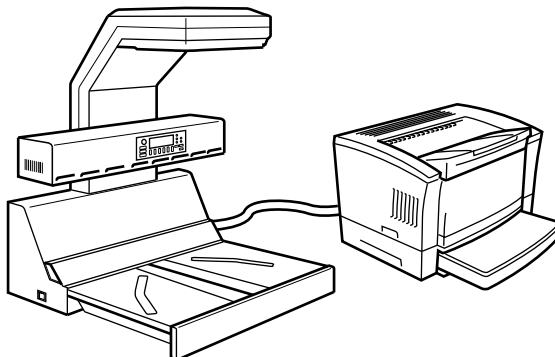
PC version (connected to a personal computer)

The Scanner is connected to a personal computer and the scanned images can be uploaded to the computer.



PR version (connected to a printer)

The Scanner is connected to a dedicated printer, allowing scanned images to be printed out directly.

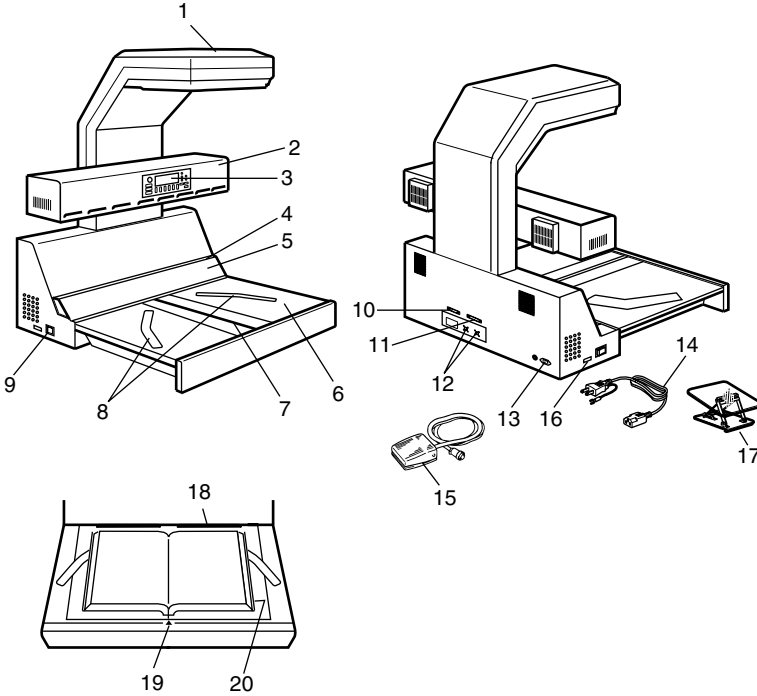


◆ This manual describes the PC version.

NOTE

- Connection to a personal computer and printer can be switched using [Output] in the [User Mode] menu.
 - A dedicated printer and the corresponding PR interface kit are required for connection to a printer. Contact your authorized dealer for details.
-

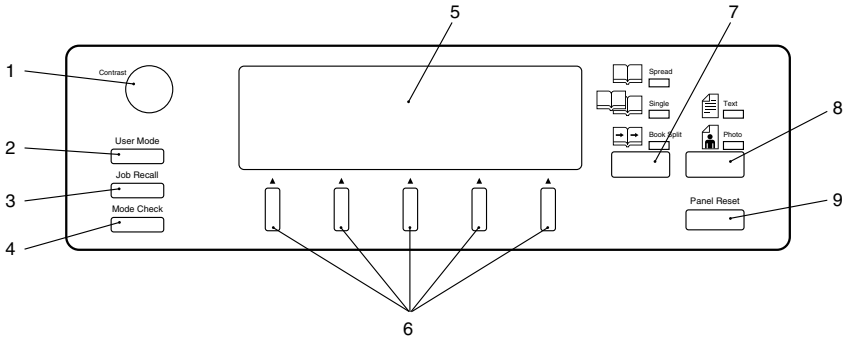
Part identification and functions



- | | |
|-------------------------------|---|
| 1. Scanner unit: | The CCD sensor housed in this unit scans the original. |
| 2. Lamp unit: | Illuminates the original when the scanner unit reads the image. |
| 3. Control panel: | Used to set the operating mode, and displays operating status and error/warning messages. |
| 4. Shading plate: | Used to adjust the exposure. |
| 5. Steel mirror: | Detects the position (height) of the original. |
| 6. Book table: | Place the original (book) face up on this table. |
| 7. Table center: | When a special binder or the like is used for the spine (binding part) and the height of the original is 65 mm or more, this center of the book table is pushed down to lower the spine (binding part) of the original to a height acceptable for scanning. |
| 8. Start key: | Press this key to start scanning the original. |
| 9. Power switch: | Turns the Scanner on and off. |
| 10. Printer connector: | Connect the printer cable to this connector. |

-
11. **SCSI connector:** Connect the SCSI cable included in the interface kit. When multiple SCSI devices are connected to the personal computer, connect the Scanner at the end of the SCSI chain. (Optional PC interface kit is required) The total length of the SCSI cables must be 6 m or less when used for daisy-chaining all the SCSI units alone or 3 m or less when used for daisy-chaining all the SCSI units and SCSI-2 units.
12. **Foot switch connector:** Connect the foot switch (option) cable to this connector. Use the left terminal (viewed from the rear) to read the right page when the foot switch is pressed, and the right terminal for the left page. Either terminal can be used when reading two spread pages.
13. **Power cord socket:** Plug the power cord into this socket.
14. **Power cord:** Connects the Scanner to the power outlet.
15. **Foot switch (option):** Press this switch instead of the start key on the book table to start scanning. Used when a large original is covering the start key.
16. **Counter:** Counts the number of originals scanned.
17. **Angle book holder (option):** Used to scan the original whose spine (binding part) should not be damaged (e.g., precious book).
18. **Stopper:** Used as the reference position for the original. When placing the original, align its top edge with this position.
19. **Center mark:** Adjust the center of the original to this mark.
20. **Size guide:** Indicates the scannable range of the original.

Control panel keys



- | | |
|-------------------------------|---|
| 1. Contrast knob: | Adjusts the contrast (luminosity) of the display. |
| 2. User Mode key: | Allows you to customize settings. |
| 3. Job Recall key: | Recalls settings previously registered in User Mode. |
| 4. Mode Check key: | Displays the current settings. |
| 5. Display: | Displays current status, operation instructions, warning messages, and functions available for selection. |
| 6. Selection keys: | Used to select functions shown on the display. |
| 7. Page Selection key: | Used to select [Spread] scanning (two pages), [Single] scanning (either right or left page only), or [Book Split] scanning (right and left pages separately). |
| 8. Image key: | Used to select the image type (Text or Photo). |
| 9. Panel Reset key: | Resets the settings to defaults. |

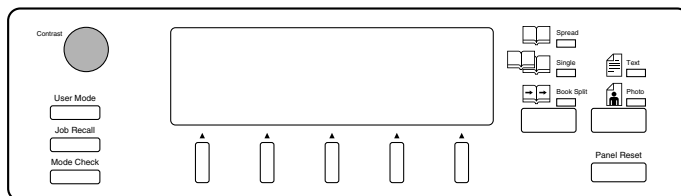
Functions of control panel keys

The control panel keys control the following functions.

1. Contrast knob

Adjusts the contrast (luminosity) of the display.

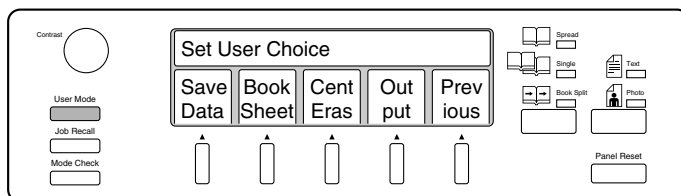
Turning the volume clockwise and counterclockwise increases and decreases the contrast respectively.



2. User Mode key

Customized settings can be stored.

Pressing this key displays the user mode menu. The desired menu can be selected by pressing the relevant selection key.

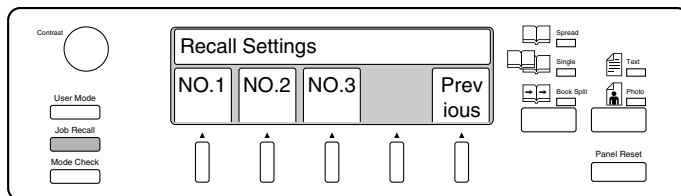


Refer to page 5-16 "Menu flow chart" for details of each menu.

3. Job Recall key

Recalls settings previously registered in User Mode.

Pressing this key displays preset programs (scanner settings). The desired program can be selected by pressing the relevant selection key.

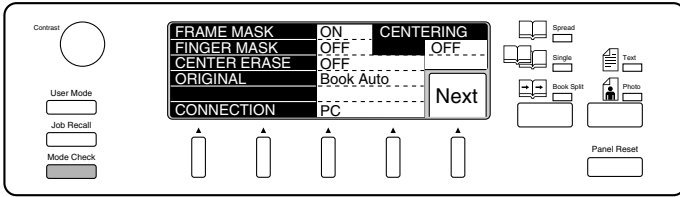


Press the User Mode key and select [Save Data] when registering a job.

Control panel keys

4. Mode Check key

Pressing this key displays current settings.

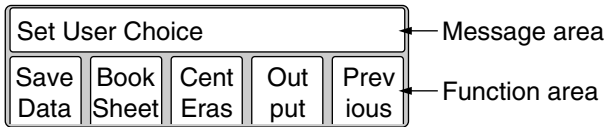


5. Display

Operating status, operation instructions, warning messages, and available functions are displayed here.

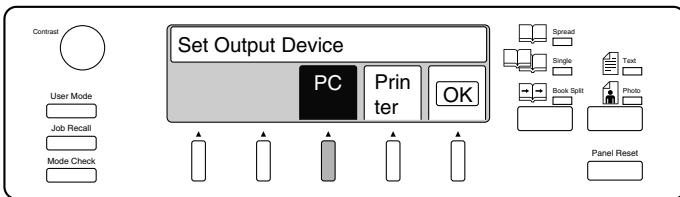
Message area: Operating status, operation instructions, warning messages, and settings (number of pages to be scanned, resolution, etc.) are displayed here.

Function area: Available functions are displayed here. Use the selection keys below the display to select or set functions. The specified function is highlighted.



6. Selection keys

These keys are used to select the functions displayed. Press the key immediately below the desired item to select it. The specified item is highlighted when selected.



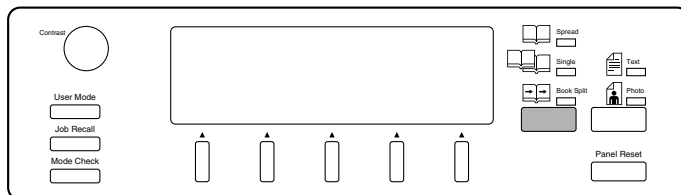
7. Page key

The type of scanning is selected. The lamp of the selected mode lights.

Spread: Both pages are scanned as one sheet.

Single: Only the right or left page is scanned.

Book Split: Right and left pages are scanned separately.

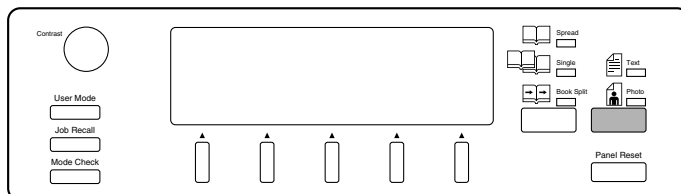


8. Image key

The image type can be selected to suit the original. The lamp of the selected mode lights.

Text: Suitable for scanning text. The outline is accentuated to obtain a clearer image.

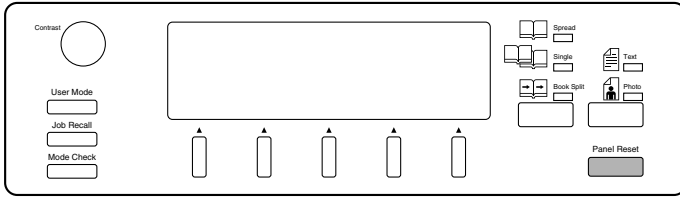
Photo: Suitable for scanning photographs. Half tones can be reliably reproduced.



Control panel keys

9. Panel Reset key

Pressing this key returns all settings to their default settings, and displays the main menu. All settings revert to default settings when the power switch is turned on.



Default settings are as follows.

Item		Default Setting
Connect		PC
Book/Sheet		Book mode
Page		Spread
Image		Text
Edit	Center erase	OFF (width: 5 mm, position: Auto)
	Frame masking	ON
	Finger masking	OFF
	Centering	OFF
Exposure		Auto (Center)
Resolution		600 dpi
Size		A3 Landscape (Metric Area) 11" x 17" Landscape (Inch Area)
Quality	Original Type	Auto
	Scale	2 scale (binary)
	Contrast	○ (0), ● (0)

Default settings can be changed in Utility mode. Refer to page 5-47 for details.

Chapter 3

PS7000 Twain Driver

Installation

The PS7000 Twain Driver (hereinafter referred to as the Driver) must be installed on the personal computer connected to the Scanner to read images from it. This chapter describes the system requirements of the personal computer and the installation procedures of the Driver. Moreover, please read the Readme.txt file in the floppy disk of Twain Driver.

System environment

The following are the minimum system requirements for the computer connected to the Scanner to install the Driver.

Computer	Compatible with IBM PC/AT
OS	WindowsNT4.0, Windows95, Windows98
Required memory	Grayscale Scan: Max. 68 MB or less for the Twain driver only Binary Scan: Max. 10MB or less for the Twain driver only (additional memory required for the OS and other applications)
Application software	Application software compatible with Twain32 (32-bit application compatible with Windows95/98/NT)
Recommended SCSI Host Adapter	SCSI Host Adapter manufactured by Adaptec (AHA-2940Ultra, 2940AU, 2930U)

The operator should be completely familiar with basic Windows operations.

NOTE

Before installing PS7000 Twain Driver, install Adaptec Aspi Ver. 4.6 or advanced in your PC. If Adaptec Aspi is older than Ver. 4.6, PS7000Twain driver will not work.

Adaptec Aspi is not supplied together with the product.

Obtain the [Windows 95/98/NT 4.0 ASPI32.EXE] file from [update of Windows 95/98/NT 4.0 mini-port driver ASPI layer] available in the Adaptec's home page.

Installation procedure

Follow the procedure below to install the Driver.

*Screens may differ slightly depending on the Windows version.

- 1 Check that the Scanner is connected to the personal computer.
- 2 Turn on the power switch of the Scanner (refer to “Turning on” on page 5-3), and then turn the personal computer on to start Windows.

[When using Windows95]

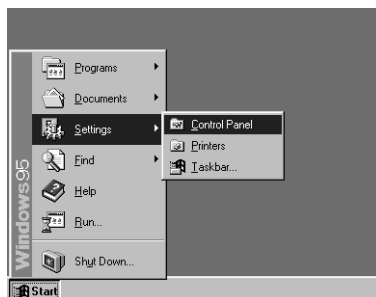
Select [Driver from disk provided by hardware manufacturer] and click the [OK] button when the following screen appears.



The screen shown below appears. Insert the Twain Driver floppy disk into the floppy disk drive (generally drive “A”) of the personal computer and click the [OK] button.

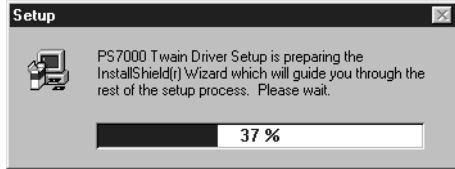
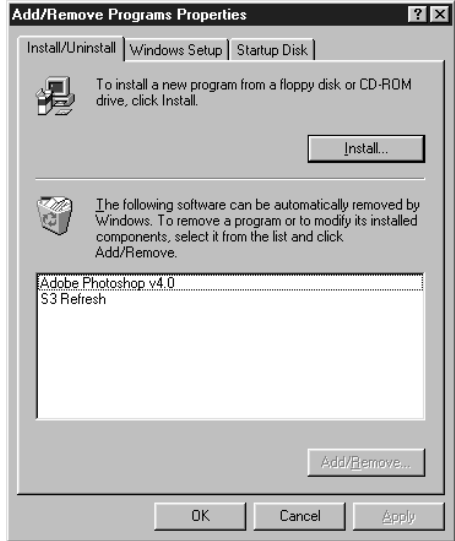


- 3 After window's has started, set the Twain Driver floppy disk into the computer's floppy desk drive.
- 4 Click the [Start] button and select [Settings] → [Control Panel].

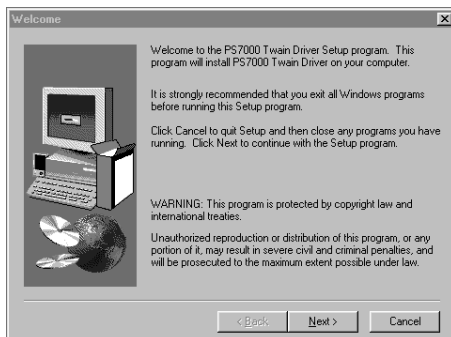


Installation

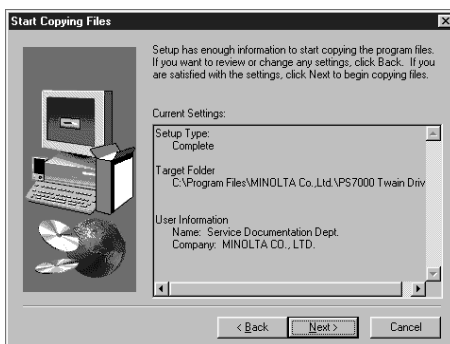
- 5 Double-click [Add/Remove Programs].
- 6 Select the [Install/Uninstall] tab. Click the [Install...] button.
- 7 A screen appears informing you that the driver is preparing for set up.



- 8** The installation confirmation screen appears. Click the [Next >] button to start installation.



- 9** The confirmation screen to start copying appears. Check the current settings and click the [Next >] button.



- 10** Copying files is started.

- 11** The complete setup confirmation screen appears. Click the [Finish] button to complete installation.



NOTE

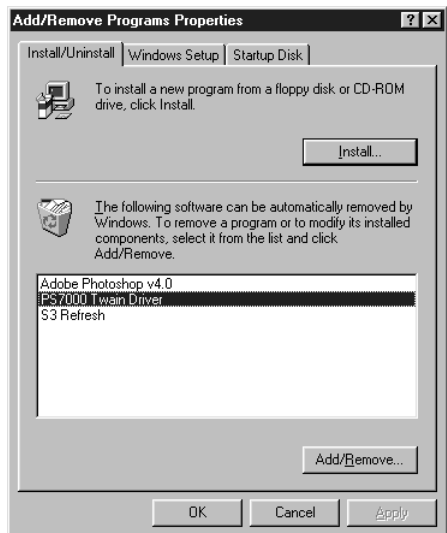
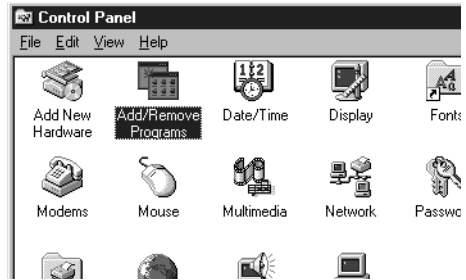
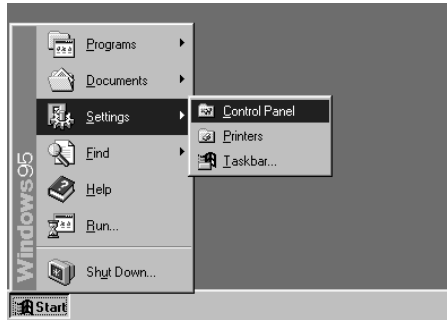
Eject the installation floppy disk from the computer and restart Windows after installation has been completed.

Uninstall

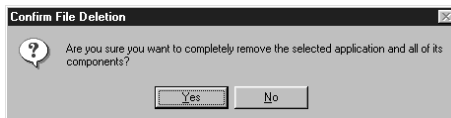
Remove the Driver from the computer when it is no longer required.

Uninstall procedure

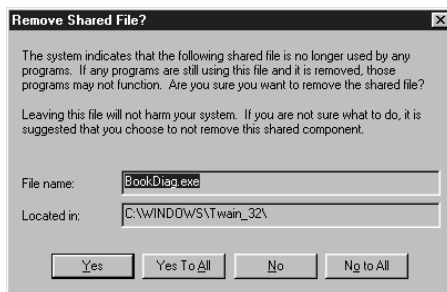
- 1 Click the [Start] button and select [Settings] → [Control Panel].
- 2 Double-click [Add/Remove Programs].
- 3 Select the [Install/Uninstall] tab. Select [PS7000 Twain Driver] from the list and click the [OK] button.



- 4 The uninstall confirmation screen appears. Click the [Yes] button to start uninstallation.



- 5 The "Remove Shared File?" screen appears. Click the [Yes to All] button.



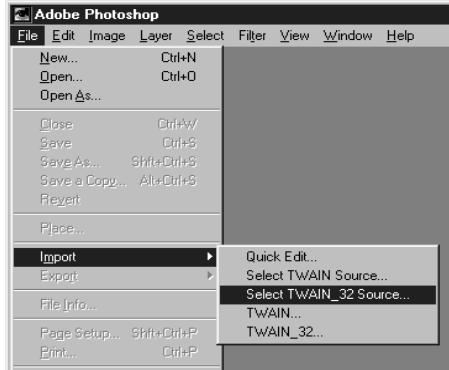
- 6 The screen indicates the shared files are being deleted. Click the [OK] button when completed.



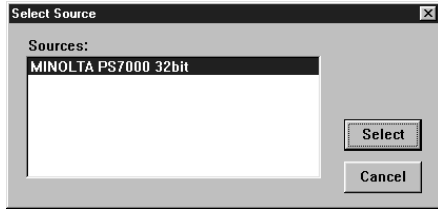
Start-up

The Driver can be started from any Twain compatible application. The start up procedure when using Adobe Photoshop 4.0 is described below.

- 1 Start Adobe Photoshop 4.0.
Select [File] → [Import] → [Select Twain_32 Source].



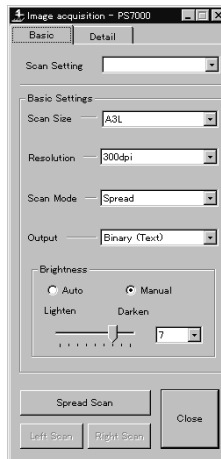
- 2 Select [MINOLTA PS7000 32bit] in the Select Source screen and click the [Select] button.
Steps 1 and 2 described above are not required if no other Twain device is being used.



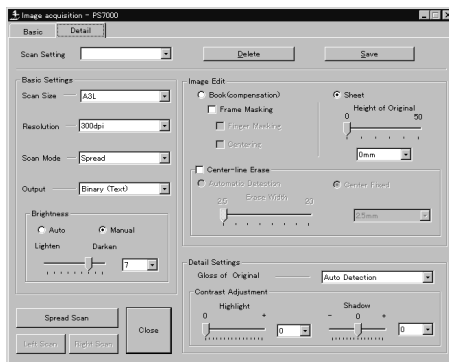
- 3 Select [File] → [Import] → [Twain_32...].



- 4-1** A screen with basic settings for reading images appears.



- 4-2** Click the [Detail] tab to show the detailed setting screen.



NOTE

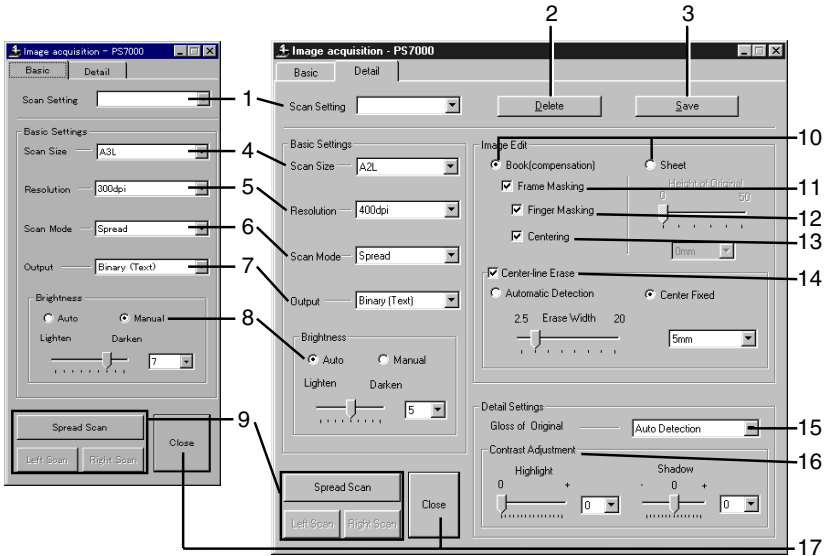
Relevant settings on the image acquisition screen must be completed before the image is loaded to the personal computer.
Click the [Cancel] button and exit the image acquisition screen in order to save or edit the loaded image.

Image acquisition screen

Images can be loaded and function settings made from the personal computer using the Image acquisition screen.

Settings on the screen are interlocked with the Scanner's control panel, meaning that changes made from the personal computer are also applied to the Scanner's control panel, or vice versa.

Each item is described below, with the corresponding Scanner setting indicated by a reference page. Refer to the specified page for details.



1. Scan Setting: Specify the name assigned when registering settings in the Image acquisition screen, or specify the registered settings to be recalled or deleted by entering the name.
Enter alphanumeric characters.
Select the desired name from the pull down list to recall settings.
2. Delete: Deletes previously registered settings.
Recall settings to be deleted and click this button.
3. Save: Saves the current settings.
Enter the name and click this button.
4. Scan Size: Set the size of the original to be read.
Refer to "Selecting scan size" on page 5-39 for details.
5. Resolution: Set the resolution of the image output.
Refer to "Selecting resolution" on page 5-38 for details.

Image acquisition screen

-
6. Scan Mode: Select [Spread] (scanning both pages), [Single] (scanning either right or left page only), or [Book Split] (scanning right and left pages separately).
Refer to “7. Page key” on page 2-8 for details.
7. Output: Selects the mode (Text or Photo).
Add a grayscale memory (option).
Selection is available from among 4 choices: Binary (Text), Binary (Photo), Grayscale (Text) and Grayscale (Photo).
8. Brightness: Select [Auto] or [Manual].
Brightness is adjusted manually when [Manual] is selected. Brightness is adjusted automatically according to the original when [Auto] is selected, however, further fine adjustment is also available.
Refer to “Adjusting exposure for scanning” on page 5-36 for details.
9. Scan buttons: These are the same as the start buttons on the Scanner. Click the [Spread Scan] button to read both pages of the book on the table. This button is effective when Scan Mode is set to [Spread] or [Book Split].
Click the [Right Scan] or [Left Scan] to read only right or left page of the book on the table. This button is effective only when Scan Mode is set to [Single].
10. Book / Sheet: Set the type (shape) of the original.
When [Sheet] is selected, the height of the original can be adjusted.
Refer to “Book/Sheet modes” on page 5-10 for details.
11. Frame Masking: Objects outside the original are erased to prevent a shadowed (black) frame being created in the image, i.e. when the paper selection is larger than the original.
Refer to “Frame Masking (Masking)” on page 5-32 for details.
12. Finger Masking: The image of the fingers holding the original is removed from the scanned image. This function is effective when [Frame Masking] is selected.
Refer to “Finger Masking (Fing Mask)” on page 5-33 for details.
13. Centering: Any shift away from the center of the original is corrected and the scanned image is placed in the center of the screen. This function is effective when [Frame Masking] is selected.
Refer to “Centering (Centerin)” on page 5-35 for details.

Image acquisition screen

14. Center-line Erase: The shadow generated in the center of the open book is erased during scanning.
[Automatic Detection] automatically determines the center of the original. This is effective only in Book mode. The center of the book table is regarded as the center of original when [Center fixed] is selected. The erasing range (width) can also be adjusted. Refer to “Center Erase (Cent Erase)” on page 5-31 for details.
15. Gloss of Original: Selects the type of the original.
“Auto Detection” is selected for standard use, but “Normal” or “Glossy” can also be selected. Refer to “Selecting Original Type” on page 5-43 for details.
16. Contrast Adjustment: Adjusts the contrast for reading the original. Refer to “Selecting Contrast” on page 5-45 for details.
17. Close: Exit the image acquisition screen.

Chapter 4

PS7000 ISIS Driver

Installation

The PS7000 ISIS Driver (hereinafter referred to as the Driver) must be installed on the personal computer connected to the Scanner to read images from it. This chapter describes the system requirements of the personal computer and the installation procedures of the Driver.

System environment

The following are the minimum system requirements for the computer connected to the Scanner to install the Driver.

Computer	Compatible with IBM PC/AT
OS	WindowsNT4.0, Windows95
Memory	At least 32MB of PC RAM (64MB recommended)
Application software	Application software compatible with ISIS
Recommended SCSI Host Adapter	SCSI Host Adapter manufactured by Adaptec (AHA-2940Ultra)

The operator should be completely familiar with basic Windows operations.

Installation procedure

Follow the procedure below to install the Driver.

*Screens may differ slightly depending on the Windows version.

- 1 Check that the Scanner is connected to the personal computer.
- 2 Turn on the power switch of the Scanner (refer to “Turning on” on page 5-3), and then turn the personal computer on to start Windows.

[When using Windows95]

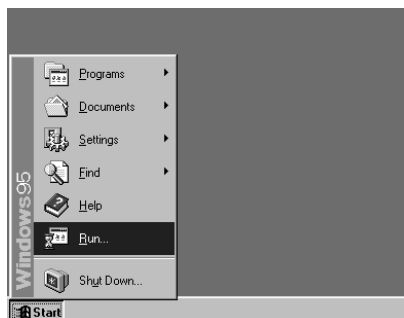
Select [Driver from disk provided by hardware manufacturer] and click the [OK] button when the following screen appears.



The screen shown below appears. Insert the ISIS Driver floppy disk into the floppy disk drive (generally drive “A”) of the personal computer and click the [OK] button.

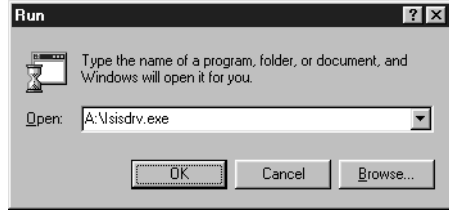


- 3 After window's has started, set the ISIS Driver floppy disk into the computer's floppy desk drive.
- 4 Click the [Start] button and select [Run...].



Installation

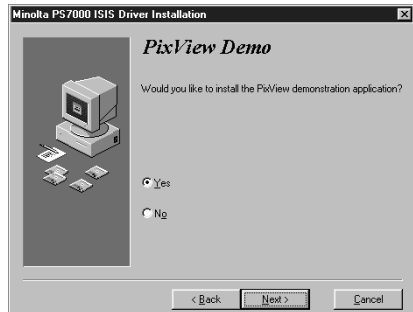
- 5 Input “A:\Isisdrv.exe” for the name, and click the OK button (when the drive is A is used).



- 6 The installation confirmation screen appears. Click the [Next >] button to start installation.



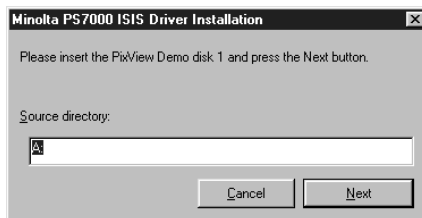
- 7 PS7000 is supplied with an application software “PixView” for ISIS. To install this software after the installation of the ISIS driver, select “Yes” and click the [Next] button. To use other software for ISIS, select “No” and click the “Next” button.



- 8** When the installation is completed, the screen shown on the right appears. Then, click the [Finish] button.
When “No” is selected in the step 8, it completes the installation.



- 9** When “Yes” is selected in the step 8 and the installation of the ISIS driver is completed, the screen shown on the right appears.
Insert the floppy disk “PixView Disk 1/3” into the floppy disk driver of your PC, and click the [Next] button.
For the subsequent work, follow the instructions that will appear on the screen.



- 10** The complete setup confirmation screen appears. Click the [Finish] button to complete installation.



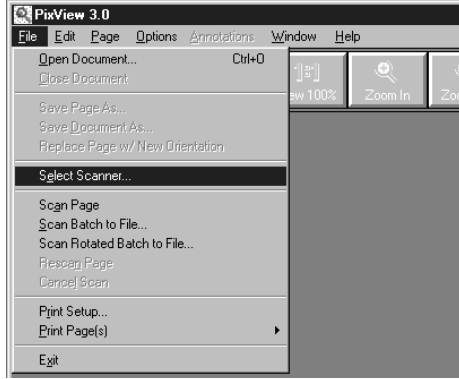
NOTE

Eject the installation floppy disk from the computer and restart Windows after installation has been completed.

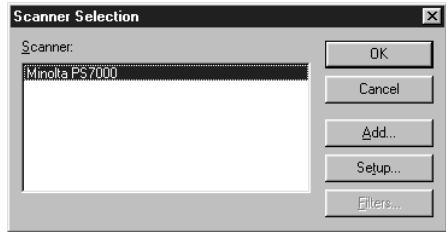
Start-up

The Driver can be started from any ISIS compatible application. The start up procedure when using PixView 3.0 is described below.

- 1 Start PixView 3.0.
Select [File] → [Select Scanner].



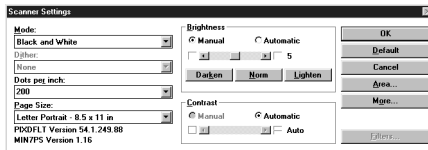
- 2 Select [Minolta PS7000] in the Select Source screen and click the [Select] button.



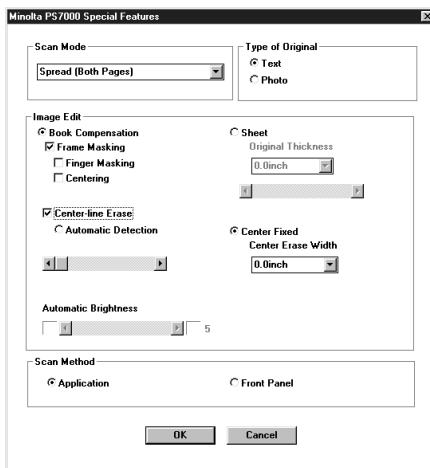
- 3 Click [Scan Setup] button.



- 4-1** A screen with Scanner settings for reading images appears.



- 4-2** Click the [More] button to show the Special Feature setting screen.

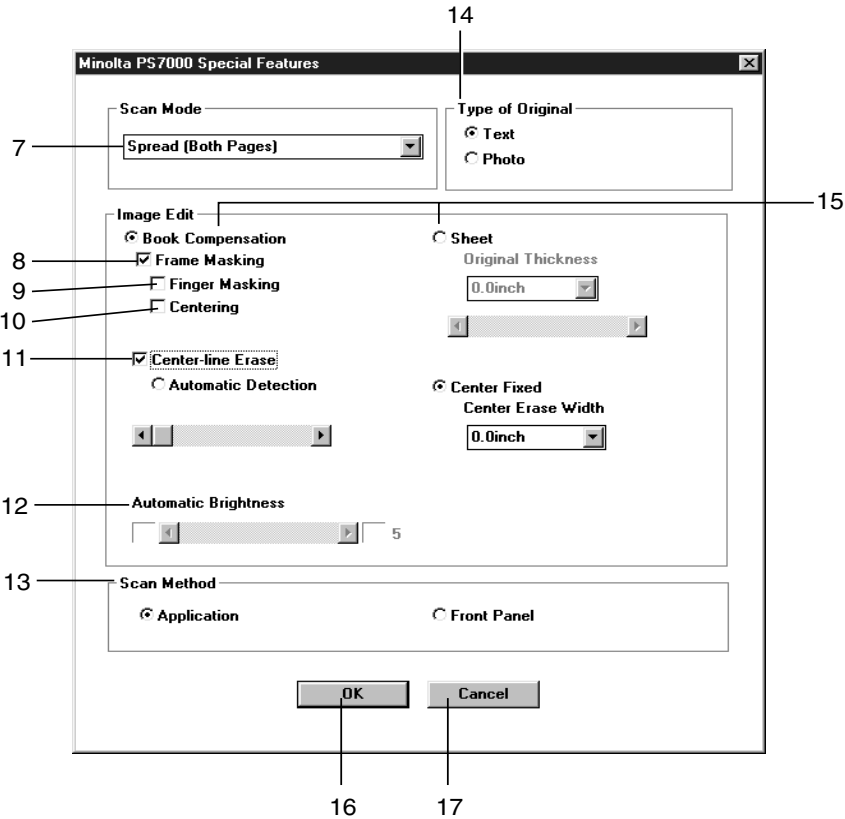
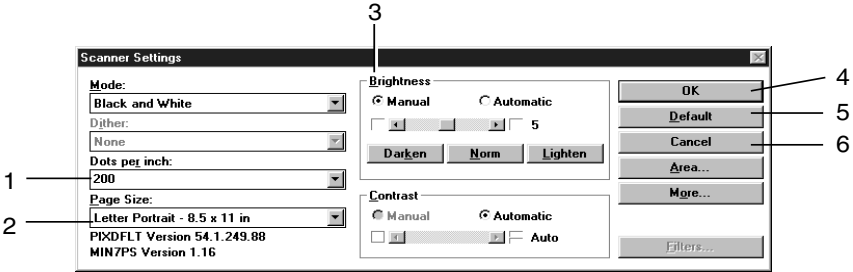


Relevant settings on the image acquisition screen must be completed before the image is loaded to the personal computer.

Image acquisition screen

Images can be loaded and function settings made from the personal computer using the Image acquisition screen.

Each item is described below, with the corresponding Scanner setting indicated by a reference page. Refer to the specified page for details.



1. Dot per inch: Set the resolution of the image output.
Refer to “Selecting resolution” on page 5-38 for details.
2. Paper Size: Set the size of the original to be read.
Refer to “Selecting scan size” on page 5-39 for details.
3. Brightness: Select [Automatic] or [Manual].
Brightness is adjusted manually when [Manual] is selected.
4. OK: Validates the settings.
5. Default: Initializes all the set values.
6. Cancel: Exit the image acquisition screen.
7. Scan Mode: Select [Spread] (scanning both pages), [Single] (scanning either right or left page only), or [Book Split] (scanning right and left pages separately).
Refer to “7. Page key” on page 2-8 for details.
8. Frame Masking: Objects outside the original are erased to prevent a shadowed (black) frame being created in the image, i.e. when the paper selection is larger than the original.
This function is effective only in Book mode.
Refer to “Frame Masking (Masking)” on page 5-32 for details.
9. Finger Masking: The image of the fingers holding the original is removed from the scanned image. This function is effective when [Frame Masking] is selected in Book mode.
Refer to “Finger Masking (Fing Mask)” on page 5-33 for details.
10. Centering: Any shift away from the center of the original is corrected and the scanned image is placed in the center of the screen.
This function is effective when [Frame Masking] is selected in Book mode.
Refer to “Centering (Centerin)” on page 5-35 for details.
11. Center-line Erase: The shadow generated in the center of the open book is erased during scanning.
[Automatic Detection] automatically determines the center of the original. This is effective only in Book mode.
The center of the book table is regarded as the center of original when [Center Fixed] is selected.
The erasing range (width) can also be adjusted.
Refer to “Center Erase (Cent Erase)” on page 5-31 for details.

Image acquisition screen

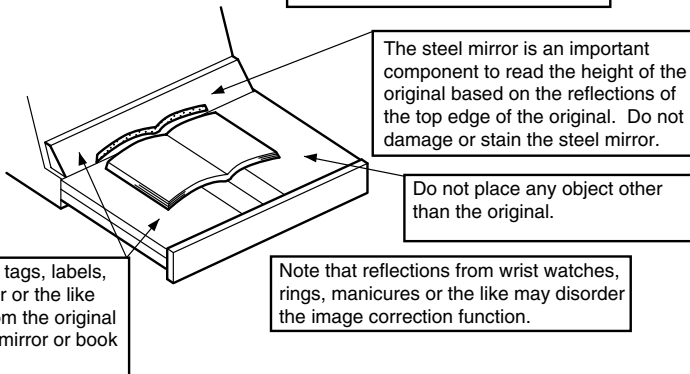
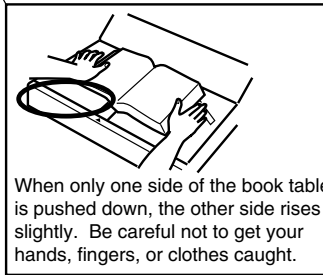
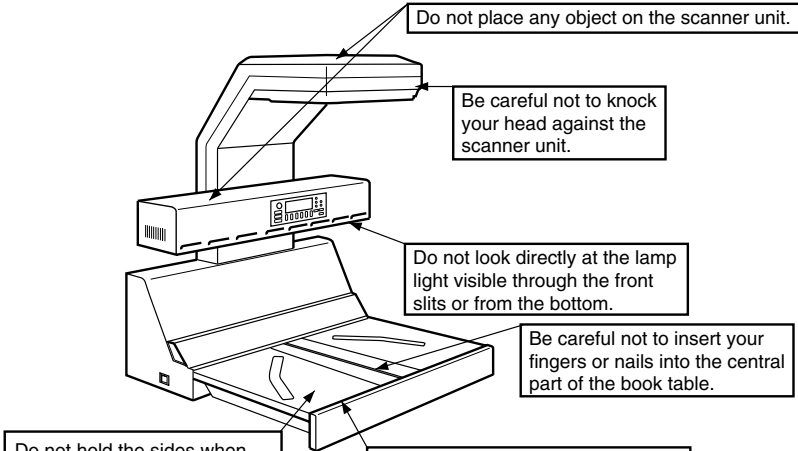
12. Automatic Brightness: Brightness is adjusted automatically according to the original when [Auto] is selected, however, further fine adjustment is also available.
Refer to “Adjusting exposure for scanning” on page 5-36 for details.
13. Scanning Method: To scan the document by using the application software of your PC, set the scanning method accordingly on the application software, and select [Application].
To scan the document by pressing either of the START keys of the book table, set the scanning method accordingly on the front panel, and select [Front Panel].
14. Type of Original: Select the mode (Text or Photo) suitable for the original.
Refer to “8. Image key” on page 2-8 for details.
15. Book Compensation /Sheet: Set the type (shape) of the original.
When [Sheet] is selected, the height of the original can be adjusted.
Refer to “Book/Sheet modes” on page 5-10 for details.
16. OK: Validates the settings.
17. Cancel: Exit the image acquisition screen.

Chapter 5

Operation

Precautions for operation

The following sections require special attention when operating the Scanner.



Lamp status

Half intensity

The Scanner's lamp lights at half intensity when any key is pressed to select menus, etc. The lamp goes out when no key is pressed for the preset time*. The fan cooling the lamp is turned off one minute after the lamp has gone out.

* The auto-off time for the lamp can be set to one, three, or five minutes in the Utility mode.

Full intensity

The Scanner's lamp lights at full intensity when the Scanner is reading the original. The lamp returns to half intensity after scanning is completed.

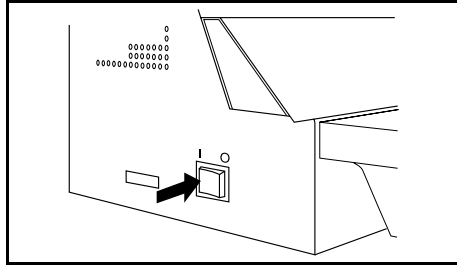
NOTE

The halogen lamp used in the Scanner is safe and not hazardous to health. However, never look directly at the lamp when lit. Looking directly at the lamp when lit may result in eye damage. When the Scanner is operated for a long time, we recommend you take a 5 minute break every hour to rest your eyes.

Turning the Scanner ON and OFF

Turning on

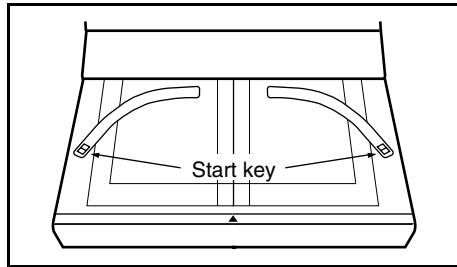
- 1 Check that the Scanner is connected to the personal computer with the interface cable and turn the Scanner's power switch on ("I" position).



NOTE

Turn the scanner on before turning on the personal computer.

- 2 [Welcome to PS7000. Initializing] appears on the display and the start key turns red. The Scanner can be operated when the start key turns green.



NOTE

When the SCSI cable is not connected properly, Images cannot be loaded if the PC interface cable is not connected properly.

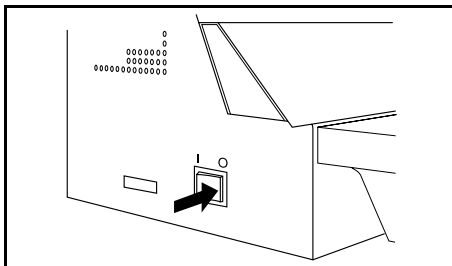
When the message [Start Appli./Driver] appears on the display, turn the personal computer on and start the Driver. Refer to "Start-up" on page 3-7, or 4-5 for details on starting the Driver.

When the message [Printer is OFF. Turn Printer ON] appears on the display, change the [Connect] setting in [Initial] to [PC] in Utility mode. Refer to page 5-47 for details.

Turning the Scanner ON and OFF

Turning off

1 Turn the switch off (“O” position).



NOTE

- *Never turn the power switch off while the Scanner is reading the original.*
 - *Turn off the personal computer before turning off the Scanner.*
-

Placing the original

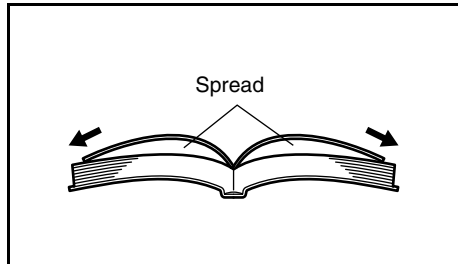
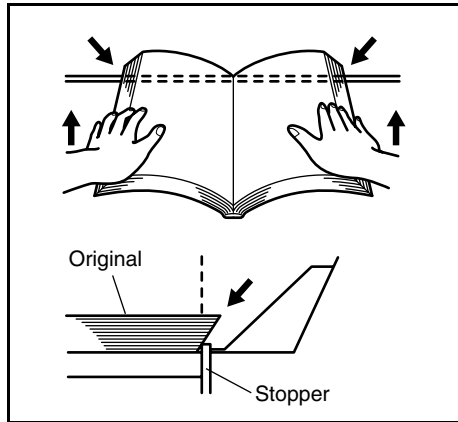
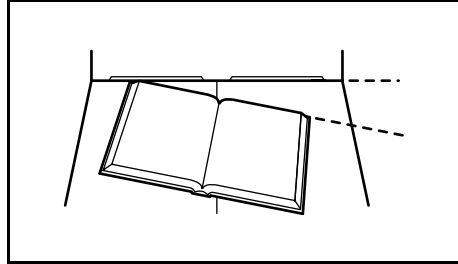
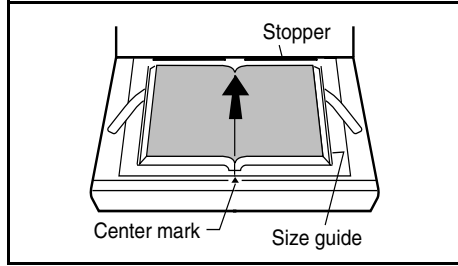
Place the original face up on the book table, aligning the top edge of the book with the stopper on the book table, and the spine of the book with the center mark. Check that the original is positioned with the corresponding size guide, if possible.

When placing the original, observe the following.

Do not place the original askew.

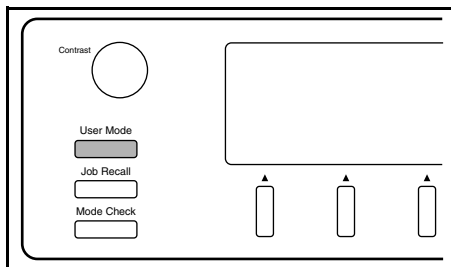
Do not place the original with its top edge beyond the stopper. Be careful that if the original is pressed at the bottom first, this may happen.

When the original is spread open, be careful not to produce openings between pages. Press both pages and then pull them apart.

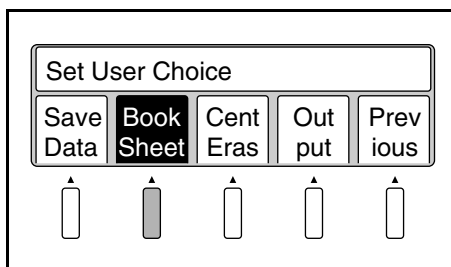


Scanning procedures

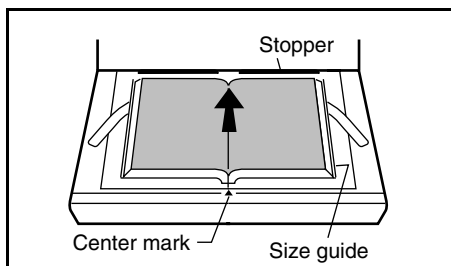
- 1** Press the User Mode key.



- 2** Select [Book/Sheet]. Select Book when scanning a thick original (books or dictionaries), and Sheet when scanning a single page document. Refer to page 5-10 "Book/Sheet modes" for details.

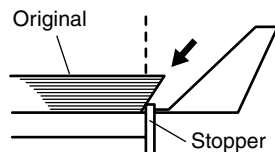


- 3** Place the original face up on the book table, aligning the top edge of the book with the stopper on the book table, and the spine of the book with the center mark. Check that the original is positioned with the corresponding size guide, if possible.



NOTE

In placing the original, make sure that its top edge is not beyond the stopper.



Scanning procedures

- 4** Press the Page key to specify which page is to be scanned.

Spread:

Entire area (both pages) is scanned as one sheet.

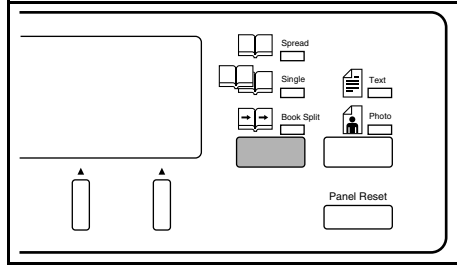
Single:

Only one page (right or left) is scanned.

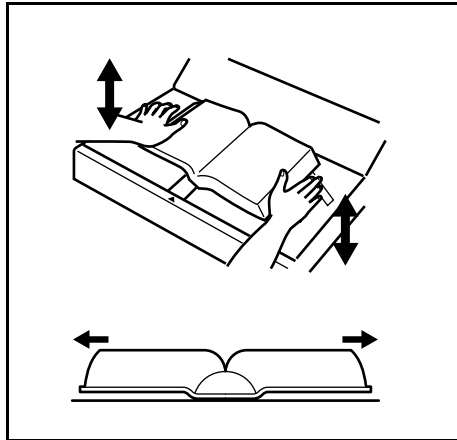
Book Split:

Both pages are scanned separately, one page at a time.

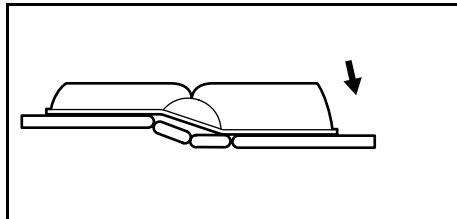
The lamp of the selected mode lights.



- 5** Hold the edges of both pages in the middle with your hands, and press the book down, pulling the pages slightly apart.

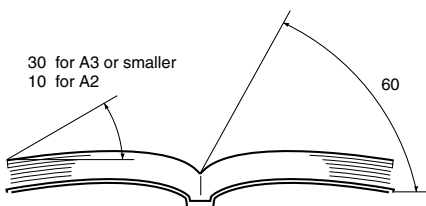


At the same time, adjust the height of the right and left pages by pressing the higher side down.

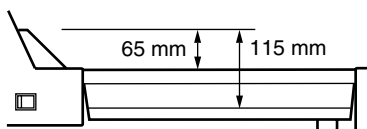


NOTE

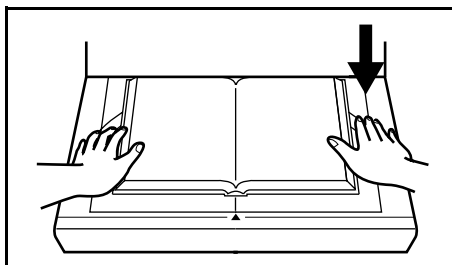
When the inclination of the page at the center of the book exceeds 60° and that of the outer edge exceeds 30° (A3 or smaller) or 10° (A2), the image cannot be read correctly.

**NOTE**

Auto Focus is only effective within the range of 65 mm above the usual height of the book table. Adjust the book table height so that the original is placed in the effective Auto Focus range.



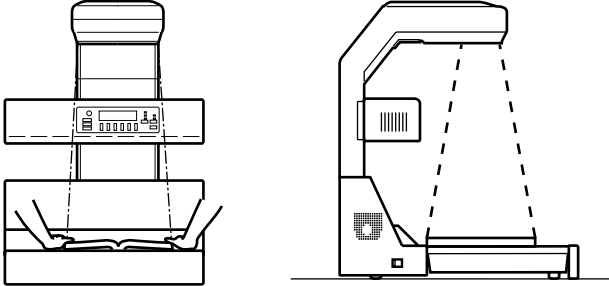
- 6** Press the Start key. Either key can be pressed when [Spread] is selected. When [Single] or [Book Split] is selected, press the key on the side to be scanned. The pressed Start key turns red and scanning is started. When scanning is completed, the Start key turns green and the next scan can be started.



Scanning procedures

NOTE

Never place your arm, head or any other obstacle into the space enclosed by the scanner unit and the right and left edges of the book, or the Scanner will not be able to obtain a good image. Be sure not to move your hands and arms until scanning is completed.



NOTE

When the Scanner fails to read the original correctly, a buzzer goes off, a warning message appears on the display, and scanning is stopped. Refer to page 6-2 “Troubleshooting for warning messages” for the appropriate action.

Book/Sheet modes

Book mode

Select this mode when scanning a thick original (books). Selecting this mode automatically activates the following functions:

Functions automatically activated

Curved text line correction

This function corrects the position of the text on the curved surface near the center of the book (area between pages) of a thick open book, ensuring that an undistorted image is made.

Text compression correction

The text at the center of the book (area between pages) of an open book often looks crowded with little space between characters, when viewed from above, due to the curved surface. If simply scanned as is, the text appears compressed. This function expands the characters accordingly, providing an image as close as possible to the original form.

NOTE

When the text is within 5 mm from the spine of the book or the inclination at the center exceeds 60°, proper correction may not be made.

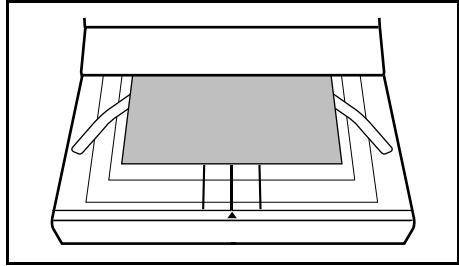
Auto focus

This function is available only to Book mode. The original height is detected, and the focal point of the Scanner can be adjusted to be within a range from 0 to 65 mm above the book table according to the detected original height.

Book/Sheet modes

Sheet mode

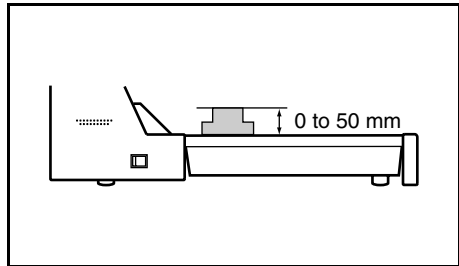
Select this mode if an error message appears or a clear image cannot be obtained in Book mode, or when scanning thin materials (newspapers, photographs, documents, etc.) or a solid surface other than a book.



NOTE

Text is selected for the Image mode by default. It is recommended that this be changed to Photo when scanning photographs.

When Sheet mode is selected, the focal point can be set to be within a range from 0 to 50 mm above the book table in 6 steps in 10 mm increments. When scanning a solid surface, adjust the original (solid surface) height in Sheet mode.



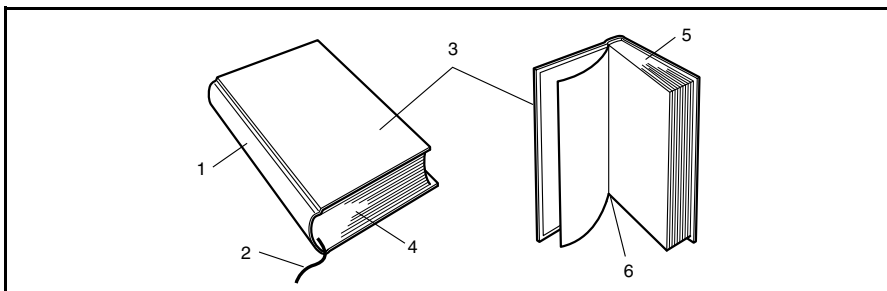
Cancel of the Auto function

In the Sheet mode, the scan time can be shortened by disabling the preliminary scanning for auto detection. Set each function as follows to cancel the Auto function.

- Expo (Manual)
- Zoom (Fixed magnification)
- Cent Eras (OFF)
- Masking (OFF)
- Fing Mask (OFF)
- Centerin (OFF)
- Org. type (Normal or Glossy)

Note on originals

Name of book



- 1.Back
- 2.Tassel
- 3.Cover
- 4.Foot
- 5.Head
- 6.Guter

The Scanner is designed for exclusive use in scanning images from a book or file. Note, however, that it may not make reliable images from any of the following types of originals. (If a warning message appears, refer to page 6-2 “Troubleshooting for warning messages”). If any originals other than the following cannot be scanned, contact our service agent or dealer in your area.

1. High-gloss originals

High quality images cannot be assured when scanning high-gloss pages such as gravures of magazines and catalogs in Auto Exposure mode. In this case, select Manual Exposure mode and hold the original as flat as possible. Refer to page 5-36 “Adjusting exposure for scanning” for auto/manual exposure adjustment.

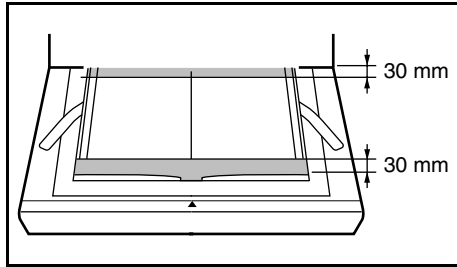
In addition, the original type may be set to [Glossy] for scanning (Refer to page 5-43 “Selecting Original Type”).

2. Originals having high background density

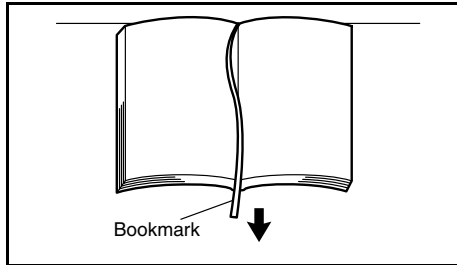
The background density is the color of the actual paper on which text and photographs are printed. Papers of high background density include colored (other than white) paper, newspaper, train timetables, or diazo scanning materials (A2 or larger drawings used at construction sites and other engineering environments). When any of these types is used, select Manual Exposure mode and hold the original as flat as possible.

Note on originals**3. Originals with a tag attached or bookmark placed**

The Scanner may not work correctly when a tag is attached or a bookmark is placed within 1-1/8" (30 mm) of the top and bottom edges as shown in the figure. In this case, remove the tag or bookmark before scanning. If tags are attached only to the top edge of the original, place the original upside down on the book table for scanning.



If bookmarks are placed in the original, put them away in the original so that they may not hit the steel mirror.

**4. Originals with both text and photographs**

The Scanner provides you with two Image modes, Text and Photo. When an original has both text and photographs, determine which should be given higher priority. When Text mode is selected, clearer characters can be obtained.

5. Originals larger than the book table

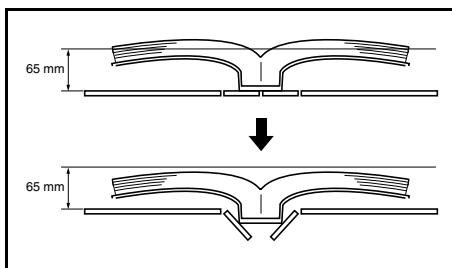
The start key cannot be pressed when the original is larger than the book table. Use the optional foot switch, or if the original is bound in a file, take out the required page and place it on the book table.

6. Originals with foldings, wrinkles or warps

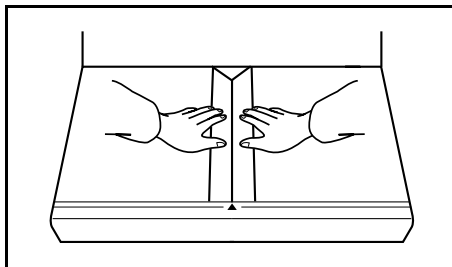
If the original is folded, wrinkled or warped, stretch the original as much as possible, and then place it on the book table for scanning.

7. Originals with special binding

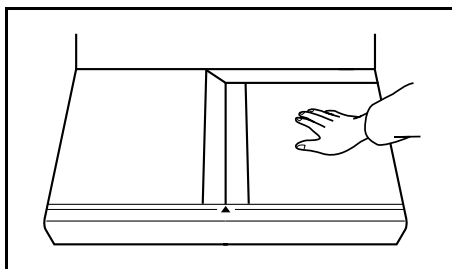
When the binding section of the book has a special design and the surface of the original is more than 65 mm above the book table as shown in the figure, press the center of the book table so that the binding section is lowered to the extent that the Auto Focus function is effective.



Push the center of the book table with your hands (see figure). The depth can be adjusted to two levels.



Push down either side of the table and release it to return the center of the book table to its normal position.

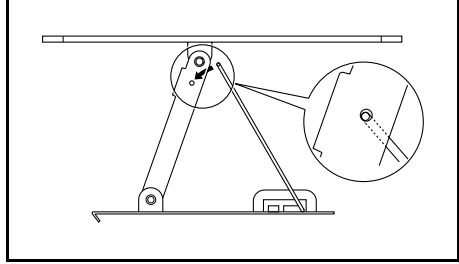


Note on originals

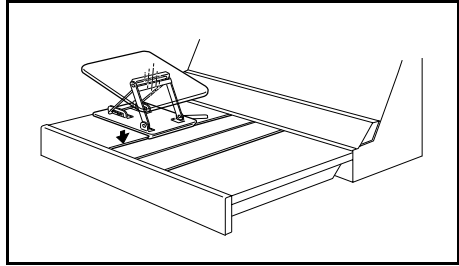
8. Books requiring special attention for the binding section

An optional angle book holder is used to fix the opening angle of the book when scanning a valuable book whose binding must be carefully protected.

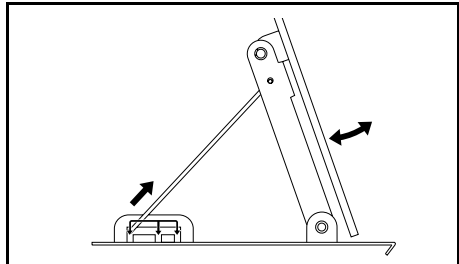
- 1** Assemble the angle book holder as shown in the figure.



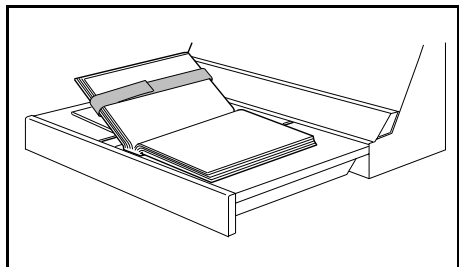
- 2** Insert the holder into the groove on the book table.



- 3** Change the stand position to adjust the angle of the book holder.

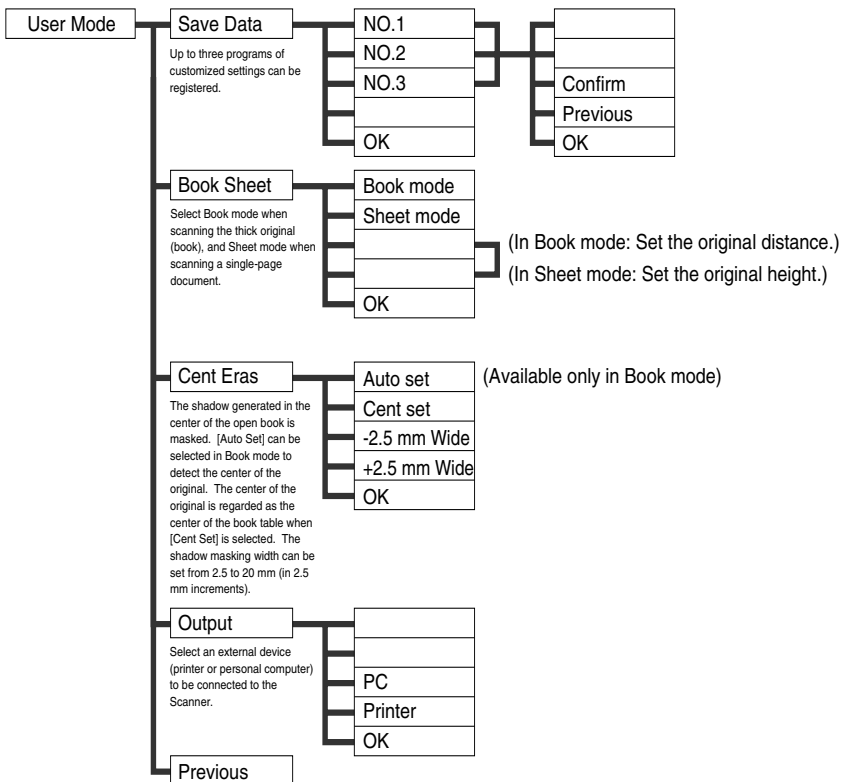


- 4** Position the book and secure it to the holder with the attached band as shown in the figure.

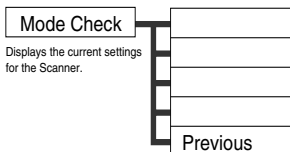
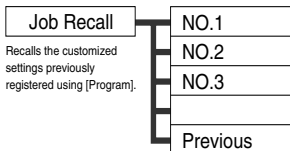


Menu flow chart

Pressing the keys on the control panel displays the corresponding menus as shown below.

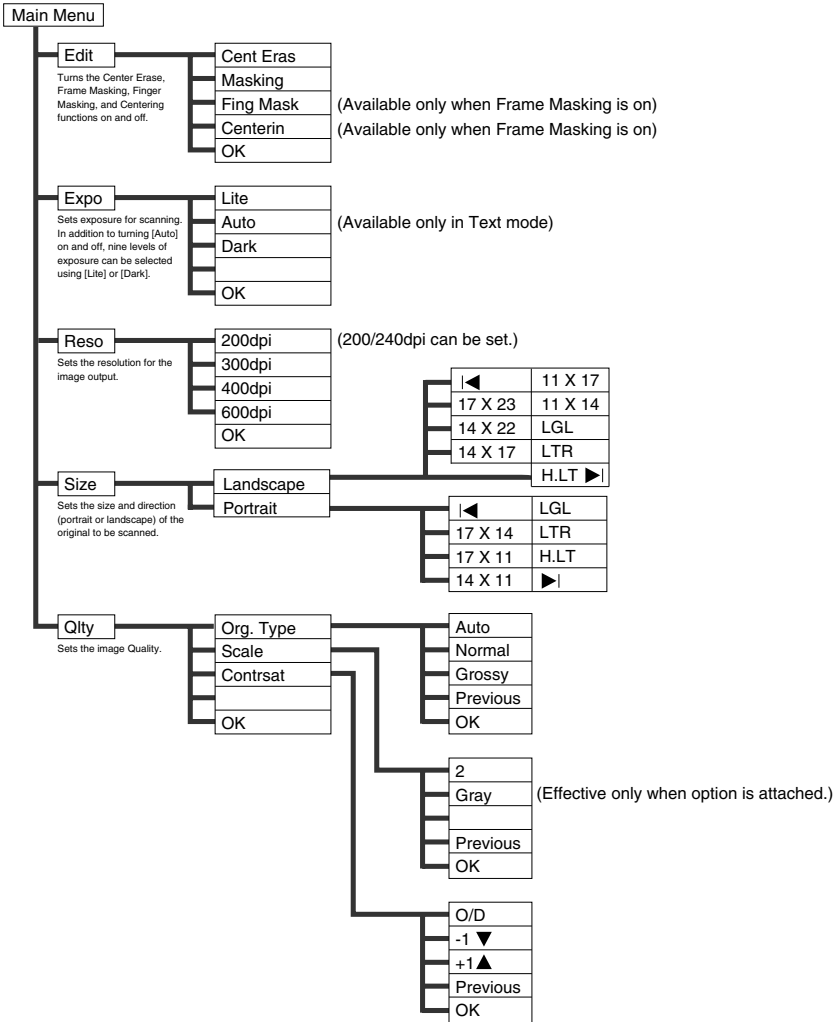


* Select [OK] to return to the main menu.

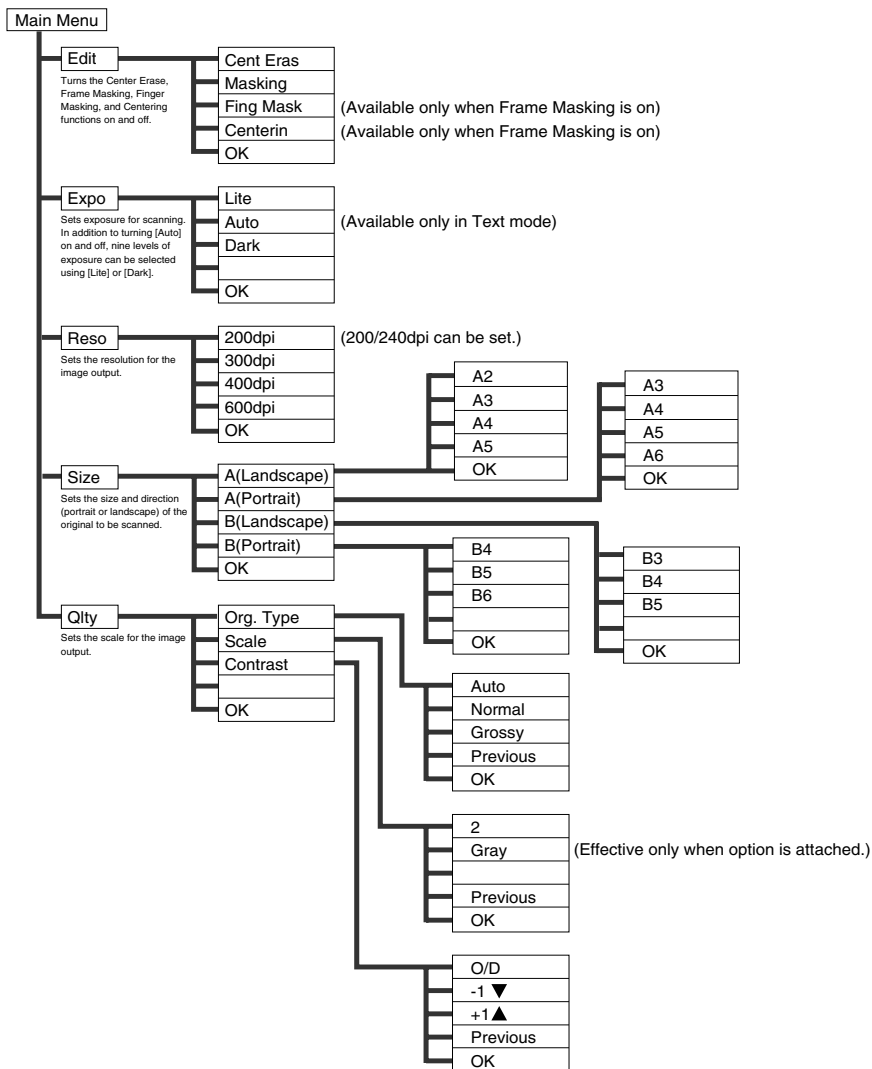


Menu flow chart

The following items can be set from the main menu: In Inch



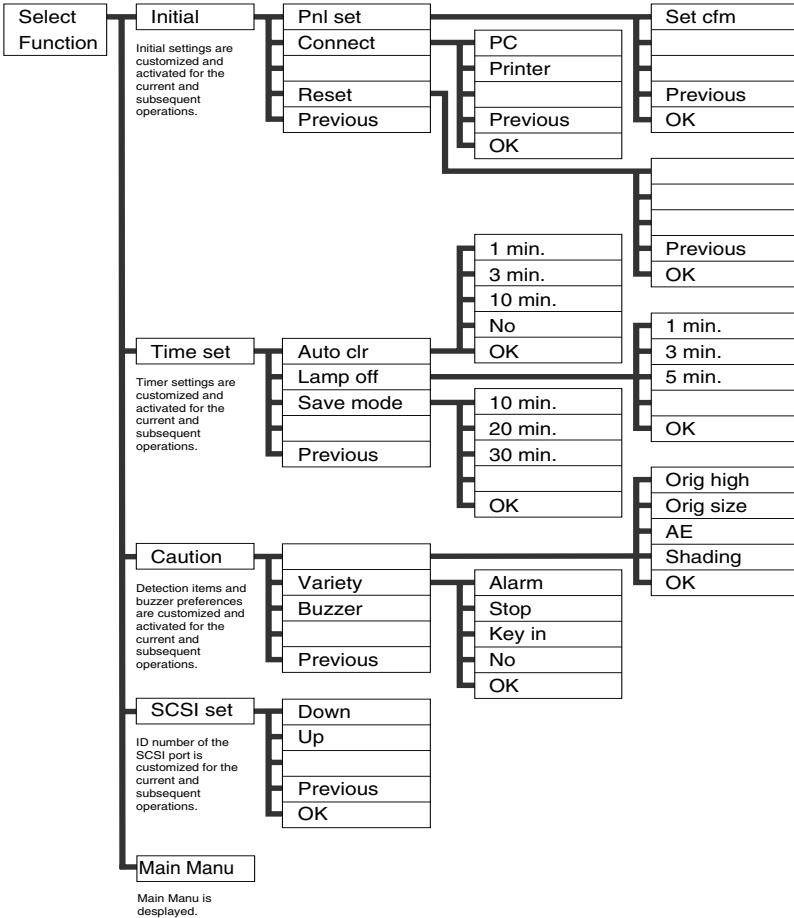
The following items can be set from the main menu: In Metric



* Select [OK] to return to the main menu.

Menu flow chart

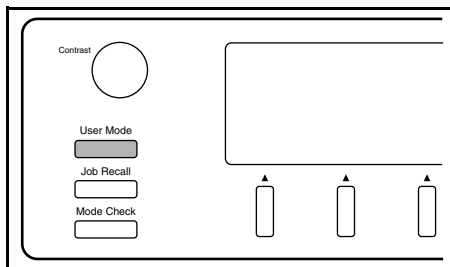
The following settings can be made from the main Utility screen.



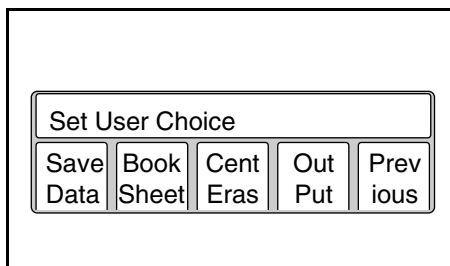
* Select [OK] to return to the main Utility screen.

User Mode

Press the User Mode key on the control panel.



The User Mode menu is displayed.

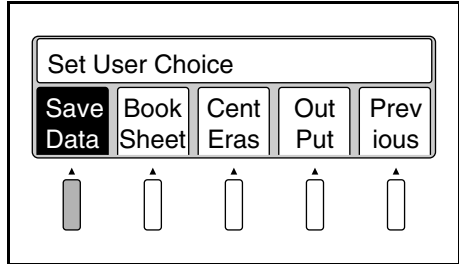


User Mode

Save Data

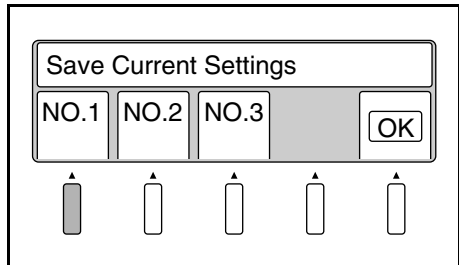
Up to three programs can be registered in No. 1 to 3. These programs can be recalled using the Job Recall key.

- 1 Select [Save Data] from the User Mode menu.
The program registration screen appears.



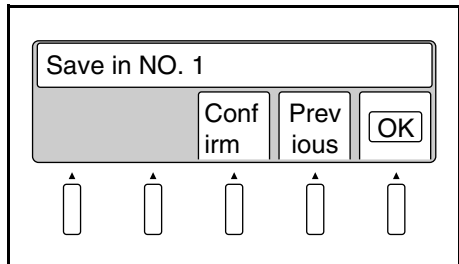
- 2 Select any one of No. 1 to 3. The current settings are registered in the selected program number and the confirmation screen appears.

Select [OK] to return to the main menu.



- 3 Select [OK] to register the settings. Select [Confirm] to review the settings.

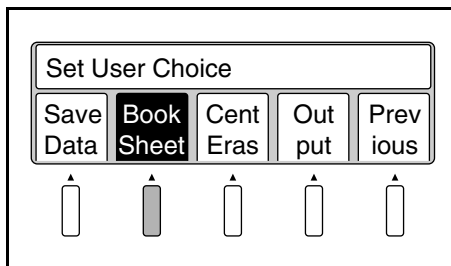
Select [Previous] to return to the program registration screen.



Book / Sheet

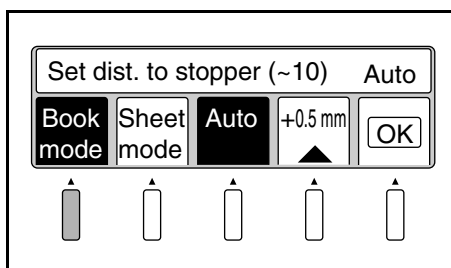
Specify the type of original to be scanned. Refer to page 5-10 “Book/Sheet modes” for details.

Select [Book/Sheet] from the User Mode menu. The book/sheet setting screen appears.



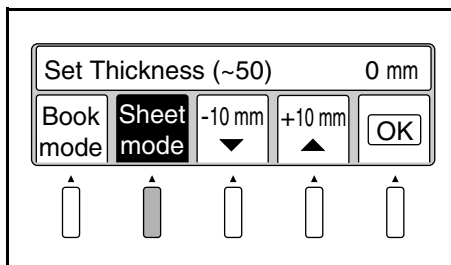
Select [Book mode] when scanning a thick original (books or dictionaries).

Select [OK] to return to the main menu.



Select [Sheet mode] when scanning a sheet original (photograph, a single-page document, solid surface, etc.).

Select [OK] to return to the main menu.



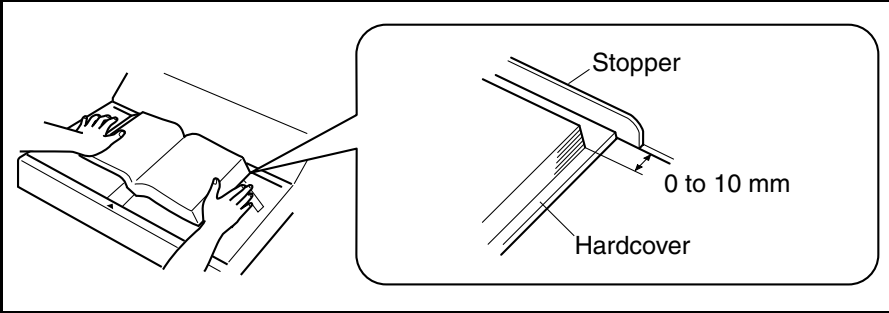
User Mode

Book mode setting function

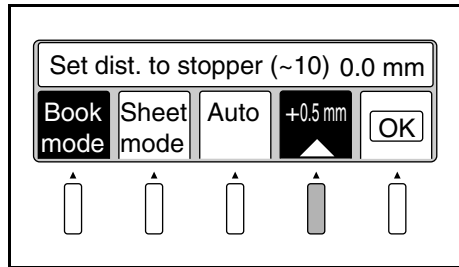
Normally, "Book mode" is used in "Auto" setting.

In the following cases, however, set the distance between the stopper and the original.

- ◆ A hardcover book is scanned
- ◆ The original height cannot be detected (a warning message "Book Size in Not Detected" appears)

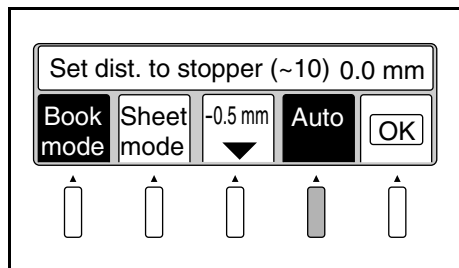


Set the distance between the stopper and the original by pressing allow key.
Setting value: 0 to 10 mm



Select the setting value as [0 mm] or [10 mm], [Auto] will appear again.

Then press [Auto] to return to the "Auto" setting.



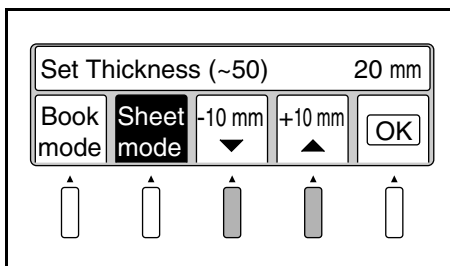
Select [OK] to return to the main menu.

NOTE

If the reliable image cannot be made or a warning message appears even though the top edge of the book is aligned with the stopper, set the distance between the original and the stopper to [0 mm] and retry scanning.

Sheet mode setting function

Only in Sheet mode, the setting value of the original height can be adjusted to be within a range of 0 to 50 mm in 10 mm increments. The adjusted setting value appears on the display.



Select [OK] to return to the main menu.

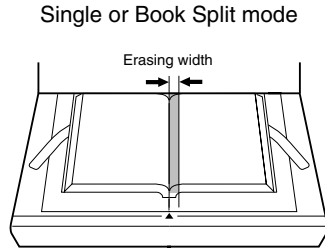
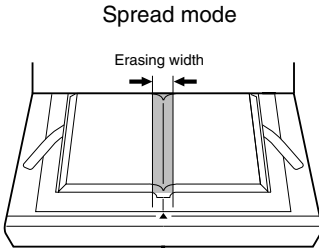
NOTE

When Sheet mode is selected, the position setting for Center Erase is changed from [Auto] to [Center].

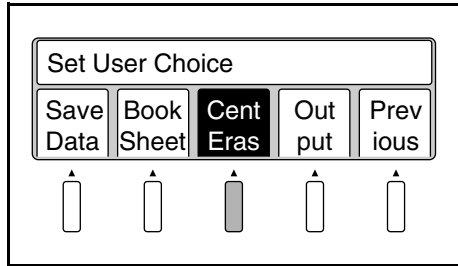
User Mode

Center Erase

The shadow generated in the center of the open book is removed.

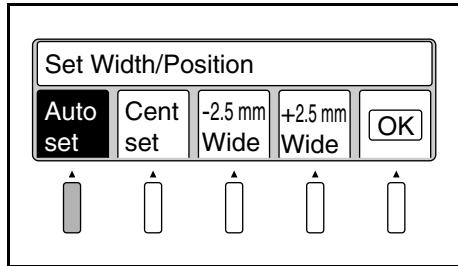


Select [Cent Eras] from the User Mode menu. The center eras setting screen appears.



Select [Auto set] to detect the reference position for erasing automatically.

Select [OK] to return to the main menu.

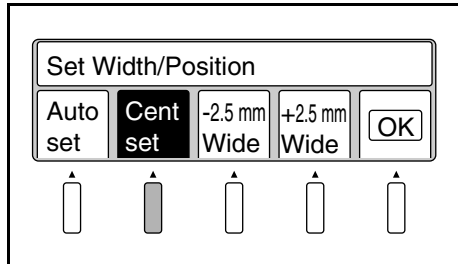


NOTE

[Auto set] cannot be selected in Sheet mode.

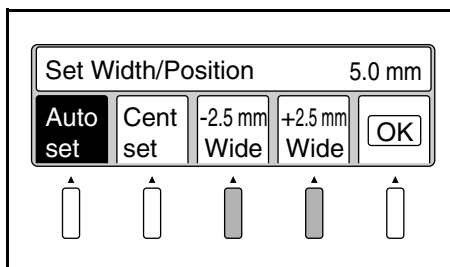
Select [Cent set] to fix the center of the book table as the reference position for erasing.

Select [OK] to return to the main menu.



The erasing width can be adjusted from 2.5 to 20 mm (0.1" to 0.8") in 2.5 mm (0.1") increments. The set value is displayed in the message area.

Select [OK] to return to the main menu.

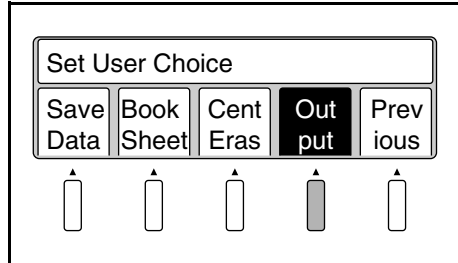


User Mode

Output

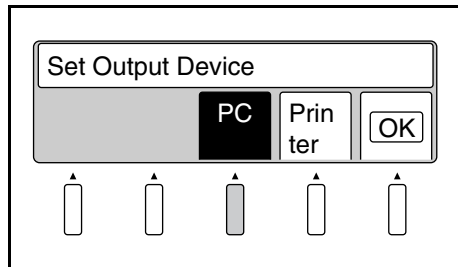
Select the external device connected to the Scanner.

Select [Output] from the User Mode menu.
The output setting menu appears.



Select [PC] when a personal computer is connected.

Select [OK] to return to the main menu.

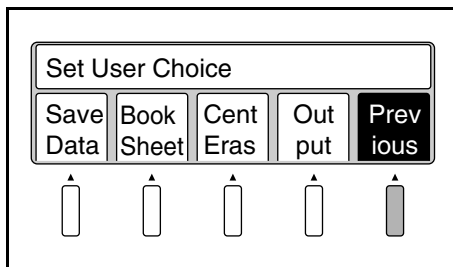


NOTE

A dedicated printer and optional PR interface kit are required to connect a printer. Contact your authorized dealer.

Exiting User Mode

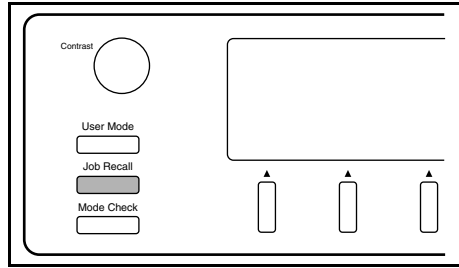
Select [Previous] from the User Mode menu.



Recalling jobs

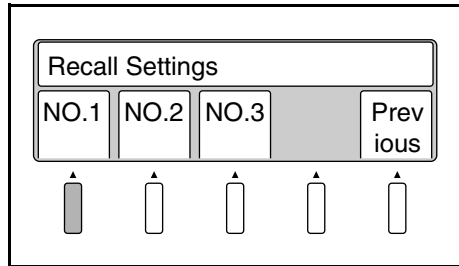
Recall programs registered using [Save Data].

- 1 Press the Job Recall key on the control panel.



- 2 Select any one of programs No. 1 to 3. The corresponding program is recalled and validated.

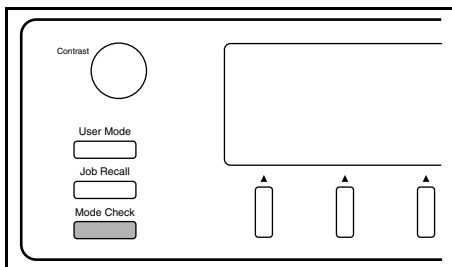
Select [Previous] to return to the previous screen.



Checking current settings

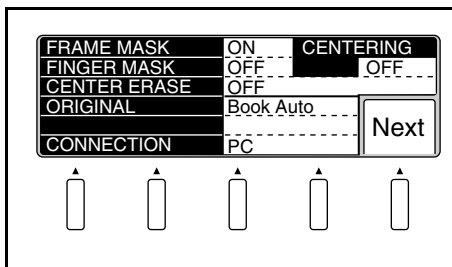
Current settings can be checked.

Press the Mode Check key on the control panel. This key can be used to check settings whenever necessary.

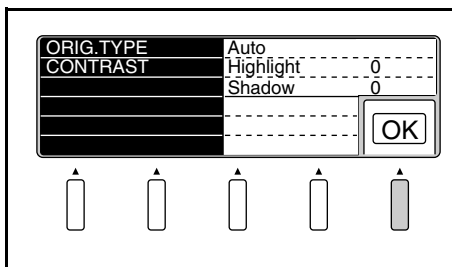


Current settings are displayed.

Select [Next]. The following screen appears.



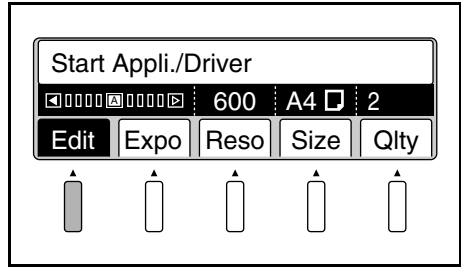
Select [OK] to return to the main menu.



Using the edit functions

Edit Functions

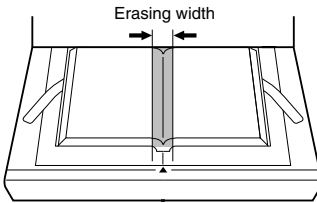
Select [Edit] from the main menu to set editing functions for scanning.



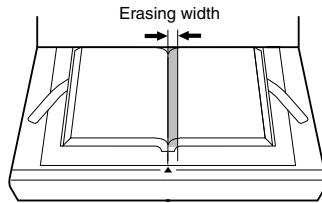
Center Erase (Cent Eras)

The shadow generated in the center of the open book is erased during scanning.

Spread mode

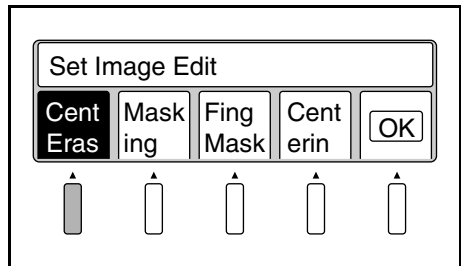


Single or Book Split mode



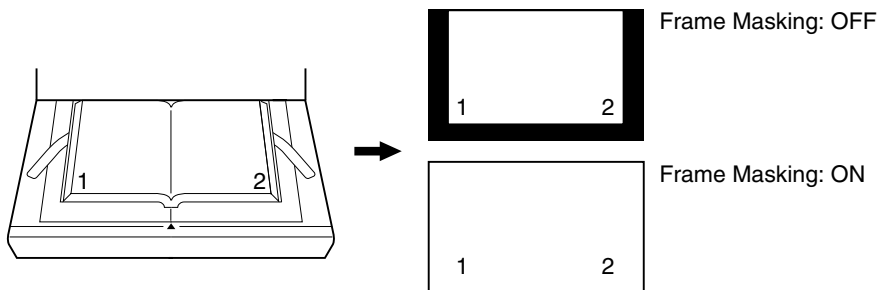
Select [Cent Eras]. The menu name is highlighted and the function is activated.

Select [OK] to return to the main menu.



Frame Masking (Masking)

Objects outside the original are erased to prevent a shadowed (black) frame from being created on the output, i.e. when the selected paper is larger than the original.

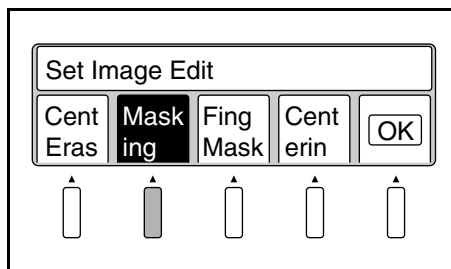


NOTE

- This function is not effective when an image exists within 2 mm of the edge of the original.
- Frame Masking may affect scanning depending on the density and colors of the original. When any portion of the required image is erased, turn off Frame Masking.

Select [Masking]. The menu name is highlighted and the function is activated.

Select [OK] to return to the main menu.



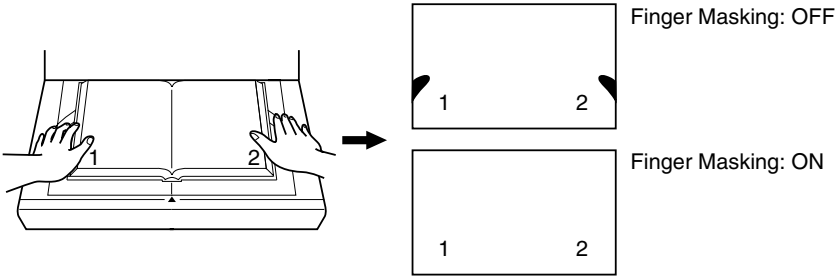
NOTE

Frame Masking must be on to turn on Finger Masking and Centering.

Using the edit functions

Finger Masking (Fing Mask)

This function removes the image of the fingers holding the original from the scanned image.



NOTE

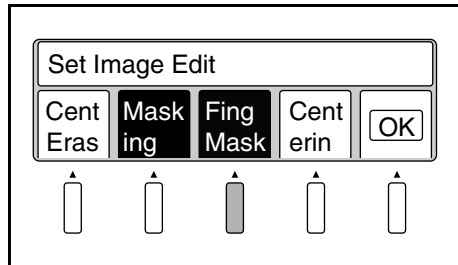
Finger Masking may affect scanning depending on the density and colors of the original. When any portion of the required image is erased, turn off Finger Masking.

Finger Masking is not effective when;

- *a finger is not placed on the original,*
- *a finger is placed further than 10 cm inside the edge of the original,*
- *a finger is closer to the center than the edge, even when the distance from the edge of the original is less than 10 cm,*
- *a finger is placed on the bottom edge of the original, or*
- *a finger is placed within 3cm of the top edge of the original*
- *The original contains an image (photograph) and a finger is placed within 3 mm from this image,*

Select [Fing Mask]. The menu name is highlighted and the function is activated.

Select [OK] to return to the main menu.

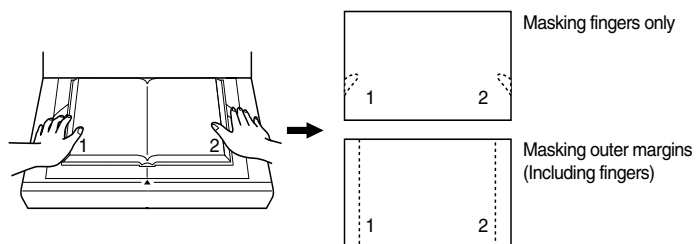


NOTE

Finger Masking cannot be activated when Frame Masking is off.

Finger Masking is canceled automatically when Frame Masking is turned off.

Finger Masking is available in the following 2 modes.



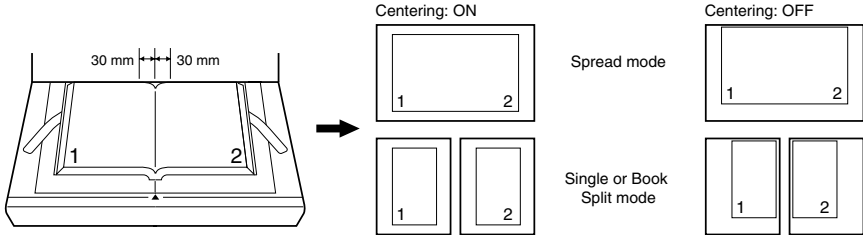
Default setting is “Masking fingers only.”

To change the setting, contact your authorized dealer.

Using the edit functions

Centering (Centerin)

Any shift away from the center of the original is corrected and the scanned image is placed in the center of the screen.

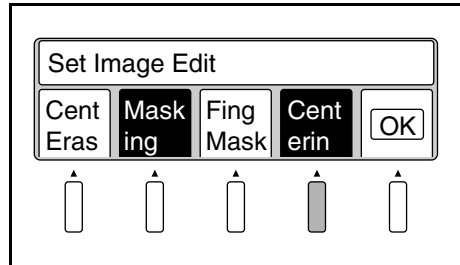


NOTE

This function is not effective when the center of the original is shifted 30 mm or more from the center of the book table.

Select [Centerin]. The menu name is highlighted and the function is activated.

Select [OK] to return to the main menu.



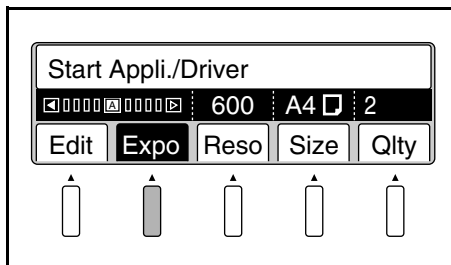
NOTE

Centering cannot be activated when Frame Masking is off.

Centering is canceled automatically when Frame Masking is turned off.

Adjusting exposure for scanning

Select [Expo] (exposure) from the main menu to set the exposure for scanning.

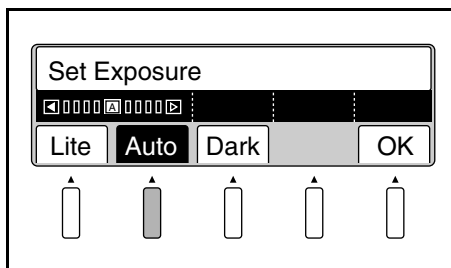


Auto

The appropriate exposure is automatically selected according to the type of original.

Select [Auto]. The menu name is highlighted and the function is activated. When [Auto] is selected, "A" (Auto) is displayed in the center of the exposure level bar.

Select [OK] to return to the main menu.

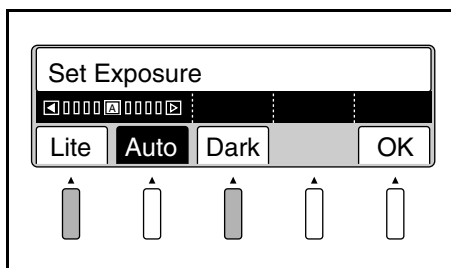


NOTE

[Auto] cannot be selected in Photo mode.

The exposure can be further adjusted after [Auto] is set. Press the [Lite] or [Dark] key for fine adjustment.

Select [OK] to return to the main menu.



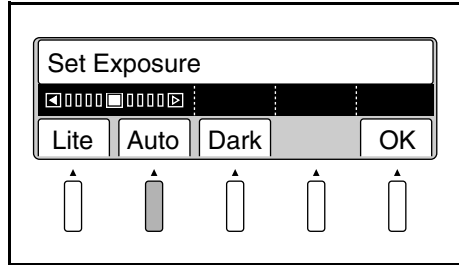
Adjusting exposure for scanning

Manual adjustment

The exposure for scanning is set manually.

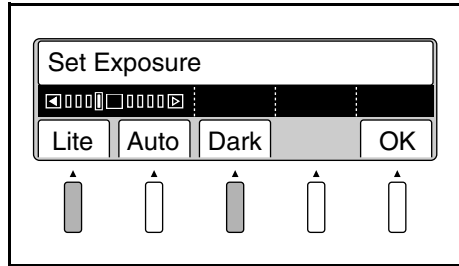
Select [Auto] to return the menu name to normal, indicating [Auto] is turned off. “A” disappears from the center of the exposure level bar.

Select [OK] to return to the main menu.



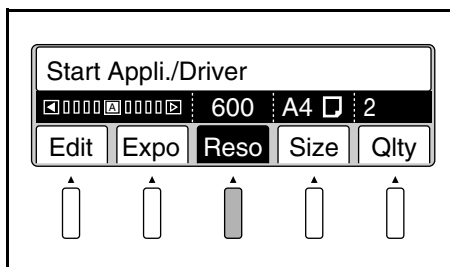
Press the [Lite] or [Dark] key to set the exposure for scanning.

Select [OK] to return to the main menu.



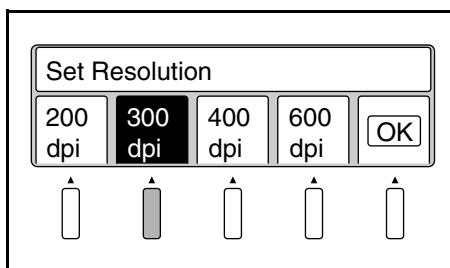
Selecting resolution

Select [Reso] from the main menu to set the resolution of the image output.



Select [200 dpi], [300 dpi], [400 dpi], or [600 dpi]. The specified resolution is highlighted.

Select [OK] to return to the main menu.



NOTE

[600 dpi] cannot be selected when the following scan size.

landscape: A2, B3 or 17x23, 14x22, 14x17

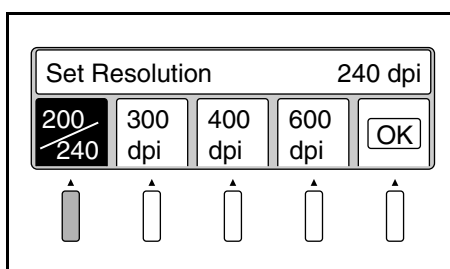
portrait: A3, B4 or 14x17, 11x17, 11x14, LGL

The output resolution of 240dpi can be additionally set.

For this setting, consult with your local authorized dealer.

When 240dpi is set to be available, the [200] key is switched to the [200/240] key.

The output resolution is switched between 200dpi and 240dpi whenever the [200/240] key is pressed.

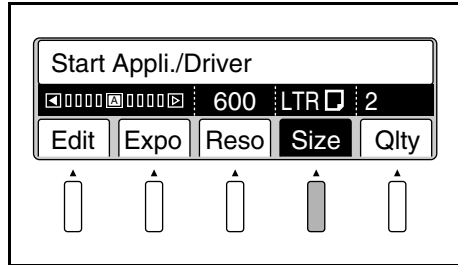


Selecting scan size

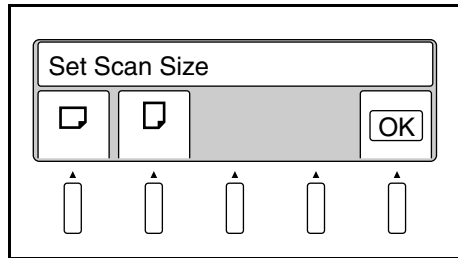
The size and direction (portrait or landscape) of the original on the book table are set.

Scan size in inch

1 Select [Size] in the main menu.

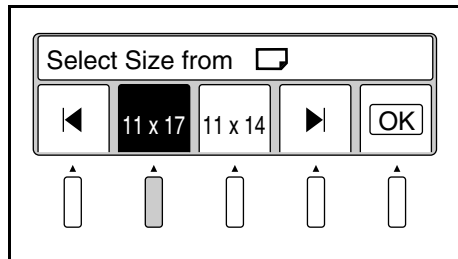


2 Select original direction (landscape or portrait).



3 If landscape is selected, paper size setting screen is displayed. Select the paper size with ◀ or ▶ key.

Select [OK] to return to the main menu.



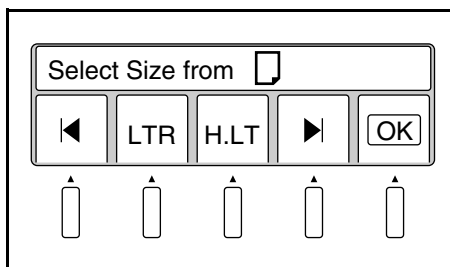
NOTE

- The resolution changes from [600 dpi] to [400 dpi] when [17x23], [14x22] or [14x17] is selected.
- The Scan mode changes from [Single] or [Book Split] to [Spread] when except [LTR] and [H.LT] are selected.

Selecting scan size

- 4** If portraits selected, paper size setting screen is displayed. Select the paper size with ◀ or ▶ key.

Select [OK] to return to the main menu.

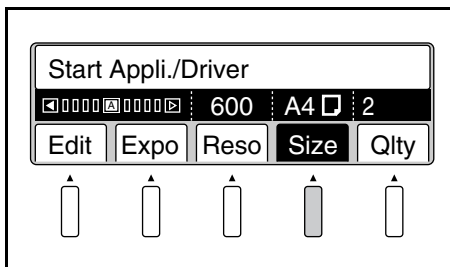
**NOTE**

- The resolution changes from [600 dpi] to [400 dpi] when [14x17], [11x17], [11x14] or [LGL] is selected.
- The Scan mode changes from [Single] or [Book Split] to [Spread] when [17x14] is selected.

Selecting scan size

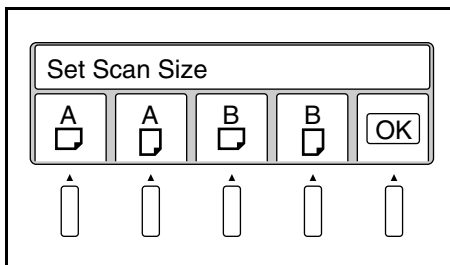
Scan size in metric

- 1** Select [Size] from the main menu.



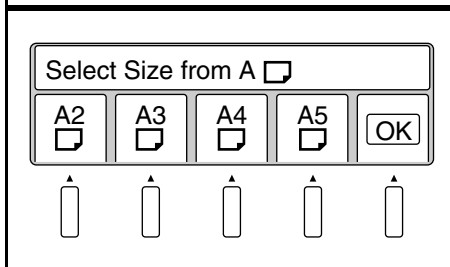
- 2** Select the size (A or B) and direction (portrait or landscape) appropriate for the original.

Select [OK] to return to the main menu.



- 3-1** When [A (Landscape)] is selected, the size can be selected from A2, A3, A4, and A5. The selected menu name is highlighted.

Select [OK] to return to the main menu.

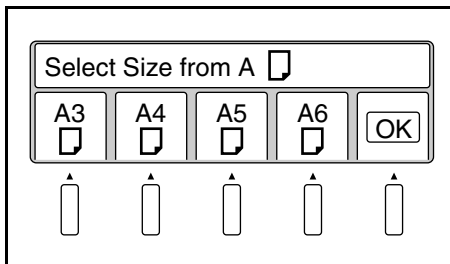


NOTE

- The resolution changes from [600 dpi] to [400 dpi] when [A2] is selected.
- The Scan mode changes from [Single] or [Book Split] to [Spread] when [A2] is selected.

- 3-2** When [A (Portrait)] is selected, the size can be selected from A3, A4, A5, and A6. The selected menu name is highlighted.

Select [OK] to return to the main menu.



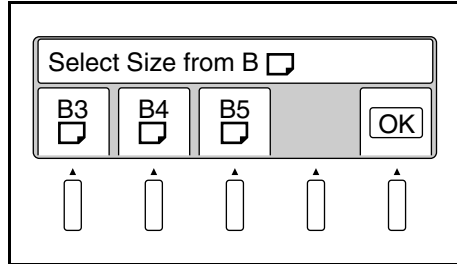
Selecting scan size

NOTE

- The resolution changes from [600 dpi] to [400 dpi] when [A3] is selected.
- The Scan mode changes from [Spread] to [Single] when [A6] is selected.

3-3 When [B (Landscape)] is selected, the size can be selected from B3, B4, and B5. The selected menu name is highlighted.

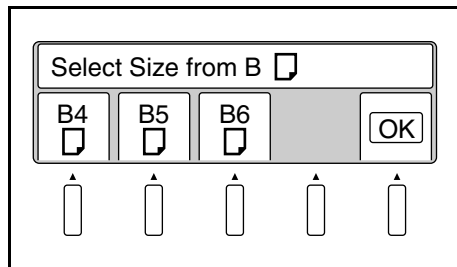
Select [OK] to return to the main menu.

**NOTE**

- The resolution changes from [600 dpi] to [400 dpi] when [B3] is selected.
- The Scan mode changes from [Single] or [Book Split] to [Spread] when [B3] or [B4] is selected.

3-4 When [B (Portrait)] is selected, the size can be selected from B4, B5, and B6. The selected menu name is highlighted.

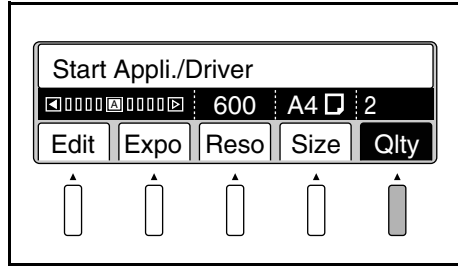
Select [OK] to return to the main menu.

**NOTE**

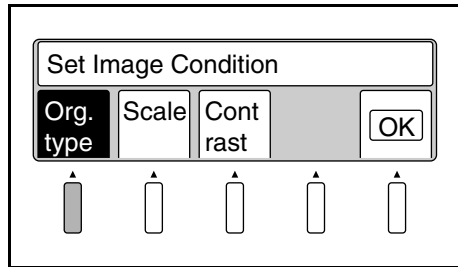
- The resolution changes from [600 dpi] to [400 dpi] when [B4] is selected.
- The Scan mode changes from [Spread] to [Single] when [B6] is selected.

Selecting Original Type

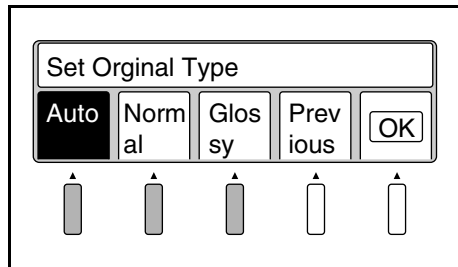
- 1** Select [Qty] in the main menu.



- 2** Select [Org. type]. The menu name is highlighted and the original type setting screen is displayed.



- 3** Set the original type in the original type setting screen.

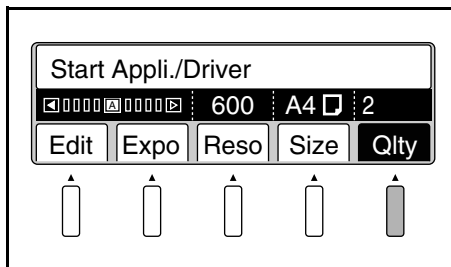


NOTE

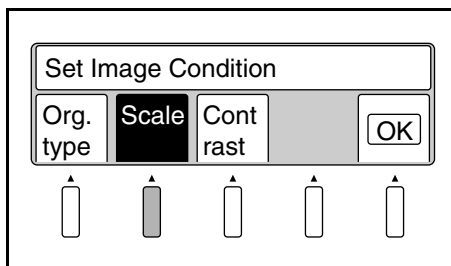
Normally set the original type to [Auto]. For originals from which image cannot be clearly scanned, set the original type to [Normal] or [Glossy].

Selecting Output Scale

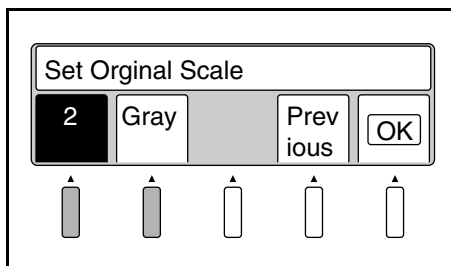
- 1** Select [Qlty] in the main menu.



- 2** Press the [Scale] key. The display is reversed, and the Scale Setting screen is displayed.



- 3** Select [2] or [Gray] on the Scale Setting screen, and press the [OK] key.



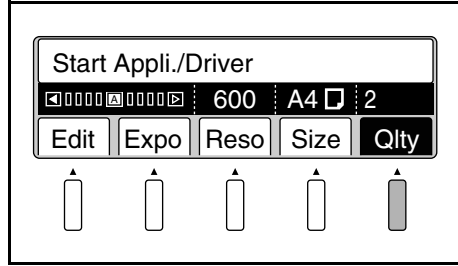
- 2 (Binary) : Suitable to the text original.
Read in a black and white image with high contrast.
- Gray (Grayscale) : Suitable to the photo original.
Read in the image with 8-bit data.

NOTE

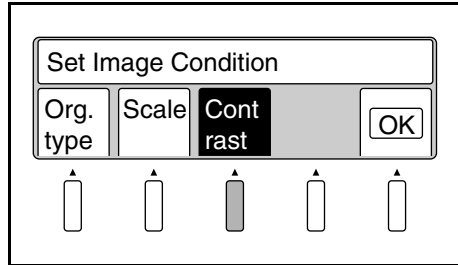
When the Book Scanner is not equipped with the Grayscale Memory Board (option), [Gray] is not displayed.

Selecting Contrast

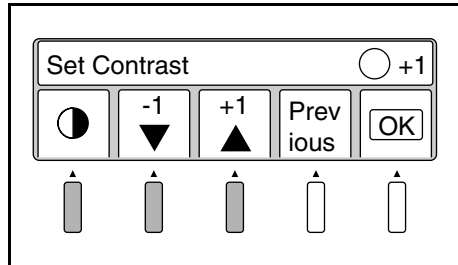
1 Select [Qlty] in the main menu.



2 Select [Contrast]. The menu name is highlighted and the original type setting screen is displayed.



3 Set the contrast on the Contrast Setting screen.



Select the part of the image to be adjusted by using the [●/○] key (○: Highlight, ●: Shadow), and adjust the level by using the [+] and [-] keys (Highlight: 0 to 15, Shadow: -7 to +7)

When the ○ (Highlight) value is increased in the [+] direction, the light part becomes lighter and at the same time the dark part becomes slightly lighter.

When the ● (Shadow) value is increased in the [+] direction, the dark part becomes darker. When it is set to the [-] side, the dark part becomes lighter.

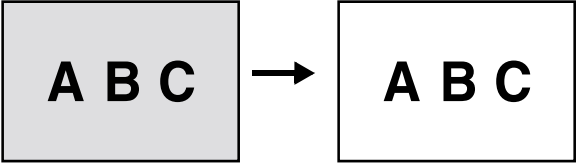
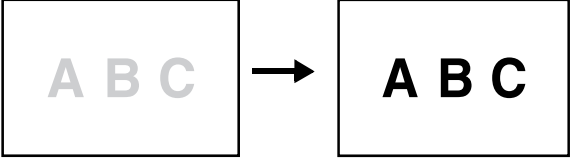
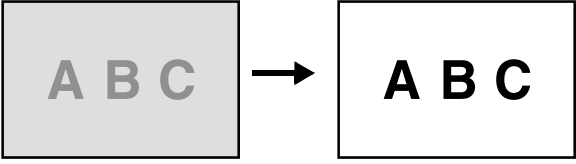
By adjusting the ● (Shadow) part, the light part can be slightly darkened or lightened.

The ● (Shadow) part may not have the effect in the plus direction.

In this case, when the ● (Shadow) part is set to [Dark], darker expression is possible.

Selecting Contrast

The following examples describe how to adjust the image read according to the standard settings (Highlight: 0, Shadow: 0, Exposure: Center) by correcting the contrast or adjusting the exposure:

Image before adjusting the contrast → Image after adjusting the contrast	Setting example:
<p>To whiten the ground</p> 	<p>Highlight: +9 Shadow: +2 Exposure: Center</p>
<p>To darken the text</p> 	<p>Highlight: 0 Shadow: +7 Exposure: Darken</p>
<p>To whiten the ground and darken the text</p> 	<p>Highlight: +7 Shadow: +7 Exposure: Darken</p>

NOTE

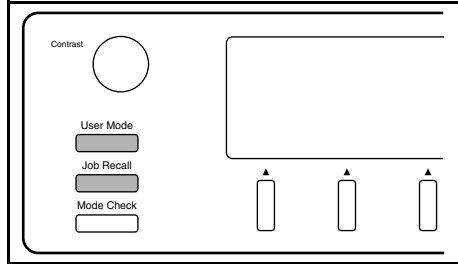
The image read result may be slightly different depending on the type of the original and the environment in which the original is read.

Operations in Utility mode

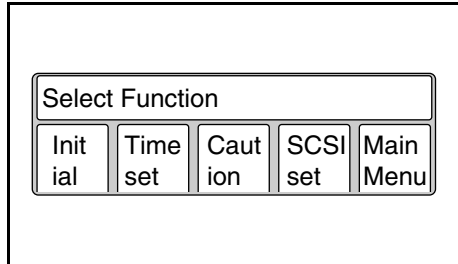
The following items can be set in Utility Mode:

- Initial settings upon power supply
- Timers (automatic clear, lamp off, and printer power save)
- Warning (detection items and buzzer preferences)
- Changing the SCSI port and ID No.

Simultaneously press the User Mode key and the Job Recall key on the control panel.



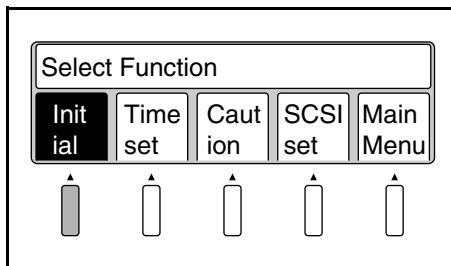
The main Utility screen appears.



Initial settings

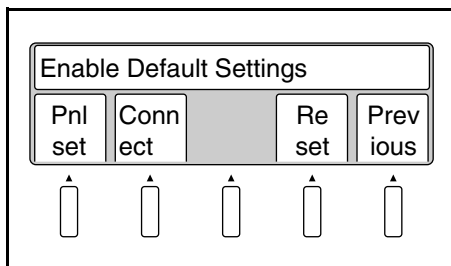
The initial settings (settings on the panel and the connected device) are customized and/or reset to the default factory settings. If any of the initial settings is changed, turn off the power to the Scanner. Then, turn it on, and the initial settings have been changed accordingly.

- 1 Select [Initial] on the main Utility screen. The initial setting screen appears.



- 2 Select the desired item. The specified menu name is highlighted.

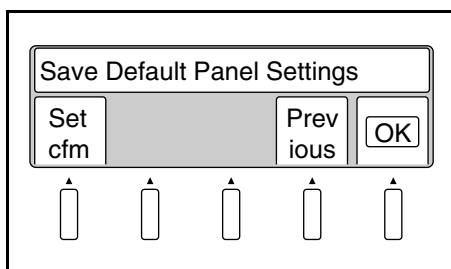
Select [Previous] to return to the main Utility screen.



- 3-1 Select [Pnl set] to check and make the current settings the default settings for the current and subsequent operations.

Select [Set cfm] to check the current settings.

Select [Previous] to return to the previous screen.



Select [OK] to define the current settings as the default settings for the current and subsequent operations.

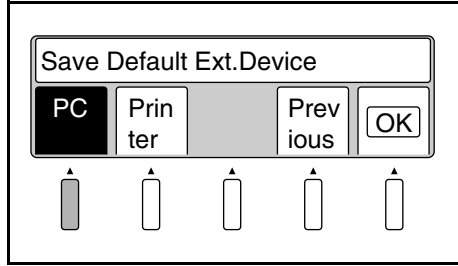
Operations in Utility mode

- 3-2** Select [Connect] to set the connected device for the current and subsequent operations.

Select [PC] or [Printer] to connect the scanner to a personal computer or printer respectively.

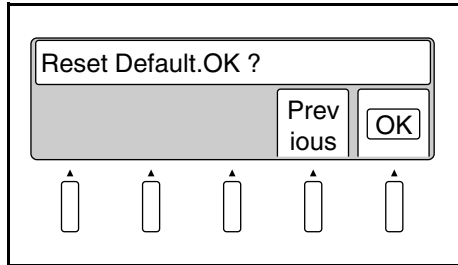
Select [Previous] to return to the previous screen.

Select [OK] to define the device to which the Scanner is connected.



- 3-3** Select [Reset] to reset all customized initial settings to the default factory settings. What can be reset here are the setting value in the utility mode and the registered program contents. Select [Previous] to return to the previous screen.

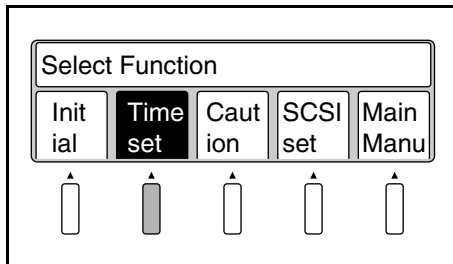
Select [OK] to define the default factory settings for the current and subsequent operation.



Time Set

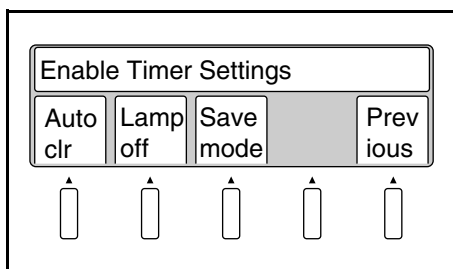
The settings for the timer (automatic clear time, lamp off time, and printer power save time) are set.

- 1** Select [Time set] on the main Utility screen. The timer setting screen appears.



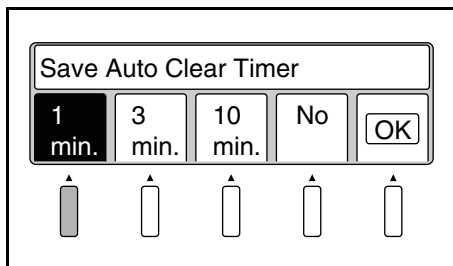
- 2** Select the desired item. The specified menu name is highlighted.

Select [Previous] to return to the main Utility screen.



- 3-1** Select [Auto clr] to determine the time until all settings are reset to the default factory settings (auto clear time).

Select [1 min.], [3 min.], or [10 min.] for the auto clear time.



Selecting [No] sets the auto clear time to "0" and deactivates the auto clear function.

Select [OK] to define the setting.

NOTE

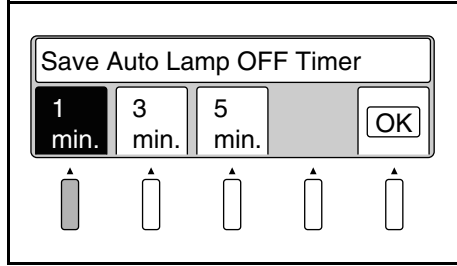
When the main body is connected to the PC, the auto clear does not work.

Operations in Utility mode

- 3-2** Select [Lamp off] to set the time until the lamp is turned off (lamp off time) after scanning has been completed, or after the last key has been pressed.

Select [1 min.], [3 min.], or [5 min.] to set the desired lamp off time.

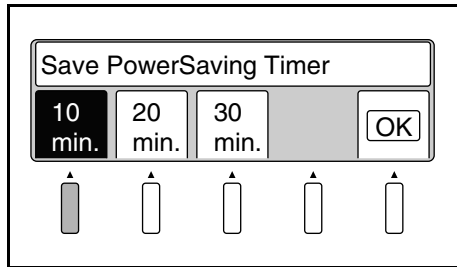
Select [OK] to define the setting.



- 3-3** Select [Save mode] to set the time until the printer enters Sleep mode after printing has been completed (printer power save time).

Select [10 min.], [20 min.], or [30 min.] to set the desired time setting.

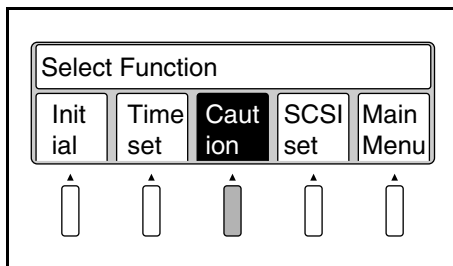
Select [OK] to define the setting.



Caution

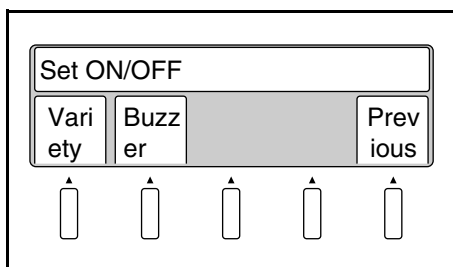
The type of detection items and buzzer preferences are set here. All settings defined here become effective immediately.

- 1 Select [Caution] on the main Utility screen. The warning setting screen appears.



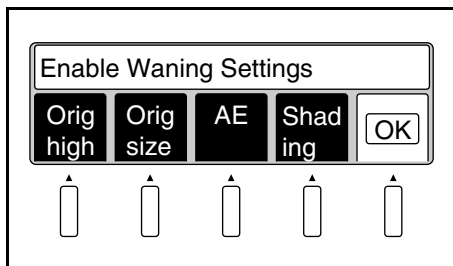
- 2 Select the desired item. The selected menu name is highlighted.

Select [Previous] to return to the main Utility screen.



- 3-1 Select [Variety] to activate or deactivate items to be checked during scanning.

Activated items are highlighted. These menu names will be deactivated and displayed normally when the corresponding key is pressed again.



Select [OK] to define the detection items.

Operations in Utility mode

3-2 Select [Buzzer] to set when the buzzer goes off.

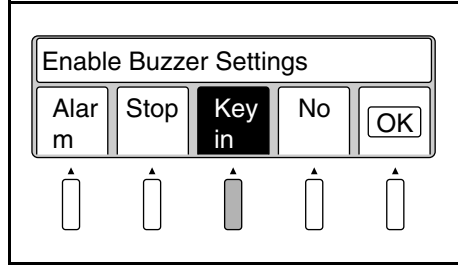
Selecting [Alarm] makes the buzzer go off only when any warning message appears.

Selecting [Stop] makes the buzzer go off when any prohibited operation is attempted, as well as when any warning message appears.

Selecting [Key in] makes the buzzer go off when any key is pressed and accepted in addition to the above two cases.

Select [No] to deactivate the buzzer.

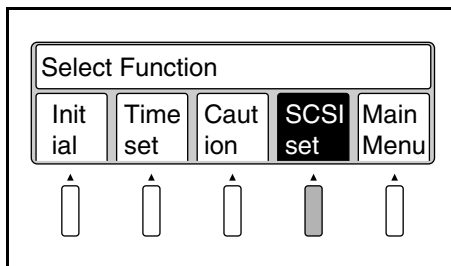
Select [OK] to define the setting.



SCSI port settings

The ID number for SCSI port recognition is set. All settings defined here are effective not only for the current operation but also when the Scanner is turned on next.

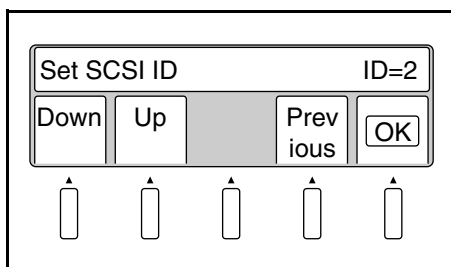
- 1 Select [SCSI set] on the main Utility screen. The SCSI setting screen appears.



- 2 Select [Up] or [Down] to change the ID number from 0 to 7.

Select [Previous] to return to the main Utility screen.

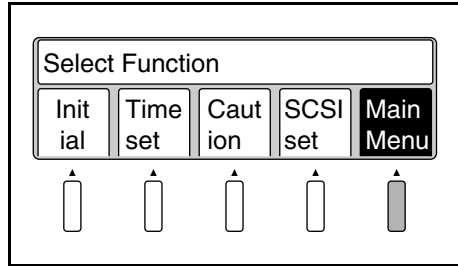
Select [OK] to define the setting.



Operations in Utility mode

Exiting Utility mode

Select [Main Menu] on the main Utility screen.



Chapter 6

Troubleshooting

Potential problems

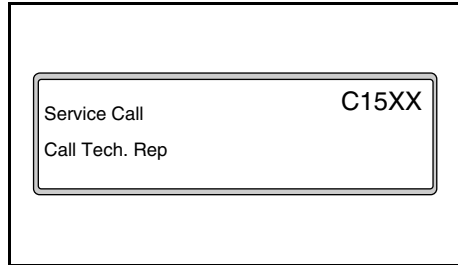
Two types of messages appear on the display according to the nature of the problem.

Warning message

When any error occurs in parameters for auto focus, auto exposure, or paper size detection prior to scanning, a warning message appears on the display and the Scanner stops. Warning messages can be reset by pressing any key on the control panel. Refer to the following pages for the action required for each message.

Error message

When any error occurs in the Scanner, an error message appears on the display, the start key turns red, and scanning stops. In this case, turn the power switch off and then back on. If the same message appears again, check the error code (numbers following the letter “C”) and call your authorized dealer.



Troubleshooting warning messages

Warning message	Possible cause	Action
Bind Size is Too High Press Down Book Table	<ul style="list-style-type: none"> The height of the surface of the original is more than 65 mm above the book table. 	<ul style="list-style-type: none"> Lower the original so that its surface is within the range 65 mm above the book table. Select Sheet mode.
	<ul style="list-style-type: none"> The steel mirror is dirty. 	<ul style="list-style-type: none"> Clean the steel mirror.
	<ul style="list-style-type: none"> Light from the room lighting or the outside through windows reflects on the steel mirror. 	<ul style="list-style-type: none"> Relocate the Scanner to a place where light from the room lighting or the outside through windows does not reflect on the steel mirror.
	<ul style="list-style-type: none"> Change settings appropriately for the original, referring to “Notes on originals”. 	
Bind Size is Not Detected Reset Book or Change Sheet	<ul style="list-style-type: none"> A tag or bookmark is attached to the original. 	<ul style="list-style-type: none"> Take off tags and bookmarks. Set the original upside down.
	<ul style="list-style-type: none"> Indices are provided on the top of the original. 	<ul style="list-style-type: none"> Set the original upside down. Set the distance between the stopper and the original in Book mode. Select Sheet mode.
	<ul style="list-style-type: none"> The steel mirror is dirty. 	<ul style="list-style-type: none"> Clean the steel mirror.
	<ul style="list-style-type: none"> The hardcover has patterns. Light reflects on the hardcover. 	<ul style="list-style-type: none"> When the mode is Book mode, set the distance between the stopper and the original.
	<ul style="list-style-type: none"> Change settings appropriately for the original, referring to “Notes on originals”. 	
Book Exp. level is Too High Set AE to off	<ul style="list-style-type: none"> The density of the original surface is too high. 	<ul style="list-style-type: none"> Cancel the setting for auto exposure. Turn off Frame Masking. Select Sheet mode.
	<ul style="list-style-type: none"> The original is not correctly set. No original is set. 	<ul style="list-style-type: none"> Change settings appropriately for the original, referring to “Notes on originals”. Set the original correctly.
Book Size is Not Detected Reset Book or Change Sheet	<ul style="list-style-type: none"> A tag or bookmark is attached to the original. 	<ul style="list-style-type: none"> Take off tags and bookmarks.
	<ul style="list-style-type: none"> Indices are provided on the top of the original. 	<ul style="list-style-type: none"> Select the Sheet mode and cancel the Auto function. Set the original upside down.

Troubleshooting warning messages

Warning message	Possible cause	Action
Book Size is Not Detected Reset Book or Change Sheet	<ul style="list-style-type: none"> • The original is not set correctly. • No original is set. 	<ul style="list-style-type: none"> • Change settings appropriately for the original, referring to “Notes on originals”. • Set the original correctly.
Right (Left) Size is Not Detected Reset Book or Change Sheet	<ul style="list-style-type: none"> • [Spread] is selected, but no original is placed on the right or left half of the book table. 	<ul style="list-style-type: none"> • Select [Single] when scanning only one page. • Set the original correctly when scanning a two page spread. • Select the Sheet mode and cancel the Auto function.
	<ul style="list-style-type: none"> • Change settings appropriately for the original, referring to “Notes on originals”. 	
Exp. level is Not Detected Clean Top of Steel Mirror	<ul style="list-style-type: none"> • The shading plate is dirty. 	<ul style="list-style-type: none"> • Clean the shading plate.
	<ul style="list-style-type: none"> • Your hands or arms were placed over the original during scanning. 	<ul style="list-style-type: none"> • Never move your hands and arms after the start switch is pressed.
	<ul style="list-style-type: none"> • An obstacle is blocking the lamp. 	<ul style="list-style-type: none"> • Remove the obstacle blocking the lamp.
Printer is OFF Turn Printer ON	<ul style="list-style-type: none"> • Current [Output] setting is [Printer] connection. 	<ul style="list-style-type: none"> • Change the [Output] setting to [PC].
Communication Error Turn Off and On System	<ul style="list-style-type: none"> • Communication Error 	<ul style="list-style-type: none"> • Check connection of SCSI cable and SCSI apparatus. • Turn the power switch OFF and then ON again to reset the system.

Chapter 7

Maintenance

Maintenance

The following daily checks and cleaning are required to ensure the best possible performance and utmost safety from the Scanner.

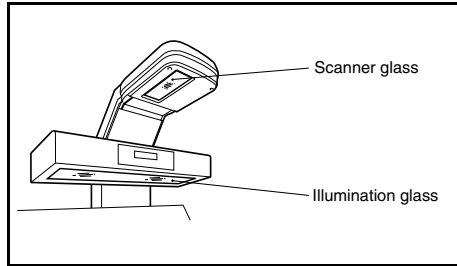
Daily checks

- Any of the following conditions could damage the Scanner or other electrical equipment. Move the Scanner immediately and eliminate the possible cause of malfunction.
 - The Scanner is placed on the power cord or other cables.
 - The Scanner is placed on any cord of other electrical devices.
- If any of the following conditions is found, turn the Scanner off immediately, unplug the power cord from the outlet, and call your authorized dealer.
 - The power cord or interface cable is damaged.
 - The insulation of the power cord is damaged and the bare wires are exposed.

Cleaning

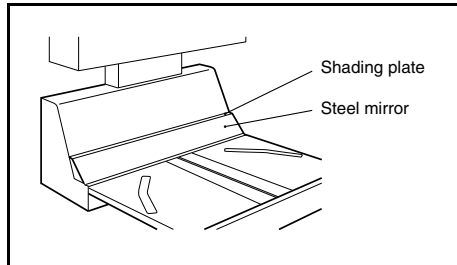
Scanner glass and illumination glass

The Scanner may not scan the original correctly if the scanner glass or illumination glass is dirty. Wipe the surfaces with a dry soft cloth to remove dirt.



Steel mirror and shading plate

The height of the original is not correctly measured if the steel mirror or shading plate is dirty, resulting in a warning message. Wipe the surfaces with a dry soft cloth to remove dirt.



NOTE

Be sure to turn the Scanner off and unplug the power cord before cleaning.

Chapter 8

Specifications

Product specifications

Type:	Desk-top book scanner for face-up originals
Scanning system:	Rotary mirror scanning system
Original type:	Book, Sheet
Original size:	Max. 432 mm x 594 mm (Scanning area)

	spread mode	single mode
Landscape	A2, B3, A3, B4, A4, B5, A5 or 17" x 23", 14" x 22", 14" x 17", 11" x 17", 11" x 14", 8-1/2" x 14", 8-1/2" x 11", 5-1/2" x 8-1/2"	A4, B5, A5, or 8-1/2" x 11", 5-1/2" x 8-1/2"
Portrait	A3, B4, A4, B5, A5 or 14" x 17", 11" x 17", 11" x 14", 8-1/2" x 14", 8-1/2" x 11", 5-1/2" x 8-1/2"	A3, B4, A4, B5, A5, B6, A6 or 11" x 17", 11" x 14", 8-1/2" x 14", 8-1/2" x 11", 5-1/2" x 8-1/2"

Original thickness:	100 mm: Less than A3 or 17" (effective range: within 300 mm in longitudinal direction) 50 mm: Less than A2 or 23" (effective range: within 420 mm in longitudinal direction)
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Resolution:	200/240/300/400/600 dpi
Image sensor:	Reducing-type line CCD (7500 pixels)
Light source:	Long cylindrical halogen lamp (DC150V, 620 W)
Exposure Adjustment:	Automatic (9 steps) or Manual (9 steps)
Focus:	Automatic or Manual (0-50 mm or 0-2")
Shadow ensure:	Automatic function erases the shadow generated between pages
Image correction:	Curved text line correction by zoom adjustment in scanning direction Text compression correction by space adjustment in sub-scanning direction
Text/Photo mode:	Outline accentuation and smoothing method
Finger mask:	Fingers holding the original erased

Specifications

Frame masking:	Object (frame) outside the original erased
Centering:	Scanned image printed out in the center of the paper
Scan mode:	Spread / Single / Book Split
Scanning speed:	4.5 sec/page (A4, right page only, 400 dpi, AE, auto frame masking, finger masking, center masking)
Dimensions:	730 mm (W) x 745 mm (D) x 975 mm (H) or 28-3/4"(W) x 29-5/8"(D) x 38-3/8" (H)
Weight:	64 kg (140 lbs)
Power source:	120 V, 60Hz/ 220-240V, 50-60Hz
Max. power consumption:	Less than 1000 W
Operation noise:	Standby-state:30 dB or less, Operation:62 dB or less
Interface:	Video I/F (Printer), SCSI-2 (PC)
Option:	Angle Book Holder, System Printer & PR Interface Kit, Foot Switch, Gray Scale Memory Board

For Key Operator's Use

When you need to call for service, the Key Operator should be prepared to provide the following information to your local authorized Dealer.

1. Your Company Name, Address, Telephone Number, Department Name, Floor Number, Machine Location, etc.
2. Model Name, Serial Number, Condition or System(s) Indication(s) on the Display. etc.

For your reference purpose.

Model Name	PS7000	Serial No. _____
Installation Data		
Authorized Dealer's Name TEL. No. Address		



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