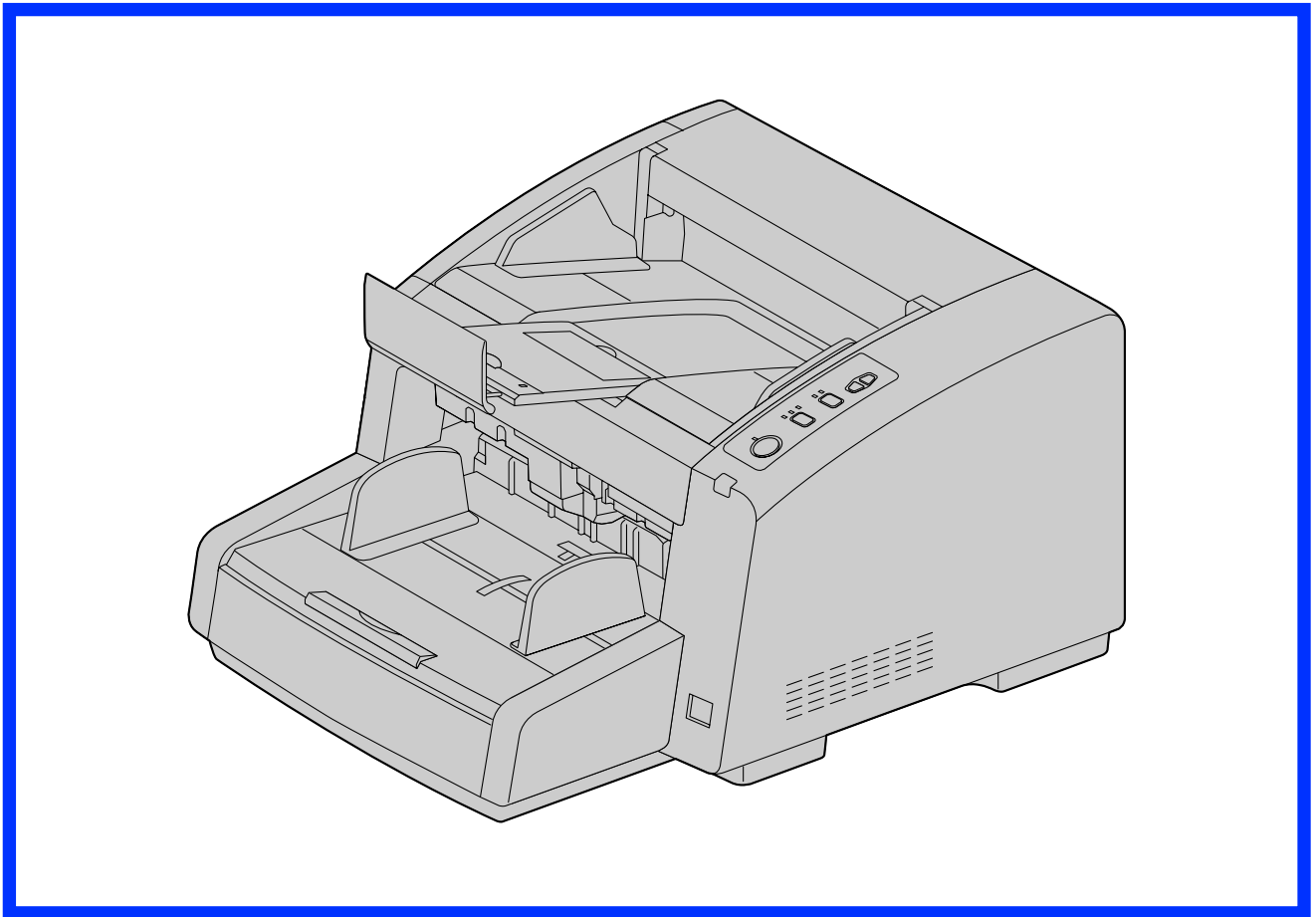


Panasonic[®]

Operating Manual

High Speed Color Scanner

Model No. KV-S4085CL / KV-S4085CW
KV-S4065CL / KV-S4065CW



These instructions contain information on operating the scanner. Before reading these instructions, please read the installation manual enclosed with this unit.

Please carefully read these instructions and the enclosed installation manual. Keep all documentation in a safe place for future reference.

Introduction

Thank you for purchasing a **Panasonic High Speed Color Scanner**.

Feature Highlights

Superior Paper Feeding

- This scanner features an advance paper feeding mechanism that monitors the condition of the document and adjusts the pressure of the rollers accordingly. As a result, this scanner can scan a wide range of paper weights, from very thin 20 g/m² (5 lbs.) paper to very thick 209 g/m² (56 lbs.) paper.

High-speed Double Sided Scanning

- This scanner can scan documents at high speed, regardless of the resolution (200 dpi / 300 dpi) or image type (monochrome / color).
Single sided: 80 pages/minute, double sided: 160 images/minute (KV-S4085CL / KV-S4085CW)
Single sided: 60 pages/minute, double sided: 120 images/minute (KV-S4065CL / KV-S4065CW)
* Speeds based on scanning A4 size paper in portrait orientation.

Support for High-efficiency Scanning Jobs

- This scanner has a Stapled document detection function, which can automatically detect stapled documents and try to stop scanning before any damage is caused to the scanner.
- This scanner is equipped with 3 ultrasonic sensors that can be turn on and off independently. They are in 3 different locations (left, center and right), which can detect a variety of double feeds.
(KV-S4065CL / KV-S4065CW: 1 location)

Other Features

- You can select between the front exit and rear exit (straight path) for the paper exit path. By using the straight path, you can scan long sheets of paper or thick sheets of paper.
- You can set the left and right document guides independently. By doing so, you can reliably scan documents of differing paper sizes.
- The paper feed path can be opened widely to easily removed jammed paper and perform maintenance.

About the documentation

The scanner documentation consists of 2 manuals: the Installation Manual and the Operating Manual. In addition, 3 software reference manuals are included.

Installation Manual (printed documentation)	The Installation Manual explains the installation method and procedures.
Operating Manual (this manual)	The Operating Manual explains the part names, operations, features and maintenance of the unit.
Software Reference Manuals (electronic documentation)	<ul style="list-style-type: none"> • PIE Reference Manual Explains the settings of the PIE (Panasonic Image Enhancement Technology) features using the ISIS and TWAIN drivers. • RTIV Reference Manual Explains the features and settings for RTIV (Reliable Throughput Imaging Viewer). (You can view this manual by clicking the help button on RTIV.) • User Utility Reference Manual Explains how to use the User Utility, which is used for scanner maintenance. (You can view this manual by clicking the help button on User Utility.)

Abbreviations

- Windows® refers to the Microsoft® Windows® operating system (hereafter Windows).
- Windows® 2000 refers to the Microsoft® Windows® 2000 operating system (hereafter Windows 2000).
- Windows® XP refers to the Microsoft® Windows® XP operating system (hereafter Windows XP).
- Windows Vista® refers to the Microsoft® Windows Vista® operating system (hereafter Windows Vista).
- The illustrations in this manual are of the KV-S4085CL / KV-S4085CW.

Trademarks

- Microsoft, Windows, and Windows Vista are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.
- ISIS and QuickScan Pro are registered trademarks or trademarks of EMC Corporation.
- IBM and AT are trademarks of International Business Machines Corporation in the United States, other countries, or both.
- Intel and Intel Core are trademarks of Intel Corporation in the U.S. and other countries.
- Adobe and Reader are either registered trademarks or trademarks of Adobe Systems Incorporated in the United States and/or other countries.
- All other trademarks identified herein are the property of their respective owners.

International ENERGY STAR Program



As an ENERGY STAR® Partner, Panasonic has determined that this product meets the ENERGY STAR guidelines for energy efficiency.

System Requirements

Computer	IBM® PC/AT® or compatible machine with a CD-ROM drive
CPU	Intel® Core™ 2 Duo, 1.8 GHz or higher
Operating System	Windows 2000 / Windows XP / Windows Vista
Interface	USB 2.0
Memory	1 GB or higher
Hard Disk	5 GB or more free space is required.

Note

- The above system requirements may not satisfy the requirements of all operating systems.
- The scanning speed differs depending on the host computer's operating environment or the application used.
- Due to the slower speed of USB 1.1, it is recommended to use a USB 2.0 interface.
- If you connect the scanner to a USB hub, it is not guaranteed to work.

Federal Communications Commission Requirements (For United States 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.

FCC Warning: To assure continued FCC compliance, the user must use only shielded interface cable and the provided power supply cord. Also, any unauthorized changes or modifications to this equipment would void the user's authority to operate this device.

For FRG Users (For Germany Only)

Machine noise information regulation - 3.GPSGV, the maximum sound pressure level is 70 dB(A) or less, in conformity with EN ISO 7779.

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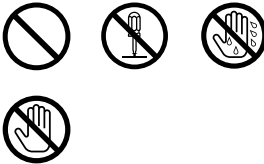

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For Your Safety

To prevent severe injury and loss of life, read this section carefully before using the unit to ensure proper and safe operation of your unit.


- This section explains the graphic symbols used in this manual.


 WARNING	Denotes a potential hazard that could result in serious injury or death.
 CAUTION	Denotes hazards that could result in minor injury or damage to the unit.
	These symbols are used to alert operators to a specific operating procedure that must be performed carefully.
	These symbols are used to alert operators to a specific operating procedure that must not be performed.
	These symbols are used to alert operators to a specific operating procedure that must be emphasized in order to operate the unit safely.


For Users


 **WARNING**


Power and Ground Connection


- 


The power source voltage of this unit is listed on the nameplate. Only plug the unit into an AC outlet with the proper voltage. If you use a cord with an unspecified current rating, the unit or plug may emit smoke or become hot to the touch.
- 


When you operate this product, the power outlet should be near the product and easily accessible.
- 

To ensure safe operation, the power cord supplied must be inserted into a standard three-prong AC outlet which is effectively grounded (earthed) through the normal wiring.
- 

The fact that the equipment operates satisfactorily does not imply that the power point is grounded (earthed) and that the installation is completely safe. For your safety, if in any doubt about the effective grounding (earthing) of the power point, consult a qualified electrician.
- 

If the plug cannot be inserted into the AC outlet, contact a licensed electrician to replace the AC outlet with a properly grounded (earthed) one.
- 

Do not defeat the grounding (earthing) plug (ex. do not use a conversion plug).
- 

Plug the power cord firmly into an AC outlet. Otherwise, it can cause fire or electric shock.
- 

Do not pull, bend, rest objects on, or chafe the power cord, and plug. Damage to the power cord or plug can cause fire or electric shock.



Do not attempt to repair the power cord, or plug. If the power cord or plug is damaged or frayed, contact an authorized service representative for a replacement.



Ensure that the plug connection is free of dust. In a damp environment, a contaminated connector can draw a significant amount of current that can generate heat, and eventually cause fire if left unattended over an extended period of time.



Never touch the plug with wet hands. Danger of electric shock exists.



Stop operation immediately if the unit emits smoke, excessive heat, abnormal smell, or unusual noise. These conditions can cause fire or electric shock. Immediately turn the unit off, and unplug the power cord, and contact your dealer for service.



When disconnecting the unit, grasp the plug instead of the cord. Pulling on a cord forcibly can damage it, and cause fire or electric shock.

Operating Safeguards



If metal fragments or water gets into the unit, turn the unit off, and unplug the unit immediately. Contact your dealer for service. Operating the contaminated unit can cause fire or electric shock.



Do not open covers, and do not attempt to repair the unit yourself. Contact your dealer for service.



Do not alter the unit or modify any parts. Alteration or modification can cause fire or electric shock.



During thunderstorms, do not touch the unit and plug. It may cause an electric shock.



Do not place the separation rollers or paper feed rollers where small children can reach them. There is a danger that the rollers may be swallowed. In the event that you think they have been swallowed, contact a doctor immediately.

Roller Cleaning Paper



Do not drink or inhale the roller cleaning paper fluid including isopropyl alcohol.



The roller cleaning paper may be harmful to sensitive skin. Please use protective gloves.



Do not use the roller cleaning paper near a heater or open flame.

 **CAUTION**

Power



The unit should be used only with the power cord enclosed with the unit.



When the unit is not used over an extended period of time, switch it off, and unplug it. If an unused unit is left connected to a power source for a long period, degraded insulation may cause electric shock, current leakage, or fire.

Installation and Relocation



Do not position the unit in a location where it is unstable.



To prevent fire or shock hazard, do not expose this unit to rain or any type of moisture.



Do not place the unit in a hot humid or dusty environment. Prolonged exposure to these adverse conditions may cause fire or electric shock.



Do not block the air vents. Doing so can cause heat to build up, and may result in fire.



When moving the unit, be sure to unplug the power cord from the AC outlet. If the unit is moved with the power cord attached, it can cause damage to the cord which could result in fire or electric shock.



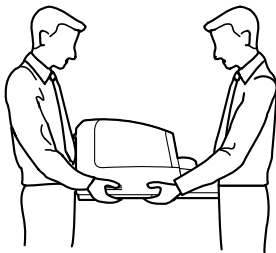
Do not use the hopper hanging out of a table.



When carrying the unit, do not use the hopper as handles.



Move this unit with two persons, and hold it by both side grips. Dropping the unit can cause injury and damage to the unit.



Operating Safeguards



If the unit falls down or gets damaged, turn the unit off, and unplug the power cord. Otherwise, it may cause fire or electric shock.



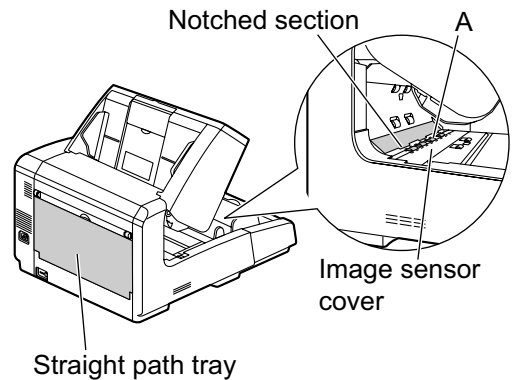
Do not place any liquids or heavy items on the unit. Accidental spillage of liquid into the unit may cause severe damage. If this occurs, turn the unit off, unplug the power cord, and contact your dealer for service.



Do not touch the image sensor covers or their surroundings immediately after continuous scanning. This area is very hot and can cause burns.



When wiping the rollers (A) and lower-section image sensor cover, make sure to close the straight path tray.



If the straight path tray is open, touching the notched section can cause injury.



Be careful not to pinch your fingers when closing the front door. It can cause injury.

(For KV-S4065CL and KV-S4065CW only)

LED LIGHT

DO NOT VIEW DIRECTLY WITH OPTICAL INSTRUMENTS.

CLASS 1M LED PRODUCT

LED properties



LED radiation output:		12 mW max.
Wavelength:	Red	630 nm typ.
	Green	534 nm typ.
	Blue	460 nm typ.

Emission duration: Continuous

Standard: IEC 60825-1:1993 +A1:1997 +A2:2001

Safety Information (For United Kingdom only)

This appliance is supplied with a moulded three pin mains plug for your safety and convenience.

A 5 amp fuse is fitted in this plug. Should the fuse need to be replaced, please ensure that the replacement fuse has a rating of 5 amps and that it is approved by ASTA or BSI to BS1362. Check for the ASTA mark  or the BSI mark  on the body of the fuse. If the plug contains a removable fuse cover, you must ensure that it is refitted when the fuse is replaced. If you lose the fuse cover, the plug must not be used until a replacement cover is obtained. A replacement fuse cover can be purchased from your local Panasonic Dealer.

IF THE FITTED MOULDED PLUG IS UNSUITABLE FOR THE SOCKET OUTLET IN YOUR PREMISES, THEN THE FUSE SHOULD BE REMOVED AND THE PLUG CUT OFF AND DISPOSED OF SAFELY. THERE IS DANGER OF SEVERE ELECTRICAL SHOCK IF THE CUT-OFF PLUG IS INSERTED INTO ANY 13 AMP SOCKET.

If a new plug is to be fitted, please observe the wiring cord as shown below. If in any doubt, please consult a qualified electrician.

WARNING


THIS APPLIANCE MUST BE EARTHED.

IMPORTANT

The wires in this mains lead are coloured as follows:

Green-and-Yellow	: Earth
Blue	: Neutral
Brown	: Live

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

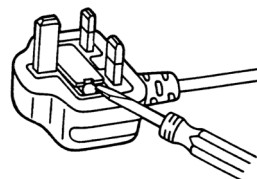
The wire that is coloured GREEN-AND-YELLOW must be connected to the terminal in the plug that is marked with the letter E or by the Earth symbol  or coloured GREEN or GREEN-AND-YELLOW.

The wire that is coloured BLUE must be connected to the terminal in the plug that is marked with the letter N or coloured BLACK.

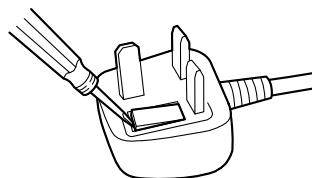
The wire that is coloured BROWN must be connected to the terminal in the plug which is marked with the letter L or coloured RED.

How to replace the fuse:

Open the fuse compartment with a screwdriver and replace the fuse and fuse cover.



OR



Precautions

Installation

- Do not place the unit in direct sunlight, in a cold draft, or near heating apparatus.
- Do not place the unit near apparatus which generate electronic or magnetic noise.
- Protect the unit from static electricity.
- Do not move the unit immediately from a cold place to a warm place. It may cause dew.

CD-ROM

- Do not write or stick paper on the front and/or back of CD-ROM.
- Do not touch the data side of the CD-ROM. When handling the CD-ROM, be careful not to leave fingerprints or otherwise damage the CD-ROM.
- Do not leave the CD-ROM where it is directly exposed to sunlight or near a heater for extended periods.
- Do not throw or bend the CD-ROM.

Roller Cleaning Paper

- Keep the roller cleaning paper out of reach of small children.
- Do not store the roller cleaning paper in direct sunlight or in a place with a temperature over 40 °C (104 °F).
- Only use the roller cleaning paper to clean the rollers and image sensor covers.
- For details about the roller cleaning paper, please refer to the Material Safety Data Sheet (MSDS). Please ask your Panasonic sales company about obtaining the Material Safety Data Sheet.

KEEP AWAY FROM FIRE.

Others

- Make sure to remove paper clips and staples from documents before scanning. Failing to do so can damage the unit, document, or both.
- Do not use thinner, benzine, or cleaners containing abrasives or surfactants, for cleaning the outside of scanner.
- Plug the power cord into an outlet from which you can easily unplug it.

Illegal Duplication

It is unlawful to make duplication of certain documents.

Duplicating certain documents may be illegal in your country/area.

Penalties of fines and/or imprisonment may be imposed on those found guilty. The following are examples of items that may be illegal to duplicate in your country/area.

- Currency
- Bank notes and checks
- Bank and government bonds, and securities
- Passports, licenses, official or private documents, identification cards, and the like
- Copyright materials, or trademarks without the consent of the owner
- Postage stamps, and other negotiable instruments

This list is not inclusive, and no liability is assumed for either its completeness or accuracy. In case of doubt, contact your legal counsel.

Notice

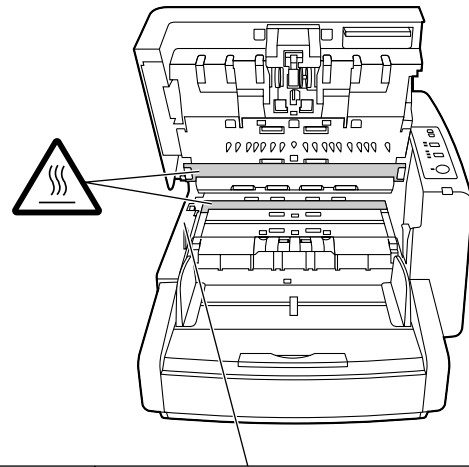
Install your machine near a supervised area to prevent illegal duplication from being made.

Security Notice

The management of documents and scanned data is the responsibility of the user. In particular, pay attention to the following points.

- Make sure you have the same number of pages for important documents both before and after scanning, and take care not to leave any pages in the scanner.
- Periodically back up important data.
- When having your computer or hard disk serviced, or when disposing of your computer or hard disk, completely erase any stored image data.

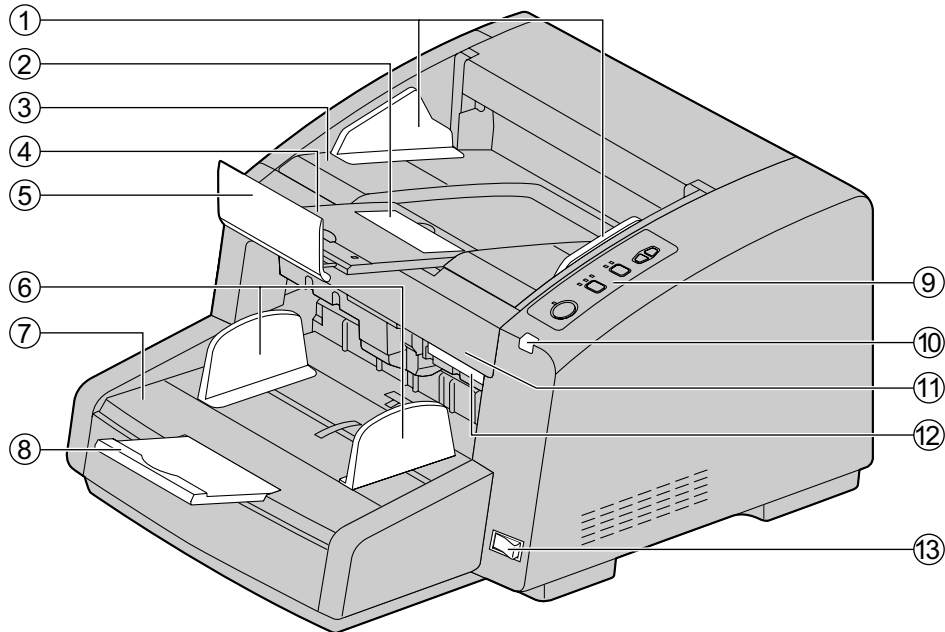
Caution Labels



Be careful not to pinch your fingers when closing the front door. It can cause injury.

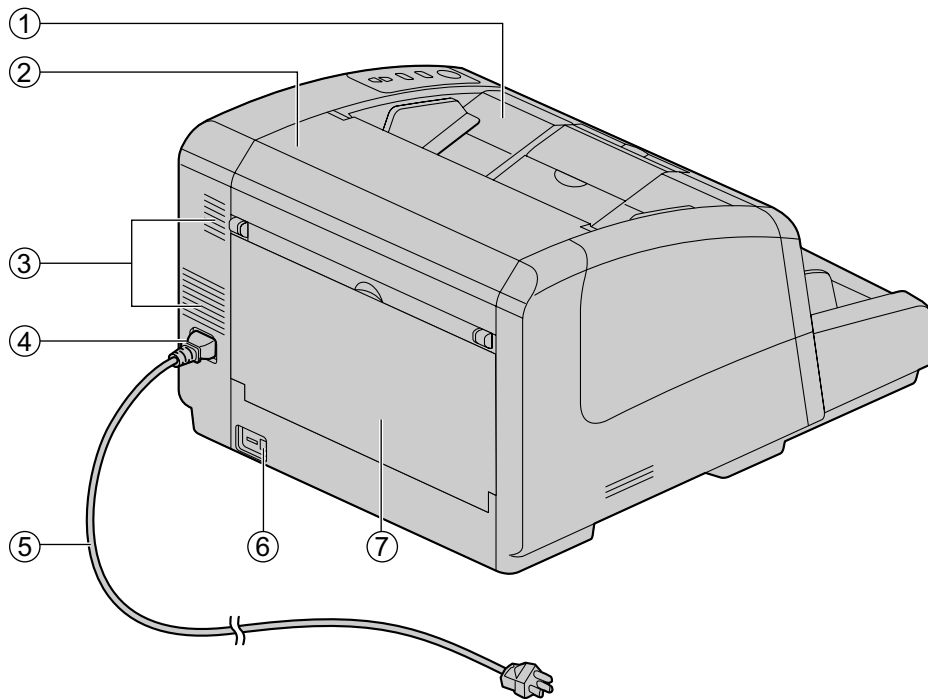
Main Unit

Front



- ① **Exit document guides**
- ② **Exit sub stopper**
- ③ **Exit tray**
- ④ **Extension sub tray**
- ⑤ **Exit stopper**
- ⑥ **Document guides**
- ⑦ **Hopper**
- ⑧ **Hopper extension tray**
- ⑨ **Control Panel**
For details, refer to "Control Panel" (page 16).
- ⑩ **Error indicator**
Lights when an error occurs. For details, refer to "About Status Indicators" (page 18).
- ⑪ **Front Door**
- ⑫ **Front door release**
- ⑬ **Power switch**

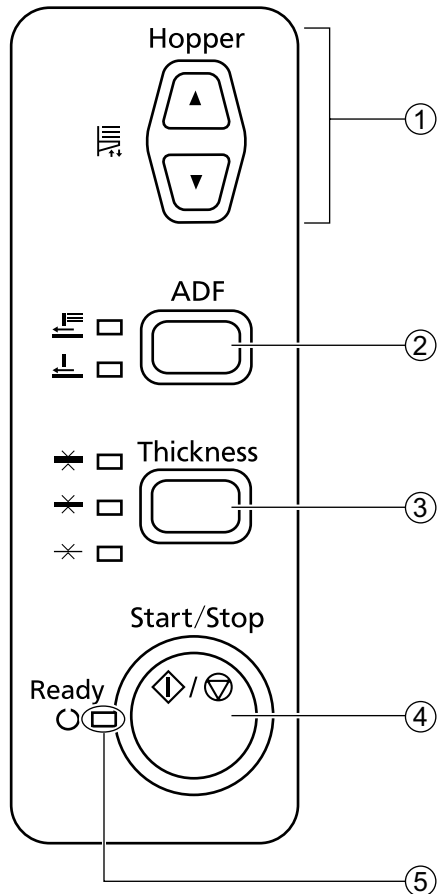
Rear





- ① **Pre-imprinter door (Exit tray)**
You open this door when installing an imprinter unit (sold separately) or ink cartridge. For details on installing an imprinter, refer to "Pre-imprinter" (page 67).
- ② **Post-imprinter door**
You open this door when installing an imprinter unit (sold separately) or ink cartridge. For details on installing an imprinter, refer to "Post-imprinter" (page 69).
- ③ **Fan exhaust vent**
- ④ **AC inlet**
- ⑤ **Power cord**
Plugs may vary in shape depending on country/area.
- ⑥ **USB connector**
- ⑦ **Straight path tray**
Opening and closing the straight path tray lets you change the exit direction. For details on the exit direction, refer to "Selecting the Paper Path for Scanned Documents" (page 25) .

Control Panel and Status Indicators

Control Panel



- ① **Hopper key (Hopper)**
Adjusts the hopper position. See "Changing the Hopper Position" (page 23).
- ② **ADF select key (ADF)**
Sets the feeding method to auto feeding [] or manual feeding [].
- ③ **Paper thickness key (Thickness)**
Changes the paper thickness mode according to the document type. See "Changing the Paper Thickness Mode" (page 24).
- ④ **Start/Stop key (Start/Stop)**
 - If you set [Wait Key] for "Manual Feed Mode"¹ in your application software, pushing this key starts scanning.
 - During scanning, pushing this key stops scanning.

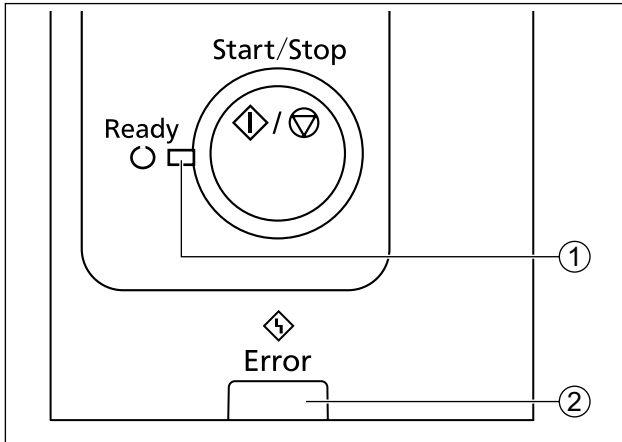
⑤ **Ready indicator (Ready)**

Shows the scanner's status. For details, see "About Status Indicators" (page 18).

*1 For details on "Manual Feed Mode", refer to the RTIV Reference Manual or PIE Reference Manual.

About Status Indicators

The status of the scanner is displayed by the ready indicator (①) and the error indicator (②), as shown in the table below:



① Ready indicator (○) (Green)	② Error indicator (⚡) (Red)	Status
ON	OFF	Ready
ON	Blinking (Slow, Long ON) ^{*1}	Caution ^{*4}
OFF	ON	Error ^{*4}
Blinking (Slow, Long ON) ^{*1}	OFF	Sleep
Blinking (Slow, Short ON) ^{*2}	OFF	Standby ^{*5}
Blinking (Fast) ^{*3}	OFF	Warming up

^{*1} On for 2 seconds and off for 2 seconds.

^{*2} On for 1 second and off for 3 seconds.

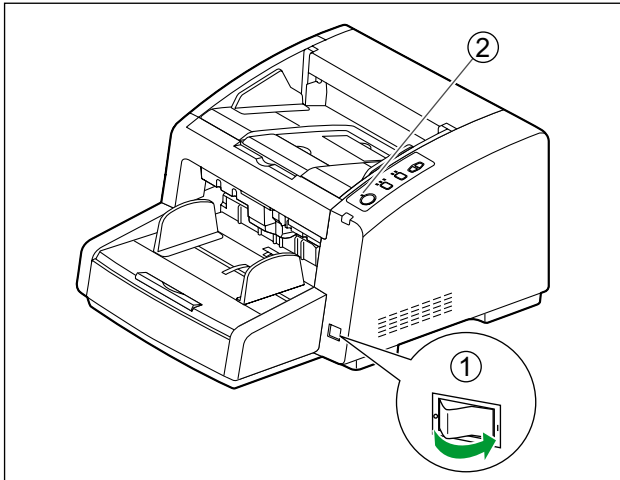
^{*3} On for 0.5 seconds and off for 0.5 seconds.

^{*4} Check the status of the scanner using User Utility. For details about User Utility, refer to the User Utility Reference Manual.

^{*5} The scanner will enter Standby mode when no operation is performed for 30 minutes, to save power. To use the scanner again, restart it by pressing any one of the buttons for more than 1 second. The time period before the scanner enters Standby mode can be configured in User Utility. (The default setting varies depending on the country/area.)

Turning on the Scanner Power

1. Set the power switch (①) of the scanner to "I" (ON).



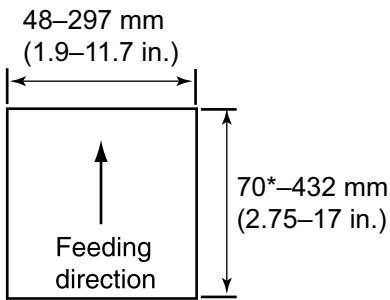
- The ready indicator (②) lights green.

Preparing Documents

Acceptable Documents

The acceptable documents for this scanner are as follows.

Document size



* For manual paper feed or thick paper mode:
100 mm (3.9 in.)

Loadable paper thickness and number of sheets

Paper thickness:

Thin	20–50 g/m ² (5–13 lbs.)
Normal	50–157 g/m ² (13–42 lbs.)
Thick	157–209 g/m ² (42–56 lbs.)

Maximum number of sheets loadable on the hopper

Page thickness (g/m ²)	20 (5 lbs.)	40 (11 lbs.)	50 (13 lbs.)	64 (17 lbs.)	75 (20 lbs.)	80 (21 lbs.)	90 (24 lbs.)	104 (28 lbs.)	157 (42 lbs.)	209 (56 lbs.)
Max. number of sheets	500	350	320	300	250	240	210	180	120	100

- The number of sheets listed above is a guideline for when the hopper height is set to "Low" and you are using fresh paper. For details about the hopper height, see "Changing the Hopper Position" (page 23).
- The number of sheets depends on the paper quality. If a paper feed problem occurs, reduce the number of sheets of the document loaded on the hopper.

Document types

<ul style="list-style-type: none"> • Plain paper • Bond paper • Newspaper • Carbonless copy paper 	<ul style="list-style-type: none"> • Recycled paper • OCR paper • Bank checks • Tracing paper
---	---

Documents must also meet the following conditions

Curl	
Folding	

For documents with mixed page sizes and thicknesses

Document thickness	The ratio of page thickness between the thickest and thinnest pages must be less than 1.5.
Document size	The ratio of width and height between the largest page and smallest page must be less than 1.5. Example: If the smallest page is A4 size, then the largest page can be up to A3 size, and if the smallest page is A6, then the largest can be A5.

Unacceptable Documents

The following types of documents may not scan properly:

- Torn or frayed documents
- Curled, wrinkled or folded documents
- Carbon paper
- Thick or irregular documents such as envelopes, documents that are glued together, etc.
- Perforated or punched paper
- Coated paper

Do not scan the following types of paper:

- Thermal paper
- Photographs
- OHP sheets, other plastic films, cloths, or metallic sheets
- Paper with irregularities such as paper clips, staples, paste, or glue
- Document with wet ink or cinnabar seal ink
- Non-rectangular or irregularly shaped paper

Notes about documents for scanning

- Depending on the paper type, scanning results may be poor when you scan unacceptable documents, or even documents that should be acceptable.
If a paper jam or double feeding occurs, try scanning again after doing the following:
 - Clean the rollers and sensors.
 - Reduce the number of sheets of paper loaded on the hopper.
 - Change the orientation of documents placed in portrait orientation to landscape orientation, or vice versa.
 - Scan the documents using manual feeding.
- When using stapled document detection, completely flatten any curling or creases on the rear end of the document, and then perform scanning.

Paper Feed Settings

Notice

Before scanning a document, set the hopper position, the paper thickness mode, and the exit direction.

Changing the Hopper Position

When scanning begins, the hopper's height is adjusted according to the amount of paper, so that the hopper is at the same level as the feeder. Setting the hopper position beforehand will shorten the scanning time.

Press the hopper key ([▲] or [▼]) to change the hopper position.
The hopper can be moved to the following three heights:













Hopper position	Loadable number of sheets
High	100 sheets
Middle	200 sheets
Low	300 sheets

- These guidelines are for using fresh, 64 g/m² (17 lbs.) paper.

Changing the Paper Thickness Mode

To avoid the double feeding or jams, you can set the paper thickness mode according to the document type. Press the paper thickness key to select the desired mode.

You can select the following modes:

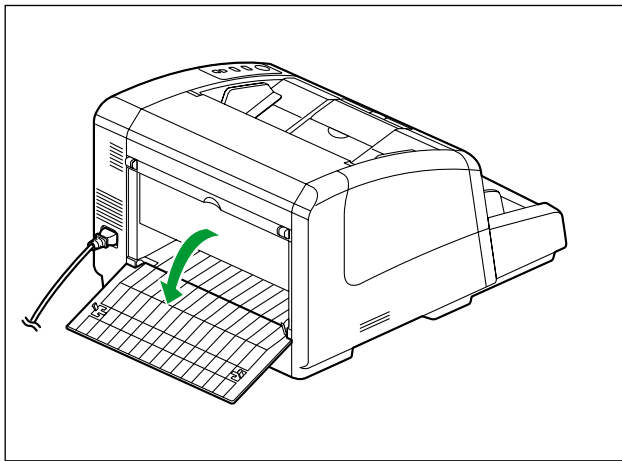
Paper Thickness	Indicator ^{*1}	When to use
Thin 20–50 g/m ² (5–13 lbs.)	  	When scanning thin paper or paper with a rough surface, such as NCR paper
Normal 50–157 g/m ² (13–42 lbs.)	  	When scanning normal paper, such as copier paper
Thick 157–209 g/m ² (42–56 lbs.)	  	When scanning thick paper or paper with a smooth surface, such as card stock
Auto 20–157 g/m ² (5–42 lbs.)	  	When scanning a document mixing of paper thickness The scanning speed may slightly slow.

*1  indicates a lit indicator.

Selecting the Paper Path for Scanned Documents

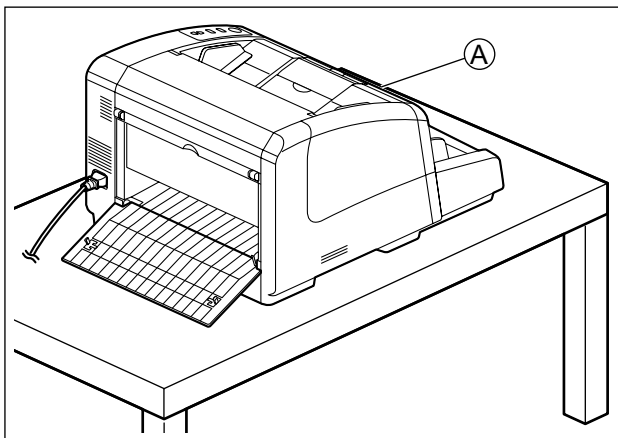
Scanned documents can exit from the front and back sides of the scanner. The paper path automatically switches when the straight path tray is opened or closed.

Straight path tray	Paper path
Closed	Front side (Exit tray)
Opened	Back side (Straight path tray)



Note

- When scanning documents with a thickness of 0.2–0.6 mm (7.9–23.6 mils), such as folded documents, set to straight path.
- If you are using the straight path, ensure that there is enough space for long documents to exit.
- If scanned documents are difficult to remove, set the scanner with the front (A) facing right, as shown in the illustration.

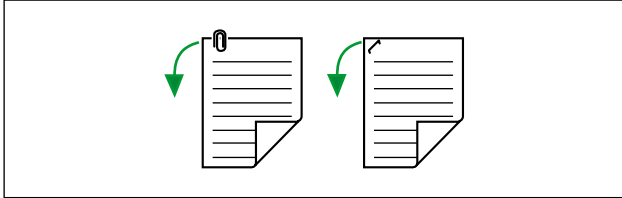


Scanning Documents

This scanner can scan documents whose pages are all the same size and documents whose pages are different sizes.



Notice

- Make sure to remove paper clips and staples from documents before scanning. Failing to do so can damage the unit, document, or both.



- Curled documents may cause a paper jam or damaging the document, therefore, set the document flat before scanning.
- When scanning important documents, confirm that the number of scanned images matches the number of pages in the document.
- Remove documents from the exit tray after they have been scanned.

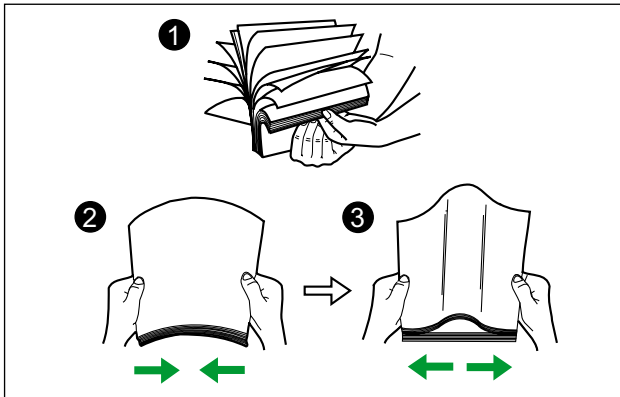
Scanning Documents with Pages of the Same Size

1. Press the ADF select key on the control panel to select auto feeding [] or manual feeding [].

Notice

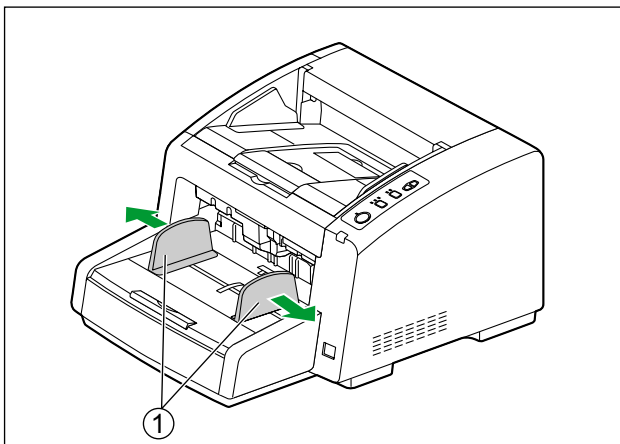
- When manually feeding a document, feed the document 1 page at a time.
- When scanning important documents or bound documents, feed them manually.

2. Fan the documents.
 - Documents that have been stapled together or stacked together (as in a file folder) will need to be separated.
 - ① Fan the stack of documents to separate all the edges.
 - ② Hold both ends and bend the documents as shown in the illustration.
 - ③ To flatten the documents, hold firmly and pull them apart as shown in the illustration.



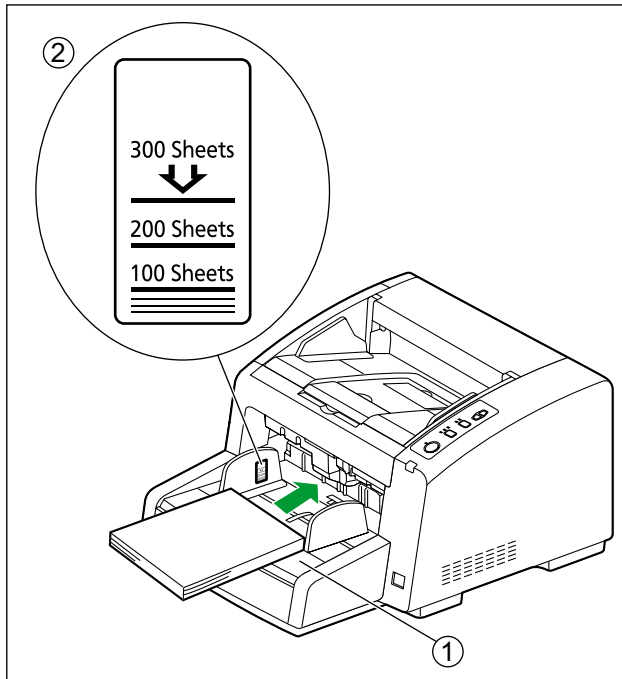
Repeat these steps as necessary.

3. Carefully align the documents.
4. Adjust the document guides (①) slightly larger than the actual size of the documents.



Operation

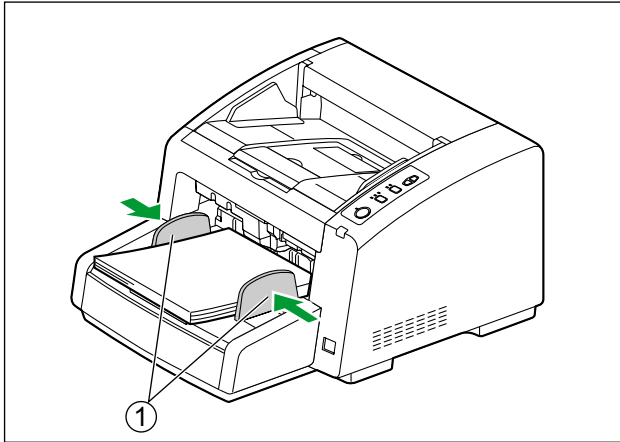
5. Place the documents on the hopper (①) with the side to be scanned facing up. Then push the documents in the direction of the arrow until they stop.



Notice

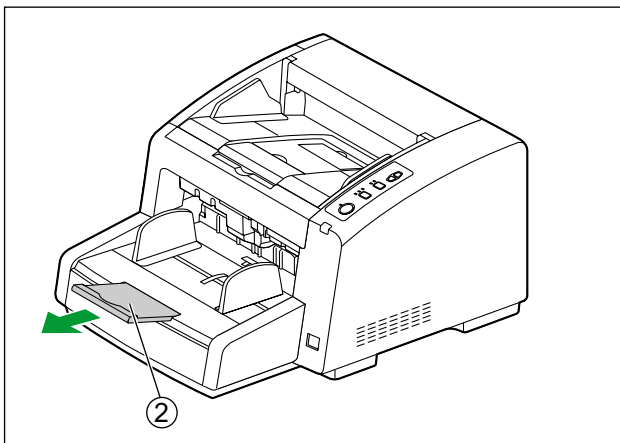
- The height of the documents should not exceed the limit mark (②) on the document guide. This may cause a paper jam or skewing.
- The scanning width is different for the KV-S4065CL / KV-S4085CL and KV-S4065CW / KV-S4085CW.
KV-S4065CL / KV-S4085CL: 227 mm (8.9 in.)
KV-S4065CW / KV-S4085CW: 302 mm (11.9 in.)

6. Slide the document guides (①) to match the width of the document to be scanned.



When scanning long sheets of paper

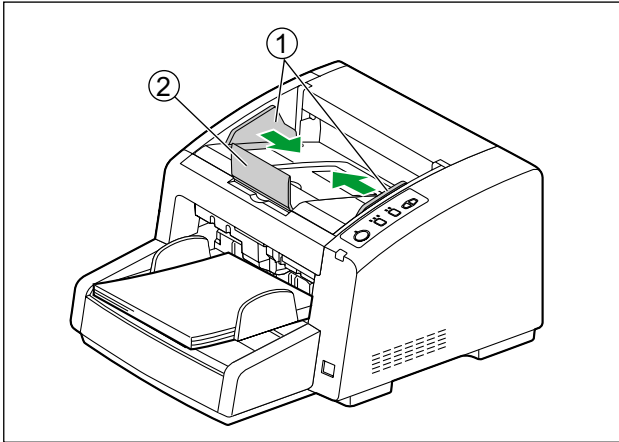
Pull out the hopper extension tray (②) from the hopper.



Note

- After placing the document on the hopper, if you push the Start/Stop key, the hopper will rise to a position where pages can immediately start being fed.

7. Slide the exit document guides (①) to match the width of the document, and raise the exit stopper (②).

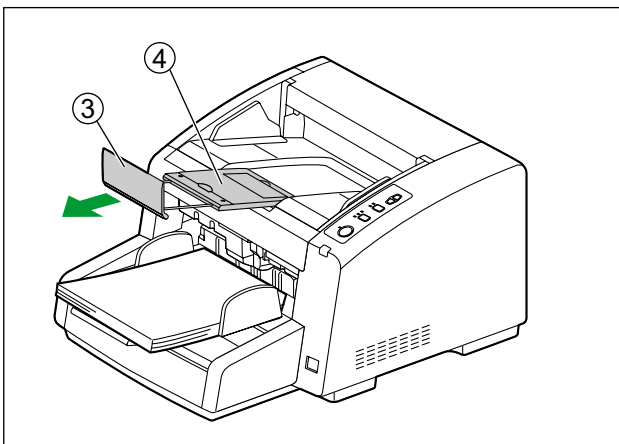


Note

- If you scan documents with the exit stopper (②) down, documents may jam at the exit.

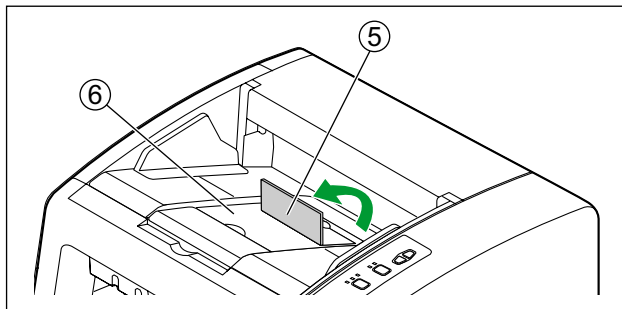
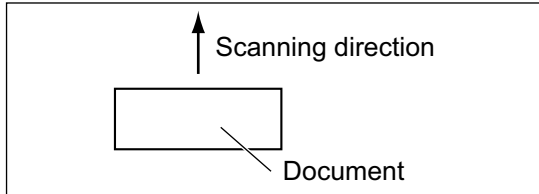
When scanning long sheets of paper

Adjust the exit stopper (③) and extension sub tray (④) to match the size of the document.



When scanning short sheets of paper

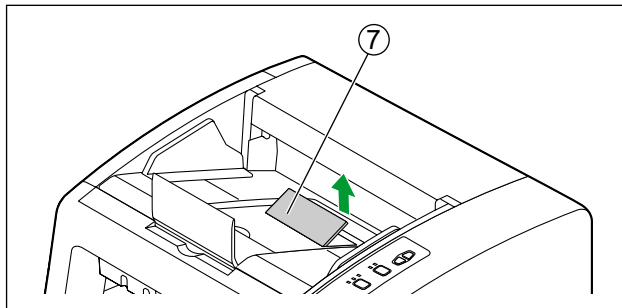
When scanning documents like the one shown in the figure below, fully raise the exit sub stopper (⑤), and adjust the extension sub tray (⑥) to match the size of the document.



When scanning thin documents

Slightly raise the exit sub stopper (⑦).

- The documents will exit smoothly since there is a smaller step at the exit.




8. Open your scanning application^{*1} and scan the documents.

^{*1} The software RTIV and QuickScan Pro demo, included with the scanner, can be used for scanning the documents.

Scanning Documents with Pages of Different Sizes

For conditions when scanning documents with mixed page sizes, see "For documents with mixed page sizes and thicknesses" (page 21).

- When scanning different size documents, scanned sheets may need to be reordered for optimum performance.

1. Press the ADF select key on the control panel to select auto feeding [].

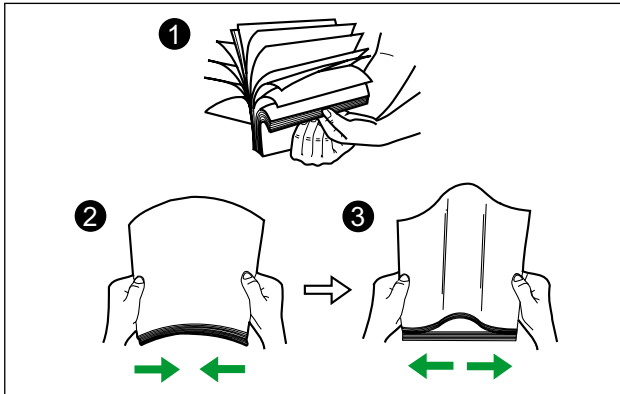
2. Fan the documents.

- Documents that have been stapled together or stacked together (as in a file folder) will need to be separated.

① Fan the stack of documents to separate all the edges.

② Hold both ends and bend the documents as shown in the illustration.

③ To flatten the documents, hold firmly and pull them apart as shown in the illustration.

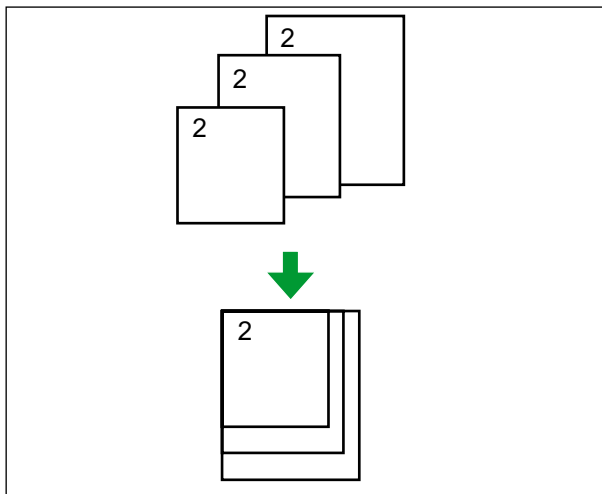


Repeat these steps as necessary.

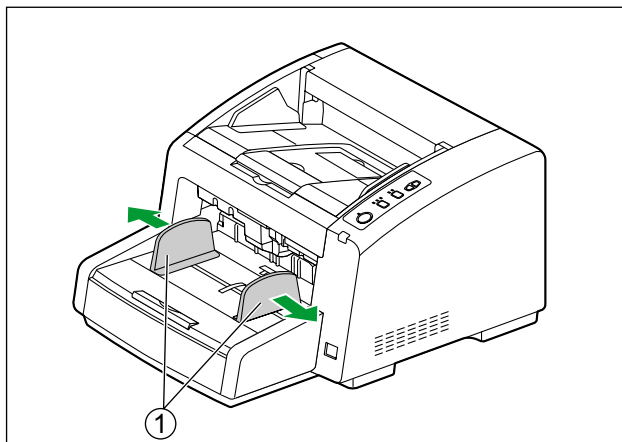
Notice

- Fan the pages for each page size separately.

3. Align the document pages along one side.

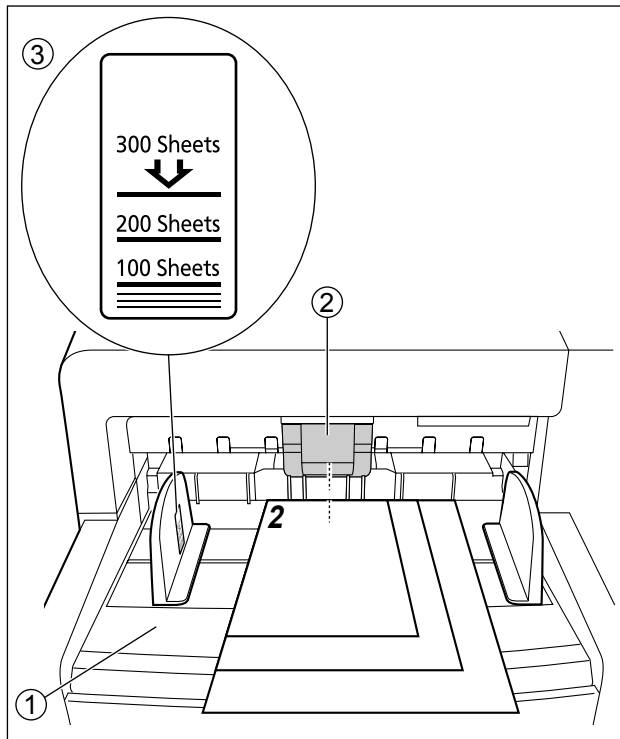


4. Completely spread apart the document guides (①).



Operation

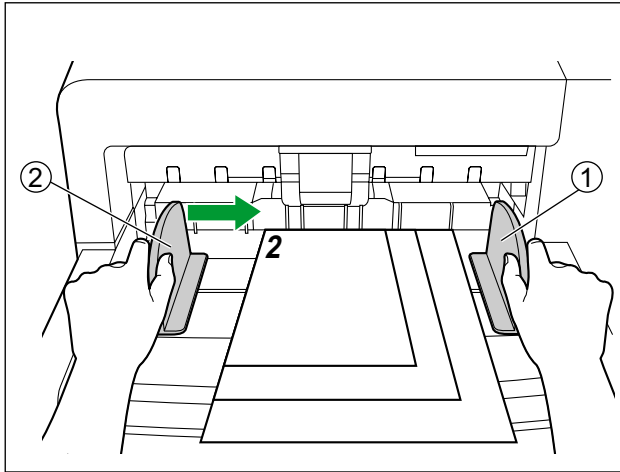
5. Place the documents on the hopper (①) with the scanning side facing up.
 - Align the document position so that the center of the smallest sheet will be fed to the center of the paper feed rollers (②). If the document is not properly aligned, the pages will not be fed correctly.



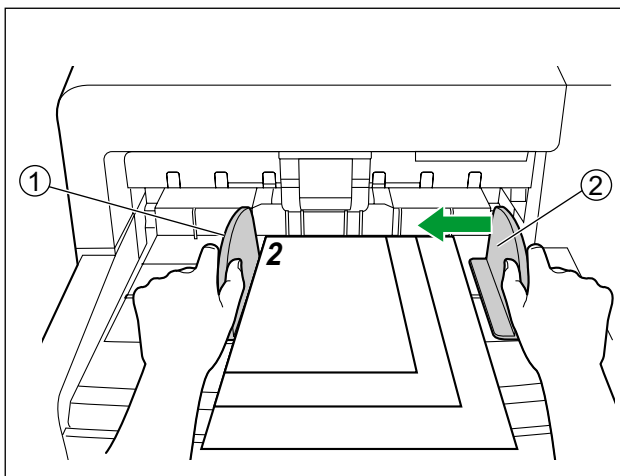
Notice

- The height of the documents should not exceed the limit mark (③) on the document guide. This may cause a paper jam or skew.
- Depending on the types of paper, the document may not be fed smoothly. In such case, reduce the number of sheets of the document.
- The scanning width is different for the KV-S4065CL / KV-S4085CL and KV-S4065CW / KV-S4085CW.
KV-S4065CL / KV-S4085CL: 227 mm (8.9 in.)
KV-S4065CW / KV-S4085CW: 302 mm (11.9 in.)

6. While keeping the right document guide (①) in place, slide the left document guide (②) to where you will place the left edge of the document.

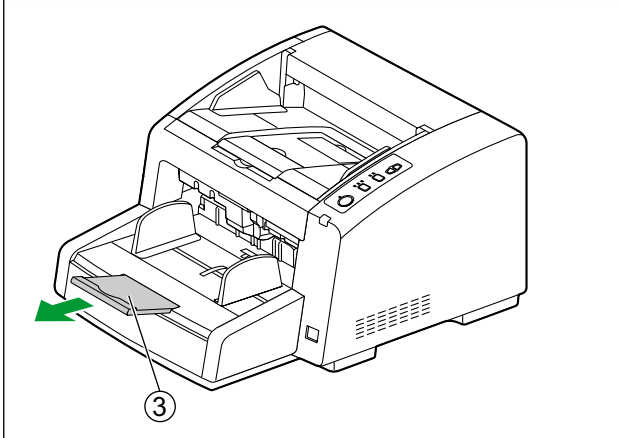


7. While keeping the left document guide (①) in place, slide the right document guide (②) to match the width of the document.



When scanning long sheets of paper

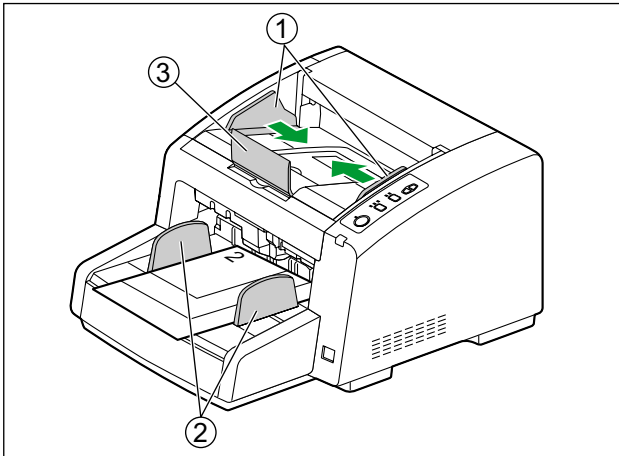
Pull out the hopper extension tray (③) from the hopper.



Note

- After placing the document on the hopper, if you push the Start/Stop key, the hopper will rise to a position where pages can immediately start being fed.

8. Slide the exit guides (①) to match the width of the document guides (②), and raise the exit stopper (③).

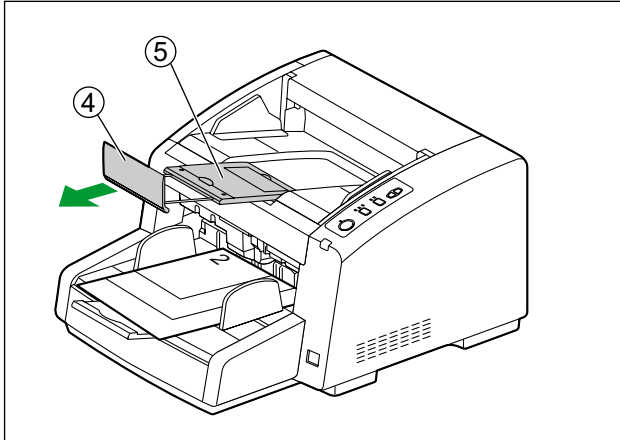


Note

- If you scan documents with the exit stopper (③) down, documents may jam at the exit.

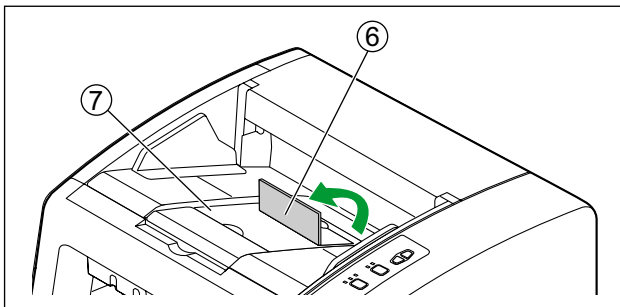
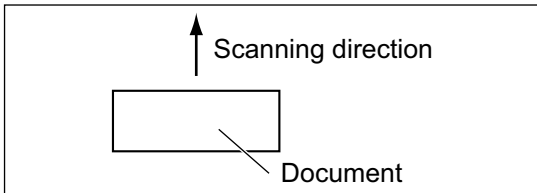
When scanning long sheets of paper

Adjust the exit stopper (④) and extension sub tray (⑤) to match the largest document page.



When scanning short sheets of paper

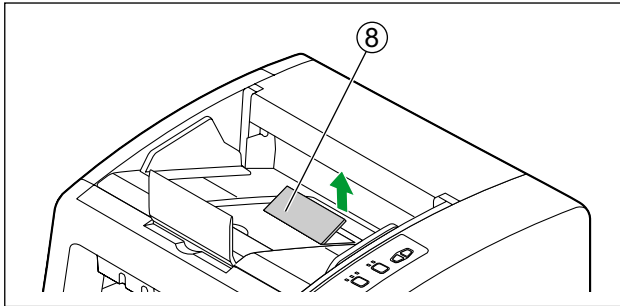
When scanning documents like the one shown in the figure below, fully raise the exit sub stopper (⑥), and adjust the extension sub tray (⑦) to match the size of the document.



When scanning thin documents

Slightly raise the exit sub stopper (8).

- The documents will exit smoothly since there is a smaller step at the exit.



9. Open your scanning application¹ and scan the documents.

¹ The software RTIV and QuickScan Pro demo, included with the scanner, can be used for scanning the documents.

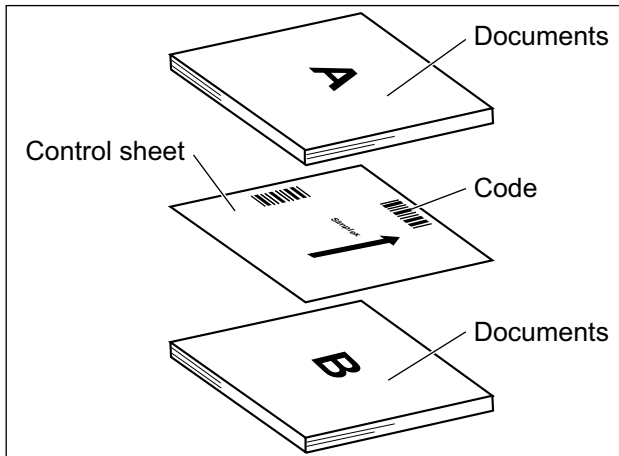
Note

- By fully spreading the left and right document guides, you can reestablish their original center position.

Using Control Sheets

By using control sheets, you can change the scanning conditions in the middle of scanning. Placing a control sheet in the middle of a document lets you change the scanning conditions for all pages scanned after the control sheet.

Control sheets are located on the included CD-ROM.



Control sheet functions

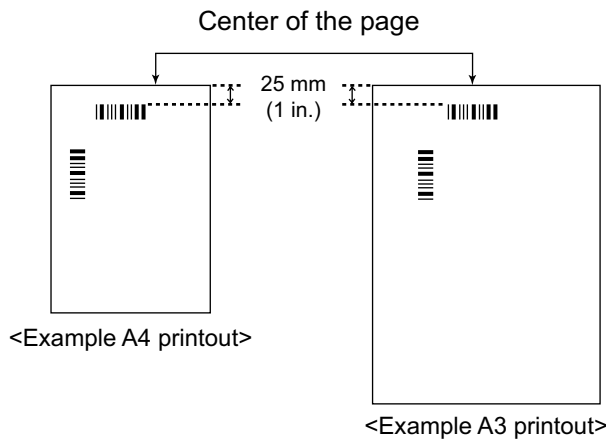
Simplex, Duplex, Binary, 256 level gray, Color, Dynamic Threshold, Dither, Error diffusion, Function #1–#9, Separation Sheet

Note

- Multiple control sheets can be used.
- To use control sheet functions, your scanning application must support control sheets. When using control sheets, refer to the instruction manual of your scanning application.
- Print out control sheets from the provided CD-ROM.

About Printing Control Sheets

- Print the control sheet at the specified size; do not enlarge or reduce the size.
- When printing the control sheet, make sure that the pattern is 25 mm (1 in.) from the top of the page and centered horizontally.



- Use the control sheet that is the same size as the document you are scanning.
- Be careful not to get the control sheet dirty. Do not fold or crease the control sheet. Scanning will not be performed properly.
- For details on control sheet and separation sheet, refer to section "2.40 Detect Control Sheet" in the PIE Reference Manual.

Printing control sheets

Note

- In order to print control sheets, Adobe® Reader® must be installed on your computer.
- Refer to the instruction manual for your printer for details about changing print settings.

1. Insert the CD-ROM into the CD/DVD driver on your computer.
 - If you have a feature called "Autorun" activated, the installation process will start automatically.
 - The setup window will appear.

Note

- If the AutoPlay dialog box is displayed in Windows Vista, select "CDRun.exe".
- If the program does not start automatically, from [My Computer] ([Computer] in Windows Vista), select the CD/DVD drive, and then double-click "CDRun.exe".

2. Select your scanner.
3. Select [Control Sheet] from the [Manuals] list on the right side of the screen.
4. Print the control sheets at the same size as your document.

Changing the Scan Background Color

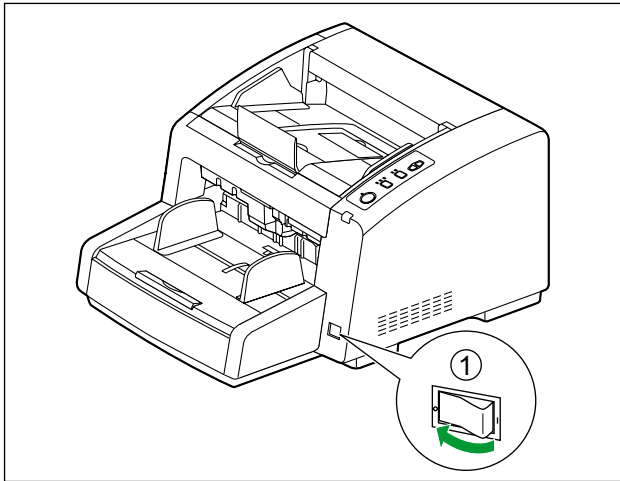
By switching the reference plate on the scanner, you can change the scanning background color between black and white. The default setting is black.

Notice

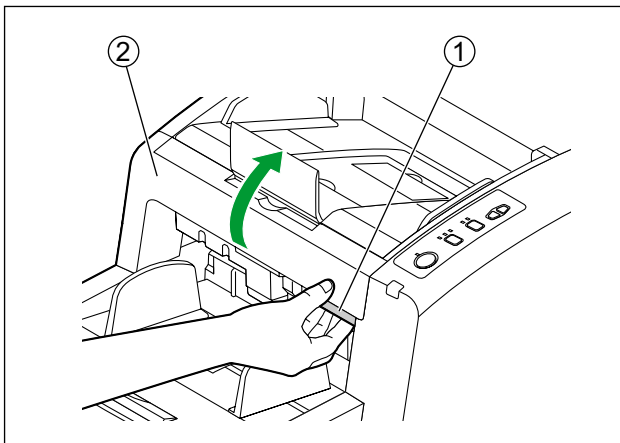
- Set the front reference plate and rear reference plate to the same color. If the front and rear settings are different, then documents will not be scanned correctly.

Switching the Reference Plate

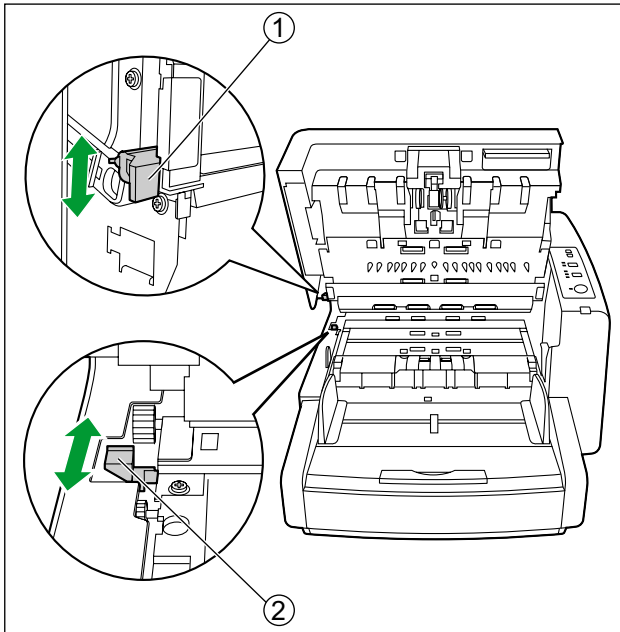
1. Set the power switch (①) of the scanner to "○" (OFF).
 - Remove any documents from the exit tray.



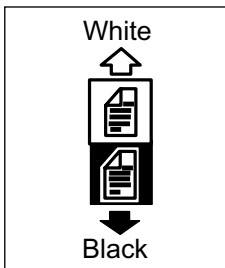
2. Pull the front door release (①) towards you, and open the front door (②).



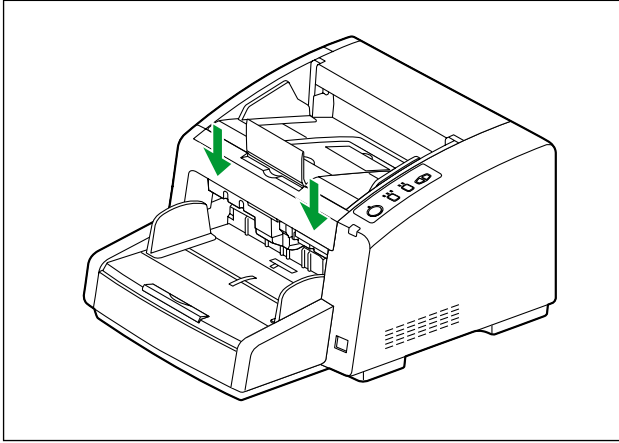
3. Move the reference plate lever (R) (①) and the reference plate lever (F) (②).



- Move the levers to the color you want to change the background to.



4. Close the front door.
 - Push both sides of the front door down slowly until it clicks into place.



5. Set the power switch of the scanner to "I" (ON).

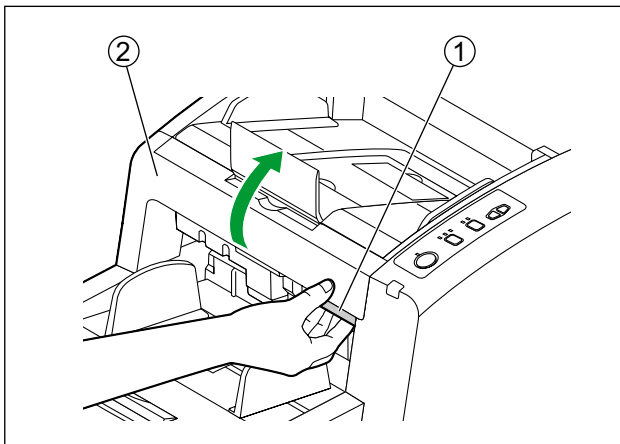
Clearing Paper Jams

Torn paper, thin paper or paper that is creased on the top edge may cause paper jams. If a paper jam occurs, remove the jammed sheet according to the following procedure.

CAUTION

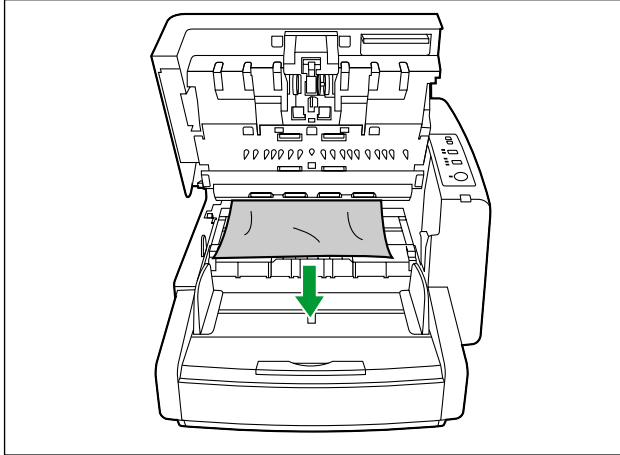
- The image sensor covers may be very hot after scanning a lot of documents.
Removed the jammed sheet after the image sensor covers' temperature has cooled.

1. Pull the front door release (①) towards you, and open the front door (②).
- Remove any documents from the exit tray.



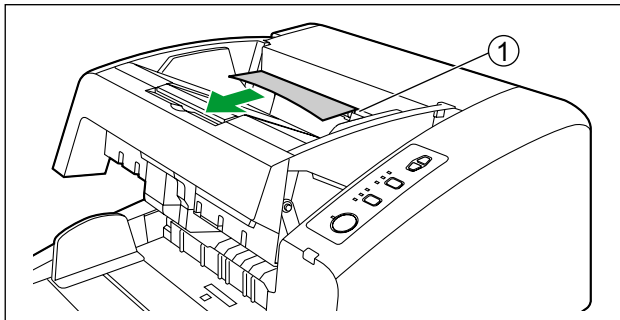
2. When a paper jam occurs inside the scanner:

Pull the jammed paper from the inside of the scanner towards the front.



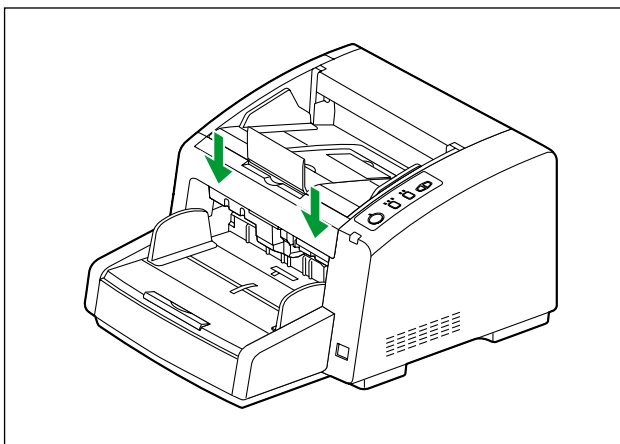
When a paper jam occurs at the exit slot:

Pull the jammed paper from the exit slot (①) towards the front.



3. Close the front door.

- Push both sides of the front door down slowly until it clicks into place.



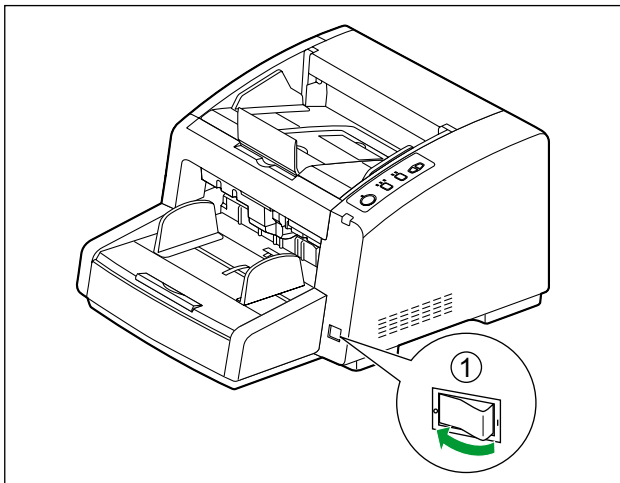
Cleaning the Scanner

Outside of the Scanner

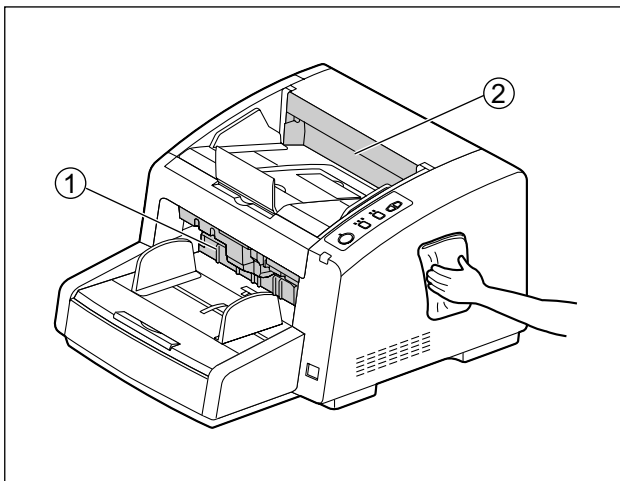
Notice

- Do not use thinner, benzene, or cleaners containing abrasives or surfactants, for cleaning the outside of the scanner.
- Clean the scanner at least once a month.

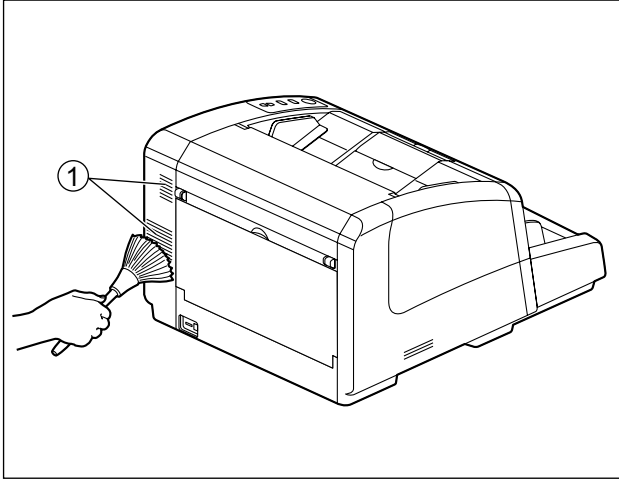
1. Set the power switch (①) of the scanner to "○" (OFF).



2. Clean the cover with a soft cloth.
 - The document feeder (①) and exit slot (②) get dirty easily. Make sure to clean them.



3. Remove dirt and dust from the fan exhaust vent (①) with a brush.



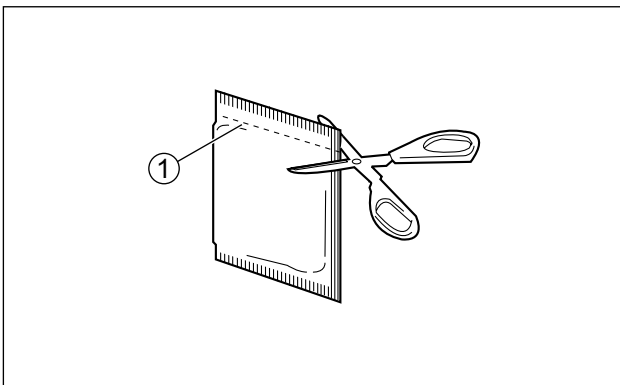
Inside of the Scanner

Note

- Clean the scanner at least once a week or when 20,000 sheets have been scanned, whichever comes first.
- Clean the rollers and sensors if paper jamming or double feeding occurs frequently.
- If double feed detection does not function properly, clean the double feed detectors.
- Clean the image sensor covers when black or white lines appear on the scanned images.
- If the documents you are scanning are dirty, then the scanner parts will also become dirty. To maintain proper scanning, clean the scanner parts frequently.

About the roller cleaning paper

Open the roller cleaning paper on the dotted line (①), and take out the roller cleaning paper.



Notice

- Keep the roller cleaning paper out of reach of small children.
- Do not store the roller cleaning paper in direct sunlight or in a place with temperature over 40 °C (104 °F).
- Only use the roller cleaning paper to clean the rollers and image sensor covers.
- For details about the roller cleaning paper, please refer to the Material Safety Data Sheet (MSDS). Please ask your Panasonic sales company about obtaining the Material Safety Data Sheet.

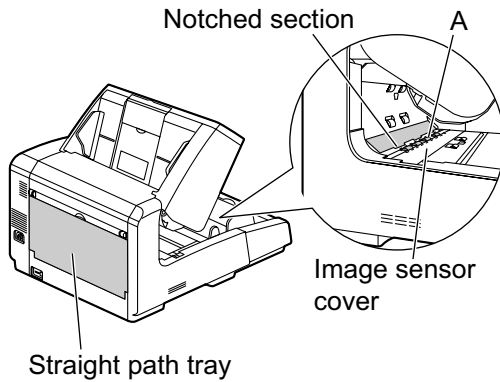
Note

- If the bag is left opened for a long period of time before using it, the alcohol will evaporate. Please use the roller cleaning paper immediately after opening the bag.
- The roller cleaning paper (KV-SS03) is available from the dealer where you purchased the scanner.
For supplies and accessories:
Call 1-800-726-2797 (U.S.A. only) or your dealer.

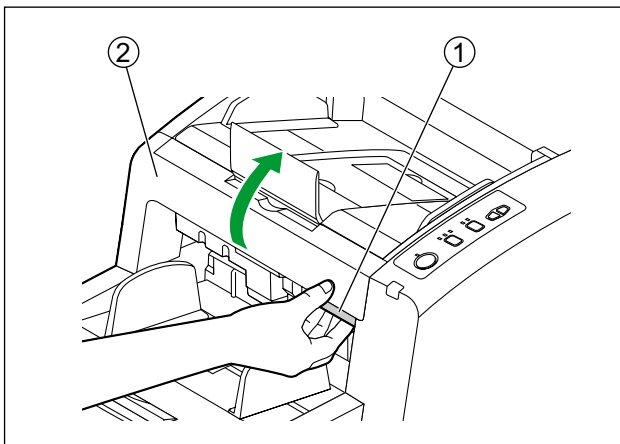
Cleaning the Rollers

CAUTION

- When wiping the rollers (A) and the lower-section image sensor cover, make sure to close the straight path tray. Touching the notched section can cause injury.

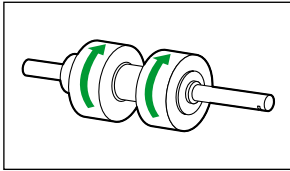


- The image sensor covers may be very hot after scanning a lot of documents. Clean the image sensor covers after the temperature has cooled.
1. Set the power switch of the scanner to "○" (OFF).
 2. Pull the front door release (①) towards you, and open the front door (②).

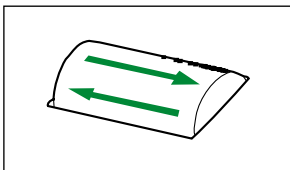


3. Use the roller cleaning paper (page 48) to remove the dirt from the surfaces of all rollers.

Direction to wipe rollers



Double feed prevention roller, Paper feed rollers

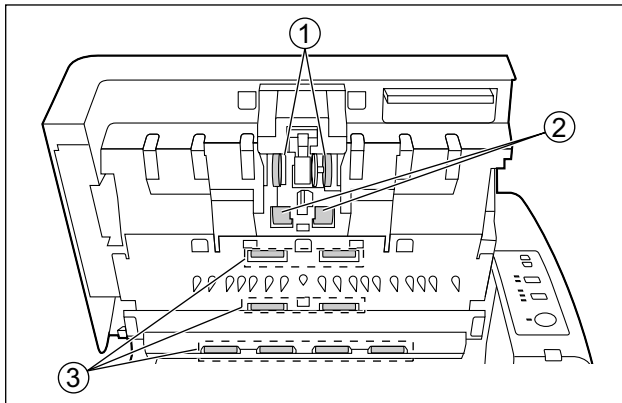


Other rollers

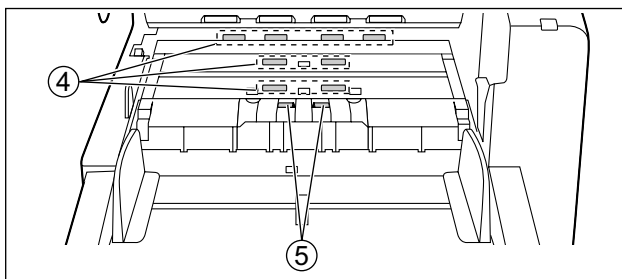
Notice

- After removing the double feed prevention roller, gently wipe dirt from the surface of the roller in the direction indicated by the arrows in the illustration. If you wipe too hard, you may damage or misalign the roller.
For instructions on how to remove the double feed prevention roller, see "Replacing the Double Feed Prevention Roller" (page 62).
- Wipe dirt off of the other rollers in the directions indicated by the arrows in the illustration. Use your finger to rotate the roller and wipe dirt off of the entire surface of the roller. If the roller rotates when wiping it, gently hold it in place with your finger.

Location of Rollers

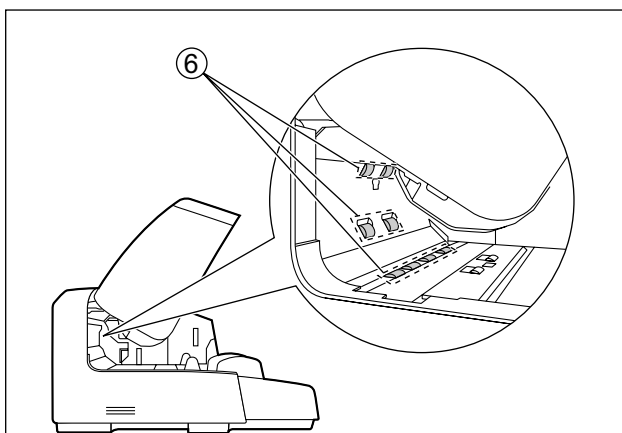


- ① Paper feed rollers
- ② Separation rollers
- ③ Free rollers

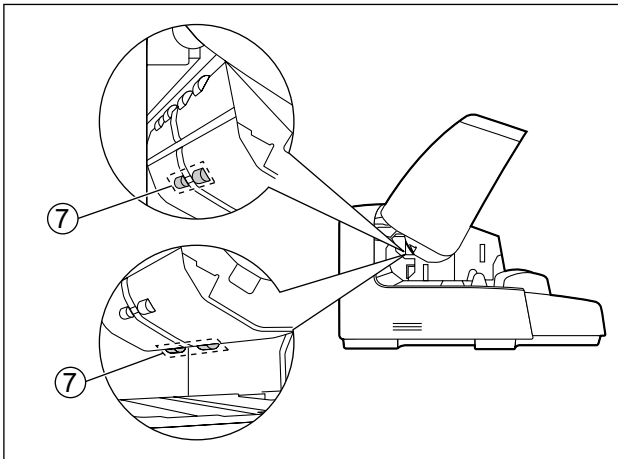


- ④ Drive rollers
- ⑤ Double feed prevention roller

Left side view

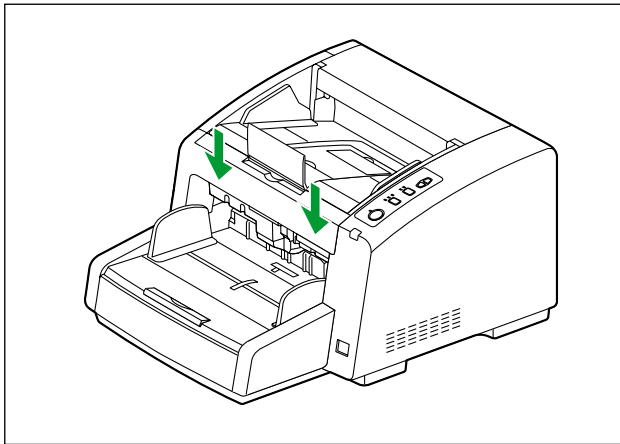


- ⑥ Drive rollers



⑦ Free rollers

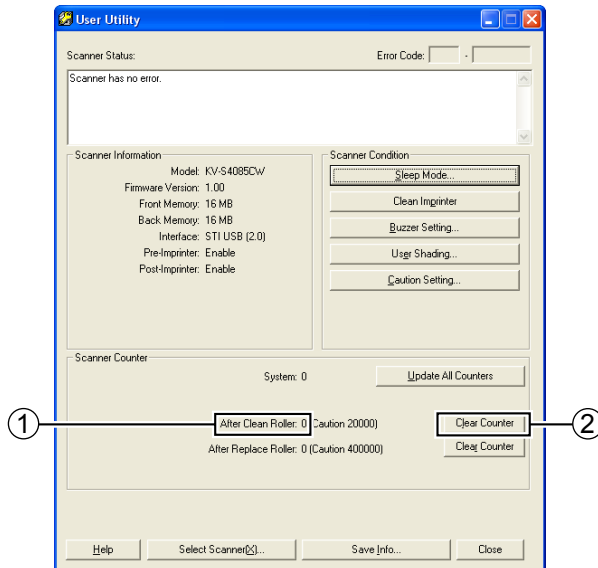
4. Close the front door.
 - Push both sides of the front door down slowly until it clicks into place.



5. Set the power switch of the scanner to "I" (ON).

6. Reset the roller cleaning counter in User Utility to 0.

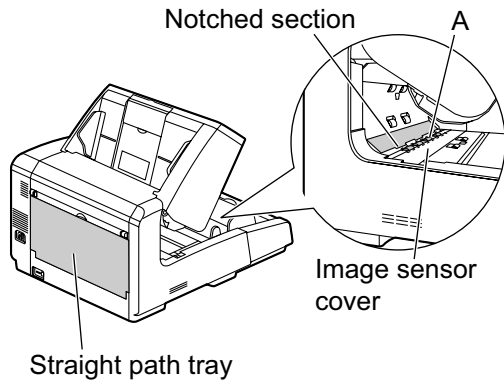
- Start User Utility, and in the window, click the [Clear Counter] button (②) for "After Clean Roller" (①) to reset to counter to 0.
- For details, refer to the User Utility Reference Manual.



Cleaning the Sensors and Image Sensor Covers

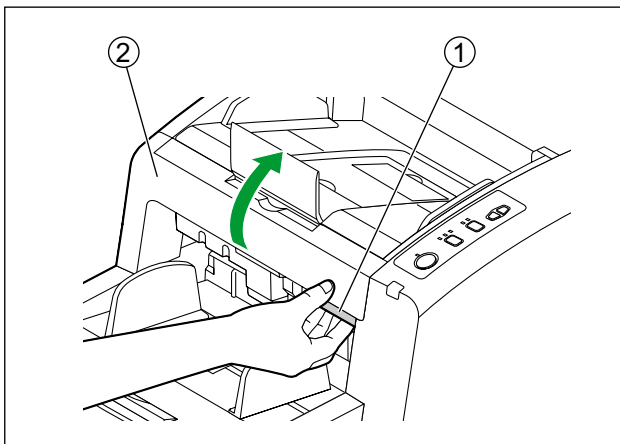
CAUTION

- When wiping the rollers (A) and the lower-section image sensor cover, make sure to close the straight path tray. Touching the notched section can cause injury.



- The image sensor covers may be very hot after scanning a lot of documents. Clean the image sensor covers after the temperature has cooled.

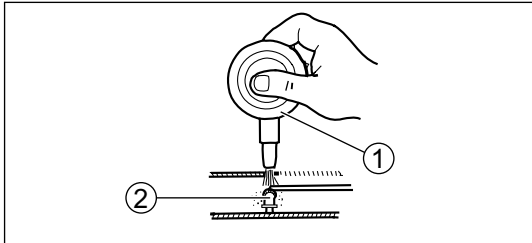
1. Set the power switch of the scanner to "○" (OFF).
2. Pull the front door release (①) towards you, and open the front door (②).



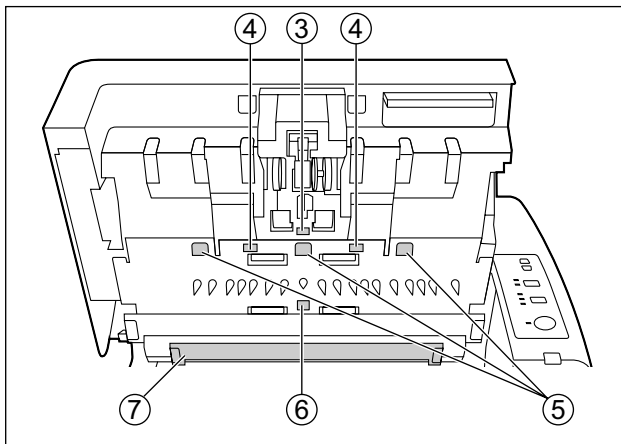
3. Remove dirt on the sensors with the included blower (①), then wipe the image sensor covers with the roller cleaning paper (page 48).

How to clean the sensors and reflectors

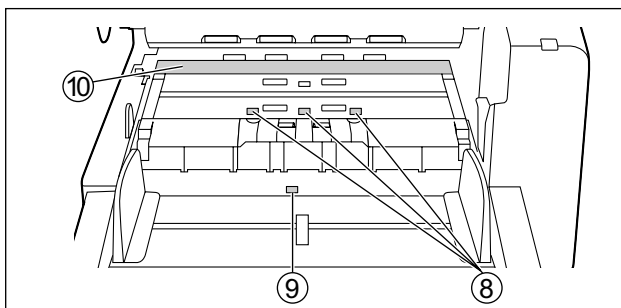
Remove the brush from the blower (①), place it on the holes for the sensors and reflectors (②), as well as the conveyor indentations (②), and blow off dirt, as shown in the illustration below.



Location of Sensors

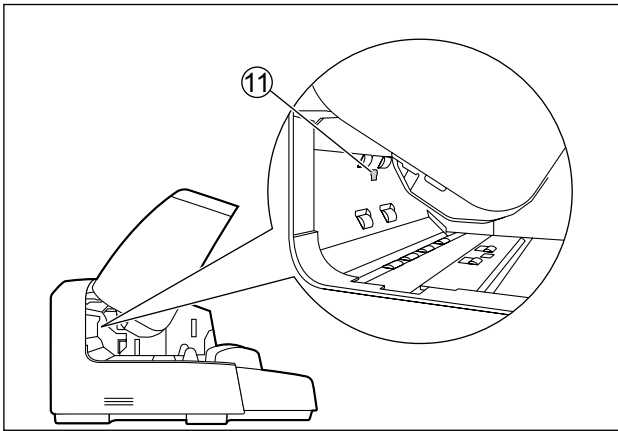


- ③ Waiting sensor
- ④ Skew sensors
- ⑤ Double feed detectors (For the KV-S4065CL / KV-S4065CW, there is only 1 double feed detector in the center.)
- ⑥ Starting sensor
- ⑦ Image sensor cover (F)



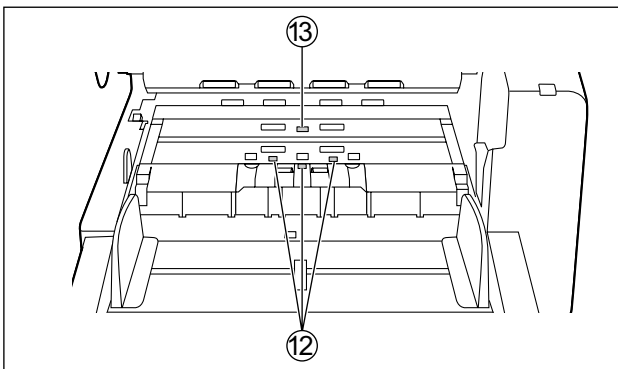
- ⑧ Double feed detectors (For the KV-S4065CL / KV-S4065CW, there is only 1 double feed detector in the center.)
- ⑨ Paper sensor
- ⑩ Image sensor cover (B)

Left side view



⑪ Paper jam sensor

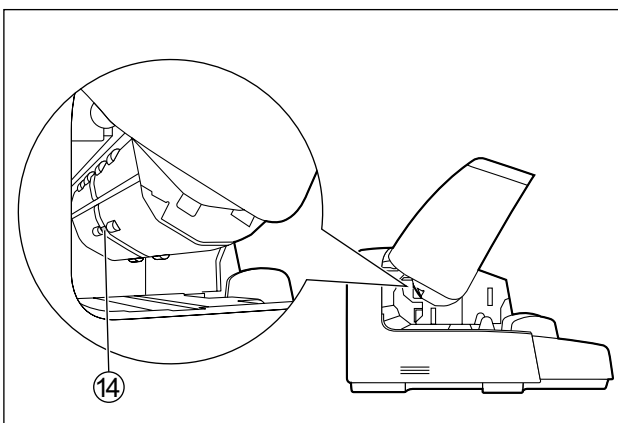
Location of Reflectors



⑫ Reflectors

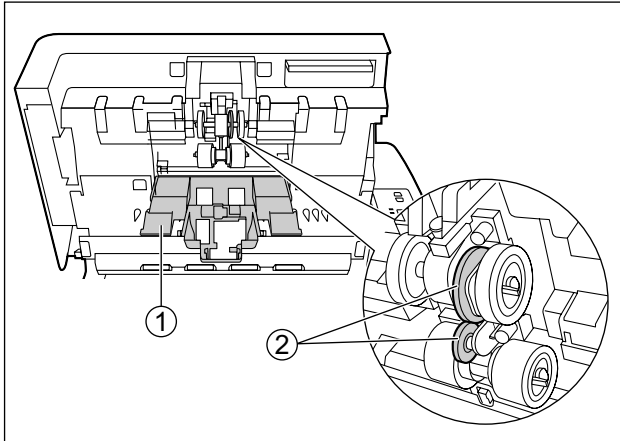
⑬ Indentations

Left side view

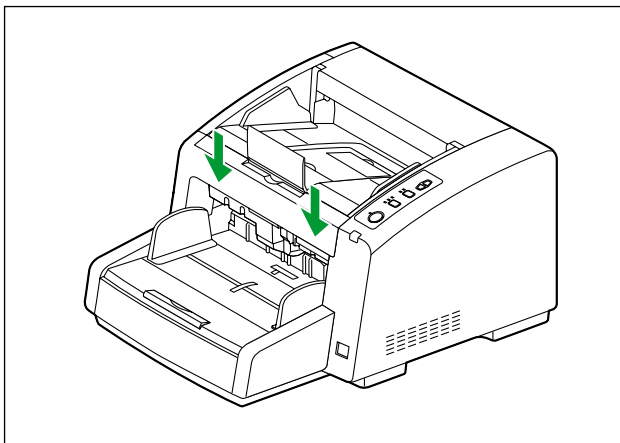


⑭ Indentations

4. Open the paper feed roller cover (①), and blow off any dirt from the slip detect sensor (②) while rotating it.



5. Close the front door.
 - Push both sides of the front door down slowly until it clicks into place.



6. Set the power switch of the scanner to "I" (ON).

Replacement Parts and Optional Units

	Part Name	Part Number	Notes
Replacement Parts	Roller exchange kit <ul style="list-style-type: none"> • Paper feed roller • Separation roller • Double feed prevention roller 	KV-SS033	–
	Roller cleaning paper	KV-SS03	See "About the roller cleaning paper" (page 48).
	Ink cartridge	KV-SS021	For optional imprinter unit. For instructions on installation and removal, see "Installing the Ink Cartridge" (page 72).
Optional Units	Imprinter unit	KV-SS014	Prints text and numbers on documents. Includes 1 ink cartridge. For instructions on installation, see "Installing the Imprinter Unit" (page 67).

Note

- To purchase replacement parts or optional units, contact the store where you purchased the scanner.

When to replace parts

We recommend replacing the paper feed rollers, separation rollers, and double feed prevention roller after scanning 400,000 sheets of paper. (400,000 sheets is based on scanning normal paper. Depending on the type of paper and other factors, the actual lifetime for the rollers will differ.)

Replacing Parts

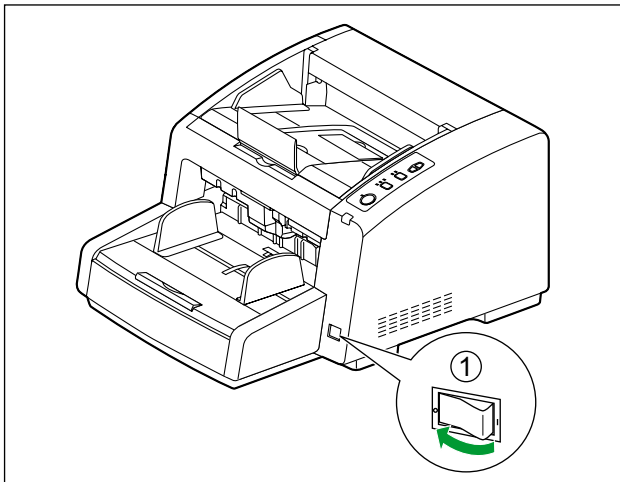
If double feeding or paper jam occurs frequently even after cleaning the roller (page 49), please call your dealer to order a "Roller exchange kit (KV-SS033)", and replace the paper feed rollers, separation rollers, and double feed prevention roller.

Replacing the Paper Feed Rollers and Separation Rollers

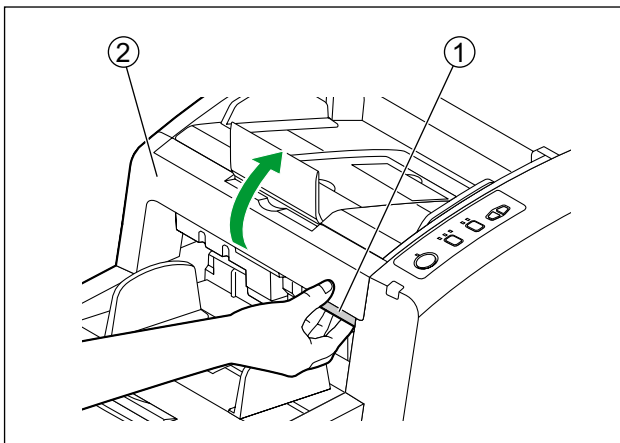
WARNING

- Do not place the separation rollers or paper feed rollers where small children can reach them. There is a danger that the rollers may be swallowed. In the event that you think they have been swallowed, contact a doctor immediately.

1. Set the power switch (①) of the scanner to "○" (OFF), and unplug the power cord.

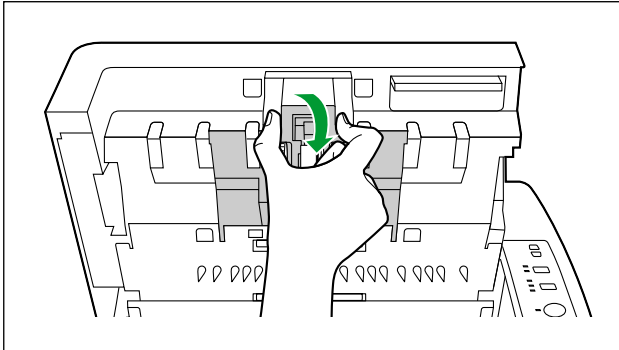


2. Pull the front door release (①) towards you, and open the front door (②).

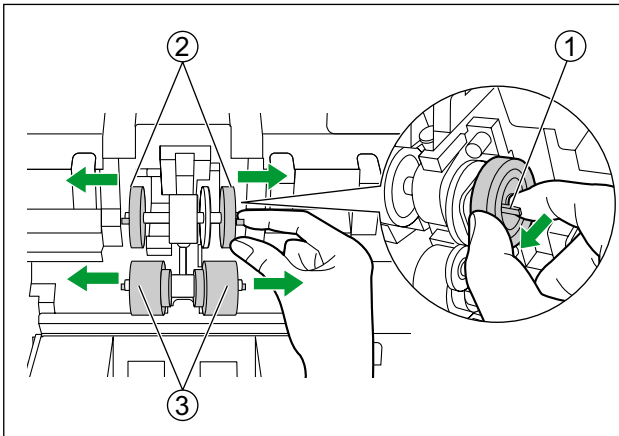


Replacement Parts and Optional Units

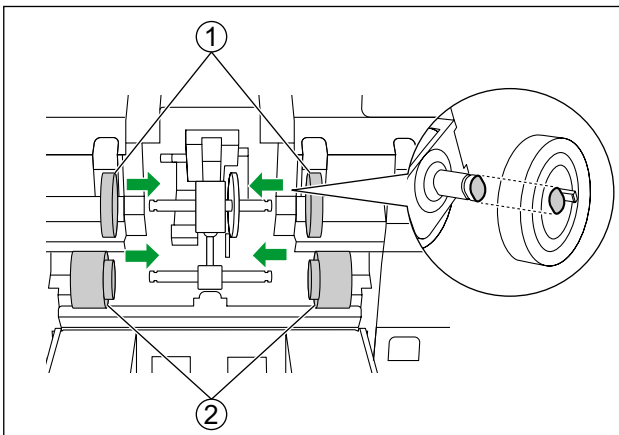
3. Push in both sides of the paper feed roller cover, and pull it towards you to open.



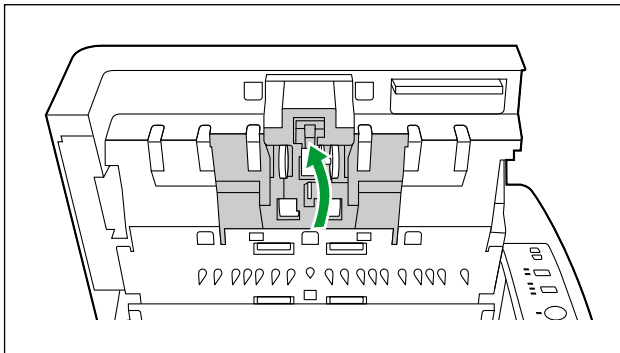
4. Turn the roller tip (①) towards you, and remove rollers from the shaft while opening the tip.
 - Remove both the paper feed rollers (②) and separation rollers (③).



5. Take out the new paper feed rollers and separation rollers in the optional "Roller exchange kit (KV-SS033)".
6. Align the shaft and the roller hole, and install the rollers on the shaft until they click into place.
 - Install both the paper feed rollers (①) and separation rollers (②).



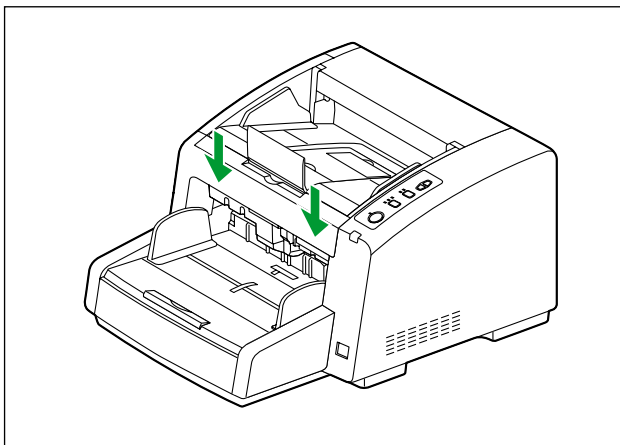
7. Push up on the paper feed roller cover until it clicks into place.



Notice

- When closing the paper feed roller cover, do not damage the roller.
- Be sure to close the paper feed roller cover correctly. If the paper feed roller cover is not closed completely, when closing the front door, the paper feed roller cover may break.

8. Close the front door.
 - Push both sides of the front door down slowly until it clicks into place.

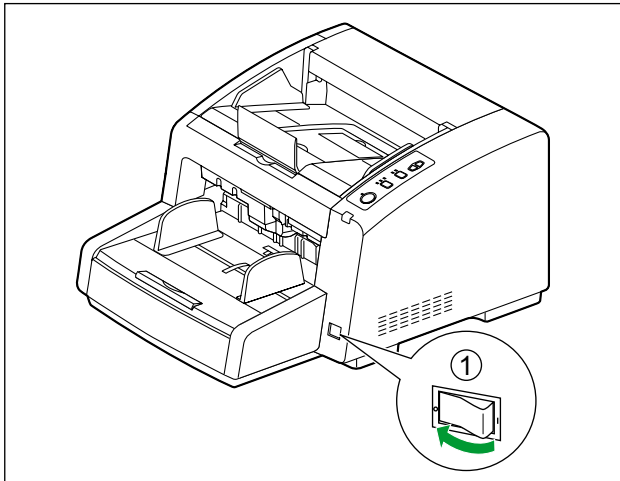


9. Plug in the power cord, and set the power switch of the scanner to "I" (ON).

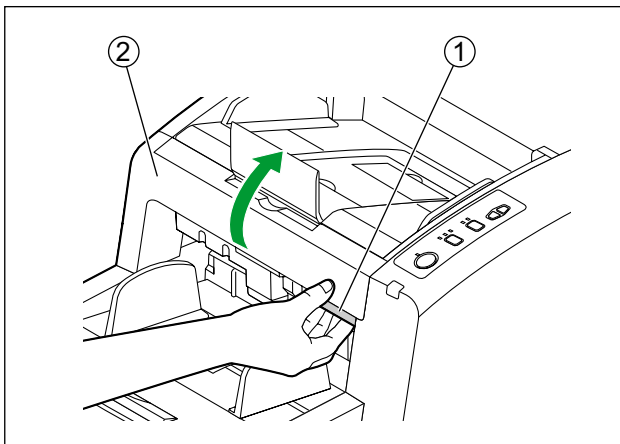
Replacing the Double Feed Prevention Roller

Before replacing the double feed prevention roller, make sure that the hopper is in the "Low" position. The double feed prevention roller cover cannot be opened if the hopper is not in the "Low" position. For details on adjusting the hopper's height, see "Changing the Hopper Position" (page 23).

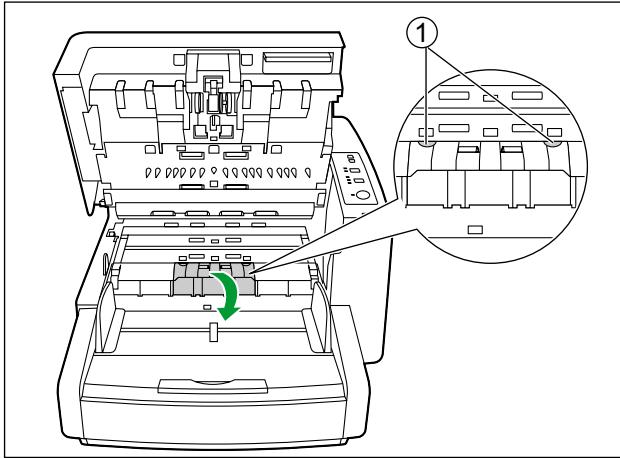
1. Set the power switch (①) of the scanner to "○" (OFF), and unplug the power cord.



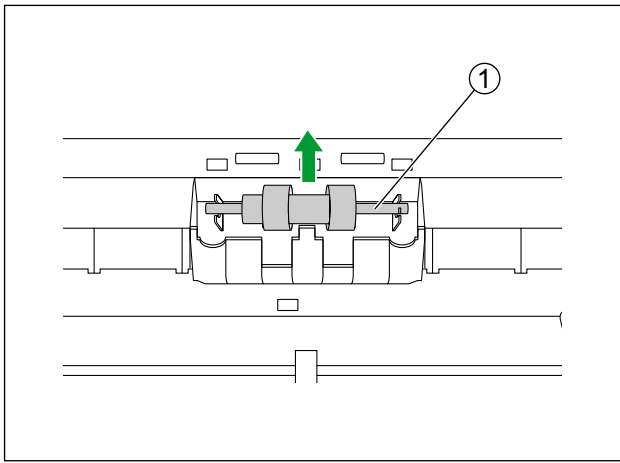
2. Pull the front door release (①) towards you, and open the front door (②).



3. Pull open the double feed prevention roller cover towards you by using the indent (①).



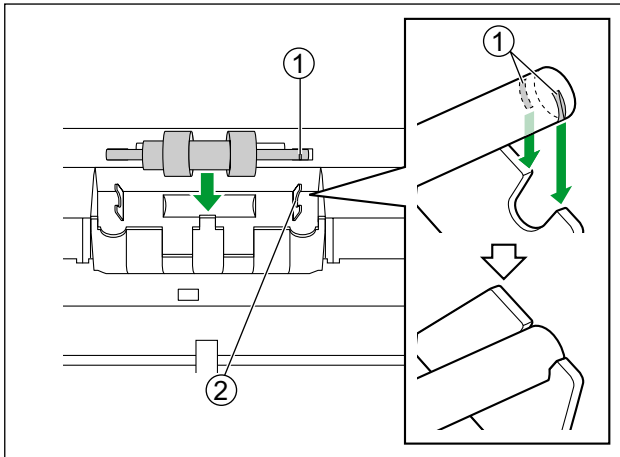
4. Remove the double feed prevention roller (①) in the direction of the arrow.



5. Take out the new double feed prevention roller in the optional "Roller exchange kit (KV-SS033)".

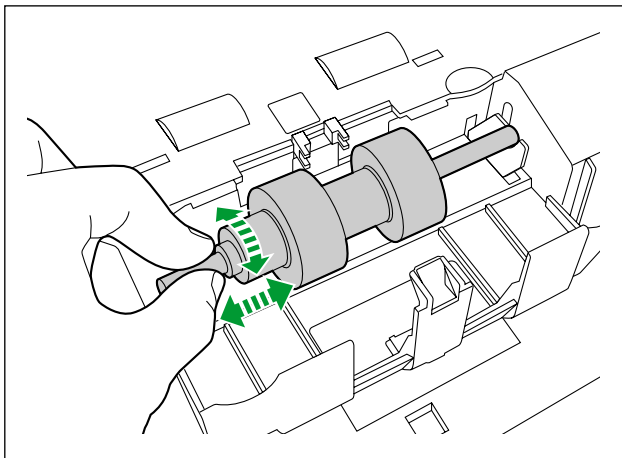
6. Install the new double feed prevention roller.

- Place the axis with the groove (①) facing the right side, and align the groove with the roller mount (②) to install it. There are 2 grooves on the shaft. Align the grooves with the U-shaped section on the roller mount to install it.

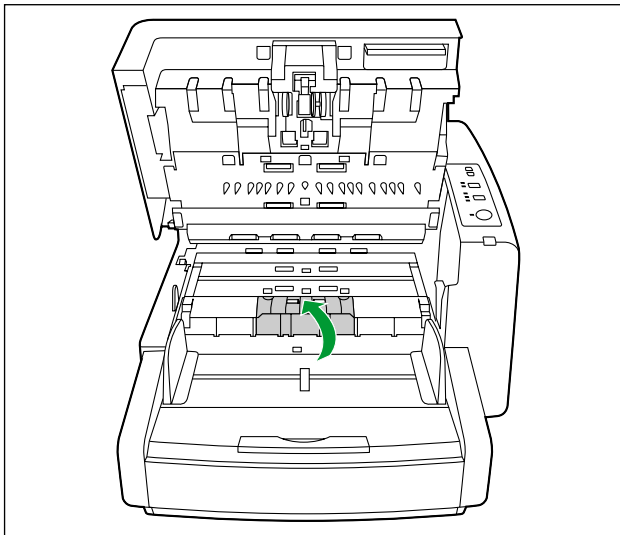


Notice

- After you install the double feed prevention roller, make sure that the shaft will not rotate or move. If the groove is not properly inserted in the roller mount, it may cause double feeding or a paper jam.

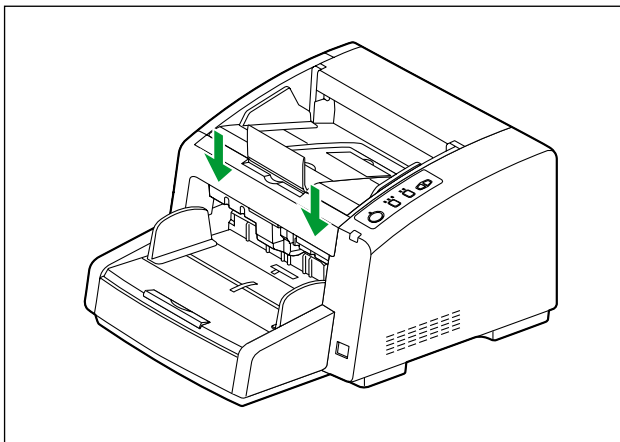


7. Close the double feed prevention roller cover by pushing it up in the direction indicated by the arrow.



Notice

- Be sure to close the double feed prevention roller cover until it clicks into place. If the double feed prevention roller cover is not closed correctly when the front door is closed, the double feed prevention roller cover may break.
8. Close the front door.
 - Push both sides of the front door down slowly until it clicks into place.

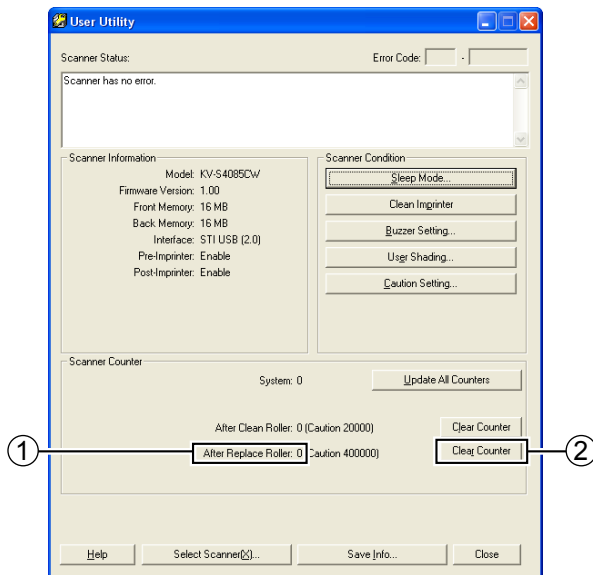


9. Plug in the power cord, and set the power switch of the scanner to "I" (ON).

Replacement Parts and Optional Units

10. Reset the roller replacing counter in User Utility to 0.

- Start User Utility, and in the window, click the [Clear Counter] button (②) for "After Replace Roller" (①) to reset the counter to 0.
- For details, refer to the User Utility Reference Manual.



Installing Optional Units

Installing the Imprinter Unit

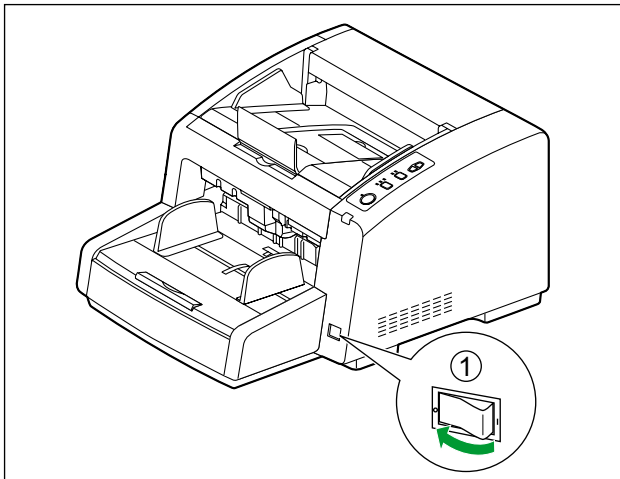
You can use the imprinter as a pre-imprinter or post-imprinter, depending on your intended use.

The pre-imprinter prints on the face of the document before scanning. The printed material will also be scanned.

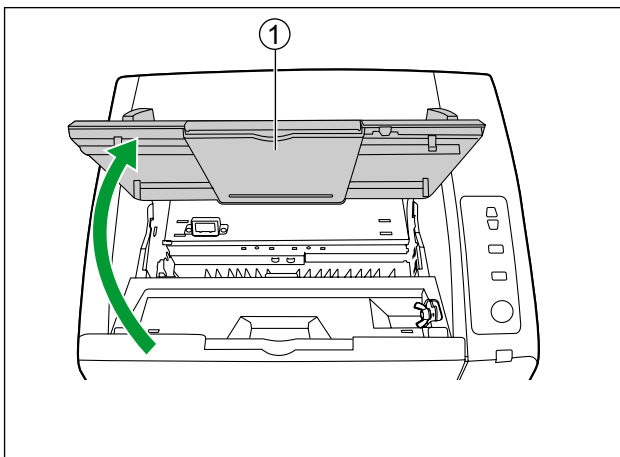
The post-imprinter prints on the rear of the document after scanning. The printed material will not be scanned.

Pre-imprinter

1. Set the power switch (1) of the scanner to "○" (OFF).

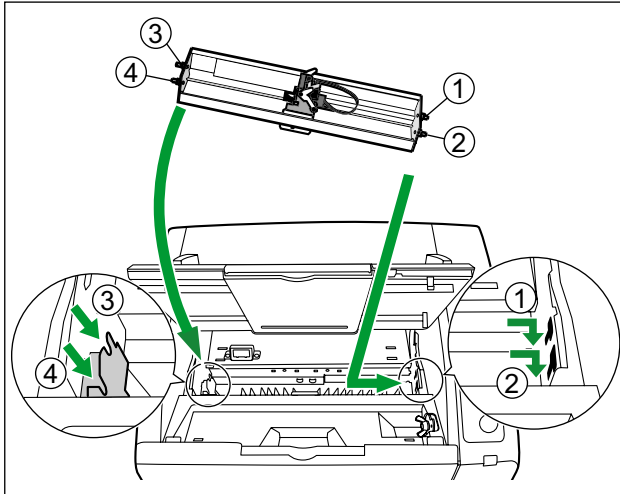


2. Open the pre-imprinter door (1).

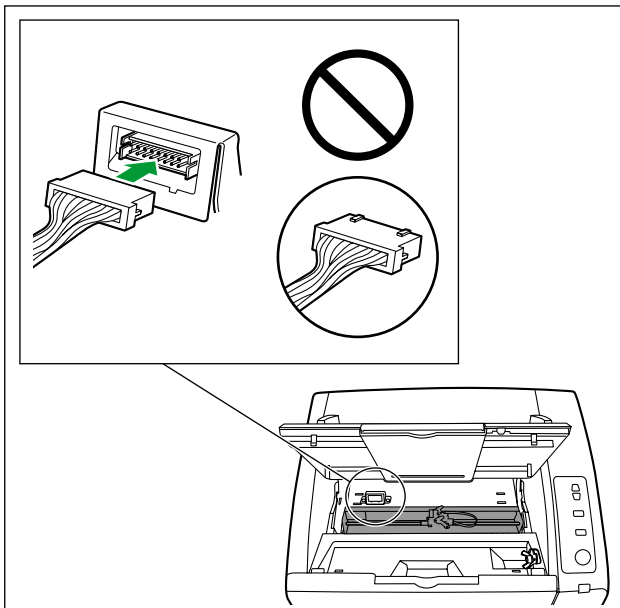


Replacement Parts and Optional Units

3. Insert the pins (1) and (2) into the upper holes until they stop, and insert the pins (3) and (4) into the guides until they are locked by the springs.



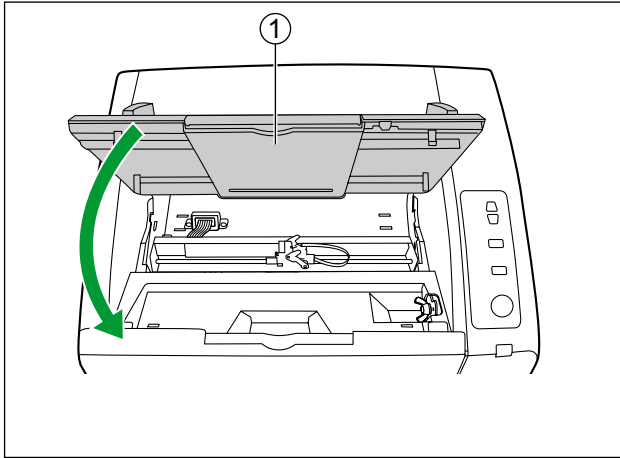
4. Connect the cable.



Notice

- Be sure to correctly match the rib with the slot prior to inserting the connector.

5. Close the pre-imprinter door (①).



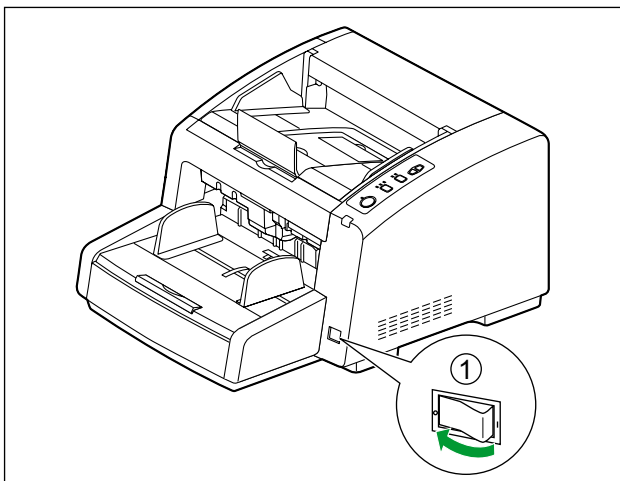
6. Set the power switch of the scanner to "I" (ON).

Note

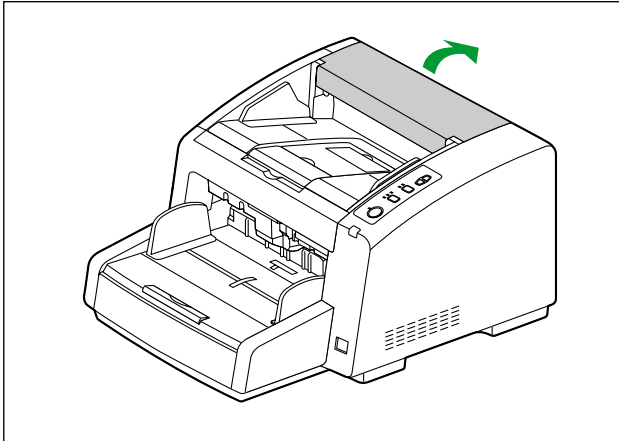
- For details on installing an ink cartridge, refer to "Installing the Ink Cartridge" (page 72).

Post-imprinter

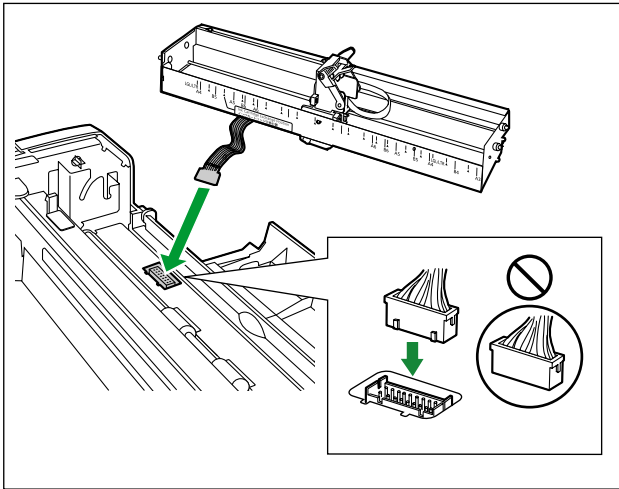
1. Set the power switch (①) of the scanner to "O" (OFF).



2. Open the post-imprinter door.



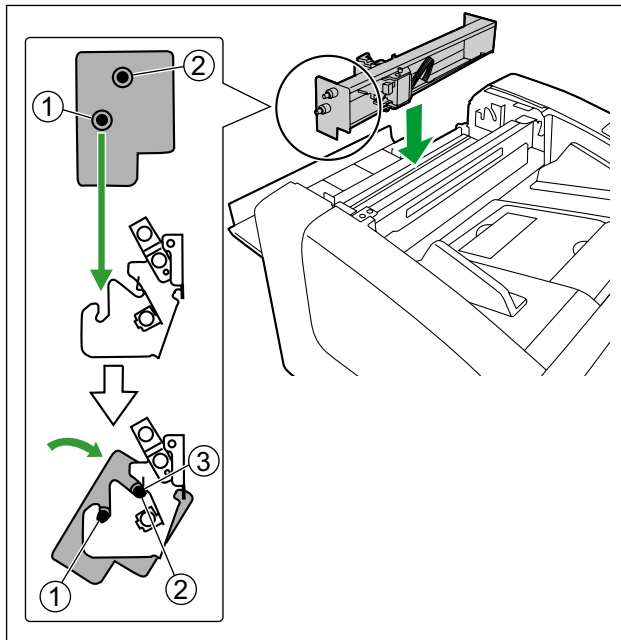
3. Connect the cable.



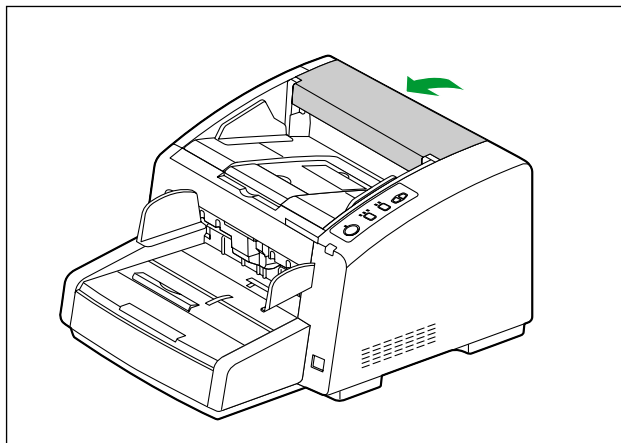
Notice

- Be sure to correctly match the rib with the slot prior to inserting the connector.

4. While keeping the direction of the post-imprinter as shown in the diagram below, insert the pins (1) on both sides into the guides, and insert the pins (2) on both sides into the guides until they are locked by the springs (3).



5. Close the post-imprinter door.



6. Set the power switch of the scanner to "I" (ON).

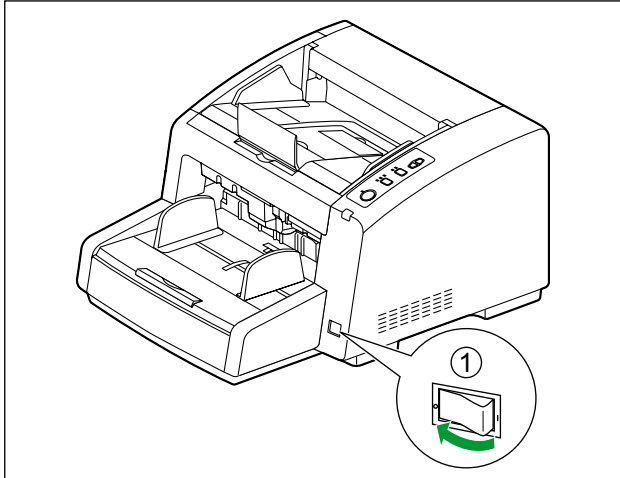
Note

- For details on installing an ink cartridge, refer to "Installing the Ink Cartridge" (page 72).

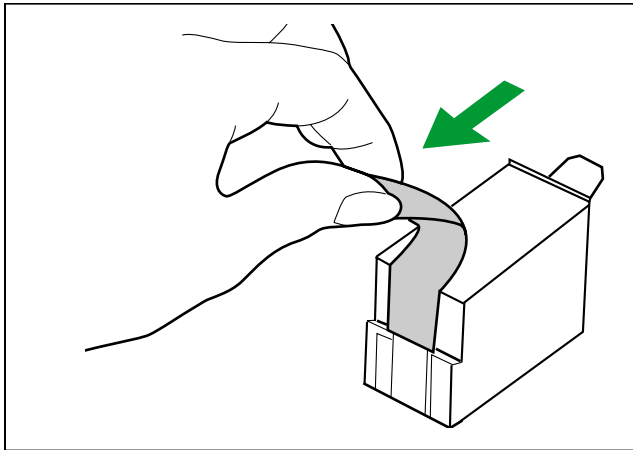
Installing the Ink Cartridge

Install the ink cartridge in the imprinter.

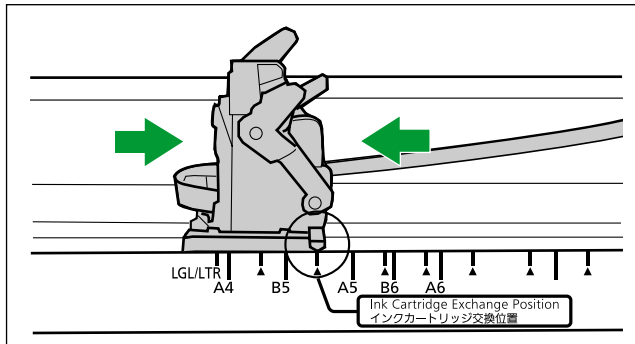
1. Set the power switch (①) of the scanner to "○" (OFF).



2. Remove the protective tape.



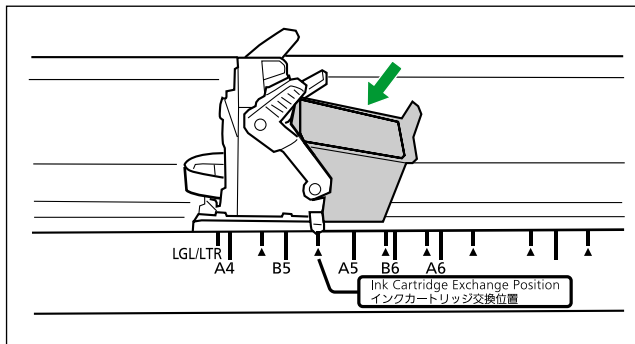
3. Move the carriage to the ink cartridge exchange position.



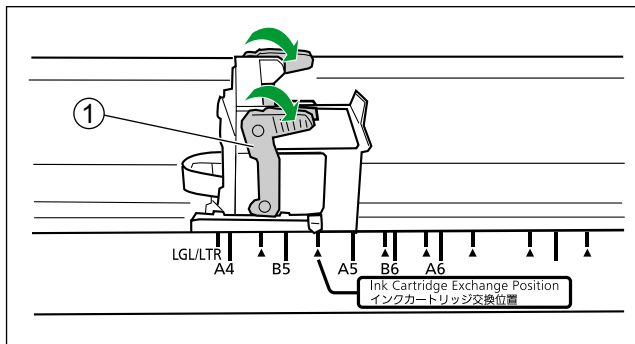
Notice

- When using the pre-imprinter, adjust the position following the label on the scanner.

4. Insert the ink cartridge into the carriage.

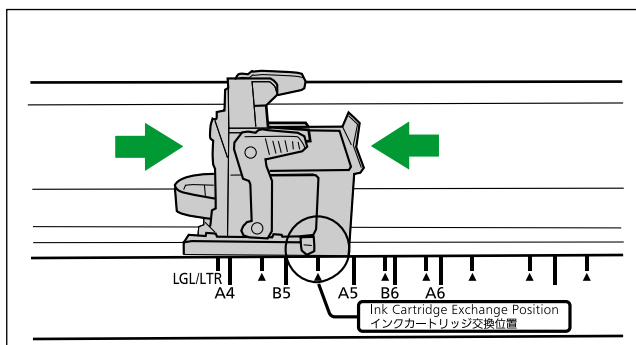


5. Lock the ink cartridge adjustment lever (①).



Removing the ink cartridge

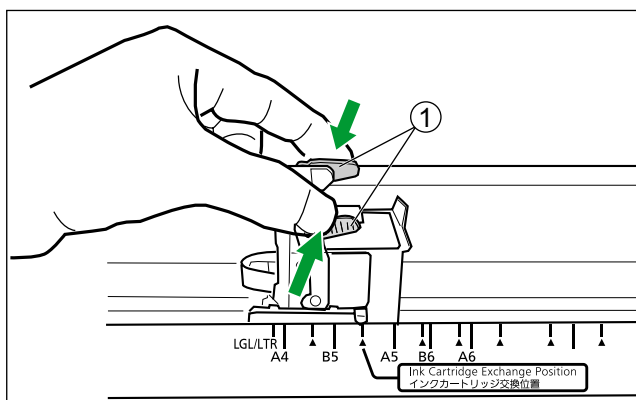
1. Set the power switch of the scanner to "○" (OFF).
2. Move the carriage to the ink cartridge exchange position.



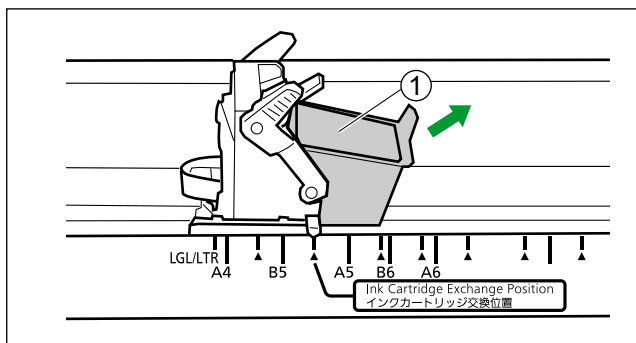
Notice

- When using the pre-implanter, adjust the position following the label on the scanner.

3. Pinch the ink cartridge adjustment lever (①) and lift it.



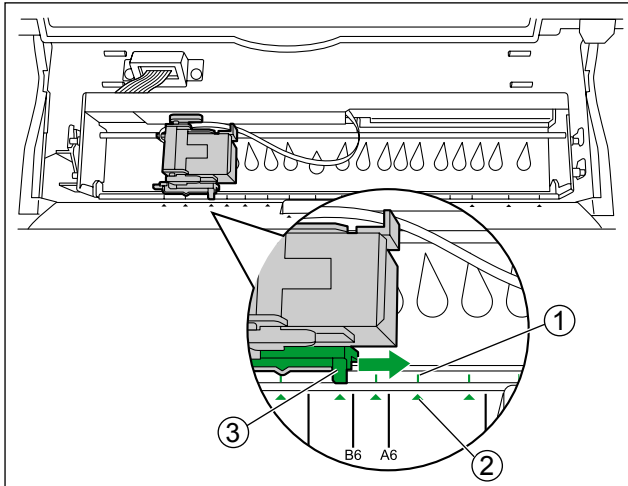
4. Remove the ink cartridge (①).



Printing

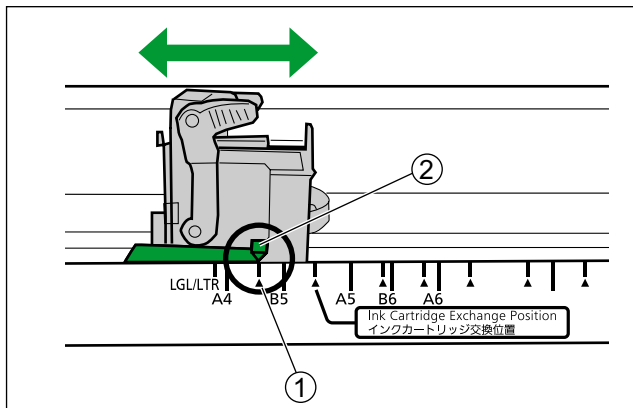
Adjusting the pre-imprinter printing position

1. Locate the green line (①) on the imprinter that is aligned with the "▲" mark (②) on the scanner where you want to print.
2. Align the indicator (③) with the green line (①).
 - The green line (①) indicates the printing position. Printing is not available in any other position.

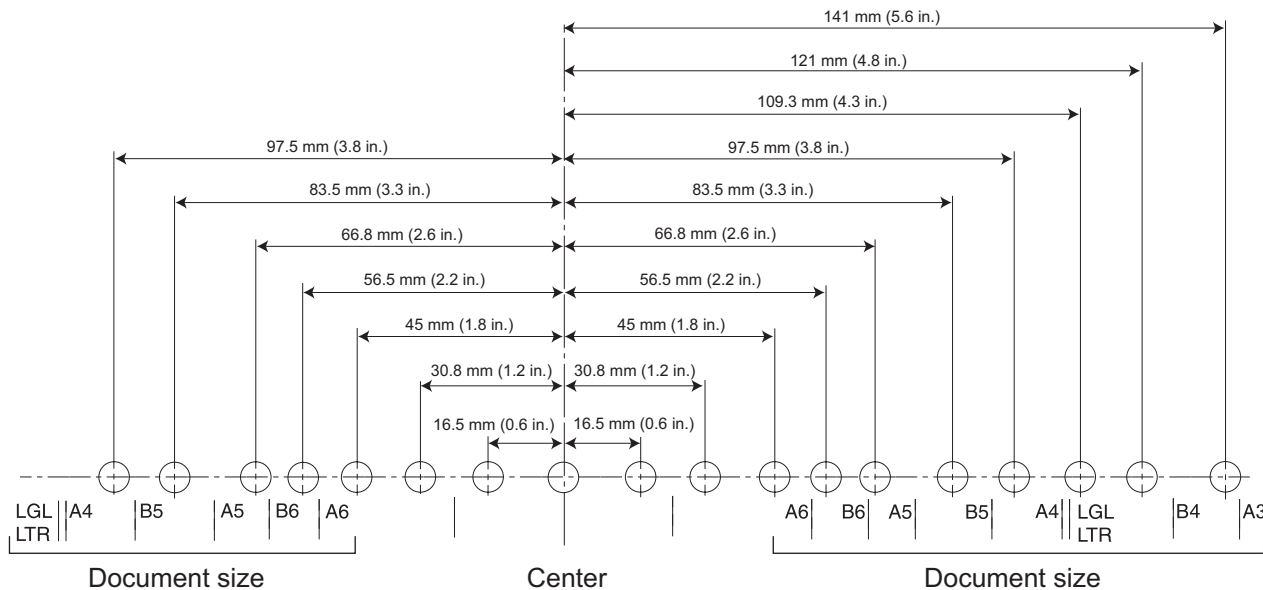


Adjusting the post-imprinter printing position

1. Move the carriage to the desired printing position, and align the indicator (②) with the "▲" mark (①).
 - The "▲" mark (①) indicates the printing position. Printing is not available in any other position.



Printing Position



Note

- The above figure shows the possible printing positions when using the pre-imprinter, which prints on the front of the document. When using the post-imprinter, which prints on the back of the document, the printing positions are flipped horizontally.

Printing

Printing can be set from the RTIV program and the TWAIN and ISIS drivers. For details, refer to the RTIV Reference Manual and PIE Reference Manual.

Troubleshooting

If a problem occurs while the scanner is being used, check the following items and check the scanner status with User Utility. If the scanner still malfunctions, turn it OFF, unplug the power cord and call for service.

Symptom	Possible Cause	Remedy
The front door cannot be opened.	The screw is not loosened.	Open the pre-imprinter door and loosen the screw. (Refer to "Installing the Unit" in the Installation Manual.)
The ready indicator does not light when the power switch is turned ON.	The power cord is not plugged in.	Insert the power plug firmly.
	Problem with power supply.	Disconnect the scanner from the electric outlet and call for service.
The computer does not recognize the scanner. The scanner is not functioning correctly.	The scanner is not connected to the computer correctly.	Connect the USB cable correctly.
	The software is not installed correctly.	Uninstall the software from the computer, and then install the software again. (Refer to "Installing the Software" in the Installation Manual.)
	The USB interface of the computer is not installed correctly.	Check the computer whether the USB interface of your computer is installed correctly using the device manager's property.
	The scanner is connected via USB hub.	Do not connect via USB hub.
	There is a problem with the USB cable.	Use the included USB cable or a certified Hi-speed USB 2.0 cable.
	The scanner entered Standby mode after not being used for a certain period of time.	Restart the scanner by pressing any one of the buttons for more than 1 second so that the computer can recognize the scanner.
Scan speed is slow.	The scanner is connected over a USB 1.1 connection.	Connect over USB 2.0.
The document has been loaded on the hopper, but the scanner does not start scanning.	The document is not loaded properly.	Load the document correctly. (Page 26)
	The sensor cannot detect the document as the edge of the document is curled.	Flatten the document (page 21) and load it again (page 26).

Symptom	Possible Cause	Remedy
Double feeding occurs frequently or the scanner stops loading while scanning.	The paper feed rollers, separation rollers, double feed prevention roller, drive rollers, or free rollers are dirty.	Clean the paper feed rollers, separation rollers, double feed prevention roller, drive rollers, or free roller. (Page 49)
	The paper feed rollers, separation rollers, or double feed prevention roller have become worn down.	Replace the paper feed rollers, separation rollers (page 59), or double feed prevention roller (page 62).
	Right and left sides of the document to be scanned are not the same in height, because of curling or folding.	Flatten the document (page 21) and load it again after reducing the pages.
	The document is printed on an unsupported type of paper or thick paper.	Make a copy of the document on paper of an acceptable type and thickness (page 20), and scan the copy.
	The length of the paper is too short.	Make a copy of the document on paper of an acceptable size (page 20), and scan the copy.
	The feeding method is set to manual.	Set the feeding method to auto with the ADF select key. (Page 16)
	The paper thickness mode is not appropriate for the documents.	Change the paper thickness mode. (Page 24)
	The document is not aligned correctly.	Realign the document. (Page 26)
	The document set on the hopper has too many pages.	Remove pages from the document until it is under the limit mark on the document guides.
Paper jams occur frequently.	The paper thickness mode is not appropriate for the documents.	Change the paper thickness mode. (Page 24)
	The document is wrinkled.	Smooth out the document.
	The rollers are dirty.	Clean the rollers. (Page 49)
	The document is not aligned correctly.	Realign the document. (Page 26)
	The document set on the hopper has too many pages.	Remove pages from the document until it is under the limit mark on the document guides.

Symptom	Possible Cause	Remedy
Scanned image is skewed.	The document guides are not adjusted to the size of the document to be scanned, or the document to be scanned is set slanted on the hopper.	Adjust the document guides properly to the size of the document to be scanned (page 26).
	Right and left sides of the document to be scanned are not the same in height, because of curling or folding.	Flatten the document (page 21) and load it again after reducing the pages.
The scanned document is blank.	The document to be scanned was loaded upside down.	Load the document correctly. (Page 26)
Vertical lines appear on the scanned document.	The image sensor covers are dirty.	Clean the image sensor covers (F and B). (Page 54)
The scanning density is uneven.	The image sensor covers are dirty.	Clean the image sensor covers (F and B). (Page 54)
	The quantity distribution of light varies.	Adjust shading. (Page 80)
The color of the scanned document is extremely different from the original document.	The settings of the computer monitor are wrong.	Adjust the computer monitor settings.
Dark spots or noise appear on the scanned documents.	The image sensor covers are dirty.	Clean the image sensor covers (F and B). (Page 54)

If you still experience problems after following these suggestions, please contact our Technical Support Department at 1-800-726-2797 for further assistance. (U.S.A. only)

Shading Adjustment

About shading adjustment

The shading adjustment function corrects variations in the lamp intensity and pixel sensor sensitivity, and reduces unevenness in density in scanned images. It can be carried out by means of the User Utility using the special shading paper, which is provided with this scanner.

When shading adjustment is required

Perform shading adjustment when the density and brightness of sections of scanned images is considerably uneven, or when image quality does not improve after cleaning the inside of the scanner.

Before proceeding with the shading adjustment

Before beginning shading adjustment, thoroughly clean the image sensor cover (F), image sensor cover (B), conveyors in the scanning area, and all rollers.

If you perform shading adjustment while these parts are dirty, lines will appear on scanned images.

Shading adjustment procedure

1. Start the User Utility.
2. Click "User Shading" on the main menu, and operate as the image display dictates.

Note

- For further details, refer to section "4.6 [User Shading]" in the User Utility Reference Manual.

Notice

If lines still appear on the scanned images after performing the shading adjustment, and if these lines are not eliminated even after the image sensor cover areas have been cleaned, it means that the shading has not been compensated properly. Clean the parts again, and then proceed with the shading adjustment.

Repacking Instructions

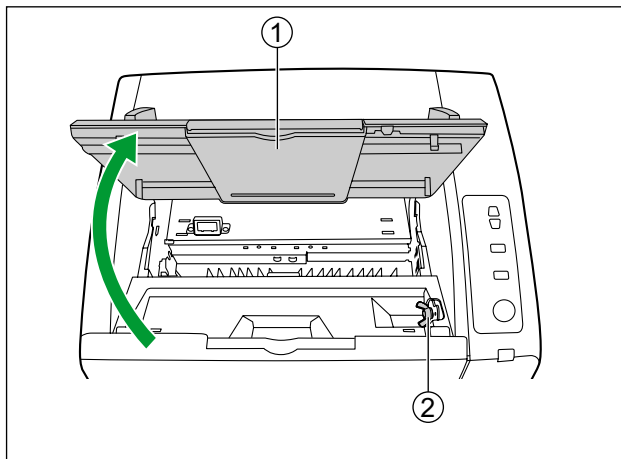
It is highly recommended that you keep the original carton and *ALL* packing materials. If you need to transport or ship the scanner, please follow these instructions.

Note

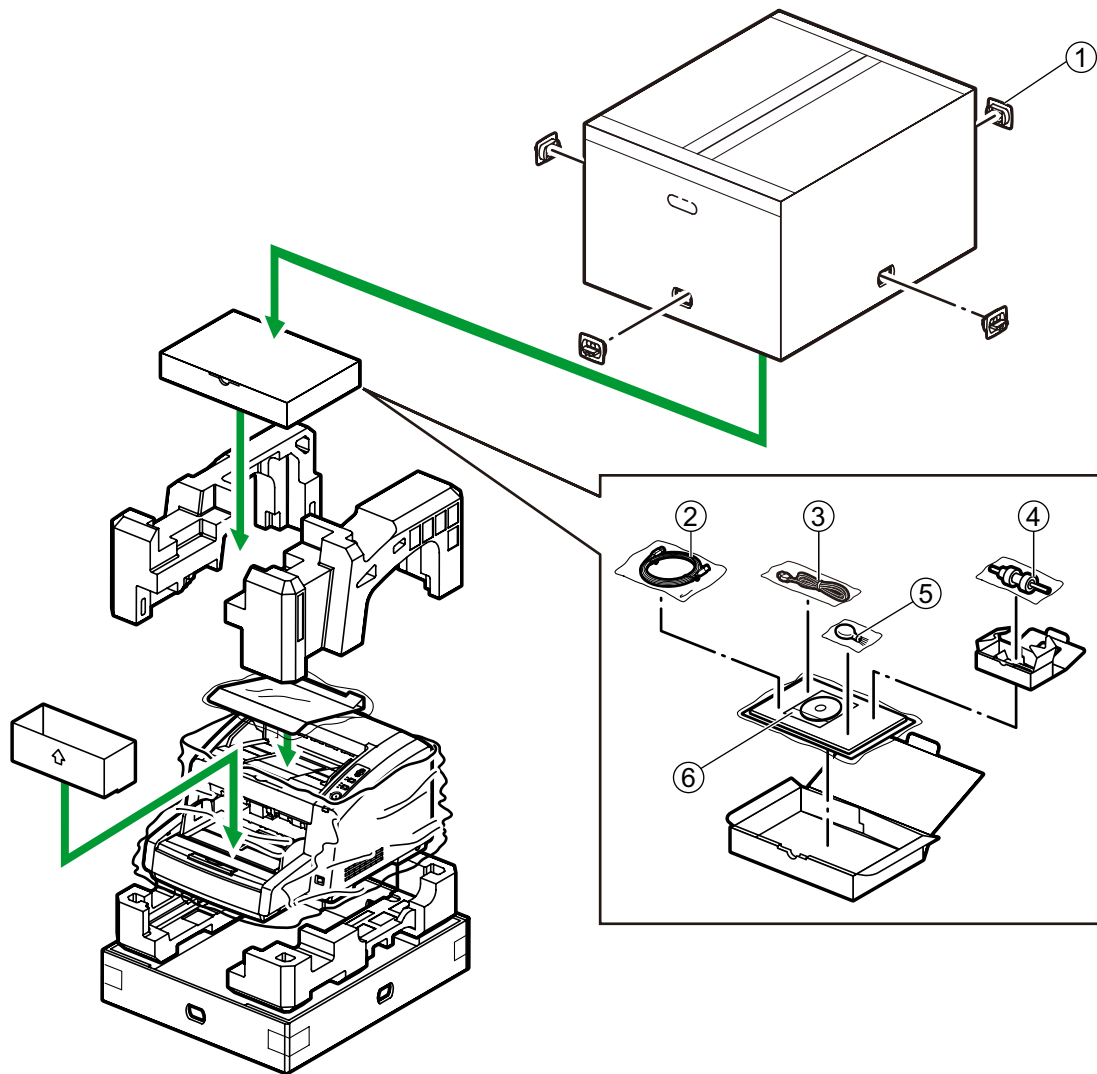
- Improper repacking of the scanner may result in a service charge to repair the scanner.
- Please use the original carton and all of the original packing materials.
- The scanner should be handled in the correct (horizontal) position.

Required Materials

- Original scanner carton and packing materials
 - Shipping tape and scissors
1. Unplug the power cord from the outlet, and remove the power cord and USB cable from the scanner.
 2. Return the exit stopper and extension sub tray to their original (non-extended) positions.
 3. Open the pre-imprinter door (①) and tighten the screw (②).



4. Pack the scanner.



- ① Joint
- ② USB cable
- ③ Power cord
- ④ Double feed prevention roller
- ⑤ Blower
- ⑥
 - Drivers & Utilities / Manuals CD-ROM
 - Installation Manual
 - Shading paper
 - Roller cleaning paper

Specifications

Item		KV-S4065CL KV-S4065CW	KV-S4085CL KV-S4085CW	
Scanner	Scanning face	Duplex		
	Scanning method	Front side: CCD Array Back side: CCD Array		
	Scanning size	KV-S4065CL / KV-S4085CL: 227 mm (8.9 in.) KV-S4065CW / KV-S4085CW: 302 mm (11.9 in.)		
	Scanning speed ^{*1} (portrait)	Binary / color 300 dpi	Simplex Letter: Approx. 65 pages/min. A4: Approx. 60 pages/min. Duplex Letter: Approx. 130 images/min. A4: Approx. 120 images/min.	Simplex Letter: Approx. 85 pages/min. A4: Approx. 80 pages/min. Duplex Letter: Approx. 170 images/min. A4: Approx. 160 images/min.
	Scanning speed ^{*1} (landscape)	Binary / color 300 dpi	Simplex Letter: Approx. 80 pages/min. A4: Approx. 80 pages/min. Duplex Letter: Approx. 160 images/min. A4: Approx. 160 images/min.	Simplex Letter: Approx. 100 pages/min. A4: Approx. 100 pages/min. Duplex Letter: Approx. 200 images/min. A4: Approx. 200 images/min.
	Resolution	100–600 dpi (1 dpi step) Optical: 600 dpi (Main and Sub feeding directions)		
	Tonal gradation	Binary, Grayscale (8 bit), Color, MultiStream: Binary & Grayscale, Binary & Color		
	Image control	Image emphasis, Dynamic threshold, Automatic separation, Invert, White level from paper		
	Compression	JPEG (color, grayscale)		
	Paper	Size	48×70 mm to 297×432 mm (1.9×2.75 in. to 11.7×17 in.) In manual feed or thick paper modes: 48×100 mm (1.9×3.9 in.)	
Thickness		0.04–0.2 mm (1.9–7.9 mils) Straight path: max. 0.6 mm (23.6 mils) Note: 1 mil = 0.001 in.		
Weight		Thin mode: 20–50 g/m ² (5–13 lbs.) Normal mode: 50–157 g/m ² (13–42 lbs.) Thick mode: 157–209 g/m ² (42–56 lbs.) Auto mode: 20–157 g/m ² (5–42 lbs.)		
Hopper capacity	300 sheets (64 g/m ² [17 lbs.])			

Appendix

Item		KV-S4065CL KV-S4065CW	KV-S4085CL KV-S4085CW	
Scanner	External dimensions (Width×Depth×Height)	474×585×329 mm (18.7×23.0×13.0 in.)		
	Weight	25 kg (55 lbs.)		
	Power requirement	AC100–240 V, 50/60 Hz		
	Power consumption	Scanning	105 W or less (AC 100–120 V) 100 W or less (AC 220–240 V)	125 W or less (AC 100–120 V) 120 W or less (AC 220–240 V)
		Ready	27 W or less (AC 100–240 V)	36 W or less (AC 100–240 V)
Sleep		2 W or less (AC 100–240 V)	2 W or less (AC 100–240 V)	
Standby		0.5 W or less (AC 100–240 V)	0.5 W or less (AC 100–240 V)	
Operating Environment		Temperature: 15–30 °C (59–86 °F), Humidity: 20–80 % RH		
Storage Environment		Temperature: 0–40 °C (32–104 °F), Humidity: 10–80 % RH		

*1 The scanning speed differs depending on the host computer, operating system, application, the data quantity of the image, and paper type.

"Weight in pounds" of paper represents the weight of 500 [432×559 mm (17×22 in.)] sheets.

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