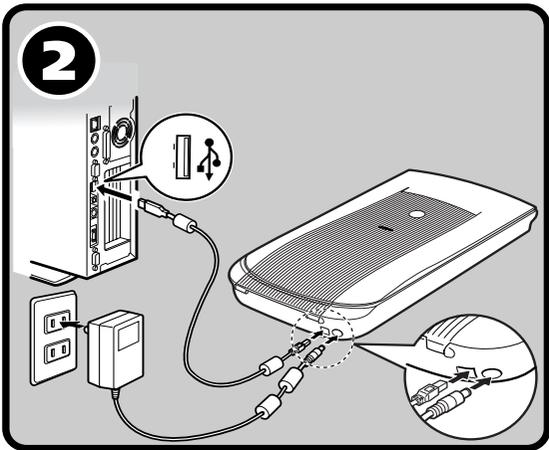
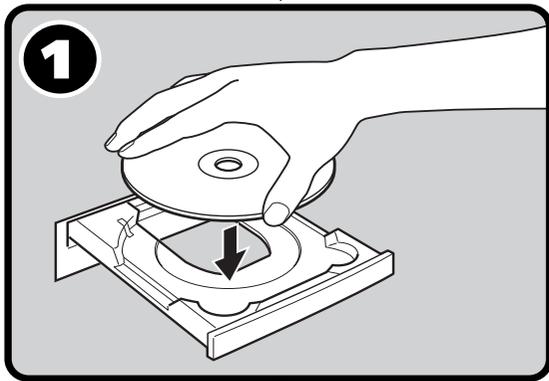


CanoScan 3200/3200F

Quick Start Guide

Be sure to install the software programs before connecting the scanner to the computer!



Setup and Scanning

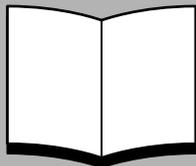
- Check the Package Contents p.3
- 1** Install the Software
 - Windows p.4
 - Macintosh p.5
- Unlock the Scanning Unit p.6
- 2** Connect the Scanner p.7
- Try Scanning p.8

Try the Additional Features

- Using the Scanner Buttons p.11
- Scanning Film (for CanoScan 3200F only) •• p.12
- Using the USB 2.0 Interface (On Windows) •• p.16

Guide to the Manuals

Open the Package



Quick Start Guide (this guide)

This guide describes a series of processes, from opening the package to using the scanner.

READ THIS GUIDE FIRST!



HTML

Scanning Guide (HTML format manual)

Refer to this guide when you have finished setting up the scanner according to the procedures in the *Quick Start Guide*. It describes how to utilize the scanner with the bundled software, and how to solve problems when they occur. You can install this manual onto the hard disk together with the software programs. When you install it, the *Scanning Guide* icon will appear on the desktop. Double-click the icon to view it with a browser program, such as Internet Explorer.



PDF

User's Guides for Application Programs (PDF format manuals)

- ArcSoft PhotoStudio
- ScanSoft OmniPage SE
- Ulead DVD PictureShow 2.0 SE Basic (Windows only)

Select the "View the Electronic Manuals" menu on the CanoScan Setup Utility CD-ROM. To read these manuals, Adobe Acrobat Reader should be installed on your computer.

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

Use of a shielded cable with the ferrite core(s) provided with the scanner is necessary to comply with the technical requirements of the EMC Directive.

Warning

When you use this product, you should pay attention to the following legal issues:

- Scanning of certain documents, such as bank notes (bank bills), government bonds and public certificates, may be prohibited by law and may result in criminal and/or civil liability.
- You may be required under law to obtain authorization from a person possessing copyrights or other legal rights to the item being scanned.

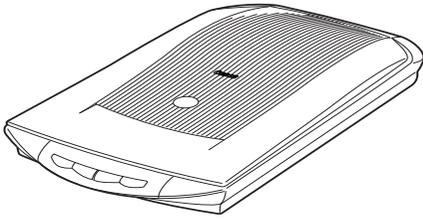
If you are uncertain of the legality of scanning any particular item, you should consult your legal adviser in advance.

- CanoScan and ScanGear are trademarks of Canon Inc.
- Adobe® and Acrobat® are trademarks of Adobe Systems Incorporated.
- Microsoft and Windows are registered trademarks of Microsoft Corporation in the U.S. and other countries.
- Macintosh, Power Macintosh, Mac OS and QuickTime are trademarks of Apple Computer, Inc., registered in the U.S. and other countries.
- ScanSoft and OmniPage are trademarks of ScanSoft, Inc.
- Other names and products not mentioned above may be trademarks or registered trademarks of their respective companies.

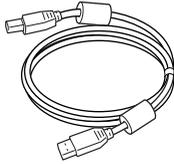
In this guide, Windows XP screen shots are used to illustrate explanations common to all operating systems.

Check the Package Contents

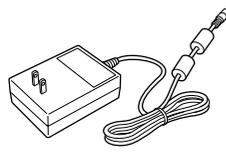
Scanner and Accessories



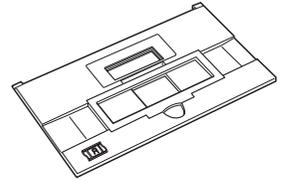
CanoScan 3200/3200F



USB Interface Cable

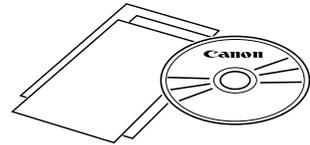


AC Adapter

Film Guide for CanoScan 3200F
(for a film strip or a slide)

Documents and Software Programs

- Quick Start Guide (this guide)
- Additional Documents
- CanoScan Setup Utility CD-ROM



- The two figures in the brackets below indicate the respective sizes of the Windows/ Macintosh versions of the software.
- Approximately 270 MB (for Windows) / 138 MB (for Macintosh) of hard disk space on your computer is required to install all the programs. Additional free hard disk space is required to operate the programs.

ScanGear CS (25 MB / 6 MB) - Scanner Driver

It allows you to scan and load images from the scanner.

CanoScan Toolbox (15 MB / 3 MB) - Scanning Utility Program

It enables you to scan images and copy (print), attach images to e-mail messages or save images with simple steps. It also works with the scanner buttons.

ArcSoft PhotoStudio (32 MB / 20 MB) - Image Editing Program

It allows you to load images from the scanner, edit and retouch them, and apply special effects and enhancements.

ScanSoft OmniPage SE (90 MB / 80 MB) - OCR (Optical Character Recognition) Program

It converts characters scanned from a book, magazine or newspaper into text data for editing or digital transmission.

Ulead DVD PictureShow 2.0 SE Basic (Windows only) (75 MB) - Slideshow Program

It allows you to create slideshows by using a VCD burner that you can watch on your computer or TV.

Adobe Acrobat Reader (24 MB / 24 MB) - PDF File Reader Program

Electronic manuals for the above software programs (HTML (5 MB) and PDF manuals)

Install the Software (Windows)



- With Windows XP/2000, you should log on with an administrator user name when you install or uninstall software programs.
- If you are using a computer which does not equip USB 2.0 interface by standard, refer to P.16.

1 Turn the computer on.

If the "Found New Hardware Wizard" or "Add New Hardware Wizard" appears, click [Cancel].

2 Place the CanoScan Setup Utility CD-ROM in the drive. After you select your language, the CanoScan Setup Utility main menu will display.

3 Click [Install the Software]. Read the SOFTWARE USER LICENSE AGREEMENT. Click [Yes] if you accept the terms.

The [Install] window will display.

4 Click [Start Installation]. You will install six software programs and the *Scanning Guide* (HTML format manual).

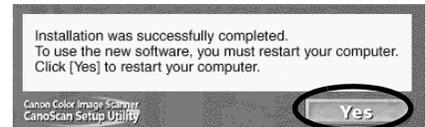
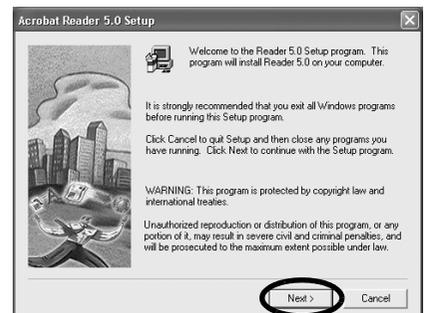
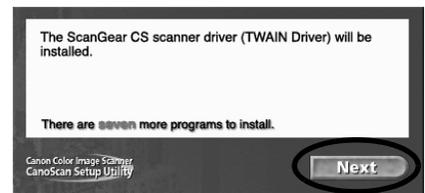
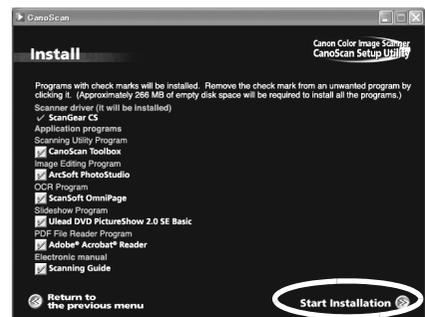
5 The installation procedure will start. Follow the on-screen message prompts and click [Yes] or [Next] to continue the installation.

 • In few cases, your operating system may require a restart. Follow the on-screen messages to restart and resume installation.

6 When the installation is complete, click [Yes]. The computer will restart.

7 After Windows restarts, remove the CD-ROM from the drive and store it in a safe place.

➔ Continue on P. 6.



Install the Software (Macintosh)

1 Turn the computer on.

Make sure to log in with the first created administrator to install the software. You cannot install the software when logged in using added administrator accounts.

A message similar to the following may appear when you are using the scanner with Mac OS 9: "Would you like to look for the software on the Internet?" If it does, click the [Cancel] button to close it.



2 Place the CanoScan Setup Utility CD-ROM in the drive.

3 Double-click the CD-ROM icon.

4 Double-click the [SetUp] icon.

After you select your language, the CanoScan Setup Utility main menu will display.

Steps 3 and 4 will not be required if you are using the scanner with Mac OS 9 and the QuickTime [AutoPlay] setting is set to [Enable CD-ROM AutoPlay]. In this case, the CanoScan Setup Utility will automatically start up and display its main menu when you place the CD-ROM in the drive.

5 Click [Install the Software].

Read the SOFTWARE USER LICENSE AGREEMENT. Click [Yes] if you accept the terms.

The [Install] window will display.

6 Click [Start Installation].

You will install five software programs and the *Scanning Guide* (HTML format manual)

7 The installation procedure will start.

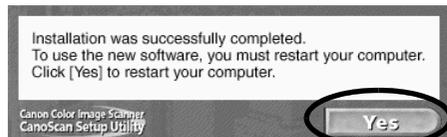
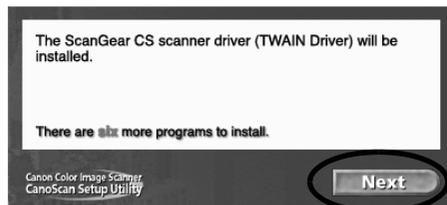
With Mac OS X, enter the administrator name and password, and click [OK]. (The administrator name must be the first created administrator account.)

Follow the on-screen message prompts and click [Yes], [Next] or [Install] to continue the installation.

8 When the installation is complete, click [Yes].

The computer will restart.

9 After restarting, remove the CD-ROM from the drive and store it in a safe place.

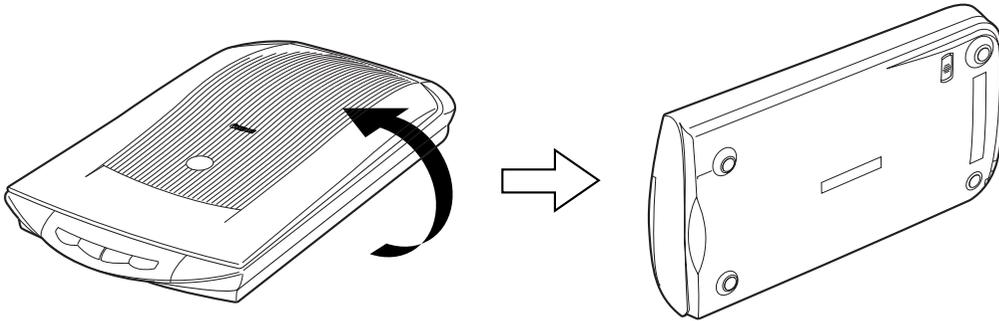


Unlock the Scanning Unit

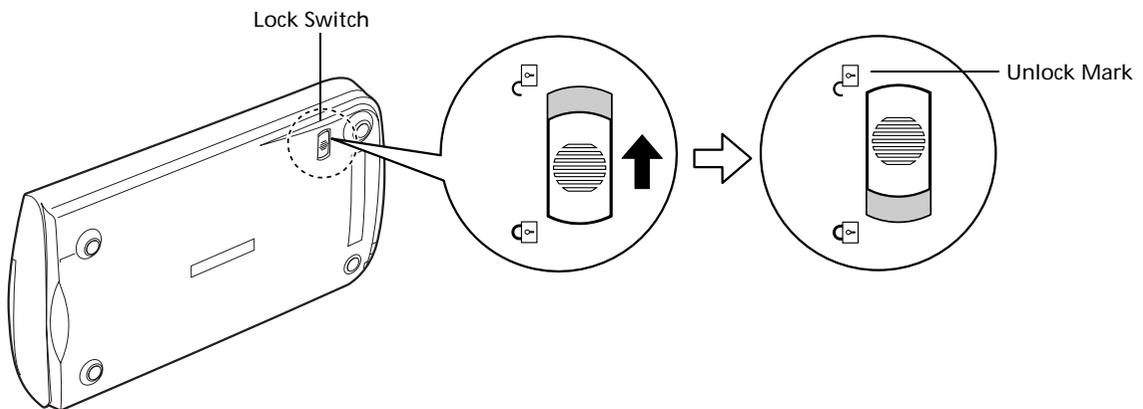


- Unlock the scanning unit before connecting the scanner to the computer. If it is left locked, a malfunction or other problem may occur.

- 1 Peel the seals off the scanner.
- 2 Gently turn the scanner over.



- 3 Push the lock switch toward the unlock mark (🔓).



- 4 Return the scanner to a horizontal position.



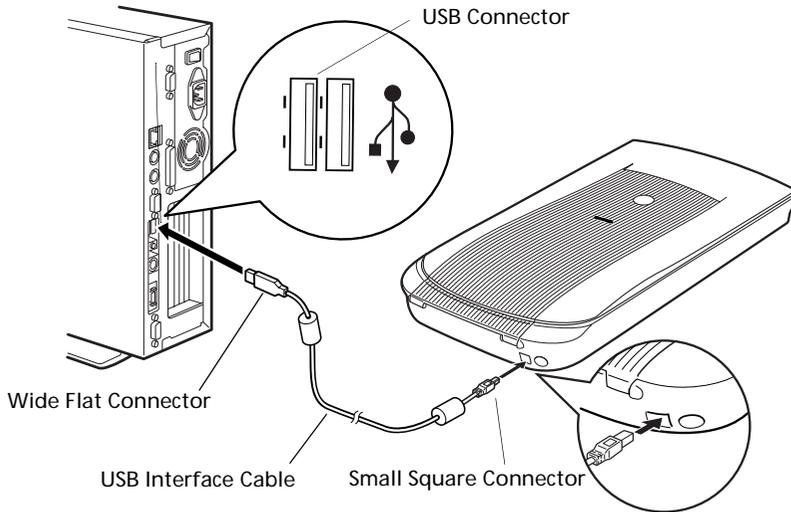
- When transporting the scanner, always lock the scanning unit by pushing the lock switch toward the lock mark (🔒).
- Carrying or transporting the scanner without locking the scanning unit may damage it. Be particularly careful to lock the scanning unit when transporting the scanner in a vehicle.

Connect the Scanner

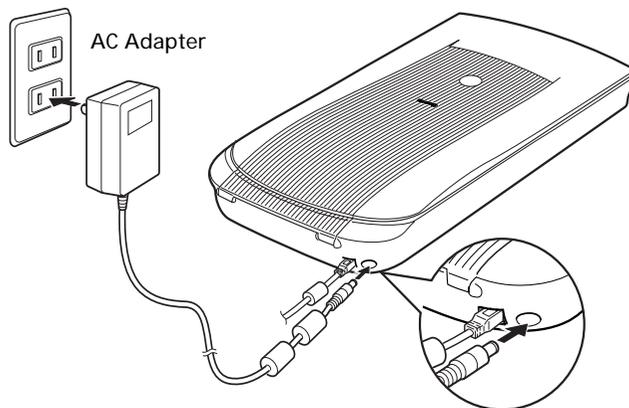


- Make sure that the scanning unit is unlocked. (P.6)

- 1 Peel the caution seal from the scanner.
- 2 Connect the scanner to the computer with the supplied USB interface cable.



- 3 Attach the supplied AC adapter to the scanner.

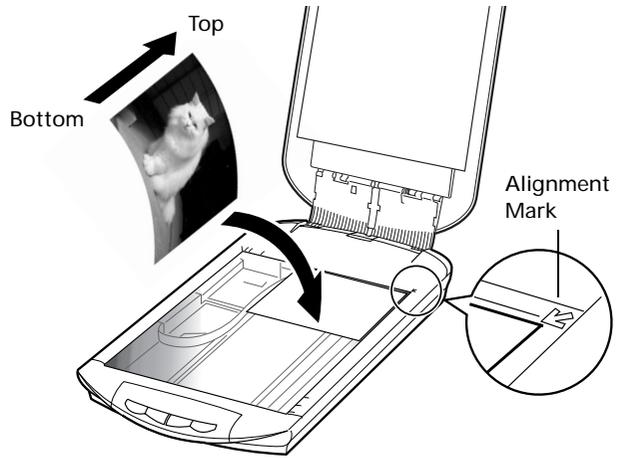


- Only use the USB interface cable and the AC adapter provided with the scanner. Use of other cables or adapters may lead to a malfunction.
- The scanner does not have a power switch. The power is activated as soon as the AC adapter is plugged in.

Try Scanning

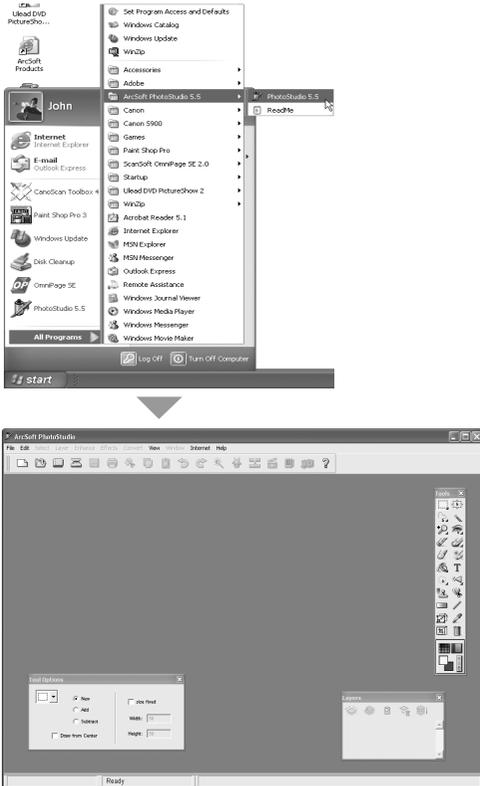
The following steps explain how to scan with ArcSoft PhotoStudio.

- 1 Place a photo or a picture on the glass by aligning its top edge with the alignment mark, and close the document cover.



Windows

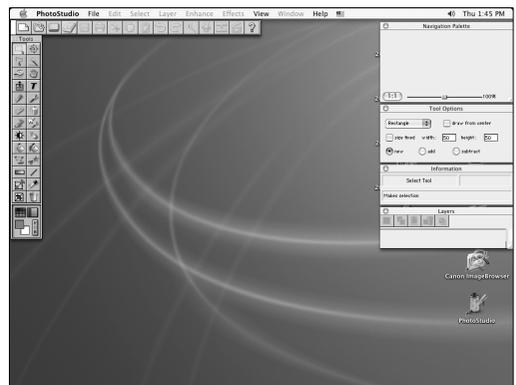
- 2 Select [Start], [Programs] or [All Programs], [ArcSoft PhotoStudio 5.5] and [PhotoStudio 5.5].



PhotoStudio will start.

Macintosh

- 2 Double-click the [Applications] folder for Mac OS X or the [Applications (Mac OS 9)] folder for Mac OS 9, followed by the [PhotoStudio] folder and the [PhotoStudio] icon.



PhotoStudio will start.

Windows

- 3 Click the Acquire icon  or click the [File] menu and select [Acquire].



If an error message appears, click the [File] menu, choose [Select Source], select your scanner model name and click the [Select] button.



ScanGear CS will start.

- 4 Select the [Select source].

You can select from the following options.
Photo (Color)/Magazine (Color)/Newspaper (B&W)/Document (Grayscale).

- 5 Click [Preview].

After calibration, the preview scan will start and gradually display the image.

The image is automatically cropped at its original size. If you want to trim the image further, drag the mouse diagonally to select the area.



• Do not open the document cover while a scan is in progress.

- 6 Select the [Destination].

You can select [Print] or [Image display].
When [Print] is selected, the output resolution is set to 300 dpi.
When [Image display] is selected, it is set to 150 dpi.

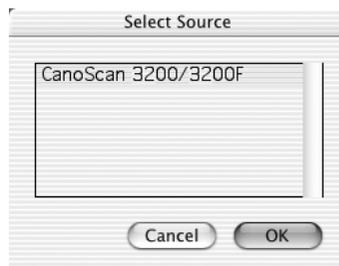
[Print] is selected in this example.

Macintosh

- 3 Click the Acquire icon  or click the [File] menu and select [Acquire].

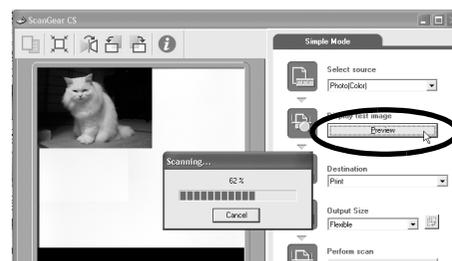
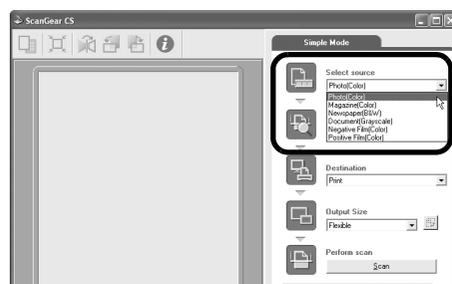


If an error message appears, click the [File] menu, choose [Select Source], select your scanner model name and click the [OK] button.



Mac OS X

ScanGear CS will start.



7 Select the [Output Size].

You can select from the following options.

- If you selected [Print] in Step 6:

Flexible / 4" x 6" / A4 / Letter / Custom Settings

- If you selected [Image display] in Step 6:

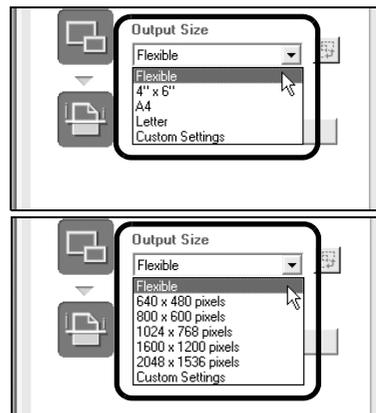
Flexible / 640 x 480 / 800 x 600 / 1024 x 768 / 1600 x 1200 / 2048 x 1536 / Custom Settings

[Flexible] is selected in this example.

Selecting [Flexible] scans the item at the same size as the original.

Selecting an option other than [Flexible] in the [Image Display] category allows you to select the output size in pixels.

You can scan items at the correct dimensions for computer displays (screen area) and digital cameras.



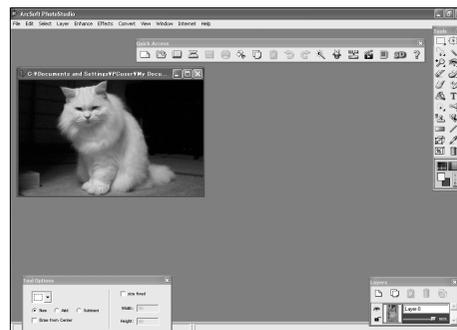
8 Click [Scan].

The final scan will start.



9 Click close box (Windows) or (Mac OS X) or (Mac OS 9) in the ScanGear CS window to close it.

The scanned image will appear in the PhotoStudio window.



10 Save the scanned image.

Click the [File] menu and select [Save As]. Select the folder where you wish to store the image file, enter a file name, select a file type (JPG format is recommended) and click [Save].

11 Click close box (Windows) or (Mac OS X) or (Mac OS 9) in the PhotoStudio window to close it.



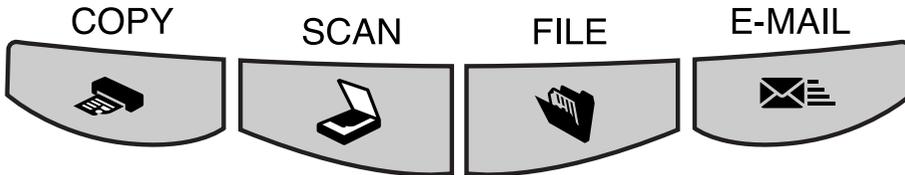
- If the scanner does not perform as described above, read the "Troubleshooting" section of the *Scanning Guide* (HTML format manual).
- For details about the bundled software programs, read the *Scanning Guide* or the User's Guide (PDF format manual) for each software program on the CanoScan Setup Utility CD-ROM.

Using the Scanner Buttons

You can use the four convenient buttons on the front of the scanner to scan and perform related tasks easily with a single touch of the button. Place an item on the scanner before pressing a button.



- To use these buttons, ScanGear CS, CanoScan Toolbox, ArcSoft PhotoStudio and Acrobat Reader should be installed from the CanoScan Setup Utility CD-ROM.



COPY Button

To print (copy) the scanned image with a printer:

- 1 Press the [COPY] button.
- 2 The scanner will scan the item.
- 3 The scanned image will print.

- The printer driver should be installed and the printer should be on-line to use this function.



SCAN Button

To open the scanned image in the PhotoStudio window:

- 1 Press the [SCAN] button.
- 2 The scanner will scan the item.
- 3 The scanned image will appear in the PhotoStudio window.



FILE Button

To save the scanned image as a PDF file:

- 1 Press the [FILE] button.
- 2 The scanner will scan the item.
- 3 The scanned image will be saved as a PDF document and appear in Adobe Acrobat Reader.



E-MAIL Button

To e-mail the scanned image as an attached file:

- 1 Press the [E-MAIL] button.
- 2 The scanner will scan the item.
- 3 The [E-mail software selection] dialog will appear. Select an option from the list and click [OK].
This step is required only for the first scan.
- 4 The e-mail software will start and the scanned image will be attached in a new message window.
- 5 Enter the receiver's address and title, write a message, confirm the required settings, and send the message.

- To use the E-MAIL Button, one of the following e-mail programs should be installed and enabled.
For Windows: Microsoft Outlook Express, Microsoft Outlook, Eudora or Netscape Messenger. (Some mail programs are required to set the MAPI function on.)
For Mac OS X: Mail (Mac OS X 10.2 or later), Eudora or MS Entourage*.
For Mac OS 9: Microsoft Outlook Express or Eudora.
* Sending multiple images to MS Entourage using the Multi-Scan function is not supported.



- If you press the [Cancel] button while scanning, you can change the default settings for scanning. For changing settings or arranging the scanner button assignments, refer to the CanoScan Toolbox section of the *Scanning Guide* (HTML format manual).

Scanning Film (for CanoScan 3200F only)

You can scan a single frame of 35 mm film (strips or slides) with CanoScan 3200F.

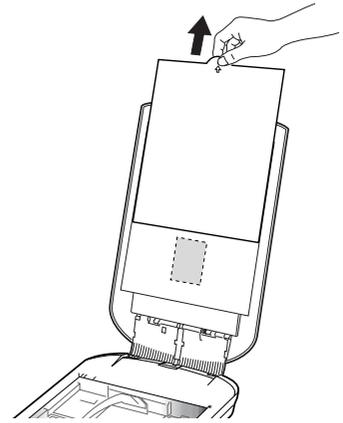
Positioning the Film

- 1** Remove the protective sheet from the document cover. Slide the protective sheet up to remove it.

When you finish scanning, replace the protective sheet by aligning it with the grooves in the document cover and sliding it downward into place.

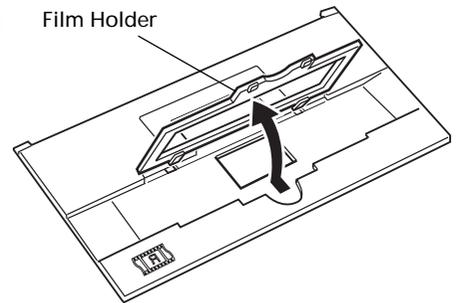


- Store the protective sheet in a safe place so that it will not get bent or broken.
- Always replace the protective sheet when you are not scanning film to prevent the light source section from getting scratched.



- 2** Insert a fingernail into the slot in the Film Guide and remove the Film Holder.

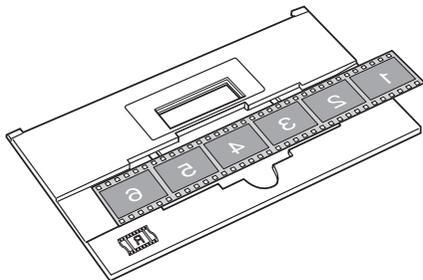
Film Holder



- 3** Place the film face down into the groove in the Film Guide.

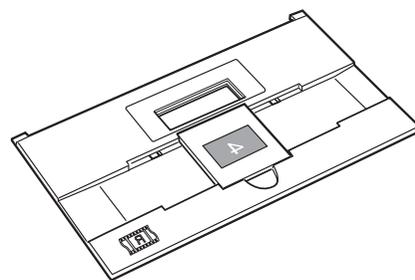
35 mm Strip

Align the frame you wish to scan with the Film Guide's window.



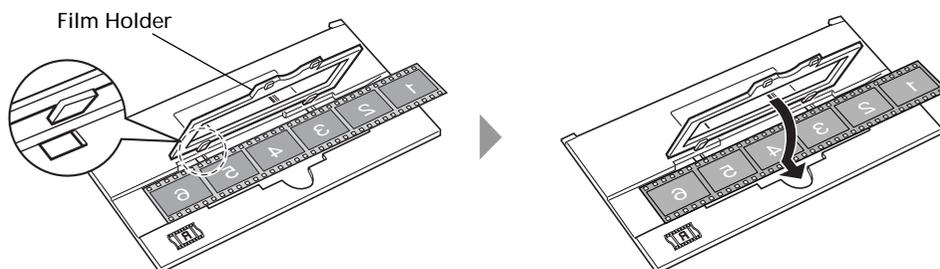
Slide

Place a slide face down over the Film Guide's window.



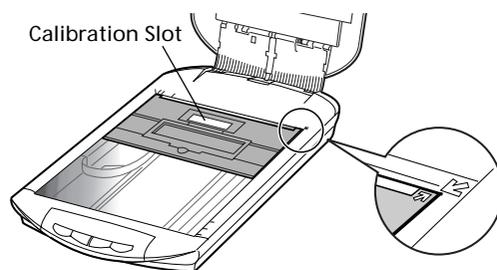
- Hold the film by the edges with your fingertips to avoid getting fingerprints or dirt on the film surface.
- Remove dust from the film, the document glass and the light source.

- 4** Clip the Film Holder back into the slots in the Film Guide for a 35 mm strip.



Slides do not require the Film Holder to be closed.

- 5** Place the loaded Film Guide in the correct position on the document glass of the scanner.



Align the Film Guide's  mark with the scanner's  mark.



- The Film Guide has a calibration slot used by the scanner to calculate the color balance. The film cannot be scanned with the correct color balance if this slot is obstructed. Keep it clear.

- 6** Close the document cover.



- You can purchase the Accessory Kit for CanoScan 3200F (CSAK-3200F) if the protective sheet or the Film Guide lost or damaged.

Scanning Film

The following steps explain how to scan the film with ArcSoft PhotoStudio.

1 Start ArcSoft PhotoStudio.

Windows

Select [Start], [Programs] or [All Programs], [ArcSoft PhotoStudio 5.5] and [PhotoStudio 5.5].

Macintosh

Double-click the [Applications] folder for Mac OS X or the [Applications (Mac OS 9)] folder for Mac OS 9, followed by the [PhotoStudio] folder and the [PhotoStudio] icon.

2 Start ScanGear CS.

Windows

Click the Acquire icon  or click the [File] menu and select [Acquire].

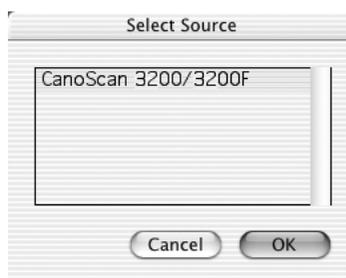
Macintosh

Click the Acquire icon  or click the [File] menu and select [Acquire].

- If an error message appears, click the [File] menu, choose [Select Source], select your scanner model name and click the [Select] button for Windows or the [OK] button for Macintosh.



Windows

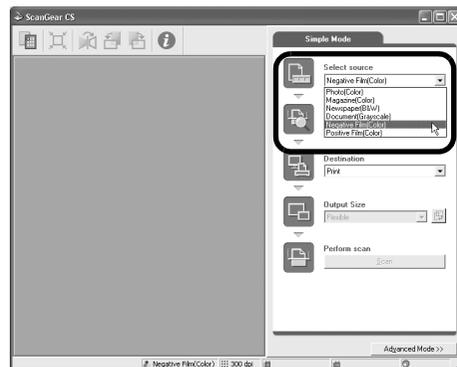


Macintosh (Mac OS X)

ScanGear CS will start.

3 Select the [Select source].

You can select from the following options for films.
Negative Film (Color) / Positive Film (Color)

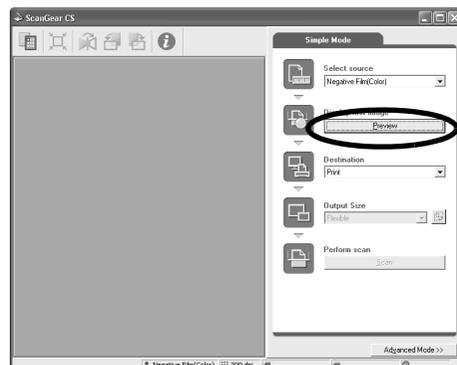


4 Click [Preview].

After calibration, the preview scan will start and gradually display the image. The image is automatically cropped. If you want to trim the image further, drag the mouse diagonally to select the area.



- Do not open the document cover while a scan is in progress.

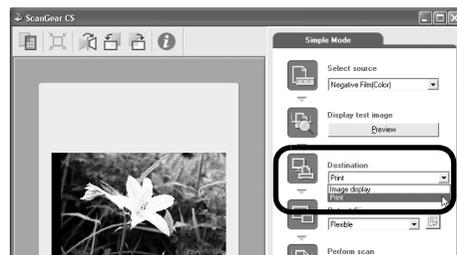


5 Select the [Destination].

You can select [Print] or [Image display].

When [Print] is selected, the output resolution is set to 300 dpi. When [Image display] is selected, it is set to 150 dpi.

[Print] is selected in this example.



6 Select the [Output Size].

You can select from the following options.

• If you selected [Print] in Step 5:

Flexible / 4" x 6" / A4 / Letter / Custom Settings

• If you selected [Image display] in Step 5:

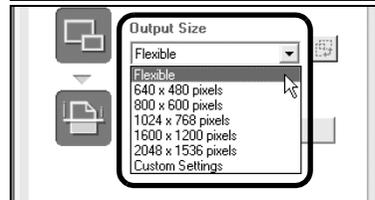
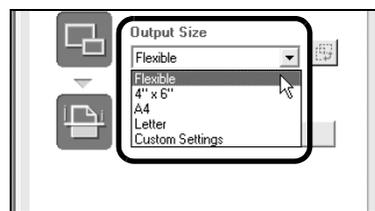
Flexible / 640 x 480 / 800 x 600 / 1024 x 768 / 1600 x 1200 / 2048 x 1536 / Custom Settings

[Flexible] is selected in this example.

Selecting [Flexible] scans and enlarges one film frame to the 4" x 6" size. If the display mode is set to Thumbnail Display Off, the image is scanned at the same size as the original film. See the *Scanning Guide* for information about the Thumbnail Display mode.

Selecting an option other than [Flexible] in the [Image Display] category allows you to select the output size in pixels.

You can scan film at the correct dimensions for computer displays (screen area) and digital cameras.



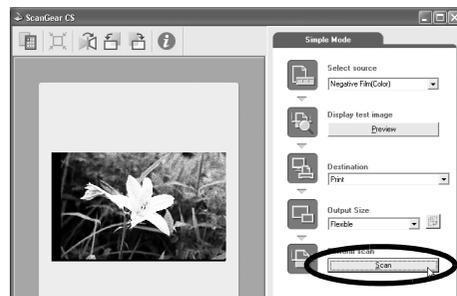
7 Click [Scan].

The final scan will start.

When the scan is complete, click the ScanGear CS close box

 (Windows) or  (Mac OS X) or  (Mac OS 9).

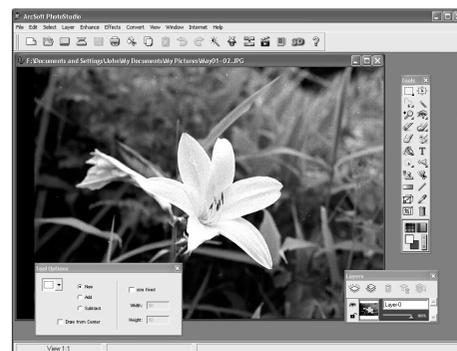
The scanned image will appear in ArcSoft PhotoStudio.



8 Save the scanned image.

Click the [File] menu and select [Save As]. Select the folder where you wish to store the image file, enter a file name, select a file type (JPEG format is recommended) and click [Save].

9 Click close box (Windows) or (Mac OS X) or (Mac OS 9) in the PhotoStudio window to close it.



- If the scanner does not perform as described above, read the "Troubleshooting" section of the *Scanning Guide* (HTML format manual).
- For details about the bundled software programs, read the *Scanning Guide* or the User's Guide (PDF format manual) for each software program on the CanoScan Setup Utility CD-ROM.

Using the USB 2.0 Interface (on Windows)

To Switch to USB 2.0

If your computer is equipped with USB 1.1, you can switch to the USB 2.0 environment for faster scanning by purchasing and installing one of the USB 2.0 expansion cards available on the market.

Compatible USB Expansion Cards/Hubs

Please use one of the following USB expansion cards/hubs that have been verified by Canon for compatibility.

Expansion Cards

- Adaptec USB2connect 5100: PCI bus
- Adaptec USB2connect 3100: PCI bus
- Adaptec USB2connect 2000LP: PCI bus
- Adaptec DuoConnect: PCI bus

Hubs

- Adaptec XHUB4
- Adaptec XHUB4PLUS
- Adaptec XHUB7PLUS

For installation procedures, please read the instructions that accompany the USB expansion card/hub.

Confirming the USB Version

Use the following procedures to confirm whether your computer is equipped with a USB version 1.1 or 2.0 interface.

- 1 Start ScanGear CS.
- 2 Click the information icon  in the upper portion of the ScanGear CS window.
- 3 Read the contents of the Interface category in the displayed window. USB 1.1 will show as "USB 1.1" and USB 2.0 as "USB 2.0."
- 4 Click the close box  to close the window.



Troubleshooting the USB2.0 Hi-Speed Interface

If the scanner is not operating correctly via the USB2.0 Hi-Speed interface, follow the steps below to troubleshoot it.

- 1 Ensure that you use the USB cable supplied with the scanner.
- 2 Connect the scanner directly to a USB port on the computer, not through a USB hub.
- 3 With the Microsoft USB 2.0 driver, if the scanner is not recognized by the computer after installing ScanGear CS:
 - Detach the AC adapter and attach it again.
 - Detach the USB cable and attach it again.
- 4 Use the following procedures to confirm that the computer correctly recognizes the USB expansion card and the scanner.
 1. Open the Windows [Device Manager] and confirm that your scanner name appears below the [Imaging Device] category.
 2. Confirm that [Adaptec AUA-xxxx], [NEC PCI to USB Enhanced Host Controller] or [Intel PCI to USB Enhanced Host Controller] appears below the [USB (Universal Serial Bus) Controllers] category.
 3. Confirm that the USB expansion card is correctly installed into the computer and that the scanner is attached to its port.
 4. If you use more than two devices via USB2.0 Hi-Speed interface, try to disconnect other devices than the scanner.

Specifications

		CanoScan 3200	CanoScan 3200F
Scanner Type		Flatbed	
Scanning Element		CCD 6-line color	
Light Source		Cold cathode fluorescent lamp	
Film Adapter Unit		-	Standard equipped
Optical Resolution		1200 x 2400 dpi	
Selectable Resolution		25 - 9600 dpi (ScanGear CS)	
Scanning Bit Depth	Color	16 bit input / 16 bit or 8 bit output for each color (RGB)	
	Grayscale	16 bit input / 16 bit or 8 bit output * ¹	
Scanning Speed*² (Photo or Document)	Color	2 msec./line (600 dpi), 3.6 msec./line (1200 dpi)	
	Grayscale, B&W	2 msec./line (600 dpi), 3.6 msec./line (1200 dpi)	
Scanning Speed*² (Film)	Color, GrayScale, B&W	-	8 - 128 msec./line (1200 dpi)
Preview Speed*³		Approximately 2.6 sec.	
Interface		USB 2.0 Hi-Speed, USB (USB 1.1 equivalent)	
Maximum Document Size		A4/Letter: 216 x 297 mm (8.5 x 11.7 in.)	
Film Type/Number of Frames		-	35 mm strip (negative/ positive)/1 frame
		-	35 mm slide (negative/ positive)/1 frame
Scanner Buttons		4 buttons: COPY, SCAN, FILE, E-MAIL	
Operating Range	Temperature	10°C to 35°C (50°F to 95°F)	
	Humidity	10% to 90% RH, 20% to 80% RH when scanning film (without condensation formation)	
Power Requirements		AC adapter (100/120/230/240V) * ⁴	
Power Consumption		In operation: 15 watts maximum, Stand-by: 5.3 watts (Using supplied AC adapter)	
Maximum Exterior Dimensions		259 x 474.7 x 74.7 mm	
Weight		Approximately 2.5 kg	Approximately 2.7 kg

*¹ 16 bit output supports only for film scanning.

*² USB 2.0 Hi-Speed mode. Transfer time to computer is not included.

*³ Calibration processing time is not included.

*⁴ Type of AC adapter depends on the area where the scanner is purchased.

• Specifications are subject to change without notice.



- Before you upgrade to Windows XP from Windows 98/Me/2000, you must uninstall ScanGear CS and CanoScan Toolbox using the "Uninstall the Software" menu of the CanoScan Setup Utility CD-ROM. The scanner may not work if you upgrade to Windows XP with these programs still installed. After upgrading to Windows XP, reinstall ScanGear CS and CanoScan Toolbox according to the steps on page 4. For details, please read the "Troubleshooting" section of the *Scanning Guide* (HTML format manual).

System Information

This form should be used to record the operating environment for the purchased scanner. If any problems occur with the scanner, you will need this information when you contact our Customer Support Help Desk. Be sure to record the information and store it in a safe location.

- This information is also required to request a repair under warranty. Make sure you record the information and store it in a safe location.
- Guaranteed servicing for this equipment will expire five years after production ceases.

Date of Purchase: _____

Dealer Tel: _____

Dealer Address: _____

Scanner Model: CanoScan 3200 3200F

Serial Number (on the back of the equipment): _____

• About the Computer Used

Manufacturer: _____

Model: _____

CPU: _____

Clock Speed: _____

MHz

Memory Capacity (RAM): _____ MB

Hard Disk Capacity: _____ MB

Space Available: _____

MB

OS: Windows XP Me 2000 98

 Macintosh OS 9.1 OS 9.2 OS X v10.1 OS X v10.2

Monitor Type: _____

Monitor Size: _____

inches

Printer: _____

Manufacturer: _____

Type of Printer: _____

Printer Resolutions: _____

Installed Virus Protection Program: _____

Installed Compression Program: _____

On-Board Expansion Cards: _____

Attached Peripherals: _____

Connected Network System: _____



As an ENERGY STAR Partner, Canon Inc. has determined that this model meets the ENERGY STAR Program for energy efficiency.

The International ENERGY STAR Office Equipment Program is an international program that promotes energy saving through the use of computers and other office equipment. The program backs the development and dissemination of products with functions that effectively reduce energy consumption. It is an open system in which business proprietors can participate voluntarily. The targeted products are office equipment such as computers, displays, printers, facsimiles, copiers, scanners and multifunction systems. Their standards and logos are uniform among participating nations.