

Canon



Canon Color Image Scanner CanoScan N650U/N656U/N1220U

Getting Started

Use of a shielded cable 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.

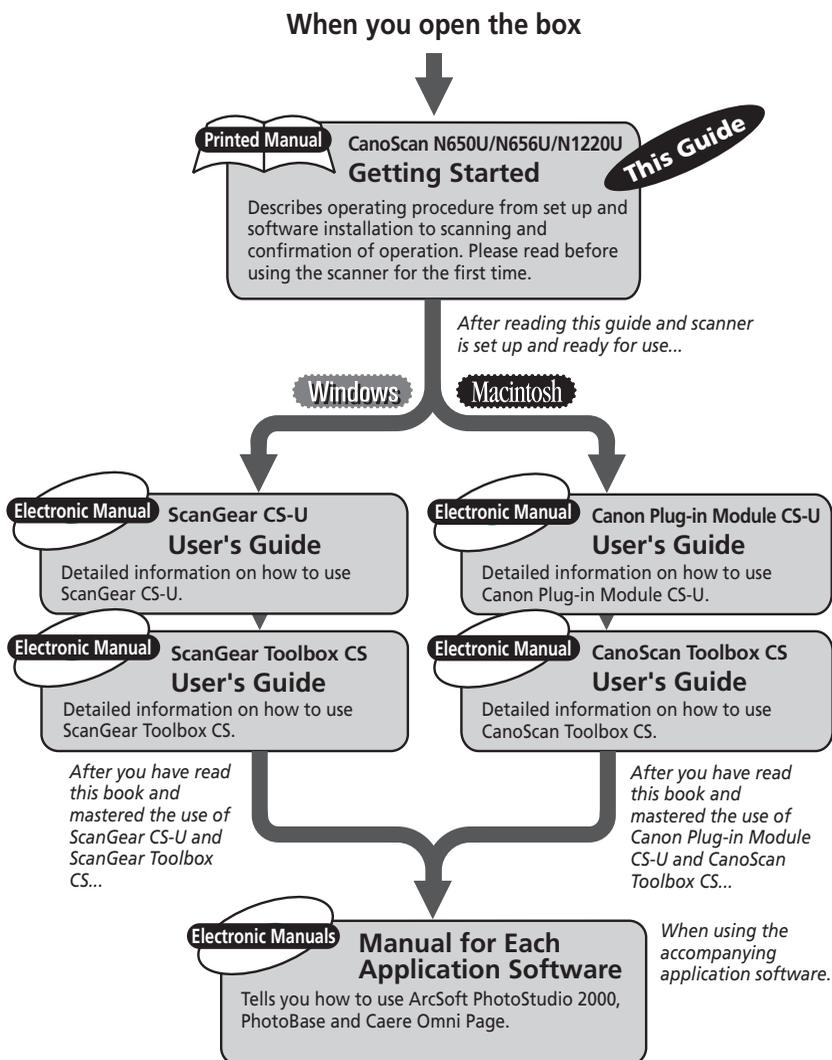
- CanoScan, ScanGear and Canon Plug-in Module are trademarks of Canon Inc.
- Adobe, Adobe Acrobat and Adobe Photoshop are trademarks of Adobe Systems Incorporated.
- Macintosh, Power Macintosh and Mac OS are trademarks of Apple Computer, Inc., registered in the U.S. and other countries.
- iMac is a trademark of Apple Computer, Inc.
- Microsoft and Windows are registered trademarks of Microsoft Corporation in the U.S. and other countries.
- OmniPage Pro and OmniPage SE are trademarks of Caere Corporation.
- Other names and products not mentioned above may be trademarks or registered trademarks of their respective companies.

Copyright © 2000 Canon Inc. All rights reserved.

English

How to Make Best Use of the Manuals

Thank you for purchasing a CanoScan N650U/N656U/N1220U color image scanner. This Getting Started guide explains the necessary steps to connect the scanner to your computer and begin scanning. We recommend that you carefully read this entire guide to learn the proper procedures to avoid malfunctions.



Please read the Troubleshooting section on the CanoScan Setup Utility CD-ROM when an operation does not proceed as explained in the guide and you think there may be a problem.

Features of the CanoScan N650U/N656U/N1220U

This scanner is a flatbed color scanner with an optical resolution of 600 dpi (CanoScan N650U/N656U) or 1200 dpi (CanoScan N1220U). It incorporates the following features.

Simple USB Connection, No AC Adapter Required

Scanner draws power via a single USB cable, dispensing with AC adapters. Connect or disconnect the cable at will even while your computer is running (a process called hot swapping). Absolutely no need for complex connection settings.

Compact Footprint

Ultracompact body [256 x 372.5 x 34 millimeters (10.1 x 14.7 x 1.3 inches)] for an A4/letter-size scanner. Weighing only 1.5 kilograms (3.3 pounds), this scanner is so light that it can easily be placed or moved to suit your convenience.

Scans Books and Other Thick Materials

Two-stage document cover hinge holds thick items, such as magazines and books, securely.

Standby Power and Energy-Saving Features

Consumes only 12.5 milliwatts at standby and only 2.5 watts at full operation. The standby feature means the scanner is always ready to use.

High Resolution and Fine Color Tones

A high-resolution scanner capable of up to 600 x 1200 dpi (CanoScan N650U/N656U) or 1200 x 2400 dpi (CanoScan N1220U). Reads at 14 bits (16,384 colors) per RGB channel and outputs at 8 bits.

Convenient Start Button

The one-touch start button on the front of the scanner allows convenient use of the accompanying software (ScanGear Toolbox CS or CanoScan Toolbox CS).

System Requirements

The following requirements must be met to operate the scanner.

Windows

Computer:	IBM AT/PC compatible with built-in USB ports
Operating System:	Windows 98/Windows 2000 Professional
CPU:	Pentium or later
RAM:	32 MB or more (64 MB or more recommended)
Display:	256 colors or more (High Color or more recommended), 800 x 600 pixels
Interface:	USB
CD-ROM Drive:	Required

WARNING

- *The scanner may not operate with home-assembled or private-label PCs.*
- *The scanner cannot be operated when connected to a USB port on an expansion card.*

Macintosh

Computer:	Macintosh with built-in USB ports
Operating System:	Mac OS 8.5 or later
CPU:	Power PC G3 or greater
RAM:	32 MB or more (64 MB or more recommended)
Display:	256 colors or more (32,000 colors or more recommended)
Interface:	USB
CD-ROM Drive:	Required

WARNING

- *The scanner cannot be operated when connected to a USB port on an expansion card.*
- *iMacs running Mac OS 8.5 or 8.5.1 require a system update. Please see Problems with the Scanner in the Troubleshooting section of the CanoScan Setup Utility CD-ROM.*

Table of Contents

How to Make Best Use of the Manuals	2
Features of the CanoScan N650U/N656U/N1220U	3
System Requirements	4
Safety Precautions	7
Setup and Operating Conditions	9
CHAPTER 1 Setting Up the Scanner	
1. Inspecting the Package Contents	11
2. Components Guide	12
3. Unlock the Scanning Unit	13
CHAPTER 2 Using the Windows Platform	
1. Connecting to the Computer	15
2. Installing the Driver Software	17
3. Installing the Application Software	22
4. Testing the Scanner Operation	26
CHAPTER 3 Using the Macintosh Platform	
1. Installing the Software	33
2. Connecting to the Computer	37
3. Testing the Scanner Operation	39
CHAPTER 4 Guide to the Software	
1. Using ScanGear CS-U 	46
2. Using Canon Plug-in Module CS-U 	48
3. Scanning with ScanGear Toolbox CS 	50
4. Scanning with CanoScan Toolbox CS 	54
5. Scanning with ArcSoft PhotoStudio 2000   ...	55
6. Scanning with ArcSoft PhotoBase  	56
7. Scanning with Caere OmniPage  	57
8. Viewing Electronic Manuals with Adobe Acrobat Reader  	59

Appendices

Before Transporting the Scanner	62
Care and Maintenance	63
Major Specifications	64
System Information	65

Conventions Used in the Guide

Important information is indicated by the following symbols.

 **WARNING** This symbol indicates precautions that must be taken when operating the equipment. Ensure that you read all warnings.

 **NOTE**  This symbol indicates supplementary operating procedures and other useful information.

Safety Precautions

Please read and take the following precautions before using the equipment.

WARNING

Indicates a warning concerning operations that may lead to death or injury to persons if not performed correctly. In order to use the equipment safely, always pay attention to these warnings.

CAUTION

Indicates a caution concerning operations that may lead to injury to persons or damage to property if not performed correctly. In order to use the equipment safely, always pay attention to these cautions.

About Locations

WARNING

- Do not place the equipment near flammable liquids such as alcohol or thinners. If the internal electrical parts come in contact with flammable liquids, fire or electrical shock may result.
- Do not place the following objects on top of the equipment. If the internal electrical parts come in contact with these objects, fire or electrical shock may result.
 - metallic objects, such as necklaces
 - containers with liquid, such as cups, vases and flower potsIf any of these objects or liquids enter the equipment, immediately unplug the USB cable and contact your retailer or Canon Customer Support Help Desk.

CAUTION

- Do not place the equipment in the following areas. Fire or electrical shock may result.
 - Areas with high humidity
 - Areas subject to direct sunlight
 - Areas with high temperatures
 - Areas near flame sources
- Do not place the equipment on shaky stands, unstable surfaces or surfaces subject to frequent vibrations. If the equipment falls, it may cause injuries.
- Do not place heavy objects on the equipment. Objects may fall and cause injuries.

About the Power Supply

⚠ WARNING

- Do not damage, mutilate or modify the USB cable. Do not place heavy objects on, pull or excessively bend the USB cable. Damaged wires may cause fire or electrical shock.
- Do not twist or tie the USB cable together. Fire or electrical shock may result.
- Always plug the USB cable in all the way. If it is not plugged in completely, fire or electrical shock may result.

General Handling Precautions

⚠ WARNING

- Do not take apart or modify the equipment. Fire or electrical shock may result from improper handling of its components.
- If you hear unusual noises, see smoke, feel excessive heat or smell anything unusual, immediately unplug the USB cable and contact your retailer or Canon Customer Support Help Desk. Continued use may result in fires or electrical shock.
- Do not use flammable sprays near this equipment. Also do not spill water, liquids, or flammable liquids on the equipment. If these fluids enter this equipment and contact the electrical parts, fire or electrical shock may result. If anything enters the equipment, immediately unplug the USB cable and contact your retailer or Canon Customer Support Help Desk.
- When cleaning the equipment, always unplug the USB cable. Otherwise, fire or electrical shock may result.
- When cleaning the equipment, use a water-moistened cloth that is well wrung out. Do not use flammable liquids, such as alcohol, benzene or thinners. If a flammable liquid enters the inner electrical parts, fire or electrical shock may result.

⚠ CAUTION

- Carefully close the document cover in order not to pinch your hands.
- Do not press heavily on the document cover. The document glass may break and injure you.
- When not in use for extended periods, such as long weekends, unplug the USB cable for safety.
- When transporting the equipment, be extremely careful. Dropping it could cause an injury.
- Wait until the equipment has cooled before placing a cover over it. Otherwise fire may result.
- Do not use the supplied CD-ROM in regular CD players. It produces excessively loud sound that may cause hearing damage.

Setup and Operating Conditions

In order to use this scanner safely, please obey the following warnings at all times.

- Please use in an area where the following temperature and humidity conditions can be met.

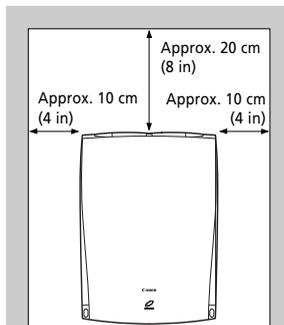
Surrounding temperature:

5 degrees - 35 degrees C (41 degrees - 95 degrees F)

Surrounding humidity:

10% - 90% RH (without condensations)

- Make certain there is plenty of clear space around the scanner.
(Below is a diagram looking straight down on the scanner)



- Set up the scanner so that the cable reach from the scanner to the electrical outlet.
- Do not set up in areas where there is an excessive fluctuation in temperature or humidity. Also do not move the equipment from high humidity areas to low humidity areas. Condensation may cause image errors. After moving from high temperature areas to low temperature areas, leave the scanner enough time to gradually adapt to the new conditions before use.
- Do not use the scanner in areas subject to direct sunlight. The humidity may rise inside the equipment and cause damage or decrease image quality. If you have to use the scanner in direct sunlight, make sure to use a thick curtain to block the light.

CHAPTER 1

Setting Up the Scanner

Do not immediately connect the scanner to the computer after removing it from the package. First inspect the package contents and then release the lock that protected the scanner during transport.

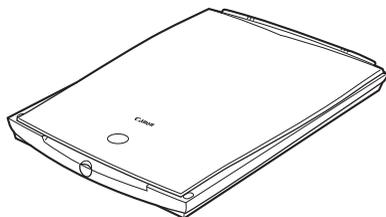
Failure to release the lock may damage the scanner.

1. Inspecting the Package Contents	11
2. Components Guide	12
3. Unlock the Scanning Unit	13

1. Inspecting the Package Contents

After opening the box, inspect its contents.

Scanner Unit and Accessories



Scanner Unit



USB interface cable
Connects the scanner to a computer or USB device.

Software and Documents

- **CanoScan Setup Utility CD-ROM**

Contains the scanning software, software manuals and reader software for the manuals. It is a hybrid CD-ROM containing both Windows and Macintosh versions of the software. Since it contains vital information and software that cannot be redistributed, store it in a safe place.

* Please see page 59 of this guide for information regarding the electronic manuals for the software.

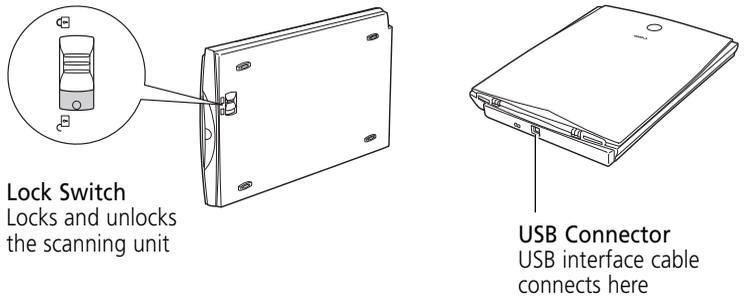
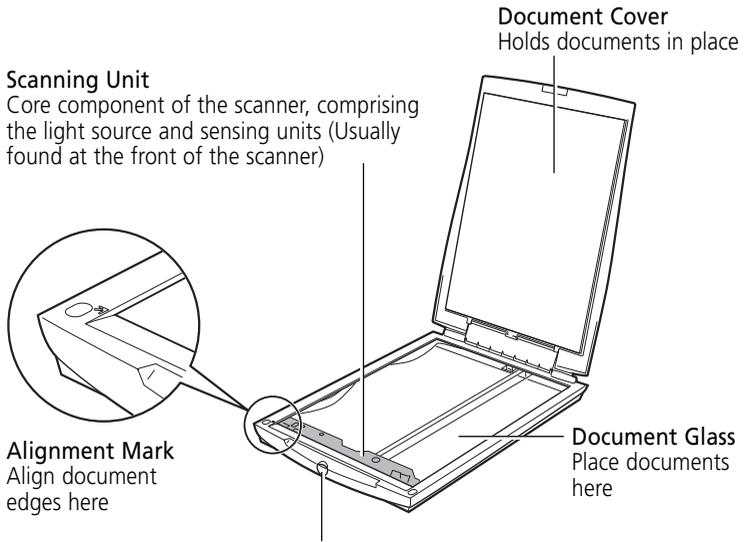
- **Getting Started (this guide)**

Explains the procedures from preparing the scanner to testing the operation, and introduces the accompanying software.

- **Other Documents**

Please contact your retailer if any item is missing.

2. Components Guide

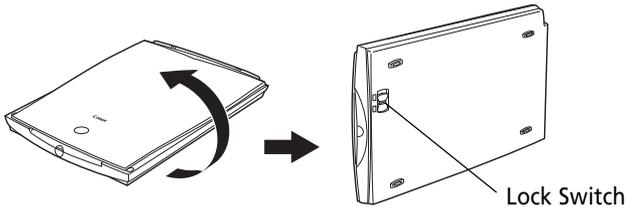


3. Unlock the Scanning Unit

The scanner is shipped with the scanning unit locked to prevent damage during transport. You must unlock it to use the scanner.

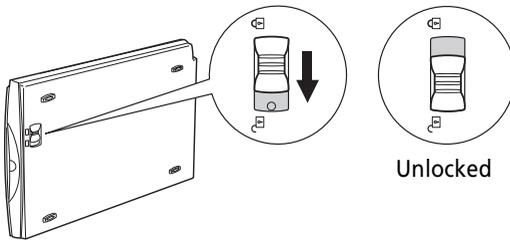
WARNING • Make sure to unlock the scanner before plugging the USB cable into the computer's USB port. If left locked, a malfunction or problems may occur.

1. Peel off the seal at the front of the scanner.
2. Gently turn the scanner over as illustrated.



WARNING • Do not tilt the scanner more than 90 degrees when operating the lock.

3. Push the lock switch toward the unlock mark.



4. Return the scanner to a horizontal position.

WARNING • Ensure that you secure the scanning unit with the lock before moving or transporting the scanner (P. 62).

CHAPTER 2

Using the Windows Platform

Users of Macintosh computers should skip to Chapter 3, *Using the Macintosh Platform*, on page 32.

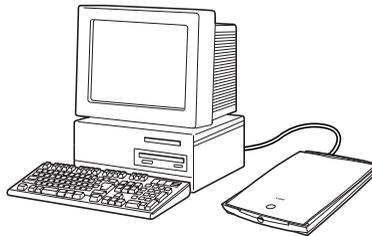
This chapter explains the procedures for using the scanner with Windows 98. To use the scanner with the Windows platform, read the instructions in this chapter to first connect it to a computer, then install the driver software and finally install the bundled application programs.

Although the installation dialogs for the driver software for Windows 2000 Professional (hereafter Windows 2000), may differ slightly, the basic procedures are the same. Please note that you must log on as an administrator to install or delete software on a Windows 2000 system.

1. Connecting to the Computer	15
2. Installing the Driver Software	17
3. Installing the Application Software	22
4. Testing the Scanner Operation	26

1. Connecting to the Computer

With the Windows platform, the first step is to connect the scanner to the computer. Please position the scanner in a safe and stable location as described in *Setup and Operating Conditions* (p. 9).



1. **Confirm that the power switches for the computer and other connected devices are off.**

If the power is on, shut down the computer and peripheral devices in that order.

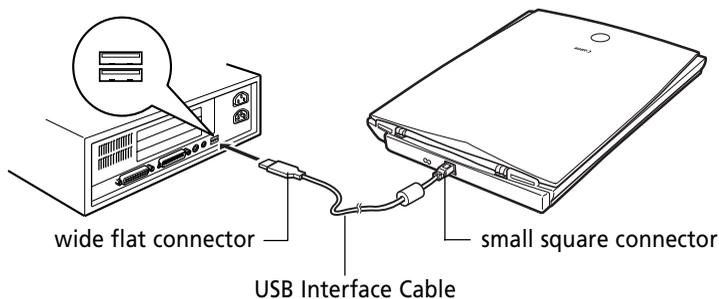
2. **Confirm that the scanning unit has been unlocked (p. 13).**

WARNING

- *Make sure to unlock the scanner before plugging the USB cable into the computer's USB port. If left locked, a malfunction or problems may occur.*

3. **Connect the scanner to the computer with the supplied USB cable.**

The computer end of the cable has a wide flat connector while the scanner end has a small square connector.



WARNING

- *The scanner is powered directly by the USB port. The USB port must provide a power supply of 500 mA. If you plug the scanner into the USB port on a keyboard or other USB device, the scanner may not be properly detected by the computer. Attach the scanner directly to a USB port on the computer or to a 500 mA self-powered USB hub.*

NOTE

- *The scanner does not have a power switch. The power is activated as soon as the computer is turned on.*

This concludes the connection procedure. Do not turn on your computer yet. Before you turn it on, you must perform the steps outlined in 2. Installing the Driver Software, starting on the next page.

2. Installing the Driver Software

Start by installing ScanGear CS-U, the driver software required to operate the scanner. Without this program, the computer will not correctly detect the scanner and you will not be able to scan images. Make sure that you install this software with the procedures below.

WARNING

- *You only have to install the driver software once, when the scanner is connected to the computer for the first time. If the installation is canceled midway or if the procedures in this guide are not followed exactly, you will not be able to reinstall the driver software or use the scanner. Ensure that you follow the exact procedures described in this guide. If the installation does not proceed smoothly, first read the Troubleshooting section on the CanoScan Setup Utility CD-ROM and apply its recommendations before reinstalling the driver software.*
- *Approximately 10 MB of free hard disk space is required to install the driver software.*
- *Instructions for installing the program on the Windows 98 platform appear in the Windows screen. The instructions provided for Windows 2000 differ slightly.*

.....
1. Please have the CanoScan Setup Utility CD-ROM handy.

.....
2. Confirm that the scanner is correctly connected.

Confirm that the USB cable is properly connected to the computer and scanner.

.....
3. Turn on the computer.

Turn on the other peripheral devices attached to your computer. Refer to the instructions for each device regarding the order in which devices should be powered up.

The Add New Hardware Wizard window will display.

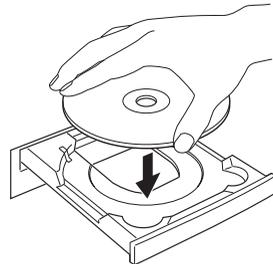
- Click the [Next] button.



- Confirm that the [Search for the best driver for your device.] option is selected and click the [Next] button.



- Place the CanoScan Setup Utility CD-ROM in the computer's drive.



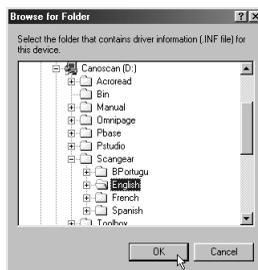
- Select the [Specify a location:] option.



8. Click the **[Browse...]** button.



9. Navigate in the CD-ROM drive (D:, E:, F: etc.) and find the **[Scangear]** folder. Select the **[English]** folder within it and click the **[OK]** button.



10. Click the **[Next]** button.



WARNING

- If you click the **[Next]** button before the computer has a chance to finish reading the CD-ROM, the **[Driver Not Found]** error message may display. If this happens, click the **[Back]** button and redo Step 8.

11. When [CanoScan N650U/N656U] or [CanoScan N1220U] appears, click the [Next] button.

The required files will copy onto your hard drive.



- **NOTE** ●
- If you are prompted to insert the Windows 98 CD-ROM during installation, follow the instructions on the next page. DO NOT PRESS THE [CANCEL] BUTTON.

12. Click the [Finish] button when the following dialog displays

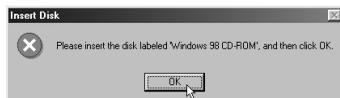
Windows will start.



This concludes the steps required to install the ScanGear CS-U driver software. You may now install the bundled application programs.

What to Do if the Windows 98 CD-ROM Is Required

1. Click the [OK] button on the dialog to close it.



The Copying Files dialog will display.

2. Click the [Browse] button.



A dialog will appear.

3. Select the CD-ROM drive and click the [OK] button.



Click here to select the CD-ROM drive.

You will return to the Copying Files dialog.

4. Click the [OK] button.

When the files are copied, the window shown in Step 12 on the previous page will display. Click the [Finish] button in this window to complete the ScanGear CS-U driver software installation.

3. Installing the Application Software

After you have installed the driver software (ScanGear CS-U), you can continue by installing the application software programs.

List of Software to be Installed

The following software programs will be installed onto your computer. (The number followed by an MB [Approx. 00 MB] refers to the amount of free space required to install the program on your computer's hard drive.)

- **ScanGear Toolbox CS** *Approx. 2 MB*

A program lets you load scanned images directly into application programs and effortlessly print images or send them as mail or fax attachments.

- **ArcSoft PhotoStudio 2000** *Approx. 30 MB*

A digital image editing program that can load images from scanners and digital cameras and process them with editing and retouching tools, special effects and enhancements. It can stitch images together, convert file formats and create albums. This program is hereafter referred to as PhotoStudio 2000.

- **ArcSoft PhotoBase** *Approx. 50 MB*

A multimedia management program that can handle sound, video and text files in addition to image files. Creates and runs multimedia slide shows, pastes images into Web presentations and creates email attachments. This program is hereafter referred to as PhotoBase.

- **Caere OmniPage Pro** *Approx. 46 MB*

An optical character recognition (OCR) program that converts scanned documents into text that can be edited with word processor programs. This program is hereafter referred to as OmniPage Pro.

- **Adobe Acrobat Reader** *Approx. 10 MB*

The reader program for electronic manuals (read on the computer screen not from paper), for the following programs: ScanGear CS-U, ScanGear Toolbox CS, PhotoStudio 2000, PhotoBase and OmniPage Pro.

WARNING

• *Approximately 138 MB of hard disk space is required to install all the programs. In addition, more free hard disk space will be required to operate the software.*

Installation Procedures

1. **Remove the CanoScan Setup Utility CD-ROM from the drive once and replace it again.**

After a moment, the CanoScan Setup Utility will start and display its language selection window to allow you to select a language. After you select a language the following window will automatically display.

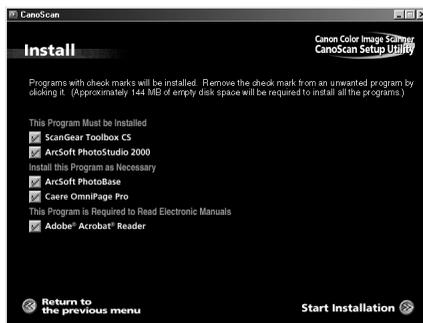


Menu Window

If the CanoScan Setup Utility menu window does not display, double-click the [My Computer] icon, then the CD-ROM icon.

2. **Click the [Install the Software] button.**

The Install Window will display.



If you click the wrong button at any time, click the [Return to the previous menu] button and relick the correct item.

A brief description of each program will appear when the cursor rolls over its name.

.....

3. Click the [Start Installation] button at the bottom right of the window.

This will start the installation of all the application software. You can, however, control which programs are installed by clicking the check box beside the name of a program and deleting the [V] check mark before clicking the [Start Installation] button.

Be sure to install ScanGear Toolbox CS and PhotoStudio 2000 at the very minimum.

WARNING

- *Do not restart the computer or remove the CD-ROM from the drive while the installation is proceeding unless so directed by the CanoScan Setup Utility. These actions would disrupt the installation.*
- *Do not perform any other operations during the installation.*
- *Do not click anything other than the specified buttons or items.*

.....

4. Proceed with the installation by following the on-screen instructions.

Restart the computer as prompted by the on-screen message after all the programs have been installed.

.....

5. Press the CD-ROM eject button and remove the CanoScan Setup Utility CD-ROM.

Handle the CD-ROM with care and place it into a protective case.

WARNING

- *Manually install the software if the CanoScan Setup Utility menu window does not display and you cannot follow the prescribed installation procedures. Click the [Start] button, select [Run] and type one of the command lines below into the box. [D:] is an example of a CD-ROM drive name.*

To install ScanGear Toolbox CS:

[D:\Toolbox\English\Disk1\Setup.exe]

To install PhotoStudio 2000:

[D:\Pstudio\Setup.exe]

To install PhotoBase:

[D:\Pbase\Setup.exe]

To install Caere OmniPage Pro: [D:\Omnipage\English\Setup.exe]

To install Adobe Acrobat Reader:

[D:\Acroread\English\ar405eng.exe]

- *Be sure to restart the computer after installing OmniPage Pro.*
- *To manually display an electronic manual, select the language from [Manual] folder on the CanoScan Setup Utility CD-ROM and select the appropriate PDF file.*

NOTE

- *You may also use the [Uninstall the Software] button to delete the bundled programs from your computer.*

4. Testing the Scanner Operation

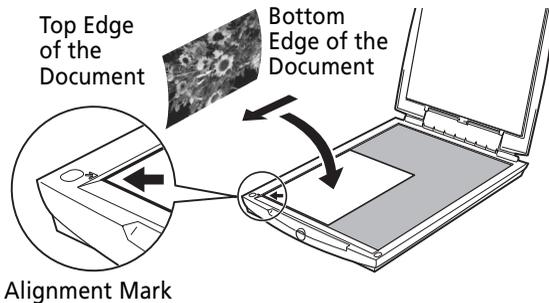
The following instructions show you how to test the scanner and experiment with two software programs. You will use ScanGear Toolbox CS and ScanGear CS-U.

WARNING • *The ScanGear CS-U driver software can also be called a TWAIN driver. It cannot be started by itself. It has to be operated from an application program such as PhotoStudio 2000 or ScanGear Toolbox CS. For details, please read *What is a TWAIN Driver?* (p. 47)*

Starting ScanGear Toolbox CS

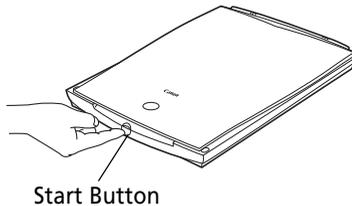
1. Place your item on the document glass as illustrated.

Open the document cover, orient the image face down and align its top edge with the alignment mark at the front of the scanner. Close the document cover, being careful not to dislodge the item.



2. Press the start button at the front of the scanner.

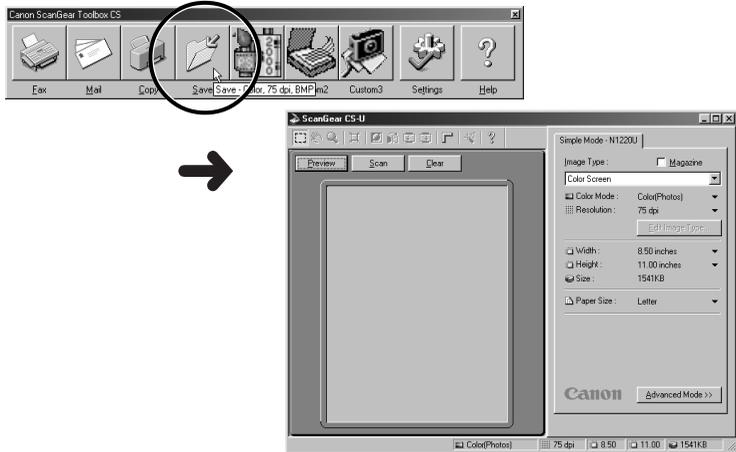
The ScanGear Toolbox CS toolbar will display.



Starting ScanGear CS-U

1. Click the **[Save]** button on the toolbar.

The ScanGear CS-U window will display.

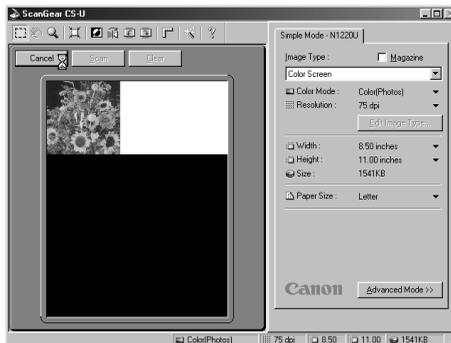


Previewing the Image

The preview scan is a quick trial scan used to confirm the positioning, size and coloring of the item. Place an item on the scanner and preview the image approximately as it will be scanned. If required, the item can be repositioned or the scanning settings changed to obtain an optimal image.

1. Click the **[Preview]** button.

When the calibration process completes, the preview scan will initiate, gradually presenting the image in the preview window.



WARNING

- Calibration is an adjustment process (taking approximately 1 minute) that allows the scanner to select the correct white balance for reproducing the colors of the scanned item. It will commence when the scanner is connected or used for the first time.
- Do not lift the document cover while calibration is in process.

Specifying the Scan Area

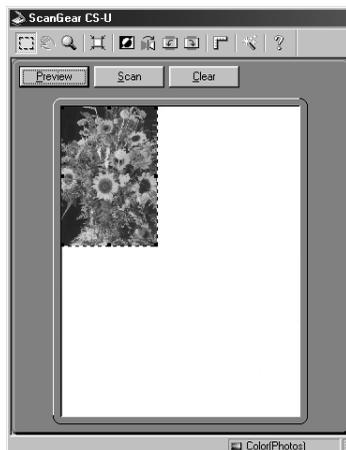
1. **Left-click a corner of the image area you wish to scan.**

The mouse cursor will change to a “+” shape.

2. **Hold the mouse button down and drag the mouse diagonally to include the area you wish to scan.**

A dotted frame (crop frame) will appear around the selected area.

3. **Release the mouse button.**



- **NOTE** • You can change the scan area by dragging one of the frame handles (black dots).
- You can move the scan area by clicking inside it and dragging.
- You can deselect the scan area by clicking outside the frame.

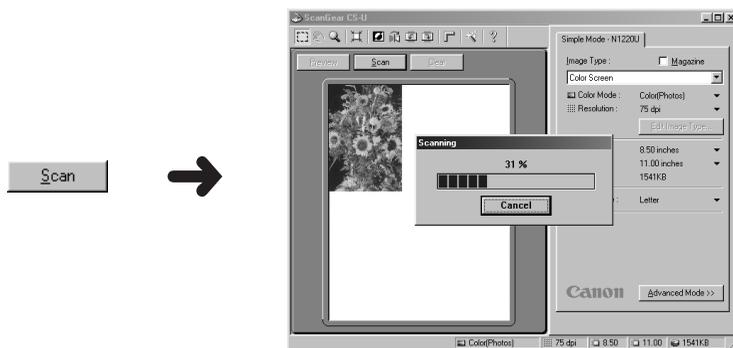
Performing the Final Scan

1. Click the [Scan] button.

The scanner will start the final scan.

The progress bar will show how the scan is progressing.

The scan will finish when the progress bar reaches 100%. The ScanGear CS-U window will close.



WARNING • Never lift the document cover during the scanning process.

• **NOTE** • The scanned image will be saved to the [C:] drive in the [My Documents] folder with a name [Save0000].

Viewing Scanned Images

The following procedures explain how to view the scanned image on the display.

1. Double-click the [My Computer] icon on the Windows desktop.



2. Double-click the [C:] drive icon.



3. **Double-click the [My Documents] folder.**



4. **Double-click the [My Pictures] folder.**

Proceed to Step 5 if there is no “My Pictures” folder.



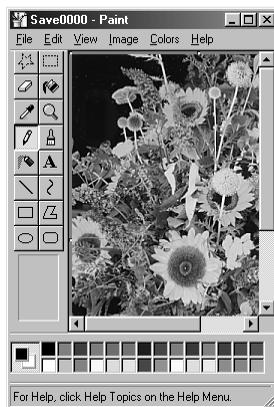
5. **Double-click the [Save0000] file.**

The Windows Paint program will start and display the scanned image.



A program other than Paint may start on some computers.

To close Paint after viewing the image, click the  (close box) icon at the window's upper right.



- **NOTE** ●
- *The size of the image in the window will depend on the scanning resolution used.*
 - *For ScanGear CS-U operating details, please read Using ScanGear CS-U on page 46 or the ScanGear CS-U User's Guide (electronic manual).*
 - *For ScanGear Toolbox CS operating details, see Scanning with ScanGear Toolbox CS on page 50 or the ScanGear Toolbox CS User's Guide (electronic manual).*

The preceding steps introduced you to the basic scanning procedures. Once you have mastered them, you will be ready to tackle more challenging scanning tasks.

Precautions for Scanning at High Resolutions

Please note that file sizes increase almost exponentially as the resolution is raised when scanning in color mode. Scanning at high resolutions may require more time for scanning and image processing. You are recommended to avoid raising the resolution beyond the minimum requirement to scan in color mode.

File Size Estimates for Scanning a Letter Size Original in Color

- 100 dpi 3 MB
- 300 dpi 26 MB
- 600 dpi 105 MB
- 1200 dpi 418 MB

Resolution Guidelines

- For uploading to a web site or viewing on a computer monitor, choose 75 dpi
- For scanning print photos and magazine clippings, choose 150 - 300 dpi
- For printing on an inkjet printer, choose a resolution approximately half the printer's rating (180 dpi, 360 dpi, 720 dpi)

A resolution of 1200 dpi is effective for scanning relatively small originals that will be blown up to larger sizes for printing (i.e. blowing up a 3.5 x 5 in. image to letter size).

The maximum size of a file scanned by the bundled PhotoStudio 2000 and PhotoBase programs is limited by Windows 98 to 256 MB. Windows 2000 Professional does not impose these limits. At 1200 dpi in color mode, this file size corresponds to an original that is approximately 20 x 18 cm (7.87 x 7.08 in.). Application programs such as Adobe Photoshop are required to scan larger originals at 1200 dpi in Windows 98.

CHAPTER 3

Using the Macintosh Platform

Windows users should read

Chapter 2, *Using the Windows Platform*, on page 14.

To use the scanner with a Macintosh, follow the instructions in this chapter to first install the software and then connect the scanner to the computer.

If you are using the scanner with an unaltered first-generation iMac (Bondi blue iMac), you will need to update the firmware and system and possibly upgrade the Mac OS. For more information, please read the Troubleshooting topics on the CanoScan Setup Utility CD-ROM.

1. Installing the Software	33
2. Connecting to the Computer	37
3. Testing the Scanner Operation	39

1. Installing the Software

List of Software to be Installed

The following software programs will be installed onto your computer. (The number followed by an MB [Approx. 00 MB] refers to the amount of free space required to install the program on your computer's hard drive.)

- **Canon Plug-in Module CS-U** *Approx. 5 MB*

The plug-in software required to scan images into your computer. One copy of the plug-in is required for each graphics application program. Multiply the number of application programs by 5 MB to calculate the required disk space.

- **CanoScan Toolbox CS** *Approx. 5 MB*

A program lets you load scanned images directly into application programs and effortlessly print images or send them as fax.

- **ArcSoft PhotoStudio 2000** *Approx. 6 MB*

A digital image editing program that can load images from scanners and digital cameras and process them with editing and retouching tools, special effects and enhancements. This program is hereafter referred to as PhotoStudio 2000.

- **ArcSoft PhotoBase** *Approx. 2 MB*

An image database program that can create and edit image albums, perform image searches and create slide shows. It can also handle sound and video files. This program is hereafter referred to as PhotoBase.

- **Caere OmniPage SE** *Approx. 30 MB*

An optical character recognition (OCR) program that converts scanned documents into text that can be edited with word processor programs. This program is hereafter referred to as OmniPage SE.

- **Adobe Acrobat Reader** *Approx. 8 MB*

The reader program for the electronic manuals (read on the computer screen not from paper) for the following programs: Canon Plug-in Module CS-U, CanoScan Toolbox CS, PhotoStudio 2000, PhotoBase and OmniPage SE.

WARNING

- *You must have approximately 56 MB of free hard disk space to install all the programs. In addition, more free hard disk space will be required when operating the software.*

Installation Procedures

WARNING • *Install the software first before connecting the scanner to the Macintosh computer.*

1. **Please have the CanoScan Setup Utility CD-ROM handy.**

2. **Make sure that the scanner is not connected to the computer.**

The software should be installed without the scanner being connected to the computer.

3. **Turn on the computer.**

4. **Place the CanoScan Setup Utility CD-ROM in the computer drive.**

The language selection window will display to allow you to select a language. Then the CanoScan Setup Utility will start and display the menu window.

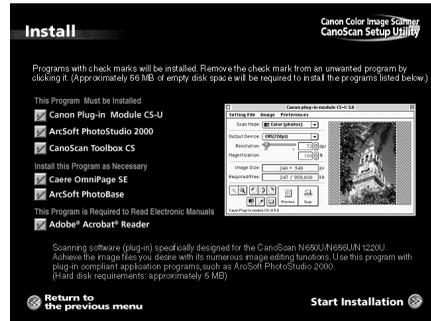


Menu Window

If the CanoScan Setup Utility menu window does not display, double-click the CD-ROM icon, then the [Setup] icon.

5. Click the [Install the Software] button.

The install window will display. A brief description of each program will appear when the cursor rolls over its name.



WARNING

- If you are using the scanner with an unaltered Bondi blue iMac, a message concerning a Mac OS upgrade and firmware and system updates will display. Click [Yes] to read more about this topic.

6. Click the [Start Installation] button at the bottom right of the window.

NOTE

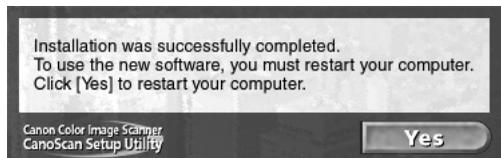
- Although all of the software is being installed in this example, you may selectively install only the programs you require. Programs that have the [✓] mark removed by clicking them will not be installed. Please note that Canon Plug-in Module CS-U, PhotoStudio 2000, CanoScan Toolbox CS are required to operate the scanner.

WARNING

- Do not restart the computer or remove the CD-ROM from the drive while the installation is proceeding unless so directed by a CanoScan Setup Utility message. These actions would disrupt the installation.
- Do not perform any other operations during the installation.
- Do not click anything other than the specified buttons or items.
- To install CanoScan Toolbox CS, drag and drop its icon.

7. Proceed with the installation by following the on-screen instructions.

After all the software programs have been installed, restart the computer as prompted by the on-screen instruction.



8. Remove the CanoScan Setup Utility CD-ROM from the drive.

Handle the CD-ROM with care, placing it into a protective case.

WARNING

- *Manually install the software if the CanoScan Setup Utility menu window does not display and you cannot follow the prescribed installation procedures. Double-click the following icons.*

To install CanoScan Toolbox CS: [CanoScan Toolbox Installer]

To install PhotoStudio 2000:

[PhotoStudio]-[English]-[ArcSoft PhotoStudio]

To install PhotoBase: [PhotoBase]-[English]-[ArcSoft PhotoBase]

To install OmniPage SE:

[OmniPage]-[English]-[OmniPage 8 SE Installer]

To install Adobe Acrobat Reader:

[Adobe Acrobat® Reader]-[English]-[Reader 4.05 Installer]

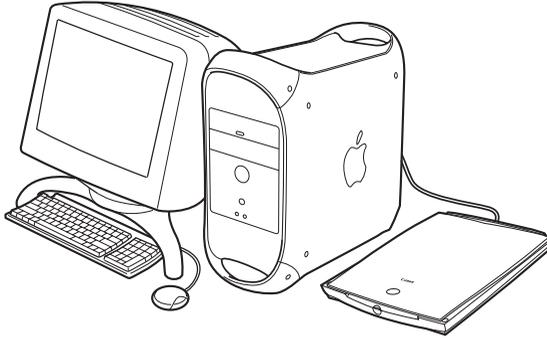
To install Canon Plug-in Module CS-U: [Canon Plug-in Module Installer]

- *Install Canon Plug-in Module CS-U last. Install a copy of it into each application program's folder. You must restart the computer after installation.*
- *To manually display an electronic manual, select the language from [Manual] folder on the CanoScan Setup Utility CD-ROM and select the appropriate PDF file.*

After you have installed the software, the next step is to connect the scanner to the computer. Proceed to the next page.

2. Connecting to the Computer

Now that the software has been installed, you may connect the scanner to the computer. Please position the scanner in a safe and stable location as described in *Setup and Operating Conditions* (p. 9).



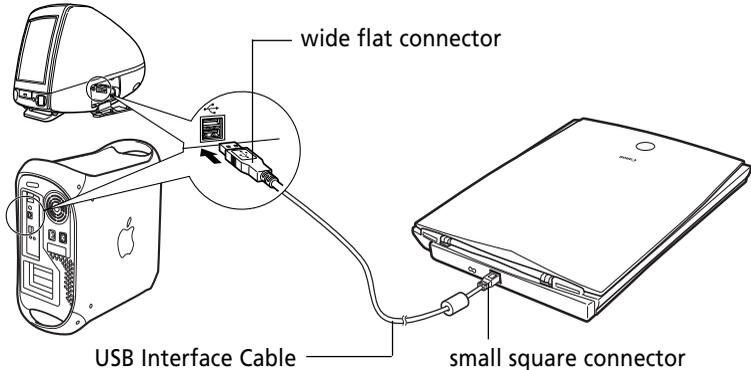
1. Confirm that the scanning unit has been unlocked (p. 13).

WARNING

- Make sure to unlock the scanner before plugging the USB cable into the computer's USB port. If left locked, a malfunction or problems may occur.

2. Connect the scanner to the computer with the supplied USB cable.

The computer end of the cable has a wide flat connector while the scanner end has a small square connector.



WARNING

- *The scanner is powered directly by the USB port. The USB port must provide a power supply of 500 mA. If you plug the scanner into the USB port on a keyboard or other USB device, the scanner may not be properly detected by the computer. Attach the scanner directly to a USB port on the computer or to a 500 mA self-powered USB hub.*

NOTE

- *The scanner does not have a power switch. The power is activated as soon as the computer is turned on.*

This concludes the connection procedure. You can now test the scanner operation following the steps on the next page.

3. Testing the Scanner Operation

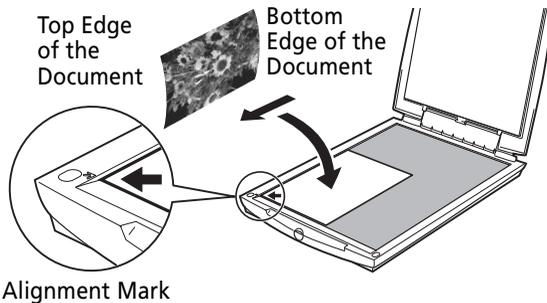
The following instructions show you how to test the scanner and experiment with two software programs, an application program and a plug-in. You will use CanoScan Toolbox CS and Canon Plug-in Module CS-U.

WARNING • *Canon Plug-in Module CS-U is a plug-in module and cannot be started by itself. It has to be operated from an application program such as PhotoStudio 2000 or CanoScan Toolbox CS. For details, please read What is a Plug-In ? (p. 49).*

Starting CanoScan Toolbox CS

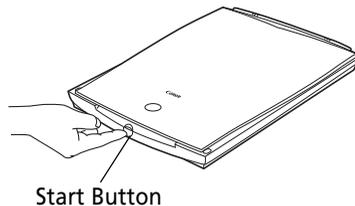
1. Place your item on the document glass as illustrated.

Open the document cover, orient the image face down and align its top edge with the alignment mark at the front of the scanner. Close the document cover, being careful not to dislodge the item.



2. Press the start button at the front of the scanner.

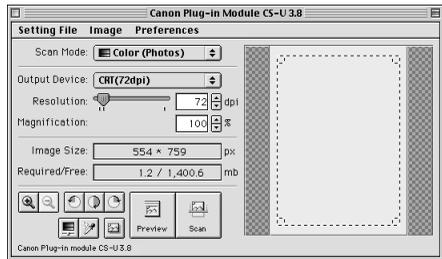
CanoScan Toolbox CS will start and display the toolbar.



Starting Canon Plug-in Module CS-U

1. Click the **[Scan]** button on the toolbar.

Canon Plug-in Module CS-U will display.

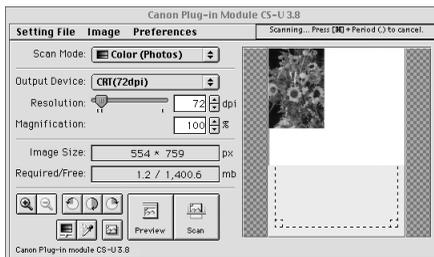


Previewing the Image

The preview scan is a quick trial scan used to confirm the positioning, size and coloring of the item. Place an item on the scanner and preview the image approximately as it will be scanned. If required, the item can be repositioned or the scanning settings changed to obtain an optimal image.

1. Click the **[Preview]** button.

After calibration, the preview will start and the scanned image will appear gradually on the screen.



WARNING

- *Calibration is an adjustment process (taking approximately 1 minute) that allows the scanner to select the correct white balance for reproducing the colors of the scanned item. It will commence when the scanner is connected or used for the first time.*
- *Do not lift the document cover while calibration is in process.*

Specifying the Scan Area

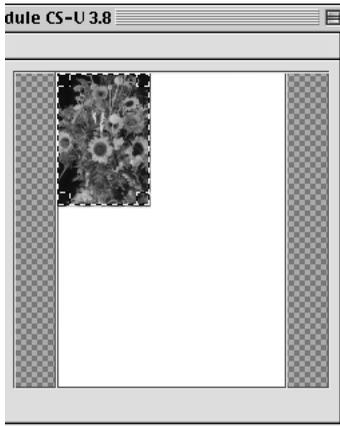
1. **Click a corner of the image area you wish to scan.**

The mouse cursor will change to a "+" shape.

2. **Hold the mouse button down and drag the mouse diagonally to include the area you wish to scan.**

A dotted frame (crop frame) will appear around the selected area.

3. **Release the mouse button.**



● **NOTE** ●

- *You can change the scan area by dragging a line or corner on the frame.*
- *You can move the scan area by clicking inside the frame and dragging.*
- *You can deselect the scan area by clicking outside the frame.*
- *Dragging the mouse diagonally will cause a dotted frame to appear.*
- *You can select the entire image by double-clicking the mouse inside the frame.*

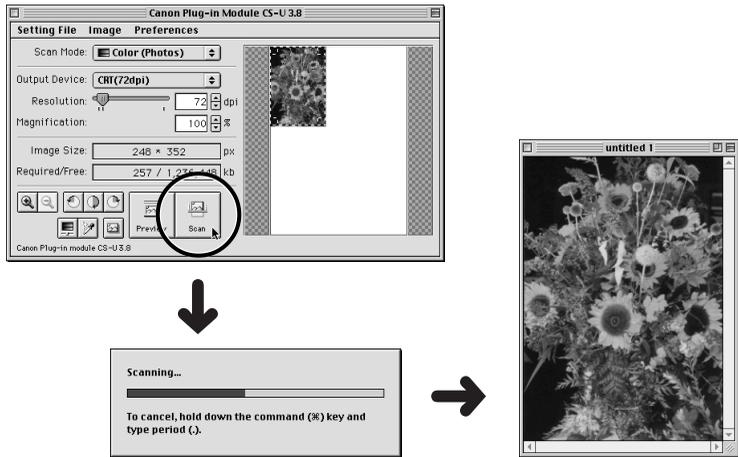
Performing the Final Scan

1. Click the [Scan] button.

The scanner will start the final scan.

The progress bar will show how the scan is progressing.

The scanned image will display in the CanoScan Toolbox CS image editing window.

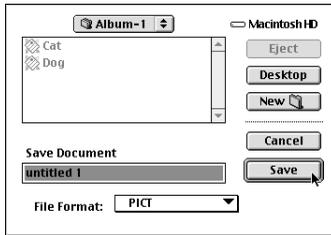


WARNING • Never lift the document cover during the scanning process.

2. Click the [File] menu and select [Save].



3. Input a file name, specify a save location and file format, and click the [Save] button. This saves the file in the specified folder.



- **NOTE** ●
- For Canon Plug-in Module CS-U operating details, please read *Using Canon Plug-in Module CS-U* on page 48 or the *Canon Plug-in Module CS-U User's Guide* (electronic manual).
 - For CanoScan Toolbox CS operating details, please read *Scanning with CanoScan Toolbox CS* on page 54 or the *CanoScan Toolbox CS User's Guide* (electronic manual).

The preceding steps introduced you to the basic scanning procedures. Once you have mastered them, you will be ready to tackle more challenging scanning tasks.

Precautions for Scanning at High Resolutions

Please note that file sizes increase almost exponentially as the resolution is raised when scanning in color mode. Scanning at high resolutions may require more time for scanning and image processing. You are recommended to avoid raising the resolution beyond the minimum requirement to scan in color mode.

File Size Estimates for Scanning a Letter Size Original in Color

- 100 dpi 3 MB
- 300 dpi 26 MB
- 600 dpi 105 MB
- 1200 dpi 418 MB

Resolution Guidelines

- For uploading to a web site or viewing on a computer monitor, choose 72 dpi
- For scanning print photos and magazine clippings, choose 150 - 300 dpi
- For printing on an inkjet printer, choose a resolution approximately half the printer's rating (180 dpi, 360 dpi, 720 dpi)

A resolution of 1200 dpi is effective for scanning relatively small originals that will be blown up to larger sizes for printing (i.e. blowing up a 3.5 x 5 in. image to letter size).

CHAPTER 4

Guide to the Software

This chapter contains introductions to the bundled software programs and instructions for the electronic manuals.

1. Using ScanGear CS-U	Windows	46
2. Using Canon Plug-in Module CS-U	Macintosh	48
3. Scanning with ScanGear Toolbox CS	Windows	50
4. Scanning with CanoScan Toolbox CS	Macintosh	54
5. Scanning with ArcSoft PhotoStudio 2000	Windows Macintosh	55
6. Scanning with ArcSoft PhotoBase	Windows Macintosh	56
7. Scanning with Caere OmniPage	Windows Macintosh	57
8. Viewing Electronic Manuals		
with Adobe Acrobat Reader	Windows Macintosh	59

1. Using ScanGear CS-U

ScanGear CS-U is the specialized driver for Windows that allows you to scan and load images from the scanner. It cannot be used as a stand-alone program. And must be started within an application program. It is also called a TWAIN driver (see the next page for information about TWAIN drivers).

Window in the Simple Mode

All you need do is select the Image Type to scan immediately at the optimal settings.

Image Type

Toolbar

Adjust images easily with the zoom, rotate and auto crop buttons.

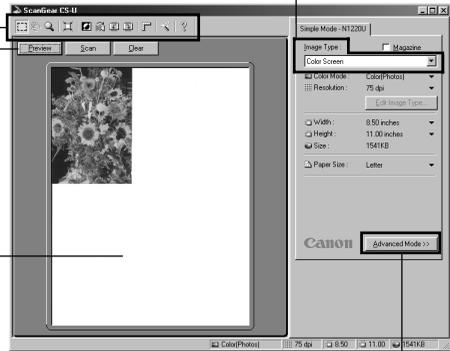
Preview Button

Previews items and displays the results in the preview area.

Preview Area

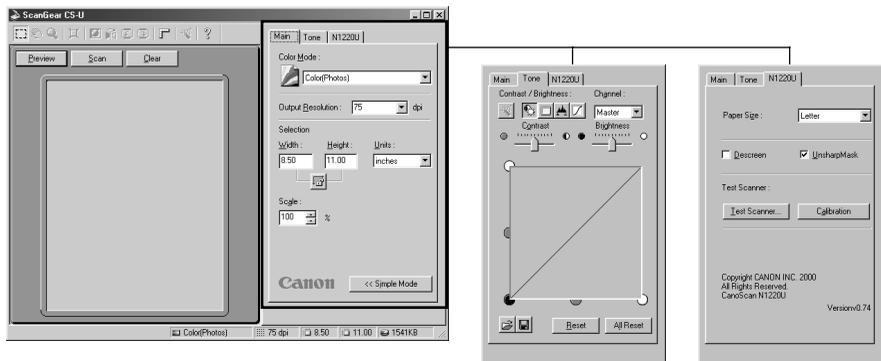
Displays the preview image. Use it to select a scan area or adjust the image.

Simple/Advanced Mode Button



Window in the Advanced Mode

Set the Color Mode and Output Resolution to scan. Image brightness, contrast and color balance can be fine-tuned.



ScanGear CS-U Features

- Scan with the optimal settings just by selecting an image type to suit your purposes in the Simple Mode
- Adjust various settings, such as the color mode, resolution, color balance and brightness, in the Advanced Mode
- Initiate various functions with the single press of a toolbar button
- See the image clearly in the large, easy-to-see preview area

How to Use ScanGear CS-U

Starting ScanGear CS-U

Select ScanGear CS-U as a TWAIN driver from ScanGear Toolbox CS, PhotoStudio 2000, PhotoBase, OmniPage Pro or other TWAIN-compliant application programs. Please refer to each program's manual for the correct procedure since it varies between programs.

How to View the Electronic Manual

Place the CD-ROM in the drive, click [View the Electronic Manuals] and click [ScanGear CS-U]. For details, please read *Viewing Electronic Manuals with Adobe Acrobat Reader* (p. 59).

What is a TWAIN Driver?

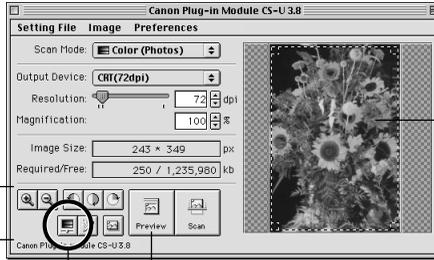
- TWAIN is the acronym for a set of worldwide standards for software that processes data exchanged between graphics application programs and input devices, such as scanners. A device driver based on these standards is called a TWAIN driver.
- ScanGear CS-U is not a stand-alone program that can be started by itself. It is used as a TWAIN driver. Start another application program first, then select ScanGear CS-U from within the program. The images scanned while both programs are running will be directly loaded into the application program (the application program must comply with the TWAIN_32 standard).
- The methods for starting TWAIN drivers vary between application programs. See the respective manuals for other programs.

2. Using Canon Plug-in Module CS-U

Canon Plug-in Module CS-U is the specialized Macintosh driver that allows you to scan and load images from the scanner. It cannot be used as a stand-alone program and must be started from within an application program. It is also called a plug-in module (see the next page for information about plug-in modules).

Tool Buttons

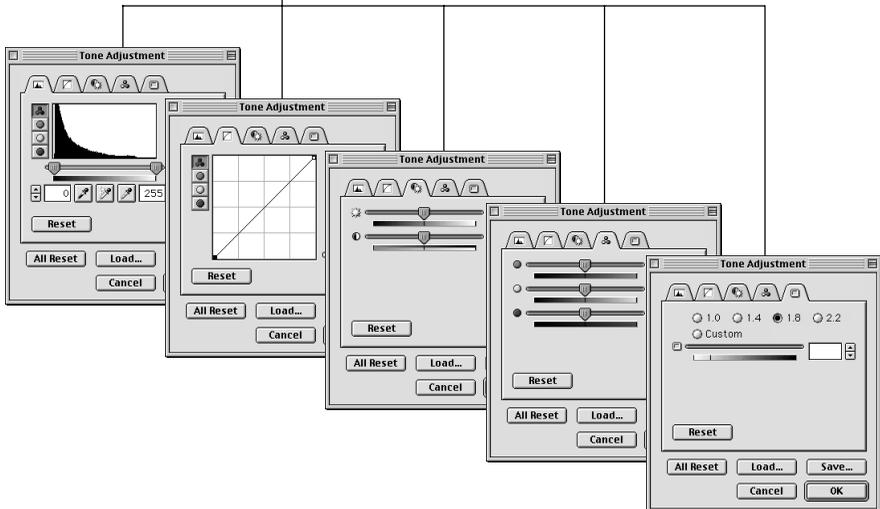
Edit images easily with the zoom, rotate, tone adjustment, auto tone adjustment and browser buttons.



Preview Area
Displays the preview image. Use it to select a scan area or adjust the image.

Preview Button
Previews items and displays the results in the preview area.

Click the [Tone Adjustment] button to access five methods of adjusting the image coloring.



Canon Plug-in Module CS-U Features

- Designed with an ergonomic control panel for effective access to all functions
- Supports a large, easy-to-view preview area that adjusts to the size (resolution) of your display
- Supports ColorSync color matching for consistent colors between the scanner, display and printer
- Displays details of the scanned image prior to scanning for accurate checks with the browser function
- Provides full-featured tone adjustment with the histogram, tone curve, brightness and contrast, color balance and gamma value functions

How to Use Canon Plug-in Module CS-U

Starting Canon Plug-in Module CS-U

Select Canon Plug-in Module CS-U as a plug-in from CanoScan Toolbox CS, PhotoStudio 2000, PhotoBase, OmniPage SE or other plug-in-compliant application programs. Please refer to each program's manual for the correct procedure since it varies between programs.

How to View the Electronic Manual

Place the CD-ROM in the drive, click [View the Electronic Manuals] and click [Canon Plug-in Module CS-U]. For details, please read *Viewing Electronic Manuals with Adobe Acrobat Reader* (p. 59).

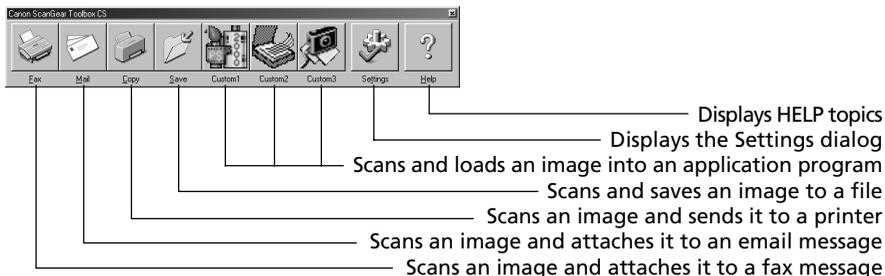
What is a Plug-in?

- A plug-in is a program that augments the functions of a plug-in compatible application program (such as CanoScan Toolbox or PhotoStudio 2000). It may be called a plug-in or plug-in module.
- Canon Plug-in Module CS-U is not a stand-alone program that can be started by itself. It is used as a plug-in program. In this case, start an application program first, then select [CanonPI CS-U 3.8.0...] from within the program. The scanned images will load directly into that application program.
- The methods for starting plug-ins vary between application programs. See the respective manuals for other programs.

3. Scanning with ScanGear Toolbox CS

ScanGear Toolbox CS is a convenient program that works with the start button at the front of the scanner to scan images, copy (print), attach images to email messages or faxes, or save images in a few simple steps. You can also preset it to perform functions just by pressing the scanner's start button.

ScanGear Toolbox CS Toolbar



- **NOTE** ●
- The Custom 1-3 buttons are automatically set to PhotoStudio 2000, Omnipage Pro and PhotoBase, respectively, if all the application programs are installed from the CanoScan Setup Utility CD-ROM.
 - To use the copy (print) function, the printer must be connected and on-line and its printer driver must be installed on the computer.
 - To use the email function, a MAPI-compliant (Messaging Application Programming Interface) program, such as Microsoft Outlook or Microsoft Exchange, must be installed and enabled.
 - To use the fax function, a fax modem must be connected, faxing software must be installed and the system enabled for sending faxes.

Convenient Applications of ScanGear Toolbox CS

- Selecting or performing repetitive scanner functions by pressing the scanner's start button
- Scanning without having to display the ScanGear CS-U window
- Scanning and saving images just with one touch of the scanner's start button

How to Use ScanGear Toolbox CS

Starting ScanGear Toolbox CS

Press the start button at the front of the scanner.

How to Use the Functions

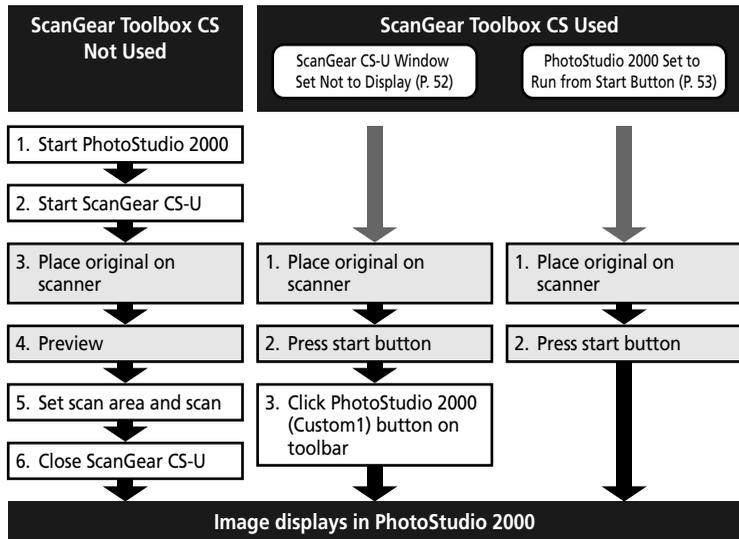
Click a button on the toolbar.

How to View the Electronic Manual

Place the CD-ROM in the drive, click [View the Electronic Manuals] and click [ScanGear Toolbox CS]. For details, please read *Viewing Electronic Manuals with Adobe Acrobat Reader* (p. 59).

The Advantages of Using ScanGear Toolbox CS

Using the scanner's start button and ScanGear Toolbox CS can greatly simplify scanning procedures. The following shows the advantages gained when ScanGear Toolbox CS is used with the bundled program, PhotoStudio 2000. The chart shows the procedural differences when ScanGear Toolbox CS is used or not used.



ScanGear Toolbox CS Settings

You can make scanning simpler by setting ScanGear Toolbox CS in the following way. This example shows PhotoStudio 2000 being used without displaying the ScanGear CS-U window. The scan can be performed simply by pressing the start button at the front of the scanner.

To Scan without Displaying the ScanGear CS-U Window

- 1 Click the [Settings] button on the toolbar to display the ScanGear Toolbox CS Settings dialog.

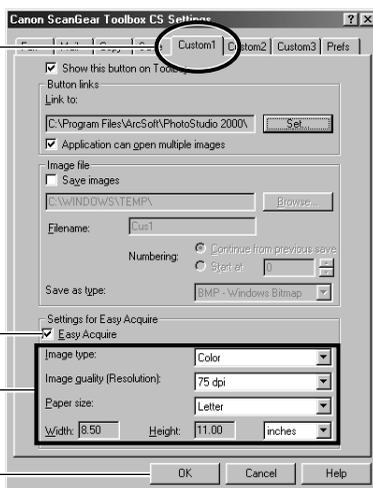


- 2 Click the [Custom1] tab.

- 3 Place a check in the [Easy Acquire] check box.

- 4 Select [Image type], [Image quality (Resolution)] and [Paper size] settings as required.

- 5 Click the [OK] button.



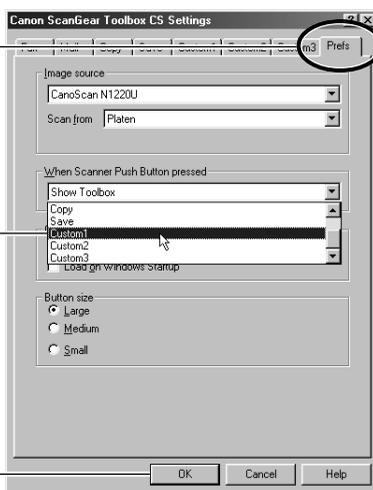
This will set a scan to be initiated without displaying the ScanGear CS-U window when the Custom1 button on the toolbar is pressed. When the scan is complete, the image will appear in the PhotoStudio 2000 window.

To Scan Simply by Pressing the Scanner's Start Button

To set ScanGear Toolbox CS to start scanning when the start button is pushed, perform the following steps in addition to the 5 steps above.

- 1 Click the [Settings] button on the toolbar to display the ScanGear Toolbox CS Settings dialog again.

- 2 Click the [Prefs] tab.
- 3 Select [Custom1] in the "When Scanner Push Button pressed" field.
- 4 Click the [OK] button.

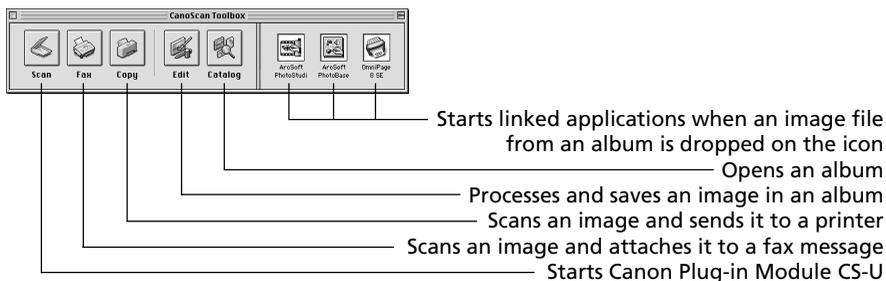


This will set a scan to be initiated when the scanner's start button is pressed without requiring any buttons to be clicked on the ScanGear Toolbox CS toolbar. When the scan is complete, the image will appear in the PhotoStudio 2000 window.

4. Scanning with CanoScan Toolbox CS

CanoScan Toolbox CS is a convenient program that works with the scanner's start button to scan or edit images, create or edit albums, copy (print), or attach images to faxes. When it is linked to image editing programs such as PhotoStudio 2000, you can start the application and open an image file just by dragging and dropping an image from an album onto the program icon.

CanoScan Toolbox CS Toolbar



- **NOTE** ●
 - To use the fax function, a fax modem must be connected, generic faxing software or the bundled fax software must be installed and the system enabled for sending faxes.
 - To use the print function, the printer must be connected and on-line and its printer driver must be installed on the computer.
 - To link applications to the toolbar, click the Unassigned buttons and select the application files.

Convenient Applications of CanoScan Toolbox CS

- Selecting or performing repetitive scanner functions with one touch of the start button
- Performing simple image edits
- Organizing scanned images in albums

How to Use CanoScan Toolbox CS

Starting CanoScan Toolbox CS

Press the scanner's start button.

How to Use the Functions

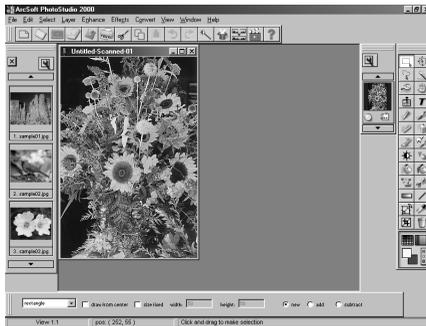
Click a button on the toolbar.

How to View the Electronic Manual

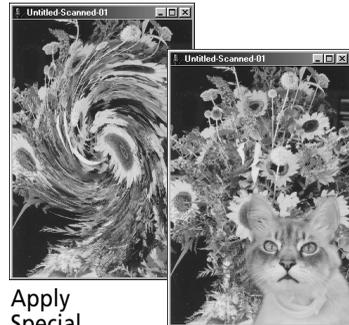
Place the CD-ROM in the drive, click [View the Electronic Manuals] and click [CanoScan Toolbox CS]. For details, please read *Viewing Electronic Manuals with Adobe Acrobat Reader* (p. 59).

5. Scanning with ArcSoft PhotoStudio 2000

ArcSoft PhotoStudio 2000 is an image editing program that can be used to load images from scanners and digital cameras and process them with editing, retouching tools, special effects and enhancements.



Scan



Apply
Special
Effects

Stitch

How to Use PhotoStudio 2000

Starting PhotoStudio 2000 and the Driver Software

Windows

1. Click the Windows [Start] button and select [Programs], [ArcSoft PhotoStudio 2000] and [PhotoStudio 2000]. PhotoStudio 2000 will start.
2. Click the [File] menu and select [Acquire]. ScanGear CS-U will start and display its main window.

Macintosh

1. Open the [ArcSoft PhotoStudio] folder and double-click the [PhotoStudio™] icon. PhotoStudio will start.
2. Open the [File] menu and select [Acquire] and [CanonPI CS-U 3.8.0...]. Canon Plug-in Module CS-U will start and display its control panel.

How to View the Electronic Manual

Place the CD-ROM in the drive, click [View the Electronic Manuals] and click [PhotoStudio 2000]. For details, please read *Viewing Electronic Manuals with Adobe Acrobat Reader* (p. 59).

6. Scanning with ArcSoft PhotoBase

PhotoBase is an image database program that can create and edit image albums, perform image searches and create slide shows. It also handles sound and video files. The Windows version can prepare images for pasting into web sites or send images as attachments for email.



Create Albums



Paste Images into Web Pages (Windows)

How to Use PhotoBase

Starting ArcSoft PhotoBase and the Driver Software

Windows

1. Click the Windows [Start] button and select [Programs], [ArcSoft PhotoBase] and [PhotoBase 2.0]. PhotoBase will start.
2. Click the [Edit] menu and select [Acquire]. In the Select Source dialog, select [CanoScan N650U/N656U] or [CanoScan N1220U]. ScanGear CS-U will start and display its main window.

Macintosh

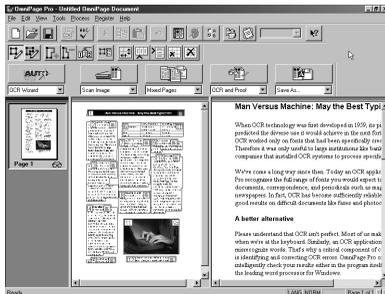
1. Open the [ArcSoft PhotoBase] folder and double-click the [ArcSoft PhotoBase] icon. PhotoBase will start.
2. Open the [File] menu and select [Import] and [CanonPI CS-U 3.8.0...]. Canon Plug-in Module CS-U will start and display its control panel.

How to View the Electronic Manual

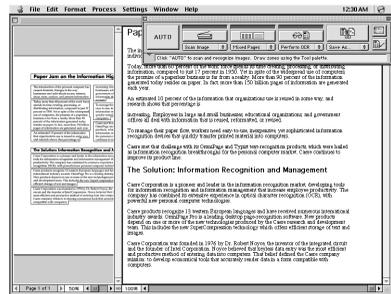
Place the CD-ROM in the drive, click [View the Electronic Manuals] and click [PhotoBase]. For details, please read *Viewing Electronic Manuals with Adobe Acrobat Reader* (p. 59).

7. Scanning with Caere OmniPage

Caere OmniPage Pro (Windows) / SE (Macintosh) is an optical character recognition (OCR) program that converts scanned words into text data that can be edited with word processors.



Windows



Macintosh

Convenient Applications of Caere OmniPage

- Converting words scanned from a book, magazine, newspaper or fax into text data for editing or digital transmission. After conversion, the text can be edited with word processors and similar programs

How to Use Caere OmniPage

Starting Caere OmniPage and the Driver Software

Windows

1. Click the Windows [Start] button and select [Programs], [Caere Applications] and [OmniPage Pro 9.0]. OmniPage Pro will start.
2. Click the [Scan Image] button on the toolbar, or open the [Process] menu and select [Scan Image]. The scanner will start scanning and display the scanned image in OmniPage Pro.

- If the toolbar button displays as [Load Image], click the arrow and select [Scan Image]. Or if the Process menu item displays as [Load Image], open the [Process] menu and select [Process Settings]. In the [Process] tab, select [Scan Image].

• NOTE •

- *When you install Caere OmniPage Pro, the Add Scanner Wizard will display. Choose the [CanoScan N650U/N656U] or [CanoScan N1220U] option. This instructs Caere OmniPage Pro to select the correct scanner for scanning.*

Macintosh

1. Open the [OmniPage 8 SE Folder] folder and double-click the [OmniPage 8 SE] icon. OmniPage SE will start.
 2. Click the [Scan Image] button on the toolbar, or open the [Process] menu and select [Scan Image]. Canon Plug-in Module CS-U will start and display its control panel.
 3. Select [Black & White] as the scan mode and [OCR(300dpi)], [OCR(400dpi)] or [OCR(600dpi)] as the output device. Click the [Scan] button. The scanned image will display in OmniPage Pro.
- You must have previously selected Canon Plug-in Module CS-U as the scanner driver. To do this, open the [Settings] menu and select [Settings Panel] or [Select Scanner]. Then select [CanonPI CS-U 3.8].
 - If the toolbar button displays as [Load Image], select [Scan Image] from the button below it. Or if the Process menu item is labeled [Load Image], open the [Process] menu and select [Process Settings] and [Scan Image].

How to View the Electronic Manual

Place the CD-ROM in the drive, click [View the Electronic Manuals] and click [Caere OmniPage Pro/SE]. For details, please read *Viewing Electronic Manuals with Adobe Acrobat Reader* (p. 59).

8. Viewing Electronic Manuals with Adobe Acrobat Reader

The CanoScan Setup Utility CD-ROM contains the following electronic manuals.

- ScanGear CS-U User's Guide (Windows)
- ScanGear Toolbox CS User's Guide (Windows)
- Canon Plug-in Module CS-U User's Guide (Macintosh)
- CanoScan Toolbox CS User's Guide (Macintosh)
- PhotoStudio 2000 User's Guide
- PhotoBase User's Guide
- OmniPage User's Guide

An electronic manual is a manual that can be read on a computer display using the reader software, Adobe Acrobat Reader, installed from the CanoScan Setup Utility CD-ROM.

1. Set the CanoScan Setup Utility CD-ROM into the computer drive.

The language selection window will display to allow you to select a language. Then the CanoScan Setup Utility CD-ROM menu window will automatically display.



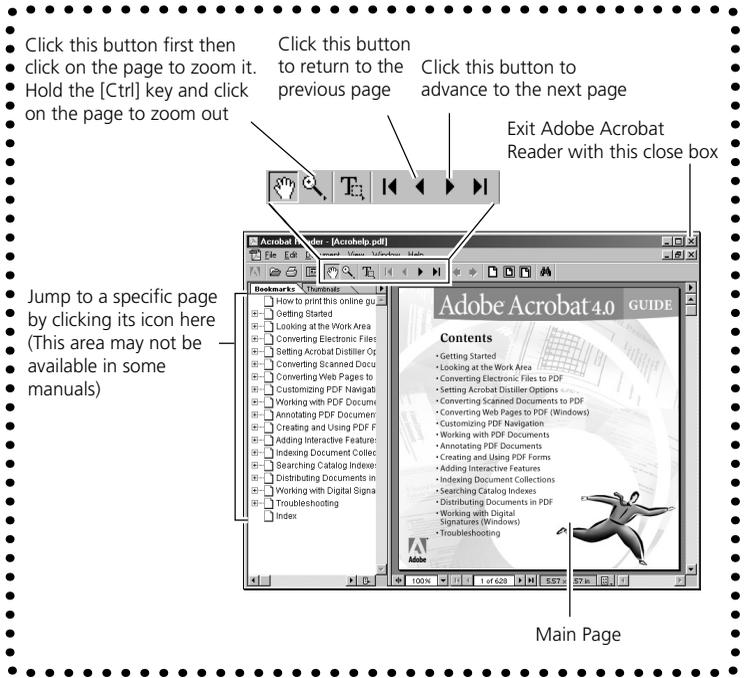
2. Click [View the Electronic Manuals].

The following window will display.



3. Select the manual you wish to view.

Adobe Acrobat Reader will automatically start and display the manual. Navigate through the manual using the program's menus and buttons. The diagram below explains the minimum necessary functions required to view an electronic manual.



With minor exceptions, these procedures are similar for both the Windows and Macintosh platforms. To close Adobe Acrobat Reader on a Macintosh, open the [File] menu and select [Quit].

4. If you have finished viewing all manuals, close Adobe Acrobat Reader.

When Adobe Acrobat Reader closes, the manual selection window of the CanoScan Setup Utility will display.

5. Close the CanoScan Setup Utility.

Click the [Return to the previous menu] button until you reach the main menu and click the [Exit] button.

APPENDICES

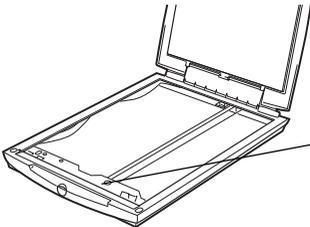
Before Transporting the Scanner	62
Care and Maintenance	63
Major Specifications	64
System Information	65

Before Transporting the Scanner

Always lock the scanning unit by pushing the lock switch toward the lock mark before moving or transporting the scanner.

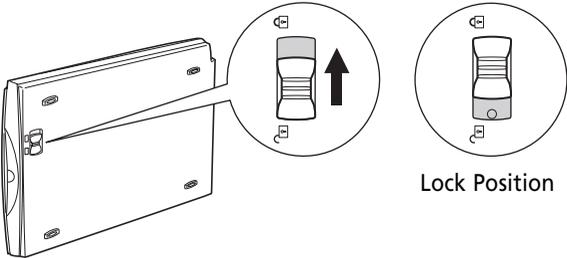
1. **Disconnect the USB cable from the computer.**
2. **Confirm that the scanning unit is at the front of the scanner.**

If the scanning unit has not returned to the home position, ensure that there are no items on the document glass (platen), close the document cover and then connect the USB cable to the computer's USB port. Check to see that the scanning unit has correctly returned to the front of the scanner, then disconnect the USB cable from the computer.



Scanning Unit
Confirm that the scanning unit is in this position

3. **Lock the scanning unit by pushing the lock switch toward the lock mark ().**



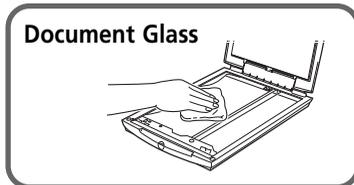
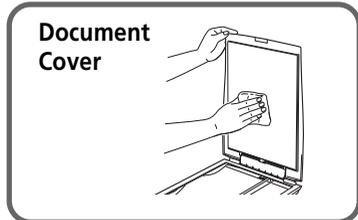
Lock Position

WARNING • 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.

Care and Maintenance

Clean off the dirt and dust that adheres to the exterior, document glass and document cover of the scanner during the course of ordinary operation using the following procedures.

- 1. Detach the USB interface cable from the computer.**
- 2. Dampen a clean, soft cloth with water and wring the cloth well. Use the well-wrung cloth to gently remove dirt and dust. Be particularly careful to remove any traces of dirt or liquid from the document glass by wiping it with a dry cloth.**
 - Do not dampen the connectors, ports or other metallic components on the scanner's back panel. Immediately remove any moisture that contacts these components by wiping them with a dry cloth.
 - Do not use a sodden cloth or apply a liquid directly to any portion of the scanner. Any moisture that enters the interior, the underside of the document glass or the sensors may degrade image quality and lead to malfunctions.
 - Never use substances containing alcohol, thinners or benzene on the equipment. Use of these substances may deform, discolor or dissolve the casing.
- 3. Thoroughly remove any moisture or water vapor from the scanner with a dry cloth.**
 - Moisture left on the document glass or cover may damage photographs and other documents as well as produce poor results.



Never use substances containing alcohol, thinners or benzene to clean the equipment.

Major Specifications

		CanoScan N650U / CanoScan N656U / CanoScan N1220U
Scanner Type		Flatbed (stationary document type)
Scanning Element		CIS (contact image sensor)
Light Source		3-color (RGB) LED
Optical Resolution		600 x 1200 dpi (CanoScan N650U/N656U) 1200 x 2400 dpi (CanoScan N1220U)
Selectable Resolution		25 - 9600 dpi (ScanGear CS-U) 25 - 9600 dpi (Canon Plug-in Module CS-U)
Scanning Bit Depth	Color	14 bit input/8 bit output for each color (RGB)
	Grayscale	14 bit input/8 bit output
Scanning Speed*1	Color	16.2 msec/line
	Grayscale	5.3 msec/line
	B&W	5.3 msec/line
Preview Speed		Approximately 15 seconds
Start Button		Yes
Interface		USB
Connectors		USB B type
Maximum Document Size		A4/Letter, 216 x 297 mm (8.5 x 11.7 in.)
Operating Range	Temperature	5° to 35° C (41° to 95° F)
	Humidity	10% to 90% (without condensation formation)
Power Supply		Supplied via USB port
Power Consumption		2.5 watts maximum, stand-by 12.5 mwatts
Maximum External Dimensions		256 x 372.5 x 34 mm (10.1 x 14.7 x 1.3 in.)
Weight		Approximately 1.4 kg (3.1 lbs.) (CanoScan N650U)
		Approximately 1.5 kg (3.3 lbs.) (CanoScan N656U/N1220U)

*1 Transfer time to computer is not included.

- Specifications are subject to change without notice.

System Information

This form is used to record the operating environment of the purchased scanner. If any problems occur with the scanner, you will need this information when you contact our Customer Support Help Desk. Please make sure to record this and secure it safely.

- When a repair is needed, warranty information is required. Please make sure to record this information and secure it carefully.
- The replacement parts for this equipment have an expiration date of seven years after production ceases. (Replacement parts refer to any part that is required for the optimal operation of the equipment.)

Date of Purchase: _____

Dealer: _____ Tel: _____

Dealer Address: _____

Scanner Model: **CanoScan N650U/N656U/N1220U**

Serial Number (displayed 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 <input type="checkbox"/> 98 <input type="checkbox"/> 2000	Mac OS <input type="checkbox"/> 8.5 <input type="checkbox"/> 8.6 <input type="checkbox"/> 9
Monitor Type: _____	Monitor Size: _____ Inches
Printer: _____	Manufacturer: _____
Type of Printer: _____	Printer Resolution: _____ dpi
Installed Virus Protection Program: _____	
Installed Compression Program: _____	
On-Board Expansion Cards: _____	
Attached Peripherals: _____	
Name of Network Connected: _____	

Caution:

1. No part of this document may be reproduced or transmitted in any form or by any means, electronic or mechanical, for any purpose, without the express written permission of Canon Inc.
2. The equipment and software described in this guide are subject to change without notice.
3. Notwithstanding the considerable care taken in preparing this guide, please note that Canon Inc. does not accept liability for any results arising from the operation of the equipment or software mentioned herein.
4. Please note that scanning copyrighted materials, including documents and images, without permission from the copyright holder is prohibited by law, except for personal or household use.
5. Portions of this guide are reproduced herein with the permission of Adobe Systems Incorporated.