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Please refer to the electronic manual for more
information.

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read this first



Canon Color Image Scanner
CanoScan N340P/N640P

Getting Started

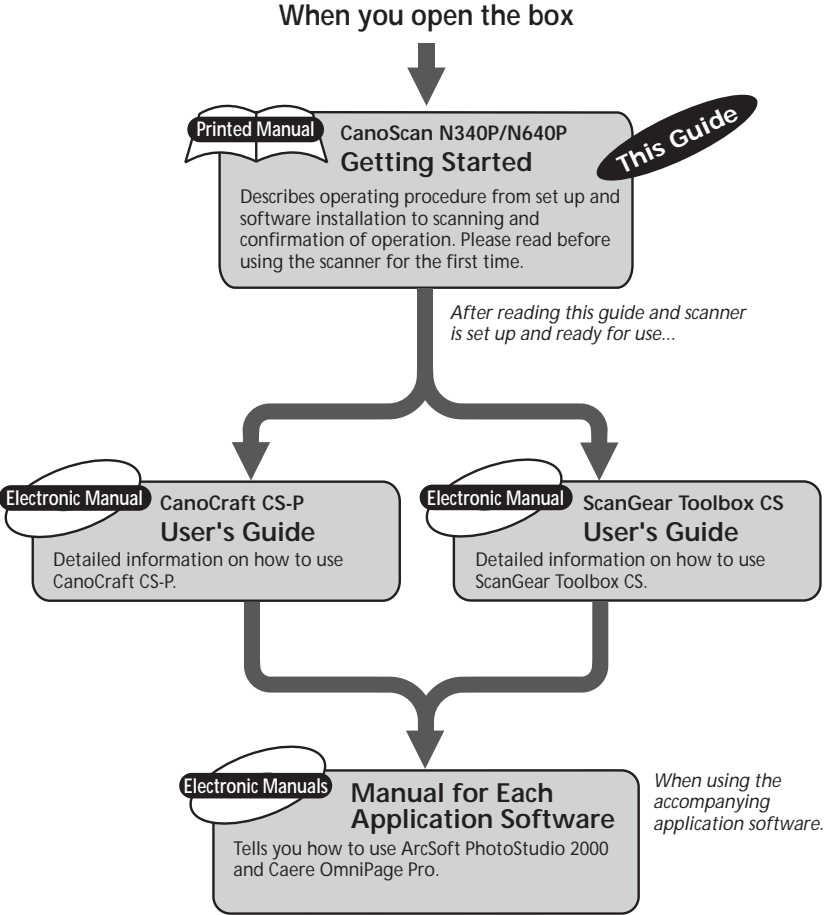
Setting Up the Scanner

Guide to the Software

Appendices

How to Make Best Use of the Manuals

Thank you for purchasing a CanoScan N340P/N640P 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 N340P/N640P

You have purchased one of the world's finest flatbed color scanners. The 300-dot-per-inch (dpi) optical resolution CanoScan N340P and 600-dpi optical resolution CanoScan N640P incorporate the following special features.

Compact Footprint

World's smallest and slimmest A4/Letter size scanner (256 mm wide x 372.5 mm long x 39 mm high). 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.

Simple Connection to a Parallel Port

Easily connected to your computer's parallel (printer) port with a single cable (supplied). Your existing printer connects to the scanner's second parallel port, creating a daisy chain configuration. See *Precautions with Printers*, p. 37 of this guide.

Standby Power and Energy-Saving Features

Convenient standby power feature means that the scanner is always ready to use. On continuous standby operation, it consumes a mere 5 watts per hour and only 8 watts per hour in full operation. Moreover, it is designed for high-speed, quiet operation.

Fine Color Tones and High Resolution

Scanning method employs proprietary Canon LIDE scanning technology in an ultrahigh-sensitivity CIS (contact image sensor). Reading 14 bits (16,384 colors) per red, green and blue (RGB) channel, the scanner offers 8-bit output that reproduces brilliant tones at high resolution.

System Requirements


The following requirements must be met to operate the scanner.

Computer:	IBM AT/PC compatible
Operating System:	Windows 95/Windows 98/ Windows NT Workstation 4.0/ Windows 2000 Professional
CPU:	Windows 95/98/NT Workstation 4.0: Pentium or later Windows 2000 Professional: Pentium 133 MHz or later
RAM:	32 MB or more (64 MB or more recommended)
Display:	High Color (16 bit) or more, 800 x 600 pixels or more
Interface:	Parallel interface (IEEE 1284/ECP)
CD-ROM Drive:	Required

WARNING

- *The scanner may not operate with home-assembled or private-label PCs.*
- *Certain personal computers (including laptops) may not restart correctly from standby mode when the scanner is attached. If this occurs, please reboot the computer.*

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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 AC adapter 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 AC adapter. Do not place heavy objects on, pull or excessively bend the cord of the AC adapter. Damaged wires may cause fire or electrical shock.
- Do not plug in/unplug the AC adapter with wet hands. Fire or electrical shock may result.
- Do not connect excessive numbers of plugs into one electrical outlet. Fire or electrical shock may result.
- Do not twist or tie the AC adapter together. Fire or electrical shock may result.
- Always plug the AC adapter in all the way. If it is not plugged in completely, fire or electrical shock may result.
- Do not use AC adapters other than the one supplied. Fire or electrical shock may result.
- As a rule, do not use electrical extension cords. Fire or electrical shock may result. If the use of an extension cord is necessary, do not use one longer than 5 m (15 feet). Make sure that the extension cord is not twisted, and that the AC adapter is fully plugged into the extension cord. Do not use multiple extension cords.
- Do not use extension cords in corridors or other high traffic areas where they can be stepped on or tripped over. This could damage the cords and result in fire or electrical shock.
- Do not use the AC adapter outdoors or in exposed areas.

CAUTION

- Do not plug the equipment into outlets with voltages other than the specified voltages. Incorrect voltages may result in fire or electrical shock.
- When unplugging the AC adapter, always pull on the main body. Pulling on the cord may damage the wires and lead to fire or electrical shock.
- Do not place objects around the AC adapter in case it needs to be unplugged during emergencies.
- Unplug the AC adapter from the outlet at least once a year and clean the area around the base of the AC adapter's metal pins to ensure that all dust is removed. If dust accumulates in this area, it may result in fire.

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 AC adapter and contact your retailer or Canon Customer Support Help Desk. Continued use may result in fire 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 AC adapter and contact your retailer or Canon Customer Support Help Desk.
- When cleaning the equipment, always unplug the AC adapter. 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.

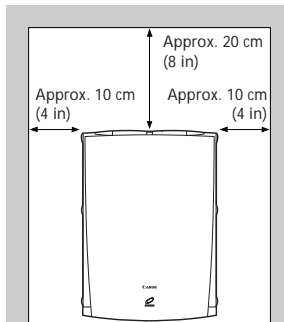
⚠ CAUTION

- 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 AC adapter 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 condensation)
- Please use where the electrical conditions (normal home outlets) can be met in your country.
- 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 reaches from the scanner to the electrical outlet.
- Do not set up in areas where there is an excessive fluctuation in temperature. Also do not move the equipment from high temperature areas to low temperature 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.

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.

Then, connect the scanner to the computer following the instructions in this chapter and install the bundled software.

Please note that you must log on as an administrator to install or delete software on Windows NT Workstation 4.0 and Windows 2000 Professional.

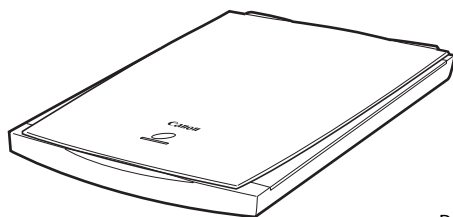
Failure to release the lock may damage the scanner.

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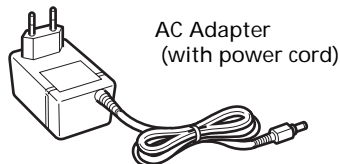
1. Inspecting the Package Contents

After opening the box, inspect its contents.

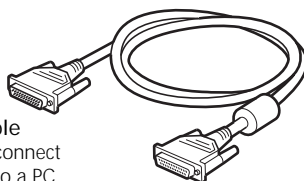
Scanner Unit and Accessories



Scanner



AC Adapter
(with power cord)



Parallel cable
Required to connect
the scanner to a PC.

Software and Documents

- **CanoScan Setup Utility CD-ROM**

Contains the scanning software, software manuals and reader software for the manuals. Since it contains vital information and software that cannot be redistributed, store it in a safe place.

* Please see page 34 of this guide for information regarding the electronic manuals for the software.

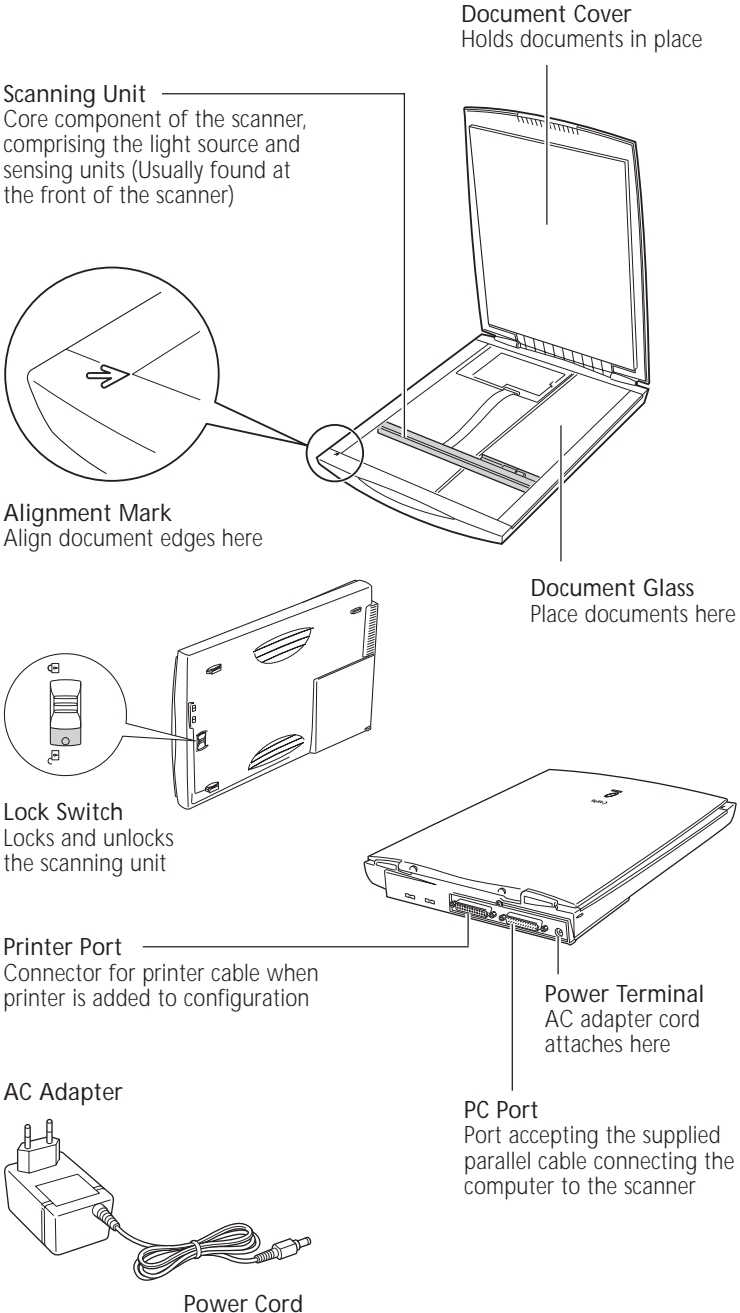
- **Getting Started (this guide)**

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.

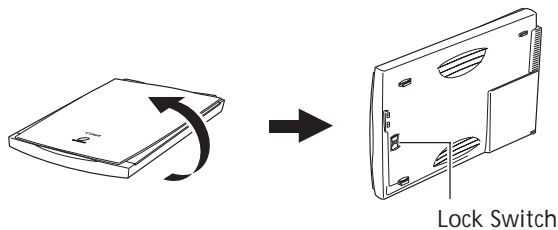
2. Components Guide



3. Unlock the Scanning Unit

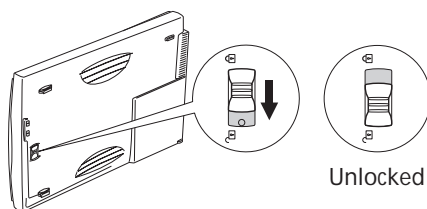
The scanner is shipped with the scanning unit locked to prevent damage during transport. You must unlock it to use the scanner.

1. Peel off the seal on 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.

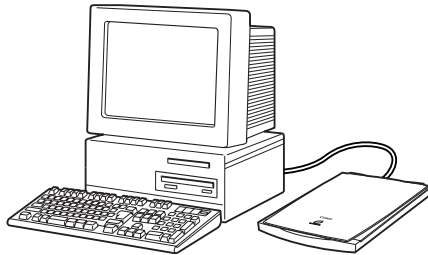


4. Return the scanner to a horizontal position.

WARNING • Ensure that you secure the scanning unit with the lock before moving or transporting the scanner (p. 42).

4. 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. 8).



-
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. 12).**

WARNING

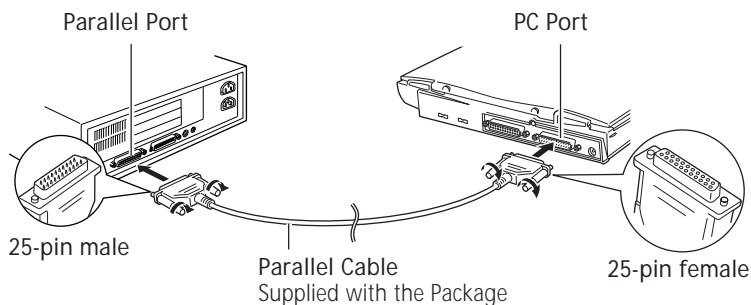
- *Make sure to unlock the scanner before connecting it to the computer. If left locked, a malfunction or problems may occur.*

.....

3. Connect the scanner to the computer with the supplied parallel cable.

Please note that the connectors at either end of the parallel cable are different shapes. The computer end of the cable is the 25-pin, male connector.

Gently push the connector onto the port, tightening the screws clockwise to hold it firmly in place.



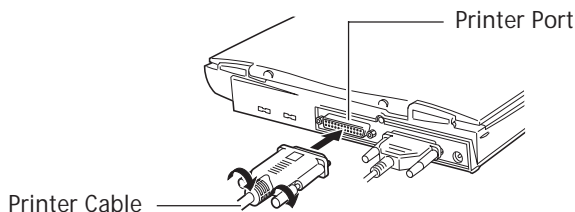
● **NOTE** ●

- If a printer cable is already connected into the computer's parallel port, detach it and replace it with the scanner's cable.
- Connect your printer's cable to the printer port on the scanner (see next step).
- The parallel port will have a connector that is approximately 4 cm (1.5 inches) across and labeled "Parallel" or "Printer". It is generally on the computer's back panel.

.....

4. Connect the printer to the scanner.

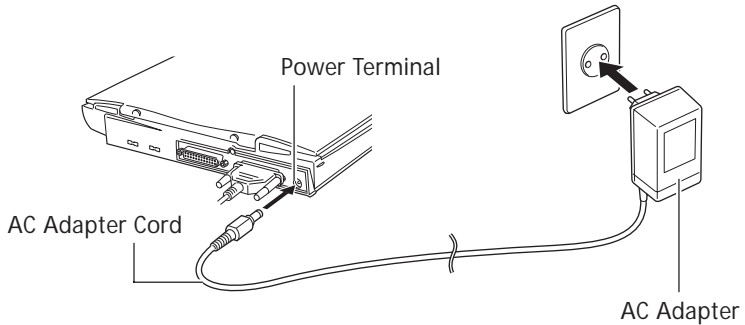
If you wish to have both the scanner and a printer connected to your computer, attach the printer's parallel cable to the scanner's "Printer" port on the left of the rear panel.



WARNING

- If you are using a WPS (Windows Printing System) printer, such as the Canon BJC-610W, BJC-620W or LBP-660, or an Epson inkjet printer, refer to Precautions with Printers (p. 37).
- Since data is sent through the scanner to the printer, ensure that the scanner power is on before attempting to print even when not using the scanner.
- Devices other than printers can not be attached to the scanner's printer port.

.....

5. Connect the AC adapter to the scanner.**WARNING**

- Only use the AC adapter provided with the scanner. Use of other AC adapters may lead to a malfunction.

NOTE

- The scanner does not have a power switch. The power is activated as soon as the AC adapter is plugged in.

This concludes the connection procedure. You are now ready to install the software.

5. Installing the Software

This section explains how to install the software contained on the CD-ROM onto the computer.

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.)

- **CanoCraft CS-P** *Approx. 13 MB*

The required software program that works with the scanner to scan and load images into your computer. CanoCraft CS-P Copy, a program that makes it easy to print color copies, also automatically installs.

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

A program that 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.

- **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), of the following programs: CanoCraft CS-P, ScanGear Toolbox CS, PhotoStudio 2000 and OmniPage Pro.

WARNING

• *Approximately 101 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. Turn on the computer.
2. Place the CanoScan Setup Utility CD-ROM in the computer's drive.

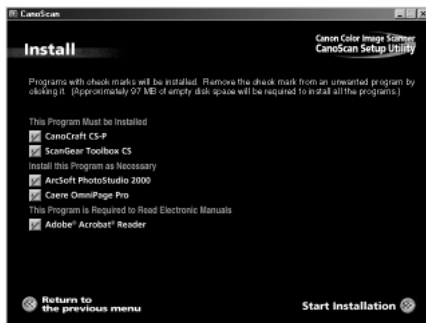
After a moment, the CanoScan Setup Utility will start and the Menu Window will automatically display.



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

3. 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.

.....

4. **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 [√] check mark before clicking the [Start Installation] button.

Be sure to install CanoCraft CS-P and ScanGear Toolbox CS 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.

.....

5. **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.

.....

6. **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 CanoCraft CS-P:	[D:\CanoCrft\Disk1\Setup.exe]
To install ScanGear Toolbox CS:	[D:\Toolbox\Disk1\Setup.exe]
To install PhotoStudio 2000:	[D:\Pstudio\Setup.exe]
To install Caere OmniPage Pro:	[D:\OmniPage\Setup.exe]
To install Adobe Acrobat Reader:	[D:\Acroread\ar405eng.exe]

- Be sure to restart the computer after installing OmniPage Pro.
- To manually display an electronic manual, select its file in the [Manual] folder on the CanoScan Setup Utility CD-ROM.

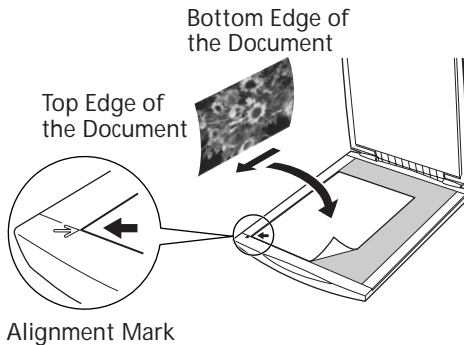
- **NOTE** ●
- You may also use the [Uninstall the Software] button to delete the bundled programs from your computer.

6. 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 CanoCraft CS-P.

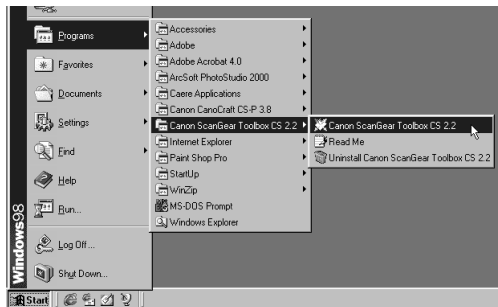
1. Place your item on the document glass as illustrated.

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.



- **NOTE** • To scan right to the edges of an item, position it approximately 2 mm away from the edges of the document glass.

2. Click the Windows [Start] menu and select [Programs], [Canon ScanGear Toolbox CS 2.2] and [Canon ScanGear Toolbox CS 2.2].

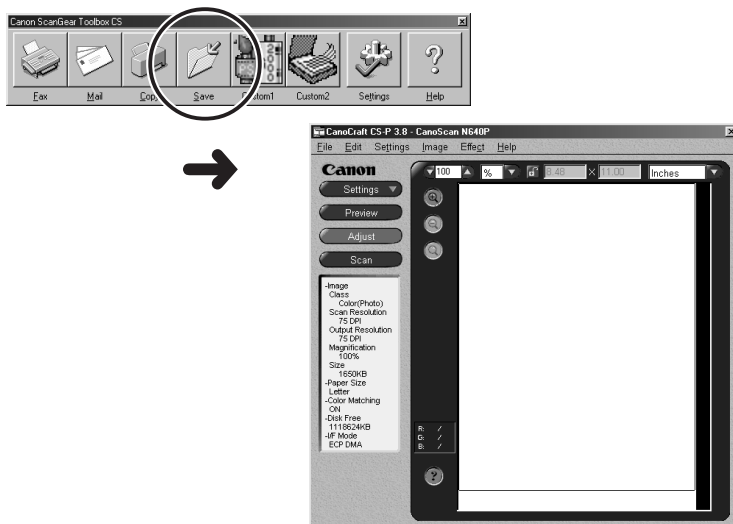


The ScanGear Toolbox CS toolbar will display.



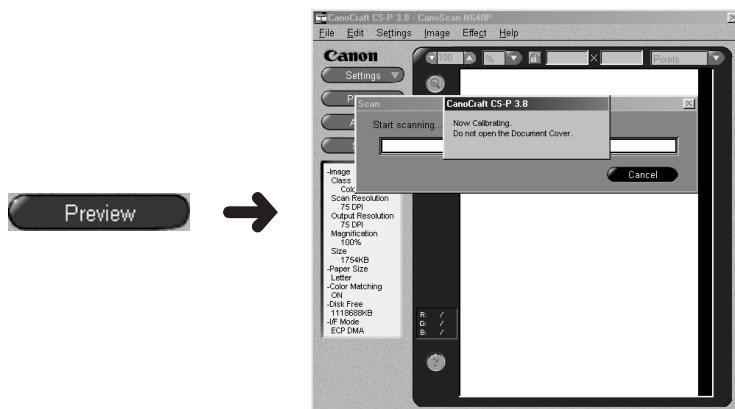
3. Click the [Save] button on the toolbar.

The CanoCraft CS-P window will display.



4. Click the [Preview] button.

The following window will display and calibration will commence. Calibration needs to be performed after the initial setup.



WARNING

• Do not lift the document cover while calibration is in process.

- **NOTE** • *Calibration is an adjustment process (taking approximately 1 minute) that allows the scanner to reproduce the correct color balance of the scanned item.*
- *Calibration will automatically be performed the first time the scanner is used and thereafter when it has been used a set number of times.*

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

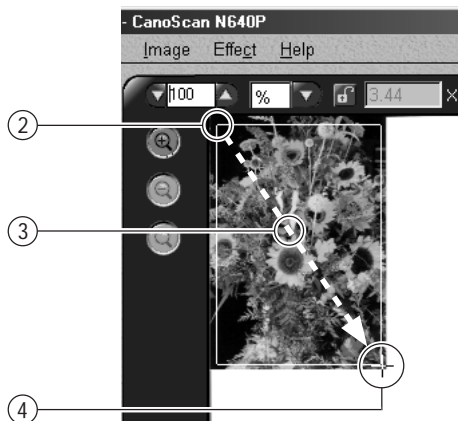


- **NOTE** • *The preview scan is a quick trial scan used to confirm the positioning, size and coloring of the item. Place an item on the scanner and preview the image approximately as it will be scanned. If required, the item can be repositioned or the scanning settings changed to obtain an optimal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

.....

5. Specify the scan area.

1. Right-click the mouse.
If you are using CanoCraft CS-P for the first time since it was installed, the scan area selection will be preset to the Letter/A4 size. Right-clicking the mouse button cancels that selection.
2. Left-click a corner of the image area you wish to scan.
When you move the mouse cursor over the preview area, it transforms into the "+" cursor.
3. Hold the mouse button down and drag the mouse diagonally to include the area you wish to scan.
A frame (crop frame) will appear around the selected area.
4. Release the mouse button.



- **NOTE** ●
- You can change the scan area by dragging a line or corner of the frame.
 - You can move the scan area by clicking inside it and dragging.
 - You can deselect the scan area by right-clicking the mouse within it, or left-clicking outside it.

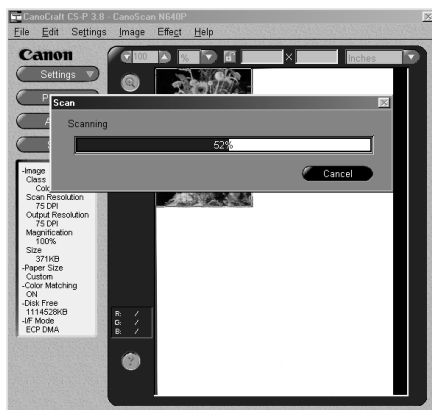
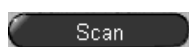
.....

6. **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 CanoCraft CS-P window will close.



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

Viewing Scanned Images

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

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

.....

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



.....

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



Hard disk (C:)

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



My Documents

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

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



My Pictures


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

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



Save0000

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 CanoCraft CS-P operating details, please read *Scanning with CanoCraft CS-P* on page 27 or the *CanoCraft CS-P User's Guide* (electronic manual).
 - For ScanGear Toolbox CS operating details, see *Scanning with ScanGear Toolbox CS* on page 30 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 program is limited by Windows 95/98 to 256 MB. 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 95/98. Windows NT Workstation 4.0 and Windows 2000 Professional do not impose these limits.

Guide to the Software

This chapter provides a brief operating summary for the software bundled with the scanner. CanoCraft CS-P is the driver program for the scanner, ScanGear Toolbox CS is a convenient scanning utility, ArcSoft PhotoStudio 2000 is a photo-retouching application program, and Caere OmniPage Pro is an optical character recognition (OCR) application program for converting scanned text to editable text.

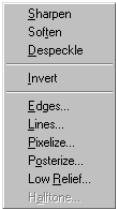
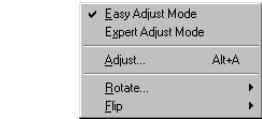
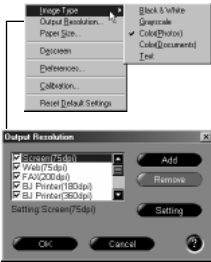
For more detailed instructions for each program, refer to the corresponding electronic manuals on the CanoScan Setup Utility CD-ROM. Please read "Viewing Electronic Manuals with Adobe Acrobat Reader" (p. 34) to learn how to read electronic manuals.

1. Scanning with CanoCraft CS-P	27
2. Copying with CanoCraft CS-P Copy	29
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4. Scanning with ArcSoft PhotoStudio 2000	32
5. Scanning with Caere OmniPage Pro	33
6. Viewing Electronic Manuals with Adobe Acrobat Reader	34

1. Scanning with CanoCraft CS-P

CanoCraft CS-P is the software program and driver that enables you to scan images with your CanoScan N340P/N640P color scanner. It features a range of advanced functions that enable you to capture images just as you wish. It can also be used as a TWAIN driver, which is explained on the next page.

Click here to set the Image Type, Output Resolution and Paper Size



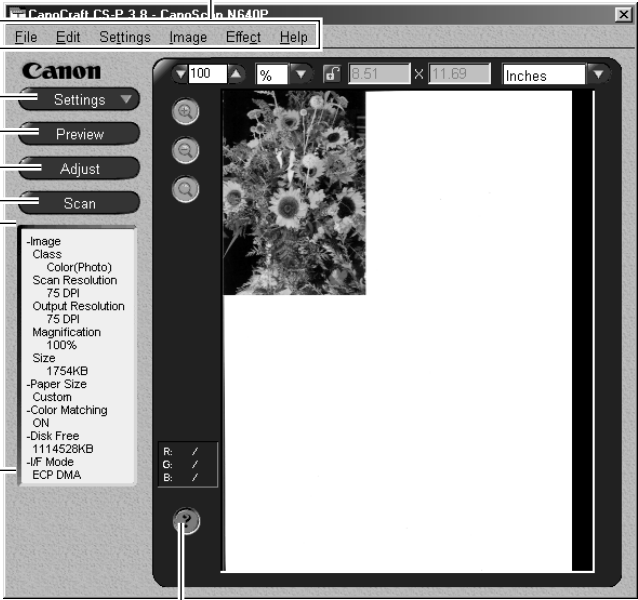
Click the menus here to display the various commands and submenus

Click here to start the preview scan

Click here to start the final scan

This area displays the current settings

Click here to adjust the brightness and color tones



Click here to access Help



Convenient Applications of CanoCraft CS-P

- Scanning photos or illustrations for pasting into a word processing document or a web site.

How to Use CanoCraft CS-P

Starting CanoCraft CS-P

Click the [Start] button on the Windows taskbar and select [Programs], [Canon CanoCraft CS-P 3.8] and [CanoCraft CS-P 3.8] in succession.

How to View the Electronic Manual

Place the CD-ROM in the drive, click [View the Electronic Manuals] and click [CanoCraft CS-P]. For details, please read *Viewing Electronic Manuals with Adobe Acrobat Reader* (p. 34).

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. TWAIN-compliant applications can call up a TWAIN driver from within their own windows to scan images.
- CanoCraft CS-P is a stand-alone application program that can be started as described above. It can also be used as a TWAIN driver and started from within another application to load images directly into that program. The application program must comply with the TWAIN-32 standard.

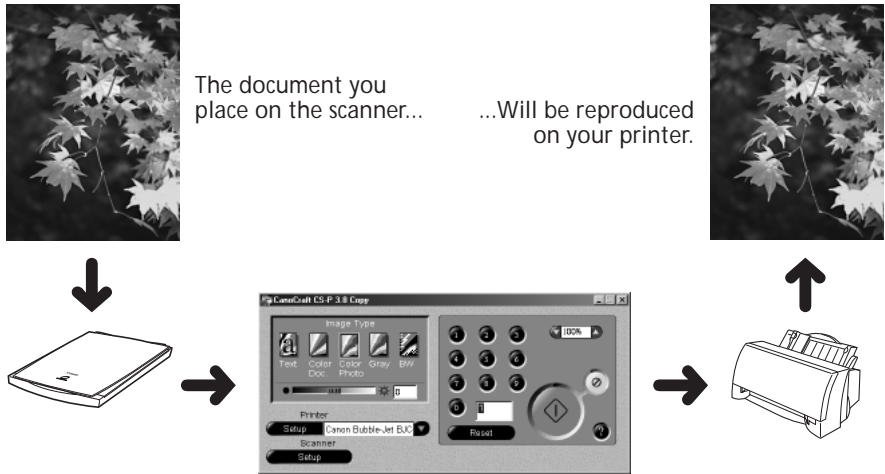


Starting CanoCraft CS-P from another application's window

- The methods for starting TWAIN drivers vary between application programs. For PhotoStudio 2000 see page 32, and for OmniPage Pro see page 33. See the respective manuals for other programs.

2. Copying with CanoCraft CS-P Copy

Color copying is easy if you use CanoCraft CS-P Copy with a color printer attached to your CanoScan N340P/N640P color scanner.



Convenient Applications of CanoCraft CS-P Copy

- Copying in color when a color copier is unavailable but your computer, scanner and color printer are at hand.
- Copying in black and white when only a monochrome printer is available.

How to Use CanoCraft CS-P Copy

Starting CanoCraft CS-P Copy

Click the [Start] button on the Windows taskbar and select [Programs], [Canon CanoCraft CS-P 3.8] and [CanoCraft CS-P 3.8 Copy] in succession.

How to View the Electronic Manual

Place the CD-ROM in the drive, click [View the Electronic Manuals] and click [CanoCraft CS-P]. For details, please read *Viewing Electronic Manuals with Adobe Acrobat Reader* (p. 34).

WARNING

- This program is not compatible with WPS (Windows Printing System) printers.

3. Scanning with ScanGear Toolbox CS

ScanGear Toolbox CS is a convenient program used to scan images, copy (print), attach images to email messages or faxes, or save images in a few simple steps.

ScanGear Toolbox CS Toolbar



- Help: Displays HELP topics
- Settings: Displays the Settings dialog
- Custom1: Scans and loads an image into an application program
- Custom2: Scans and saves an image to a file
- Copy: Scans an image and sends it to a printer
- Mail: Scans an image and attaches it to an email message
- Fax: Scans an image and attaches it to a fax message

- NOTE**
 - The Custom 1 and 2 buttons are automatically set to PhotoStudio 2000 and Omnipage Pro 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
- Scanning without having to display the CanoCraft CS-P window

How to Use ScanGear Toolbox CS

Starting ScanGear Toolbox CS

Click the [Start] button on the Windows taskbar and select [Programs], [Canon ScanGear Toolbox CS 2.2] and [Canon ScanGear Toolbox CS 2.2] in succession.

How to Use the Functions

Click a button on the toolbar.

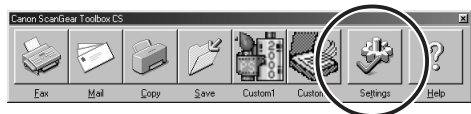
How to View the Electronic Manual

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. 34).

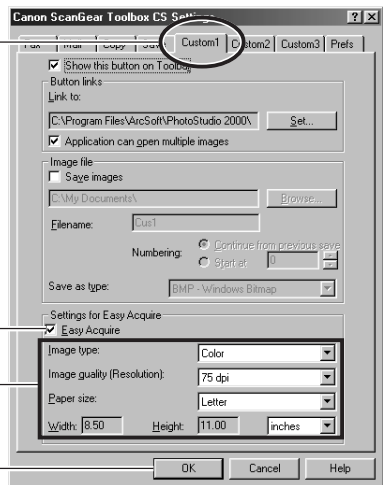
How to Scan without Displaying the CanoCraft CS-P Window

You can make scanning simpler by setting ScanGear Toolbox CS in the following way. This example shows PhotoStudio 2000 being used without displaying the CanoCraft CS-P window. The scan can be performed simply by pressing the Custom1 button on the toolbar.

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.



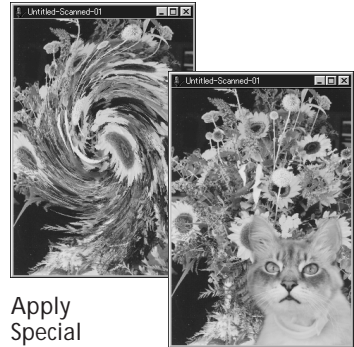
This will set a scan to be initiated without displaying the CanoCraft CS-P window when the Custom1 button on the toolbar is pressed. When the scan is complete, the image will appear in the PhotoStudio 2000 window.

4. 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. It can stitch images together, convert file formats and create albums.



Scan



Apply
Special
Effects

Stitch

How to Use PhotoStudio 2000

Starting PhotoStudio 2000 and the TWAIN Driver

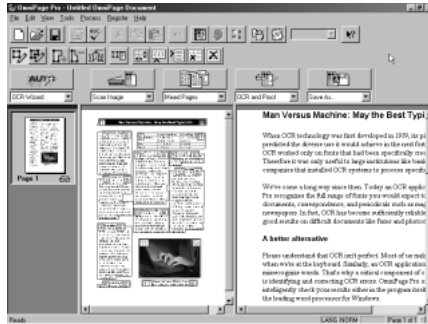
1. Click the Windows [Start] button and select [Programs], [ArcSoft PhotoStudio 2000] and [PhotoStudio 2000]. PhotoStudio 2000 will start.
2. Click the [File] menu and select [Acquire]. CanoCraft CS-P will start and display its main window.

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. 34).

5. Scanning with Caere OmniPage Pro

Caere OmniPage Pro is an optical character recognition (OCR) program that converts words scanned from a book, magazine, newspaper or fax into text data. After conversion, the text can be edited with word processors and similar programs.



How to Use Caere OmniPage Pro

Starting Caere OmniPage Pro and the TWAIN Driver

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 N340P/N640P] option. This instructs Caere OmniPage Pro to select the correct scanner for scanning.*

How to View the Electronic Manual

Place the CD-ROM in the drive, click [View the Electronic Manuals] and click [Caere OmniPage Pro]. For details, please read *Viewing Electronic Manuals with Adobe Acrobat Reader* (p. 34).

6. Viewing Electronic Manuals with Adobe Acrobat Reader

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

- CanoCraft CS-P User's Guide
- ScanGear Toolbox CS User's Guide
- PhotoStudio 2000 User's Guide
- OmniPage Pro 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.

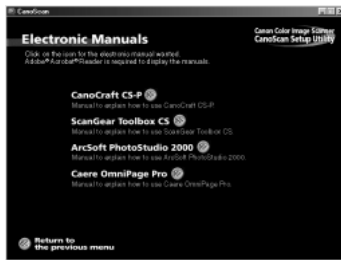
1. Set the CanoScan Setup Utility CD-ROM into the computer drive.

The following window will automatically display.



2. Click [View the Electronic Manuals].

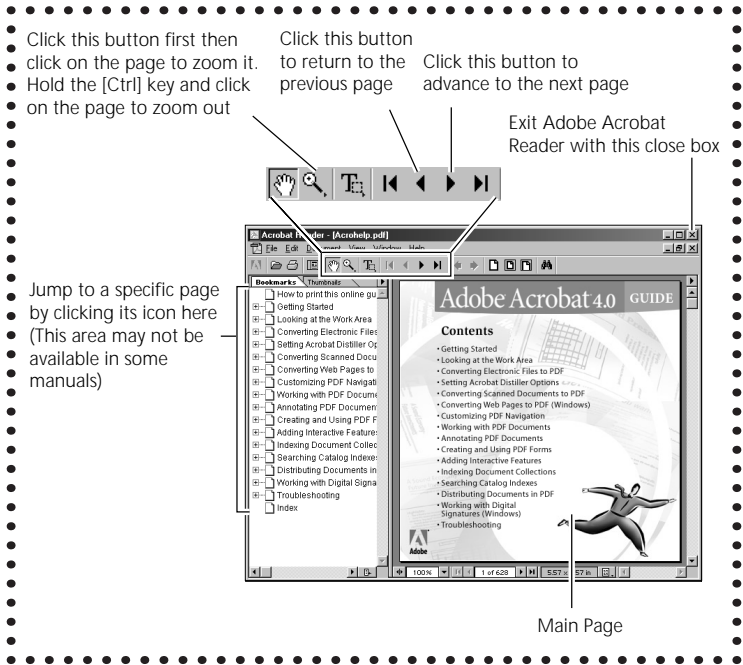
The following window will display.



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.



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

1. Precautions with Printers	37
2. Parallel Port Settings	39
3. Before Transporting the Scanner	42
4. Care and Maintenance	43
5. Major Specifications	44

1. Precautions with Printers

The following precautions should be observed when using a printer in conjunction with the scanner.

The Scanner and the Printer Cannot Be Operated at the Same Time

The scanner and printer both use the same parallel port, making it impossible to scan during printing or print during scanning. Attempting to initiate a scan while printing will cause the [Printer Port is used by another device.] message to display. Under certain conditions, initiation of a scan command may succeed during a print job, but the printing operation may cease and result in a printer error.

Using Windows Printing System (WPS) Printers

Windows Printing System compatible printers, such as Canon BJC-610W, BJC-620W, LBP-460 and LBP-660 models, will not operate properly when connected via the scanner. To use such printers, directly connect the printer to the computer's parallel port and alternate with the scanner as required.

What to Do if a Printer is Not Operating Correctly

The scanner uses the standard Windows parallel port driver for scanning and printing operations. As a result, connecting printers that employ their own parallel port drivers, such as Epson inkjet printers, to the scanner's printer port will cause the scanner or printer to malfunction. Such printers must be handled as follows:

- **NOTE** ● • *Contact the manufacturer to find out whether or not your printer uses the standard Windows parallel port driver.*

Using Epson Printers (Windows 95/98)

It is advisable to adjust the Spool Manager settings as follows to avoid mis-operation of the scanner during printing.

How to Adjust the Spool Manager Settings

1. Click the [Start] button on the Windows taskbar and select [Programs], [Epson] and [Spool Manager].
2. Double click the icon of the printer currently in use.
3. Click to place a checkmark beside the [Use Print Manager for this port] option in the settings dialog.

- **NOTE** ● *• Selecting the [Use Print Manager for this port] setting causes the computer to pool all of the print data onto the hard drive before sending it to the printer, resulting in a printing speed that is moderately slower than if this setting is not selected.*

Use of the Epson Printer Window software that accompanies Epson printers may cause the scanner's scan speed to drop dramatically, failure of the scanner to be recognized by the computer and incorrect operation of CanoCraft CS-P.

If you experience problems, please try to solve them by following the procedures below to disable the Epson Printer Window.

How to Disable the Epson Printer Window

1. Click the [Start] button on the Windows taskbar and select [Programs] and [Windows Explorer].
2. Use Windows Explorer to navigate to the [Windows], [Start Menu], [Programs], and [StartUp] folders and delete the [Epson Printer Window] icon.

- **NOTE** ● *• Deleting the Epson Printer Window software will disable the capacity to confirm ink levels and read error messages for the printer.*

How to Solve Problems with Other Printers That Are Operating Incorrectly

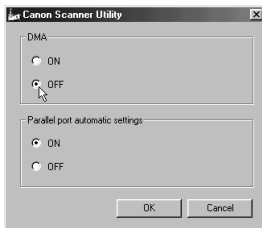
Begin by turning off the printer's bi-directional functions (in its status monitor or control panel). Please refer to the instructions that accompanied your printer for an explanation of this operation. If this does not solve the problem, connect the printer directly to the computer's parallel port and alternate with the scanner as required.

2. Parallel Port Settings

The scanner driver for your scanner can detect your parallel port settings and automatically switch the operating mode to a high-speed mode (this is referred to below as the parallel port auto settings function.) Using the parallel port DMA transmission function, it also enhances the scanning speed. Consequently, there is a chance that the parallel port auto settings function and DMA transmission function may fail with the hardware configuration of some computers, the scanner may not operate correctly or the processing speed may become exceptionally slow. If this occurs, follow the procedures below to adjust the scanner driver settings or your parallel port settings. Users running the Windows NT Workstation 4.0 or Windows 2000 Professional operating system that encounter this problem should follow the procedures in the topic entitled "How to Adjust the Settings if the Scanner is Operating Too Slowly" on page 40 since that OS does not support the parallel port auto settings function or DMA transmission function.

How to Adjust the Settings if the Scanner is Not Operating Correctly (Windows 95/98 only)

1. Place the CanoScan Setup Utility CD-ROM in the drive.
2. Click the [Display the CD-ROM Contents] button.
3. Click the [Canocrft] folder to open it.
4. Double-click the [Disk 3] folder to open it.
5. Double-click the icon of the [Cspchng.exe] file.
The Canon Scanner Utility will start.
6. Click off the [DMA] setting and click the [OK] button. (Leave the parallel port auto settings item unchanged.)
The default settings for these items is "On." To turn the DMA setting off, click the radio button on the Off side.



7. Remove the CanoScan Setup Utility CD-ROM from the drive, and restart the computer.
8. Test the operation of the scanner.
That completes the procedure if the scanner is working correctly.

If the problem persists, continue with the following steps to turn off the parallel port auto settings item as well.

1. Repeat steps 1 to 5 on page 39 to start the Canon Scanner Utility again.
2. Click off the parallel port auto settings item and click the [OK] button. (Leave the DMA setting off.)
3. Remove the CanoScan Setup Utility CD-ROM from the drive, and restart your computer.
The new settings will take effect after you have restarted the computer.

WARNING • Always restart the computer after you adjust the scanner driver settings. Otherwise the settings will not take effect.

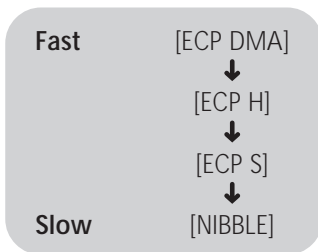
How to Adjust the Settings if the Scanner is Operating Too Slowly (Windows 95/98/NT Workstation 4.0/2000 Professional)

In this case, you must adjust the settings in the computer's BIOS setup program. For instructions on how to start the BIOS setup utility, please consult the manual that accompanied your computer or contact the manufacturer's representative.

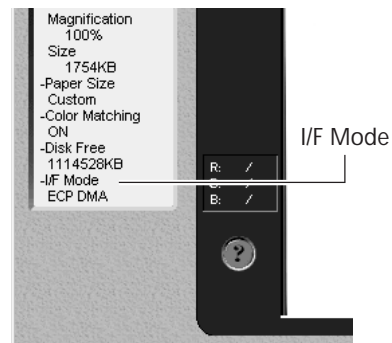
• **NOTE** • We highly recommend noting down your current settings before they are adjusted.

Operating Mode

The scanner is equipped with four parallel port operating modes, which are listed in order from fast to slow.



The current setting will be listed in the I/F Mode area of the data display in the CanoCraft CS-P window.



Parallel Port Setting Names

The names utilized to describe parallel port settings in the Setup window vary by manufacturer and computer type. The following chart shows examples of parallel port settings names corresponding to the scanner's operating modes.

CanoScan N340P/N640P Operating Mode	PC Parallel Port Settings Examples (Varies by manufacturer and model)
ECP DMA/ECP H	Extended Capabilities Port, ECP, etc.
ECP S	BI-DIR, Standard and Bidirectional, PS/2, etc.
NIBBLE	Normal, Standard Parallel Port, SPP, Compatible, AT, etc.

- **NOTE** • *Adjusting the parallel port settings may affect the operation of printers previously set up. In that case, restore the settings for the printer and use the scanner with those settings.*
- *Some computers are compatible only with the Nibble mode, limiting the scanner to extremely slow operating speeds.*
- *The [ECP DMA] setting may not work with some computers even if they are running a Windows 95 or 98 operating system.*

3. Before Transporting the Scanner

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

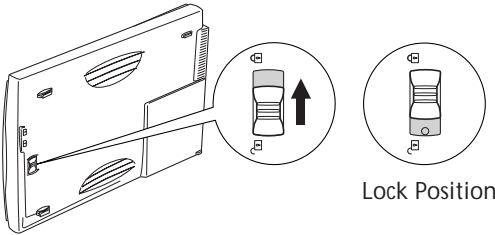
1. **Disconnect the AC adapter and cables from the scanner.**

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 AC adapter. Check to see that the scanning unit has correctly returned to the front of the scanner, then disconnect the AC adapter.



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

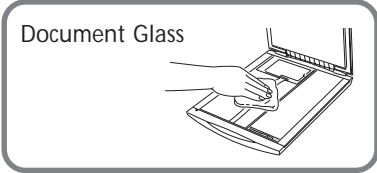
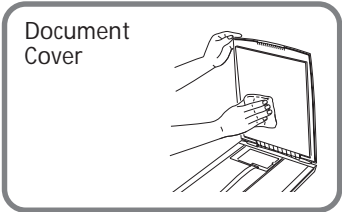


WARNING • Carrying or transporting the scanner without locking the scanning unit may damage it. Be particularly careful to lock the scanning unit when transporting the scanner in a vehicle.

4. 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. Disconnect the AC adapter and cables from the scanner.**
- 2. Dampen a clean, soft cloth with water and wring the cloth well. Use the well-wrung cloth to gently remove dirt and dust.**
 - 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 soft cloth. Be particularly careful to remove any traces of dirt or liquid from the document glass.**
 - 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.

5. Major Specifications

		CanoScan N340P / CanoScan N640P
Scanner Type		Flatbed (stationary document type)
Scanning Element		CIS (Contact Image Sensor)
Light Source		3-color RGB LED
Optical Resolution		300 x 600 dpi (CanoScan N340P) 600 x 1200 dpi (CanoScan N640P)
Selectable Resolution		25 to 9600 dpi
Scanning Bit Depth	Color	14 bit input/8 bit output for each color (RGB)
	Grayscale	14 bit input/8 bit output
	Dithering	64 tones
Scanning Speed* ¹	Color	17.1 msec/line
	Grayscale	5.7 msec/line
	B&W	5.7 msec/line
Preview Speed		15 seconds
Interface		Parallel interface (IEEE 1284/ECP)
Maximum Document Size		A4/Letter, 216 x 297 mm (8.5 x 11.7 inches)
Operating Range	Temperature	5° to 35° C (41° to 95° F)
	Humidity	10% to 90% (without condensation forming)
Power Requirements		AC Adapter (100/120/230/240 V)* ²
Power Consumption		8 watts maximum, standby 5 watts (using supplied adapter)
Dimensions (W x D x H)		256 x 372.5 x 39 mm (10.1 x 14.7 x 1.5 inches)
Weight		Approximately 1.5 kg (3.3 pounds)

*¹ Transfer time to computer is not included.

*² Type of AC adapter depends on the area where the scanner is used.

• Specifications are subject to change without notice.

Caution:

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Conventions Used in the Guide

Important information is indicated by the following symbols.



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



- This symbol indicates supplementary operating procedures and other useful information.



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.

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.

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- Adobe, Adobe Acrobat and Adobe Photoshop are trademarks of Adobe Systems Incorporated.
- Microsoft, Windows and Windows NT are registered trademarks of Microsoft Corporation in the U.S. and other countries.
- OmniPage Pro is a trademark of Caere Corporation.
- Other names and products not mentioned above may be trademarks or registered trademarks of their respective companies.

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 N340P CanoScan N640P

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 95 98

NT Workstation 4.0 2000 Professional

Parallel Port Settings: ECP-DMA ECP-H ECP-S Nibble Other

Monitor Type: _____

Monitor Size: _____

Inches

Printer: _____

Manufacturer: _____

Type of Printer: _____

Printer Resolution: _____

dpi

Printer Connection: Scanner Printer Port PC Parallel Port Network Connection

Installed Virus Protection Program: _____

Installed Compression Program: _____

On-Board Expansion Cards: _____

Attached Peripherals: _____

Name of Network Connected: _____