

# **ImageReader Elite**

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Compact Flatbed Color Scanner

## **User's Guide**

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The Info Technician

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# Table of Contents

## Chapter 1

<b>Introduction .....</b>	<b>1-1</b>
Welcome .....	1-1
Using this manual .....	1-1
Assistance .....	1-1
What is TWAIN? .....	1-1
A note about application software .....	1-2
Package contents .....	1-3
System requirements .....	1-3
PC and compatibles system requirements .....	1-4
Mac and compatibles system requirements .....	1-4

## Chapter 2

<b>Scanner Installation .....</b>	<b>2-1</b>
PC and compatibles installation .....	2-1
Installing the interface card .....	2-1
Connecting the scanner .....	2-2
The Info Technician .....	2-2
Installing the device driver .....	2-3
Mac and compatibles installation .....	2-3
Scanner installation .....	2-3
Installing the driver .....	2-4
Installing the application software .....	2-4

## Chapter 3

<b>Using your scanner .....</b>	<b>3-1</b>
Scanning features and controls .....	3-1
Hardware features .....	3-1
Software controls .....	3-2
Scanning images .....	3-8
Select the TWAIN source (PC) .....	3-8

The scanning process .....3-9  
Other scanning features .....3-10

**Appendix A**

**Troubleshooting ..... A-1**  
    For PC and compatibles only ..... A-1  
    For Mac and compatibles only ..... A-2  
    Scanner care ..... A-3  
Limited two year warranty ..... A-4  
FCC radio frequency interference statement ..... A-5

# Chapter 1

## ***Introduction***

### **Welcome**

Thank you for purchasing an Info ImageReader Scanner. This product is the result of our efforts to develop high technology computer peripherals that are easy to use, affordably priced, and that enhance your computing experience.

### **Using this manual**

This manual includes complete instructions for scanner installation, use, and maintenance. Note that “use,” in this context, refers to scanner operation independent of tasks performed in conjunction with application software. This guide is organized in a “do as you read” format. For best results, perform the tasks as they are presented.

This manual assumes that you have a basic understanding of your personal computer and its operating system. As a convention, this guide presents all references to guide names or sections in *italics*, and commands you must type at a command line are presented in a **different** typeface.

### **Assistance**

If you experience difficulties and cannot find solutions within this guide, contact Info’s Technical Support Department at (408) 538-2510, Monday through Friday, between 8:00 AM and 4:30 PM, Pacific time. If you wish, you may fax questions to (408) 538-2577. Provide a fax number for return contact. We maintain a BBS at (408) 538-2580 that contains the latest updates to our software, as well as a web site at [www.infoconnection.com](http://www.infoconnection.com). You may e-mail questions to [tech@infoconnection.com](mailto:tech@infoconnection.com)

### **What is TWAIN?**

TWAIN is the interface that links the scanner with scanning software applications. TWAIN is an industry standard that enables you to use the ImageReader with any TWAIN-compliant software application.

With the introduction of Windows 95, the TWAIN specification has been overhauled to take advantage of the 32-bit architecture. When you install our scanner driver under Windows 95, you will have two TWAIN sources — one for 16-bit applications and one for 32-bit applications. Use the following as a guide to select the appropriate source.

**16-bit applications** are legacy Windows 3.x programs that you are running under Windows 95.

**32-bit applications** are programs specifically designed for Windows 95, to take advantage of performance enhancements provided by the new architecture.

You may experience scanning problems if you do not use the appropriate source.

There is no change to the TWAIN source for Windows 3.1x users. Only the 16-bit TWAIN source is installed.

### **A note about application software**

The scanner hardware by itself is not very useful. It takes a combination of the scanner hardware and application software to perform any task. Before you begin scanning, you need to choose the appropriate application to use for the task at hand. Please read this section to gain an understanding of the types of scanning software there are.

Scanning software generally falls into two groups, Graphics (image editing), or OCR (Optical Character Recognition). Each type has specific features designed to address the technical challenges faced in the scanning of graphics or of text.

Graphics: Software in this category provides the user with image editing tools for performing extensive modifications to art, photographs, or other continuous tone images. While having the ability to scan text, it is not designed to specifically identify individual characters as does OCR software. Any image scanned using a graphics program can only be saved in a graphics file format. It cannot be saved as an editable text file.

OCR: Software in this category is designed to recognize alphanumeric characters in preparation for export to word processing and desktop publishing applications. In other terms, it creates text files. OCR software will not provide image editing capabilities. If there is no intention of editing a given piece of text (with or without graphics), it may be simpler to scan and save it as a graphic.

Additional types of applications are available that offer solutions for special or unique tasks. These include document storage, form scanning, fax utilities, copy utilities, custom screen saver creation, photo album creation, and so on. If applications are intended to link directly to the scanning device, look for the TWAIN-compliant specification. If compliant, they are compatible with Info ImageReader scanners.

## **Package contents**

Please verify that all materials have been received before setting up and using your scanner. The package contents are listed in the Quick Start Guide.

## **System requirements**

System requirements are largely dependent on the “work” performed. By work, we are referring to the task or operation performed using the scanner in conjunction with application software.

Because scanners are capable of inputting large amounts of data in relatively short periods of time, they commonly push computer systems to the limits of their capabilities. Before beginning any scanning task or operation, carefully consider your system’s processing capabilities, especially processor speed, RAM, and available hard disk space. OCR processes, fax operations, and the processing of simple black & white graphics are least demanding. High resolution scanning of large images in full color creates an extreme demand for processor time and memory.

When you are scanning with the TWAIN interface, the number labeled image size (calculated in bytes) provides the working file size that is the result of the selected scanning mode, resolution, and image size. Take careful note of this information.

## **PC and compatibles system requirements**

- 386 processor or 100% compatible; 486 or higher recommended
- MS DOS 5.0 or later with Windows 3.1x, or Windows 95 or later
- 4 MB RAM; 8 MB or more recommended
- 25 MB available hard disk space; 50 MB recommended
- VGA/SVGA monitor with at least 256 color capability recommended
- Available 16-bit expansion slot

## **Mac and compatibles system requirements**

- Macintosh with 68040 processor or greater
- System 7.0 or later
- 8 MB or more of RAM

# **Chapter 2**

## **Scanner Installation**

### **PC and compatibles installation**

Installation of the scanner is comprised of few steps and designed to be as easy as possible. The following instructions walk you through installing the interface card into your PC, and connecting the scanner and cable. It is important to note that both the scanning hardware and its supporting software (e.g. Info Technician and the included applications) must be installed in order for the scanner to operate.

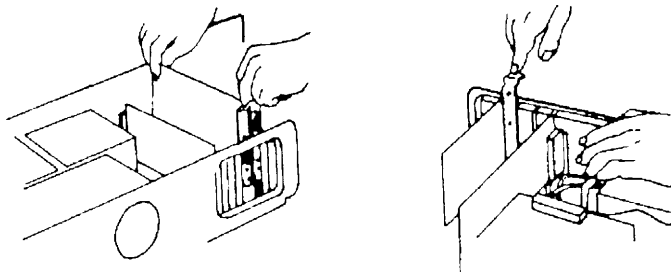
### **Installing the interface card**

The installation of the scanner's interface card is a simple process. Because your PC is designed with room for additional peripherals, the manual that was provided with your computer contains complete guidelines for case removal and expansion card installation. The graphic and instructions provided here are intended to supplement that information.

**Caution!** As a safety precaution, the power to the computer and all peripheral equipment should be off and disconnected from the power source. Touch a grounded object before making contact with any components. Electrostatic discharge can damage the interface card and computer components.

To install the interface card:

1. Remove the computer's housing.
2. On the computer's mother board, select an available 16-bit ISA expansion slot, and remove its rear access cover. The slot must be free of dust and dirt to ensure a good connection.
3. Hold the scanner interface card by the upper edge, and align the gold-striped connector with the expansion slot. Press the card firmly into the slot as displayed in the diagram the next page.



4. Use the slot cover's screw to retain the interface card. Replace the housing and secure all screws.
5. Reconnect the power source to your computer and any other peripheral equipment.

## **Connecting the scanner**

If you have other SCSI devices installed on your system, set the scanner to a unique SCSI ID. Connect one end of the cable to the port on the scanner. Place the scanner unit in the desired location, and route the interface cable to the computer in such a way as to assure it is safe from possible damage due to pinching or crimping. Insert the other end of the cable into the port on the interface card. The cable can only be inserted one way — do not force a connection. Plug the power cable into an electrical outlet.

Once the scanner is attached and near the location you want it, unlock the scanning mechanism. The scanner is locked for transport to avoid damage to the assembly. You must unlock the scanner before you turn it on for the first time. Failure to do so may cause damage to the scanner, and will void your warranty. Simply turn the dial under the lid of the scanner to the unlock position.

## **The Info Technician**

The Info Technician is an automatic installation utility that edits and installs the scanner's device and TWAIN drivers. These drivers provide the link between the scanning hardware, the scanning application, and the computer's operating system.

## **Installing the device driver**

Run the Info Technician to install the scanner drivers. To do so:

1. Insert disk 1 of the Info Technician into the computer's floppy drive.
2. In Windows Program Manager, select the Run command from the File menu. If you are using Windows 95, select Run from the Start menu on the desktop.
3. Type **A:\SETUP** at the command line and click OK. Substitute the appropriate drive letter if the disk is not in the A drive.
4. Follow the on screen directions.

The scanner's device driver is installed in the proper directory, along with the TWAIN driver.

5. Reboot the computer after the installation is complete to activate the scanner drivers.

## **Mac and compatibles installation**

The ImageReader Elite is capable of running on a Macintosh or Mac compatibles as well as PC's. If this unit shipped with Mac software and a plug-in driver (not all models do), read this section for instructions about installing this scanner on your Mac system.

### **Scanner installation**

Set the scanner to a unique SCSI ID. Connect one end of the cable to the port on the scanner. Place the scanner unit in the desired location, and route the interface cable to the computer in such a way as to assure it is safe from possible damage due to pinching or crimping. Insert the other end of the cable into the SCSI port on your Mac, or the last device on your chain. The cable can only be inserted one way — do not force a connection. Plug the power cable into an electrical outlet.

Once the scanner is attached and near the location you want it, unlock the scanning mechanism. The scanner is locked for transport to avoid damage to the assembly. You must unlock the scanner before you turn it on for the first time. Failure to do so may cause

damage to the scanner, and will void your warranty. Simply turn the dial under the lid of the scanner to the unlock position.

Turn on the scanner, then start-up your system.

## **Installing the driver**

This scanner interfaces with your Mac software through a Plug-in driver. You can use this scanner with any program that is Plug-In Module (PIM) compatible.

To install the Plug-in driver:

1. Insert the Plug-in disk into the floppy drive.
2. Double-click the disk icon if it is not already open.
3. Double-click the English folder to open its contents.
4. Locate the plug-ins folder for the application (*i.e.* PhotoDeluxe) you will be using to scan. Drag the plug-in module from the English folder on the disk to the application's plug-ins folder.

That application can now be opened and used with the scanner. The scanner plug-in should display on the Acquire list in the File menu.

The ImageReader Elite can also simulate an Apple scanner. This "Works Like Apple" driver is to be used with OCR programs, like OmniPage and TypeReader, that do not support PIM. Simply drag the "Works Like Apple" driver into your system folder and restart. When you are ready to use the OCR program, configure it for Apple Scanner or AppleOne Scanner. You can now use the scanner for OCR processes.

## **Installing the application software**

When the hardware and device driver software are installed, install the application software as described in their respective manuals. The *Quick Start Guide* also contains information about installing these programs.

# Chapter 3

## *Using your scanner*

### Scanning features and controls

Before scanning images, it is important to understand the scanner's basic hardware features as well as the software controls.

#### Hardware features

##### Power

This scanner requires its own power source (the cable is permanently attached), and there is no on/off power switch on the unit. We suggest plugging the scanner into a power strip with surge protection. Always have the scanner on before you turn the computer on. This allows the computer to “see” the scanner when it is booting up.

##### Loading documents

Place the document to be scanned *face down* on the scanning glass. Books, magazines and other 3-dimensional objects can be easily scanned as well, by laying them on the scanning glass. With bound materials and other objects, simply close the cover as far as it will go. Do not force the cover down when scanning these items, it may break or scratch.

##### Paper size

The scanner will handle documents ranging in size from a postage stamp to a letter size document (8.5" x 11"), including A4 (8.3" x 11.6").

##### Paper condition

If the sheet to be scanned has any of the following conditions, please take the following precautions before scanning.

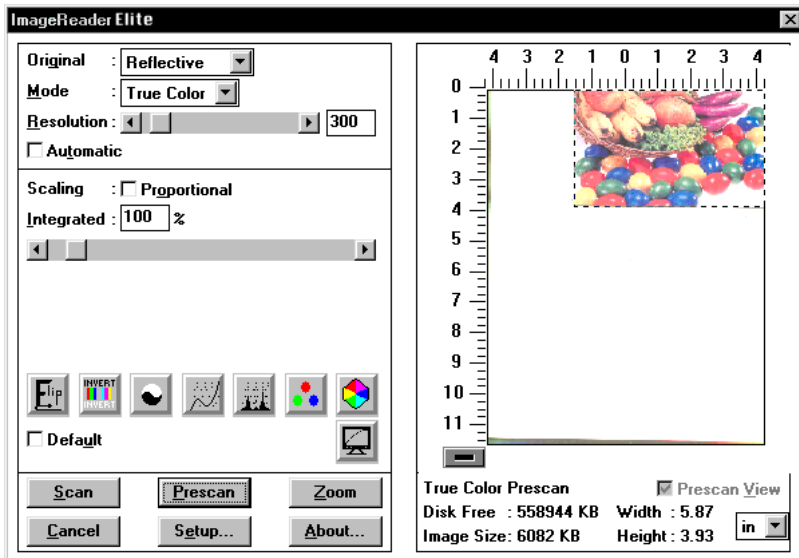
- Remove paper clips, pins or staples
- Let wet paper dry first
- Avoid scanning documents with correction fluid (dry or otherwise)

This avoids scratching or marring the scanning glass, and ensures years of beautiful scans.

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## Software controls

Scanning is initiated from within the application software. All scanning activities are controlled from the user interface window titled ImageReader Elite. The interface window's Prescan command is used to adjust the scanning area, contrast, and intensity before executing the actual "working" scan. The actual scan is then placed into the application software for viewing, editing, printing, or storage. In this section, the components and controls of the scanning interface window are explained.



## Preview Window

The interface window's right side displays Prescan images. The Crop Box around the perimeter is used to select the area you want to scan. Position the pointer over a square, click, hold, and drag the border to adjust the scanning area. The slider bar on the vertical ruler is also a convenient tool. This slider tells the scanner how far down the page to scan. You can shorten the time it takes to prescan by adjusting this slider to approximately the length of the document you are scanning.

## **Original Scan Media**

Select which media you are scanning. Reflective is pieces like photographs, documents, magazines, etc., and indicates items will be placed on the scanning glass.

## **Scan Mode**

Your scanning mode options are True Color, Gray Scale, and Bi-tone. These selections indicate the amount of data you want to capture for the image. Follow these guidelines when selecting a scan mode:

**True Color:** Scan color images and photographs in True Color mode when you want to capture and reproduce all the color data. To manage file sizes efficiently, take careful note of the guidelines for resolution (described later) when scanning in True Color. The combination of True Color and a high dpi can create an extremely large file size.

**Gray Scale:** What is referred to as black and white photographs are actually gray scale images. Different shades of gray are used to make up the whole picture. When you scan these types of images, you want to scan using the gray scale mode. Also use this mode to convert color photographs to black and white. Scanning a color photograph in gray scale will capture the continuous tones.

**Bi-tone:** This mode captures black and white only. Use this mode when scanning single color (usually black) images, such as drawings or sketches, business logos, or text. This mode is also used when scanning a document you want to OCR.

## **Resolution**

Resolution is measured in dots per inch (dpi). The higher the resolution is set, the more detail in your image is captured. There are some guidelines you should follow when determining the resolution to scan at. They are detailed on the following page.

**On-line graphics:** If you are scanning an image to be used on-line, such as the Internet, a BBS or in a multimedia presentation, you

needn't scan any higher than 100 dpi. This is because a monitor's resolution is either 72 dpi (Mac), or 96 or 120 dpi (PC), and is not capable of displaying a higher resolution. Images scanned at 300 dpi and viewed on a monitor will appear three times as large as the actual image. This enlargement results because your monitor displays images in a 1:1 ratio of pixels (or dots), meaning one dot in the image equals one dot on-screen. At 300 dpi, the image contains 3 times as many dots when displayed on the monitor.

**Faxing images:** Any image you intend to fax from a PC-based fax modem should be scanned at 200 dpi. Fax machines only receive images at 200 dpi, and some programs may fault if you try to scan at higher resolutions.

**Printed images:** If you plan to print the images you scan, use the following table to select a resolution when scanning in color and gray scale. As a general rule, scan at twice the Line Screen Frequency of the output device. This information can be found in your printer's manual. When scanning in line art mode, scan at the resolution of your printer, usually 300 or 600 dpi. This avoids sizing distortions in your printed images.

Output Device	Line Screen Frequencies	Scanning Resolutions	
		Line Art	Color
Laser Printer (300 dpi)	60	300	120
Laser Printer (600 dpi)	85	600	170
Laser Printer (1200 dpi)	105	1200	210
Imagesetter	133	2400	266
Color DySub Printer	varies	match	1.5x to 2x LSF

## Automatic

This function boost the image adjustments to maximum settings and fill the entire spectrum, causing the image to become more vivid.

## **Scaling**

Use the checkbox to toggle between proportional (set width and height individually) and integrated (set width and height together) scaling. Enter a percentage in the text box or use the slider bar to change the scaling values.

## **Dither**

You can select this option when scanning in bi-tone mode. Use a variety of patterns to simulate gray scale in a black and white image.

## **Flip**

This command creates a mirror image of the item scanned.

## **Inverse**

This command reverses an image's display. Black pixels will be white, and white pixels will become black. The resulting image is like a photo negative of the original.

## **Brightness and Contrast**

These controls adjust the brightness and contrast of the image you are about to scan. Increasing the contrast will sharpen the image, but cause it to look dark. Increase the brightness to lighten the image and compensate for the contrast selection. Experiment with these controls to determine the look you prefer. Usually these controls are adjusted together in a 2:1 ratio of brightness to contrast.

## **Curves**

The curves function allows you to alter the way different pixel values in your image are adjusted. The diagonal line shows a Gamma function of input to output pixel values. The default is a straight line, which makes no adjustments to the pixels. All the pixels that fall below the line are darkened, and those above the line are lightened. The four buttons in the lower left corner make automatic adjustments for types of images and documents. Use the lower right button for hazy images, the upper right button for high contrast images, and the lower left button for normal images. The upper left button restores the curve to its default setting.

## **Levels**

This function displays a histogram of the number of pixels in the image with different values (representing different colors). The left side represents black, and the right side represents white or solid colors such as red, green or blue. The histogram is then broken into 256 channels. The left and right numbers above the histogram show the channel numbers, and the middle number expresses the ratio of channels to the left and to the right of the middle triangle below the histogram. The shaded slider bar beneath the histogram is the output level control. Slide the left and/or right triangles inward to give you more channels in regions where pixels are grouped in greater numbers. This will produce an image with greater clarity. If you wish to expand one part of the histogram, like where there are a large grouping of pixels, move the middle triangle toward that part. Since there are always 128 channels between the middle triangle and the end point triangles, adjusting them closer together gives the pixels in that region more channels to work with, and maximize the detail captured.

## **Color Balance**

This control allows you to improve the look of your image, while retaining the detail as you adjust the color levels in the shadows, midtones and highlights. Shadows effects the dark pixel values of the image, midtone effects the middle range, or dominate range, of pixels, and highlights effects the light pixel values.

## **Hue and Saturation**

This function enables you to change the hue and saturation of your images. Hue distinguishes one color from another, and by using the hue slide bar, you can adjust the hue angle by shifting the color on the spectrum. Saturation refers to the purity of color, and by adjusting the saturation slide bar, you can make the color look more vibrant and intense, or dull and gray. Lightness controls the amount of light acting on the color, and by using the slide bar, you can make the color lighter or darker.

## **Monitor Gamma (PC)**

This control allows you to change the gamma in your color images. If the color is off balance in your image, you can use this control in

conjunction with the other image adjustments to get the image just right. Use the slider bar to increase or decrease the gamma.

### **Default**

This button restores the image adjustments to their original settings. The prescan image is also restored to its unaltered appearance.

### **Background (Mac)**

Check this box to enable scanning in the background while you do other work. This mimics true multi-tasking, however scanning speed is slowed considerably.

### **Scan**

A scan is the actual image captured at the selected settings. The scan does not appear in the preview window, it is displayed in the application's workspace.

### **Prescan**

A prescan is a low resolution scan of your image displayed in the scanning interface window only. You do a prescan to make your selections for size, and to make any necessary image adjustments.

### **Zoom**

The scanner zooms in on the portion of the image selected with the crop box, and displays the enlarged area in the Prescan window. This enables you to select a smaller portion of the image to scan, while giving you the ability to focus in on the detail you want to capture. Click the Prescan View checkbox to restore the image in the Prescan window.

### **Setup**

Opens the SCSI diagnostic table so you can check or change the configuration of your scanner.

### **Information**

Displays information regarding the image to be scanned such as file size (image size), available disk space (Disk Free), and scan dimensions. Use this as a guide when determining what scan mode and resolution you want to scan at. Dimensions, resolution, and scan mode directly effect the file size of your scanned image.

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## Prescan View

Check this item to restore the prescan image to its unaltered appearance with out resetting the image adjustments.

## Scanning images

Scanning images with your ImageReader scanner is a relatively simple process. The steps below walk you through selecting the appropriate TWAIN source to use (if you are using a PC), and then scanning an image or document. If you experience problems during any of these steps, please refer to the appendix at the end of this manual, *Troubleshooting*. You may need to modify the configuration.

### Select the TWAIN source (PC)

Before you can scan with the ImageReader Elite on a PC, you need to tell the application what scanner you are using. The scanner is referred to as the “source,” and you need to select the appropriate source for the application you are using.

**Note:** *In some cases, an application’s User Guide may direct you to use the application’s custom “ImageReader” driver. In these cases, the instructions provided below are inappropriate for that application. Refer to that application’s user guide for scanning instructions.*

1. Start the image editing application software in Windows.
2. Choose Select Source from the File menu.
3. Follow the appropriate instructions for the Windows version you are running.

#### **Windows 3.1 and 3.11**

Select ImageReader Elite (16).

#### **Windows 95 or later**

Select either ImageReader Elite (16) or ImageReader Elite (32) from the Source list, depending on what type of application you are scanning into.

**Note:** *If you are using a 16-bit application, and select ImageReader Elite (32) as your source, you may get a TWAIN error and not be able to scan. Be sure to select the correct source to use with 32-bit applications and 16-bit applications. Refer to Chapter 1, What is TWAIN for more information.*

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4. Click OK.

The application is now set to use the ImageReader Elite to scan.

### **The scanning process**

The initiation of the scanning process may vary from application to application. Consult the application's manual for more information if the steps below don't result in a scan. The instructions provided in these steps assume the application uses the most common process.

To scan an image:

1. Start the image editing application.
2. Select Acquire from the File menu. In Windows, this displays the scanning interface window. For Macintosh users, next select the scanner's plug-in to display the scanning window.
3. Place the image face down in the scanner. Click Prescan.

The prescanned image displays in the Prescan window.

4. Adjust the image as you desire. Make your selections for scan mode, resolution, etc., and use the crop box in the Prescan window to select the area you want to scan. Follow the guidelines described in the previous section to make your selections.

**Note:** *If the image is not as large as the Crop box, the additional blank area is also scanned, creating an unnecessarily large file size. Be sure to adjust the Crop box to fit the exact area you want to scan. To do so, simply click and drag one of the anchor squares.*

5. When you are satisfied with the selected settings, click Scan.

The image is scanned using the selected settings, and transferred into the application's workspace.

6. Click Cancel to close the scanning interface window.

You are returned to the application, and the scanned image is displayed in the workspace. You may now manipulate, save, print, or fax the image.

## **Other scanning features**

The ImageReader Elite scanner is capable of scanning all types of documents and images. The scanning instructions provided here are to ensure the installation is complete and your scanner is working properly. For more detailed instructions about manipulating images once they are scanned, or for using your scanner for OCR, document archiving/retrieval, and faxing, refer to those applications' manuals.

## Appendix A

### Troubleshooting

This section contains help for specific problems you may be experiencing while using your ImageReader ISA scanner.

#### **Scanner does not turn on**

Confirm that the scanner is connected to its interface card. Also make sure that your interface card was inserted properly. The scanner is designed to draw power via the interface card.

#### **Scanner turns on but does respond to scan commands**

The drivers for your scanner may not be loaded. By default the install process will allow you to install your scanner drivers. It may be necessary to repeat the driver installation.

#### **32-bit scanning applications can't see the scanner**

Because InfoCenter Lite is 16-bit software, only the 16-bit scanner drivers were installed during the scanner installation. 32-bit scanner drivers are supplied with your scanner also. The 32-bit driver can be installed if needed.

**\*Please note: Because Win 3.1x does not support 32-bit applications, the 32-bit driver can only be used with Win 95 or later.**

**To install the 32-bit driver:** (For Windows 95 only\*)

1. Insert installation CD-ROM in CD-ROM drive (if installation screen appears, click on Exit).
2. Click **Start** then select **Run**.
3. Type in **D:\driver\95\setup.exe** and press **enter**. (**32-bit scanner driver**). Use the appropriate drive letter if it is something else other than **D**.
4. Follow the onscreen prompts as they are presented to you.  
When the installation is complete, restart your computer.

#### **InfoCenter Lite software locks up or crashes during scanning**

Try to close the InfoCenter Lite software if possible. Then restart your computer normally. When you open the InfoCenter Lite software again, it should be reset. This usually solves the problem. If the problem persists, you may be dealing with corrupted data files. Try deleting the data files from the following directory:

**C:\windows\twain\info\data**. Delete all files in that directory with the extension **job**. Also you will want to delete the file if it is present

on your system. (If you have it, the file will be located in your **windows** directory.

**The scanner produces a grinding noise. Scan head doesn't move when attempting to scan**

Your scanner is locked at the factory. This is done to prevent the scan head from moving and possibly damaging the scanner. You need to turn off your computer and refer to the insert you found on the scanner surface or your QuickStart Guide for the unlocking scanner instructions.

**Scanning or data errors**

If you have installed both the 16-bit & 32-bit scanning sources, then you need to make sure you select the correct source for the program you are using to scan. Normally when you select a source in a scanning application, only the sources you can use will appear. For example, InfoCenter Lite (a 16-bit application) will only show the **ImageReader ISA (16)** source when you select your source prior to scanning. If you have other 16-bit sources on your computer (such as other 16-bit scanner drivers), they will display as well. Adobe Photoshop 3.0.5 and later would show the **ImageReader ISA (32)** source. Also other 32-bit sources on your computer would be displayed. If you aren't sure if a program is 16-bit or 32-bit, consult the documentation for that software.

**Grainy Images**

Check your video card setup. The average computer displays 256 colors. This produces a image that is reasonably smooth. If your image seems grainy, change your monitor video setup to display more than 256 colors. Common selections are different depending on your version of windows. Consult your computer manual for instructions on adusting your video setup: Below is a reference for use when changing your video settings:

<b>Windows 3.x</b>	<b>Windows 95</b>
16 Colors	16 Colors
256 Colors	256 Colors
65k Colors	16-bit Color
16M Colors	24-bit True Color

**Specs or lines across scanning area**

Lift the lid of the scanner and clean the glass with a soft lens or glass cloth.

**I need to adjust my scanner memory address setting if due to a conflict or system problem.**

**\*\*CAUTION!\*\***

We strongly recommend that you consult your computer support personnel or documentation before making adjustments to your computer's address settings. Since computers tend to have unique settings, some of the memory settings/information contained in your system maybe reserved for other devices.

You will need to adjust the memory address setting for your scanner, if you receive the following screen when attempting to scan:



Fig. A-1 Memory Address window

If you receive this screen (fig A-1) when attempting to scan, you will need to adjust the jumper positioning on your newly installed interface card. Use the following instructions and diagrams to make the necessary changes.

The address memory window (fig. A-1) lists all available and occupied addresses in the computer. By default the memory address setting for the scanner is **D0000**. The appearance of the address memory screen indicates that the default setting is unavailable. In this case, you will see the word **Occupied** to the right of the **D0000** memory information. There should be 2 or 3 other settings **Available**. You will need to adjust the scanner's interface card (the card that you installed into your computer during the scanner installation) so that the card's jumpers are set to one of the available addresses. Note the jumper setting information to the left of each available memory address. Below is a list of the jumper positions and corresponding address settings (fig.A-2).

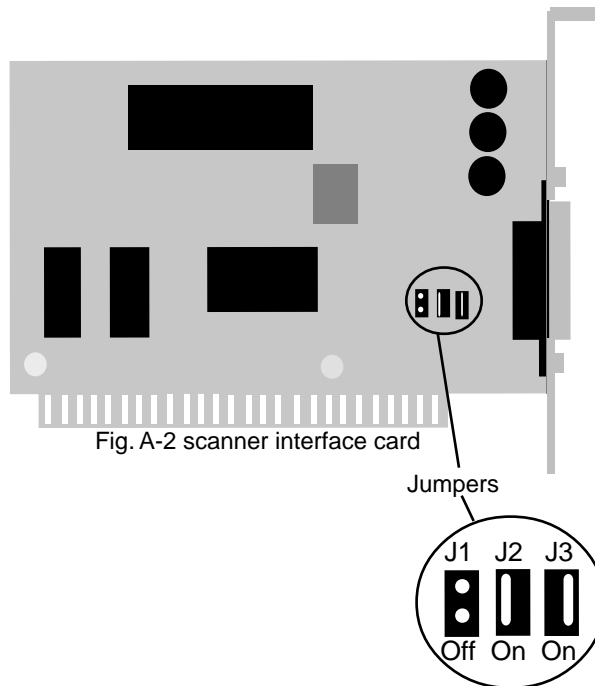


Fig. A-2 scanner interface card

**Memory Address and corresponding jumper positions**

J1	J2	J3	Available Setting
OFF	ON	OFF	E8000
ON	ON	OFF	E0000
OFF	OFF	ON	D8000
ON	OFF	ON	D0000
OFF	ON	ON	C8000

Default setting

Fig. A-3

### To Change Your Interface Card's Jumper Positions:

1. Shut down and unplug your computer.
2. Unplug scanner cable from computer and remove the computer casing (if it was replaced after installation).
3. Carefully remove ISA interface card
4. Locate the cards jumpers (see diagram A-1)) and move the appropriate jumpers to reflect the correct setting (see chart A-2) . Move the interface card's jumpers to the position specified for the address that you have available (listed as available in the address memory screen). For example, if the address memory screen that you received when attempting to scan lists Address E8000 as an available setting - you need to remove jumpers J1 and J3 but leave jumper J2 on. To move the jumpers, simply grip the jumpers with thumb and forefinger and firmly pull upwards and away from card to expose metal prongs, then push into new position.

**\*\*WARNING! - Retain all unused jumpers for possible future address changes\*\***

5. After adjusting jumper positions, replace card (refer to Quick Start Guide for instructions if necessary) and re-connect cable.
6. Turn on computer and attempt to scan
7. If your setting is correct, you will receive the following message when you select "new scan".



**Note:** The message above appears when one of the following events occurs:

- a. First attempt to use scanner after a successful installation.
- b. If it has been longer than 15 minutes since last use and lamp is already off.

At this point you can click **OK** and continue with using your scanner. Refer to the QuickStart Guide for scanning steps.

8. If you still receive a memory address conflict, change the jumpers settings to another available address if possible. If you have no other available addresses refer to next step.

**If after trying at least one or all of the available settings, you still receive the memory information box when trying to scan.**

This situation indicates that other devices are using all possible scanner settings. This may require you to access your computer BIOS/CMOS setup. (Check your computer documentation for instructions on how to do this.) Normally computers BIOS/CMOS setup has a section or option labeled **Advanced** or **Chipset features**. This is where you will find the feature to enable/disable memory addresses. In order to free-up the address that your scanners interface card is set to, disable the memory address that matches the current setting of your scanner interface card.

You may also need to make the following entries to your **Config.sys** and **System.ini** files if the problem persists. To enter your Config.sys and System.ini files

Add the following line to the beginning of your Config.sys file:

**Device=c:\windows\lemm386.exe x=d000-dfff**

for example. Add the following statement to your System.ini file at the very bottom of the **[386Enh]** section: **EMMExclude=d000-dfff**. Below is a list of possible exclusions based on the settings your scanner can use. (The exclusions on your computer may be slightly different.)

<b>Memory Address</b>	<b>Exclusion</b>
C8000	x=c000-cfff
D0000	x=d000-dfff
D8000	x=d000-dfff
E0000	x=e000-ffff
E8000	x=e000-ffff

Once all the changes have been made, restart your computer and attempt to use your scanner again. If the address is set correctly, the message "**We recommend to warm lamp for thirty seconds before the scanning**" will be displayed. Click **OK**.

# **Appendix B**

## **Scanner care**

Info ImageReader scanners are designed to provide years of trouble free service. To assist in realizing this end, follow the guidelines listed below.

1. Avoid using the scanner in a dusty environment, and keep it as dust-free as possible.
2. If necessary, clean the scanner glass with a soft lens cloth.
3. Do not scan documents with correction fluid. This will cause spotting on the scanner glass.
4. Do not scan documents with paper clips or staples. The glass may become scratched.
5. Don't touch the scanner glass. Fingerprints or scratches will show up as unwanted marks on your scanned image.
6. Don't remove the scanner case. There are no consumer serviceable parts inside. There is a danger of electric shock, and the warranty will be void.
7. Don't move the scanner excessively or subject it to excessive vibration, as the lens focus may become distorted.
8. The scanner operates best in temperatures of 10°C to 40°C (50°F to 104°F).

## **Limited two year warranty**

Info warrants this scanner to be free of manufacturing defects, both materials and workmanship, for a period of two years from the date of original purchase. This warranty applies only to the original purchaser. In the event of a defect, Info will repair this product free of charge, including parts, labor, and return postage.

This warranty does not cover damage, loss, abuse, misuse, unauthorized repair, shipping damage, natural phenomena, or effects of use other than intended. Info is not responsible for consequential damages, including but not limited to, lost profits, lost sales, loss of use, or injury to property.

For scanner service, contact us at (800) 777-3280, and request a Return Authorization (RA) number. Repackage the product in its original packing container (for protection), and return postage prepaid to:

Info Service Center  
580 Division Street  
Campbell, CA 95008

Include an address, phone number, the RA number, and a description of the scanner's defect. Enclose a copy of the original purchase receipt to verify warranty eligibility. Write the RA number legibly on the outside of the package.

## **FCC radio frequency interference statement**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception (which can be determined by turning the equipment off and on), the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver.
- Connect the equipment to an outlet on a circuit different from that which the receiver is connected.
- Shielded interconnect cables and shielded power cord which are supplied with this equipment must be employed with this equipment to ensure compliance with the pertinent RF emission limits governing this device.
- Consult the dealer or an experienced radio/TV technician for help if the conditions persist.
- Changes or modifications not expressly approved by the manufacturer or authorized service center could void the user's authority to operate this equipment.



