

# Scanner User's Guide V1.2

**An easy-to-use guide to  
help you get the most from  
your scanner**

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## Introduction

Welcome to the world of ultimate office imaging. Your new scanner will help improve the professionalism of your documents by allowing you to input quality images as well as electronic text into your computer system.

Like all of our products, your new scanner has been thoroughly tested and is backed by our reputation for unsurpassed dependability and customer satisfaction.

Please remember to fill out and return the provided registration card. As a registered customer, you will receive customer support, new product information and software upgrades.

Thank you for choosing us as your scanner supplier. We hope you will continue to turn to us for additional quality products as your computing needs and interests grow.

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## How to Use This Guide

This User's Guide provides instructions and illustrations on how to install and operate your scanner. We recommend that you read through the entire Hardware Installation, Chapter I, before you begin installing the scanner.

Chapter I describes how to install the scanner to your computer.

**Note: The scanner's interface is through an Enhanced Parallel Port (EPP) If your computer does not support EPP, you may need to purchase an additional parallel port**

Chapter II describes how to install the scanner's software. We suggest that you do not install the software before installing the hardware.

After you complete installing the scanner's software, test the scanner by following the steps outlined in Chapter III. Chapter III describes how to test, maintain and clean your scanner. Chapter IV describes how to use the TWAIN interface. TWAIN is a scanning standard and one of the most widely used technologies in the scanner industry today. Please carefully read through Chapter IV to learn about how to operate the scanner's TWAIN interface.

Appendices A & B have technical support information that can help you solve problems. Before calling for help, please read through Appendix A: Troubleshooting.

## Conventions of This Guide

1. **Bold** — First use of an important term in a chapter.
2. ALL CAPS — Represent commands.
3. Note — Special information about the current subject

## A Note about Icons

This guide uses the following icons to point out information that deserves special attention.



**Danger**

**Danger** A procedure that must be followed carefully to prevent injury, or accidents.



**Caution**

**Caution** Information that, if not followed, may result in data loss or damage to the product.



**Attention**

**Pay Special Attention** Instructions that will ease installation and prevent mistakes.

## Scanner's Features

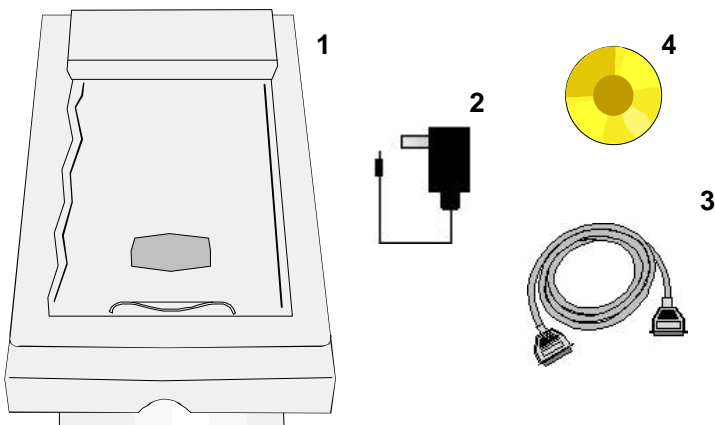
- Scanning Area: 8.5" x 11.7" (inches) / A4 210 x 297 mm
- Cold Cathode Lamp (for long-lasting operation)
- Scan Method: Single-Pass
- 30-Bit Colour
- 10-Bit Greyscale
- 1-Bit Line-art (Black & White)
- Resolution:  
1230P/9631P: 600 x 1200 dots per inch (9600 x 9600 software interpolated).  
~~600P/4831P~~ 300 x 600 dots per inch (4800 x 4800 software interpolated)
- TWAIN Compliance
- Printer Port Pass-Through
- Connection: Enhanced Parallel Port (EPP)
- 1 Year Warranty (from date of purchase)
- Removable Scanning Lid

## Computer Requirements

- Windows/Intel Compatible Personal Computer
- Pentium CPU or Later
- CD-ROM Drive
- 16 MB RAM (32 MB Recommended)
- 60 MB Free Hard Disk Space (100 MB Recommended)
- Enhanced Parallel Port (EPP)
- Windows 3.1x, Windows 9x, or Windows NT 4.x
- Graphics Accelerator (Video Card), with at least 16-bit colour support

## Package Contents

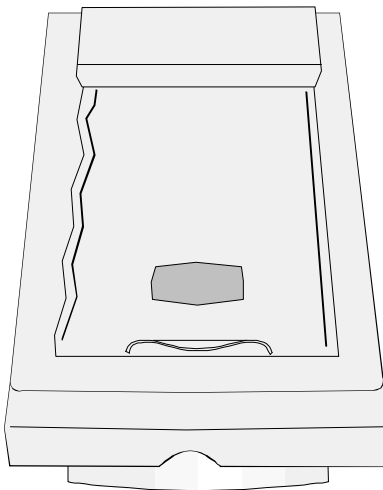
1. Scanner engine
2. Power adapter
3. Scanner cable
4. CD-ROM
  - a) Scanner Setup Programme
  - b) Optical Character Recognition (OCR) software
  - c) Image editing software
  - d) This user's guide
  - e) Registration forms
  - f) OCR & image-editing guides





# **Chapter I. Hardware Installation**

**B**efore installing your scanner, verify that you have all of the proper components. A list of the package contents is provided on page viii at the beginning of this guide.



## Hardware Requirements

Your scanner uses an interface called an Enhanced Parallel Port. The scanner's EPP interface allows you to scan information into your computer as quickly as scanners costing hundreds of dollars more that use interface cards. If your computer's printer port does not support EPP, then it is recommended that you purchase an additional parallel port interface card that supports EPP technology to maximize the scanner's performance.

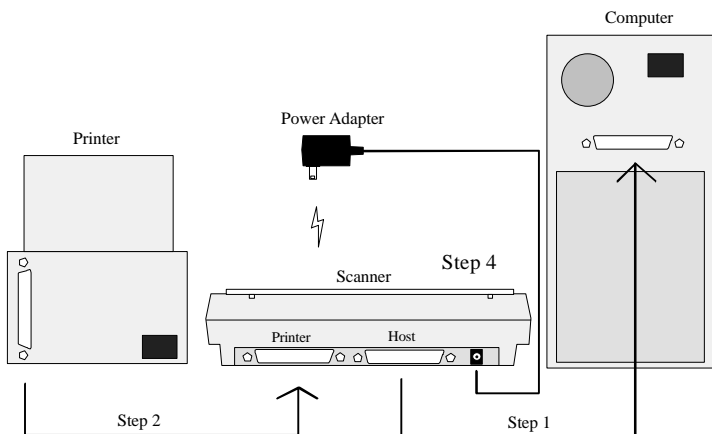
# Installing the Scanner's Hardware

*If you have already installed your scanner, please skip this section.* The following section describes how to connect the scanner to your computer and printer. Please carefully follow along to ensure proper installation.



**Caution**

1. **Turn OFF your computer, its related peripherals and disconnect all related power cables**
2. Please take a moment to study Figure 1.



**Figure 1. Connecting the Scanner**

3. If you have a printer connected to your computer, please disconnect its cable from the rear of the computer. If you have more than one printer port connected to you computer, then locate the printer port that's the Enhanced Parallel Port (EPP).
4. Plug the female end of the SCANNER CABLE into the rear

of the scanner marked **HOST** (see Figure 1 and step 1).

5. Connect the male end of the SCANNER CABLE into the PC's printer port (see Figure 1, and step 1).



#### **Attention**

**Attention:** If you do not have a printer connected to your computer and are not sure where the printer port is located, see your computer's information book and read the section about the printer port connector

6. Next, plug the disconnected printer cable into the rear of the scanner marked **PRINTER** (see Figure 1 and step 2).
7. After plugging the scanner and printer cables into their respective locations, plug the power adapter into the scanner's power receptor (see Figure 1 and Step 3).
8. Plug the power adapter into a standard AC outlet or wall branch.



#### **Danger**

**Only use the power adapter that is included with your scanner. The use of a different power adapter may damage the unit and void your warranty**

9. Plug in all power cords and turn on your computer.
10. Install the scanner's software (see Chapter II. Software Setup page 5).

# **Chapter II. Software Setup**

**B**efore installing the scanner's software, make sure that the scanner is properly connected as described in *Chapter I, Hardware Installation*, page 1.

## Software Installation Requirements

Your scanner comes bundled with OCR software, image-editing software, the scanner's driver, and TWAIN software. The scanner's software uses approximately 40 megabytes of hard disk space after it is installed to your computer. For Setup to properly install the scanner's software it is recommended that you have over 100 megabytes of available hard disk space. **Note:** The 100 megabyte free hard disk space requirement is necessary so the installation will have plenty of room to perform its swapping routines. Otherwise, you might receive error messages during the installation.

## Software Installation

The installation programme called *Setup/Application CD-ROM* must be run from within Microsoft Windows<sup>TM</sup>. Once Windows is running on your system, please follow the steps below to properly install the software:

1. Insert the installation CD-ROM into its disc drive.
2. If using Windows 95, click on START and RUN. If using Windows 3.1x, from Programme Manager choose FILE and RUN.
3. In the Open field, or Command Line if using Windows 3.1x, enter the letter of your disc drive followed by **SETUP.EXE**

(i.e., D:\SETUP.EXE) and press ENTER. After approximately 15-20 seconds you should be at the Setup programme.

4. Follow the on-screen instructions carefully to properly install the scanner's software to your computer.

## Software Setup Troubleshooting Guide

If you encounter a damaged or missing CD-ROM, call our support line located at the end of this user's guide and request a replacement disc. You can also download the scanner's driver from our world wide web (WWW) site (see the end of this guide for details). **Note:** The image-editing software and OCR software are not available for downloading from the Web site!

## Installing Additional Software

Your scanner is TWAIN compliant and functions with virtually all available TWAIN compatible scanning software. When purchasing new software for your scanner, please make sure that it conforms to the TWAIN standard.

- Please be sure to select the correct TWAIN source when setting up new scanning software. If you intend to use different programmes with your scanner, choose the scanning source as TWAIN within the scanner setup and select the TWAIN source as your scanner. **Note:** The 16-Bit TWAIN source is for using the scanner with Windows 3.1 "native" scanning programmes that are 16-bit. The 32-Bit TWAIN source is for using the scanner with programmes designed exclusively for Windows 95 and are 32-bit.





## **Chapter III. Usage and Maintenance**

## **Operating the Scanner**

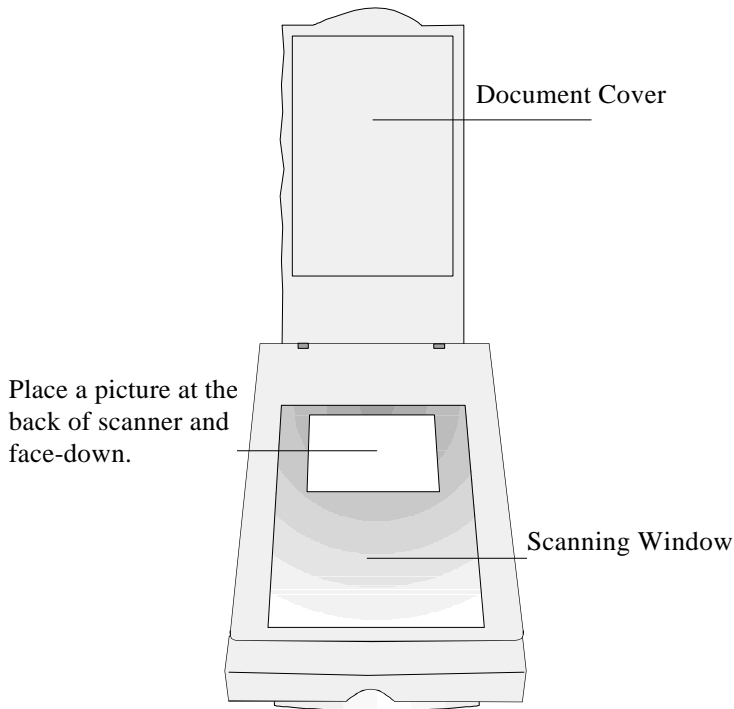
**Y**our scanner accepts documents as small as business cards and as wide as A4-sized documents. However, some software programmes can have limitations as to the information they can handle. The capacity of the computer's memory, or free hard disk space, can also limit the size of the document that you can scan.

## **Testing the Scanner**

Before testing your scanner, double-check and make sure that all connections are securely fastened. The following test procedure checks to see if the scanner is properly functioning with your computer and the scanning software.

To properly test your scanner, please perform the following steps:

1. Exit all open applications and "Shut Down" your computer.
2. After the computer has shut down, turn it off and wait approximately one minute before turning it back on.
3. Once your computer is running, enter Windows.



**Figure 2 Flatbed Scanner**

4. Open the document cover and place a picture onto the scanning window face-down.
5. Next go to the scanner's programme group and open the **Scanner Utility**
6. Click on the **Lamp Control** tab located at the bottom of the dialogue box.
7. While looking at the scanner, click on the **Turn on Lamp** and **Turn off Lamp** icons (see Figure 3). This test checks to see if the scanner's light source is properly working.
8. Slowly close the document cover.

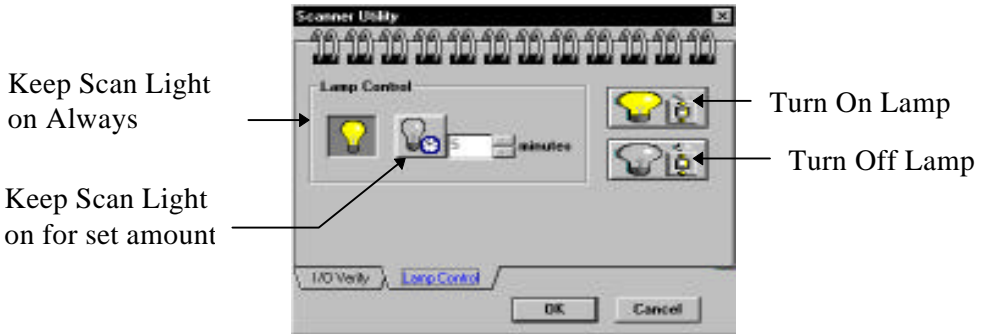
9. Next, go to the scanner's programme group and open the image-editing software.
10. Select the TWAIN source from the image editing software.
11. From the FILE menu choose ACQUIRE (SCAN).
12. The TWAIN dialogue box will pop-up.
13. To scan, click the SCAN button.
14. When the scan is completed, click on CANCEL to view the image. For more information about the TWAIN dialogue box and its features, see *Chapter IV. Using TWAIN*

**Note:** If the above test failed in any way, please read *Appendix A: Troubleshooting* for possible solutions.

## Scanner Utility

The Scanner Utility, located inside the scanner programme group, is for determining what printer port your system has. The only time you need to verify your system's printer port is if the scanner does not respond when trying to scan.

To set the amount of time the scanner's light source stays on (the factory default is approximately 7 minutes) click the tab that reads Lamp Control. Under the heading Lamp Control, click "Turn off lamp after 5 minutes." You can also test the scanning lamp by clicking the Turn off Lamp, Turn on Lamp icons.



**Figure 3. Scanner Utility and Verifier**

## Maintenance

To keep your scanner working smoothly, take a moment to review the following maintenance tips.

- Avoid using the scanner in a dusty environment. When it is not in use, keep the scanner covered. Dust particles and other foreign objects may damage the unit.
- Do not attempt to disassemble the scanner. There is danger of an electrical shock. If a problem occurs, have the scanner serviced by an authorized dealer.
- Do not subject the scanner to excessive vibration. It may damage the internal components.
- Your scanner operates best in temperatures between 10°C to 40° C (50° F to 104° F).



### Caution

## Cleaning Your Scanner

Clean the scanner by lightly spraying a nonabrasive glass cleaner on the scanning window. Be sure to wipe up all excess liquid before scanning. To clean the scanner's exterior, also use a

nonabrasive cleaner to remove any dust or grease from the machine.

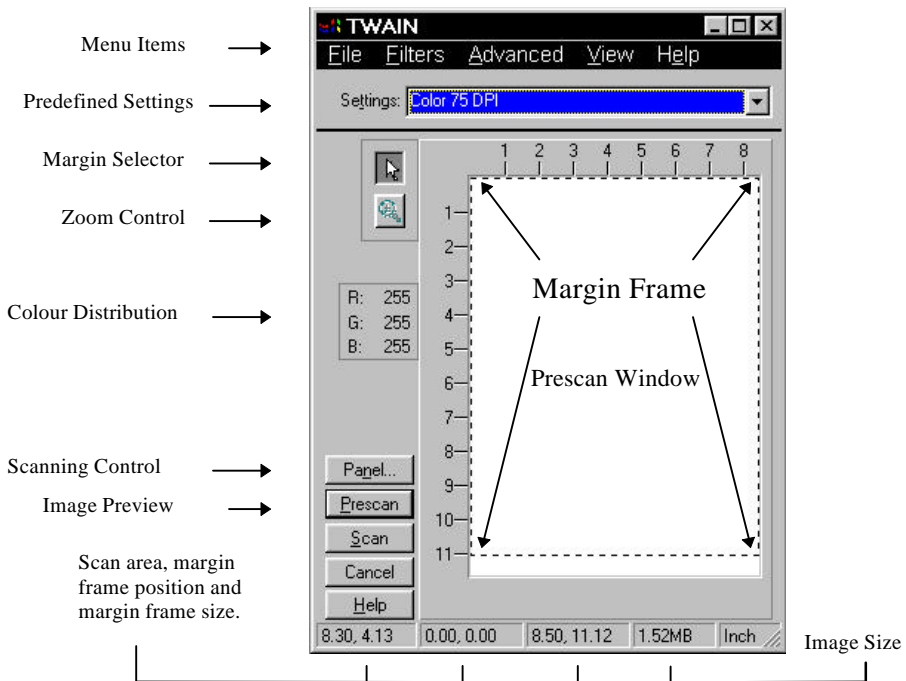
## **Removing the Scanner's Lid**

The scanning lid has been designed for easy removal. To remove the scanner's lid, open the lid until it's perpendicular to the scanner. Place your hand firmly at the back of the scanner and lift the lid off its hinges. To replace the lid, simply snap it back into place.

## **Chapter IV. Using TWAIN**

## Scanning Using TWAIN

There are a few terms that you must become familiar with to maximize the quality of images generated by your scanner. The following chapter describes the TWAIN interface which pops-up whenever you click **SCAN**, or **ACQUIRE** from within a TWAIN compatible scanning programme (see Figure 4).



**Figure 4. TWAIN Dialogue Box**

The TWAIN interface allows you to make important adjustments before scanning. For example, you can scan in different modes: colour, B/W or greyscale; increase or decrease the resolution



(dots per inch of an image), and adjust the brightness and/or contrast. The Prescan option allows you to adjust the margins of a document by increasing or decreasing the frame located inside the Prescan Window. The TWAIN interface also provides you with statistics: such as how big an image will be after you scan it, the scanning area and position of the margins.

## Choosing TWAIN

To select the TWAIN interface, from your TWAIN compatible programme locate **SCANNER** and choose **TWAIN SOURCE** and your scanner.

**Note:** The 16-Bit source is for scanning with 16-bit applications (Windows 3.1x native architecture), and the 32-bit source is for scanning in 32-bit applications (Windows 95 native architecture). Your scanner comes with 32-bit scanning applications for Windows 95 and 16-bit scanning applications for Windows 3.1x. However, if you are using a 16-bit scanning application inside Windows 95, you must select the 16-bit TWAIN source for your scanner to properly function. The same applies for 32-bit scanning applications, you must select the 32-bit TWAIN source for your scanner to properly function.

## Control Panel & Scan Mode

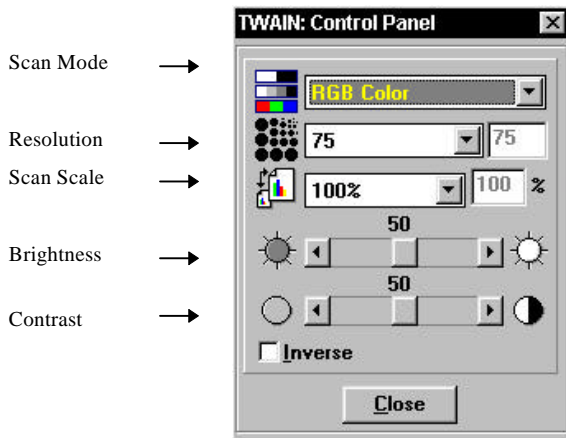
There are three modes that you can select for scanning documents: **RGB Colour**, **Greyscale**, or **Black & White** (also called Line-art). To change the scan mode, click the **PANEL** button located inside the TWAIN dialogue box.

Figure 5 is the **Scanning Control Panel**. It allows you to

adjust the brightness and contrast, resolution, scale and the scan mode. The following describes the various options located inside the Control Panel:

## Scan Mode

**B&W (Black & White)** comprises of documents that have only two values (black and white). Use **B&W** for scanning text documents created with a laser-jet, ink-jet or bubble-jet printer (no photographs or other images).



**Figure 5. Scanning Control Panel**

**Greyscale** (10-bit) captures more than two grey values during scanning. When entering documents to your computer that contain photographs, or other detailed pictures choose greyscale as the scanning mode.

**RGB Colour** (30-bit) captures the most information and detail

during scanning, and is the best choice for scanning pictures and documents that contain detailed colour and graphics. The RGB Colour option, when selected, enables the scanner to scan at its maximum bit capability ( $2^{30}=1,073,741,824$  colours).

## Resolution

**Resolution** is how many dots per inch (dpi) or pixels are scanned. For example, if you scan a **Greyscale** image at a resolution of 150, the hard disk space needed to scan a letter size document will be approximately 2.6 MB. For a listing of what resolutions you should use with each mode, see the end of this chapter and *Scanning Hints*

## Scale

**Scale** is for adjusting the size of scanned images. For example, when scanning to an image-editing programme, like IMAGE-IN or Photo Magic, you can pre-adjust how big, or how small the image will look after it enters your system. The scale can also depend on what resolution you have your display set at, and the scan resolution.

## Brightness and Contrast

**Brightness** is the amount of light that is concentrated onto a document while it is being scanned. Adjust the brightness by sliding the button located between the arrows either left or right. Turn the brightness down if characters are thick and dark, and up if characters are thin.

**Contrast** adjusts the tonal range of an image by lowering mid-

tone values and increasing values for high and low tones. For example, use contrast to eliminate noise or shading on Black & White and Greyscale scans or to “clean-up” colour scans.

## Inverse

When **Inverse** is checked the colours of an entire image, or portions of an image will become reversed. A black-and-white image reverses where the white dots become black and the black dots become white. A black-and-white image looks like a photo negative. A colour image reverses using additive colours.

## TWAIN Menu Options

A screenshot of the TWAIN menu bar showing the following items: File, Filter, Advance, View, and Help. Each item is underlined.

Most of the menu options are considered advance features. We strongly suggest that you first become familiar with scanning and using the **Control Panel** before attempting to use any of the following features. Once you become comfortable with how our scanner works, and how to create clear images, you can begin experimenting with the advance features of the **TWAIN** dialogue box.

## File Menu Item

There are five choices located under the **File** menu item.

Please read through the following descriptions to learn how to use the file menu options. If you have any further questions about any of the items located inside the file menu, click **Help** located inside the **TWAIN** dialogue box to see more information.

**Save Settings** is for saving changes that you make within the **TWAIN** dialogue box. For example, if you change the resolution,



brightness or any other attributes, save the changes by choosing **Save Settings**.

**Save Settings**As lets you create a unique name for your changes. As an example: You can set various resolutions and scan modes and save them as a custom name (i.e., 75-dpi colour 200 scale).

**Load Default**reinstates the factory setting of TWAINThe factory default is set to RGB and 50 DPI and 50% for brightness and contrast. **Note:** You can not make changes to the Default settings file.

**Settings**Files allows you to change the names, or delete settings that you set up and define**Note:** Once you change, or delete a setting, you can not recover it, so please be cautious!

## Filter Menu Item



You have seven filter choices located under the **Filter** menu item. The filters will help you improve your scans by allowing you to sharpen images and remove excessive dots and distortion. Please read through the following explanations and examples to learn how to properly use filtration. In many cases you might find that experimentation is an excellent way of determining which filter will work.

**Average**determinesthe medium depth of an image, and averages adjacent pixels to make images appear softer.

**Blur**r lets you dull the edges within an image, and decreases the contrast by making dark edges lighter and light edges darker.

**Blur More**re: see *Blur*.

**Sharpen**allows you to sharpen the edges within an image by making the edges in an image more distinct. The **Sharpen** filter

also increases contrast by making dark edges darker and surrounding light edges lighter.

**Sharpen More:** see *Sharpen*.

**Descreen** applies filtering to images that contain moiré patterns (or herringbone). A moiré pattern is created from scanning pictures in magazines, or printed material that use colour dithering. **Hint:** We suggest leaving the **Descreen** option checked at all times. It is the best filtering method for most practices.



## Advanced Menu Item

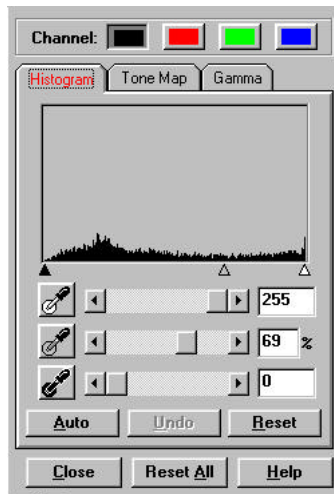
The Advance menu item has three options: **Enhance**, **Preferences** and **Monitor Gamma**. The items located under the advance menu are intended for users who are familiar with image editing tools and how they affect images. If you are just learning how to scan, then we strongly recommend not using these features until you become familiar with your scanner and its terminology.

## Enhance

Enhance pops-up TWAIN's colour correction options: **Histogram**, **Tone Map** and **Gamma Data**. Many image-editing programmes already have these features. However, if the need arises to adjust the colour level of your scanned images, then enter **Preferences** and perform the following adjustments. **Note:** Before adjusting the **Tone**, **Gamma** and **Histogram**, perform a **Prescan** so you can view the changes before you scan an image.

**Histogram** is a representation of statistical data by rectangles: widths represent class intervals and heights represent

similar frequencies. Make adjustments to the histogram only when the colour balance of your scanned image does not match the original picture. **Hint:** We suggest leaving the histogram set to AUTO when not encountering colour depth discrepancies.

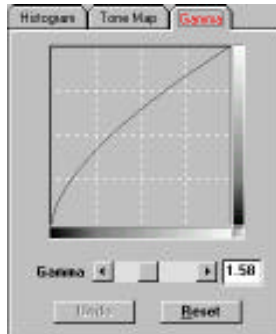


**Figure 6 Histogram**

**Tone Map** enables you to modify the tonal range and to adjust highlight, mid-tone, and shadow areas of an image. For example: When an image is too dark or too light, it may have hidden details that can be uncovered by using **Tone Map**. This usually improves the contrast of an image. For example, when the darkest tone is 65% black, you can use the **Tone Map** to make it 100% black.

**Gamma** values follow a smooth curve, as seen below in Figure 7. By adjusting the gamma, you can change the tonal range of the selected **Channel** (colour). Gamma values are primarily a measure of a channel's brightness. The larger the

gamma value, the brighter the colour becomes. **Note:** By changing the gamma values you affect the image's data, and influence the how an image displays on your computer's monitor, and printer.



**Figure 7. Gamma**

**Channels** let you split a colour image into individual Hue, Saturation, and Lightness channels. For example, each image represents one of three additive colours (red, green, and blue). The name of the channel appears in the title bar. This can be useful in comparing colour ranges between the colour values, and in identifying methods when editing specific areas.

## **Preferences**

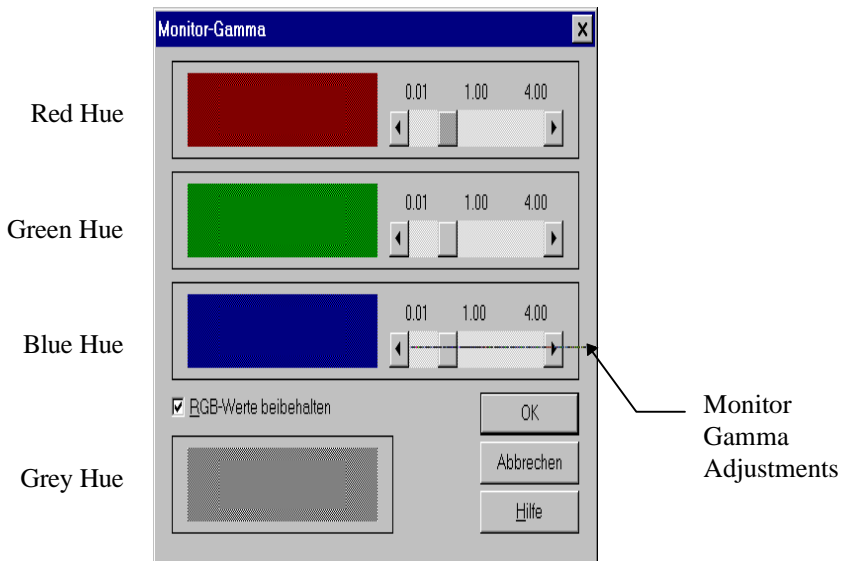
Use the **Preferences** option to change the unit of measure from English (in.) to Metric (cm), or from Metric (cm) to English (in.). Click **Preserve Prescan**, so the image displayed in the **Prescan** window will not be removed after you close the **TWAIN** dialogue box. This feature is extremely convenient if you are checking scanned images for quality, proper filtering and/or scale.



## Monitor Gamma

The Monitor Gamma option lets you adjust your monitor so you can properly and accurately view images. For example, there are different situations that might affect your ability to correctly view images: Lighting conditions, human perception of colours, and the monitor you are using are some common factors.

To correctly adjust the monitor gamma, you must first have your computer and working environment stable: including lighting, and your monitor's brightness, contrast and colours properly adjusted. Next, select the Monitor Gamma option. Drag the slider bars until the hue inside each rectangle is the same colour as their adjacent colours (as seen below). When finished adjusting your monitor's gamma, click **OK** to exit.



**Figure 8 Gamma Control**

# Scanning Hints

## B/W & Greyscale Scanning

If scanning B/W images, match the DPI to the resolution of your printer, or scanner. For example, if you have a 300-dpi scanner, then set the resolution to 300. If you have a 600-dpi printer, set the scanning resolution to 600.

When not scanning using B/W, but rather Greyscale, we find that a resolution of 150 works extremely well. **Note:** Sometimes increasing the brightness and contrast can help improve and lighten the greyscale image quality.

## Colour Scanning

When scanning in colour, remember that 24 to 30 bits of information take up a lot of disk space. If you are going to scan a colour image and then print it out, scan at 200 dpi. If you are going to scan a colour image just to experiment, scan between 75 and 100 dpi to conserve hard disk space.

# **Appendix A: Troubleshooting**

Most problems are easily solved, and some of the most common questions and their recommended solutions are listed below.

<b><i>Symptom</i></b>	<b><i>Possible Solutions</i></b>
Scanner scans very slowly	<ul style="list-style-type: none"> <li>• Make sure the resolution of the scanner is not set too high. A range between 75-200 should work fine.</li> <li>• Set the Parallel Port Mode inside computer's BIOS to EPP(enhanced parallel port).</li> <li>• Make sure all filters are deselected inside TWAIN.</li> </ul>
Cannot print to printer	<ul style="list-style-type: none"> <li>• Check that printer cable is properly secured to printer and scanner.</li> <li>• Make sure printer is turned on.</li> <li>• Turn off the computer and the printer. Make sure that the scanner is plugged into a constant power source (leave scanner on at all times). Turn the computer on and enter Windows. Once inside Windows turn on the printer and try printing a document.</li> <li>• Disable the "Bi-directional" option of the printer.</li> </ul>
Scanner does not respond	<ul style="list-style-type: none"> <li>• Reset the computer (turn it off and on).</li> </ul>
Scanner does not emit any light	<ul style="list-style-type: none"> <li>• Unplug the power cable from the rear of the scanner and open the scanner's lid. Looking at the front of the scanner while the lid is open plug the power cable back into the scanner. If the light turns on and off quickly, the scanner is properly working.</li> </ul>
Scanner not found	<ul style="list-style-type: none"> <li>• Please see <a href="http://www.plustekusa.com">http://www.plustekusa.com</a> and the <i>Knowledge Base</i> for more information.</li> </ul>
The scanner's light source stays on all the time	<ul style="list-style-type: none"> <li>• The scanner's light source is designed to stay on for 30 minutes. To turn off the scanner's light, enter the Scanner Utility and choose the Lamp Control tab.</li> </ul>

<b><i>Symptom</i></b>	<b><i>Possible Solutions</i></b>
During printing only garbage prints	<ul style="list-style-type: none"> <li>• Purchase a shorter printer cable and try it. Sometimes when information has to travel a long distance it becomes distorted. Shortening the printer's cable can decrease the possibility of information becoming damaged.</li> <li>• Disable the "Bi-directional" option of the printer.</li> </ul>
Unable to find scanner	<ul style="list-style-type: none"> <li>• Check your computer's parallel port to see if it is an EPP by entering computer's BIOS. If the parallel port mode is set at ECP or SPP, change it to EPP. Save and exit the BIOS and run Windows. Enter the Scanner Utility and click the proper address and EPP and choose Verify Port.</li> <li>• Make sure the printer is on when it is connected to the rear of scanner.</li> </ul>
The computer's mouse, keyboard, or floppy drive does not work	<ul style="list-style-type: none"> <li>• Upgrade printer port, or controller card to an EPP interface.</li> <li>• Enter the computer's BIOS and change the printer port to EPP and its address to 278, or 378.</li> <li>• If the above steps do not solve the problem, add the following statement to the SYSTEM.INI file below the heading "[386Enh]:" PORT_CHIPCONTROL= 1</li> </ul>
The computer has an SPP that does <u>not</u> support bi-directional communication	<ul style="list-style-type: none"> <li>• Purchase and have install an EPP interface card and disable the computer's standard printer port.</li> </ul>
Cannot scan to application software	<ul style="list-style-type: none"> <li>• Look at the Scanner Setup option inside the scanning application and make sure the correct scanner is chosen.</li> <li>• Check all connections and make sure they're secure and correct.</li> </ul>

## **Appendix B: Customer Service**

If you encounter problems with your scanner, please review the installation instructions and troubleshooting suggestions contained in this guide.

For further assistance call our customer support phone number listed on the back cover of this guide. One of our representatives will be happy to assist you between Monday and Friday. To avoid any delays, please have the following information available before calling:

- **Scanner name and model number.**
- **A detailed description of the problem.**
- **This guide.**
- **Your computer manufacturer and its model number.**
- **The speed of your CPU (Pentium, 486, etc.).**
- **Your current operating system and BIOS (optional).**
- **Other interface cards in your system (including I/O address settings and IRQ settings).**
- **Name of software package(s), version or release number and manufacturer of the software.**



### **Attention**

We are continuously enhancing the performance of our product drivers. To check for the latest device driver visit our Web site.

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## Statement of Limited Warranty

This Statement of Limited Warranty applies only to the options you originally purchase for your use, and not for resale, from an authorized reseller.

The manufacturer warranty period for this product is one year from the date of Original Purchase as shown on your receipt, and includes all parts and labor. You should keep the receipt as it establishes Proof of Original purchase. You will need it to obtain warranty service.

If you transfer this product to another user, warranty service is available to that user for the remainder of the warranty period. You should give your proof of purchase and this statement to that user.

We warrant that this machine will be in good working order and will conform to its functional descriptions in the documentation provided. Upon provision of proof of purchase, replacement parts assume the remaining warranty of the parts they replace.

Before presenting this product for warranty service, you must remove all programmes, data and removable storage media. Products returned without guides and software will be replaced without guides and software.

This Limited Warranty service does not provide for carry-in exchange when the problem results from accident, disaster, vandalism, misuse, abuse, unsuitable environment, programme modification, another machine or non-vendor modification for this product.

If this product is an optional feature, this Limited Warranty applies only when the feature is used in a machine for which it was designed.

If you have any questions about your Limited

Warranty, contact the approved retailer from whom you bought the product or the manufacturer.

THIS LIMITED WARRANTY REPLACES ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. HOWEVER, SOME LAWS DO NOT ALLOW THE EXCLUSION OF IMPLIED WARRANTIES. IF THESE LAWS APPLY, THEN ALL EXPRESS AND IMPLIED WARRANTIES ARE LIMITED IN DURATION TO THE WARRANTY PERIOD. NO OTHER WARRANTIES APPLY AFTER THAT PERIOD.

Some jurisdictions do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply.

Under no circumstances are we liable for any of the following:

1. Third party claims against you for losses or damages.
2. Loss of, or damage to, your records or data; or
3. Economic consequential damages (including lost profits or savings) or incidental damages, even if we are informed of their possibility.

Some jurisdictions do not allow the exclusion or limitations of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

This Limited Warranty gives you specific legal rights, and you may also have other rights that vary from jurisdiction to jurisdiction.

### ***FCC Radio Frequency 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 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.

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