

**EXHIBIT 7**

**USER'S MANUAL OF EUT**

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**S-600EC**



SCANNER USER'S GUIDE

FCC ID : HSUTRLS- 600EC

# **===== SCANNER USER'S GUIDE =====**

## **IMPORTANT SAFEGUARDS**

***THESE INSTRUCTIONS CONTAIN NECESSARY SAFETY***

***IN FORMATION FOR THE SCANNER***

1. Read all of these instructions thoroughly.
2. Unplug this device before cleaning. Do not use liquid or aerosol cleaners. Use a damp cloth for cleaning.
3. Do not use attachments not recommended by the manufacturer as they may cause hazards.
4. Do not use this device near water and avoid all contact with liquids.
5. Do not place this device on an unstable cart, stand or table. The device may fall causing serious injury and/or serious damage to the appliance. Do not install in a place where vibration may occur.
6. Slots and openings in the device cabinet and the back or bottom are provided for ventilation, to insure reliable operation of the device and to protect it from overheating. These openings must not be blocked or covered by placing the device on a bed, sofa, rug or similar surface. Keep the scanner out of direct sunlight and away from radiators or heaters.
7. This device should be operated only from the type of power source indicated on the marking label on the cabinet. If you are not sure of the type of power supplied at the site of use, consult your dealer or local power company.
8. Do not allow anything to rest on the power cord. Do not locate this device where the cord can be abraded or damaged by people walking on it.
9. Follow all warning and instructions marked on the device.
10. For added protection, unplug the device during thunder storms or when it will be left unattended and unused for long periods of time. This will prevent damage to the device due to lightning and power line surges.

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11. Do not overload wall outlets and extension cords as this can result in fire or electric shock.
12. Never push objects of any kind into this device through cabinet slots as they may contact dangerous voltage points or shout out parts that could result in fire or electric shock.
13. Do not attempt to service this device yourself. Opening or removing the cabinet may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.
14. Unplug this device from the wall outlet and refer servicing to qualified personnel under the following conditions:
  - a. When the power cord or plug is damaged or frayed.
  - b. If liquid has been spilled into the device.
  - c. If the device has been exposed to rain or water.
  - d. If the device does not operate normally.
  - e. If the device has been dropped or the cabinet damaged.
  - f. When the device exhibits a distinct change in performance.

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## FCC-INFORMATION

### *Federal Communications Commission 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 FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with the instruction manual 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 not 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 the receiving antenna.
- ❑ Increase the separation between the equipment and receiver.
- ❑ Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- ❑ Consult the dealer or an experienced radio TV technician for help.

#### *Notice:*

- 1. The changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.*
- 2. Shielded interference cables and A.C. adapter cord, if any, must be used in order to comply with the emission limits.*

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Thank you for purchasing our image scanner. This scanner provides high resolution true color scanning for PC. Making this the ideal device for business, office and education environments.

Compatibility extends to your favorite application programs on PC, providing all your essential scanning needs. A TWAIN driver is provided for use with Windows applications on the PC compatible driver. The inclusion of powerful image processing and optional OCR makes this the most complete and versatile scanning package around.

This guide is designed for both beginner and advanced user alike. If you have never used a scanner before, we recommend you follow the procedures in the order in which they appear here: unpacking, set up, connecting to your system via the EPP interface, software installation, mechanical operation and, finally, scanning. There is also information relating to the scanner's care and maintenance, as well as what to do if a problem arises with the equipment.

# **SCANNER USER'S GUIDE**

## **About this Guide**

This Guide contains all the information you will need to set up and use your scanner. If you require more information on how to scan in and edit images and documents using OCR and Image processing programs, refer to your software user's guide. Here is a summary of what you will find inside:

### **Section 1: Introduction**

Gets you acquainted with the scanner's basic features.

### **Section 2: Hardware Installation**

Provides information on the unpacking, set up, installation and cable connections of the scanner to your PC.

### **Section 3: Software Installation**

Describes the procedures required to install the scanner device driver into your PC.

### **Section 4: Operation**

How to position your document for scanning.

### **Section 5: Scanning**

Describes how to scan documents using the commands available with your scanner, and includes some tips on how to optimize your scanning performance.

### **Section 6: Care & Maintenance**

Provides directions on how to clean any part of your scanner to maintain optimum performance, and contains recommendations related to the transporting and handling of your scanner.

### **Section 7: Troubleshooting**

Lists and describes how to identify and correct problems that may occur when operating the scanner.

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## **Section 8: Specifications**

Provides information on physical, environmental, electrical and scanning specifications.

## **Section 9: Glossary**

Provides a glossary of terms used in scanner.



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## **1. Introduction**

### **1.1 Main Features**

Your image scanner is designed for high speed, high resolution, quality scanning of A4 sized documents.

Below is a summary of the scanner's main features and their benefits.

- ❖ High quality, high resolution image scanning  
Assures you crisp, clean color input for highest quality output.
- ❖ Accepts A4-sized documents  
Scan with ease large documents or photos.
- ❖ Includes built-in scanning buffer  
Faster data processing for quicker, more reliable scanning.
- ❖ Unique EPP interface  
The scanner can connect directly with IBM PC compatibles without interface card.
- ❖ Includes TWAIN support drivers  
Scan in images and documents directly from within your favorite software applications on PC.
- ❖ Easy to use software interface  
Adjustable scan controls at the touch of a button.
- ❖ Bundled with image processing software and optional OCR  
Full scanning package to get you started straight out of the box.

### **1.2 System Compatibility**

The scanner can be connected directly to the IBM PC/AT and compatibles.

### **1.3 System Memory Requirements**

Memory requirements for your computer depend on the scan size. Scan resolution and application software you are using. Refer to the User's Manual of the application software.

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## 2 Installation

The following sections will take you through the procedures for unpacking the scanner, removing the shipping retaining bolt and connecting the cables. Before beginning installation, please read these instructions carefully.

### 2.1 Unpacking the Scanner

Carefully remove the scanner from its protective packaging. Save the packing materials in case the scanner needs to be transported or sent for service at a later date. Check the contents of your scanner package against the packing list and the checklist below to make sure that there isn't anything missing. Also check to see that the A.C. adapter matches the requirements for your area. If there are any discrepancies notify your dealer immediately.

#### Check List

When unpacking the scanner, please check that all the items in the following check list are present:

- ☐ The scanner
- ☐ CD - User manual, Application software, scanner driver & OCR application software
- ☐ Scanner signal cable
- ☐ A.C. adapter
- ☐ Installation guide

If any items are missing or damage, contact your supplier immediately.

### 2.2 Setting Up

The following sections cover the procedures required to install and connect the scanner to your PC.

#### Removing the Retaining Bolt

Your scanner has a retaining bolt that is inserted from the bottom of the scanner. When the scanner is unpacked this bolt is in place. The bolt locks the movable main element inside the scanner so that it will not be damaged in transport.

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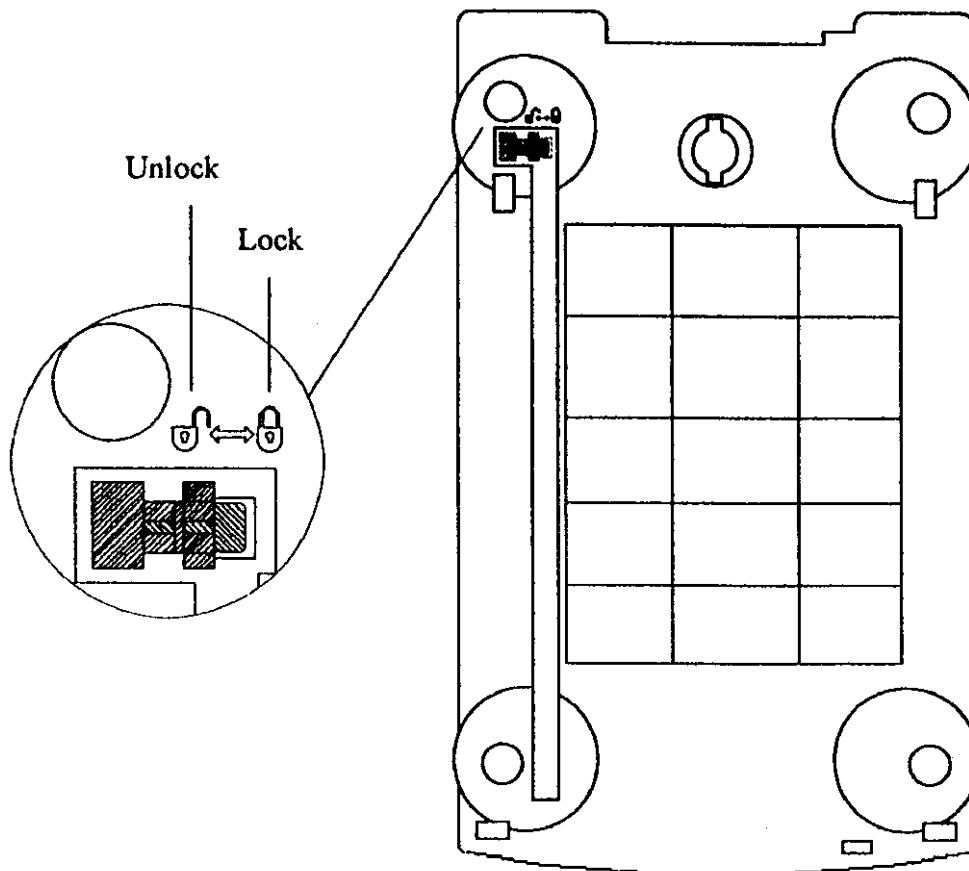
**Caution:** *Your scanner will not function if the retaining bolt is not removed.*

To remove the retaining bolt do the following:

1. Unplug and examine your scanner package as noted in the previous section.
2. Place the scanner on its left side.
3. Using your fingers or a flat bladed screw driver, remove the retaining bolt.
4. Lay the scanner flat and continue with the installation procedure.

**Note:**

*It is necessary to lock the retaining bolt, if you want to move or ship the scanner.*



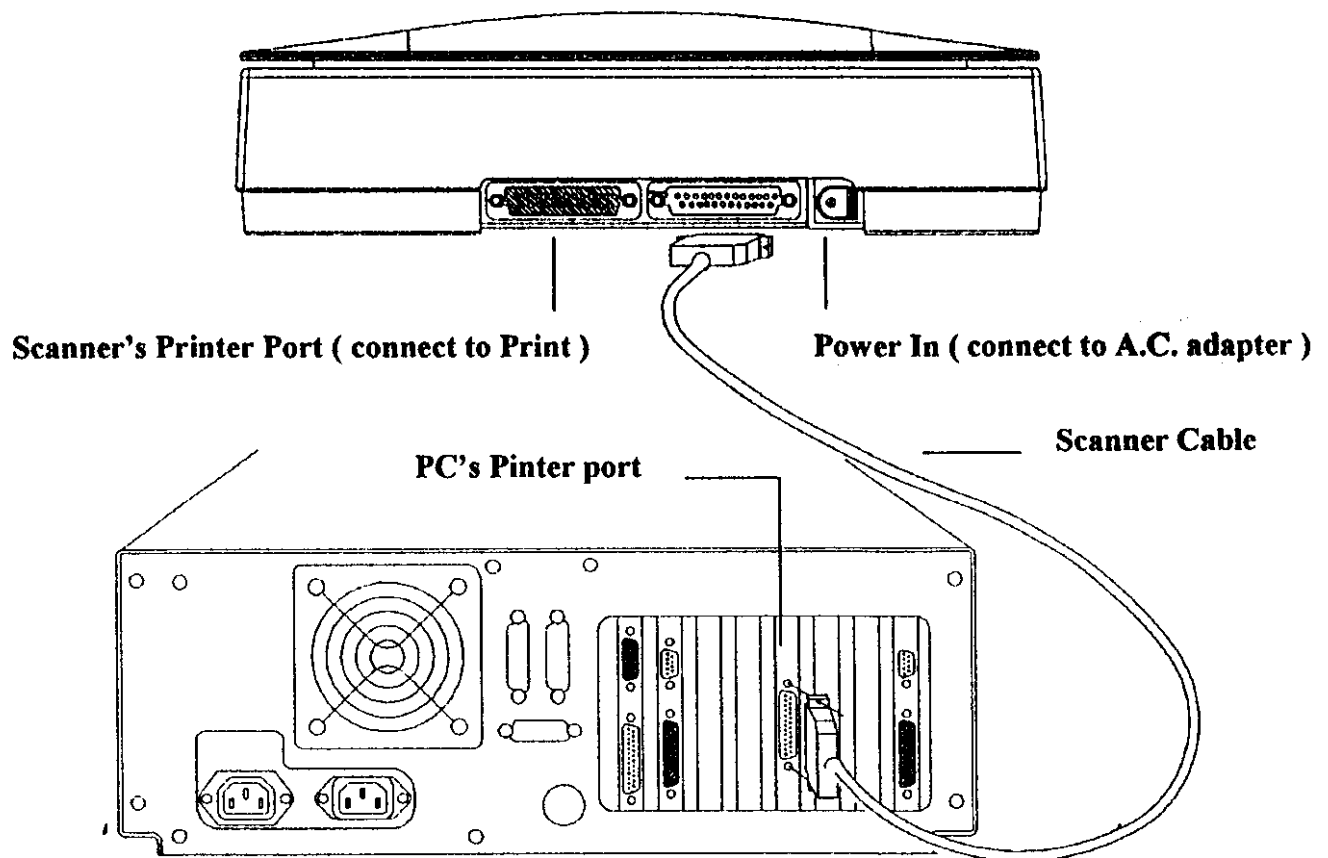
## Connecting the Scanner

Once you have chosen a location for the scanner you can proceed to connect it to the Printer port you have already installed in your computer.

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To connect your scanner and computer do the following:

1. Turn off the PC power.
2. Connect one end of the scanner cable to the printer port on the back of your computer and tighten the screws.
3. Connector the other end of the scanner cable to your scanner. Tighten the screws.
4. Plug the A.C. adapter into scanner's power jack. Then plug the A.C. adapter into the power outlet.



## 3. Software Installation

The scanner uses a TWAIN driver to provide the interface between hardware and software. This will allow you to operate the scanner using any TWAIN compatible software program.

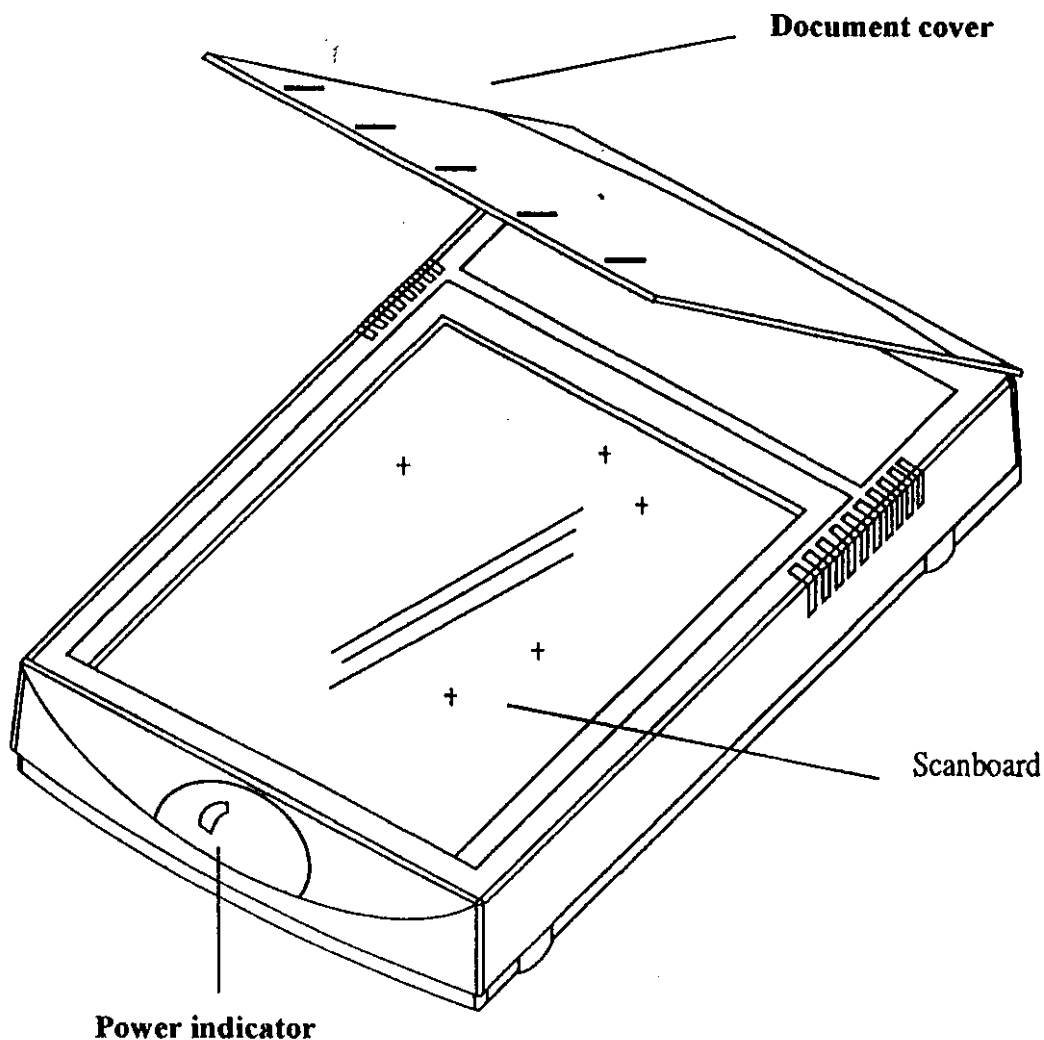
Use the install program to install the application software & scanner driver into your system for use with your chosen application. To do so, follow these steps:

1. Start Windows 95 / NT.
2. Insert the CD into a fitting driver.
3. Choose Run from the start menu.
4. Type "path:\install" in the command line box and click "OK" or press "ENTER" follow the instruction on your screen to proceed.
5. Once the software is installed, select the scanner from within the program. Under the File Menu you will find two commands "Acquire" and "Select Source". Go to Select Source to choose the scanner, then go to "Acquire" to operate it. Refer the Scanning Section to controls the Scanner.

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## 4. Operation

This section explains the scanner status panel LED indicators, How to position your document for scanning. The below figure over shows the location of the indicators and switches on the scanner.



### 4.1 POWER LED Indicator

The POWER LED, indicates whether the power is on or off. The POWER LED lights when the power is on. If the LED does not light when the power is turned on, refer the Troubleshooting chapter.

## 4.2 Positioning Documents

The flatbed design of the scanner can accommodate books, manuscripts, letters, even some objects. If you are using a bound original that doesn't lie completely flat you may want to press lightly on the document cover to press the Image flat.

In some cases, such as when scanning an image from a thick book, you may want to make a photocopy of the image first and then scan the photocopied image. If the photocopy is a faithful replica of the original, the quality of the scanned document won't be significantly reduced if text or line art are being scanned.

***Cautions: Every effort has been made to make this a product of the highest quality. For instance, this scan uses a special safety glass for increased safety and durability. You should however take reasonable care when pressing down on materials while they are on the scanboard surface..***

### **To position a document for scanning:**

1. Lift the document cover.
2. Place the original document face down on the scanboard.
3. In order to have the document scanned "right side up", make sure that the top of the document is toward the front of the scanner. The corner of the original document face should be against the front left corner of the scanner.
4. Lower the document cover.

You now need to install your scanner software so You can start scanning (see section 3). If you do not need to refer to the others chapter for further information, go to your software user's manual to install the software.



## 5. Scanning

This chapter describes the scanner commands which allow you to bring images from your scanner right into your chosen software application where they can be edited and saved.

Before you can activate these commands, you first need to install the scanner hardware, and the software driver to run the scanner under the program you are using.

If you require further information on how to scan in documents and images using particular OCR and imaging programs, please refer to your software user's guide.

### 5.1 The software interface

Start the image editing software then select "Acquire" from the "File" window. To enter into the user interface window to scan.

### 5.2 Scanning a Document

Follow these steps to scan a document:

1. Choose Prescan to show the document in the scanner display window.

This allows you a quick prescan of your image so that you can select your scan area.

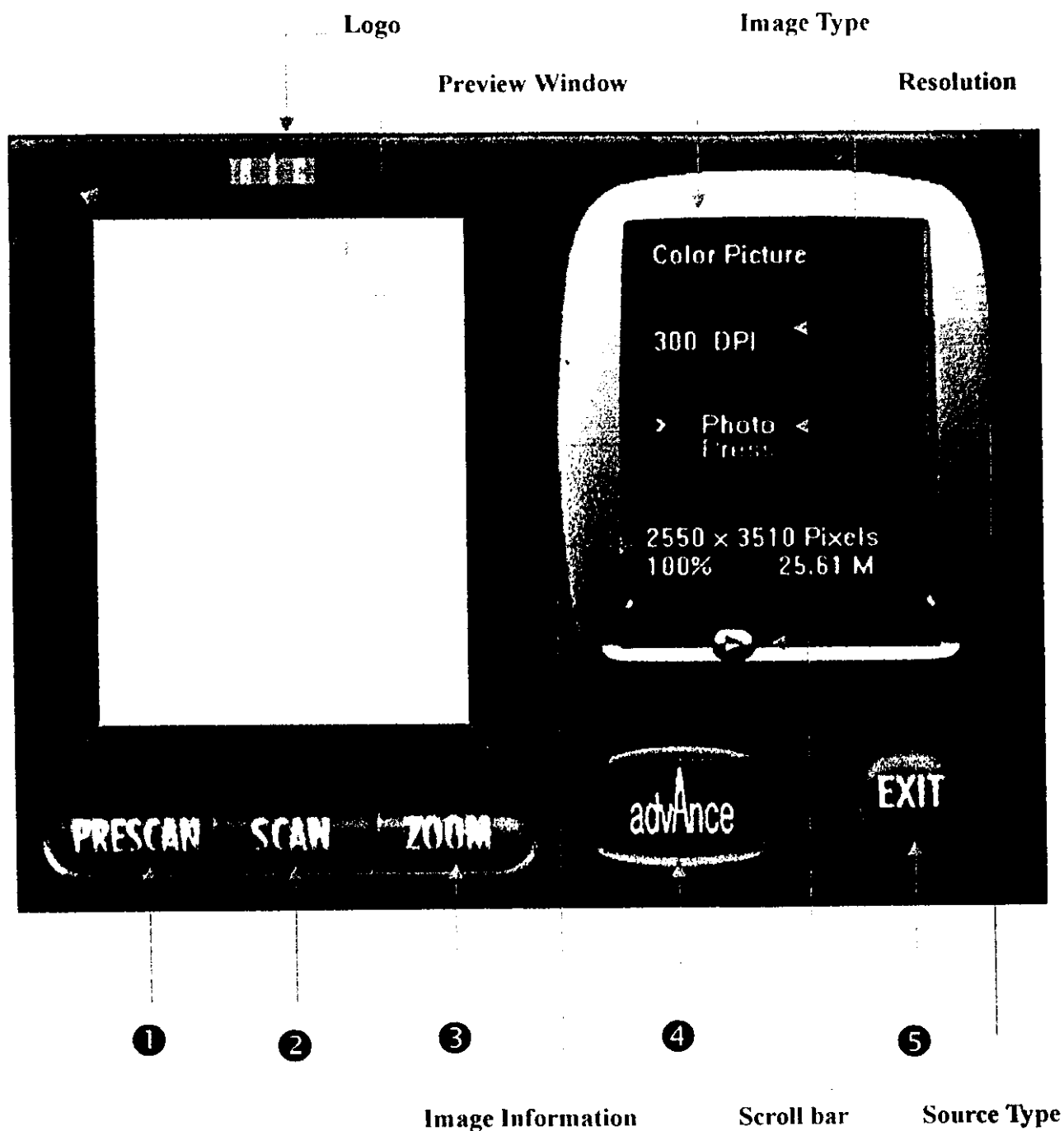
2. Select the area you want to scan.

First click on the Scan Window item of Scanner's dialog box. Then select your scan area simply move the cursor inside the Preview window, creating a rectangle. The actual dimensions of the image area you have set is displayed in the Scan Size indicator box in either inches or centimeters.

To resize the scan area move the cursor to a corner of the selection rectangle. A arrow icon will replace the crosshair, allowing you to change the rectangle's size by dragging from one of its comers.

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## ✧ User's Interface (UI) description



### 1. Prescan -----①

Click to capture and display an A4 size whole page color image with 75 dpi resolution in the preview window.

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## **2. Scan ----- ②**

In scan a final with the set parameters.

## **3. Zoom ----- ③**

Magnifies a selected area of the previewed image to fit in the preview windows.

## **4. Advance ----- ④**

Includes four tuning tools to enhance an image, Namely, Color Balance, Gamma Correction, Brightness and Contrast adjustments.

## **5. Exit ----- ⑤**

Click the Exit to close the driver's UI (User Inter face).

## **6. Image Type**

Display the selected image type. You may select one type from the pop up menu. The system provides several image type for users.

## **7. Resolution**

Display the selected dot per inch (dpi) resolution value, You can also select a preferred resolution by choosing one from the list or enter a dpi number in the custom area.

## **8. Source Type**

Select the scanning source is photo or press.

## **9. Image Information**

Display three different types of information about the scanning image: Width and Height. Scaling Ratio and Image Size.

## **10. Scroll bar**

A scroll bar included to adjust the scaling ratio of the image.

## **11. Logo**

Click the Logo to view the scanner driver information, release note, and the online help.

## **12. Preview Window**

Display the prescan image.

## 5.3 Scanning Tips

By experimenting with various scanner settings and techniques, you will soon learn how to produce a good quality visual image. This section gives some helpful hints on how to improve your scanning procedures. You will find that by selecting settings which do not exceed your particular scan requirements, you will use less hard disk space and ensure that your computer can work with the image much more rapidly. It also helps to pay attention to the quality of the image you Scan. You will find that the better your original image, the better will be the final output.

- ❖ **Limit your image size when possible**  
A small image requires much less hard disk space and processing time than a large image. Therefore, if the image you want to scan is only a small section of a larger document, set the scanner to scan just around the area that you need.
- ❖ **Try to scan good quality images and text**  
When you scan an image into your computer, some information will be lost, and if your output device cannot match the resolution or color shading capabilities of your monitor, further data losses will occur. Scan quality can only be as good as your original image. You can minimize loss when inputting data by avoiding scanning materials that are extremely light, extremely dark, or have extreme amounts of contrast.
- ❖ **Scan photographs instead of printed pictures**  
To help preserve accurate toning details, scan photographs instead of images that have been printed in magazines or books. Printed pictures have already been halftone, and are therefore composed of tiny dots. If you try to use your computer to produce a dithered effect from such an image, the digital halftone pattern will interfere with the original halftone, causing distortion of fine details. If you must scan an image for digital halftoned, A color image is better than a black and white one because the higher density of color dots causes much less interference.
- ❖ **Technics of using OCR (Optical Character Recognition)**  
The clarity of the original document is critical to the quality of scanning result. The better original document is the better scanning result will turn out. While the original document tends to be lighter, go to the "Advance" item in UI(User Interface) and switch the brightness to its

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left to lower the brightness. In the same sense, increase the brightness (switch brightness to its right) while the original document tends to be darker.

- ❖ Do not always select the highest resolution.  
High resolution images, especially those in 24-bit color, require much more hard disk space than low resolution images, and may slow down your system tremendously. There is also no benefit to be gained from exceeding the resolution capabilities of your printer or the resolution limitations of your graphics or page composition software.

If you wish to output the image on your printer, you may find the printer is unable to download the image correctly if either the horizontal or vertical resolution is set too high. This, of course, depends on the printer. Laser printers usually have no problems printing full-page images at the maximum resolution, provided that the printer has sufficient memory.

Also keep in mind that the higher the resolution, the larger the image file will be, so the more of a burden it will be for your computer to process it. So it is always a good idea to select a lower resolution when possible, if it will not affect the image quality.

You can always scan black and white Line Art images at the highest resolution, but memory and hard disk limitations may prevent you from doing so with color or gray scale images. Good results can be achieved by scanning the gray and color images at a lower resolution, then using the Color Focus and Gamma commands to optimize the quality of the imported image.

- ❖ Experiment with different settings

You can scan images using different settings and then compare them on your screen to verify which one suits your particular printing or imaging requirements. Your software application also allows you to edit and enhance imported images or text. Experimentation with both hardware and software settings will enable you to get the best results.

## 6. Care and Maintenance

### 6.1 Cleaning

The scanner should be cleaned occasionally to maintain optimum performance. In particular, the scanboard glass must be kept clean.

Just like a photocopy machine, any dust or dirt that accumulates on the glass screen will be “read” by the scanner and put in your scanned document. Cleaning the glass screen should be done regularly.

It is recommended to keep the cover closed when you are not using the scanner to prevent dust and particles from collecting on the glass.

***Warning: Before attempting to clean any part of you scanner be certain to both from the wall outlet.***

***Caution: Do not use ammonia-based cleaning products to clean the scanner. Do not disassemble the scanner or lubricate any parts.***

### Cleaning the Scanboard Cover

To clean the scanboard cover:

1. Turn the power switch off and unplug the scanner..
2. Remove the cover by lifting it off. If you leave the cover in place, excess liquid could damage the scanner's cables and ports at the rear of the machine.
3. Using a slightly damp towel with a mild detergent, wipe the scanboard cover clean.
4. Dry the cover with a lint-free cloth.

### Cleaning the Scanboard Glass

To clean the scanboard glass:

1. Turn the power off and unplug the scanner.
2. Using a slightly damp towel with a mild detergent, wipe the scanboard glass.

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3. Dry the scanboard glass with a lint- free cloth.

***Caution: Do not rub the glass forcefully. If spots remain on the glass, such as drops of whiteout use the edge of a fingernail or carefully use a razor blade to remove them.***

***Do not spray liquids directly onto the scanboard glass or use a wet cloth to clean the scanner. Excess liquid could seep underneath the glass and possibly damage some internal components of the scanner.***

## **Cleaning the Cabinet Exterior**

To clean the exterior of the scanner cabinet:

1. Make certain that the scanner is turned off and unplugged from the electrical power source.
2. Use a damp cloth to wipe the exterior of the scanner cabinet free of dust.

***Note: In the event that the cabinet exterior becomes stained such that a damp cloth will not do the job, for example as with ink stains, a mild cleaning solvent may be used on the case. You should however check' with your dealer first if there is any doubt as to the suitability of your cleaner.***

## **6.2 Transporting & Handling**

As mentioned previously, it is quite safe to carefully move the scanner to another location in your office. If the scanner is to be transported any significant distance (especially if it needs to be transported by car, truck or through the mail) you must first replace the retaining bolt.

Follow these steps to replace the retaining bolt:

1. Before disconnecting the scanner, turn the power on and wait for the ready light to stop blinking. When this occurs, the CIS unit has moved into its home position.
2. Turn the scanner off and disconnect the A.C. adapter and the interface cable.
3. Without tipping the scanner more than necessary, move the retaining bolt to the Lock position.

## 6.3 General Handling Recommendations

The following is a summary of general recommendations for the use and handling of your scanner.

- ❖ Do not leave objects on the scanboard glass or cover when you are not using the scanner.
- ❖ While it is quite safe to carefully move the scanner to another setting in your office, you should not transport the scanner over greater distances without first replacing the retaining bolt.
- ❖ Do not disassemble the scanner or lubricate any parts.
- ❖ Do not put excess pressure on the scanboard glass (e.g. by leaning on it) when scanning.
- ❖ Do not spray liquids directly onto the scanner or use an excessively wet cloth when cleaning the scanboard glass.
- ❖ Do not use ammonia-based cleaners on the scanner.



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## 7. Troubleshooting

This appendix lists some common problems and troubleshooting that may be encountered while the scanner does not seem to be working properly. You can solve most problems with a few adjustments; however, if you experience any problems that you cannot correct, contact your dealer.

PROBLEM	TROUBLESHOOTING
<ul style="list-style-type: none"><li>• Power LED remains off</li></ul>	<ul style="list-style-type: none"><li>✧ Make sure that the A.C. adapter is plugged into the wall outlet and is connected to the scanner.</li><li>✧ Make sure that the wall outlet is live. You can test by plugging a lamp.</li><li>✧ If the above steps do not correct the problem then contact your dealer.</li></ul>
<ul style="list-style-type: none"><li>• Scanning application can not locate the scanner.</li></ul>	<ul style="list-style-type: none"><li>✧ Make sure that the scanner has been installed correctly. Check the A.C. adapter and cable connections.</li><li>✧ Make sure the scanner is set to scan and not in printer mode.</li></ul>
<ul style="list-style-type: none"><li>• Scanning no picture.</li></ul>	<ul style="list-style-type: none"><li>✧ Make sure the retaining bolt is removed to unlock position.</li><li>✧ Make sure the document is inside of your scan area. Refer to Section 5.</li></ul>
<ul style="list-style-type: none"><li>• The scanner does not active</li></ul>	<ul style="list-style-type: none"><li>✧ Make sure the retaining bolt is removed to unlock position.</li></ul>
<ul style="list-style-type: none"><li>• The color or picture is abnormal after scanning.</li></ul>	<ul style="list-style-type: none"><li>✧ Make sure the scanboard is clean or not.</li><li>✧ To check whether the parameters on the user interface are correct. If not sure please change to default values.</li></ul>

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## 8. Specifications

Scanner Type	Desktop flatbed scanner
Scan Method	Single -pass color CCD
Light Source	Cold Cathode Lamp
Optical resolution	600 x 1200 dpi
Software interpolation resolution	25~4800 dpi
Maximum scan area	8.5" x 11.7" (216mm x 297mm)
Interface	Printer Port (EPP)
Scan Speed	Prescan : 18 sec Color Scan : 285 sec(A4/600dpi) Gray Scan : 130 sec(A4/600dpi)
Scan Mode	Color Picture : 30 bits / pixel Gray Scale : 10 bits / pixel Line Art : 1 bits / pixel Dither : 1 bits / pixel
Power Supply	15 Vdc
Power Consumption	Maximum rating: 15 watts
Software supported	TWAIN compliant application software
Dimensions	Width : 292mm Length : 484mm Height : 100mm Weight : 3 kg (net)
Temperature	Operating: 0°C to 40°C
Relative Humidity	Operating : 20% to 80% Storage : Up to 85%

## 9. Glossary

Even if you are already an experienced computer user, you may not be acquainted with some of the operational concepts related to image scanning. The Glossary below will help to review some of the main terms and provide you with an overview of the scanning operation.

- ❖ **Bit**

The smallest element in a computer's memory. Bits are used to record the color values of pixels in an image. The more bits used for each pixel, the greater the number of possible colors.

- ❖ **Color Mode**

This allows you to scan images and store them in 30-bit image files, resulting in a truly life-like display, with up to 16.7 million colors. The software interface lets you fine tune hardware resolution, color focus and gamma levels, making it easier to optimize the image quality of each scan.

- ❖ **DPI**

Dpi is an abbreviation for dots per inch. Since a computer can only display, print, manipulate and store images as dots, a scanner renders all images into a collection of fine dots and prepares the resulting data for input into the computer.

- ❖ **Driver**

A driver is the software that communicates between the scanner and the application program you are using. The driver allows you to control scanner settings such as scan area, resolution, brightness and contrast.

If your driver does not support the software program you wish to use, you can scan in an image from another program and save it in a compatible file format to export to your chosen application. Our scanners offer comprehensive driver support, making it easier to use the scanner directly from within a wide variety of programs.

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- ❖ **Export**

To save a scanned image or text as a file for use by another program.

- ❖ **File Format**

The way in which computers stores image and document information on a disk.

- ❖ **Gamma**

Gamma correction is used to remedy the fact that when we scan an image, this image as it appears on your screen is darker than the original. The Gamma function can be used to lighten or darken the scanned image by adjusting the relationship between the scanners input and output values.

- ❖ **Gray scale**

Gray scale mode is the best mode for capturing photographs and drawing's that contain continuous or detailed shading. B&W or color images can both be scanned in this mode resulting in high quality, 256-level displayed images.

- ❖ **Optical Character Recognition (OCR)**

The process of recognizing characters from a printed document by optically scanning the page, storing it as a graphic image, and using OCR software to decode the shapes in the image into characters to be stored in a text file.

- ❖ **Resolution**

The resolution of a scanned image is the number of dots per inch, or dpi, that composes it. The more dots per inch contained in an image, the sharper the details will be. Setting the resolution for a scan will depend on your particular image requirements.

- ❖ **Scanner/Scanning**

A scanner creates a digital image from flat artwork. The scanner shines a bright light onto the image while the scan head moves from the top to the bottom of the document downward at a constant rate. The scan head gathers data about each line that it passes by measuring the intensity of

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the light that is reflected back from the document. A scanned line results in a stream of data which the scanner converts into digital information. This information is then sent over the data cable to the computer and then stored in the computer's memory. Thus, the amount of memory available determines the permissible resolution, size and scan mode of the scanned image.