

EUT:SCANNER

FCC ID:ITEUECVSAM12S

ULTIMA ELECTRONICS CORP.

USER'S MANUAL



User's Manual

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Introduction

Preface

Powerful Scanner Feature

How does the scanner work?

Something you should know!

What's on this CD?



Preface

This scanner is a one-pass 600 dpi (dot per inch) color desktop scanner that will scan images into B&W, Gray scale and True color digitized format. It can communicate with image-processing applications and OCR (optical character recognition) utilities running on IBM PC or compatible platforms through the popular TWAIN interface protocol.



Powerful Scanner Feature

A scanner is a device that can catch image and translate the image into a digital form that computers can display, edit, store and output. The image we say here refers to photos and pages of characters, graphics and illustrations, or even coins or textile products in three dimensions. Therefore, a scanner can accomplish the following jobs:

- To scan characters into bit identifying software for processing, thereby avoiding the trouble of typing.
- To add graphics or photos in the document.
- To add images in multimedia.
- To produce artistic document.

If you have a basic understanding of what a scanner can do, you may now improve your working quality and efficiency.



How does the scanner work?

The way a scanner catches an image is to shine a light upon the document being scanned and the receptor on the scanner then collects the reflective light. Depending on the intensity of the reflective light by document, the receptor digitizes these data with either "0" or "1" and finally through the scanner's software read these figures to reorganize a computer image file.



Something you should know!



Operation

[Getting Started](#) [Main](#) [Advance](#) [Monitor](#) [Preference](#)

You can scan anything that you can put on the Glass Platen. The Document Cover allows you to scan thick documents (about 2 centimeters) like books and magazines. You can even remove the Document Cover to scan very thick documents. Please keep in mind that heavy objects may crack or even break the Glass Platen.



■ Preview Window

The Preview Window is where the prescan image is displayed with ruler markings along its edges. You can change the ruler unit by simply clicking the unit box on the upper left corner of the Preview Window. Three ruler unit measurements are available: inch, centimeter and pixel. On the bottom of the left Preview Window shows the width and height of the selected scan area as well as its size, and the current position of your cursor.

■ Property pages

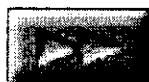
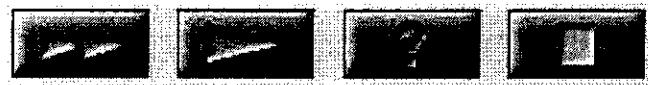
You can flip these property pages by clicking the tags on the top. Their functional details are described in the section of each page.

There are four buttons located on the bottom of the Property pages for you to do the basic scanning operation of the TWAIN source window with one simple click. For details, please see next paragraph.



■ Scan Control Buttons

Four functional buttons, Prescan, Scan, Help, and Exit, are at the lower right end of the page. A tip box will appear to remind you of the function of each button as you locate the cursor on it.



Prescan Button

Click the Prescan button to perform an immediate low-resolution scan. The prescan image will be displayed in the Preview window.



Scan Button

Click the Scan button to perform the final scan and send the result to the destination determined by you. Click the Scan button will prompt you to give a file name for saving your scanned images if you set "file" as your scan destination.



Help Button

Click this button to acquire help.



Exit Button

Close the TWAIN source window.





Catalog / Magazine

For catalog or magazine document selection.



Art Magazine

For art magazine document selection.



User Define Object

Select this icon and a dialog box will appear. You can either enter the desired value in the number box or use the scroll bar.



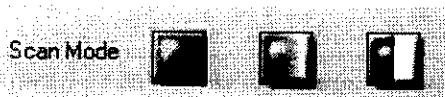
3D Object

Clicking on 3D Object button, you can scan three-dimension objects such as coins, pens and textile materials.



■ Scan Mode

Scan mode lets you decide how the scanner will interpret your image. Three choices are available in the TWAIN source: Color mode, Gray mode, and B/W (black/white) mode.



Color mode

Select this for color images.



Gray mode

Select Gray mode for images that contain 256 shades of gray.



B/W mode

Select B/W for texts and illustrations that contain only black and white without gray shading.

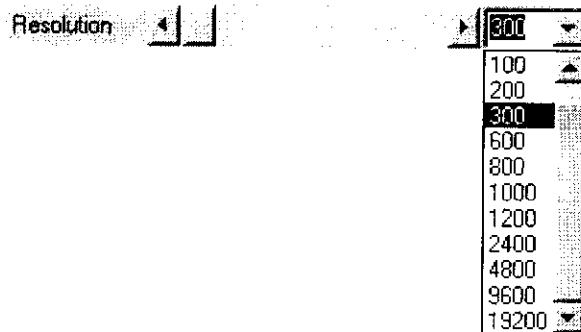


■ Destination

Destination is the location where you would like your final scanned image to be sent. There are six options available: Application, File, Printer, Email, Fax, and Clipboard. Please select one of the destinations before scanning to have the scanned image sent to the desired location.

■ Resolution

The resolution is measured in dots per inch (dpi), which is used to represent the image detail in a given area. The available resolution ranges from 50 to 19200 dpi. Generally, the higher the resolution, the sharper and higher the quality of the scanned image. However, in some cases, high resolution is not necessary because resolution is determined or limited by many factors: image type, the original image resolution, the output device resolution, the available storage space on your hard disks, etc.



Normally you should choose a resolution that matches the resolution of the output device. The following list is our suggestion:

72 - 100 dpi	for CRT Display
72 - 216 dpi	for 9-pin Dot Matrix Printer
100 - 400 dpi	for 25-pin Dot Matrix Printer
100 - 400 dpi	for Facsimile
100 - 600 dpi	for Laser and Inkjet Printer

You can adjust the resolution by using the scroll bar (moving the box, clicking the arrow icons or clicking on the space between the box and the icon), directly keying in the value into the number box, or selecting a value in its drop-down combo box to the desired resolution.

■ Brightness

Brightness refers to the intensity of light reflected from or transmitted through an image. The larger the brightness value, the brighter the image appears. Brightness is indicated by a percentage ranging from -100 to +100, and is set to "0" as the default. You can either use the scroll bar (moving the box, clicking the arrow icons or clicking on the space between the box and the icon), key in the value into the number box or select a value in its drop-down combo box to change the value.



Operation

Getting Started Main Advance Monitor Preference

Advance page

While including the basic functions on the Main page, the Advance page also encompasses Image Enhancement Tools that can be used to compensate for any color distortion of the scanned image. Also, the Batch Scan lets you scan more than one selected scan area with a single operation. The Advance page is illustrated as follows.

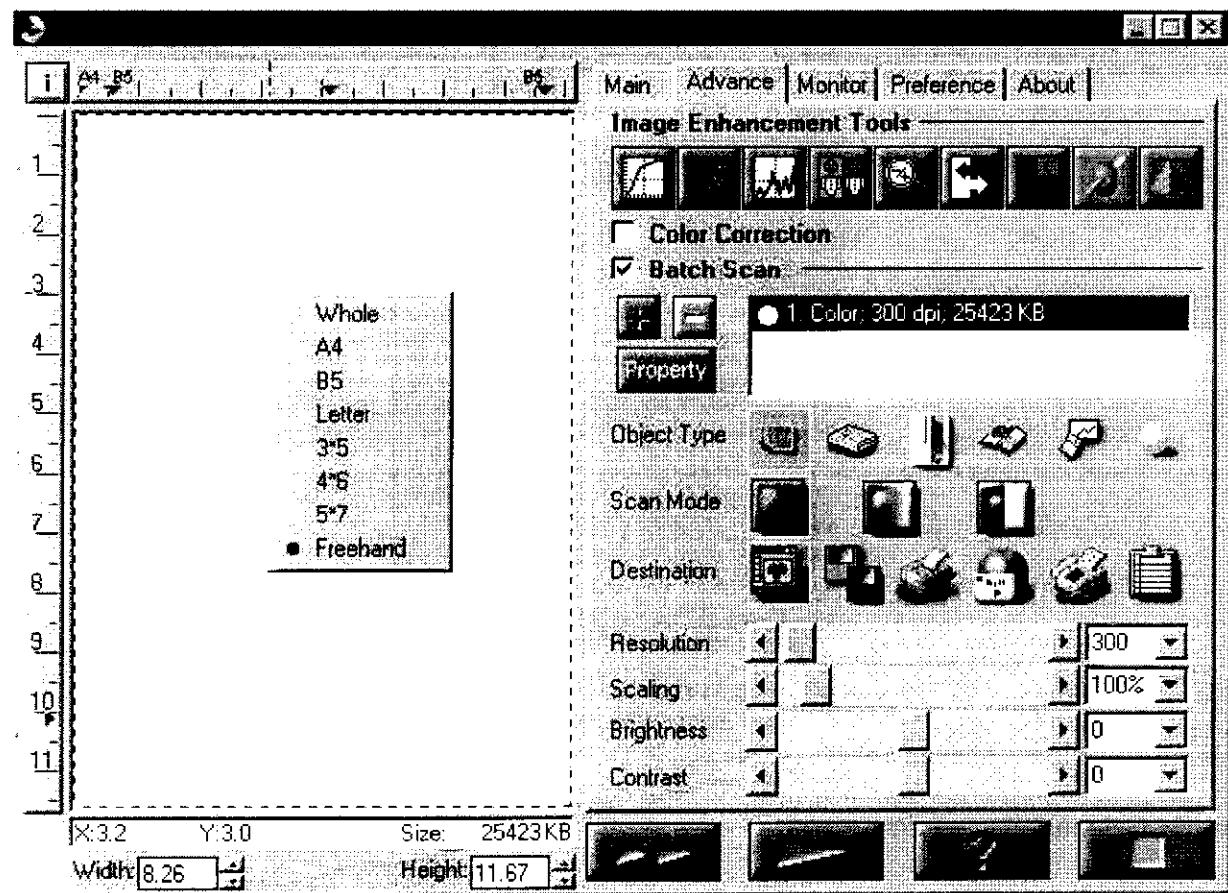


Image Enhancement Tools

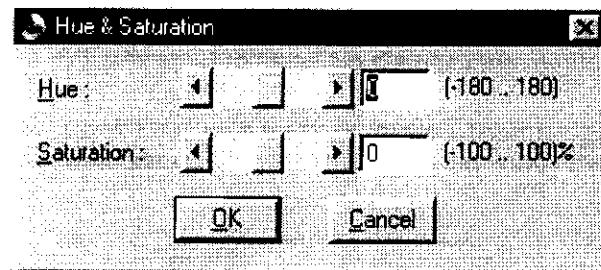
If channel “All” is chosen, the gamma value is applied to the red/green/blue channel. Otherwise, the gamma value for red/green/blue is applied to the red/green/blue component respectively.

A  will be marked on the lower right corner of the icon  as a reminder if you change the default setting.



Click , and the Hue & Saturation dialog box will display and allow you to adjust the hue and saturation of the image while keeping the brightness level unchanged.

Hue is the wavelength of light reflected directly from an image and it is represented by the name of colors. Adjusting the hue changes the whole color appearance of the image. Saturation is the strength of the color, referring to how far away the color is from a gray tone of equal intensity. Adjusting the saturation changes the degree of color purity in proportion to the hue.



To adjust Hue and Saturation:

■ Hue adjustment

In the “Hue” box, specify an angle value (you can either directly enter the desired value in the number box or use the scroll bar to select your desired value). The specified angle value represents a move around the color wheel. (Remember that hues are specified as angles on the color wheel. If you are not familiar with the color wheel notation, please refer to any related book about color.)

■ Saturation adjustment

In the “Saturation” box, specify a desired percentage value of the saturation. A value of - 100 converts the image completely to a grayscale image and a value of +100 shows the image with fully saturated hues.

A  will be marked on the lower right corner of the icon  as a reminder if you change the default setting.





Zoom

The Zoom function lets you enlarge the view of an image in the Preview window. However, the zoom function can only enlarge the image view with one predefined factor.

To zoom in:

Click . It will magnify the view in the Preview window. When this function is enabled, the icon will become .

To disable zoom in:

After magnifying the view, click the  again to reduce the view to its original size.

NOTE

When zooming in, a vertical scroll bar and/or a horizontal bar will appear to let you scroll through the entire image.

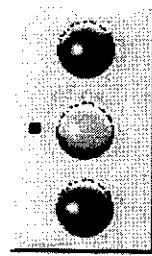


Invert

The Invert function lets you obtain a positive view of a scanned image negative or a negative image of a positive original. By applying this function, the brightness value of each pixel will change to the inverse value on 256-color scale.

To invert an image:

Click  after applying the Prescan function. When this function is enabled, the icon will become .



Note: Filter only functions in Gray and B/W mode.



Effect

Effect offers you the ability to create special and spectacular effects to your scanned image and let you get some amazing results. There are five functions in this menu: None, Blur, Blur More, Sharpen, and Sharpen More. All these functions are exclusive to each other. The default effect selection is None.

None

There will not any effect available in this menu.

Blur

Blur is used to slightly soften all or part of an image.

Blur More

Blur More incrementally softens the image.

Sharpen

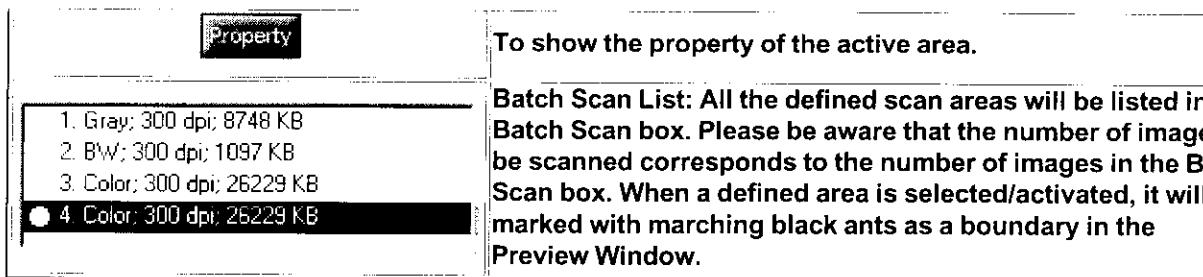
Sharpen gives emphasis to the color differences between adjacent pixels of different colors. It is used to electronically strengthen the focus of blurry images by means of increasing the contrast of adjacent pixels.

Sharpen More

Sharpen More incrementally sharpens the image.

A  will be marked on the lower right corner of the icon  as a reminder if you change the default setting.





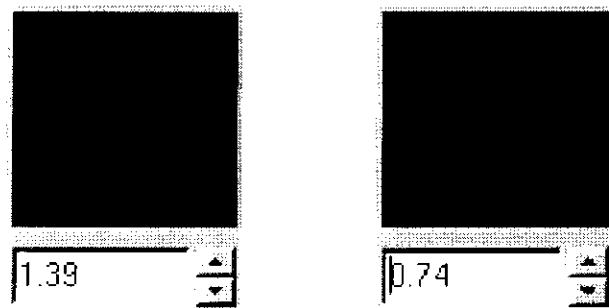
You can define as many as 20 scan rectangles in a Preview Window. Simply drag the box in the scroll bar or click on the arrow icon on the right of the Batch Scan box to view more defined rectangle areas.

After defining several scan areas, if you would like to scan only one, simply release the check of the Batch Scan box. The information of all other scan areas in the Batch Scan List becomes gray except for the active area. Click on the area you would like to scan then press the scan button. It will then acquire the selected image area.

NOTE:

1. You can always change the image setting of the activated scan area at your own discretion.
2. The activated area is the one surrounded by marching black ants.





Vary the value in the number box until by your visual judgement the colors of the two areas come to one.

To vary the gamma values of the three channels together, check the “All” box.

- In the “Gain Adjustment” box, adjust for a suitable gain parameter for each of the primary color channels.

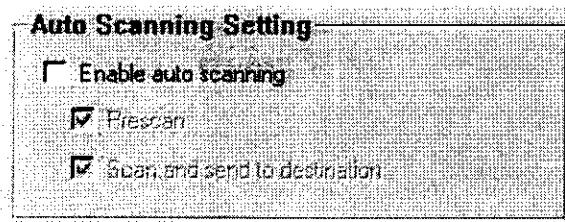


Adjust the value in the box until by your visual judgment, the rightmost edge of this colour strip appears black which fades in graduation to the left.

To vary the gain values of the three channels together, check the “All” box.



appears as follows.



The steps for auto scanning are:

1. Open the TWAIN source window.
2. Locate the Auto Scan button which is situated in the front panel of the scanner
3. Press the Auto Scan button. The scanner will start the scanning process.
4. The scanner will perform the auto area detect function if the “Prescan Image Area Auto Detection” option is checked to define the actual area of your scanned image. Later, this defined area will be used for the final scan.

The auto scanning options are:

- If neither of the "Prescan" or "Scan and send to destination" are checked, no action will be taken.
- If only the "Prescan" is checked, the scanned image will be displayed in the Preview Window.
- If only the "Scan and send to destination" is checked, no image will be displayed in the Preview Window, and the scanned image will be sent directly to the designated destination.
- If both the "Prescan" and "Scan and send to destination" are checked, the scanned image will be displayed in the Preview Window and sent to the designated destination after completion.

Prescan Image Area Auto Detection

If the Prescan Image Area Auto Detection is checked, the scanner will automatically detect the area of the image scanned and define the actual area of your scanned image in the Preview Window. This defined area will be used for the final scan. If the Prescan Image Area Auto Detection is not checked, the whole Preview Window area will be defined as the scan area.

Default Destination Setting

The Default Destination Setting area lets you set up your default printer and fax. You can select Printer and Fax in this area. However, please be aware that at least one printer or fax driver must be installed on your computer to perform this functions.



Error Message

Preface

Elaboration on Error Message

Preface

It might pop-up some messages as you launch the scanner driver. We will explain the errors on the following list.

Elaboration on Error Message

The error message list

Error Message	Solution
Insufficient memory to operate.	<ul style="list-style-type: none">• Adjust the width of the scan area or the resolution.• Close all the other applications.
Can't load dynamic library. Failed to load the scanner driver.	<ul style="list-style-type: none">• Close all the other applications which is probably using the driver.• Reinstall the driver from driver disk or Scanner CD.
Mail system has not been set up in your computer. Failed to load your E-mail function from the mail library. Failed to log on MAPI. Failed to send the documents via MAPI. Failed to log off MAPI. Failed to log on E-mail system. Failed to send documents via E-mail system. Can't log off.	<ul style="list-style-type: none">• Check whether the Microsoft Mail is set up in your computer correctly.
Errors occurred while calibrating. No default printer.	<ul style="list-style-type: none">• Check whether the scanner is well connected to the computer.• Make sure that the scanner is powered on, and the LED is on.• Install a printer driver and connect the printer to the computer.



TrobleShooting

Preface Frequently Asked Question

Preface

This section describes some abnormal conditions that may appear in the scanner. If your scanner fails to operate normally, first look through the symptoms listed below and find the one that is closest to your scanner's symptom. Try to solve the problem according to the recommended remedies listed under each symptom.

Frequently Asked Question

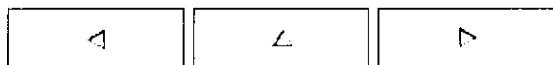
If your scanner fails to operate normally, first look through the symptoms listed below and the one that is closest to the symptom of your scanner. Then follow the recommended remedies listed for that symptom.

<i>Symptom</i>	<i>Remedy</i>
Push the scan button but scanner shows no reaction.	<ul style="list-style-type: none">• Before using the scanner button, open the user interface, then push the scanner button.• Check if the " AUTO SCAN " function is activated.• Monitors of different brands have different Gamma values, which affect the brightness of image displayed in the preview window. To solve this problem, you can go to the driver UI and click the "Options" menu and choose the "Gamma correction" function to adjust the brightness of the image. If you use an image processing software and have the same brightness problem, you can adjust the Gamma value in the software.
When the image on the screen is too dark or too bright.	

TrobleShooting

Problem with the file
"Wnaspi32.dll".

"wnaspi32.dll" will appear. If you choose YES Setup will update your original "wnaspi32.dll" make sure that the scanner can work with the SCSI card we enclose. However, your SCSI devices equipped earlier might not work. Please go to the path "winnt\system32." First delete the file "wnaspi32.dll" and then rename "wnaspi32.bak" with "wnaspi32.dll". If you choose NO, the scanner may not be able to work. This is because the SCSI card manufacturers do not have the standard protocol. Therefore, your original "wnaspi32.dll" does not support our scanner. If your original "wnaspi32.dll" is provided by AHA, you do not have to replace your "wnaspi32.dll", which is compatible with our scanner after testing.



- FCC Part 15, Subpart B Class B
- DBP Vig. 243/1991 (FTZ)
- UL 1954
- CSA
- TUV
- C-Tick
- CE
- CNS



H

HTML

Hypertext Markup Language(HTML) is a simple markup system used to create hypertext documents that are portable from one platform to another.

I

I/O Address

The address of the computer used for data input and output from/to a specific device.

Interpolation

A Resampling method used to create more pixel information by averaging the existing pixel information.

L

LED

Light-emitting diode, an exposing element.

M

Midtone

The 50 percent dot printing area.

Moire

A visible, undesirable dot pattern made from incompatible screen angles or a pattern in the original copy.

P

Pixel (Picture Element)

The smallest element of a digital image that can be individually processed. A digital image is represented as arrays of pixels, each pixel shows a particular color.

Protocol

A set of rules governing the format of messages that are exchanged between computers.



Registration

Registration
Technical Support Information

Registration

If you would like to register on-line (<http://www.ultima.com.tw>), please connect to the internet before filling out the following registration form. You can also print out the form, fill it out and send it back to us via courier or via email. For fax and mail information, please refer to "Technical Support Information". Thank you!

I. General Information

Date of purchase: mm dd yy

Firstname: Lastname:

Sex: Mr. Ms.

Age: under 18 18~37 38~57 58 and above

Yearly household Income (USD):

under \$15,000 \$15,001~\$45,000 \$45,001~\$75,000 \$75,001 and above

Native Language:

Chinese - Traditional

Chinese - Simplified

Dutch

English

French

German

Italian

Japanese

Korean

Portuguese

Russian

Spanish

and often you use it with:

Other (please specify): _____

Professional image/art work design

Web page design

Fun

Data (Text/Image) input

You purchased the scanner mainly for:

Other (please specify): _____

AM12E PLUS

AM12S

AM12E

ViewStation AT12

ViewStation AS6U

ViewStation AS6P

ViewStation AS6E

Type of model purchased:

II. Product Information

Other

Service/support

Sales

R&D

Quality assurance/control

Purchasing

Personnel

Marketing/advertising

Manufacturing/production

Legal

IT development

Education/Training

Document preservation

Data processing/MIS

Communication/public relation

Art design

Newspaper

Negative film

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 ARTEC Electronics GmbH
 Address: 38897 Cherry Street Newark CA 94560
 E-mail: sales@artecusa.com
 http://www.artecusa.com
 FAX: +1-510-7390500
 TEL: +1-510-7390800
 ULTIMA International
 Address: 7F, No.100, Li De Street, Chung Ho City, Taipei Hsien, Taiwan, R.O.C.
 E-mail: service@mail.ultrima.com.tw
 http://www.artec.com.tw
 FAX: +886-2-22252674
 TEL: +886-2-22256300 EXT 7352
 Headquarters

■ Technical Support Information

Technician Sales



IV. Suggestions and Comments

- Magazine article/review
- Magazine advertisement
- Trade show
- Dealer
- Friends reference
- Web pages (please specify the URLs: _____)
- Other (please specify): _____



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How did you learn about ARTEC Scanners?

- Other (please specify: _____)
- Multi-Function Peripheral (MFP - printer/scanner/copier in one)
- Digital video camera
- Digital camera

What kind of image related product do you plan to purchase?

3. Scanning Speed

2. Scanning Speed

1. Scanning Speed

What are the three most important reasons you choose this scanner against any other brand?

III. Preference Information

- Other (please specify: _____)
 - Web authoring tool (i.e. FrontPage, HomeSite)
 - OCR software (i.e. TextBridge, OmniPage)
 - Image file management software (i.e. ixila Explorer)
 - Image editing/enhancement software (i.e. ixila Artist, Photoshop)
 - Image application software (i.e. ixila Photo Scanner Suite, PhotoDeluxe)
- Which software bundled with scanners will help you the most?

MAC

Windows 3.x 95 98 NT

Type of computer used:

MAC

Notebook Laptop Palmtop

IBM PC 486 586 Pentium Pentium 2 compatible

Type of computer used:

Other (please specify: _____)

Text document

Transparency

Spreadsheet

Photo

Magazine

Others (please specify:)

Occupation:

Company:

Job Title:

Address:

Country:

China (PRC)

France

Germany

Italy

Japan

Korea

Netherlands

Portugal

Russia

Spanish

Taiwan (ROC)

United Kingdom

United States

Others (please specify:)

Home Phone Number:

Office Phone Number:

Email address:

This is the first scanner you've ever purchased Yes No

Have you ever used scanner before? Yes No

Which ONE category best describes the business or service you do?

Accounting/Finance

Administration

R**Resolution**

A measure indicating how fine the output of a device is. The higher the resolution, the finer the detail. In other words, resolution is the number of dots or pixels used to construct detail in a given area.

W**Web Site**

A web site is one or many pages of information linked together in a single package.





Glossary

Vocabulary

The following vocabulary in alphabetic order will be found in this document.

B C D H I L M P R W

B

Brightness

The amount of whiteness in a color, one of the three-color components (Hue, Saturation, and Brightness) of the HSB color model.

Browser

A browser is your window to the World Wide Web with hyperlinks, protocols, servers, media, and hypermedia in the world.

C

Calibration

Adjusting devices so that information is transferred from one system to another in a consistent, predictable and reliable way.

Contrast

The degree of difference between the lighter and darker areas of an image.

D

Device Driver

A software program that enables a computer to communicate with peripheral devices such as a monitor, scanner, printer, mouse, etc..

Descreen

This filter is used to eliminate the moire patterns (wavelike lines) in images, which usually results from screen-print media (like magazines) scanning.

DPI (Dots Per Inch)

The unit for the measurement of resolution.



Specification

Functional Characteristics

- **Type**
document stationary flatbed using CCD (Charge Couple Device) linear sensor
- **Scan Size**
A4 size with maximum scanning size of 8.26in X 11.7in.
- **Resolution**
Optical resolution = 600 X 600 dpi
Hardware resolution = 600 X 1200 dpi
Software resolution = 19200 X 19200 dpi
- **Scanning Mode**
Color / Grayscale / B&W
- **Scanning Speed**
Pre-scan (25 dpi, color) A4 size, under 18 seconds.
600DPI B&W mode A4 size, under 50 seconds with unlimited interface speed
600DPI Gray mode A4 size, under 50 seconds with unlimited interface speed
600DPI Color mode A4 size, under 100 seconds with unlimited interface speed
- **Operation Temperature**
5 degree or 32 degree

Software Characteristics

- **Driver**
Compliant to TWAIN protocol
- **System Interface**
Windows 95 and later version

Mechanical Characteristics

- **Dimension**
47.55 X 29.6X 9.6 cm. (Length X Width X Height) including the document cover assembly and foot pad
- **Weight**
Approx. 3.284 kg.

Electrical Characteristics

- **Light Source**
Cold cathode fluorescent white lamp
- **Power Source**
linear power adapter for various regions
Type 1: USA, Taiwan, Japan--- 100~120VAC@50~60Hz
Type 2: Europe, U.K., Australia, China---200~240VAC@50~60Hz
- **Power Consumption**
Idle - 5W
operation - under 15W (scanner only)
- **Interface**
SCSI interface

Regulations

TrobleShooting

When the scanned image is too dark or too bright.

problem, you should also do Gamma correction such that the image in preview window will be the same brightness as that of the image in the image-processing software.

- Adjusting the monitor's Gamma Value can only change the brightness of the monitor, but not that of the scanned image itself. To adjust the brightness of the scanned image, you need to go to the driver UI and adjust the brightness setting. You can also adjust the brightness by clicking "Advanced" menu and change the Gamma Value.
- If you use PCMCISA SCSI card, make sure it is properly seated in the slot.
- Make sure that all the connectors are well secured.
- Make sure the end of the SCSI chain is well connected to the scanner.
- Make sure the total length of the chain does not exceed 20 feet.
- Try to change the cables of the SCSI or other devices.
- Make sure there is no address conflict on the SCSI chain. If conflict happens, your computer will stop working. Please change your address settings.
- Even though there is no conflict between port addresses, please change the SCSI address of the scanner. Keep in mind to turn off the scanner first. Make sure the newly given address will not conflict with the other devices on the SCSI chain.
- The scanner should only be connected as the last device on the SCSI chain.
- Power off all the SCSI devices except for the scanner. This way, you can know whether there is something wrong with the scanner or other devices.
- Make sure that other SCSI devices, including the internal SCSI devices, do not need any special addresses or places.
- If the scanner still does not work, please contact our technical support staff.

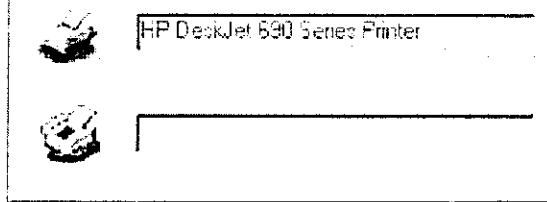
How to resolve the problems with the SCSI card?

Before connecting the cables, you should always shut down your computer and power off any SCSI devices.

While you are installing the scanner driver under Windows NT, a dialog box asking to replace

Can't print. Failed to activate the printer. Failed to prepare the printing job.	<ul style="list-style-type: none">• Make sure that the printer and its driver are setup properly.
Failed to activate the fax.	<ul style="list-style-type: none">• Make sure that the fax machine and its driver are set up properly.
Failed to send the scanned image to the Clipboard!	<ul style="list-style-type: none">• Not enough system memory.• Close the other applications.
The image is too large to export to the Clipboard! Image size exceeds 15.9375MB.	<ul style="list-style-type: none">• Reduce the image size by adjusting the width or resolution of the scan area.
Cannot save the file. Insufficient disk space.	<ul style="list-style-type: none">• Reduce the width of the scan area or the resolution.• Increase disk space.

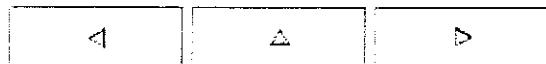


Default Destination Setting

To setup default printer and fax:

- Press or to enter the setting.

This setting will be enabled when you designate the Printer or Fax as your scan destination.



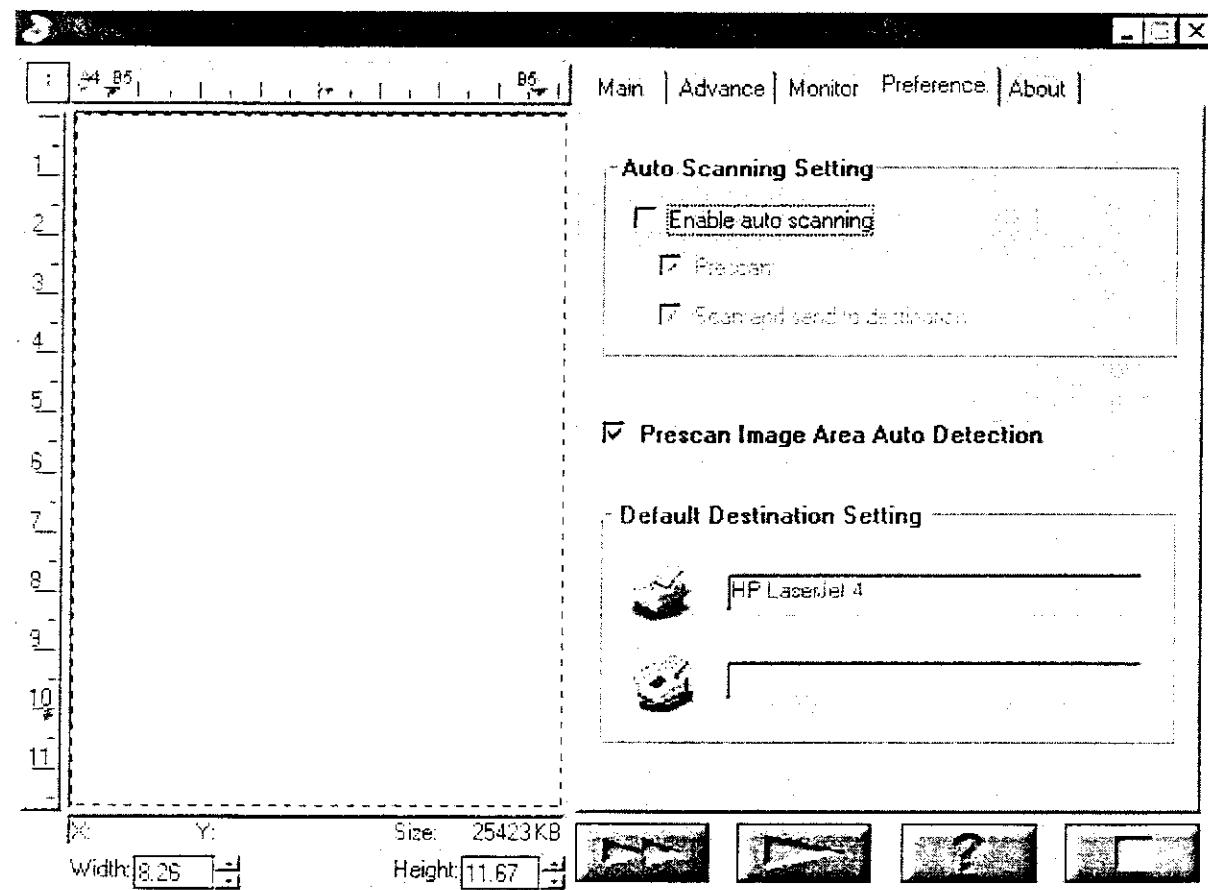


Operation

Getting Started Main Advance Monitor Preference

Preference page

The Preference page lets you adjust the following settings: Auto scanning setting, Prescan image area auto detection and Default destination setting. The preference page is shown as follows.



Auto Scanning Setting

Auto Scanning is a fully automatic function, which enables you to perform a complete scan at your fingertips. By checking the "Enable auto scanning" option in the Auto Scanning Setting area, the auto scanning function will be enabled. Please note that the default settings for Auto Scanning Setting

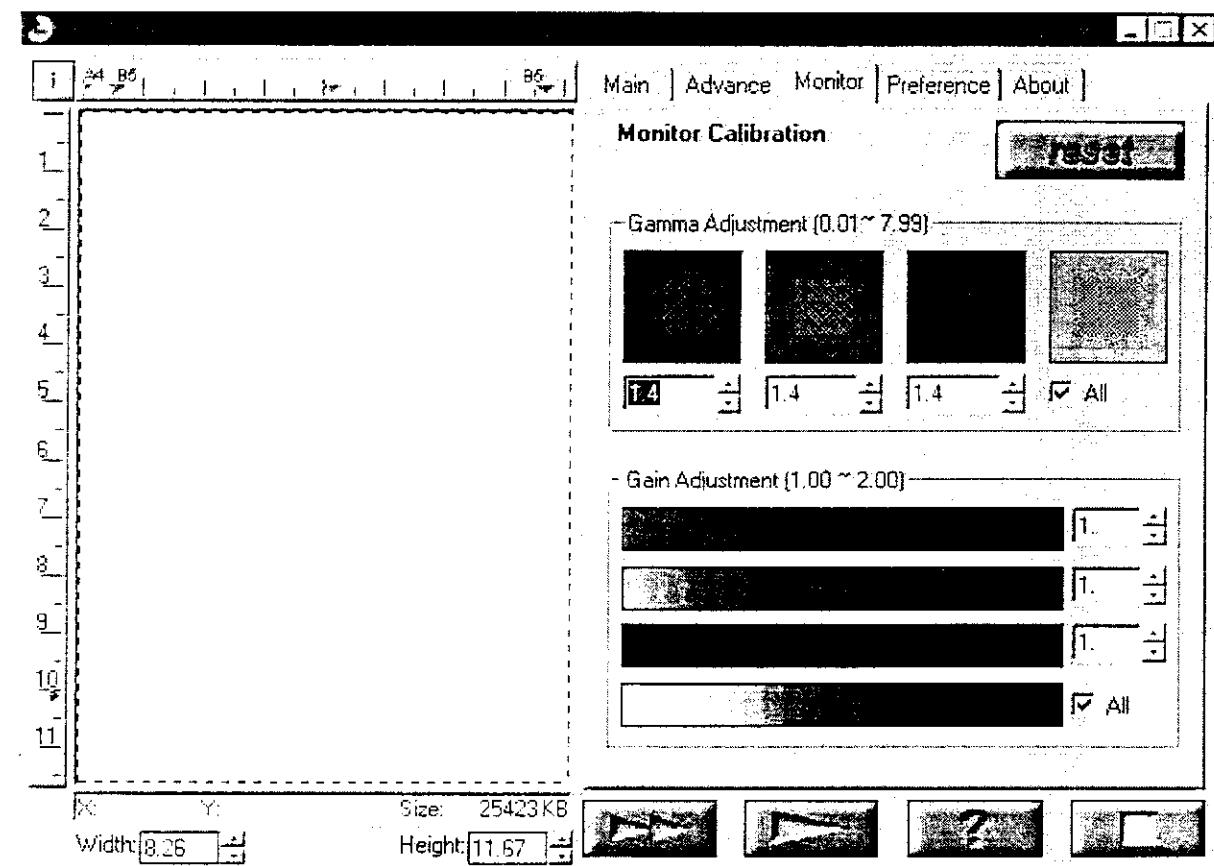


Operation

Getting Started Main Advance Monitor Preference

Monitor page

The Monitor page allows you to calibrate the monitor color by adjusting the gamma value and gain parameters of your monitor to increase the visual perception. It appears as follows.



To perform monitor calibration to your computer:

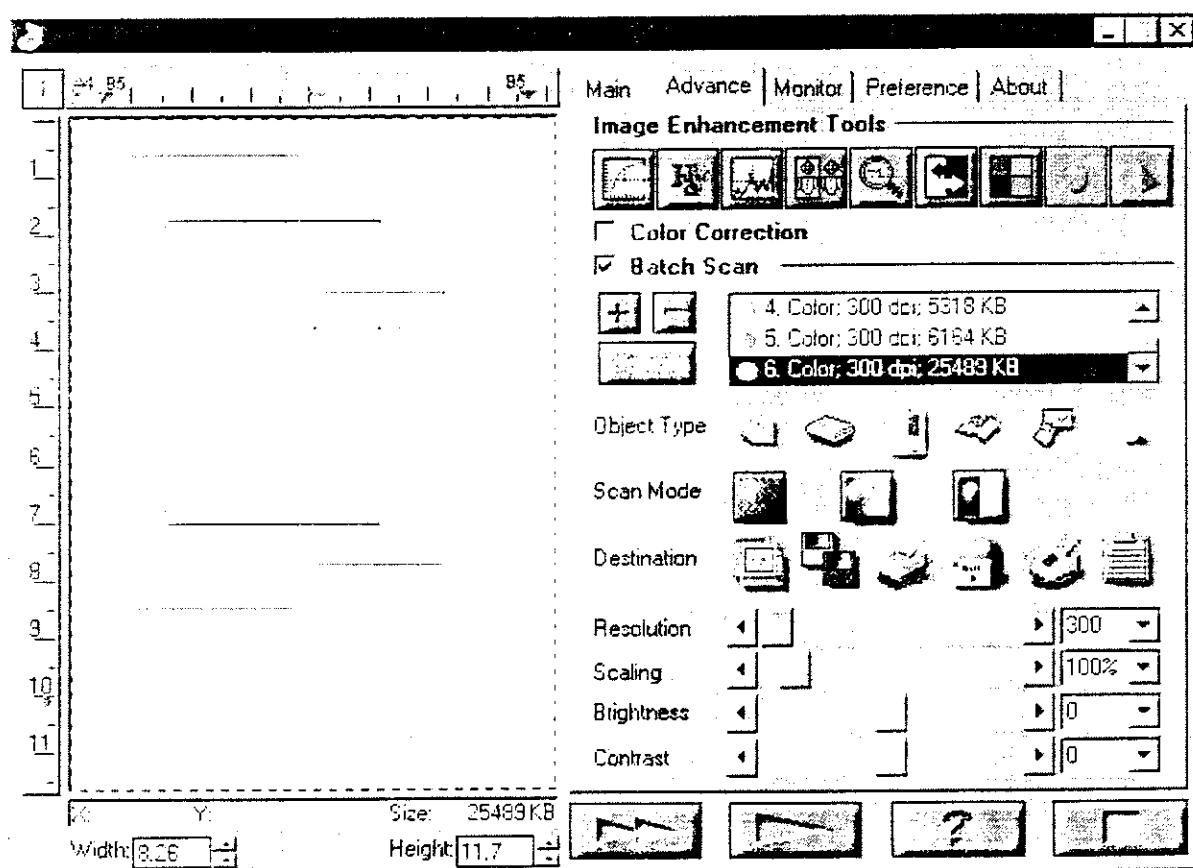
- 1 In the "Gamma Adjustment" box, adjust for a suitable value for each of the primary color channels used by the monitor.

If this function is checked before scanning, you can acquire fidelity image.

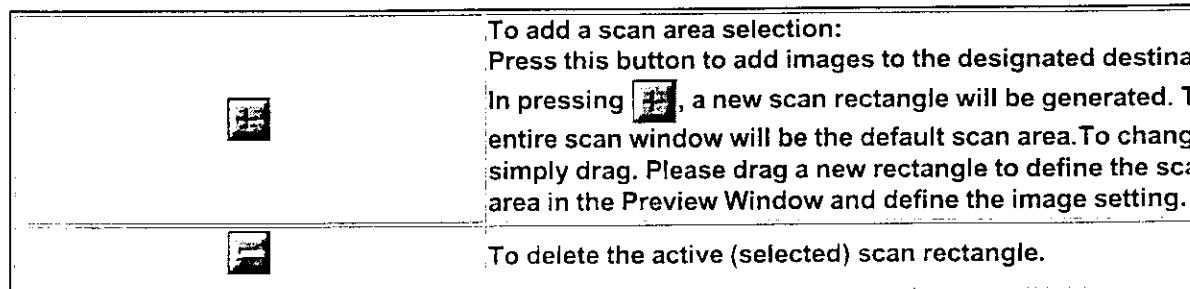


Batch Scan

Batch scan is a very useful function that allows you to define multiple areas with different image settings in the Preview Window and then to scan the defined areas in a single operation. Please remember to prescan the document before applying the Batch Scan function.



Setting procedure:

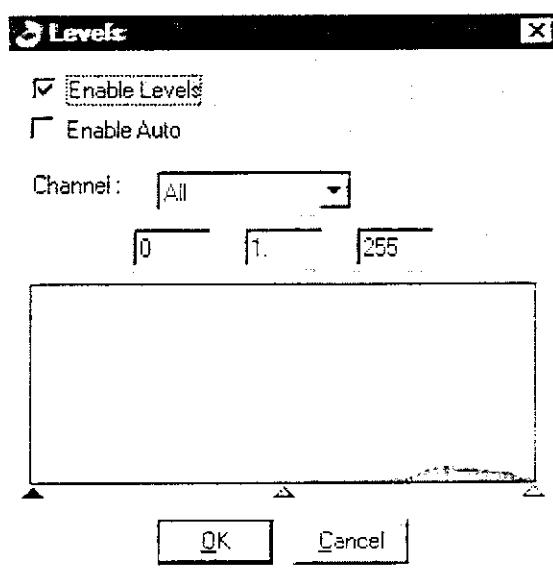


Levels

The Levels function automatically adjusts the colors of the scanned document spread over a 256-color scale.

To perform the auto level:

1. Run the 'PRESCAN' function by clicking the  button.
2. Click the Levels icon .
3. Select this icon and a dialog box will appear.



4. Press  to acquire the adjusted image.

Filter

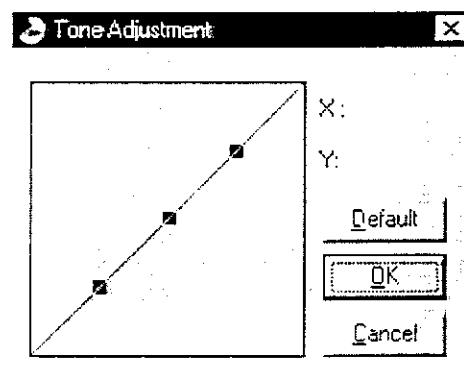
Filters are provided to produce dropout effects, i.e., to drop the part of the image that is in a color difference from the specified filter. Three options are available: Red, Green, and Blue filter.



Tone Adjustment

For correcting image distortions that take place during scanning, use the Tone adjustment on scanned images. Tone adjustment allows you to control the shadows, midtones, and highlights of your image. Use it to restore detail that is lost in shadows or highlights, to correct overexposure or underexposure, and to improve the tonal quality of your image.

Click and a dialog box entitled "Tone Adjustment" appears.



You can adjust the tone value by using the mouse cursor to reshape the tone. Curve-based editing enables you to find out a problem area and makes small or large changes to that image area.

The Tone curve takes an original pixel brightness value X as input and Y as a new output brightness value. The resulting curve is a visual representation of the balance between shadows, midtones, and highlights.

A will be marked on the lower right corner of the icon as a reminder if you change the default setting.



Mirror

The mirror function lets you change the horizontal orientation of a prescan image to one that mirrors the current image view across an imaginary vertical line.

To mirror an image:

Click . When this function is enabled, the icon will become .

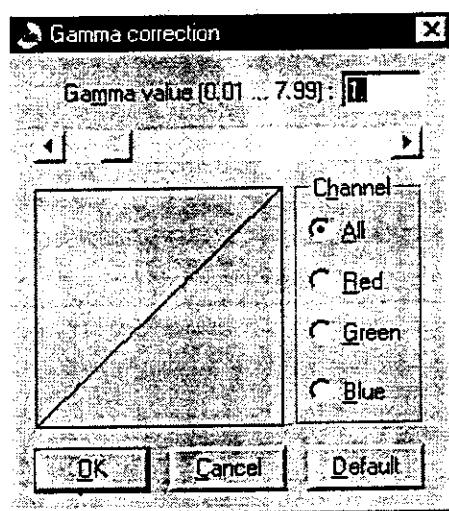


The following functions are the tools that help you edit your image for your personal taste.



Gamma correction

Sometimes you may want to adjust the brightness of midtones of the scanned image while keeping shadow and highlight areas relatively unchanged. The Gamma correction function allows you to increase or decrease the intensity of the midtones. Click , and the following window is displayed:



The available gamma value ranges from 0.01 to 7.99. Changing the gamma value above 1.0 will brighten the midtones, and below 1.0 will darken the midtones. You can either enter the desired gamma value in the number box or use the scroll bar to select your desired value.

In the CHANNEL checking box:

To correct all color components (red, green, and blue) of the image with the same gamma value.

ALL

Red

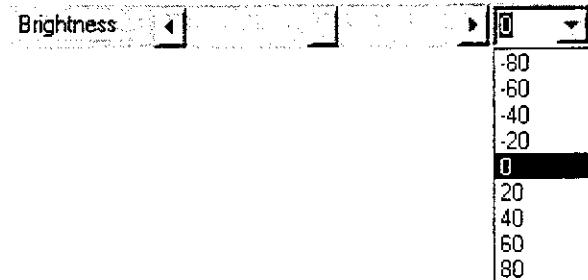
To correct the red component of the image.

Green

To correct the green component of the image.

Blue

To correct the blue component of the image.

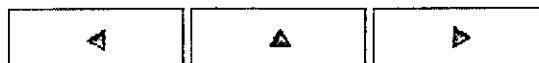
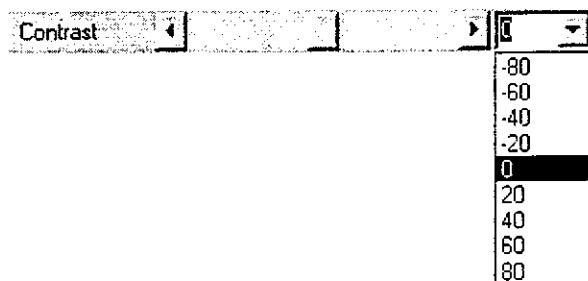


For B/W images, adjusting the brightness of a prescan image is actually setting a threshold for the scanner sensors to interpret the scanned data. Data above the threshold will be interpreted as the white area, while data below the threshold as the dark area.



■ Contrast

Contrast refers to the differences in the brightness between the light areas and the dark areas of an image. The larger the contrast value, the higher the differentiation between the light and the dark areas. Contrast is indicated in percentage ranging from -100 to +100, and is set to "0" as the default. You can either use the scroll bar (moving the box, clicking the arrow icons or clicking on the space between the box and the icon), key in the value into the number box or select a value in its drop-down combo box to change the value.





Send to Application

Click this button to send the scanned image to your application program.



Send to File

Save your scanned image as a file. The TWAIN source window will prompt you to give a filename for saving.



Send to Printer

This selection lets you send your scanned image directly to the defined printer for a printout. Please go to the Preference page to set up the printer.



Send to Mail

This function lets you send the scanned image to others through e-mail. The TWAIN source window will prompt you to give a filename for saving the image that is going to be attached to your email.



Send to Fax

This lets you send your scanned image to other people as a fax message. Please go to the Preference page to set up the fax driver.



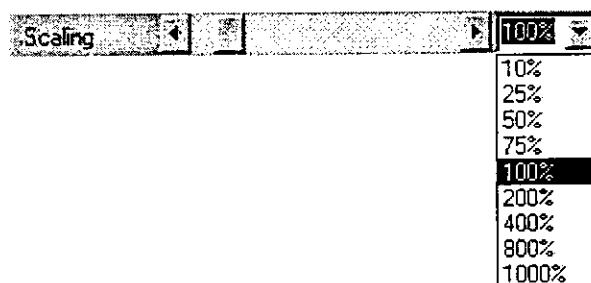
Send to Clipboard

Click this button to save the scanned image in the clipboard so it can be used in another.



Scaling

Scaling helps you to change the size of the scanned image document by clicking the arrow or entering a number in the edit box.



When placing the material(s) to be scanned on the scanner, press  to view the scanned image on the Preview Window. Define the scan areas then press  to proceed scanning.

■ Define the scan areas

To define a scan area, move the cursor to the Preview window when the first prescan is done. Press the left mouse button and drag a rectangle to the desired size. Release the mouse button. Repeat the same step to define more scan areas. To discard the current selection, simply click the left mouse button outside the rectangle anywhere in the Preview Window.

You can move the entire scan rectangle by placing your cursor inside it. When the cursor changes to a four-way arrow, hold down the left button of your mouse and drag the rectangle to the desired location. You can either change the size of the scan area by dragging any of its four edges/corners when the cursor becomes a two-way arrow at the edge of the scan rectangle or directly type values in the Width and Height box to outline the rectangle. These values are measured with the unit specified in the unit box on the upper left corner of the Preview Window.

After reviewing the prescan image, you can use various image enhancement tools to strengthen the look and quality of your final scanned image. Please refer to Advance page for more details.



Main Settings

■ Object Type

There are many functions in Object Type section. You can make the most of them to acquire the best image quality. As images are scanned directly from screen-print media (like newspapers or magazines), you should notice that scanned images usually include wavelike patterns and lines. As long as the scanning resolution is not set too high, you can use this function to remove these annoying effects. For example, if your scanning image is newspaper material, the scanner will automatically adjust the scanned image to high newspaper quality.



Normal

You need not select this icon if your document is photo or better quality images.



Newspaper

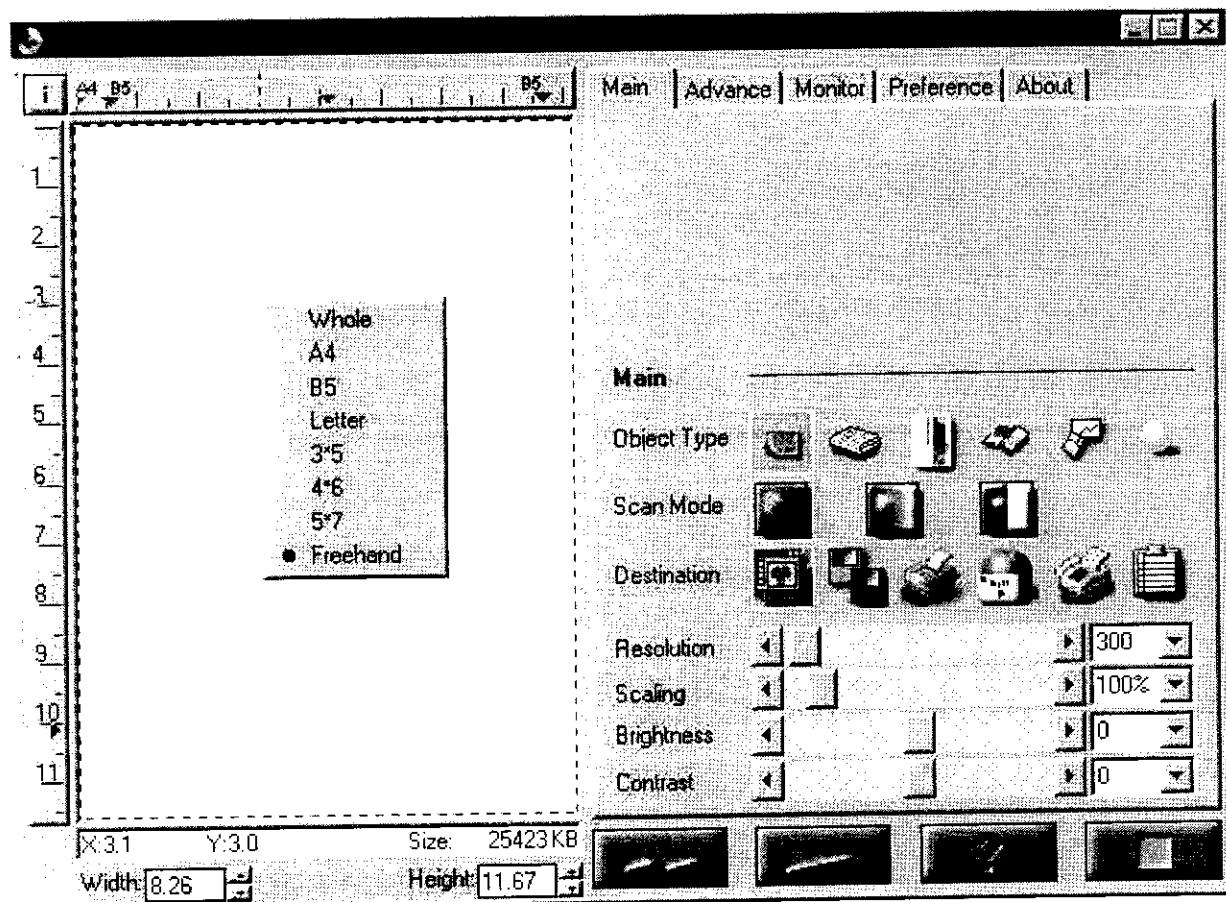
For newspaper document selection.

Operation

Getting started Main Advance Monitor Preference

Main page

This page lets your scanner operate in the basic mode. All the control settings available here are fundamental to the scanning process. These settings include scan mode, scanning destination, resolution, brightness, contrast and scan control button. The Main page window is shown as follows.



The TWAIN source window is divided into three major parts: title bar (on the top), Preview Window (on the left) and property pages (on the right).

■ Title bar

The title bar displays the name of the TWAIN source. You can move the window around on your screen by positioning your mouse cursor on the title bar. Hold down the left mouse button and drag the window to the desired location, and there, release the mouse button. The icons located at the end of the title bar can be used to minimize the window to its smallest size or to close the window.

When you click on the scanner icon found at the left end of the title bar, the system menu will be displayed. The menu contains commands that let you move or resize the window, close the TWAIN Source or park the scanner. Double clicking the system menu is a quick way to close the window.

Before installing the scanner, please make sure your system meets the following requirements:

- Computer System : IBM PC/AT or compatible computer with 486 or higher CPU.
- Operating System : MS Windows NT, windows 95 or Windows 98.
- Pointing Device : A Microsoft Windows compatible mouse.
- Memory : At least 8MB of RAM,32MB is recommended for better performance.
- Display : A VGA monitor and a display card of at least 256 colors. A true color display card is recommended.
- Floppy Drive : At least one 3.5 inch (1.44MB) floppy drive.
- Hard Drive : A hard drive with at least 100MB free storage capacity is recommended.
- CD-ROM Drive.

Unexpected results will happen if your system does not live up to the requirements.

What's on this CD?

We have included a host of related information and software resources for use with this scanner on the enclosed CD title. You can install the scanner driver and other bundled software as well as read the user's manual, all by simply inserting CD into your CD-ROM drive. Be sure to take advantage of the multitude of the software this CD offers!





How to use this manual?

Welcome to this manual.

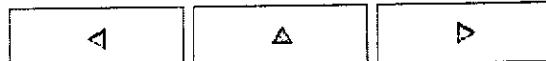
In this Manual, each page is provided with a browsing column separating from browser tool column. You may browse the whole Manual by using the box on the upper left corner or on the bottom.

- Please press the box on the upper left corner to review the inventory list that covers interconnected chapters.
- Please press the arrow on the left or right for the preceding chapter or the following chapter.
- Please press the upward arrow to return to the beginning of the current page.
- When you have moved your mouse to the location mentioned above, that will show where you have wanted it to be.

No matter which page you are on the Manual now, you can use the browsing column and quickly return to the screen of Contents or Index.

NOTE

The browser tool column may be executed at any Web screen (inclusive of these screens). Nonetheless, browsing column can be executed only in this Manual.



FEDERAL COMMUNICATIONS COMMISSION

NOTE

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. 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 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.

Shielded interface cables must be used in order to comply with emission limits.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.