EUT:SCANNER

FCC ID:ITEUECVSAM12

ULTIMA ELECTRONICS CORP.

USER'S MANUAL

ARTEC /// ULTIMA ELECTRONICS CORP.

High Performance Color Desktop Scanner

Chapter 1 Introduction

ViewStation AM12E 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.

1.1   Powerful scanner features
1.2   Minimum system requirement
1.3   What can I scan?
1.4   How to use this manual?
1.5   What's on this CD?

This manual is written in HTML format. You can view the manual in any internet browser and print the page you choose by applying the internet browser's PRINT function if necessary. The manual is displayed in two major frames on your screen.You can see the outline of this manual in the left section and the contents in the right frame. Simply click on the subject in the left frame that you are interested in, the text will be displayed in the right frame. When browsing the text in the right frame, click the subject you are interested

in and click on the to go back to the top of the viewing page.

Ultima has included a host of relevant information and software resources for using with this scanner on the enclosed CD (Compact Disc - Read-Only Memory). You can install the scanner driver and other bundled software as well as read the user's manual, register the product, connect to Ultima's website, write to Ultima's technical support service staff, all by simply inserting a single CD into your CD-ROM drive. Be sure to take advantage of the multitude of software this CD offers!

■ Please take great care in unpacking the scanner to avoid possible damage.
■ Save all packing materials for possible future use in case you need to move the scanner.
■ Make sure you have all the items listed below:
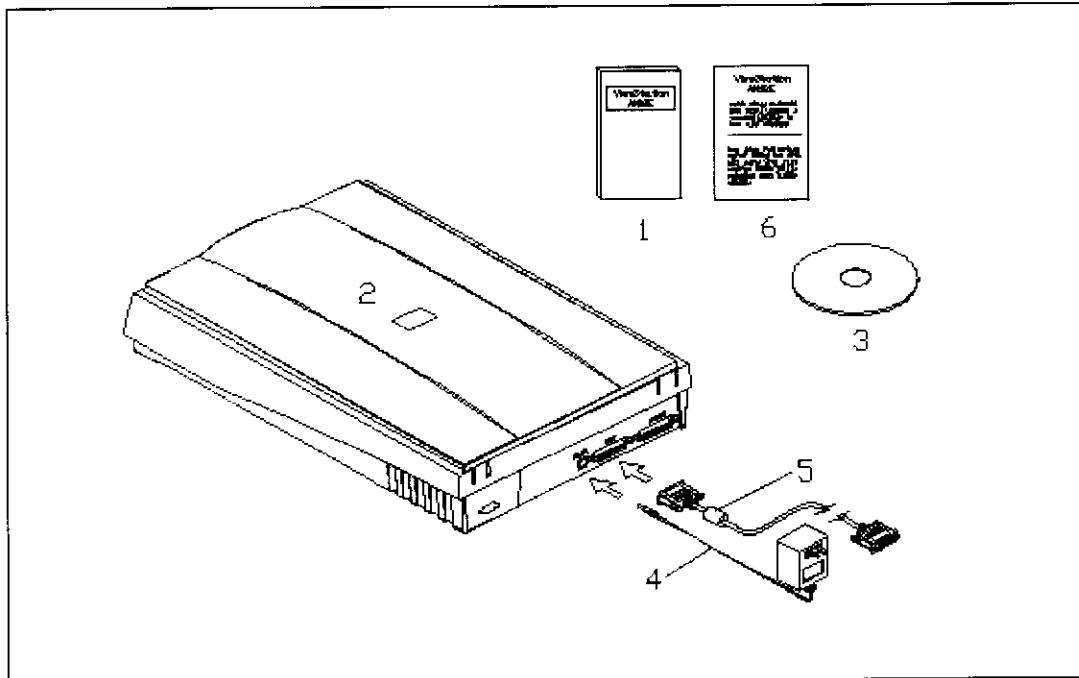
1. "Read Me First" Quick guide
2. Scanner
3. Scanner CD - including TWAIN driver, user's manual & bundled software
4. Power Adapter cable
5. 25-pin scanner cable
6. Warranty Card

If any of the above items are missing or damaged, please contact your dealer.

Please read carefully through the list of scanner items below to help you understand the product documentation. (**NOTE:** These terms will be used consistently in the user's manual.)

- Always place the scanner on a flat, even surface.
- Leave enough space around the scanner to ensure good ventilation.
- Keep the scanner away from liquids, direct sunlight, and strong magnetic fields.
- Do not use the scanner in an area subject to rapid changes in temperature as this may cause condensation inside the scanner.
- Although the Glass Plate is made of safety glass, it is advisable to treat the Glass Plate and cover with care. Please do not put heavy objects on the scanner. If the Glass Plate or cover gets broken, stop using the scanner and contact your dealer immediately.
- It's okay to move the scanner around in your office, but if you need to transport the scanner over a long distance, be sure to lock it before transport. (For unlocking procedure, please refer to "Unlocking the scanner before use").

After unpacking the scanner carton, you will find the scanner locked. This is to protect the scanner's optical assembly from damage during shipment.

■ To unlock the scanner:

1. There are two locks separately located under the front panel and the bottom of the scanner.
2. Flip the first lock switch to its unlocked position to unlock the scanner.
3. Turn the second lock pin from **LOCK** to **UNLOCK**.

1. Unlock
2. Lock
3. Front Panel
4. Buttom View of the Scanner
5. Lock pin
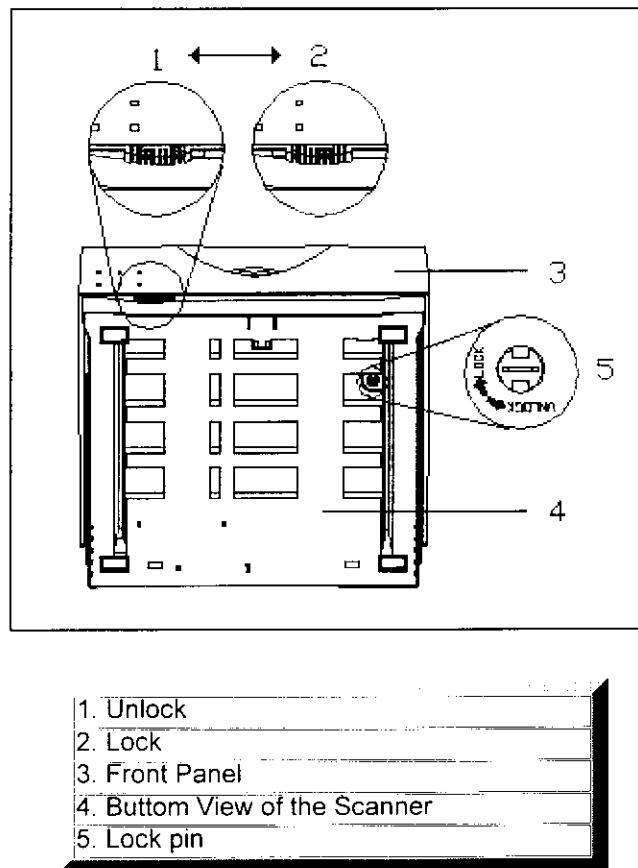
■ To lock the scanner:

1. Please remember to **PARK** the mirror box before locking.
2. Turn the lock pin from **UNLOCK** to **LOCK**.
3. Flip the lock switch the other way to lock the scanner.

Flip the lock switch the other way to lock the scanner before transport. However, please remember to PARK the mirror box before locking. For parking procedure, please refer to the park function in the Main page.
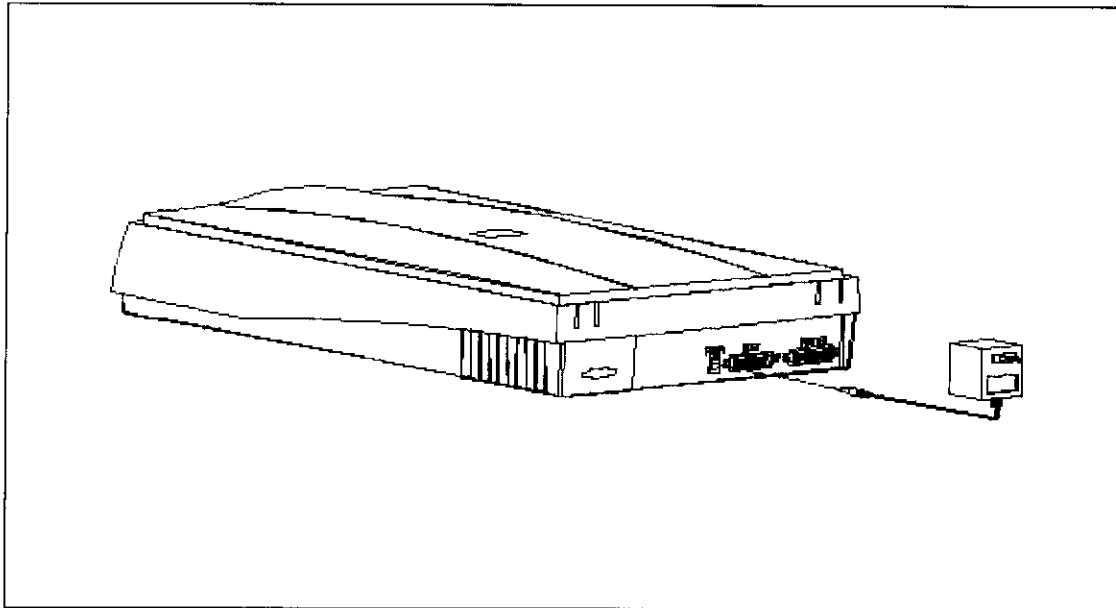
If you have a printer, connect one end (male) of the printer cable into the printer pass-through port (the one marked "PRINTER" <female>) on the back of your scanner.

5. Turn on your computer.

The Document Cover is removable for your convenience to scan thicker materials.

■ To remove the Document Cover:

1. Please lift vertically the Document Cover to the height of the notch.
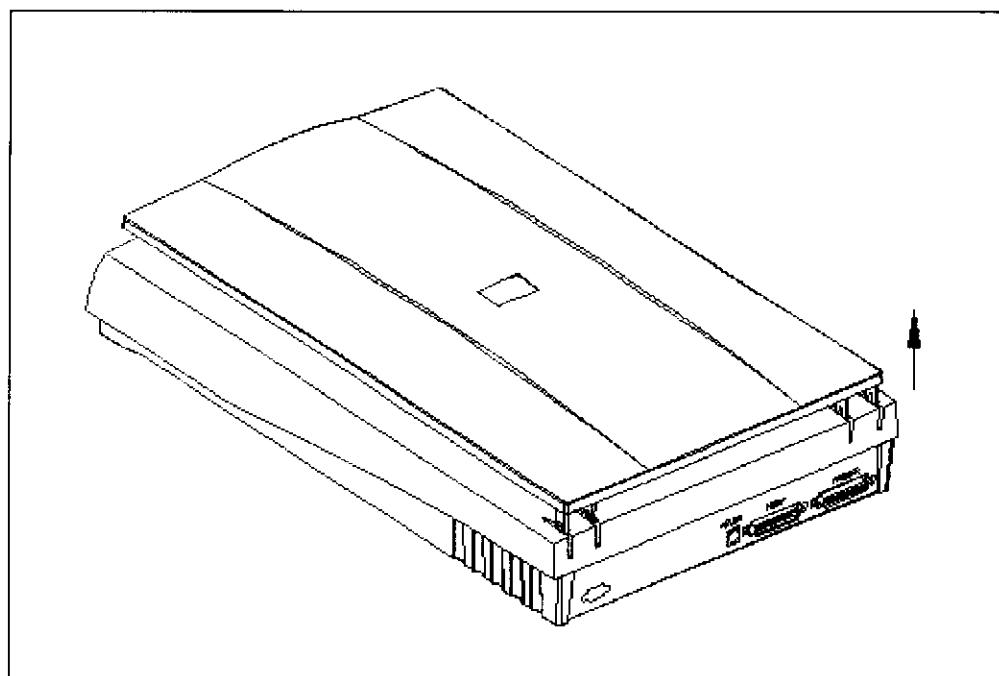
2. Then lift up the front end of the Document Cover (see figure below). The

computer to select EPP as the Parallel Port Mode (located under PCI & Onboard I/O Setup). Please refer to the user's manual of your computer for further instructions.

Please install the bundled software to fully exploit the scanner package value.

The scanner driver is a program that can be used by any TWAIN-compliant application to communicate with the scanner.

■ To install the scanner driver:

1. Start Windows.
2. Insert the scanner CD into your CD-ROM drive.
3. The product's main menu automatically appears on your screen.
   If the autorun doesn't work, choose RUN from the START menu on the lower left corner of your Windows screen. Type "< drive> :\Setup.exe" (for <drive> insert the drive letter of your CD-ROM drive) in the Command Line box and click "OK" or press "Enter."
4. Choose   to open the installation page.
5. Select   to start installing the scanner driver.
6. Follow the on-screen instructions to complete the driver installation.

NOTE: The scanner CD main page is hidden during installation. It will show up again after the installation completed.

Bundled with the ViewStation AM12E you will find five software packages, Microsoft Internet Explorer (internet browser), Xerox TextBridge Classic (Optical Character Recognition), ixla Photo Scanner Suite / ixla Artist / ixla Explorer.

You can use the **IE** program to view this user's manual, visit web sites or browse any HTML files. TextBridge is a very powerful OCR program. It recognizes 11 western languages with exceptional accuracy. Also included is image processing software to help you to edit the scanned image to suite your personal taste.

The software enables you to play around with images easily. Scanning newspaper, magazines, and photo images or documents with Ultima's ViewStation AM12E is very quick. You can use the OCR software to save you the time and trouble of re-entering data.You can also applying image design software or word processor to edit the scanned image. ViewStation AM12E can help you send scanned images to various kinds of destinations is file, printer, fax, email, clipboard and applications so that you can effortlessly distribute images to almost anywhere you want.

■ To install the bundled softwares in Windows 95:

1. Start Windows.
2. Insert the scanner CD into your CD-ROM drive.
3. The product's main menu automatically appears on your screen.
   If the autorun doesn't work, choose RUN from the START menu on the lower left corner of your Windows screen. Type "<drive>:\Setup.exe" (for <drive> insert the drive letter of your CD-ROM drive) in the Command Line box and click "OK" or press "Enter."
4. Choose   to open the installation page.
5. Click on the application icon of the software that you wish to install.
6. Follow the on-screen instructions to complete the installation.
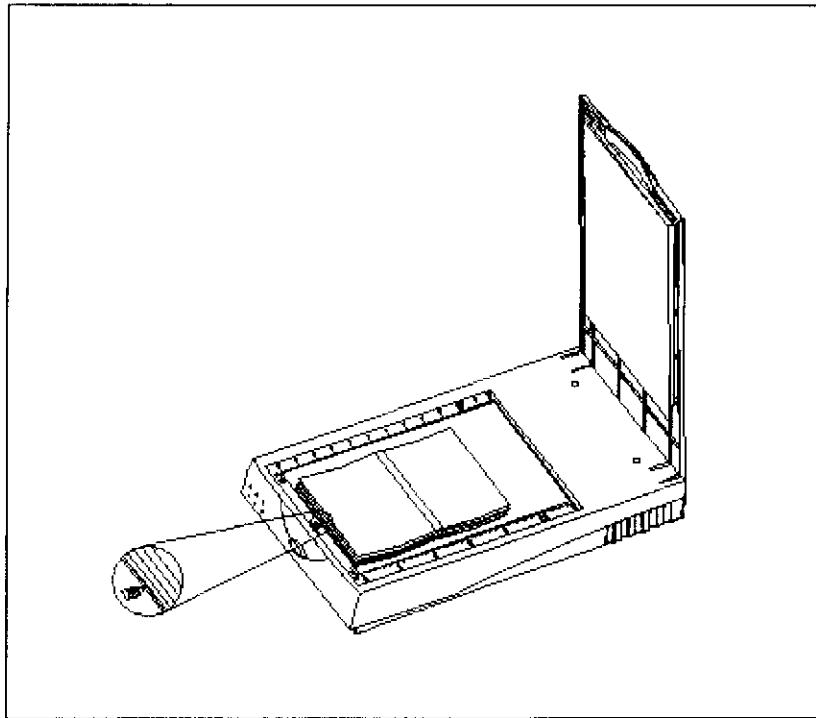
The above figure shows the Glass Plate with ruler markings along its edges. Use the arrow in the middle of the lower edge as the scanning origin. Line up the middle of your document with the origin to get ready for scanning. For scanning size B5 or A4 document, please line up your document with the B5/A4 marks on the ruler.

A TWAIN source is a way which your computer communicates with your new scanner. The image source serves as an interface between the scanner and the application program, enabling them to communicate with each other so that the application can direct the scanner to carry out the scanning tasks.

TWAIN allows you to install more than one TWAIN source onto your system. The host application will automatically select the installed TWAIN source as the default. If you have installed more than one TWAIN source, you will have to select the one you want to use.

You can open the ViewStation AM12E TWAIN source in either of the following two ways.

■ **To request the TWAIN Source from application programs:**

The Advance page encompasses Effect tools that can be used to compensate for any color distortion of the scanned image...

⊙ 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...

⊙ Preference page

The Preference page lets you adjust the following settings: Auto scanning setting, Prescan image area detection and Default destination settings...

⊙ About page

The About page provides information of the scanner driver version and our service hotlines...

Dust, dirt, and smudges accumulate on the glass plate may be captured by the scanner and become a part of the scanned images. Therefore, to ensure the best quality of the scanned images, the glass plate and document cover should be cleaned regularly.

■ The cleaning procedure is as follows:

1. Unplug the scanner power adaptor.
2. Remove the document cover.
3. Use a cloth slightly damped with mild detergent or alcohol to clean the glass plate and document cover separately.
4. Use a lint-free dry cloth to dry the glass plate and document cover.

> Do not spray the cleaning liquid directly onto the glass plate, because excess liquid may seep through the seams around the glass and contaminate the internal components of the scanner. Don't clean with too much force. Avoid leaving any scratches on the glass.

1. The key to effectively repairing any machine failure is the ability to find out the cause of the malfunction. This can only be done well when one is familiar with the machine's functions and how the machine is assembled, adjusted and designed.
2. Do **NOT** disassemble the scanner on your own. Please contact your vendor for help.

■ The scanner does not react.

(1) The power adapter may be faulty.
> Check by connecting the power adaptor to another power outlet.

(2) The power cord is defective or not properly connected to the scanner.
> Check if the power cord is damaged. If yes, replace it with a new one.
> Make sure the power cord is properly plugged into the scanner's power jack.

(3) The safety fuse may be burn out.
> If the fuse is spent, contact your vendor for assistance.

(4) The LED lead inside the scanner may not be properly connected.
> Contact your vendor for assistance.

If the problem persists, contact your vendor for assistance.

■ The scanned image is not clear enough.

The Glass Plate is dirty.

1. Turn off the scanner and unplug all the cables connected to the scanner.
2. Remove the document cover.
3. Use a cloth slightly dampened with mild detergent or alcohol to clean the Glass Plate and document cover separately. (Do not use benzene, thinner or any other solvent.)
4. Use a lint-free dry cloth to dry the Glass Plate and the Document Cover.

■ The scanned image has uneven vertical lines.

The Shading paper inside the scanner is dirty.
> Please contact your vendor for assistance.

■ The Scanner's carriage motor fails to rotate upon powering up or during scanning.

The carriage motor controller board might be defective.
> Please contact your vendor for assistance.

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.
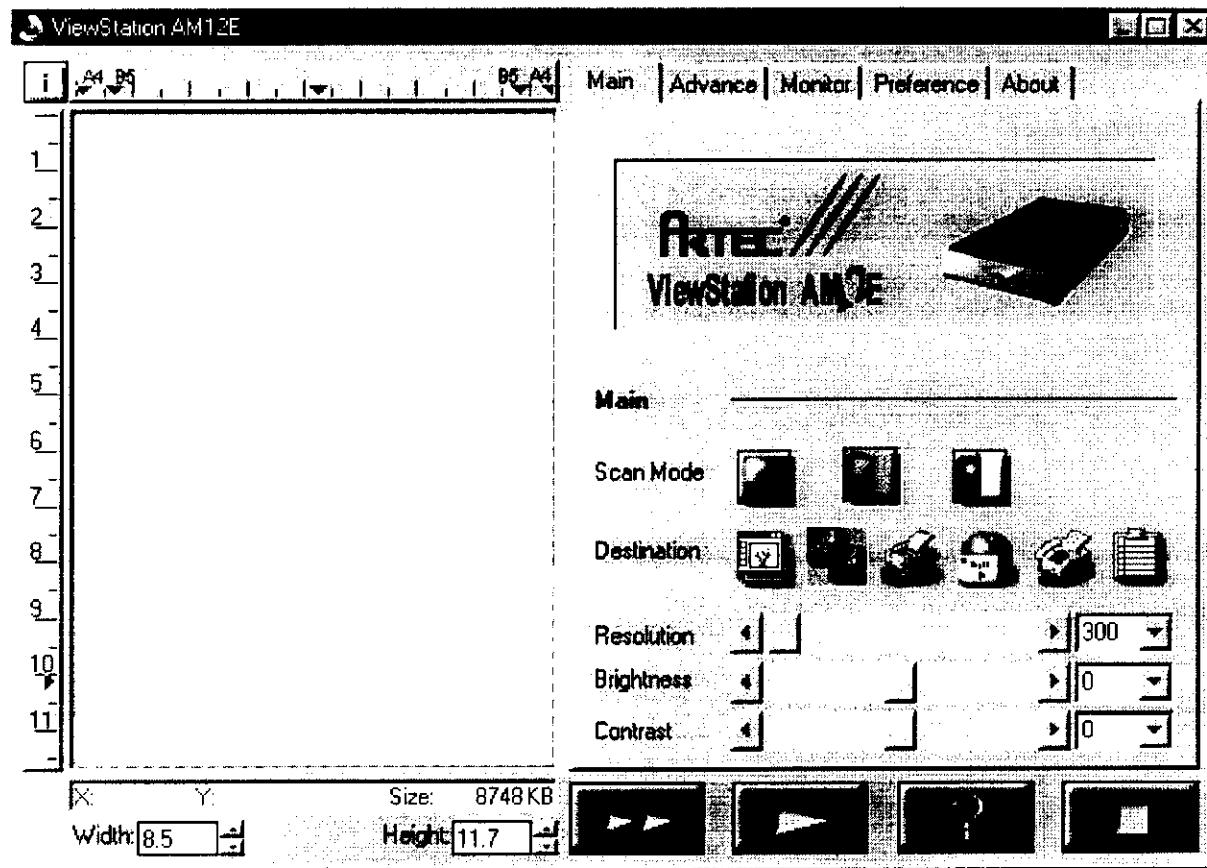

The TWAIN source window is divided into three major parts: title bar (on the top), Preview Window (on the left) and property pages (on the right).

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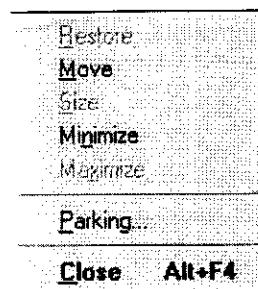
When placing the material(s) to be scanned on the scanner, press [image] to view the scanned image on the Preview Window. Define the scan areas then press [image] to proceed scanning.

■ 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 review 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.

Settings

■ 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.

Scan Mode

■ Color mode
Select this for color images.

■ Gray mode

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 9600 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.

Resolution ◄ | ▶ 300 ▼

50
100
200
300
600
800
1000
1200
2400
4800
9600
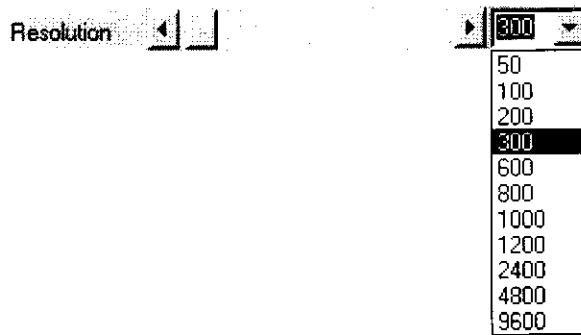
Normally you should choose a resolution that matches the resolution of the output device. The following list is our suggestion:

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.

Brightness ◄ | | ▶ 0 ▼

-80
-60
-40
-20
0
20
40
60
80
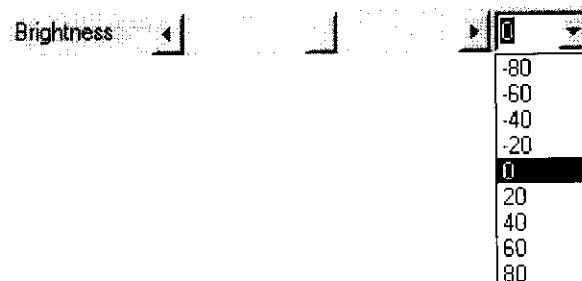
For B/W images, adjusting the brightness of a prescan image is actually setting a threshold for the scanner

Advance page

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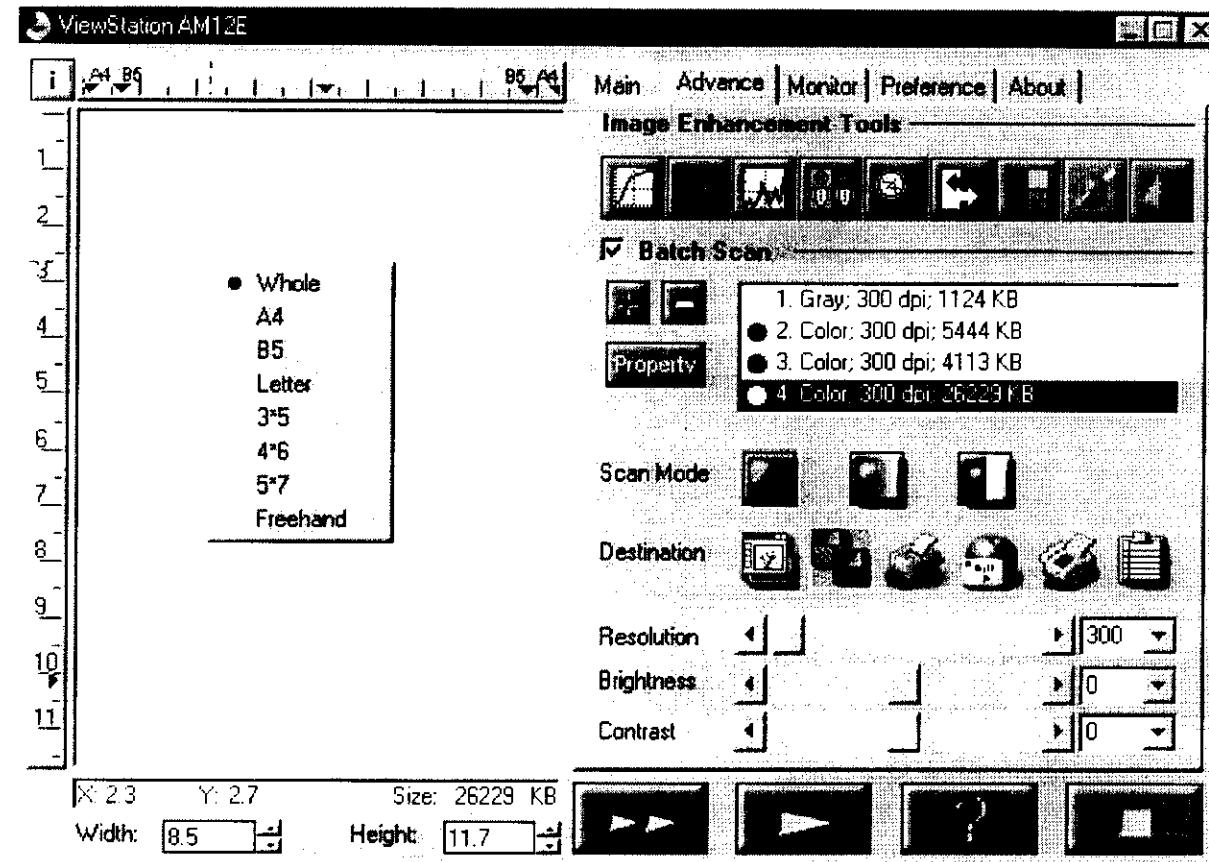

The following functions are the tools that help you edit your image to your personal taste.

HSV

Click [icon], 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.
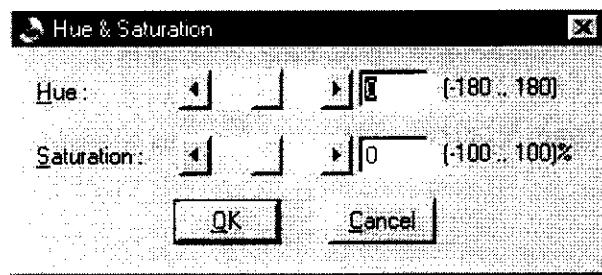
To adjust Hue and Saturation:

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 relevant 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 [icon] as a reminder if you change the default setting.

Tone

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 [icon], a dialog box entitled "Tone Adjustment" appears.

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

Auto Level

The Auto Level 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 Auto Level icon .

3. Define the scan area. The image color will be adjusted based on the scan area only!

Sharpen More incrementally to moderately sharpens the image.

Descreen

Descreen filter is used to eliminate any moiré patterns (wavelike lines) in images. 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.

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

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.
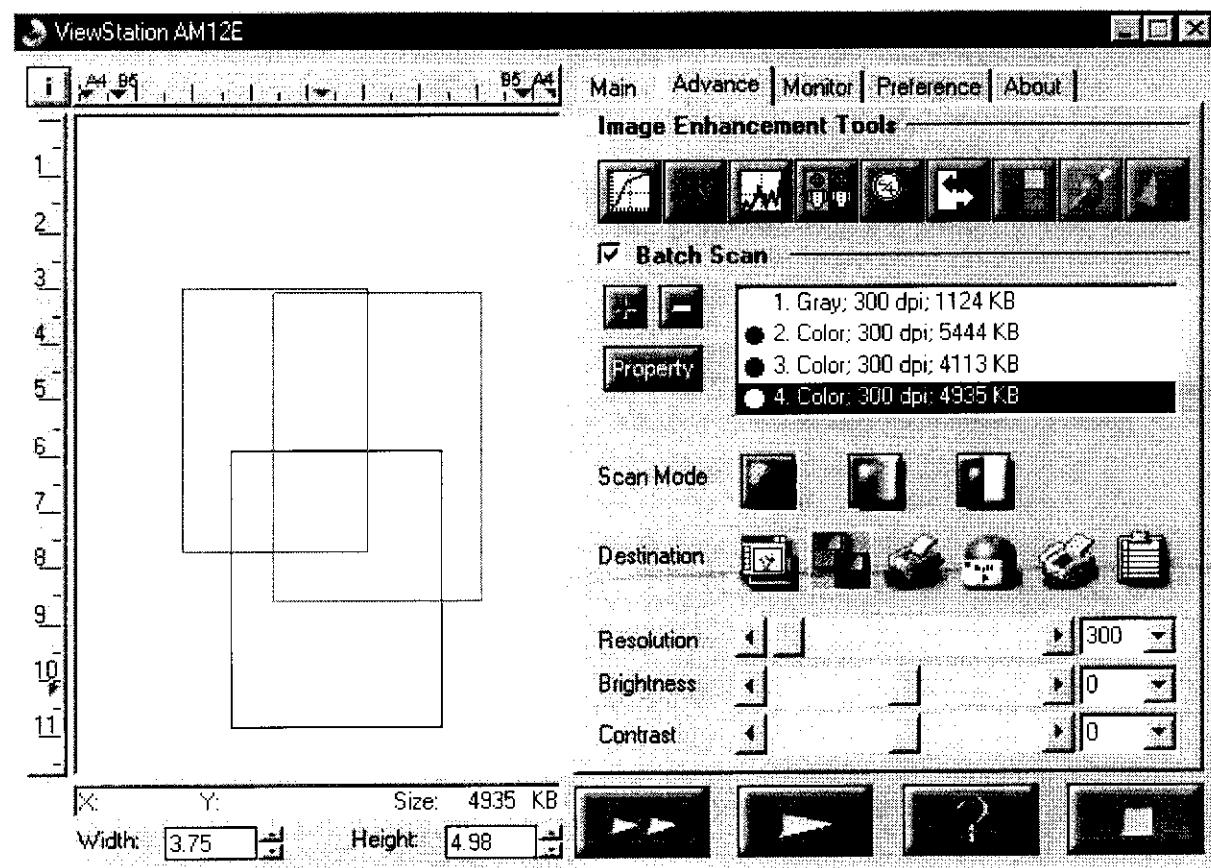

Setting procedure:

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.
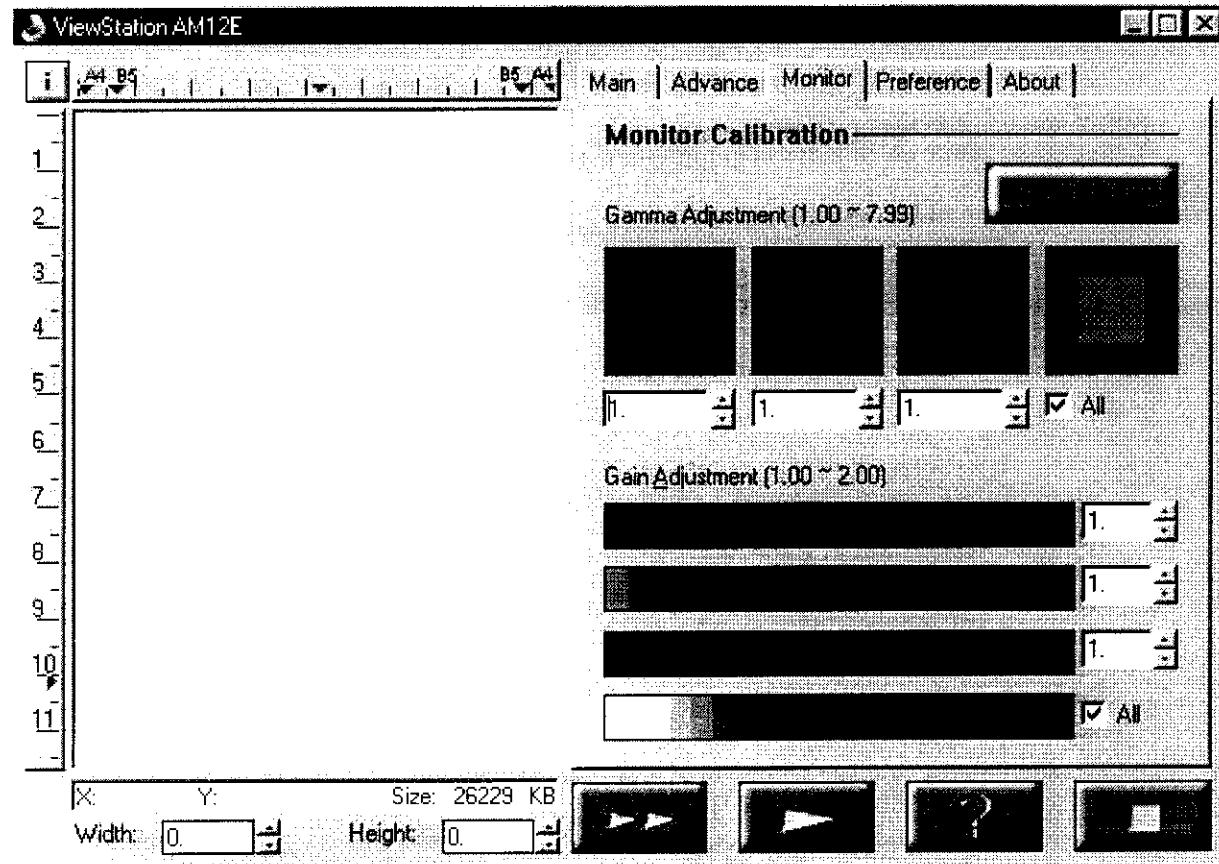
To perform monitor calibration to your computer:

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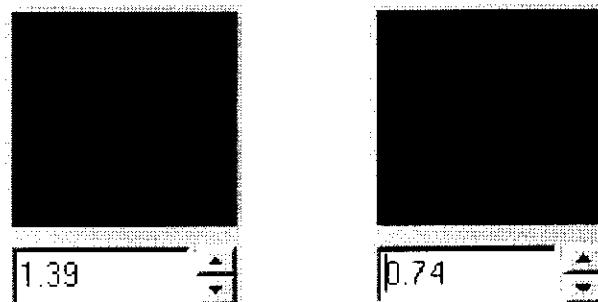

Vary the value in the number box until by your visual judgement the colors of the two areas come to one.

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

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.
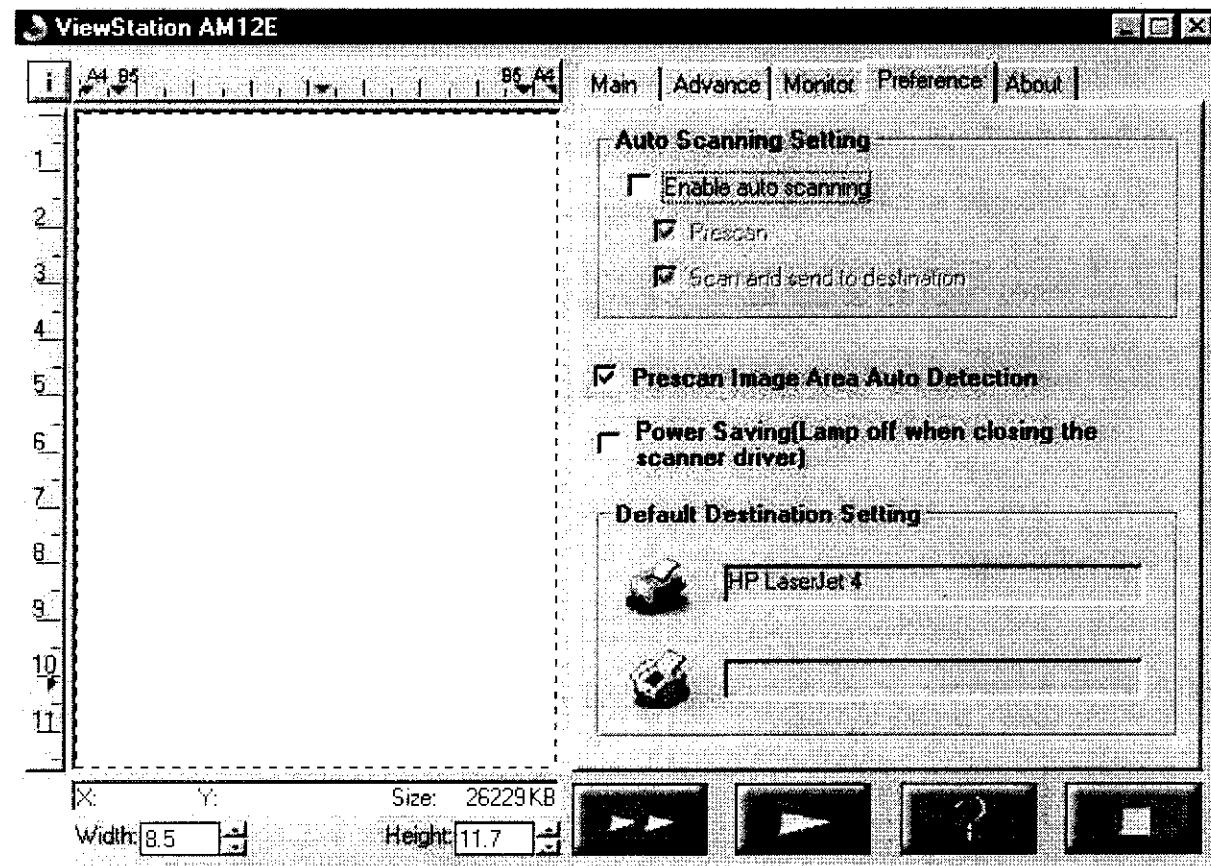

Auto Scanning is a fully automatic function, which enables you to perform a complete scan with your fingertip. By checking the "Enable auto scanning" option in the Auto Scanning Setting area, the auto scanning function will be enabled. Please note that the default settings for Auto Scanning Setting appears as follows.
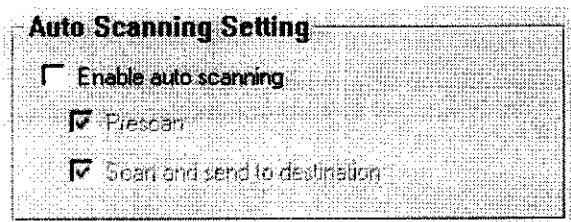
The steps for auto scanning are:

Default Destination Setting

HP DeskJet 690 Series Printer
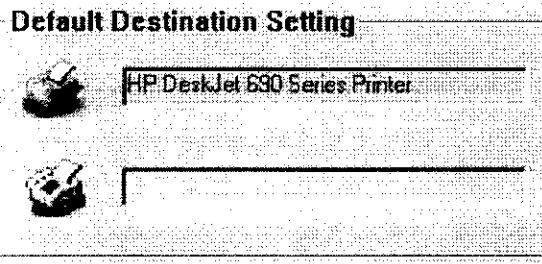
To setup default printer and fax:

■ Press [icon] or [icon] to enter the setting.

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

Appendix

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Functional Characteristics:

Type
document stationary flatbed using CCD (Charge Couple Device) linear sensor
Scan Size
A4 size with maximum scanning size of 8.5 X 11.7 inches (21.59 X 29.72 cm.)
Resolution
Optical resolution = 600 X 600 dpi
Hardware resolution = 600 X 1200 dpi
Software resolution = 9600 X 9600 dpi
Scanning Mode
Color / Grayscale / B/W
5 degree ro 32 degree
Scanning Speed
Pre-scan (75 dpi) A4 size, under 25 seconds.
600DPI B&W mode A4 size, 3 minutes with unlimited interface speed
600DPI Gray mode A4 size, 3 minutes with unlimited interface speed
600DPI Color mode A4 size, 6 minutes with unlimited interface speed
Operation Temperature

Software Characteristics

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

Mechanical Characteristics

Dimension
47.65 X 29.7X 9.43 cm. (Length X Width X Height) including the document cover assembly and foot pad
Weight
Approx. 3 kg.

Electrical Characteristics

Light Source
Cold cathode fluorescent white lamp
Power Source
linear power adapter for various regions
Type 1: USA - 120VAC+/-10%@60Hz
Type 2: Europe-230VAC+/-10%@50Hz
Type 3: U.K.-230VAC+/-10%@50Hz
Type 4: Australia-240VAC+/-10%50Hz
Type 5: Japan-100VAC+/-10%50Hz
Type 6: Taiwan-110VAC+/-10%60Hz
Power Consumption
Idle 5W
operation – under 20W (scanner only)
Interface
Able to connect to a printer as a pass-through interface

E-mail: artecinf@artec-electronics.de
Address: Kurhessenstr. 3 64546
Morfelden-walldorf

ARTEC Electronics Company
TEL: 852-27578059
FAX: 852-27537795
E-mail: ultimahk@speednet.net
Address: Unit 907, 9F, Shui Hing
Centre, 13 Sheung Yuet Rd, Kowloon
Bay, H.K.

DACHUAN Electronics Technology
Co.,
TEL: 8610-62634743
FAX: 8610-62634751
E-mail: dachuan@ihw.com.cn
Address: 5F, DongRun Building, No.A-
2 Haidian South Street, Beijing, China

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

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.

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.

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

A B C D E F G H I J K L
M N O P Q R S T U V W X
Y Z
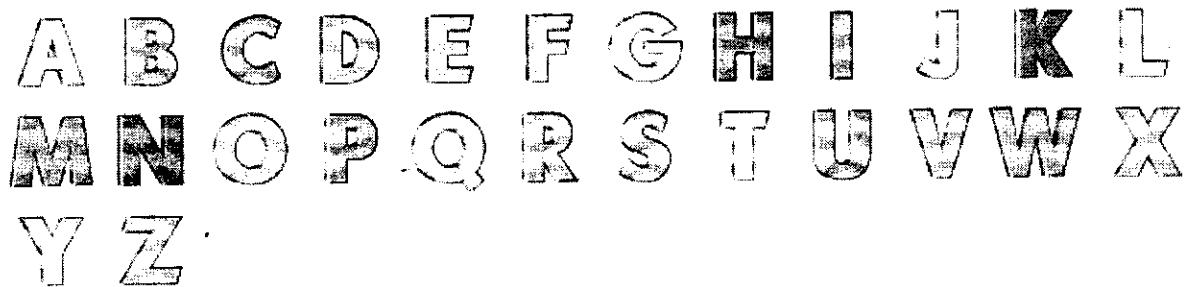
Glossary

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.

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.

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 moiré 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

EPP (Enhanced Parallel Port)
It is a parallel port standard for a personal computer that supports bi-directional communication between a PC and its attached peripherals. EPP is much faster than the older standard parallel port (SPP).

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

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

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

LED
Light-emitting diode, an exposing element.

Midtone
The 50 percent dot printing area.

Regulations

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

II. Technical support information

Headquarters
TEL: 886-2-22256300 EXT 7352
FAX: 886-2-22252674
http://www.artec.com.tw
E-mail: service@mail.ultima.com.tw
Address: 7F, No.100, Li De Street, Jung He City, Taipei County, Taiwan, R. O. C.

ULTIMA International
TEL: 1-510-7390800
FAX: 1-510-7390500
http://www.artecusa.com
E-mail: sales@ul.artecusa.com
Address: 38897 Cherry Street Newark CA 94560

ARTEC Electronics GmbH
TEL: 49-6105 28900
FAX: 49-6105 289088
http://www.artec-electronics.de

About page

The About page provides information relating to the scanner driver version and our service hotlines. The preference page is shown as follows.
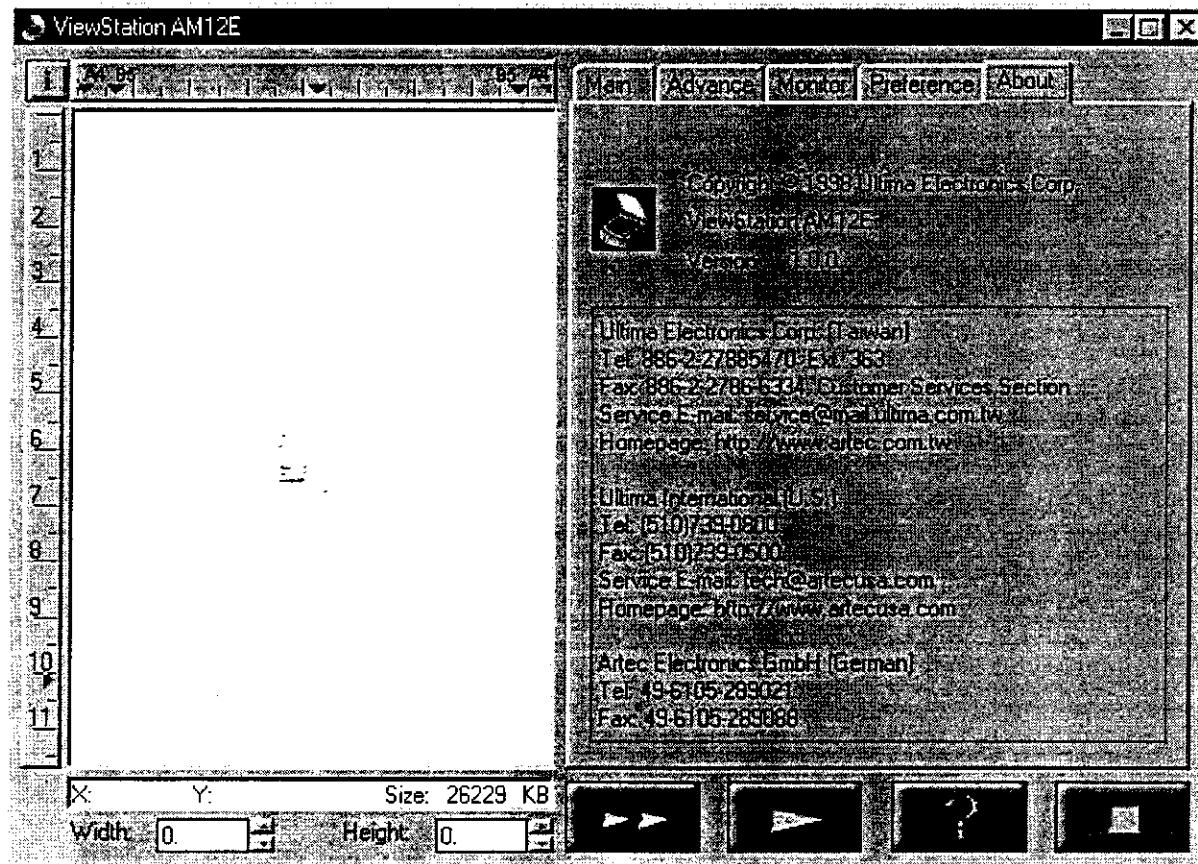
Should there be any problems or comments about our products, you are more than welcome to contact us.

1. Open the TWAIN source window.
2. Locate the Auto Scan button which is situated in the front panel of the scanner (See "What does the scanner look like?" in "Unpacking the scanner" section.)
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 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.

Power Saving

If the Power Saving is checked, the lamp will go off after you exit the scanner driver. This selection saves the power and cools down the temperature.

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 setup 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.

■ 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.

	To add a scan area selection: Press this button to add images to the designated destinatio When pressing , a new scan rectangle will be generated. entire scan window will be the default scan area.To change it simply drag Please drag a new rectangle to define the scan in the Preview Window and define the image setting.
	To delete the active (selected) scan rectangle.
Property	To show the property of the active area.
1. Gray; 300 dpi; 8748 KB 2. BW; 300 dpi; 1097 KB 3. Color; 300 dpi; 26229 KB 4. Color; 300 dpi; 26229 KB	Batch Scan List: All the defined scan areas will be listed in th Batch Scan box. Please be aware that the number of images be scanned corresponds to the number of images in the Bat Scan box. When a defined area is selected/activated, it will b marked with marching black ants as a boundary in the Previ Window.

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 define rectangle areas.

After defining several scan areas, if you would like to scan only one, simply uncheck 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 activate scan area at your own discretion.
2. The activated area is the one surrounded by marching black ants.

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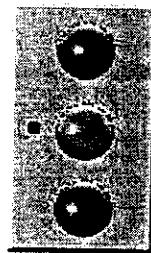
Note: Filter only functions in Gray and B/W mode.

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 six functions in this menu: None, Blur, Blur More, Sharpen, Sharpen More, and Descreen. All these functions are exclusive to each other. The default effect selection is None.

None
Do not apply 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
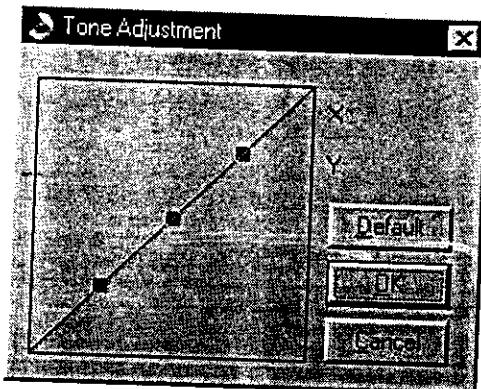
You can adjust the tone value by using the mouse cursor to reshape the tone. Curve-based editing enables you to find out a problem area and makes small or large changes to that image area.

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

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

Gamma

Sometimes you may wish 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 [icon], the following window is displayed:
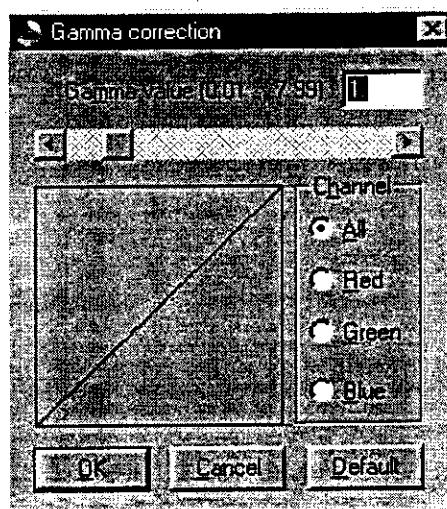
The available gamma value ranges from 0.01 to 7.99. Changing the gamma value above 1.0 will brighten the midtones, and below 1.0 will darken the midtones. You can either enter the desired gamma value in the number box or use the scroll bar to select your desired value.

In the CHANNEL checking box:

■ ALL

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

■ 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.

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 [icon] as a reminder if you change the default setting.

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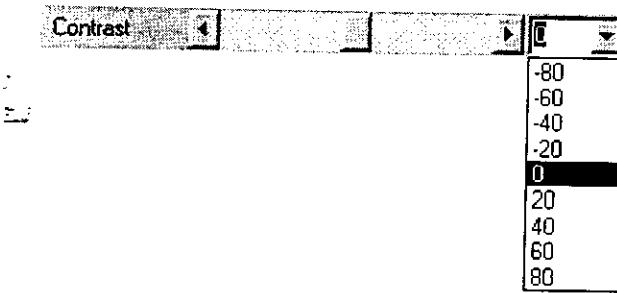
Select Gray mode for images that contain 256 shades of gray.

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.

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 imge 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 number

Send to Clipboard

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

Resolution

The menu contains commands that lets 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.

▪ 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 scanner 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 image if you set "file" as your scan destination.

Help Button

Click this button to acquire help.

Exit Button

Close the TWAIN source window.

6-12

■ It takes too much time to scan an image.

Your system environment might not been set correctly.
> In the "BIOS" setup program", please make sure if the parallel port is set to "EPP" mode in stead of "SPP (normal)" mode.

For how to enter the "BIOS" setup program, please refer to your computer's user's manual.
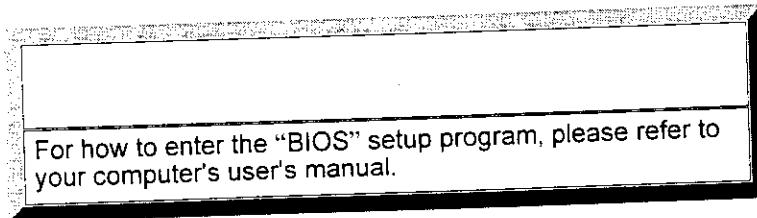
■ The scanned image has unexpected color strips.

The parallel port settings may not be set correctly.

> Check if the parallel port mode has been set to "EPP" mode. Do NOT set on "EPP 1.9" or "ECP" mode.

High Performance Color Desktop Scanner

Chapter 6   Troubleshooting

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. Before you take any action, be sure to read the "Suggestions for Troubleshooting."

6.1   Suggestions for troubleshooting
6.2   Symptoms and possible causes and remedies

High Performance Color Desktop Scanner

Chapter 5 Basic scanner maintenance

It is necessary for you to be capable of performing some basic scanner maintenance yourself. Please read the following paragraph for tips on basic scanner cleaning.

5.1 How to clean the glass plate and document cover?

1. Choose the SELECT SOURCE command from the SCAN option of your application. The Select Source dialogue box is displayed. If you have installed only the AM12E TWAIN source, you can skip this step. The host application will automatically select it as the default TWAIN Source.
2. Select the ViewStation AM12E TWAIN source from the SOURCES list box.
3. Click the SELECT button to activate the TWAIN Source.
4. Choose the ACQUIRE command from the SCAN option of your application.

■ **To activate the TWAIN Source directly from Windows (Stand-alone mode):**

1. Click the Windows START button to open the Start menu.
2. Choose Programs> ViewStation AM12E > ViewStation AM12E from the menu to run ViewStation AM12E TWAIN source.

Once an image source is selected, it remains active until you select another one.

NOTE

Not all application software put their SELECT SOURCE and ACQUIRE commands under the FILE menu. If you cannot locate these two commands, please check other menus for them.
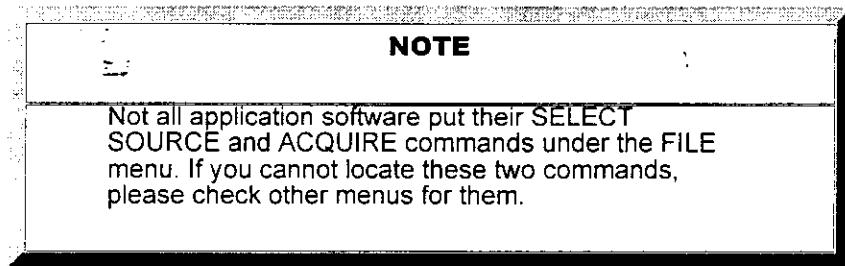
The TWAIN source window is displayed. Please wait a few seconds until the calibration is completed.

After placing the material(s) to be scanned on the scanner, press [image] to acquire the scanned image on the Preview Window. Define the scan areas then press [image] to proceed scanning.

There are five property pages available in the TWAIN source window:

■ Main page

The Main 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 and contrast...

■ Advance page

High Performance Color Desktop Scanner

Chapter 4 Making your first scan

You are now all set to move on to the next step, scanning! First of all, have the image(s) / document(s) to be scanned at hand.

4.1   Document positioning

4.2
        Opening the TWAIN source window
        4.2.1   What is a TWAIN source?
        4.2.2   How to open the TWAIN source window?

4.3   Exploring the TWAIN source window

Document Cover can be easily removed.
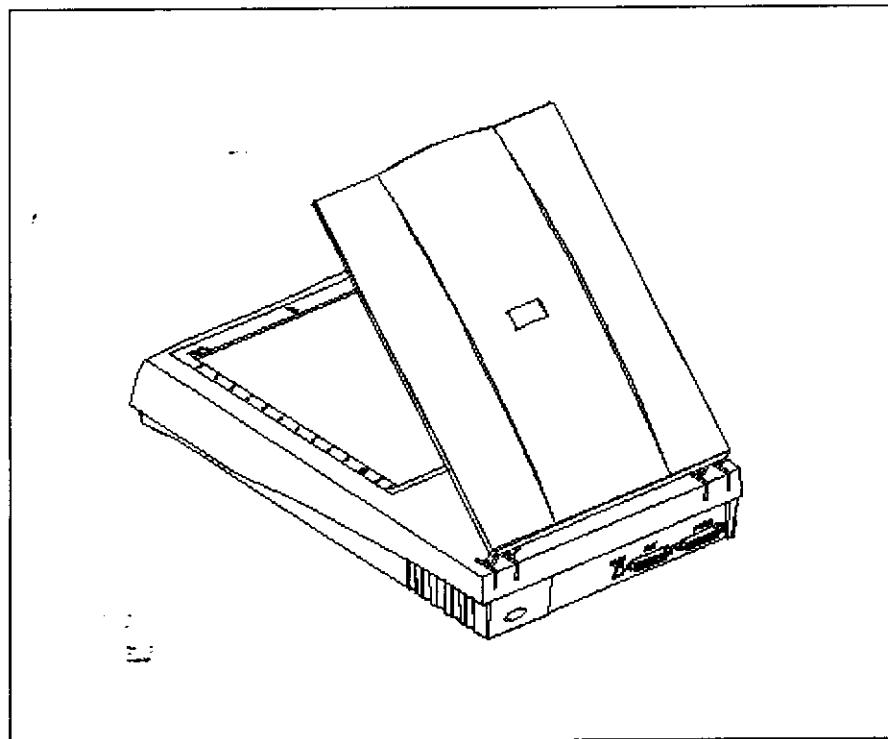
■ **To install the Document Cover:**

Place the Document Cover vertically into the niches on the rear of the scanner.
Close the cover slowly and it should easily fit back into place.
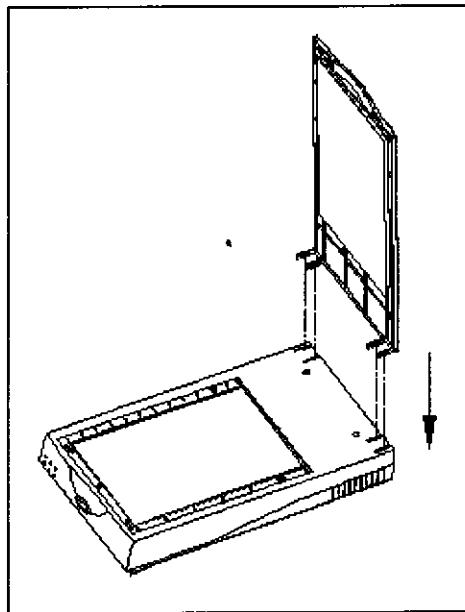
Software installation

How to make the best use of this scanner?

If your computer has a built-in EPP port, we recommend you to modify the BIOS of your

On the back of the scanner, there are two connectors. One is a 25-pin "PRINTER" port (female), and the other is a 25-pin "HOST" port (male).

■ To connect the scanner to your computer:

1. We highly recommend turningt off your computer.
2. Connect one end (female) of the scanner cable to the "HOST" port on the rear panel of your scanner.
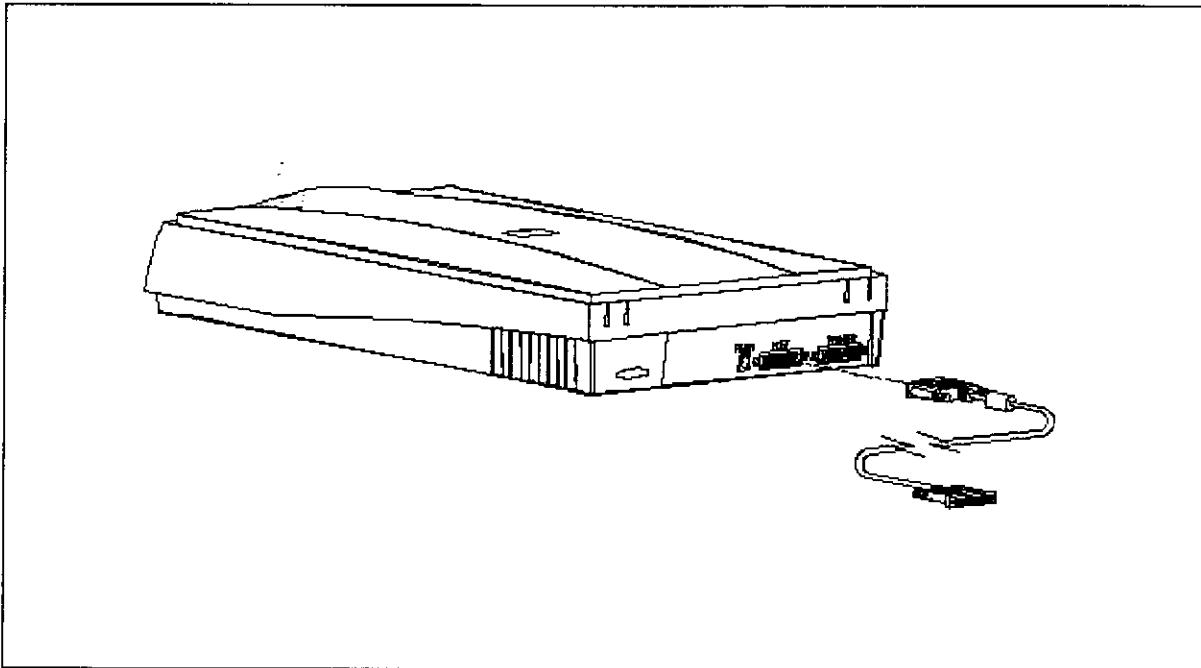
3. Connect the other end (male) of the scanner cable to the printer port of your computer. Tighten the screws.
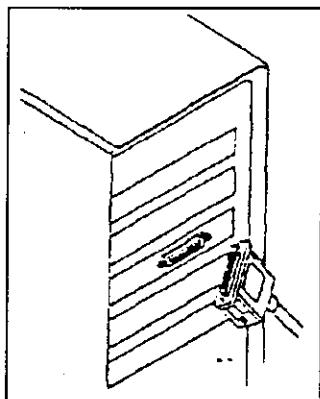
4. Connect the small end of the power adapter lead to the power socket on the back of the scanner, the other end to an electrical outlet. The scanner LED will light up green.

High Performance Color Desktop Scanner

Chapter 3 Installation

1. Document Cover
2. Glass Plate
3. LED / AutoScan Button
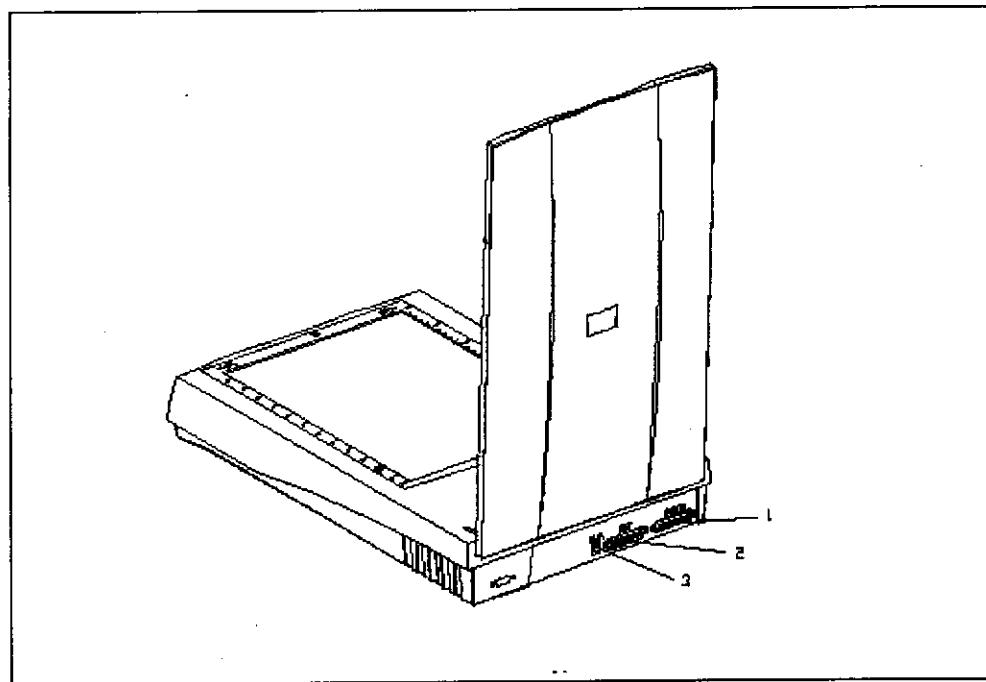
1. 25-pin parallel port (PRINTER/female)
2. 25-pin parallel port (HOST/male)
3. Power Socket (POWER)

High Performance Color Desktop Scanner

Chapter 2 Unpacking the scanner

■600 X 1200 dpi optical resolution
■Long-lasting Cold Cathode Fluorescent Lamp with an operating life time of up to 10,000 hours
■High scanning speed
■No distortion, high quality
■Compatible with all TWAIN-compliant application software
■9600 X 9600 dpi high resolution through software interpolation
■Approximate 1.07 billion colors input per pixel (30-bit) in color mode scanning

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

■Computer System: An IBM PC/AT or compatible computer with 80486 or higher CPU
■Operating System: Microsoft Windows 95
■Memory: At least 8MB of RAM, 32MB is recommended for better performance
■Pointing Device: A Microsoft Windows compatible mouse
■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"(1.44MB) floppy drive
■Hard Drive: a hard disk with at least 100MB free storage capacity is recommended
■CD-ROM Drive
■A parallel port on the PC

You can scan anything that you can put on the Glass Plate. 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 (For removing procedure, please refer to the "Removing the document cover") Please keep in mind that heavy objects may crack or even break the Glass Plate.

Do NOT scan official or copyrighted documents without written permission from their legal owner.

Content

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 radiated 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 o 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.

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