

User's Manual

*For AVA3 Plus/AVA3 400
A3-Size Color Image Scanner*



Doc. No.250-0052-01 Rev. B

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Responsible Party: Avision Labs, Inc.

Telephone No.: +1 (510) 739-2369

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Trade Name : AVISION

Model Number : A3-400

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It is understood that each unit marketed is identical to the device as tested, and any changes to the device which could adversely affect the emission characteristics will require retest.

The following importer / manufacturer is responsible for this declaration :

Company Name : Avision Labs, Inc.

Company Address : 6815 Mowry Avenue, Newark, CA 94560, USA

Telephone : 510-7392369 Facsimile : 510-7396060

Person is responsible for making this declaration :

Alan Chang Manager in Product Engineering Dept.
Name (Full name) Position / Title

Alan Chang
Legal Signature

Aug. 2, 1998
Date

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Product Name : SCANNER

Trade Name : AVISION

Model Number : A3 Plus

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- (2) This device must accept any interference received, including interference that may cause undesired operation.

The result of electromagnetic emission has been evaluated by ERSO / ITRI EMC Laboratory (NVLAP Lab. Code : 200118-0) and showed in the test report. (Report No. : EA-8706-014)

It is understood that each unit marketed is identical to the device as tested, and any changes to the device which could adversely affect the emission characteristics will require retest.

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Alan Chang Manager in Product Engineering Dept.
Name (Full name) Position / Title

Alan Chang
Legal Signature

July, 4, 1998
Date

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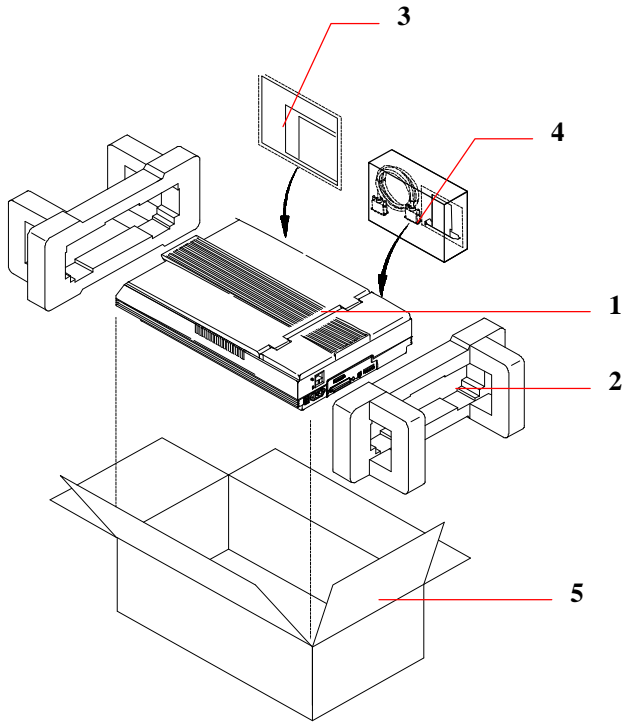
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1. INTRODUCTION

Congratulations on your purchase of the Avison color image scanner. Avison is one of the leading company to make high quality color image scanner.

To ensure the optimum performance of the scanner, please take a few minutes to read through this manual before you install and operate the new scanner. The manual contains valuable information on how to unpack, install, operate, and maintain the scanner properly.

Figure 1-1 in below shows how the scanner is packed. Please check if all items are included. If there is any item missing or damaged, please contact your nearest dealer immediately for replacement.



1. Scanner main unit
2. Cushion
3. Users manual, Software CD
4. SCSI host adapter, SCSI cable, Power cable
5. Carton

Figure 1-1 Scanner Packaging

Note: When you unpack the scanner, retain the packing material and shipping box in case you may transport the scanner in the future.

2. SCANNER INSTALLATION

2.1 PRECAUTIONS

- ❖ Keep the scanner out of direct sunlight. Direct exposure to the sun or excessive heat may cause damage to the unit.
- ❖ Do not install the scanner in a humid or dusty place.
- ❖ Be sure to use the proper AC power source.
- ❖ Place the scanner securely on an even, flat surface. Tilted or uneven surfaces may cause mechanical problems.
- ❖ Keep the shipping box and the material in case you may need to ship the scanner again.

2.2 UNLOCKING YOUR SCANNER

To protect the scanning unit from damage during transportation, a lock switch is designed at the back of the scanner to keep the scanning unit from moving. To unlock the scanner, move the lock switch up as shown in Fig. 2-1.

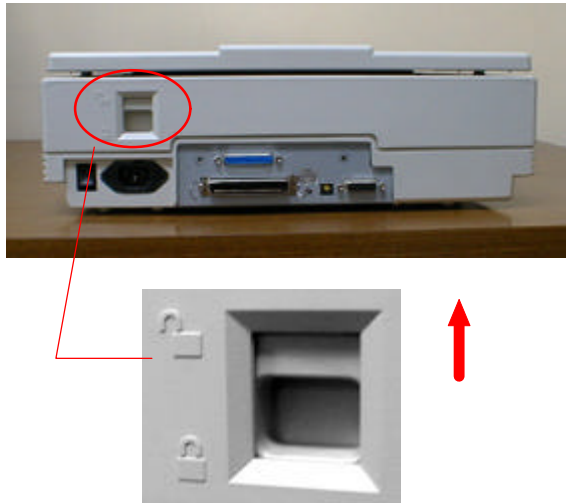


Figure 2-1 Unlocking the Scanner

Note: When you need to transport the scanner, be sure to proceed the following steps and move the lock switch to the “lock position” otherwise unexpected damage should cause the scanner malfunction and void the warranty.

1. Turn on the scanner.
 2. The POWER LED should light up and the READY LED is flashing to perform the initial self-test.
 3. If no error occurs, the READY LED should be steadily on.
 4. Turn off the scanner now.
 5. Press the lock switch down to the “Lock position”.
 6. The scanner is now ready to transport.
-

2.3 SETTING SCSI ID

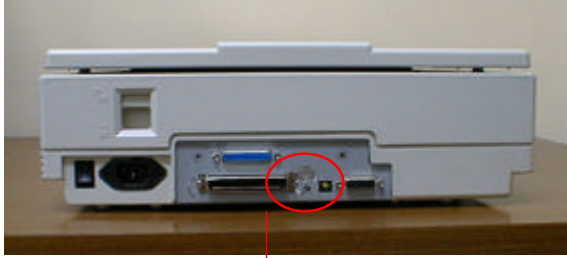
When you have several devices on a SCSI chain, you may have to adjust the SCSI ID selector setting at the back of the scanner(See Figure 2-2). This setting assigns a specific "device ID" to the scanner. If the ID number is duplicate with an existing SCSI device on the SCSI chain, please select a new ID#.

Note: The factory setting for the scanner is ID# 6. Usually, ID# 0 is assigned to an internal hard disk drive, and ID# 7, to SCSI adapter or host. ID# 8 and #9 are not in use.

2.4 SETTING SCSI TERMINATOR

The scanner is equipped with a built-in terminator switch on the rear side of the scanner(See also Figure 2-2). Move the switch to the "on" position to enable the SCSI termination or to the "off" position to disable the SCSI termination. The SCSI termination ensures the electrical signal flow through the SCSI chain properly.

As a result, if the scanner is the only or final device connected to your computer, you should enable your SCSI chain terminate at the scanner by moving the terminator switch to the "on" position. If your scanner is linked between the host computer and other SCSI devices, then the SCSI chain should terminate at the final SCSI device. In the case, disable your SCSI termination on the scanner by moving the terminator switch to "off" position.)



1. SCSI ID Setting
2. SCSI Terminator Switch

Figure 2-2 SCSI ID setting/Terminator switch

2.5 CONNECTING THE CABLES

Be sure the scanner power is switched off.

Connect the power cable and signal cable as shown in Figure 2-3 (single-device configuration) or Figure 2-4 (SCSI chain configuration).

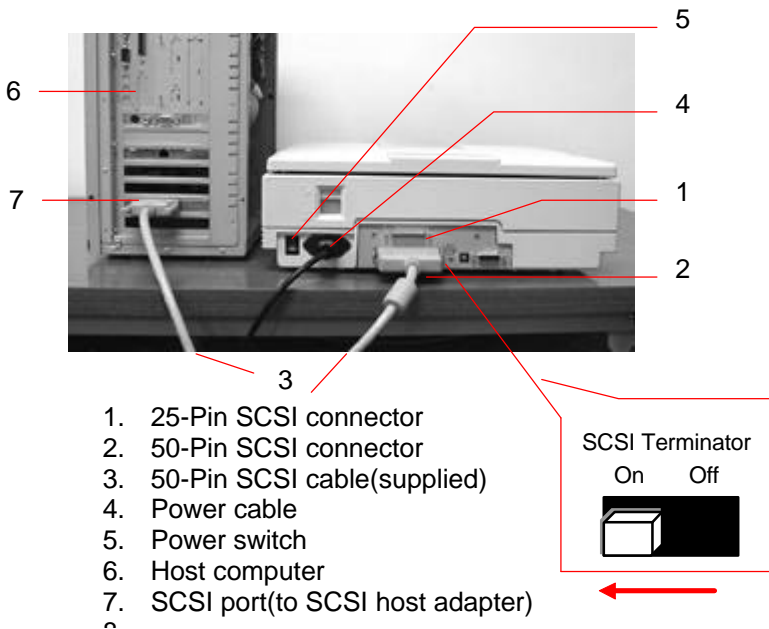


Figure 2-3 Cable connection (single-device configuration)

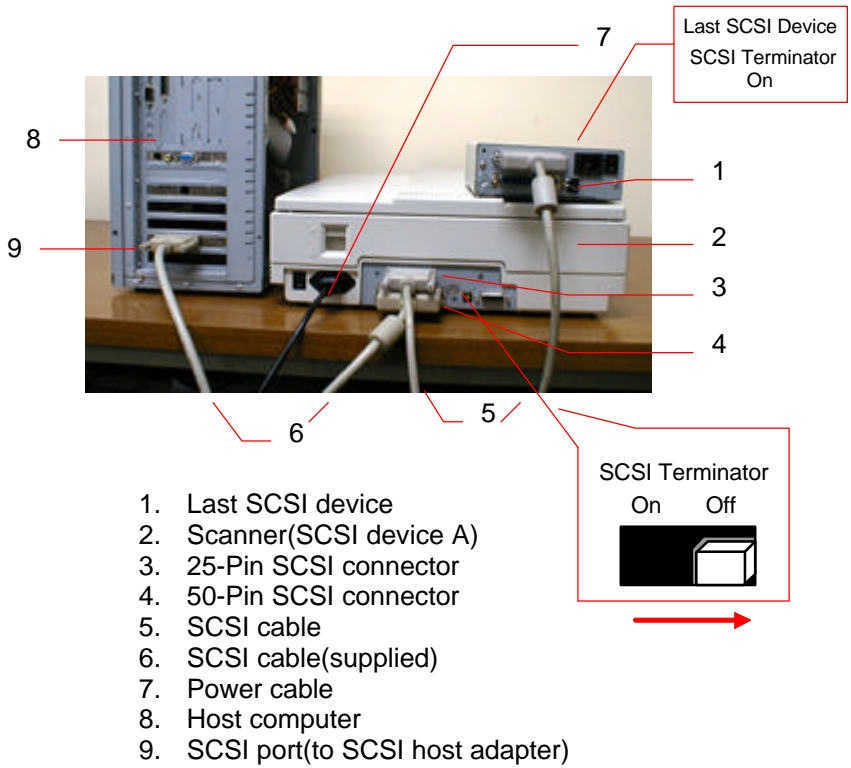


Figure 2-4 Cable connection (SCSI chain configuration)

2.6 INSTALLING THE SCSI CARD

2.6.1 PC USERS

2.6.1.1 ADAPTEC AVA-1505AE SCSI CARD

Hardware Installation

1. Turn both your scanner and computer off.
2. Plug the SCSI card in an available slot of your computer.
3. Plug one end of the supplied SCSI cable to the SCSI port at the back of your computer and the other end to the SCSI port at the back of your scanner.
4. Turn on your scanner.
5. When the scanner is ready, turn on your computer.

Software Installation

Windows 3.1

If your scanner comes with an Adaptec AVA-1505Ae SCSI card, then the installation of the SCSI card driver will be complete during the installation of the scanner driver.

Caution: Before you connect or disconnect the SCSI cable, be sure to turn both your computer and scanner off. Otherwise, unexpected damage may cause the scanner malfunction and void the warranty.

Windows 95

Windows 95 has embedded driver support for Adaptec AVA-1505Ae SCSI card. When you start Windows 95, the host adapter is detected and the appropriate driver is automatically installed.

Windows NT

1. Press Start>Setting>Control Panel. And choose “SCSI Adapter” from the Control Panel menu. The “SCSI Adapter” dialog box is displayed. Choose Driver.
2. Choose “Add” and “Select manufacturer and SCSI adapter”.
3. Select “Adaptec” as the manufacturer and “AIC-6X60 ISA Single Chip SCSI Controller” as the adapter and then Confirm.
4. Follow the on-screen instruction to complete the installation.
5. Restart your Windows NT.

2.6.1.2 OTHER SCSI CARDS

If you purchase your SCSI card separately from the scanner, then please follow the installation instruction provided by your SCSI card supplier.

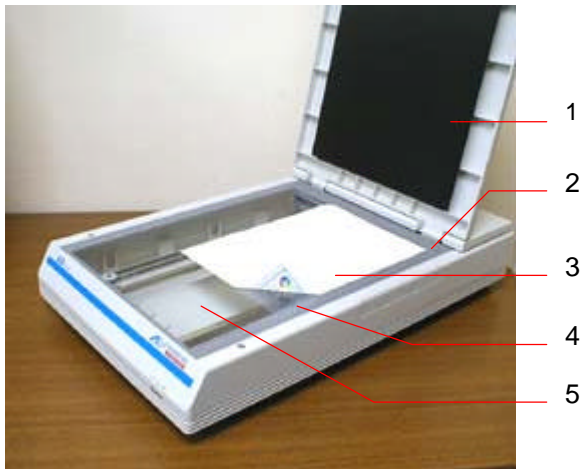
2.6.2 MAC USER

The Mac system already has SCSI controller built in. Connect the system, therefore, *set a different SCSI ID for each SCSI device.*

2.7 PLACING YOUR ORIGINAL

Open the document cover then place your original face down on the document glass as shown in Fig. 2-5.

Make sure the top of your original near the document alignment mark.



1. Document cover
2. Document alignment mark
3. Your original
4. Reference frame
5. Document glass

Figure 2-5 Placing the original

2.8 TURNING ON THE POWER

To turn on the scanner, press the power switch at the back of the scanner toward "1". At this moment, the POWER LED should light up. If not, check the power.

Scanner Diagnostics

The scanner has a built-in self-diagnostic function to detect system errors. The self test is initiated each time the scanner is turned on. During the test, the READY LED is flashing. At the end of the test, if no error occurs, the READY LED is steadily on.



1. The Power Switch

Figure 2-6 Turning on the power



Figure 2-7 LED Status

3. SCANNER DRIVER INSTALLATION

3.1 MAC USERS

The AVA3 series scanner must have the following minimum requirements to run at rated speed as recommended:

- MAC II series; Quadra series, Perfoma series; Power Macintosh series, PowerBook series or later(excluding iMac);
- At least 20M bytes of free hard disk space;
- A minimum of 16M bytes of system memory required, 32M bytes or higher recommended;
- Mac compatible display card and monitor with at least 256 colors; thousands colors or million colors display card recommended;
- System 7 or later;
- A floppy disk drive.

The installation procedures of Avison scanner driver are as follows:

1. Close all the applications including the anti-virus program.
2. Install on your computer the image-editing or scanner-related application you want to use with the scanner, such as OmniPage, PhotoShop, etc.
3. Insert "Avison Driver Kit" disk into your floppy disk drive. The Avison Driver Kit X.x.x dialog box as Fig. 3-1 will appear. Read "Read Me First" for some valuable information which you should note.
4. Double click on the "AV Kit X.x.x Installer" icon. AV Kit X.x.x Installer dialog box will appear as Fig. 3-2.
5. Click Easy Install icon and drag it to the system icon in the right side. A "Select a folder for plug-in" dialog box as Fig. 3-3 will appear. Select your application folder and select the "Choose plug-ins" button. The installation will then be



Figure 3-5 Scanner ID

Note: You can find the latest driver in our homepage located at the World Wide Web(WWW) with the web site: <http://www.avision.com>

3.2 PC USERS

To run the color image scanner at optimum speed, the following minimum requirements are recommended:

- ❖ IBM compatible PC 486, Pentium or later;
- ❖ Microsoft Windows 3.1, Windows 95/98, or Windows NT4.0;
- ❖ One SCSI card installed on your computer;
- ❖ 20M bytes of available hard disk space for installation;
- ❖ 16M bytes of RAM (32M bytes or higher recommended);
- ❖ A video graphics array (VGA) monitor;
- ❖ A Microsoft Windows-compatible pointing device (e.g., the mouse);
- ❖ A CD-ROM drive.

3.2.1 BEFORE INSTALLING THE SCANNER DRIVER

Before installing the scanner driver, please make sure the following steps have been performed to ensure a successful installation.

1. Turn off your computer.
2. Connect your scanner correctly to your computer. (Refer to Chapter 2 Scanner Installation).
3. Turn on your scanner. The READY LED will be flashing to perform the scanner self-test.
4. Turn on your computer when the READY LED is steadily on.

After the above steps have been proceeded, please follow the steps below to install the scanner driver on your computer:

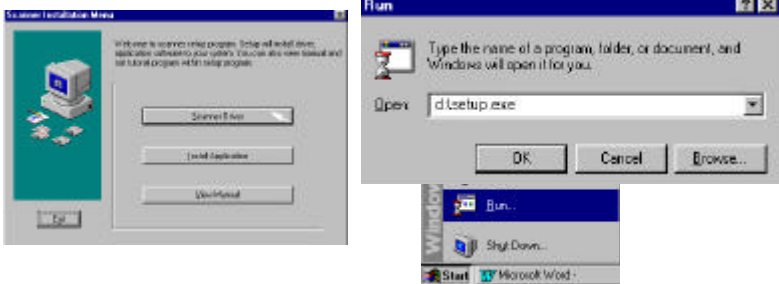
1. Start Windows 3.1, Windows 95/95 OSR2/98 or Windows NT.
2. Insert **Avision PaperCom Supreme** CD to your CD-ROM drive.

3.2.2 WINDOWS 3.1 OR WINDOWS 3.1X

3. From the File Menu, choose RUN. Type “d:\setup.exe” (“d:” the CD-ROM drive letter in use). Choose “OK”.
4. Follow the on-screen instruction to complete the installation.

3.2.3 WINDOWS 95

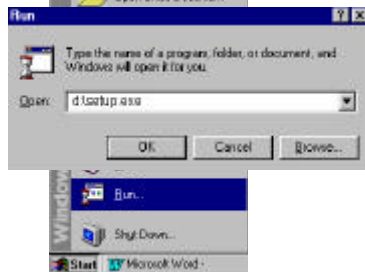
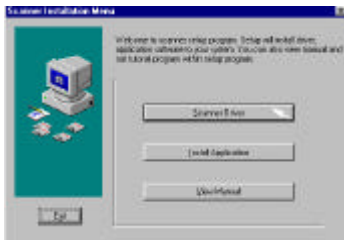
3. An “Add new hardware wizard” dialog appears. Choose “Next”.
4. Choose “Other” and then browse your current CD-ROM drive.
5. Select the “Driver” and “Win95” folder then follow the on-screen instruction to complete the installation.
6. Choose “Finish” at the end of the screen.
7. An installation menu will be automatically displayed. If the installation menu has not been automatically displayed on your screen, please press the “Start” button and choose RUN, type “d:\setup.exe” (“d:” the CD-ROM drive letter in use). Choose “OK”.



8. Choose “Scanner Driver” and follow the on-screen instruction to complete the installation.
9. Follow the on-screen instruction to complete the installation.

3.2.4 WINDOWS 98/WINDOWS 95 OSR2

3. An “Add new hardware wizard” dialog appears. Choose “Next”.
4. Follow the screen to choose “Search the best driver for your device” and then choose “Next”.
5. Choose “CD-ROM” and then the “Driver” and “Win98” folder.
6. Follow the on-screen instruction to complete the installation.
7. Choose “Finish” at the end of the screen.
8. An installation menu will be automatically displayed. If the installation menu has not been automatically displayed on your screen, please press the “Start” button and choose RUN, type “d:\setup.exe” (“d:” the CD-ROM drive letter in use). Choose “OK”.



9. Choose “Scanner Driver” and follow the on-screen instruction to complete the installation.
10. Follow the on-screen instruction to complete the installation.

3.2.5 WINDOWS NT4.0

3. Press the Start button and choose RUN. Type "d:\setup.exe" ("d:" the CD-ROM drive letter in use). Choose "OK".
4. Follow the subsequent instruction on the screen to complete the instruction. (Normally just press OK and the installation will be completed.)

3.2.6 UNINSTALL THE SCANNER DRIVER

You can uninstall the scanner driver by selecting Start>Programs>Avision Scanner AVA3 series. Then from the submenu of AVA3 series, click *Uninstall Driver*.

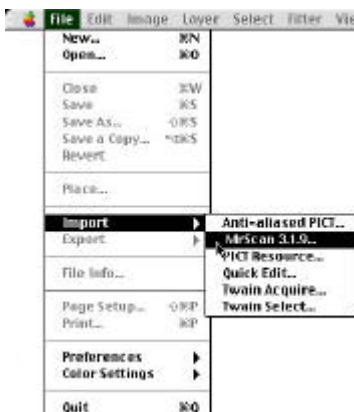
4. SCANNER OPERATION

AVA3 Plus or AVA3 400 allows you to operate the scanner from within a TWAIN or plug-in software application. As the scanner driver is not a stand-alone software, it has to be started from within a **TWAIN*-compliant** software application and then the scanner driver is able to scan and load the image to your computer. The command to start the scanner driver may vary due to different software applications. To check the correct command, please refer to the user manual of your software application.

4.1 STARTING YOUR FIRST SCAN FROM WITHIN A TWAIN OR A PLUG-IN APPLICATION

MAC Users

1. Start your application(For example, Adobe PhotoShop, Ulead ImagePals, MGI PhotoSuite and so on.) From File menu, choose *Import* command .
2. Select MrScan X.x.x from the submenu of *Import*.



3. The Mac Plug-in user interface will pop up on the screen.
4. Place the document upside down on the document glass with the text facing away from you.
5. Click the Preview or Scan button to preview or scan your document or *image*.

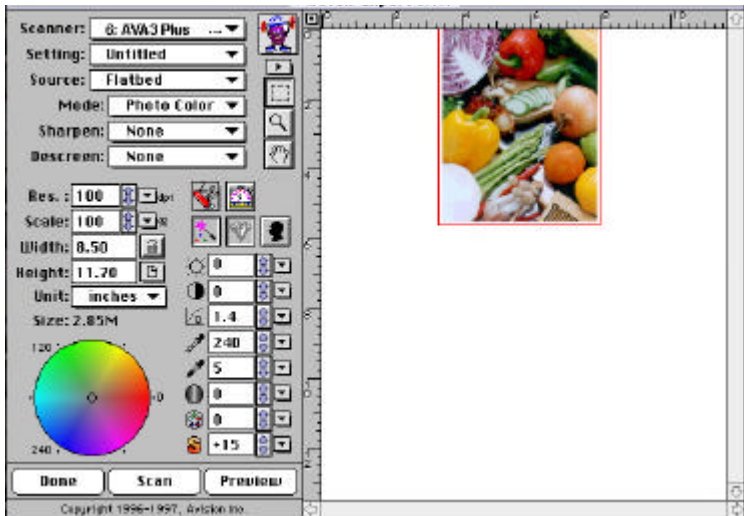
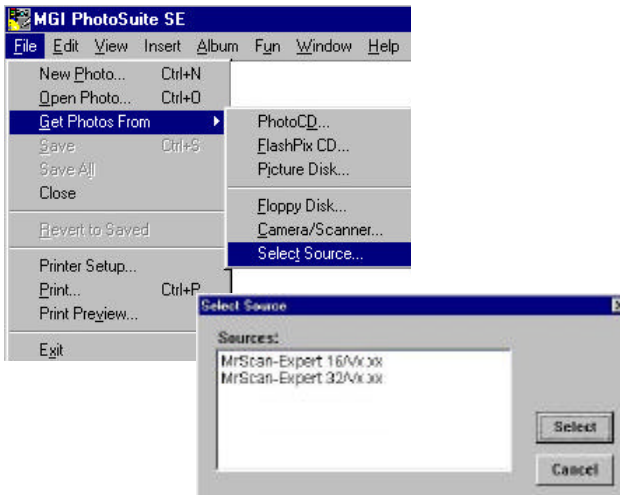


Figure 4-1 Mac Plug-in user interface

****TWAIN**: Stands for **T**echnology **W**ithout **A**n **I**nteresting **N**ame, an industry-standard protocol which exchanges information between the application and image acquisition device such as scanners.*

PC Users

1. Open your application and choose **Select Source** from the File menu. If the *Select Source* command is not available from the File menu, see the user guide of your application to learn how the TWAIN link is used.
2. A dialog box appears containing the different **TWAIN** sources for you to choose from to bring an image into your application.



Select **MrScan-Expert** as the source.

3. You need to select *MrScan-Expert* for just once except when you need to use the dialog box to select a different source. In that case, you will need to select *MrScan-Expert* as the source again before you can reuse the scanner.
4. Place the document upside down on the document board with the text facing away from you.
5. From the File menu, choose **Acquire**.
6. Avison TWAIN user interface as Figure 4-2 will pop up on the screen. Click **Preview** or **Scan** button to scan the document.

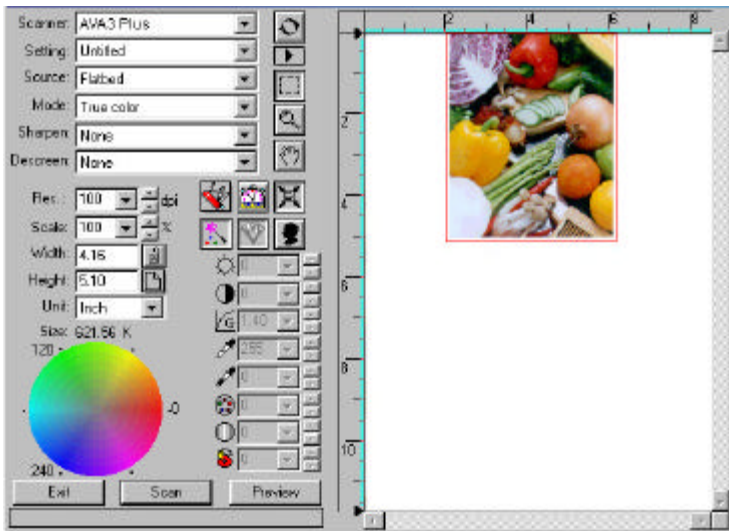


Figure 4-2 PC TWAIN user interface

4.2 USING AVISION SCANNER DRIVER USER INTERFACE

4.2.1 CHOOSING YOUR SCANNING SOURCE

Two scanning sources are provided - flatbed as well as transparency. However, if you have not installed the transparency kit, please leave the source to the flatbed option.

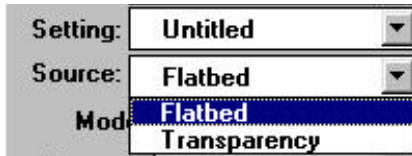


Figure 4-3 Scanning Source

4.2.2 DETERMINING YOUR RESOLUTION

A good control of the resolution results a satisfactory detail of an image that scans. The resolution is measured by dots per inch(dpi). Normally, the greater the dpi number, the higher the resolution and the image file size. Be aware that the greater resolution takes more time, memory and disk space, therefore, up to a certain degree of dpi, the resolution will not visually be improved, on the contrary, it makes your files more unmanageable.

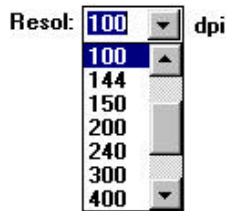


Figure 4-5 Resolution Control



Resolution: 50 dpi



Resolution: 100 dpi

Tips:

- 1. For your information, an A4 size color image scanned at 300 dpi at True Color mode consumes approximately 25 MB of disk space. A higher resolution (usually means over 600 dpi) is recommended only when you need to scan a small area at True Color mode.*
- 2. You can also refer to the following table to choose a proper resolution while applying your image to other application.*

<i>Scanner Settings</i> <i>Application</i>	<i>Image Type</i>	<i>Resolution</i> <i>(dpi)</i>
<i>File, Fax, E-mail Your Document</i>	<i>LineArt</i>	<i>200</i>
<i>View, Copy, Edit Your Color Picture</i>	<i>True Color</i>	<i>100</i>
<i>OCR* Your Document</i>	<i>LineArt</i>	<i>300</i>

****OCR**: Stands for **O**ptical **C**haracter **R**ecognition, the process to convert an image to a text format.*

4.2.3 SELECTING A PROPER IMAGE TYPE

Select image type through the mode from the **scanner user interface** for your own purpose. Please see Figure 4-4 as shown in below:

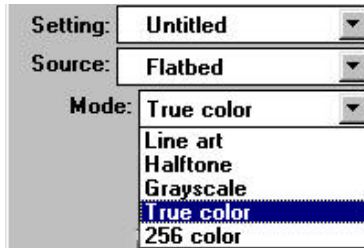


Figure 4-4 Image Type

Each image type is described as follows:

Line art

LineArt presents the image in black and white only and there are no intermediate shades of gray in between. That means each pixel of the image is 100% black or 100% white. LineArt is the best choice of image type if you want to scan text, pen or ink drawing. Since only 1-bit of black or white information is required for each **pixel***, the disk space required for saving lineArt image is only about 1/24 of that required to save 24-bit true color images.



Figure 4-5 Lineart Image

**Pixel: A combination of two words: picture and element, a pixel is a single dot on a computer display or in a digital image.*

Halftone

In addition to the black and white display, Halftone simulates grayscale by using different size of dots. Particularly when you view the image at a certain distance, it looks very closely like a gray image yet it consumes the least disk space. Halftone is the picture that we usually see in newspapers or magazines. Since Halftone is one type of black and white image, the disk space required to save a halftone image is 1/24 of that required to save a 24-bit true color image.



Figure 4-6 Halftone Image

Gray (1024 levels gray scale/Internally)

A single-channel image consists of at least 256 levels of shades of gray in an image. A 10 bits scanner produces a Gray image with 1024 shades of gray between pure black and pure white. Gray is the best choice of image if you wish to scan a black and white photograph. With 10 bits of color information per pixel, the disk space required to save a gray image is eight times more than lineArt and 1/3 of that required to save a 24-bit true color image.



Figure 4-7 Halftone Image

256 Colors

The 256 colors image provides 256 levels of color hues. The disk space required to save an image in 256 colors is 1/3 of that required to save a 24-bit true color image.



Figure 4-8 Halftone Image

True Color

A 30-bit Color image consists of three 10-bit color channels. The red, green, and blue channels are mixed together to create a combination of one billion (2^{30}) colors which give a more true-to-life quality to the image. True Color is the best choice if you want to scan a color photo.



Figure 4-9 Halftone Image

4.2.4 ENHANCING YOUR IMAGE



Brightness: Adjusts the lightness or darkness of an image. The higher the value, the brighter the image.

Decrease your Brightness



Normal



Increase your Brightness



Contrast: Adjusts the range between the darkest and the lightest shades in the image. The higher the contrast, the bigger the different gray scales.

Decrease your Contrast



Normal



Increase your Contrast



Gamma: Adjusts the midtone of the image without losing details of the lightest and the darkest areas.

Gamma Value: 1.0



Gamma Value: 1.4



Gamma Value: 2.0



Highlight/Shadow:

Highlight refers the lightest point in a scanned image while shadow refers the darkest point. Using Highlight and Shadow tool together allow you to extend the range of color and reveal more details in a gray or color image.

Highlight: 255/Shadow: 0(Normal)



Highlight: 210/Shadow:10



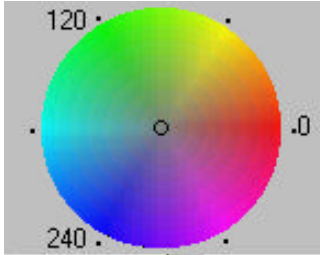
Highlight: 200/Shadow:0



Highlight: 255/Shadow: 50



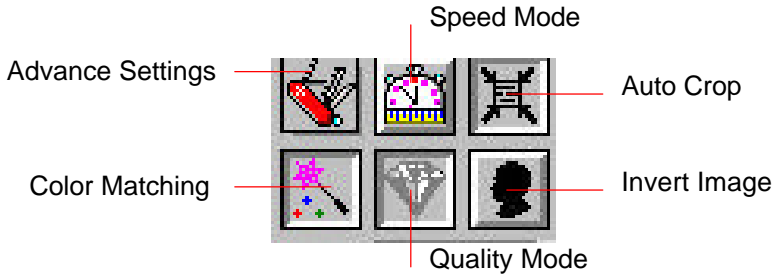
Hue: Adjust the hue up to 360° by clicking your desired color on the Color wheel or clicking the up or down arrow button. (Note the level of intensity for the color will be changed simultaneously when the hue adjustment is made).



The Color Wheel

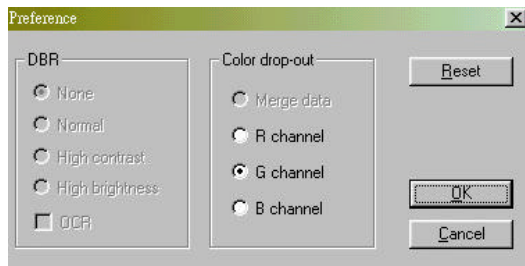
Intensity: Adjust the color strength by clicking the Up or Down arrow button.

Saturation: Adjust the saturation level for the color by clicking the Up or Down arrow button. The level of saturation decides if the color is pale or rich.



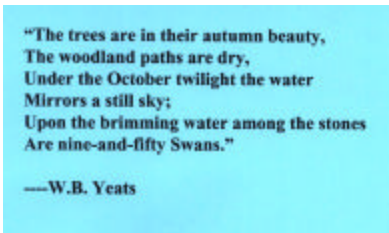
Advance Settings: (PC)

Click the button and a dialog box in below will be displayed. This dialog allows you to remove one of the R(Red), G(Green), or B(Blue) color channel while scanning. For example, if your image contains red color text or red color background, choose the R(Red) channel then any text or background in red color will be removed. Yet this function supports only black & white and gray image. Therefore, be sure to choose any black & white or gray image type while applying this function.



Tip: An increase of brightness after removing one of the color channel will make your image more clear.

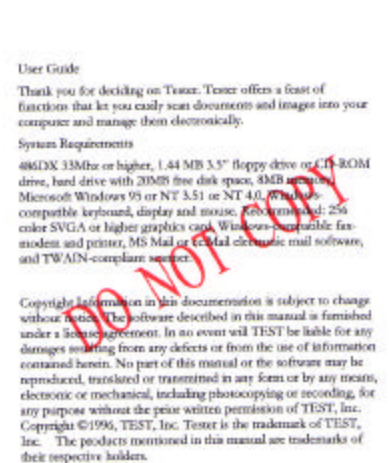
Your original with blue color background



After click the B(Blue) channel

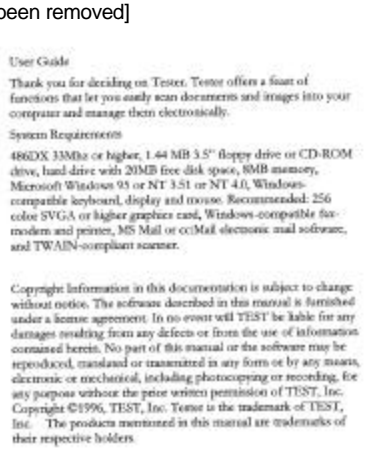
A rectangular image with a white background. The text is in a black, serif font, centered. It reads: "The trees are in their autumn beauty, The woodland paths are dry, Under the October twilight the water Mirrors a still sky; Upon the brimming water among the stones Are nine-and-fifty Swans." followed by "—W.B. Yeats".

Your original with red watermark(Do Not Copy)



After click the R(Red) channel

[The red watermark(Do Not Copy) has been removed]



Invert Image: The invert command reverses the brightness and the color in the image. For color images, each pixel will be changed into its complementary color at the command of *Invert*.

Original



After Invert



Color Matching:

Adjusts the color quality of the image so that it comes close to that of the original. This function uses default parameters to adjust the image.

Before Color Matching



After Color Matching



Quality/Speed Mode:

Choose Speed Mode if you need to speed up your scanning task. Choose Quality Mode if you need a better quality of your scanning result.

Auto Level: (Mac)



Automatically adjusts the highlight and shadow areas of the scanned image to give it an optimal effect.

Before Auto Level



After Auto Level



Auto Crop: Automatically sets the whole document as the scan area, no matter what its size.

Before Auto Crop



After Auto Crop



Sharpen: Sharpens the scanned image. Look for more selections under this item.



Original



Extra Heavy



Descreen: Eliminates the *moire patterns** commonly found in printed matter.



Before Descreen

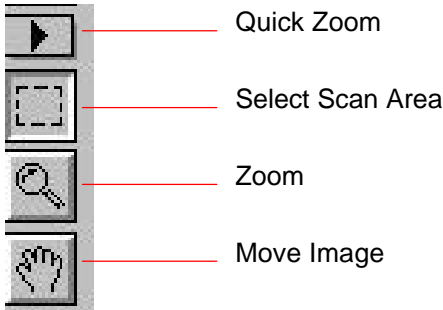


After Descreen



**Moire pattern: An undesirable pattern in a color printing resulting from incorrect screen angle of overprinting halftone.*

4.2.5 VIEWING THE IMAGE TOOL



Quick Zoom: Provide frequently used magnification ratios (1x, 2x, 4x, 8x, or view the whole image) to perform a quick enlargement of your preview image.

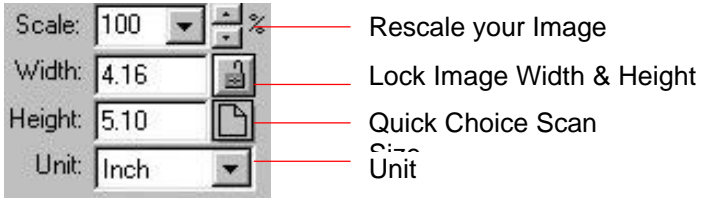
Select Scan Area:

and Select your desired scan area. (Click the button place your cursor at the preview area. The cursor turns a cross sign. Hold your left mouse button to create your scan area. Release the left mouse button when the area has been successfully selected.)

Zoom: Click and place your cursor on the preview area. The cursor will turn a zoom sign to enlarge or reduce (press the Alt key) your preview image.

Move Image: Click and place your cursor anywhere on the preview area. The cursor now turns a hand sign to allow you to move the preview image to view a specific portion clearly. (This function is only available after the preview image has been enlarged.)

4.2.6 OTHER TOOLS



Scale: Enlarge or reduce your image in a pre-set proportion (from 50% to 800%).

Width: Display current image width.

Height: Display current image height.

Unit: A reminder of the measuring system in use. By clicking on the abbreviation you can change the measuring system.

Lock Image Width & Height:

Fix your output width and height despite of the scan size you have selected. Note the scale value will be changed automatically when you applying this function and resizing your selected area at the same time.

Quick Choice Scan Size:

Provide frequently used scan size option including Business Card, 5"x 3", 6"x 4", Letter, Legal, B5, A5, A4, A3, or your current scan area to perform an immediate selection of your scan size.

4.2.7 STARTING FINAL SCAN

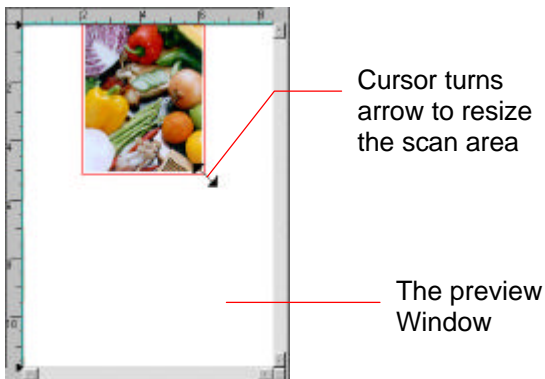


Preview: Previews your image to allocate the area to be scanned.

Scan: Scans the area with the parameters you have set .

Exit: Cancels the current job.

As shown in the figure below, in the Preview window, you can define the area to be scanned by dragging the cursor auxiliary lines with the mouse.



4.3 USING BUNDLED APPLICATION SOFTWARE

In addition to the scanner driver, the software CD contains a variety of application software to make the best of the scanner. For example, Xerox TextBridge Classic (the **OCR*** software), MGI PhotoSuite(the image editing and personal photo application), or PaperCom(the office document management application).

4.3.1 INSTALLING THE APPLICATION SOFTWARE

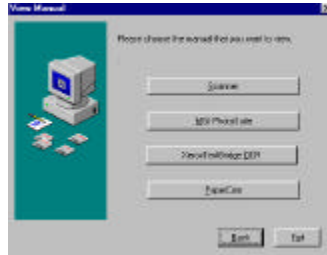
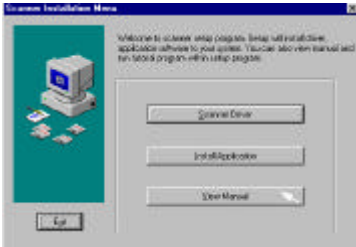
To install the bounded software application, choose “Install Application” in the installation menu and follow the on-screen instruction to install the software application respectively.



***OCR**: Stands for **O**ptical **C**haracter **R**ecognition, the process to convert an image to a text format.

4.3.2 VIEWING THE ONLINE MANUAL

To learn how to use the application software, please review the on-line manual by choosing the “Manual” folder in the CD or the “View Manual” tab in the installation menu as shown in below.



5. CARE AND MAINTENANCE

5.1 CLEANING THE GLASS

The procedures

- 1) Soak a cotton swab with some isopropyl alcohol. (95%)
- 2) Open the document cover as shown in Figure 5-1. Wipe the document glass by moving the swab from side to side.
- 3) Close the document cover. Your scanner is now ready for use.



1. Document glass

Figure 5-3 The cleaning area

6. TROUBLESHOOTING

The scanner will automatically perform a simple self-test each time it is turned on. This will help to spot major system errors in the scanner itself.

When the test is initiated, the READY LED is flashing. When the test is completed, the READY LED is steadily on.

If you have problems with the operation of your scanner, please check the following troubleshooting hints.

6.1 FREQUENTLY ASKED QUESTIONS

Question: The LED indicates that the scanner is ready, but the scanner does not respond to the command from the host computer.

Answer: Please check your SCSI ID# and SCSI terminator (See Chapter 2 Scanner Installation) and make sure that the power cable and SCSI card or SCSI cable have all been correctly and firmly connected(See also Chapter 2). Then, try the Scan command again, if there is no response, please reboot the host computer as well as reset the scanner by turning it off and then on again.

Question: When the scanner is powered on, it makes noises and won't stand ready.

Answer: There are two possibilities:

- 1) You might fail to push the scanner shipping lock to its "use" position. If this is the case, pull the scanner status switch to its "use" position first.
- 2) The scanner is not placed on an even, flat desktop surface. This may cause the scanner to malfunction.

Question: The scanner is powered on, but the lamp does not light up.

Answer: The lamp is probably out of order. Contact your local dealer or distributor to replace the lamp. For your information, the average life time of the lamp is about 15,000 hours and the operating temperature for the scanner is between 10°C(50°F) and 40°C(104°F).

Question: To get image from the scanner is no problem. But when scanning, the scanner or the system will often crash.

Answer:

- 1) Please check if the cable is firmly seated.
- 2) Please note only two SCSI terminators can be connected to your SCSI daisy chain. One is at the end of the SCSI device, the other already in your host adapter. (Please see Section 2-4 for more details.)

Question: While scanning, the scanner often makes noises, or it scans back and forth.

Answer: Usually this means the memory of your computer is not enough or the speed of your CPU too slow. Please try to increase your memory to at least 32M or replace your CPU with Pentium or later.

Question: Why is it that the scanned image always comes out to be too dark?

Answer: 1) Modify the Gamma setting to 1.8~2.2 for your monitor and, when printing, set the Gamma setting to 2.2 for your printer.
2) Adjust the Brightness setting from the TWAIN user interface to get a brighter image.

Question: The scanner works well except for the line art image. The lines in the image seem to be much thicker than the original one.

Answer: Increase the Brightness or adjust the Threshold setting to improve line art image.

6.2 TECHNICAL SERVICE

Technical support for Avision scanner is provided at Avision Technical Assistance Center (ATAC). Before contact with ATAC, please prepare the following information.

- ❖ Scanner serial & revision number (located on the bottom of the scanner)
- ❖ Hardware configuration (e.g., your host CPU type, RAM size, free disk space, display card, interface card, etc.)
- ❖ The name and version of your software application
- ❖ The version of your scanner driver.

Please call us at:

US and Canada Area: Avision Labs., Inc.

Address:	6815 Mowry Ave. Newark CA 94560, USA
Telephone number:	+1 (510) 739-2369
Fax number:	+1 (510) 739-6060
Web Site:	http://www.avision.com
E-mail:	support@avision-labs.com

Other Area: Avision Inc.

Address:	No.20, Creation Road I, Science-Based Industrial Park, Hsinchu, Taiwan, R.O.C.
Telephone number:	+886 (3) 578-2388
Fax number:	+886 (3) 577-7017
Web Site:	http://www.avision.com
Email:	service@avision.com.tw

7. SPECIFICATIONS

All specifications are subject to change without notice.

7.1 MODEL: AVA3 400/AVA3 PLUS

Scanner Type	Flatbed
Scanning Mode	30-bit color/Internal(24-bit output) 10-bit Grayscale/Internal(8-bit/output) Line Art / Halftone Error Diffusion (single bit)
Optical Resolution ■ AVA3 Plus ■ AVA3 400	300 * 600 dpi 400 * 800 dpi
Maximum Resolution ■ AVA3 Plus ■ AVA3 400	9600 dpi 12800 dpi
Light Source	Cold cathode fluorescent lamp
Maximum Scanning Size	11.69" x 16.54"
Interface	SCSI-2
Power Requirement	100 to 240 Vac, 50 to 60 Hz
Power Consumption	45 watts
Humidity	20% to 80% RH
Operation Temperature	10°C to 40°C
Storage Temperature	-10 to 50°C
Dimension	630 x 394 x 120 mm (WxDxH)
Weight	12 kgs (26.5 lbs)

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EC Declaration of Conformity

Manufacturer's Name: Avision Inc.
Manufacturer's Address: No. 20 Creation Rd. 1,
Science- Based Industrial Park,
Hsinchu 300, Taiwan, R.O.C.

declare that the product:

Model Number : AVA3
**conforms to the following
Product Specifications:**

Emission: EN 50081-1 (1992)
EN 55022 (Class B) (1994)
(Conducted/Radiated)
EN 61000-3-2 (Harmonics)(1996)
EN 61000-3-3(Flicker) (1995)

Immunity: EN50082-1 (1992)
IEC 1000-4-2 (ESD) (1995)
IEC 1000-4-3 (RS) (1995)
IEC 1000-4-4 (EFT/Burst) (1995)
IEC 1000-4-5 (SURGE) (1995)