AVISION

AV25
Image Scanner

User's Manual

Version 1.0

(Doc. No. 250-0053-0)

© Avision Inc. 1996

Trademarks

Microsoft is a U.S. registered trademark of Microsoft Corporation.

Windows and MS-DOS are trademarks of Microsoft Corporation.

IBM, PC, AT, XT are registered trademarks of International Business Machines Corp.

Other brands and product names herein are trademarks or registered trademarks of their respective holders.

Copyright

Warranty

The information contained in this document is subject to change without notice.

Avision makes no warranty of any kind with regard to this material, including, but not limited to, the implied warranties of fitness for a particular purpose.

Avision shall not be liable for errors contained herein or for incidental or consequential damages in connection with the furnishing, performance, or use of this material.

FCC Radio Frequency Interference Statement

This equipment has been tested and found to comply with the limits for a class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communication. 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.

CAUTION: Any changes or modifications not expressly approved by the manufacture of this device could void the user's authority to operate the equipment.
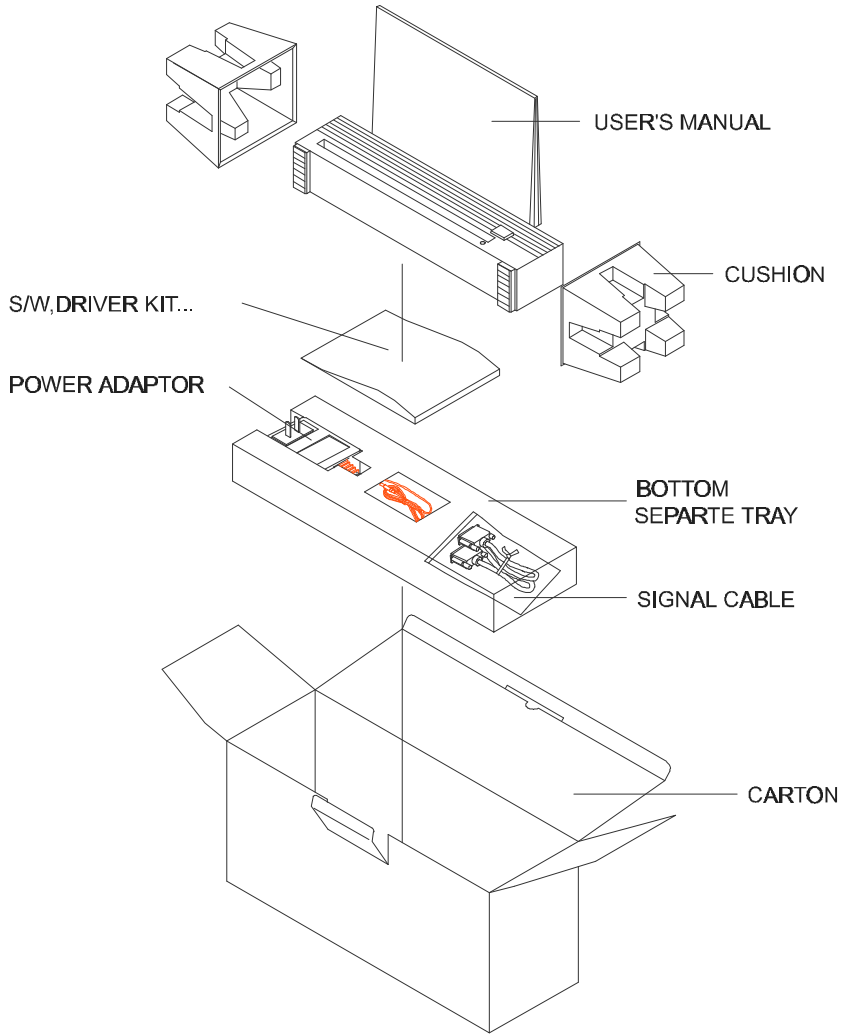
Table of Contents

Chapter 1 Introduction

Congratulations on your purchase of Avision AV25 image scanner. Avision Inc. is one of the leading companies in the world to develop high performance sheet-fed scanners.

Before you install and operate the new scanner, please take a few minutes to read through this manual. It provides you with the proper instructions on how to unpack, install, operate and maintain the scanner.

Figure 1-1 shows how the scanner is packed. Please check all the items against your checklist. If you did not receive all the items, please contact your authorized local dealer immediately.

USER'S MANUAL

CUSHION

S/W,DRIVER KIT...

POWER ADAPTOR

BOTTOM
SEPARTE TRAY

SIGNAL CABLE

CARTON

Figure 1-1 Scanner packing

Chapter 2   Scanner Installation

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 a level surface. Tilted or uneven surfaces may cause mechanical or paper-feeding problems.
* Retain the scanner box and packing materials for shipping purposes.

2.1   Installation of the Scanner

Please unpack the packing carefully, and check the contents against the *checklist*.   If any items are missing or damaged, please contact your dealer immediately.

2-2   Connecting the Cable

Be sure the scanner is power off.

Connect the power cable and signal cable as shown below.
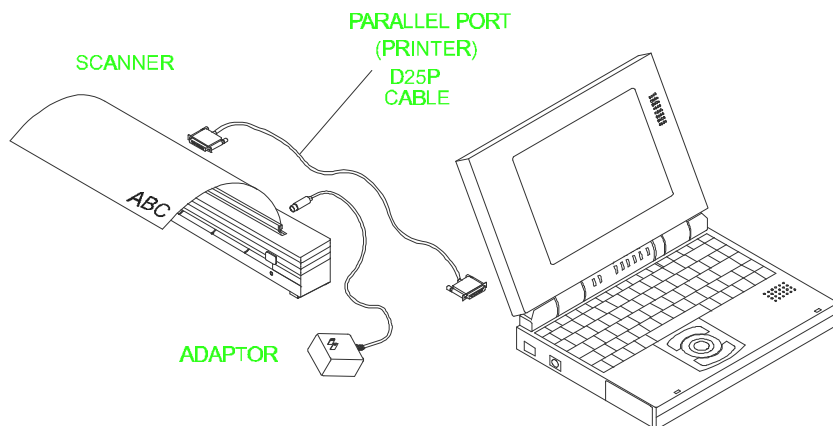
Figure 2-1 AV25 scanner cable connection

Document loading

Load the documents one page at a time. And put the document to be scanned face down in the scanner.

Figure 2-2 Put document in the scanner.

Chapter 3   Scanner Driver Installation

Minimum Requirements:

* IBM compatible PC 386/486 or Pentium;
* Microsoft Windows 3.1 or Windows 95;
* DOS 5.0 or higher;
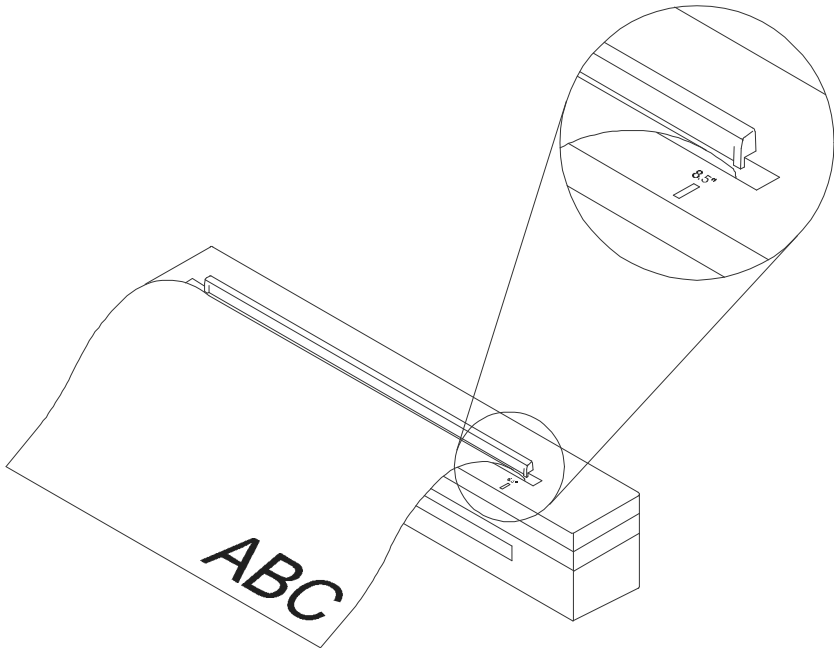* One printer port available (enhanced parallel port recommended);
* 2 megabytes of available hard disk space for installation;
* 4 megabytes of RAM (8 megabytes or higher recommended);
* A video graphics array (VGA) monitor;
* A Microsoft Windows-compatible pointing device, e.g., the mouse;
* A CD ROM drive.

3-1   Auto-Installation Program

Installation procedure of the scanner driver with Avision Auto-Installation Program is as follows:

1. Start Windows 3.1 or Windows 95.
2. Insert AV25 CD kit into your CD ROM drive.

For Windows 3.1 or Windows 3.11 (See Figure 3-1,3-2)

3. From the File Menu, choose RUN, type
   d:\driver\av25\setup.exe, and then click O.K.

For Windows 95

3. Press the Start button, choose RUN, type
   d:\driver\av25\setup.exe, and then click O.K.

4. Follow the instructions on the screen to complete the
   installation (usually just clicking O.K. will complete the
   installation).
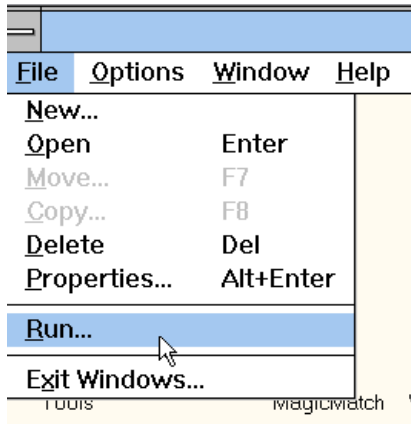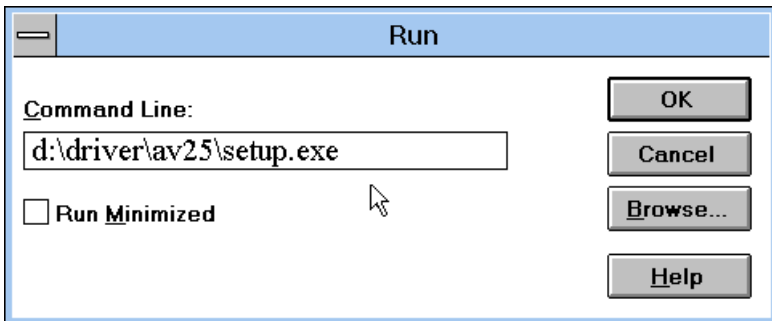

Fig. 3.1

Fig. 3.2

3-2   Uninstall the Scanner

You can uninstall the scanner by double-clicking on the *Uninstall*
icon stored in the AV25 Driver group.

AV25 Driver ...   UNINSTALL
                           DRIVER

Chapter 4   Scanner Operation

There are two types of application software interface to use with the AV25 scanner. They are **TWAIN** and **ISIS**. TWAIN is the most popular interface among image-editing application software, while ISIS is most popular among archiving application software (OCR).

Scanning Images from within an Application (TWAIN)

1. Open your application and choose *Select Source* from the File menu. If the *Select Source* menu options are 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 you can choose for bringing an image into your application.

3. Select *AV25/16 V3.2* as the source.

4. You need to select *AV25* for just once except when you have used the dialog box to select a different source. In that case, you will need to select *AV25* as the source again before you can reuse the scanner.

5. *Do calibration*: Place a sheet of A4-size white paper in the scanner and press the Calibration button to calibrate "whiteness" for the scanner.

6.   Place the image to be scanned face down on the scanner.

7.   From the File menu, select *Acquire*.

8.   Avision TWAIN user interface will pop up on the screen. Click on the **Prescan** or **Scan** button to get the image.

Avision TWAIN user interface:
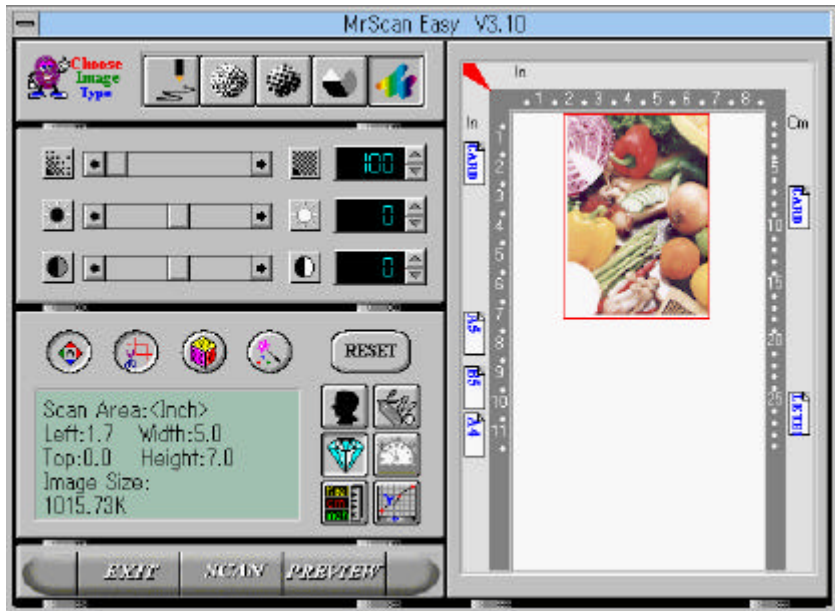
4-1   *Image Type*

As shown below, you can select the mode you want to use with your document or image. Just click on the corresponding button.

Line art
Error Diffusion
Halftone
Gray Scale
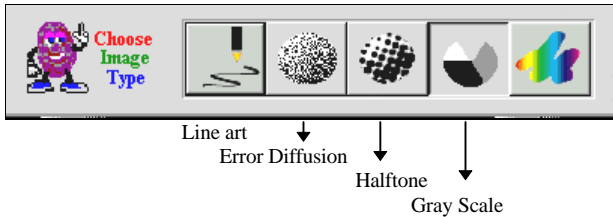
Line art

> Line art includes only black and white areas. There are no intermediate shades of gray in between.

Error Diffusion

> While taking up but a minimum storage space, error diffusion gives good image texture and excellent image details.

Halftone

> Halftone simulates different shades of gray by varying the threshold value of a matrix.

G*ray* (256 levels gray scale)

> Scanner recognizes each point in the image as a shade of gray (continuous tone). 8-bit gray gives more detailed information about the image.

4-2   Scanning Parameters & Image Control
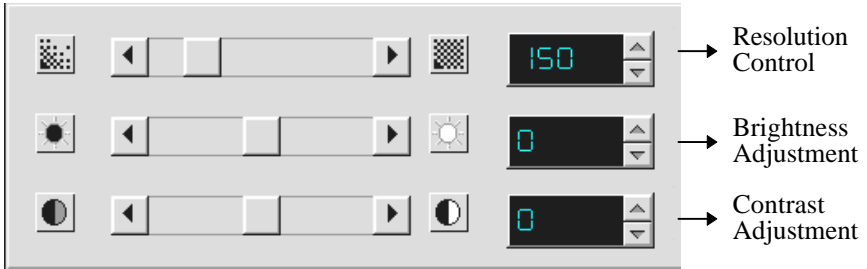
Resolution: The number of dpi (dots per inch) that AV25 uses
for a *scan*.

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

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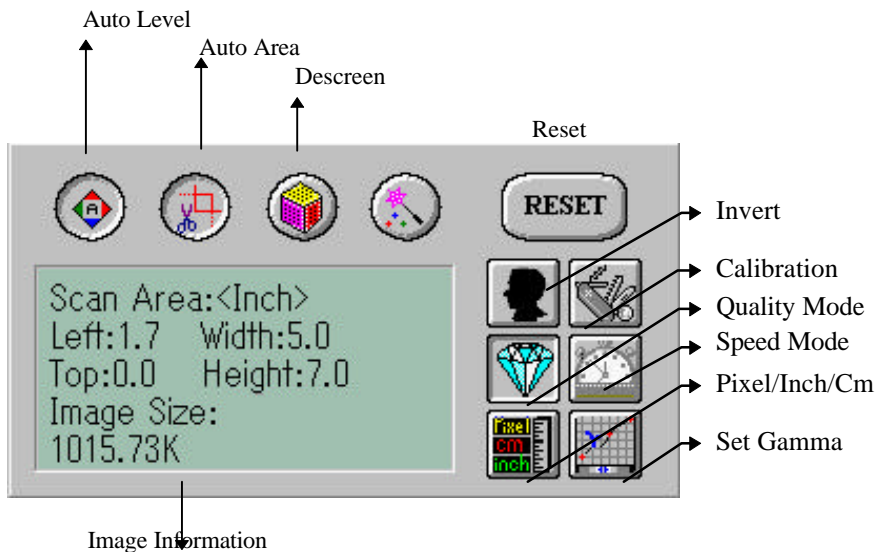
Auto Level: Optimizes the scanned image.

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

Descreen: Eliminates the Moire patterns commonly found in printed matter.

Before descreen   **After descreen**

Reset: Resets the scanning parameters you set.

Invert: The invert command reverses the brightness and the color in the image.

Calibration: Defines "whiteness" for the scanner. Users are recommended to calibrate the light source if the scanned image looks undesirable or comes out to be too dark.

Quality/Speed Mode:

Users can select either mode to perform scanning according to their own need. Select quality mode scanning if your emphasis is on the quality of the scanned image. Else, select speed mode scanning if you want to speed up the scanning process.

Pixel/Inch/Cm:

Represents the different measure systems to be used in each scan.

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

Image Information:

Gives related information of the scanned image.

4-3   Scanning

Preview: Previews your image roughly and allocates the area to
                           be scanned.
Scan: Scans the area with the parameters you set.
Exit: Cancels the current job.
Document Size: To designate the size of your document, just click
                           on its icon on the margin of the preview window

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

Document size

Cursor
Auxiliary
lines

The Preview
Window
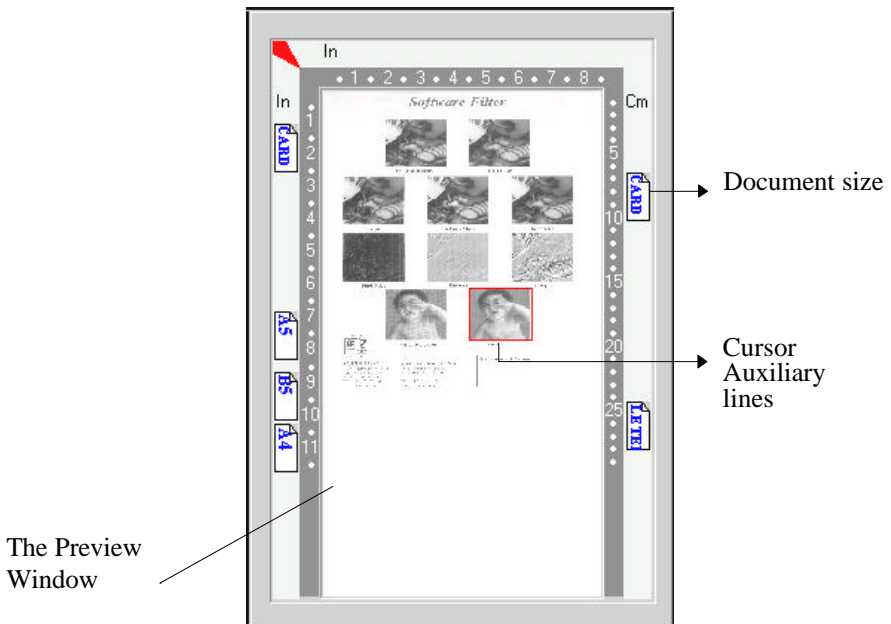
Chapter 5   Troubleshooting

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

If you have any problem with the operation of the scanner, please check the following troubleshooting hints.

5-1   Questions and Answers

Question: Paper becomes jammed during scanning.
Answer: Press the paper release button right-hand side of the scanner front panel. Pull out the jammed paper carefully.

Question: More than one sheet of paper are fed into the scanner.
Answer: Remember to load your documents one page at a time.

Question: Paper becomes skewed in the scanner.
Answer: When loading, remember to align your document with the slide guide to keep the paper path straight.

Question: Why is it the scanned image always comes out to be too dark?
Answer: 1) Modify the Gamma setting to 1.8 for your monitor and, when printing, set Gamma to 2.2 for your printer.
2) Use the Brightness setting of the TWAIN user interface to get a brighter image.

Question: Why does my scanner scan at a very low speed?
Answer: If you have installed "Works for Windows," it will install Window Printing System (WPS) in your WIN.INI file. This will share the printer

port time remarkably. You can remove the WPS from your WIN.INI file, as follows:

From:

[MS Text Converters]

MSWorksWin=Works for Windows 2.0,C:\WINDOWS\MSAPPS\TEXTCONV\worksdos.cnv,<u>wps</u>

Works for Dos 2.0=Works for DOS 2.0 MSAPPS\TEXTCONV\workswin.con,<u>wps</u>

To:

[MS Text Converters]

MSWorksWin=Works for Windows 2.0,C:\WINDOWS\MSAPPS\TEXTCONV\worksdos.cnv

Works for DOS 2.0=Works for DOS 2.0, C:\WINDOWS\MSAPPS\TEXTCONV\workswin.con

Question: The scanning speed of my scanner is much slower than that of those installed on other computers. Can I speed it up?

Answer: In such case, please
a) Set you PC printer port to the EPP mode from BIOS setting, or,
b) Add Avision scanner interface card IF05 to scan at a higher speed.

Question: Does it take long for the scanner to initialize?

Answer: If your printer port supports SPP mode only, it takes about two minutes for the scanner to initialize. If your printer port supports EPP mode, the initialization speed is much faster, about 20 seconds. Generally, it takes a two to three minutes time for the AV25 scanner lamp to warm up. It may be the scanner lamp is out of order if it works otherwise.

Question: Sometimes it seems the scanner does not detect paper.

Answer: The AV25 scanner's paper sensor is located at the center of the paper guide. Please place whatever you want to scan somewhere thereabout and use the slide guide to keep the paper path straight.

Question: Why some parallel port devices and software's keypro do not work with the AV25 scanner?

Answer: If you would like to connect some parallel port devices other than printer, please do not connect them to the same parallel port that AV25 currently uses. It is advisable that you use other parallel ports to connect these devices or keypro. For instance, you can connect the AV25 scanner to LPT1, and connect other parallel port devices to LPT2. Or you can add a data switch to avoid the problem.

5-2 *Technical Service*

Technical support for Avision scanner is provided at the 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...);
* The name and version of your scanning software application;
* The version of your scanner driver.

Please call us at:

US and Canada Area: **Avision Labs., Inc.**

Address:	48521 Warm Springs Blvd. #312
	Fremont, CA 94539
Telephone number:	510-440-8785
Fax number:	510-440-8337
Web Site:	http://users.aimnet.com/~avision
E-mail:	avision@aimnet.com

Other Area: **Avision Inc.**

Address:	No. 20, Creation Road I, Science-Based Industrial Park, Hsinchu, Taiwan, R.O.C.
Telephone number:	886-3-5782388
Fax number:	886-3-5777017
BBS:	886-3-5786149
CompuServe:	101400,444
Email:	service@avision.com.tw

Note: 1. You can find the latest driver and documents in Avision BBS. Our service is 24 hours a day. The communication setting is: 2400-19200 BPS, 8N1S.
2. You will be asked to enter your first name, last name and password at all times.
3. For first-time user, you will be requested of your full name and password. The same name and same password are required to enter BBS again next time.

Chapter 6   Specifications

All specifications are subject to change without notice.

<u>**The following can not be properly fed by ADF:**</u>

* Paper with clip or staple attached;
* Paper with ink not totally dry;
* Paper with inconsistent thickness, such as envelopes;
* Paper with wrinkles, curls, folds or tears;
* Tracing paper;
* Coated paper;
* Carbonless paper;
* Paper narrower than 3.5" or wider than 8.5";
* Items other than papers, such as cloth, metal or OHP film;
* Notched paper;
* Paper with an odd (non-rectangular) shape;
* Very thin paper.

6-1 Model: AV25

Scanner Type:	Desktop Sheet-fed
Optical Resolution:	up to 200 dpi * 200 dpi (H*V)
Scanning Modes:	Black & White mode
	Halftone mode (64-step)
	Error diffusion (2 patterns)
	8-bit gray scale (256 levels)
Scanning Speed:	6 pages per minute (200 dpi, line art, letter size)
Document Size	8.5" * 14"
Min. Document Size:	4" x 3.5" (ADF)
	3.5" x 2" (manual feed)
Paper:	16 lbs. to 24 lbs.
Interface:	Printer port
Power Consumption:	10 watts
Dimensions: (WxDxH)	295 mm x 51 mm x 61 mm
Weight:	0.6 kg

EC Declaration of Conformity

According to EN45014

Manufacturer's Name: AVISION INC.

Manufacturer's Address: No. 20, Creation
Road I, Science-Based
Industrial Park,
Hsinchu, Taiwan, R.O.C.

declare that the product

Model Number :   AV25

conforms to the following Product Specifications:

Emission: EN 50081-1 (1992)
EN 55022 (Class B)
(Conducted Radiated) (1994)
EN 60555-2 (Harmonics) (1987)
EN 60555-3 (Flicker) (1987)

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)

Date: December, 1995