

AV360C Color Image Scanner

User's Manual

Version 1.0

(D/N 250-0009-0)

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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.

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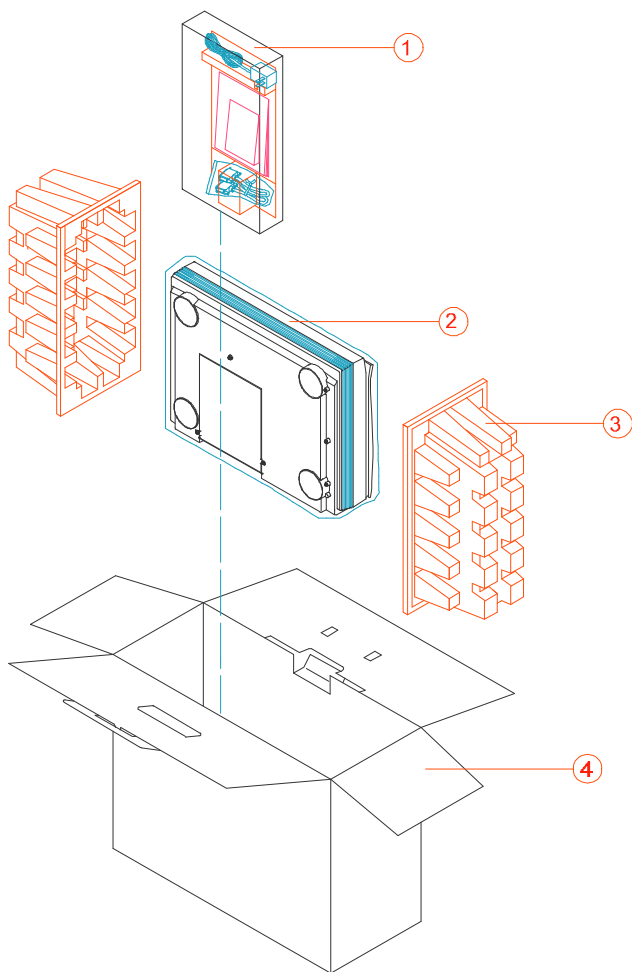
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1. Introduction

Congratulations on your purchase of Avison AV360C color image scanner. Avison is one of the leading companies in the world to develop high performance 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.



- 1. Manual, Driver Kit, AC Power Cord, D25P Cable, etc.
- 2. Scanner
- 3. Cushion
- 4. Carton

Figure 1-1 Scanner packing

2. Scanner Installation

Precautions

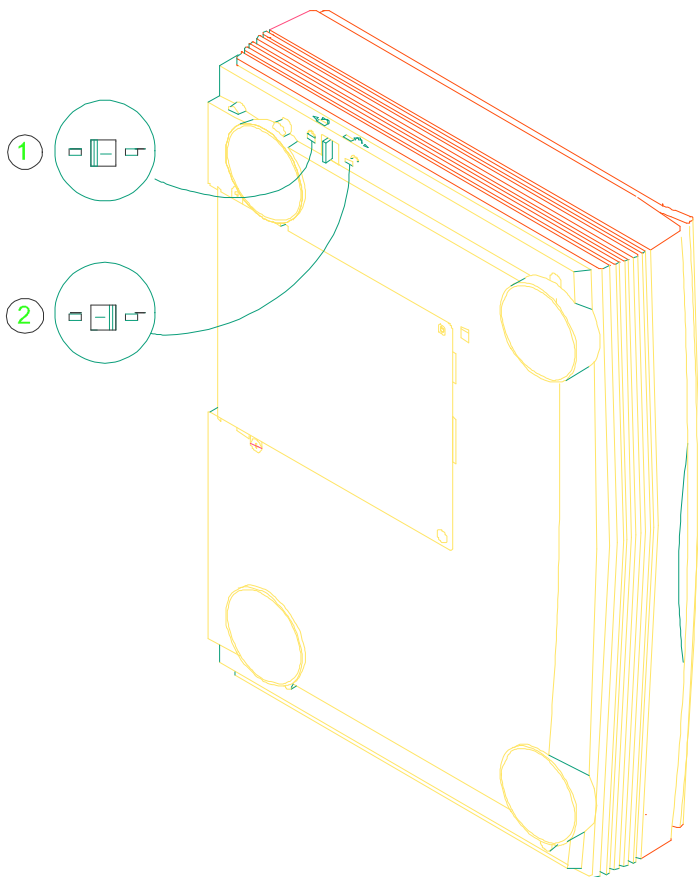
- * Keep the scanner out of direct sunlight. Direct exposure to the sun or excessive heat may cause damage to the unit.
- * Do not install the scanner in a humid or dusty place.
- * Be sure to use the proper AC power source.
- * Place the scanner securely on an even, flat surface. Tilted or uneven surfaces 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 Unlocking the Scanner

As shown below, unlock the scanner by turning the scanner lock to the “use” position.



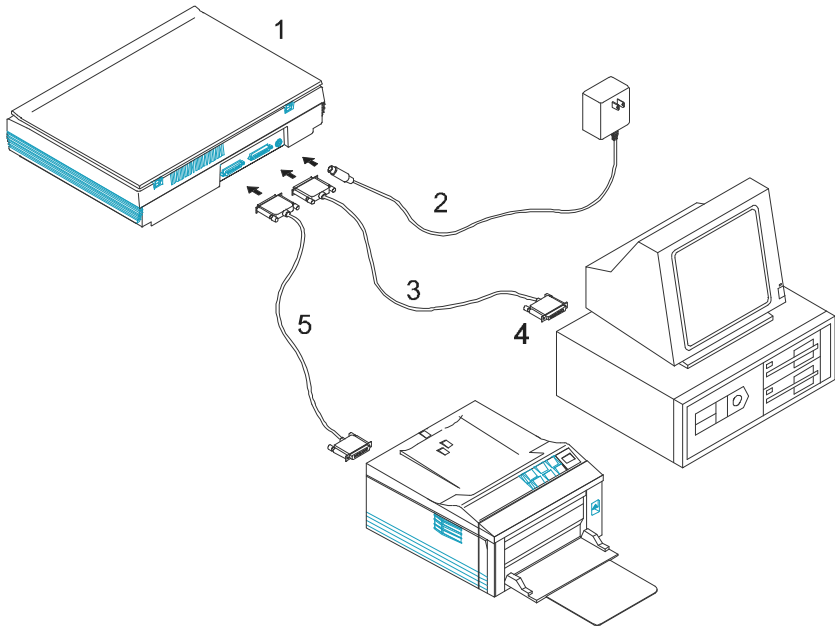
1. Shipping position

2. Use position

Figure 2-1 Unlocking the Scanner

2.3 Connecting the Cable

Connect the power cable and signal cable as shown below.

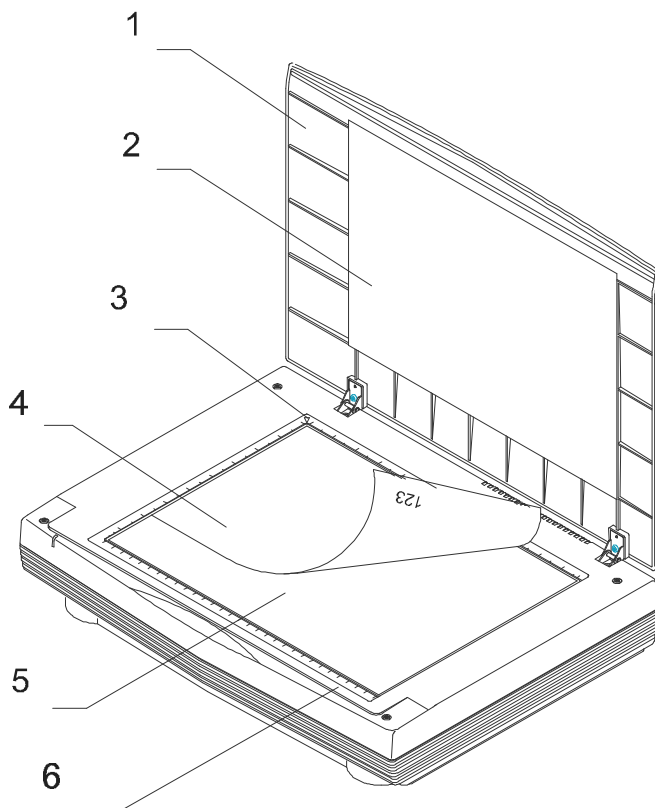


- | | |
|------------------|---------------------|
| 1. Scanner | 2. Power Supply |
| 3. D25P Cable | 4. PC Parallel Port |
| 5. Printer Cable | |

Figure 2-2 Avison AV360C scanner cable connection

2.4 Document Placement

As shown below, place the image to be scanned face down on the scanner.



- | | |
|--------------------|-------------------|
| 1. Document Cover | 2. Document Pad |
| 3. Reference Frame | 4. Document |
| 5. Glass | 6. Document Board |

Figure 2.3 Document Placement

3. Scanner Driver Installation

To run at rated speed as recommended, the AV360C color image scanner must have the following 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 procedures of AV360C Scanner driver with Avison Auto-installation Program are as follows:

1. Start Windows 3.1 or Windows 95.
2. Insert AV360C CD kit into your CD ROM drive.
3. For Windows 3.1 or Windows 3.11 (See Figure 3-1,3-2)
From the File Menu, choose RUN, type d:\driver\av360c.exe (d: the CD ROM drive in use), and then click O.K.

3. For Windows 95

Press the Start button, choose RUN, type d:\driver\av360c.exe (d: the CD ROM drive in use), and then click O.K.

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

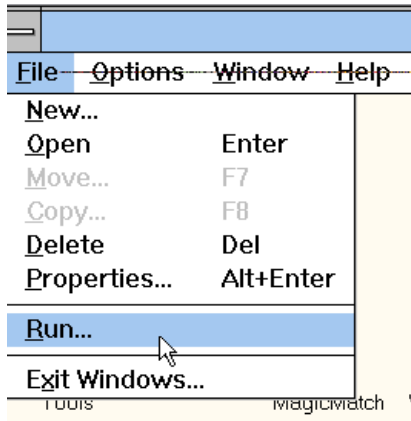


Fig. 3.1

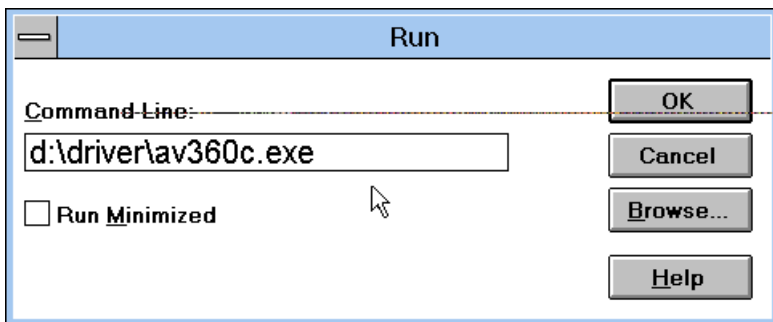


Fig. 3.2

3.2 Uninstall the Scanner

You can uninstall the scanner by double-clicking on the uninstall icon stored in the Avison driver group.



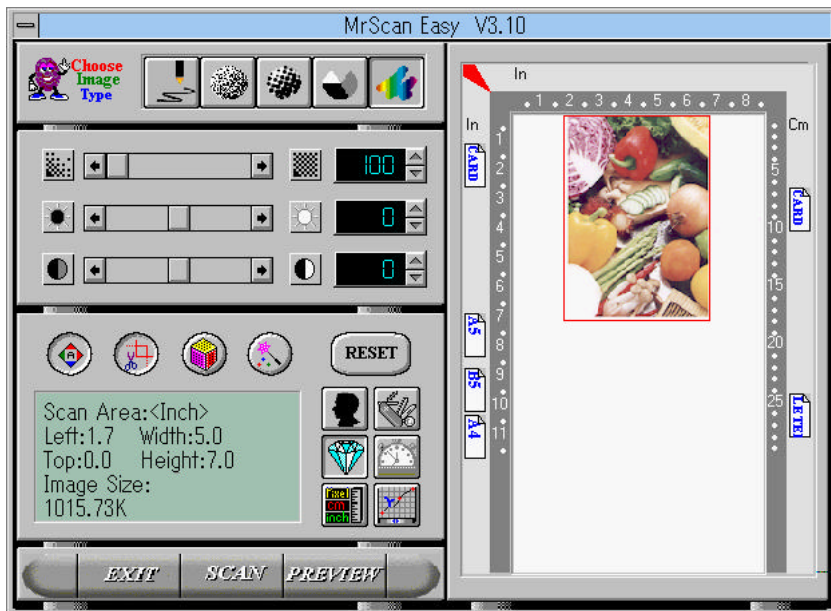
4. Scanner Operation & Document Printing

There are two types of application software interface to use with the AV360C scanner. TWAIN is the most popular interface among image-editing application software.

Scanning Images from within an Application (TWAIN)

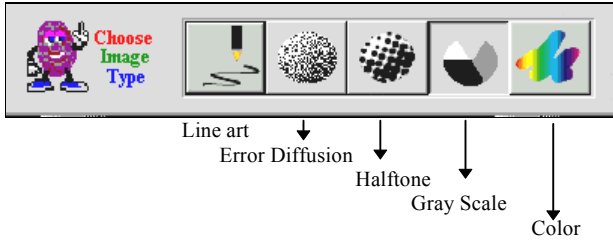
1. Open your application and choose Select Source from the File menu. If the Select Source menu options are not available from the File menu, see the user guide of your application to learn how the TWAIN link is used.
2. A dialog box appears containing the different TWAIN sources that you can choose for bringing an image into your application.
3. Select AV360C/16 V3.2 as the source.
4. You need to select AV360C for just once except when you have used the dialog box to select a different source. In that case, you will need to select AV360C as the source again before you can reuse the Avision AV360C scanner.
5. Place the image to be scanned face down on the scanner.
6. From the File menu, select Acquire.
7. AV360C TWAIN user interface will pop up on the screen. Click on the Preview or Scan button to get the image.

AV360C 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

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.

Gray (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.

True Color (16.7 million colors)

Color image has continuous tones along with its color hues.

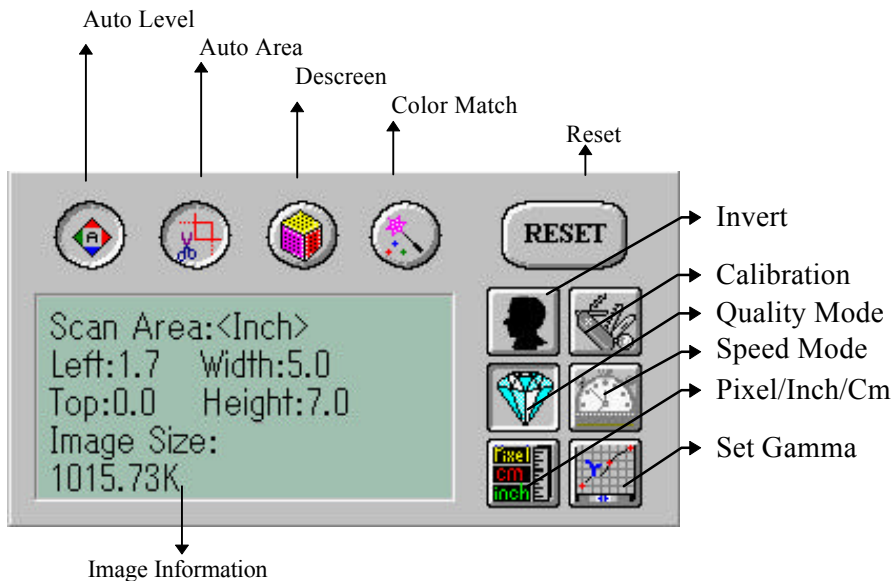
4.2 Scanning Parameters & Image Control



Resolution: The number of dpi (dots per inch) that AV360C 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

Color Match: 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.

Reset: Resets the scanning parameters you set.

Invert: 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.

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.

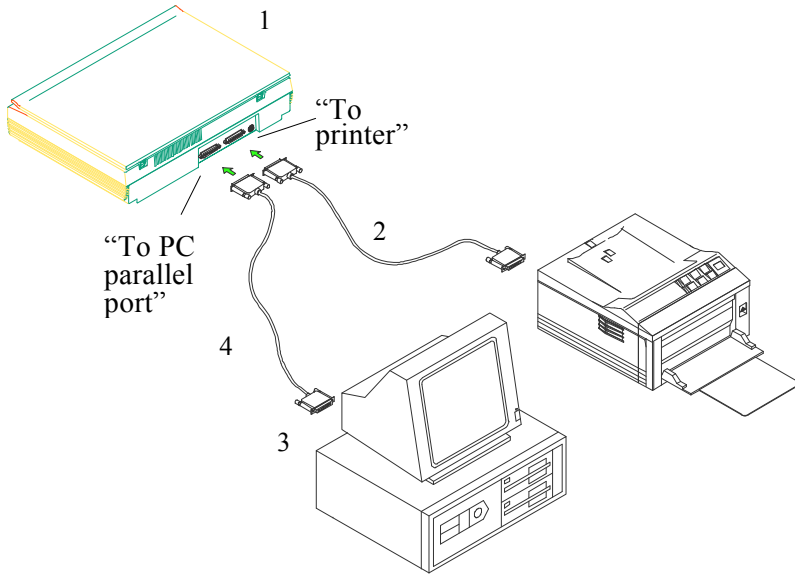
Pixel/Inch/Cm:
Represents the different measure systems to be used in each scan.

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.

4.4 Printing

Connect the printer cable as shown below.



- 1. Scanner
- 2. Printer Cable
- 3. To PC parallel port
- 4. Scanner Cable

Figure 3.3 Printer cable connection

Attention:

1. Be sure to power on the scanner if you want to do pass-through printing.
2. Do not scan and print at the same time.
3. If your PC does not support EPP mode or have pass-through compatibility problem, please contact your authorized local dealer for an EPP card or an additional interface card.

5. Maintenance

Clean the Document Board Glass:

As shown below, wipe the scanner glass with a piece of soft clean cloth to rid the glass of dust or toner particles.

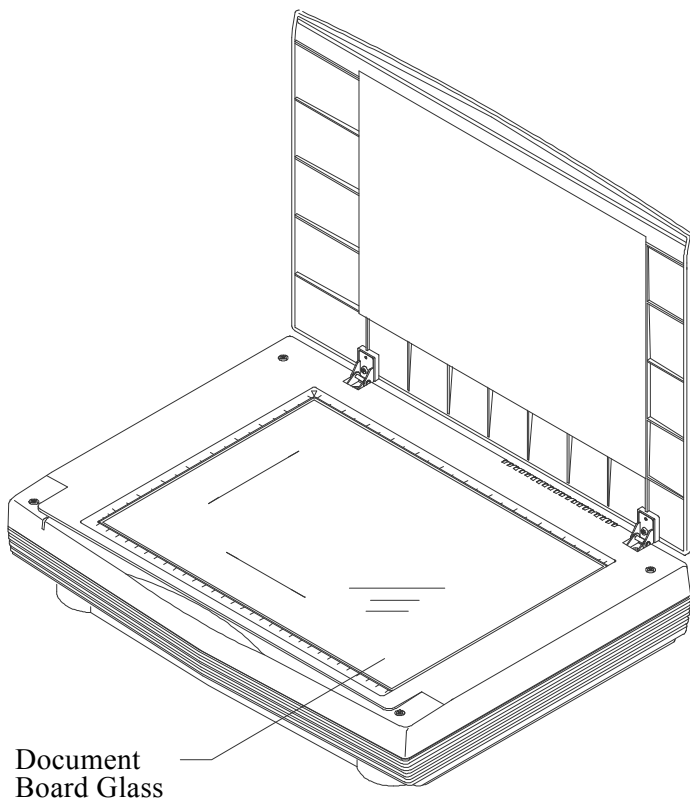


Figure 4-1 Clean the document board glass.

6. Troubleshooting

The scanner will automatically perform a simple self test each time it is initialized. 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.

6.1 Questions and Answers

Question: Why is it the scanned image always comes out 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: The scanning speed of my scanner is much slower than that of those installed at 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 to scan at a higher speed.

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 take up 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.wps,
Works forDos 2.0=Works for DOS 2.0,MSAPPS\TEXTCONV\workswin.cowps

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 printer does not print the documents. Why?

Answer: Pass-through printing may pose a problem for some printers. It is suggested that you

- a) add a second printer card for printing purpose, or,
- b) add Avision scanner interface card to perform scanning.

Please call your authorized local dealer for support.

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 Avision AV360C scanner lamp to warm up. It may be that your scanner lamp is out of order if it works otherwise.

Question: Why sometimes pass-through printing does not work at all?

Answer: It may be that you forgot to power on the scanner. When doing pass-through printing, please first remember to power on the scanner.

Else, without power, the scanner can not transfer the printing data/signals to the printer.

Question: Why doesn't my GDI printer work with the Avision AV360C scanner?

Answer: Disable the "Auto Scan" function in the application, and your printer will function all right.

Question: Why some parallel port devices and software's keypro do not work with the Avision AV360C scanner?

Answer: The Avision AV360C scanner can do pass-through printing all right, but not otherwise. As such, if you would like to connect some parallel port devices other than printer, please do not connect them to the same parallel port that Avision AV360C currently uses. It is advisable that you use other parallel ports to connect these devices or keypro. For instance, you can connect the Avision AV360C scanner to LPT1, and connect other parallel port devices to LPT2. Or you can add a data switch to avoid the problem.

6.2 Technical Service

Technical support for Avision scanner is provided at the Avision Technical Assistance Center. Before you contact us, 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

Tel: 510-440-8785

Fax: 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, Hsin-Chu, Taiwan, R.O.C.

Tel: 886-3-5782388.

Fax number: 886-3-5777017

BBS: 886-3-5786149

CompuServe: 101400,444

Internet: avision@shts.seed.net.tw

- Note:
1. You can find the latest driver and document in Avison 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. The same name and password must always be used to enter Avison BBS.

7. Specifications

All specifications are subject to change without notice.

7.1 Model: AV360C

Scanner Type:	Flatbed
Optical Resolution:	up to 300 dpi * 600 dpi (H*V)
Scanning Modes:	Black & White mode Halftone mode (64-step) Error diffusion 8-bit gray scale(256 levels) 24-bit color (16.7 Millions of color)
Scanning Speed:	15 sec/page (letter size, color mode, 100 dpi)
Document Size	A4, B5, A5, business card
Interface:	Printer port (supports SPP/EPP for PC)
Power Source:	110Vac or 220Vac, 50-60Hz, external
Power Consumption:	12 watts (12Vdc,1A)
Dimensions: (WxDxH)	414 mm x 306 mm x 92 mm
Weight:	3.9 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,
Hsin-Chu, Taiwan, R.O.C.

declare that the product

Model Number : AV360C

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