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Preface

DuoScan HiD is a high-resolution scanner that scans reflective and transparent originals, each on an independent scan bed. The transparent scan area is a revolutionary innovation because of the Twinplate™ scanning system. This allows you to scan without glass plates distorting the optical path. Instead of only switching the light source, the scanner switches mirrors and thereby uses a different optical path to scan transparent originals. This allows the scanner to optimize the optical path for both types of originals.

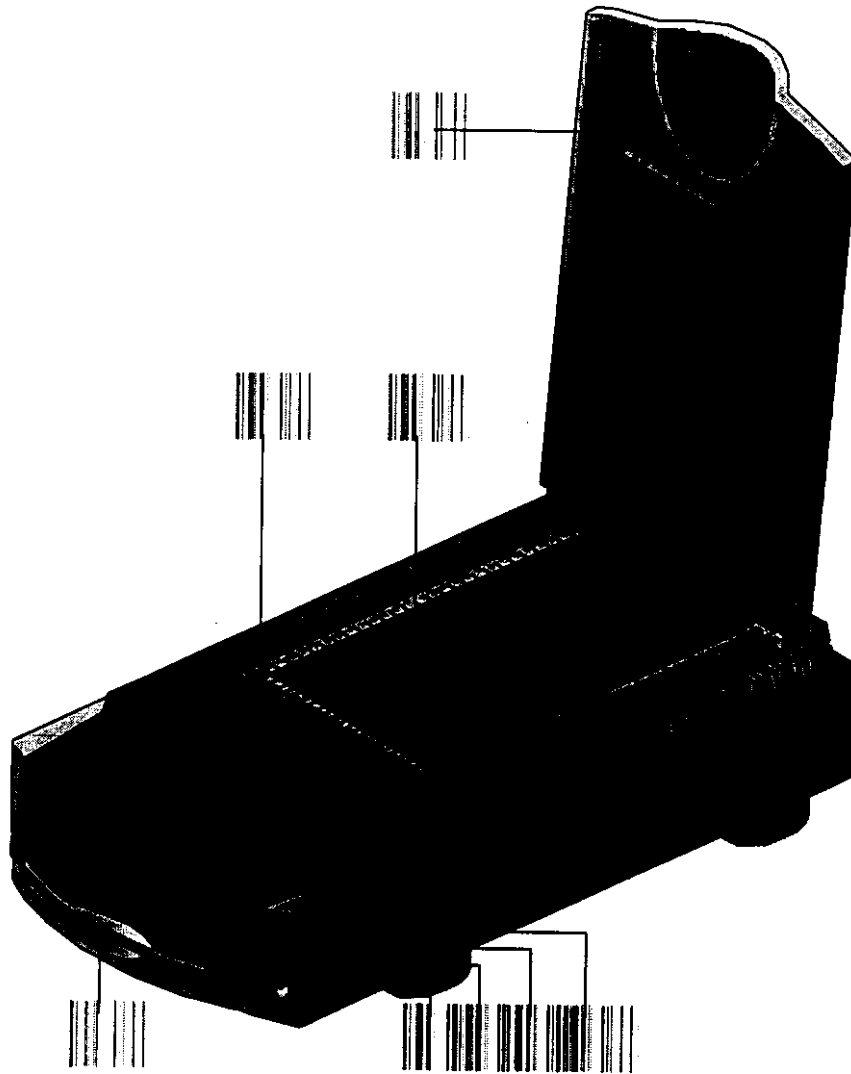
DuoScan HiD's image quality makes it perfectly suitable for pre-press graphical applications. It is based on flatbed CCD (Charge Coupled Device) scanning technology. DuoScan HiD is characterized by a large input size range and a high scanning speed. Thanks to its 8,000 CCD pixels, an impressive output size range can be achieved. This high-precision instrument features exceptional sharpness and color fidelity.

The universal glass frame, the slide holder frame and the batch slide holders allow you to scan transparent originals without using the reflective glass plate. Three regular slide holders are supplied with DuoScan HiD, together with several types of batch slide holders which are available as an option in order to increase the productivity of the scanner. The document cover is adjustable for reflective scanning: when you put a thicker original (like a book or a magazine) on the reflective glass plate, the document cover adapts itself to its thickness.

The originals can be of any type. The FotoLook scanning software will optimize the scan result. The features of ColorTune and FotoFlavor software make it possible to create an output in compliance with your personal wishes (realistic colors, special color effects,...). The bit depths can be either 3 x 12 bit for color (packed into 3 x 16 bit or truncated to 3 x 8 bit), 12 bit for gray scale originals, or 1 bit for line-art originals. The scanned data are transferred to the workstation through SCSI-2. The workstation can be either an Apple® Macintosh® or PC®.

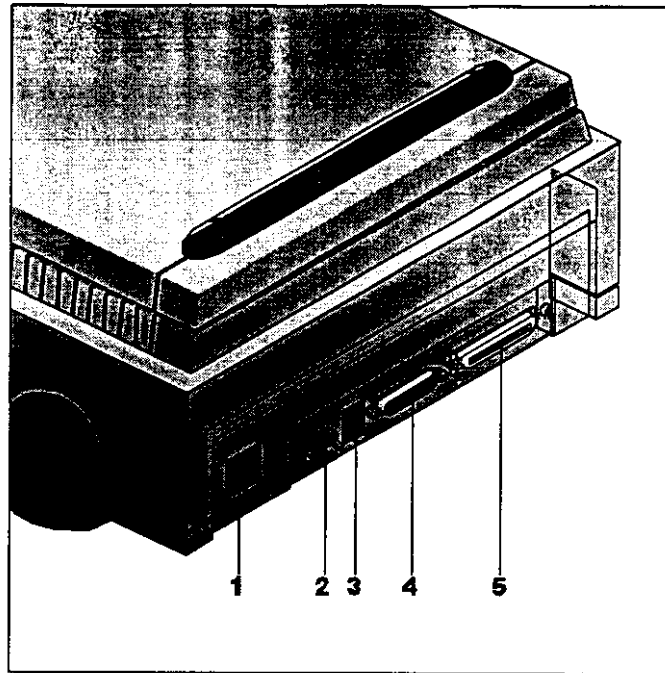
Taking a closer look

Now that you have the scanner out of the box, take a closer look so that you become familiar with its parts. This figure illustrates the locations of the different parts of your DuoScan HiD.

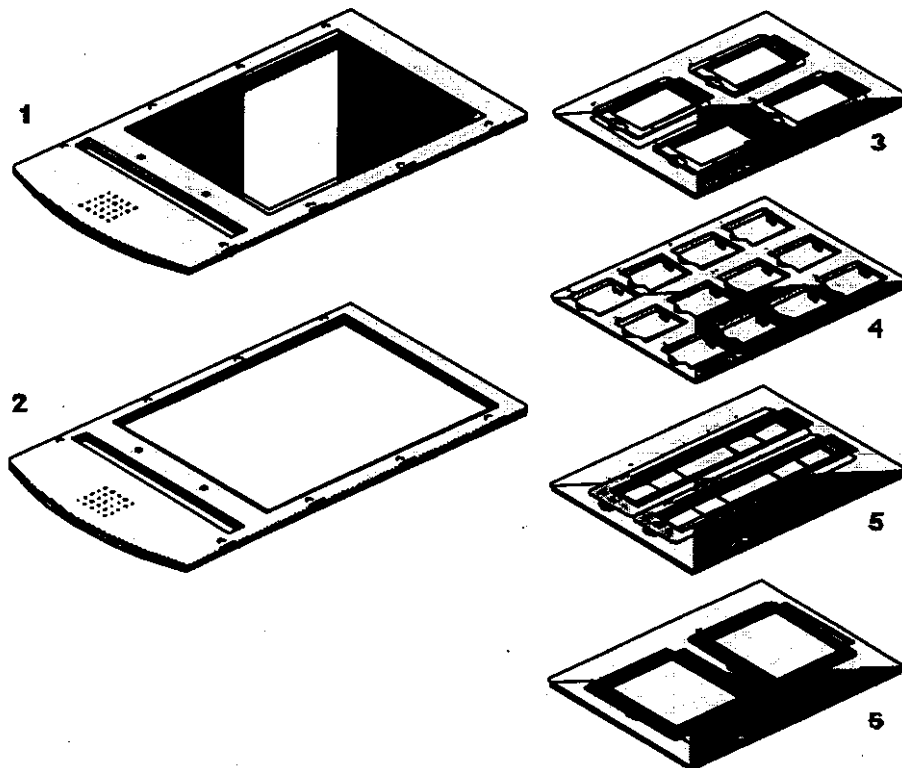


1. adjustable document cover
2. reflective glass plate
3. rulers
4. transparency tray
5. power switch
6. power indicator
7. transparency ready indicator
8. reflective ready indicator

This figure illustrates the location of the different parts at the rear of your scanner.



1. power input
2. SCSI terminator switch
3. SCSI ID switch
4. 25-pin connector
5. 50-pin connector



1. Universal glass frame
2. Slide holder frame

3. 6 x 9 cm batch slide holder
4. 35 mm framed batch slide holder
5. 35 mm strip batch slide holder
6. 4 x 5 inch batch slide holder.

Placing reflective originals

You can place a reflective original directly on the scanner's reflective glass plate. A new feature of your DuoScan HiD is the adjustable document cover: when you put a thicker original (like a book or a magazine) on the reflective glass plate, the document cover adapts itself to its thickness.

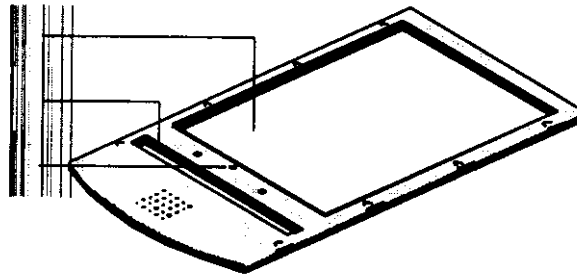
1. Open the document cover of the scanner.
2. Place the original face down on the reflective glass plate, with its top side against the middle of the front ruler.

The optical performance of a CCD scanner is always best near the middle of the scan area. However, for the most common resolutions used for reflective originals, placing originals to the side will not decrease quality.

3. Close the document cover of the scanner.

Placing transparent originals

When you scan transparent originals, you use either a batch slide holder frame or the universal glass frame.



1. universal glass frame
2. calibration slit
3. arrow indicating where to place transparent originals

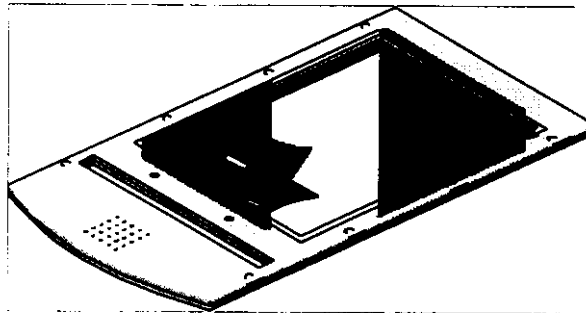
❖ Note: You find this arrow only on the top-side of the frame.

Caution: You always have to attach your transparent originals to the slide holder frame either with the clips of the universal slide holder, or by using a batch slide holder, or with adhesive tape, even if your transparent originals are fixed in a regular slide holder. Otherwise you might lose them in the scanner.

Using the universal glass frame

To scan a transparent original, carry out the following instructions:

1. Center the original on the universal slide holder so that its top side is directed towards the calibration slit of the slide holder frame when you put the universal slide holder on the slide holder frame of the scanner. The arrow on the frame indicates the position that guarantees the best quality.
 2. Clip your original underneath the edge of the universal slide holder.
 3. Put the slide holder frame into the transparency tray.
- ❖ **Note:** Make sure that the calibration slit of the slide holder frame is at the front side (standing in front of the scanner) and that it is clean.



Using the regular slide holders

You can also put your originals in a regular slide holder to avoid blooming and newton rings. There are three types of regular slide holders: 35 mm strip, 6 x 6 cm, and 4 x 5 inch. To scan a transparent original using a regular slide holder, carry out the following instructions:

1. Put your original in a slide holder.
2. Center the original on the universal glass frame so that its top side is directed towards the calibration slit of the slide holder frame. This position guarantees the best quality.
3. Fix the slide holder on the universal glass frame by pushing it firmly down, the rear of the holder having a glass adhesive, thereby securing it to the glass. The holder can still be removed easily.
4. Put the universal glass frame into the transparency tray with the Agfa logo facing upwards.

Chapter 2 — Installing the scanner

This chapter shows you how to set up your DuoScan HiD with your Apple Macintosh or PC. You'll find information about:

Minimum Hardware requirements and recommendations

Environmental requirements

Precautions

Cleaning your scanner

SCSI devices

Installation for the Apple Macintosh

Which SCSI interface card

Choosing a SCSI ID number

Connecting the scanner

Testing the connection

Installation for the PC

Which SCSI interface card

Choosing a SCSI ID number

Connecting the scanner

Testing the connection

Minimum hardware requirements and recommendations

For the Apple Macintosh:

- A Power PC Macintosh.

- 32 MB of RAM.

- A 17 inch 9832 x 624) monitor (with thousands of colors).

- System 8.

- 40 MB of free disk space on the start-up disk.

- A CD-ROM drive.

■ For the PC:

- A pentium processor or higher.

- A 15 inch color monitor.

- A video card for an accurate display of color images (minimum thousands of colors).

- 32 MB of RAM (64 MB of RAM is recommended).

- FotoLook™ is compatible with all IBM™ PC's and compatibles capable of running Windows 95, Windows 98 or NT 4.0 for Intel platforms.

- An ASPI compatible SCSI card. In general, FotoLook supports all fully WINASPI compatible cards. Some SCSI cards require a special SCSI cable (e.g. wide SCSI). Contact your supplier for the proper cable.

- ❖ Note: Please read the installation and set-up guidelines in the documentation that is supplied together with your SCSI interface card. In case of problems, refer to: Appendix A, 'Troubleshooting'.

- A CD-ROM drive.

- The amount of disk space available on your PC determines the number and size of the images you can scan. Make sure you have enough free storage space on your hard disk. You need about two times the size of the image to scan, edit and save an image. You need a minimum of 30 MB free hard disk space.

Environmental requirements

- Place the scanner on a horizontal, flat surface.

- To ensure proper ventilation, allow a minimum of 10 cm (4 inches) free space around each side of the scanner and a minimum of 15 cm (6 inches) at the rear of the scanner.

- Make sure that no vibrations or shocks occur.

- **Avoid any contact with water.**

The scanner is designed to operate optimally when the environmental temperature is between 10 °C and 40 °C. Avoid exposure to direct sunlight and heating devices.

The scanner is designed to operate optimally when the environmental humidity is between 10 % and 85 %. Avoid environments where humidity fluctuations might occur.

Check whether the voltage of the power cable corresponds to the voltage in your area. If not, contact your dealer or Agfa service representative.

Precautions

For your own safety and that of your equipment, respect conscientiously the environmental requirements (see the above section) and always take the following precautions:

Caution: For the reason of safety, besides the personal maintenance mentioned in this owner's guide, don't try to remove any mechanical parts or any electronic devices. If your scanner needs servicing, our dealer and service offices are available to help you.

- Handle your DuoScan HiD with care: its glass plates are fragile. There is no warranty on breaking the glass plates and your dealer is not liable for the consequential damages.
- Frequently check that there is no overheating of the power plug and that the power plug is pushed all the way into the socket.
- Switch the machine off at the end of your working day or during power failure.
- Disconnect the power plug when you want to clean the reflective glass plate and when the scanner needs servicing.
- Do not open the scanner housing as it contains high voltage areas and sensitive components. Any corrective maintenance should be carried out by your dealer or Agfa service representative.
- Do not leave originals on the reflective glass plate or on the slide holder frame for excessive periods of time. The warmth of the scanner may cause them to deteriorate.
- Make sure that the originals are properly attached on the glass plate, otherwise you might lose them in the scanner.
- To avoid crashes, never use extension cables for SCSI cables.
- For safety reasons, never use extension cables for power cables.

Cleaning your scanner

In order to maintain the quality of your scanned images, regularly clean both glass plates (the reflective glass plate and the universal glass frame).

Before cleaning, switch off the power to the scanner and unplug the cable.

Use a damp cloth and a mild detergent or alcohol to clean the surface of the glass plate.

When you use sprays directly onto the glass plate, avoid the seams around the glass, as this may cause the liquid to penetrate and contaminate the mirrors and lenses inside the scanner. Do not use detergent on the plastic parts of your scanner.

- The cleaning of the calibration slit in the transparency holder frame is especially important. Keep this area dust- and dirt-free.

SCSI devices

DuoScan HiD is a Small Computer System Interface (SCSI) device. It communicates with your computer by using the SCSI-2 standard. The SCSI communication standard allows you to have up to seven peripheral devices connected to your computer.

Before connecting the SCSI devices you should always make sure that your computer and all SCSI devices are switched off. If either the computer or any of the devices remains on, you could damage the computer or the device.

A unique SCSI ID number is assigned to each device in the SCSI chain enabling your computer to identify the device it wants to communicate with and the priority of each device.

Caution: If two SCSI devices have the same ID number, your system will not work properly and you may damage your SCSI devices.

To avoid crashes, never use extension cables for SCSI cables.

Installation for the Apple Macintosh

This section shows you how to set up your DuoScan HiD with your Macintosh computer. You must first choose and set a SCSI ID number, then connect the scanner to your Macintosh, and finally test the connection.

Which SCSI interface card

Choosing a SCSI ID number

Connecting the scanner

Testing the connection

Which SCSI interface card

DuoScan HiD requires a SCSI interface card to work with your Macintosh. If your Macintosh does not have such a card or built-in interface, contact your dealer or Agfa service representative.

Adaptec products are recommended to use together with your DuoScan HiD.

❖ **Note:** Please check the following documentation:

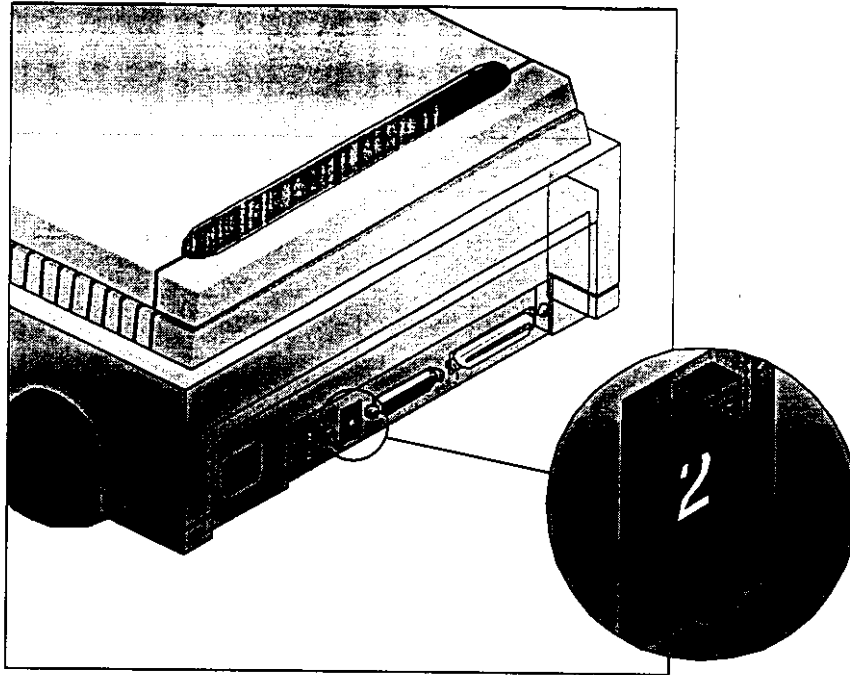
- ❑ The documentation supplied with your interface card. This will tell you how to install the card.
- ❑ If you are using third party software, check the documentation supplied with that software for the SCSI interface cards supported.

Choosing a SCSI ID number

Before you connect your DuoScan HiD to your Macintosh, you have to find out which SCSI ID numbers are already assigned and which numbers are free. To do this, you can use the utility 'SCSI ID Checker'. You will find this utility in the FotoLook folder after you installed the software.

1. Copy the SCSI ID Checker to your Macintosh computer if not already done.
2. Open the SCSI ID Checker.

A dialog box appears with a list of the SCSI ID numbers that are free in your Macintosh computer.



5. Click OK to close the SCSI ID Checker.

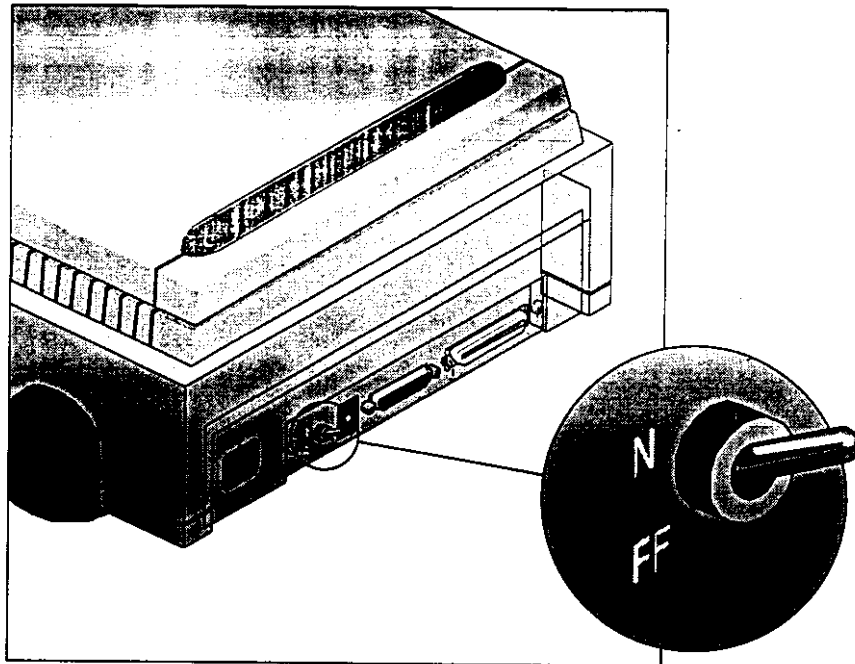
Connecting the scanner

Caution. Install the scanner software, as described in the Getting Started, before connecting the scanner to your computer.

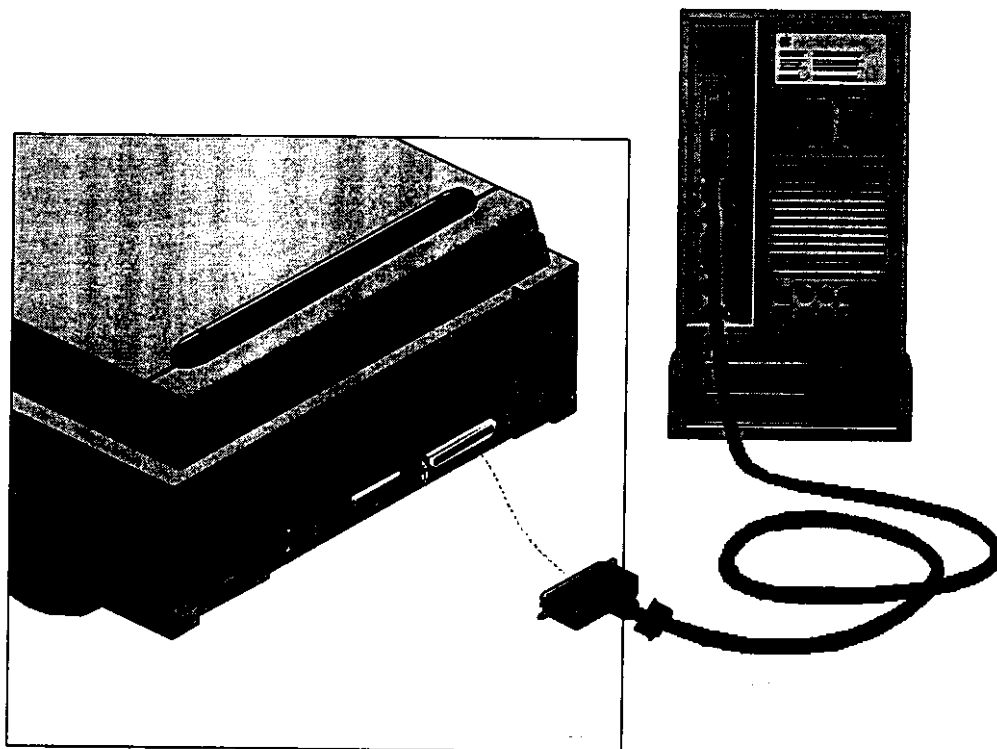
Before you connect the scanner to your Macintosh, make sure that your scanner as well as your Macintosh and everything connected to it are switched off.

Caution. For safety reasons, never use extension cables for power cables. Always make sure there are no more than two terminators in your SCSI chain, one at the beginning and one at the end. Some SCSI devices have built-in terminators and must therefore be placed at the beginning or end of your SCSI chain. Please check the documentation of each of your SCSI devices if you're not sure whether the device has a built-in terminator.

Because your DuoScan HiD has a built-in terminator you do not need to use an external terminator. To activate the built-in terminator switch the SCSI terminator on.



If your DuoScan HiD is the only SCSI device to be connected to your Apple Macintosh:

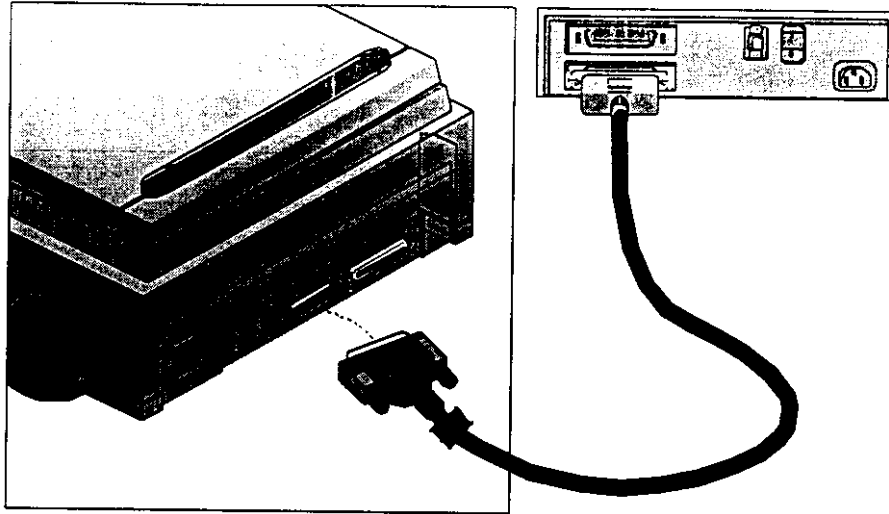


1. Connect the smaller 25-pin end of the SCSI cable to the connector of your Apple Macintosh.
2. Connect the larger 50-pin end of the SCSI cable to the free side of the terminator.
3. Snap the diamond shaped wire clips into the clip brackets to secure the connection.

4. Switch on the internal terminator.

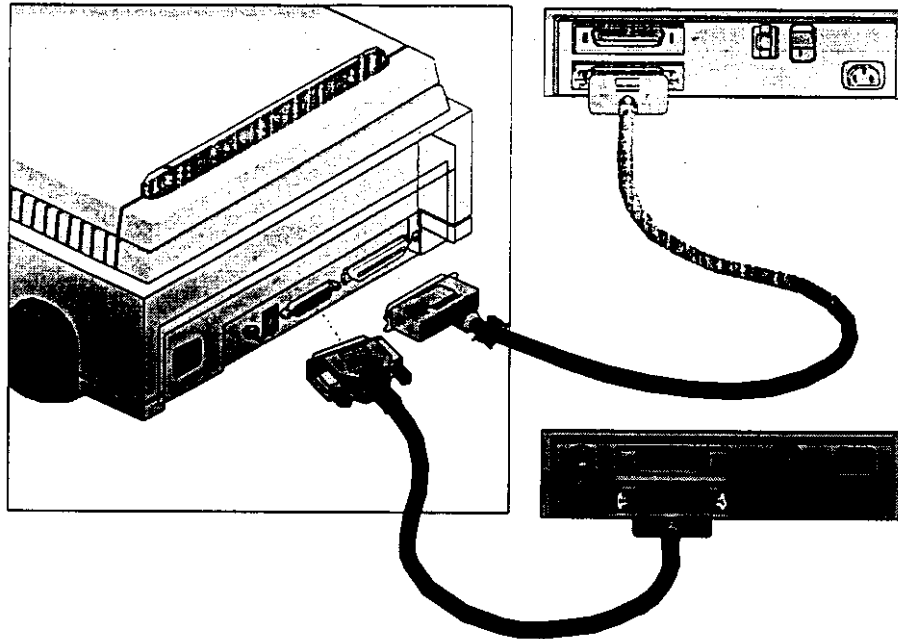
If your DuoScan HiD will be connected to your Apple Macintosh together with other SCSI devices:

If you install the scanner at the end of your SCSI chain:



1. Remove the terminator from the last device in the SCSI chain.
2. Connect the 50-pin end of the SCSI cable to the connector that has become available on this device.
3. Connect the 25-pin end of the SCSI cable to the free connector of the scanner.
4. Snap the diamond shaped wire clips into the clip brackets to secure the connection.
5. Switch the internal terminator on.

If you install the scanner between two other SCSI devices:



- ❖ Note: Make sure the internal terminator of the scanner is switched off.
- 1. Disconnect your SCSI cable from one of these two SCSI devices.
- 2. Connect the free end of this SCSI cable to the scanner.
- 3. Connect the 50-pin end of the SCSI cable (the one supplied with your scanner) to the other adjacent SCSI device.
- 4. Connect the 25-pin end of the SCSI cable (the one supplied with your scanner) to the scanner.
- 5. Snap the diamond shaped wire clips into the clip brackets to secure the connection.

Appendix B — Technical Information

This appendix provides some technical information about your DuoScan HD. Technical specifications are subject to change without notice.

Scanner type:	Flatbed legal or A4 size color CCD scanner
CCD:	8000 elements, color type
Optical resolution:	2000 dpi vertical x 1000 dpi horizontal
Output resolution:	25 - 4000 ppi
A/D Conversion:	48 bit (14 bit/color)
Output pixel depth:	1 bit output for line-art (black and white) 8 or 14 bit output for gray 24 or 48 bit output for color
Density range:	3.2 D
Max. density detected:	3.4 D
Scanning speed:	7-14 ms/line
Original sizes:	A4 or Legal
Maximum scan area:	Maximum reflection: 8 x 14 inch (203 x 355 mm) Maximum transmission: 8 x 10 inch (203 x 254 mm transparency)
Memory:	1 Mb RAM
Reflection scanner lamp:	2 x cold cathode 6000 hr lifetime
Transparency lamp:	Cold cathode 6000 hr lifetime
Warm up time:	approximately 35 seconds 180 seconds to reach final image quality

Power supply:	100 V to 240 V, 47 - 63 Hz
Power consumption:	40 W
Dimensions:	400 mm (16 inch) x 182 mm (7 inch) x 613 mm (24 inch) (W x H x L)
Weight:	13.5 kg
Acoustic noise:	max. 55 dB in worst condition
Interface:	SCSI-2 interface Maximum throughput 4 MB / sec
Environment:	Operating temperature: 10 °C to 40 °C (50 °F to 104 °F) Relative humidity: 10 % to 85 %

Appendix C — Regulation Compliance

Safety regulations

Safety regulations

DuoScan HiD has been designed to comply with:

- VDE 805
- IEC 950, EN 60950 (GS approved)
- UL 1950-D3
- CSA c22.2 No. 950-M89

DuoScan HiD also complies with CE regulations and carries the CE mark.

UL Safety Statement

Instructions for power supply cord selection:

Use a UL listed, Type SVT or SJT cord, three conductor, rated 10 A 125 V, not exceeding 15ft in length.

FTZ: Bescheinigung des Herstellers/Importeurs

Hiermit wird bescheinigt dass der Image Scanner in Übereinstimmung mit den Bestimmungen der vgf 1046/1984 funk-entstört ist.

Der Deutschen Bundespost wurde das Inverkehrbringen dieses Gerätes angezeigt und Berechtigung zur Überprüfung der Serie auf Einhaltung der Bestimmungen eingeräumt.

TÜV: Wichtige Sicherheitshinweise

1. Bitte Lesen Sie sich diese Hinweise sorgfältig durch.
2. Um eine Beschädigung des Gerätes zu vermeiden sollten Sie nur Zuberhörteile verwenden, die vom Hersteller zugelassen sind.
3. Das Gerät ist vor Feuchtigkeit zu schützen.
4. Bei der Aufstellung des Gerätes ist auf sicheren Stand zu achten. Ein Kippen oder Fallen könnte Verletzungen hervorrufen. Verwenden Sie nur sichere Standorte und beachten Sie die Aufstellhinweise des Herstellers.
5. Die Belüftungsöffnungen dienen zur Luftzirkulation die das Gerät vor Überhitzung schützt. Sorgen Sie dafür, daß diese Öffnungen nicht abgedeckt werden.

6. Die Netzanschlußsteckdose muß aus Gründen der elektrischen Sicherheit einen Schutzleiterkontakt haben.
7. Durch die Lüftungsöffnungen dürfen niemals Gegenstände oder Flüssigkeiten in das Gerät gelangen. Dies könnte einen Brand bzw. elektrischen Schlag auslösen.
8. Öffnen Sie niemals das Gerät. Das Gerät darf aus Gründen der elektrischen Sicherheit nur von autorisiertem Servicepersonal geöffnet werden.
9. Die Steckdose sollte nahe dem Gerät und leicht zugänglich sein.

Electromagnetic interference

DuoScan HiD is designed to comply with:

- VDE 0871, class B
- VDE 0875, level N
- FCC 20718, part 15, subpart B, class B

Federal Communications Commission Radio Frequency Interference Statement.

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 against harmful interference when the equipment is operated 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 communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio TV technician for help.

Notice:

1. The changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
2. Shielded interface cables and AC power cord, if any, must be used in order to comply with the emission limits.

Canadian department of Communications

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.