

DuoScan T2000 XL

Owner's Guide



[Preface](#)

This chapter gives you general information about DuoScan T2000 XL.

[Chapter 1 — Preparing the Scanner](#)

This chapter shows you how to prepare your DuoScan T2000 XL for installation.

[Chapter 2 — Installing the Scanner](#)

This chapter shows you how to set up your DuoScan T2000 XL for the Apple Macintosh and PC.

[Chapter 3 — Placing your Originals](#)

This chapter shows you how to place your originals in your DuoScan T2000 XL.

[Appendix A — Troubleshooting](#)

This appendix can be helpful when you come across problems that you are unable to solve.

[Appendix B — Technical Information](#)

This appendix provides specifications of your DuoScan T2000 XL.

[Appendix C — DuoScan T2000 XL Regulation Compliance](#)

This appendix gives you information on the safety regulations and on electromagnetic interference.

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Preface

In Preface you find general information about DuoScan T2000 XL.

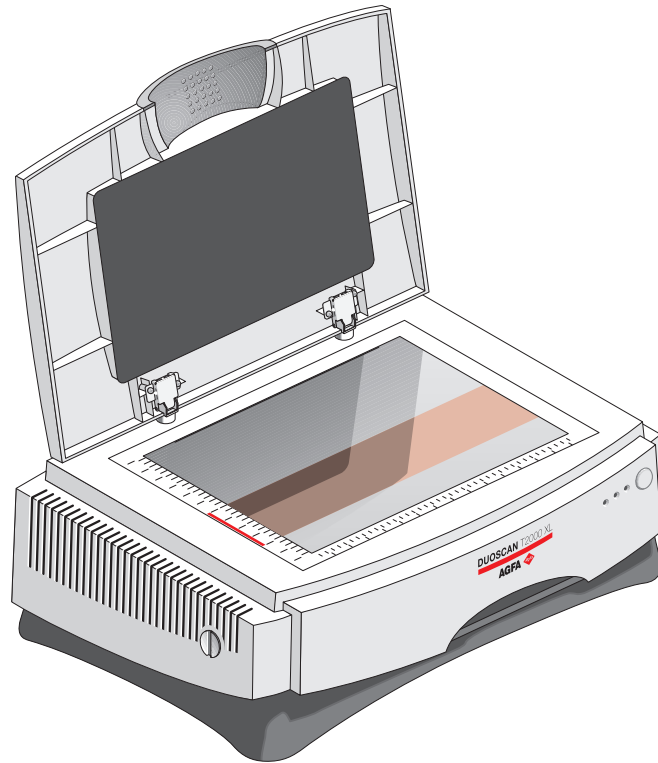
About DuoScan T2000 XL

DuoScan T2000 XL is an A3 plus size dual lens scanner that scans reflective (RX) and transparent (TX) originals, each on an independent scan bed. The scanner uses the Twinplate™ scanning system, allowing 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.

The dual lens system of the DuoScan T2000 XL offers you the possibility to scan in either high resolution at 2000 dpi or in low resolution at 667 dpi. The size of the scan area depends on the resolution type and the mode that you are scanning in:

| | Reflective Mode | Transparency Mode |
|-----------------|-----------------|-------------------|
| Low resolution | 12 x 18 inch | 9.5 x 12 inch |
| High resolution | 4 x 18 inch | 4 x 12 inch |

The A3 plus area of 12 x 18 inch RX makes the DuoScan T2000 XL very appropriate for large format scanning. The high-resolution scan area is situated between the center line and the front edge of the entire scan area.



DuoScan T2000 XL's image quality makes it perfectly suitable for pre-press graphical applications. It is based on flatbed CCD (Charge Coupled Device) scanning technology. DuoScan T2000 XL 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.

A standard transparency tray allows you to scan transparent originals without using the reflective glass plate. In this tray you can put a glass plate holder or one of the four batch slide holders. You can prepare transparent originals on the transparency tray while you are scanning reflective originals and vice versa. Note that you cannot take out the tray completely.

To keep your originals in place on the glass plate holder, three single slide holders are supplied with your DuoScan T2000 XL. In order to facilitate the scanning of thick originals like magazines and books, the document cover adjusts automatically to the thickness of the original. If necessary, you can remove the document cover of the DuoScan T2000 XL completely by lifting it.

The originals can be of any type. The FotoLook scanning software will optimize the scan result. The features of ColorTune 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 RGB (packed into 3 x 16 bit or truncated to 3 x 8 bit), 4 x 8 bit for CMYK color, 12 bit for gray scale originals (output in either 8 or 16 bit) 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 a PC®.

The DuoScan T2000 XL has an internal terminator. As a consequence you do not need to use an external terminator.

Chapter 1 — Preparing the Scanner



This chapter assists you in preparing your DuoScan T2000 XL for installation. You will find instructions for:

[Unpacking the Scanner](#)

[Unlocking the Scanner](#)

[Relocking the Scanner](#)

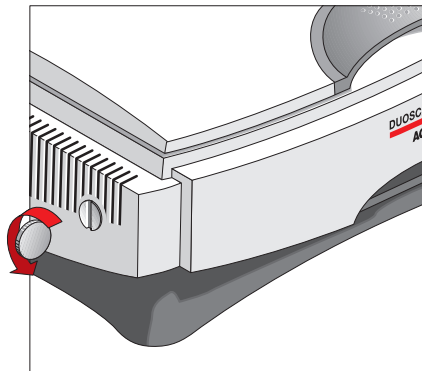
[Taking a Closer Look](#)

Unpacking the Scanner

1. Open the packing box and take out all the items carefully.
2. Check each item to make sure that there is no visual defect.
If something is missing, contact your dealer or Agfa service representative.
3. Remove the plastic wrapping and the packing materials from the scanner.
 - ❖ Note: Save the packing materials so that you can repack the scanner to protect it if you have to move it over long distances.
4. Register electronically via the presentation layer. Only when you register, you can claim your guarantee and get information on new products and upgrades.

Unlocking the Scanner

The scanner's optical carriage contains all optical components and rides back and forth during the scan. An unlocking screw at the left side of your DuoScan T2000 XL holds the carriage in place during shipment. You have to remove this screw before powering up the scanner.



1. Look for the unlocking screw at the left side of your DuoScan T2000 XL.
2. Take a coin and turn the screw counterclockwise in the unlock position.
The screw comes loose: your scanner is unlocked.
3. Allow a minimum of 10 cm (4 inches) around each side of the scanner and a minimum of 15 cm (6 inches) at the rear side of the scanner.

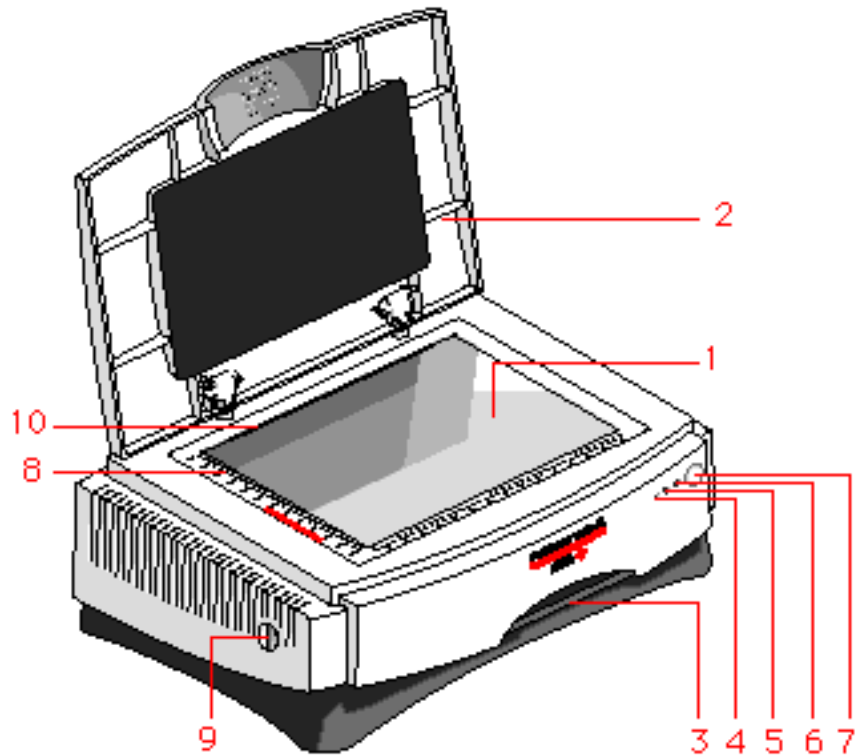
Relocking the Scanner

If you need to transport the scanner over long distances, you should first relock your scanner. This will protect the scanner's optical assembly from possible damage.

1. Switch on your scanner and wait until the ready indicator stops blinking.
2. Take a coin and turn the screw clockwise in the lock position.
The screw is fastened: your scanner is locked.
3. Switch off your scanner.

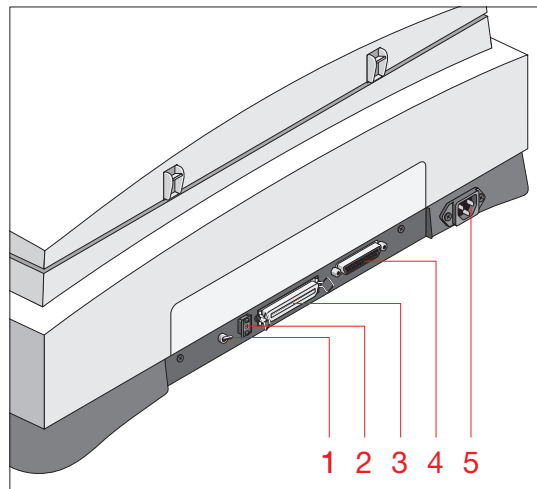
Taking a Closer Look

Now that you have the scanner out of the box, take a closer look so that you become familiar with its parts. The figure illustrates the locations of the different parts of your DuoScan T2000 XL.

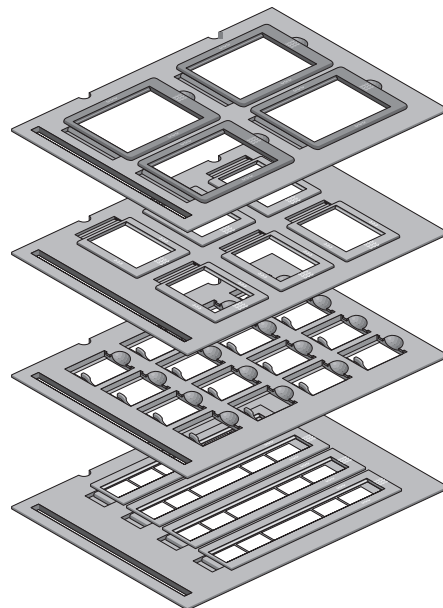


1. reflective glass plate
2. removable document cover
3. transparency tray
4. power indicator
5. ready indicator (permanent light)
6. busy indicator (blinking light)
7. power switch
8. rulers
9. unlocking screw
10. registration pins

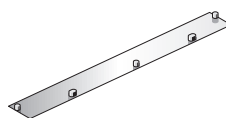
The following figure illustrates the location of the different parts at the rear of your scanner.



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



Glass plate holder and four batch slide holders (4 x 5 inch, 60 x 90 mm, 35 mm framed and 35 mm strips).



An optional rail with registration pins is available.

Chapter 2 — Installing the Scanner



This chapter shows you how to set up your DuoScan T2000 XL with your Apple Macintosh or PC. You will find information about:

[Minimum Hardware and Software Requirements](#)

[Environmental Requirements](#)

[Precautions](#)

[Cleaning your Scanner](#)

[Installation of the Software](#)

[SCSI Devices](#)

[Installation for the Apple Macintosh](#)

[Which SCSI Interface Card](#)

[Choosing a SCSI ID Number](#)

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[Installation for the PC](#)

[Which SCSI Interface Card](#)

[Choosing a SCSI ID Number](#)

[Connecting the Scanner](#)

[Testing the Connection](#)

[Performing a Power-on Test](#)

Minimum Hardware and Software Requirements

- For the Apple Macintosh:
 - A Power PC™ processor
 - 32 MB of RAM
 - A 17 inch color monitor (24 bit color display recommended)
 - System™ 8 operating system
 - a CD-ROM drive
 - The amount of disk space available on your Macintosh determines the number and size of the images that you can scan. Make sure that you have a minimum of 40 MB free storage space on your hard disk. You need about two times the size of the image to scan, edit and save an image.

- 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.
- Make sure that the area is free of excessive dust.
- 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 supply corresponds to the voltage of the scanner. If not, contact your dealer or Agfa service representative.

Precautions

For your own safety and that of your equipment, respect conscientiously the [Environmental Requirements](#) and always take the following precautions.

Caution: For the reason of safety, besides the personal maintenance mentioned in this Owner's Guide, do not try to remove any mechanical parts or any electronic devices. If you need service, our dealer and service offices are available to help you.

- Place the scanner on a horizontal, flat surface.
- Handle your DuoScan T2000 XL 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.
- Check frequently whether there is no overheating of the power plug and whether the power plug is pushed all the way into the socket.
- Switch off the machine at the end of your working day or during power failure.
- Never lean on the scanner. This dislocates the scanner's focus.
- Disconnect the power plug when you want to clean the reflective glass plate and when the scanner needs service.

- Do not open the scanner housing as it contains high-voltage areas and sensitive components. Any curative 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 to attach transparent originals 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 glass plate holder).
- 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.
- Especially the cleaning of the calibration slit in the glass plate holder is important. Keep this area dust- and dirt-free.

Installation of the Software

Please refer to the Agfa FotoLook 3.5 documentation.

SCSI Devices

DuoScan T2000 XL 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 T2000 XL 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 T2000 XL requires a SCSI interface card to work with your Mac or compatible computer. If your Mac 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 T1200.

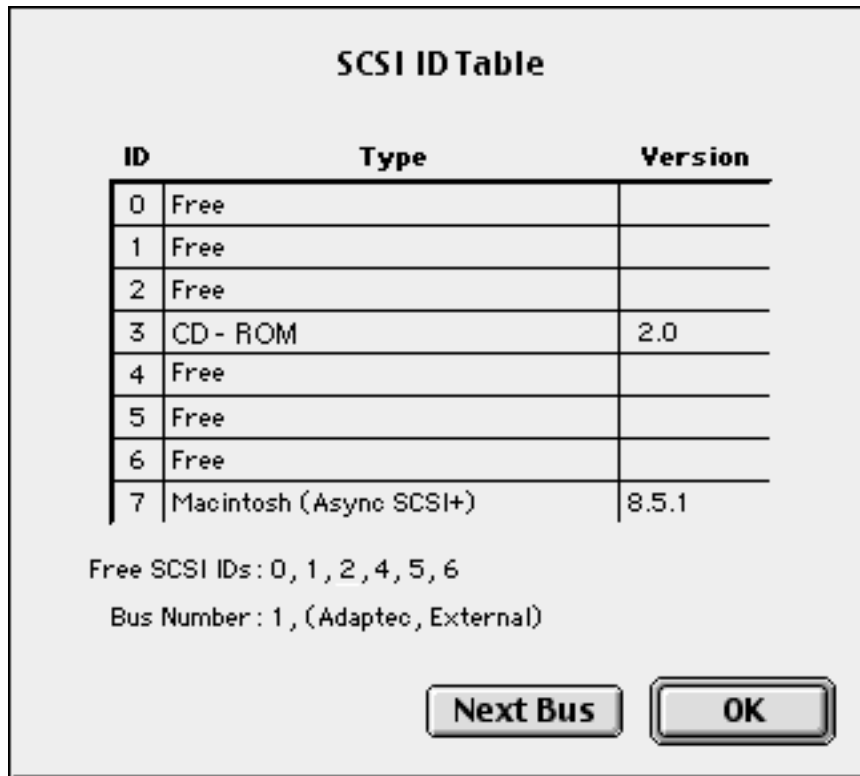
- ❖ Note: If you use an external SCSI-card, consult the documentation supplied with your interface card. This will tell you how to install the card.

Choosing a SCSI ID Number

Before you connect your DuoScan T2000 XL 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.

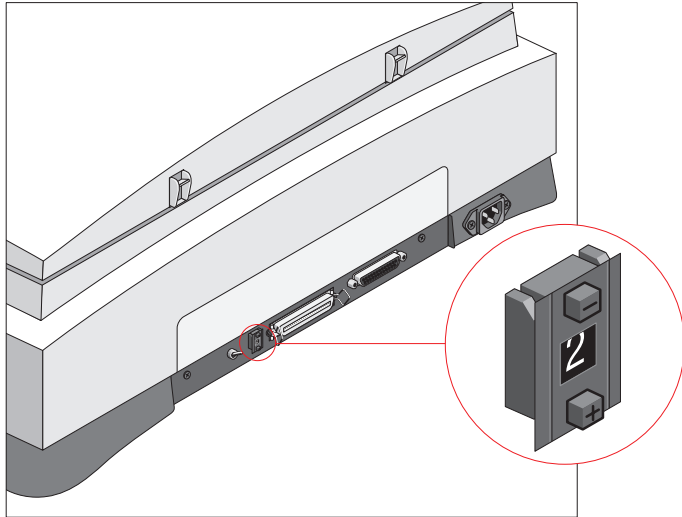
1. Copy the SCSI ID Checker to your Macintosh computer if not already done.
2. Open the SCSI ID Checker.

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



Your Macintosh always occupies ID 7, its internal hard disk usually occupies ID 0 or ID 1 and its CD-ROM disk usually occupies ID 3. If your Macintosh is equipped with 2 SCSI-busses, the button Next Bus allows you to switch busses.

3. Check if SCSI ID number 2 is free.
Your DuoScan T2000 XL is preset to ID 2.
4. If SCSI ID number 2 is free, go to [instruction 5](#).
- or -
If SCSI ID number 2 is already assigned, you need to set the scanner to a free SCSI ID number.
 - ❑ Make sure that your scanner is switched off and that it is disconnected from your computer.
 - ❑ Decide on an unassigned SCSI ID number.
 - ❑ Use the SCSI ID switch at the rear of the scanner to set the desired SCSI ID.
Push above the SCSI ID number to decrease the number, push underneath the SCSI ID number to increase the number.



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.

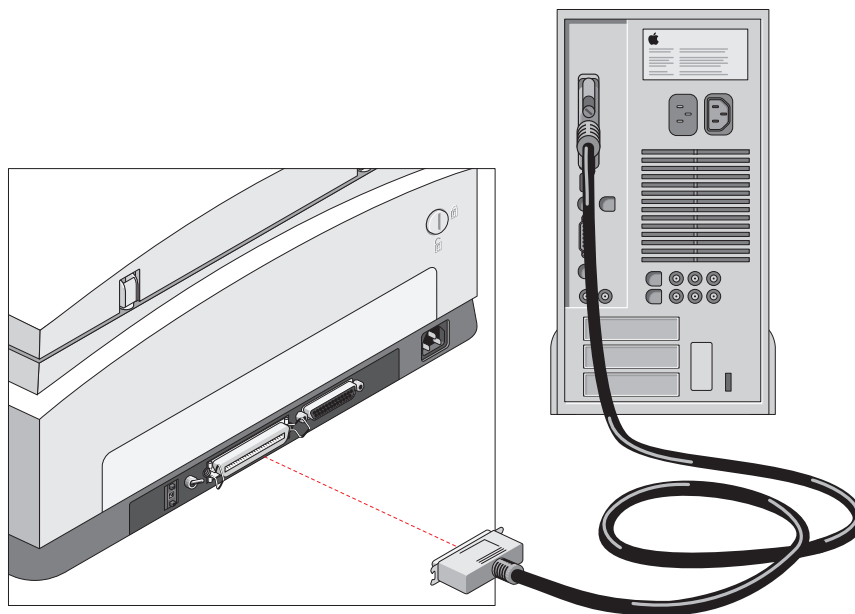
Before you connect the scanner to your Macintosh, make sure that your scanner as well as your Macintosh and everything connected to it are switched off.

A SCSI cable is supplied with your scanner.

Because your DuoScan T2000 XL has a built-in terminator, you do not need to use an external terminator.

Caution: For safety reasons, never use extension cables for power cables. Always make sure that 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 at the end of your SCSI chain. Please check the documentation of each of your SCSI devices if you are not sure whether the device has a built-in terminator. Your DuoScan T2000 XL has a built-in terminator.

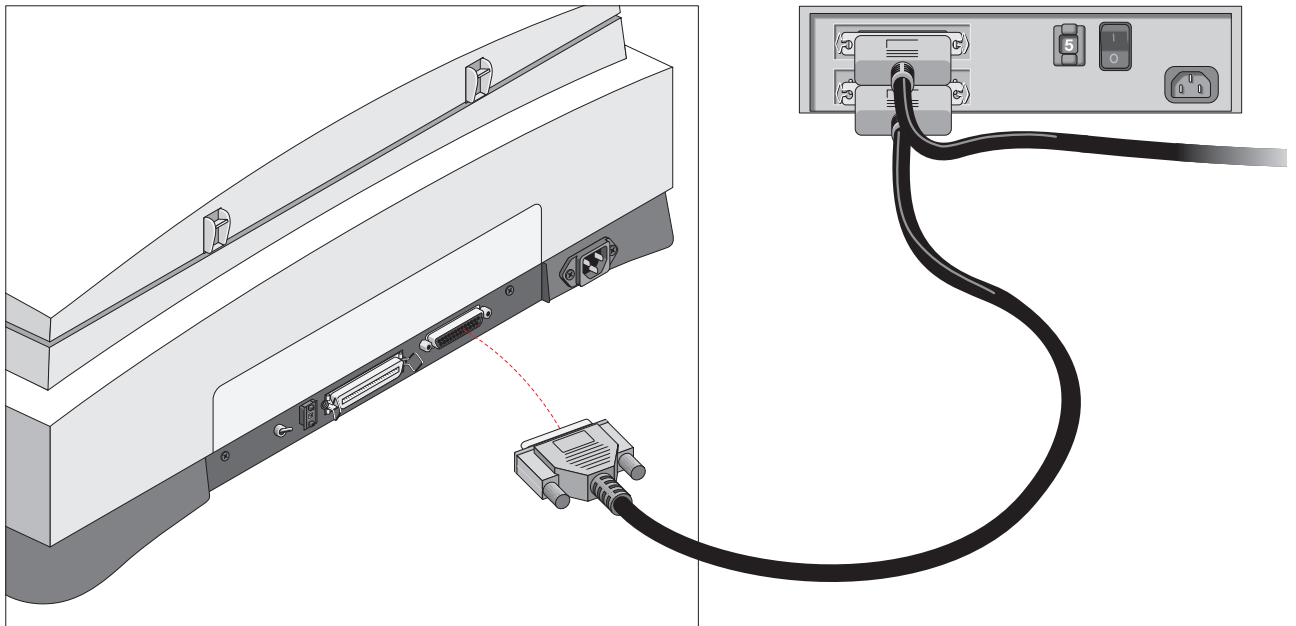
If your DuoScan T2000 XL is the only SCSI device to be connected to your Apple Macintosh



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 connector of your scanner.
3. Snap the diamond shaped wire clips into the clip brackets to secure the connection.
4. Switch on the internal terminator.

If your DuoScan T2000 XL will be connected to your Apple Macintosh together with other SCSI devices

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

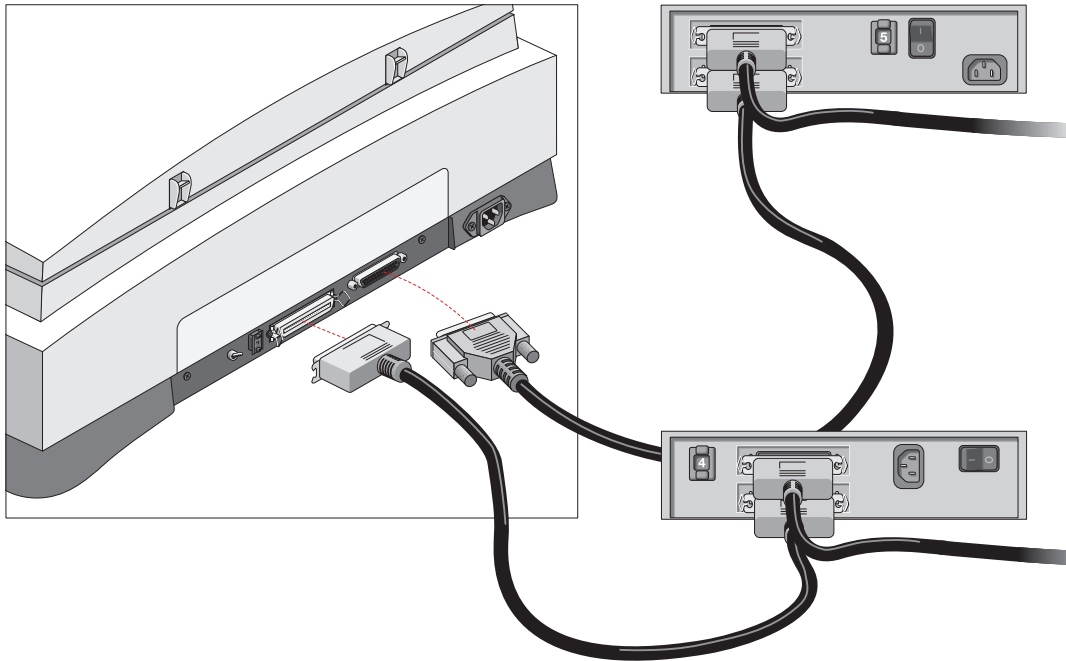


1. Remove the terminator from the last device in the SCSI chain.
2. Connect the 50-pin end of the SCSI cable to the connector that has become available on the last device in the SCSI chain.
3. Connect the 25-pin end of the SCSI cable to the connector of the scanner.
4. Snap the diamond shaped wire clips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

If you install the scanner at the beginning of your SCSI chain

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

If you install the scanner between two other SCSI devices



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

Testing the Connection

You are now ready to perform a test to check if the scanner is correctly connected to your Macintosh.

Caution: Check if the scanner is properly unlocked.

1. Connect the power cable to the scanner.
Make sure that you are using the correct power cable for the voltage in your area.
2. Check if the SCSI cable is properly connected.
3. Switch on the scanner.
The scanner performs a self-test: the power indicator light switches on and the ready and busy indicator lights start blinking. After the self-test the three indicator lights switch on.
4. Switch on any other SCSI devices you may have attached, and wait for them to start up.
5. Switch on your Macintosh.
As it starts up, your Macintosh performs a series of tests to verify the correct system configuration.
6. Open the SCSI ID checker.
7. Verify whether the Macintosh sees the scanner at its proper SCSI address.
In case of problems, refer to [Appendix A — Troubleshooting](#).
8. Close the SCSI ID checker.
9. Install the FotoLook software following the instructions in the Getting Started manual.

Installation for the PC

This section shows you how to set up your DuoScan T2000 XL with your PC. You can find information on which SCSI interface card to use, instructions for connecting the scanner to your PC and instructions for testing the connection.

[Which SCSI Interface Card](#)

[Choosing a SCSI ID Number](#)

[Connecting the Scanner](#)

[Testing the Connection](#)

Which SCSI Interface Card

DuoScan T2000 XL requires a SCSI interface card to work with your PC or compatible computer. If your PC does not have such a card or built-in interface, contact your dealer or Agfa service representative.

The scanner software supplied with DuoScan T2000 XL supports ASPI-compatible SCSI interface cards.

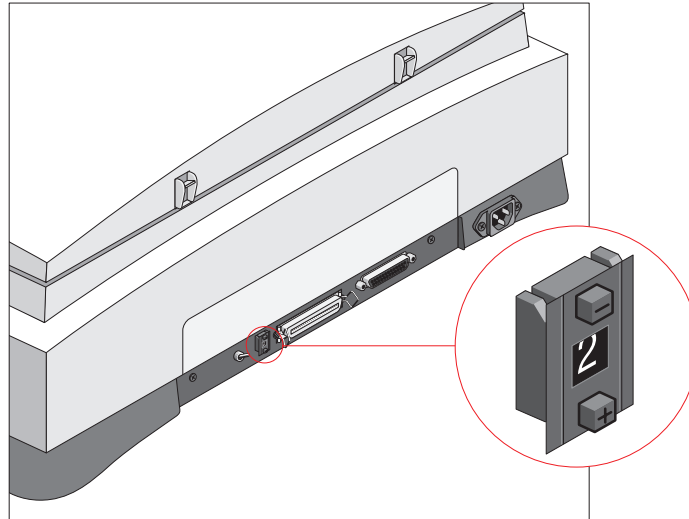
- ❖ Note: Please check the following documentation:
- The Read Me file on the PC scanner driver software for up-to-date information.
- The documentation supplied with your interface card. This will tell you how to install the card.

Choosing a SCSI ID Number

Before you connect your DuoScan HiD to your PC, you have to find out which SCSI ID numbers are already assigned and which numbers are free. To do this, you can use a Windows utility that is usually bundled with your SCSI interface card.

1. Open the SCSI ID utility supplied with your SCSI ID card.
Your PC SCSI card mostly occupies ID 7.
 - ❖ Note: For more information refer to the SCSI ID card documentation.
2. Check if SCSI ID number 2 is free.
Your DuoScan HiD is preset to ID 2.

3. If SCSI ID number 2 is free, [go to instruction 4](#).
If SCSI ID number 2 is already assigned, you need to set the scanner to a free SCSI ID number.
 - Make sure your scanner is switched off and is disconnected from your computer.
 - Decide on an unassigned SCSI ID number.
 - Use the SCSI ID switch at the rear of the scanner to set the desired SCSI ID.



- Push above the SCSI ID number to decrease the number, push underneath the SCSI ID number to increase the number.
4. Close the SCSI ID utility.

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 PC, make sure that your scanner as well as your PC and everything connected to it are switched off.

A SCSI cable is supplied with your scanner.

Because your DuoScan T2000 XL has a built-in terminator, you do not need to use an external terminator.

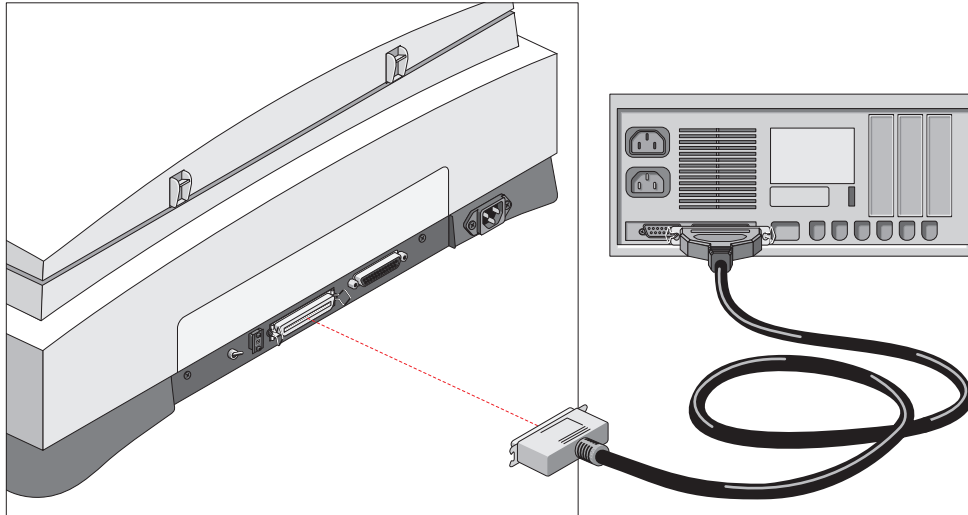
Caution: For safety reasons, never use extension cables for power cables. Always make sure that there are no more than two terminators in your SCSI chain, one at the beginning and one at the end. Some SCSI devices have built-in terminators and must therefore be placed at the beginning or end of your SCSI chain. Please check the documentation of each of your SCSI devices if you are not sure whether the device has a built-in terminator or not. Your DuoScan T2000 XL has a built-in terminator.

Never try to connect the scanner to the serial or parallel port of your PC: you might seriously damage your equipment if you do.

If your PC has a high density connector

You might need to buy a special cable from your dealer.

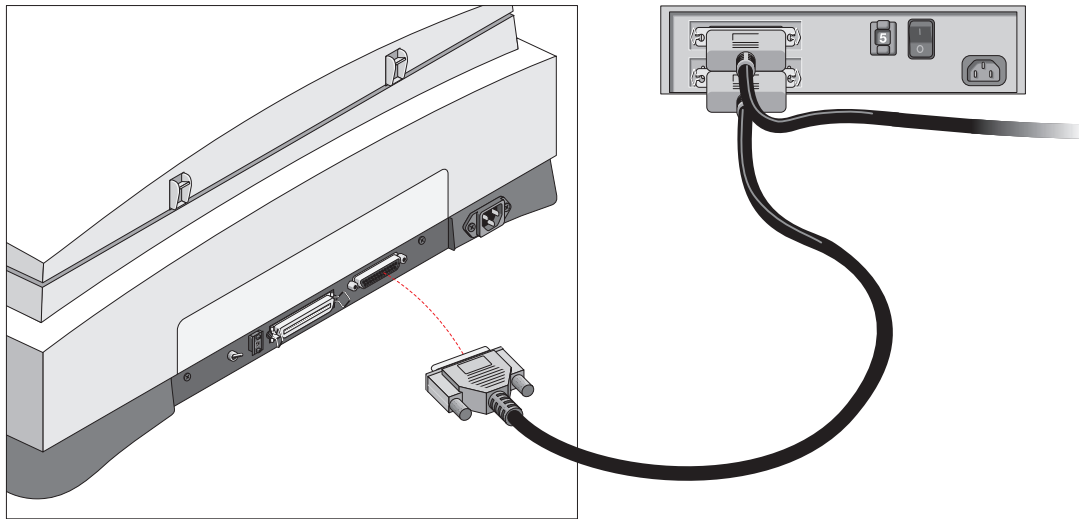
If your PC has a 25-pin connector and your DuoScan T2000 XL is the only SCSI device to be connected to your PC



1. Set the scanner to an unused SCSI ID number between 0 and 6. For more information, refer to [‘Choosing a SCSI ID Number’](#).
2. Connect the smaller 25-pin end of the SCSI cable to the connector of your PC.
3. Connect the larger 50-pin end of the SCSI cable to the connector of your scanner.
4. Snap the diamond shaped wire clips into the clip brackets to secure the connection.
5. Switch on the internal terminator.

If your PC has a 25-pin connector and your DuoScan T2000 XL will be connected to your PC together with other SCSI devices

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

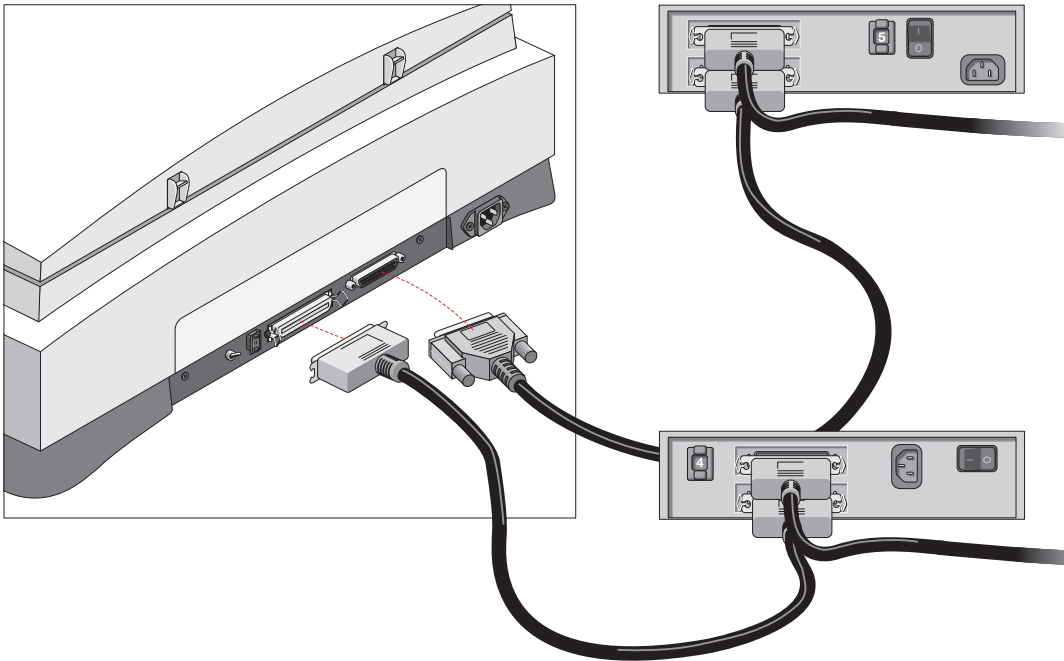


1. Set the scanner to an unused SCSI ID number between 0 and 6. For more information, refer to [‘Choosing a SCSI ID Number’](#).
2. Remove the terminator from the last device in the SCSI chain.
3. Connect the 50-pin end of the SCSI cable to the connector that has become available on the last device in the SCSI chain.
4. Connect the 25-pin end of the SCSI cable to the connector of the scanner.
5. Snap the diamond shaped wire clips into the clip brackets to secure the connection.
6. Switch on the internal terminator.

If you install the scanner at the beginning of your SCSI chain

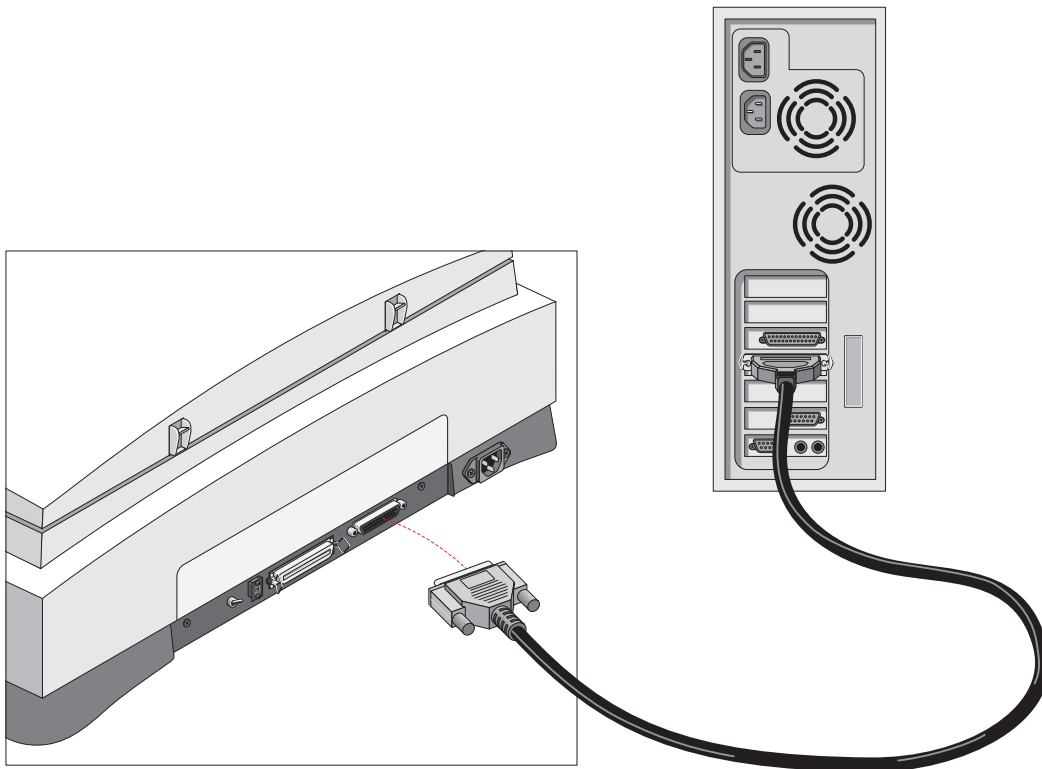
1. Set the scanner to an unused SCSI ID number between 0 and 6. For more information, refer to [‘Choosing a SCSI ID Number’](#).
2. Connect the 50-pin end of the SCSI cable to the connector that has become available on the last device in the SCSI chain.
3. Connect the 25-pin end of the SCSI cable to the connector of the scanner.
4. Snap the diamond shaped wire clips into the clip brackets to secure the connection.
5. Switch off the internal terminator.
6. Make sure that the last device in the chain is terminated.

If you install the scanner between two other SCSI devices



1. Set the scanner to an unused SCSI ID number between 0 and 6. For more information, refer to [‘Choosing a SCSI ID Number’](#).
2. Disconnect your SCSI cable from one of these two SCSI devices.
3. Connect the free end of this SCSI cable to the scanner.
4. Switch off the internal terminator of the scanner.
5. Connect the 50-pin end of the SCSI cable (the one supplied with your scanner) to the other adjacent SCSI device.
6. Connect the 25-pin end of the SCSI cable (the one supplied with your scanner) to the scanner.
7. Snap the diamond shaped wire clips into the clip brackets to secure the connection.
8. Make sure that the last device in the chain is terminated.

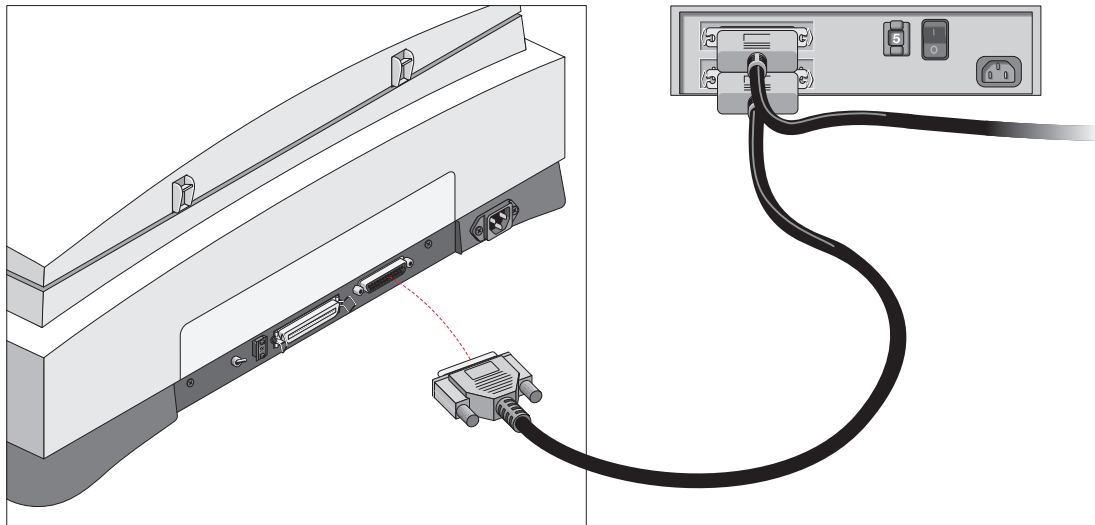
If your PC has a 50-pin connector and your DuoScan T2000 XL is the only SCSI device to be connected to your PC



1. Set the scanner to an unused SCSI ID number between 0 and 6.
For more information, refer to [‘Choosing a SCSI ID Number’](#).
2. Connect the larger 50-pin end of the SCSI cable to the connector at the rear of your PC.
Use the SCSI cable supplied with the scanner.
3. Connect the smaller 25-pin end of the SCSI cable to the connector of the scanner.
4. Switch on the internal terminator.

If your PC has a 50-pin connector and your DuoScan T2000 XL will be connected to your PC together with other SCSI devices

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

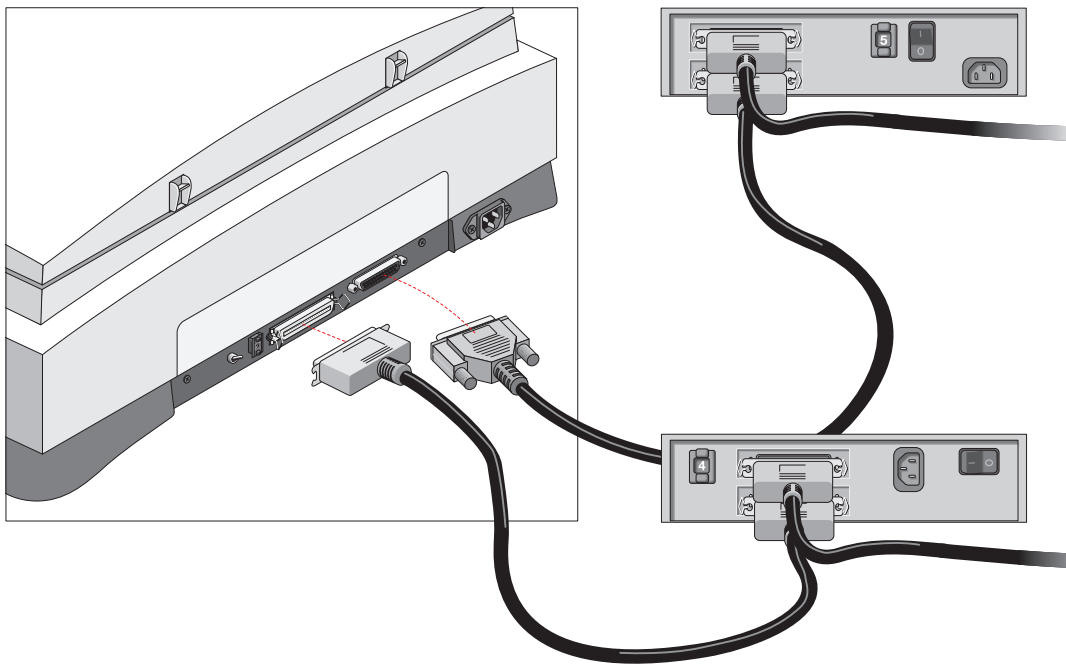


1. Set the scanner to an unused SCSI ID number between 0 and 6. For more information, refer to [‘Choosing a SCSI ID Number’](#).
2. Connect the 50-pin end of the SCSI cable to the connector at the rear of your device. Use the cable supplied with the scanner.
3. Connect the 25-pin end of the SCSI cable to the scanner.
4. Switch on the internal terminator.

If you install the scanner at the beginning of your SCSI chain

1. Set the scanner to an unused SCSI ID number between 0 and 6. For more information, refer to [‘Choosing a SCSI ID Number’](#).
2. Connect the 50-pin end of the SCSI cable to the connector at the rear of your device. Use the cable supplied with the scanner.
3. Connect the 25-pin end of the SCSI cable to the scanner.
4. Switch off the internal terminator.
5. Make sure that the last device in the chain is terminated.

If you install the scanner between two other devices



1. Disconnect the two devices between which you want to install the scanner.
 2. Set the scanner to an unused SCSI ID number between 0 and 6.
For more information, refer to [‘Choosing a SCSI ID Number’](#).
 3. Connect the 50-pin end of the SCSI cable to the connector at the rear of the adjacent device.
Use the cable supplied with the scanner.
 4. Connect the 25-pin end of the cable to the scanner's 25-pin connector.
 5. Switch off the internal terminator of the scanner.
 6. Connect the scanner to the next device in the SCSI chain.
 7. Make sure that the last device in the chain is terminated.
- In case of problems, refer to [Appendix A — Troubleshooting](#).

Testing the Connection

You are now ready to perform a test to check if the scanner is correctly connected to your PC.

Caution: Check if the scanner is properly unlocked.

1. Connect the power cable to the scanner.
Make sure that you are using the correct power cable for the voltage in your area.
2. Check if the SCSI cable is properly connected.
3. Switch on the scanner.
The scanner performs a self-test: the power indicator light (green) switches on and the ready and busy indicator lights (yellow) start blinking. After the self-test the scanner's power indicator light switches on.
4. Switch on any other SCSI devices you may have attached, and wait for them to start up.
5. Switch on your PC.
6. Check if the scanner is present:
For Windows 95 / 98:
 1. Right-click My Computer.
 2. Select properties.
 3. Select the Device Manager tab.
'Agfa Scanners' (for Windows 95) or
Expand 'Imaging Device' (for Windows 98).
The name of your scanner should be present.
For Windows NT 4.0:
 1. In the Startmenu select: Start\Settings\Control Panel\SCSI adapter.
 2. Expand the name of your SCSI card.
The name of your scanner should be present.

Performing a Power-on Test

You are now ready to perform a power-on test to check if the scanner is operating correctly.

1. Check whether you have unlocked the scanner.
2. Connect the power cable to the scanner.

Make sure that you are using the correct power cable for the voltage in your area. Double-check whether the voltage indicated on the back panel of the scanner corresponds with the voltage in your area. If not, contact your dealer or Agfa service representative.

3. Switch on the scanner.

The scanner performs a self-test during which the power indicator (green) switches on and the ready and busy indicators (both yellow) start blinking. This takes about half a minute. After the self-test, the three indicators switch on.

If a malfunction is detected during the self-test, that is, if the ready and busy indicators remain blinking or go off, refer to [Appendix A — Troubleshooting](#).

4. Switch off the scanner.

Chapter 3 — Placing your Originals



[Placing reflective originals](#)

[Scanning an original in full-area resolution output](#)

[Scanning an original in high resolution output](#)

[Placing transparent originals](#)

[Using the glass plate holder](#)

[Using the single slide holders](#)

[Using the batch slide holders](#)

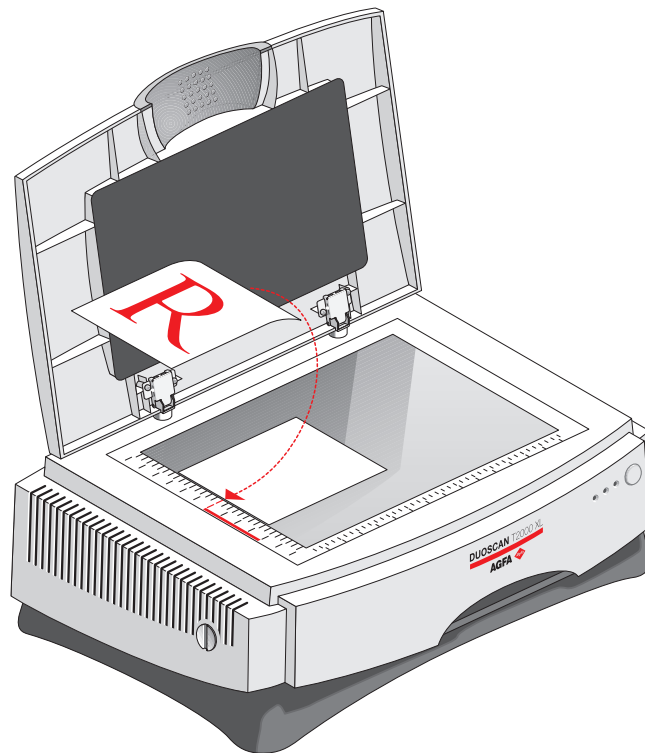
Placing Reflective Originals

You place a reflective original such as a photograph, directly on the scanner's glass plate.

When you want to scan your originals in high-resolution output, make sure that you place them in the area indicated by the high-resolution mark on the left ruler.

Scanning an Original in Full-Area Resolution Output

1. Open the document cover of the scanner.
2. Center the original face down on the glass plate with the top side against the left ruler.

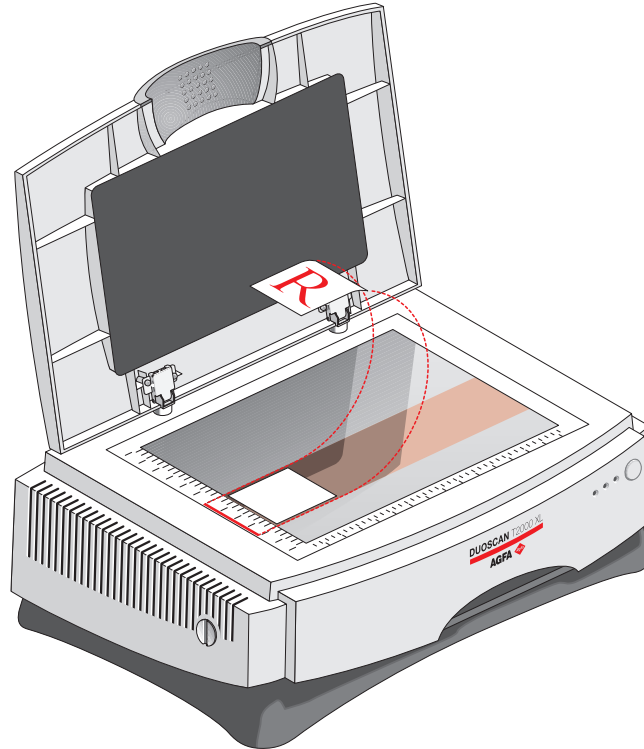


Optical performance for images in full-area resolution output on a CCD scanner is always best near the middle of the scan area. However, the scan quality for specifications is guaranteed for the entire scan area.

3. Close the document cover of the scanner.
- ❖ **Note:** The removable document cover makes it possible to scan from books and magazines. When you put a thick original on the reflective glass plate, the document cover adjusts automatically to the thickness of the original. If necessary, you can remove the document cover completely by lifting it.

Scanning an Original in High-Resolution Output

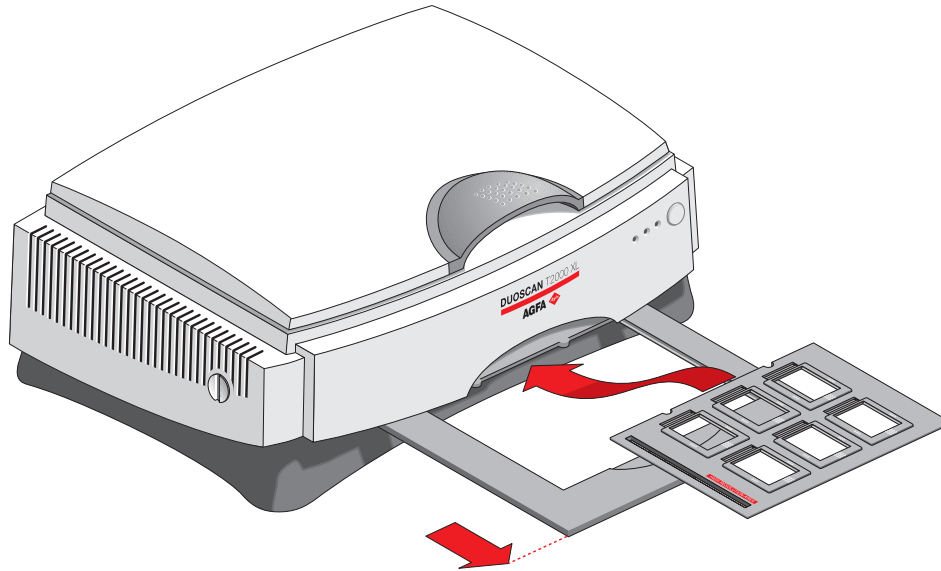
1. Open the document cover of the scanner.
2. Center the original face down on the reflective glass plate in the area indicated by the high-resolution mark.



3. Close the document cover of the scanner.
- ❖ Note: The image quality with high-resolution scanning is best in the center of the high-resolution scan area.

Placing Transparent Originals

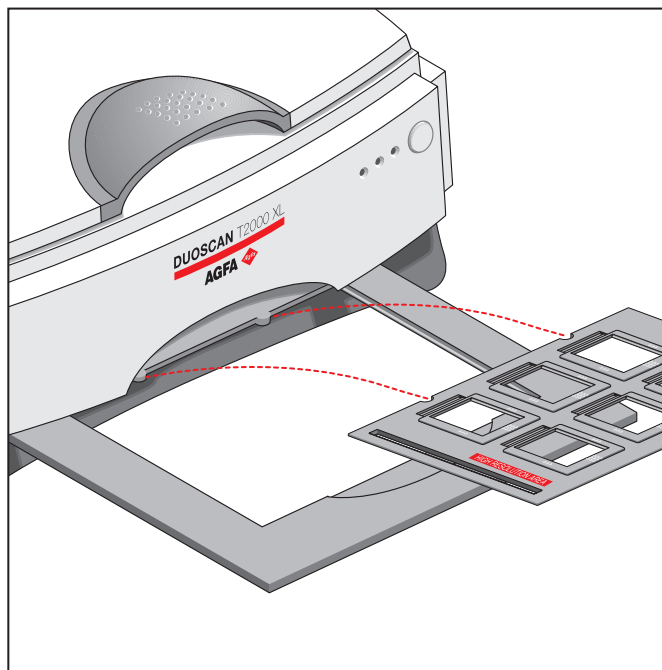
When you scan transparent originals, you use the glass plate holder or one of the four batch slide holders which you put into the transparency tray.



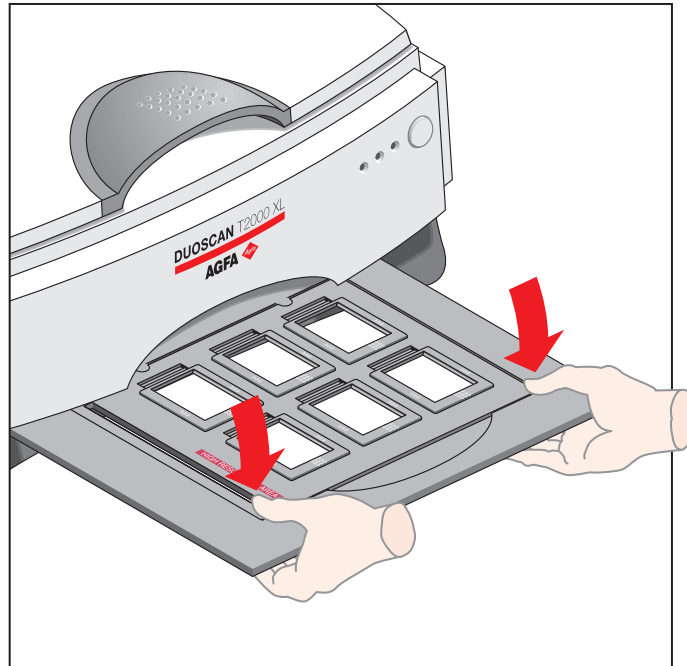
❖ Note: It is not possible to pull out the transparency tray completely.

To obtain the best image quality when scanning with the batch slide holders, please keep following instructions in mind:

1. Insert the rear side (the one with the two grooves) of the holder into the transparency tray and make sure that the grooves fit inside the tray.



2. Lower the front side of the holder and click it into the transparency tray. Make sure that the holder fits into the tray and that it lies perfectly flat.



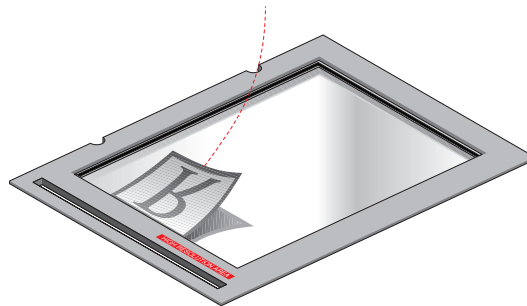
Caution: Do not force down or lean on the transparency tray. This can cause serious deformation of the tray.

Using the Glass Plate Holder

Caution: When you use the glass plate holder, you always have to attach your transparent originals with the single slide holders or with adhesive tape. Otherwise you might lose them in the scanner.

Scanning a transparent original in full-area resolution output

1. Center the original face down on the glass plate holder so that its top side is directed towards the calibration slit.



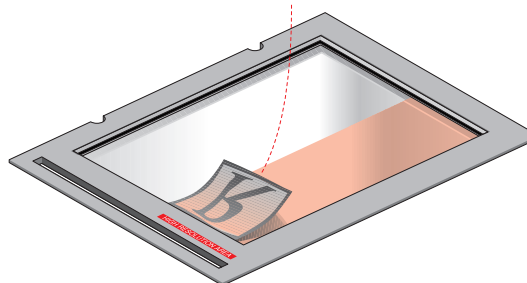
This position guarantees the best quality. Fix the original with one of the single slide holders or with adhesive tape.

2. Put the glass plate holder into the transparency tray with the calibration slit to the left side.

- ❖ **Note:** The holders can only be put in the transparency tray with the calibration slits to the left side. You can check this also in another way: the side with the two little grooves has to be inserted first because the grooves match inside the scanner.

Scanning a transparent original in high-resolution output

The scanning of a transparent original in high-resolution output is almost identical to the scanning of an original in full-area resolution output. The only difference is that for high-resolution scanning, you have to place the original in the area indicated by the high-resolution mark on the holder.

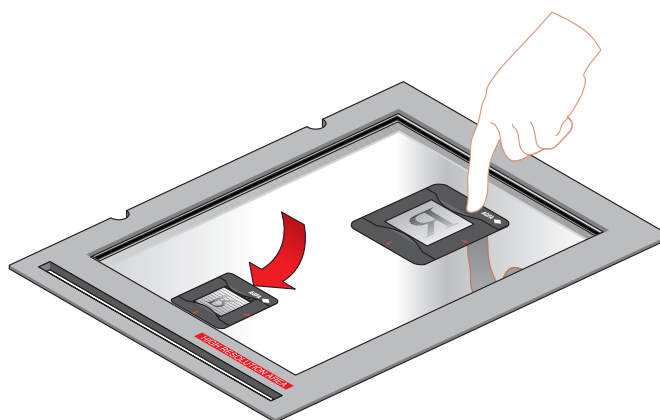


Using the Single Slide Holders

You put your originals in a single slide holder to make sure that the original lies flat on the glass plate and to avoid overexposure near the edges. There are three sizes of single slide holders: 35 mm, 6 x 6 cm, and 4 x 5 inch.

Scanning a transparent original in full-area resolution output

1. Put your original in the appropriate single slide holder.
2. Center the original on the glass plate holder so that its top side is directed towards the calibration slit.
This position guarantees the best quality.
3. Fix the single slide holder on the glass plate holder by pushing it firmly down.



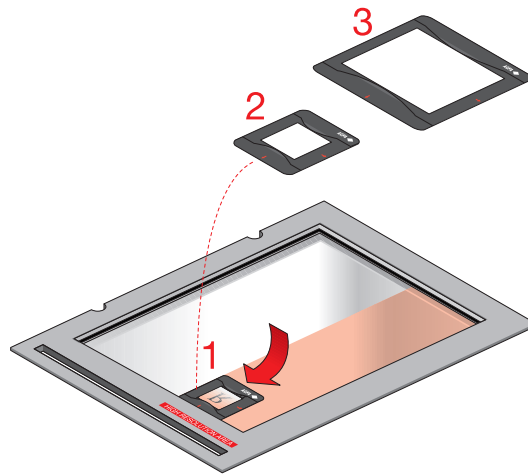
The rear of the holder has a glass adhesive strip, so the frame is secured to the glass. The holder can still be removed easily.

4. Put the glass plate holder into the transparency tray with the calibration slit to the left side.

The specifications of the scanner, such as resolution, apply to the whole scan area. However, image quality is always at its optimum in the middle of the scan area.

Scanning transparencies in high-resolution output

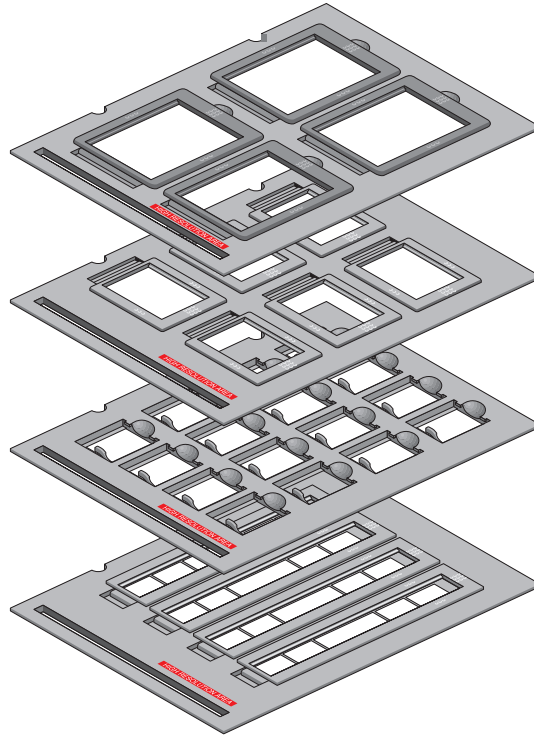
The scanning of transparencies in high-resolution output is almost identical to the scanning of originals in full-area resolution output. The only difference is that for high-resolution scanning, you have to place the originals in the area indicated by the high-resolution mark on the holder.



1. 35 mm single slide holder
2. 6 x 6 cm single slide holder
3. 4 x 5 inch single slide holder

Using the Batch Slide Holders

You find different types of batch slide holders with your DuoScan T2000 XL which you have to put into the transparency tray. With the batch slide holders many combinations are possible.

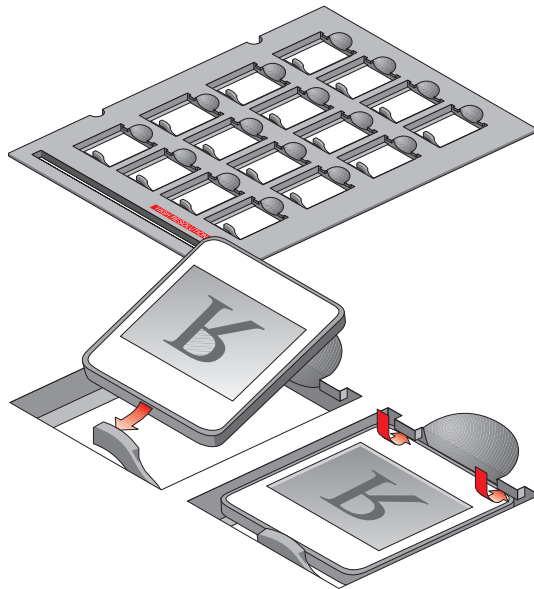


1. 4 x 5 inch batch slide holder
2. 6 x 9 cm batch slide holder
3. 35 mm framed batch slide holder
4. 35 mm strip slide holder

35 mm framed batch slide holder

This holder can hold a maximum of sixteen premounted slides at the time. Once loaded, you put the holder into the transparency tray.

1. Put your original in the 35 mm framed batch slide holder.
Make sure that you put the originals that you want to scan in high-resolution output in the area indicated by the high-resolution mark on the holder.

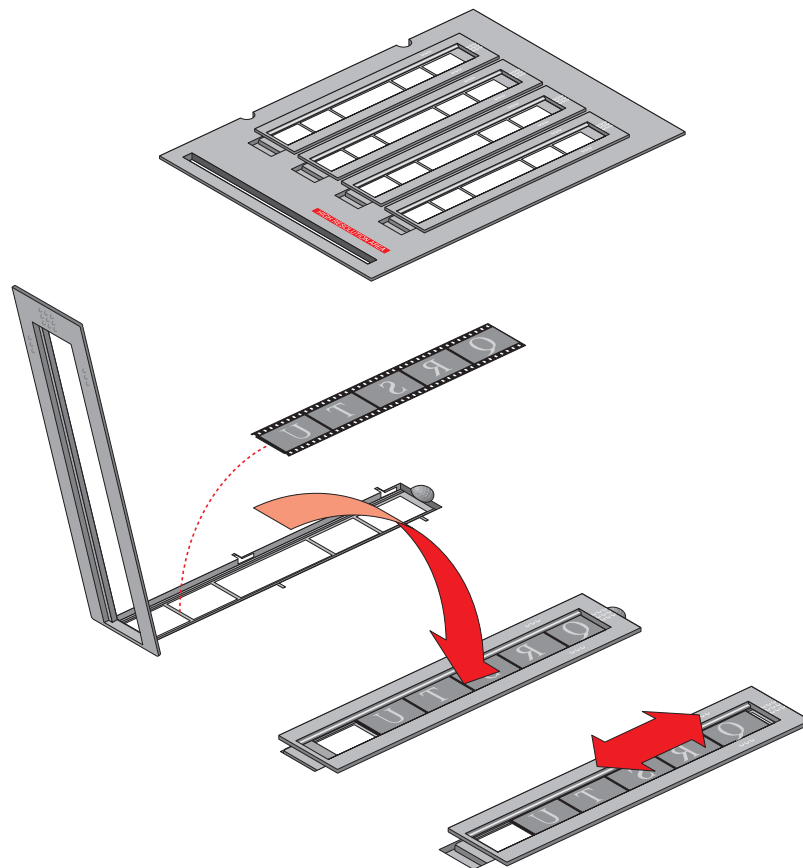


2. Put the batch slide holder into the transparency tray of the scanner.

35 mm strip slide holder

Four strips of six slides can be mounted into the holder which is then mounted into the transparency tray.

1. Put your original in the 35 mm strip slide holder.
Make sure that you put the originals that you want to scan in high-resolution output in the area indicated by the high-resolution mark on the holder.



- ❖ Note: In each strip, a margin is provided to position your originals as required.
2. Put the strip slide holder into the transparency tray of the scanner.

6 x 9 cm and 4 x 5 inch batch slide holders

The 6 x 9 cm batch slide holder and the 4 x 5 inch batch slide holder function in the same way as the 35 mm batch slide holders.

The 6 x 9 cm and the 4 x 5 inch holders can hold respectively six and four slides at the time. Once loaded, you put the holder into the transparency tray.

1. Put your original in the 6 x 9 cm or 4 x 5 inch batch slide holder.
Make sure that you put the originals that you want to scan in high-resolution output in the area indicated by the high-resolution mark on the holder.

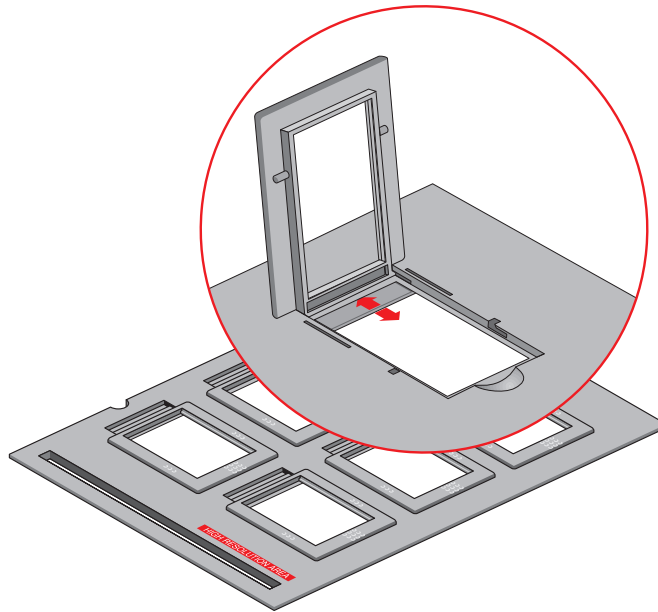


Figure of 6 x 9 cm batch slide holder

You can fit the slide frame to your original (6 x 6 cm, 6 x 7 cm, 6 x 8 cm, 6 x 9 cm) by adjusting the sliding edge. Adjusting the sliding edge, before placing the originals, results in sharper images because the sliding edge prevents the original to sag. To adjust the sliding edge you push or pull the sliding edge until the desired frame size is reached.

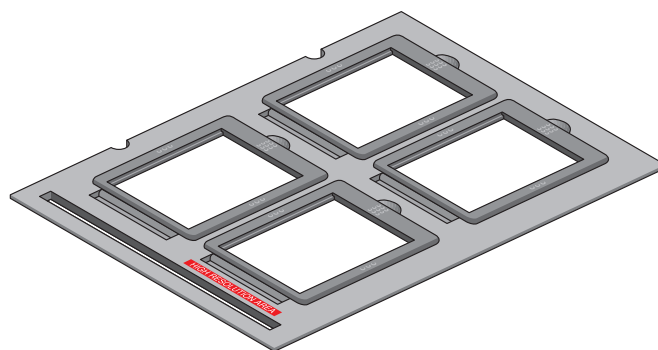


Figure of 4 x 5 inch batch slide holder

2. Put the batch slide holder into the transparency tray of the scanner.

Appendix A — Troubleshooting

This appendix explains some problems that you may come across when starting up or using your DuoScan T2000 XL.

The power indicator fails to light up.

- Verify the power connection to the scanner.
- Check if the power switch is on.
- If you have confirmed that there is power to the scanner it is likely that the scanner fuse needs to be replaced. Contact your dealer.

The power indicator lights up but nothing happens.

- Contact your dealer or Agfa service representative.

The scanner makes a loud knocking noise and nothing moves under the glass plate.

- The scanner was not properly unlocked. Immediately switch off the scanner and unlock properly, or call your service representative.

The ready indicator light (yellow) on the scanner's operating panel remains blinking or goes off after the power-up sequence (= about half a minute).

- A malfunction has been detected by the scanner.
- Check if you have unlocked the scanner. If this can not be the problem please contact your dealer or Agfa service representative.

The workstation does not start up. If your workstation is an Apple Macintosh a little floppy disk with a question mark appears on your screen.

Your workstation cannot find its hard disk due to a conflict with the SCSI ID numbers of the devices you have attached.

- Disconnect all SCSI devices (except the start-up disk) and connect them one by one, beginning with the scanner, to identify the device that causes the problem (switch off all devices before breaking or making connections).

The scanner software cannot find the scanner.

After opening the Scan dialog box, a message appears telling that no scanner is connected, although the scanner is connected.

- Check the Installation procedure, to see if you followed the instructions. Pay special attention to the setting of the SCSI ID number.
- Maybe you did not wait long enough for all SCSI devices to start up, before you switched on your workstation. Therefore, try restarting your workstation.
- Disconnect all SCSI devices and connect them one by one, beginning with the scanner, to identify the device that causes the problem. Check if your terminator has been set correctly and restart your workstation.
- Make sure that your devices have different SCSI numbers. If there are devices with the same number, assign a different number to each device.

The scanner reports errors during scanning (Apple Macintosh).

- Switch on the internal terminator. If this does not resolve the problem, please contact your dealer or Agfa service representative.

When starting up, the scanner makes a beeping noise and all the lights are blinking.

- This indicates a SCSI cabling problem. Be sure to immediately shut down all machines in the chain and then solve the problem (Internal terminator switched off? Bad cable? Internally terminated component in chain?).

Appendix B — Technical Information

This appendix provides some technical information about your DuoScan T2000 XL. Technical specifications are subject to change without notice.

| | |
|-----------------------|--|
| Scanner type | Flatbed A3 plus size color CCD scanner |
| CCD | 8000 elements, color type |
| Optical resolution | Low resolution: 2000 dpi vertical x 667 dpi horizontal High resolution: 2000dpi x 2000dpi |
| Output resolution | 20 - 4000 ppi |
| A/D Conversion | 36 bit (12 bit per color) |
| Output pixel depth | 1 bit output for line-art (black and white) 8 or 12 bit output for gray 24 or 36 bit output for color |
| Max. density detected | 3.2 D |
| Scanning speed | Low resolution: TX and RX gray 12-14 ms/line TX and RX color 14-16 ms/line High resolution: TX gray 14-16 ms/line RX gray 24-26 ms/line TX color 23-26 ms/line RX color 33-36 ms/line |
| Original sizes | A3 plus: reflective mode: 12 x 18 inch transparency mode: 9.5 x 12 inch |

| | |
|-------------------------|---|
| Maximum scan area | <p>Minimum: 1 line, 2 pixels in gray and color, 16 pixels in line-art</p> <p>Maximum low resolution: reflective mode: 12 x 18 inch transparency mode: 9.5 x 12 inch</p> <p>Maximum high resolution: reflective mode: 4 x 18 inch transparency mode: 4 x 12 inch</p> |
| Memory | 2 MB RAM |
| Reflection scanner lamp | <p>2 x cold cathode</p> <p>6000 hr lifetime</p> <p>6W</p> |
| Transparency lamp | <p>Cold cathode</p> <p>6000 hr lifetime</p> <p>6W</p> |
| Warm up time | <p>Approximately 35 seconds</p> <p>180 seconds to reach final image quality</p> |
| Power supply | 100 V to 240 V, 47 - 63 Hz |
| Power consumption | 40 W |
| Dimensions | 493.9 mm (19 inch) x 239.3 mm (9 inch) x 735.4 mm (29 inch) (W x H x L) |
| Weight | 26 kg |
| Acoustic noise | <p>≤55 dB in continuous mode</p> <p>≤45 dB in stand by</p> |
| Interface | <p>SCSI-2 interface</p> <p>1 x 50 pins connector</p> <p>1 x 25 pins connector</p> <p>Maximum throughput 4 MB / sec</p> |
| Environment | <p>Operating temperature: 10°C to 40°C (50°F to 104°F)</p> <p>Relative humidity: 10% to 85%</p> |

Appendix C — DuoScan T2000 XL Regulation Compliance

[Safety Regulations](#)

[Electromagnetic Interference](#)

Safety Regulations

DuoScan T2000 XL has been designed to comply with:

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

DuoScan T2000 XL 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 to exceed 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

- Bitte Lesen Sie sich diese Hinweise sorgfältig durch.
- Um eine Beschädigung des Gerätes zu vermeiden sollten Sie nur Zuberhörteile verwenden, die vom Hersteller zugelassen sind.
- Das Gerät ist vor Feuchtigkeit zu schützen.
- 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.

- Die Belüftungsöffnungen dienen zur Luftzirkulation die das Gerät vor Überhitzung schützt. Sorgen Sie dafür, daß diese Öffnungen nicht abgedeckt werden.
- Die Netzanschlußsteckdose muß aus Gründen der elektrischen Sicherheit einen Schutzleiterkontakt haben.
- Durch die Lüftungsöffnungen dürfen niemals Gegenstände oder Flüssigkeiten in das Gerät gelangen. Dies könnte einen Brand bzw. elektrischen Schlag auslösen.
- Öffnen Sie niemals das Gerät. Das Gerät darf aus Gründen der elektrischen Sicherheit nur von autorisiertem Servicepersonal geöffnet werden.
- Die Steckdose sollte nahe dem Gerät und leicht zugänglich sein.

Electromagnetic Interference

DuoScan T2000 XL is designed to comply with:

- EN50081-1
- EN50082-1
- 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.

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques (de la classe B) prescrites dans le Règlement sur le brouillage radioélectrique édicté par le ministère des Communications du Canada.