DuoScan T1200

Owner's Guide



This chapter gives you general information about DuoScan T1200.

<u>Chapter 1 — Preparing the Scanner</u>

This chapter shows you how to prepare your DuoScan T1200 for installation.

<u>Chapter 2 — Installing the Scanner</u>

This chapter shows you how to set up your DuoScan T1200 for the Apple Macintosh and PC.

<u>Chapter 3 — Placing Originals</u>

This chapter shows you how to place your originals in your DuoScan T1200.

<u>Chapter 4 — Using the Optional Automatic Document Feeder</u>

This chapter shows you how to install, operate and maintain the optional Automatic Document Feeder.

<u>Appendix A — Troubleshooting</u>

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

<u>Appendix B — Technical Information</u>

This appendix provides specifications of your DuoScan T1200.

<u>Appendix C — DuoScan T1200 Regulation Compliance</u>

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



Trademarks

Agfa and the Agfa rhombus are trademarks of Agfa-Gevaert AG.

DuoScan T1200, FotoLook and Twinplate are trademarks of Agfa-Gevaert N.V.

Adaptec is a trademark of Adaptec.

Adobe Acrobat and the Acrobat logo are trademarks of Adobe Systems, Incorporated.

Intel is a registered trademark of Intel Corporation

Power Macintosh and System 8 are trademarks and Apple and Macintosh are registered trademarks of Apple Computer, Incorporated.

Windows, Windows NT and the Windows logo are trademarks or registered trademarks of Microsoft Corporation.

Other products or company names are trademarks or registered trademarks of their respective holders.

Copyright © 1999 Agfa-Gevaert N.V.

All rights reserved.

All software and hardware described in this document is subject to change without notice.

Contents

Preface		
Chapter 1 — Preparing the Scanner	6	
Unpacking the Scanner	7	
Unlocking the Scanner	7	
Locking the Scanner	8	
Taking a Closer Look	9	
Chapter 2 — Installing the Scanner	11	
Minimum Hardware and Software Requirements	12	
Environmental Requirements	13	
Precautions	13	
Cleaning your Scanner		
Installation of the Software		
SCSI Devices		
Installation for the Apple Macintosh		
Which SCSI Interface Card		
Choosing a SCSI ID Number		
Connecting the Scanner		
Testing the Scanner and the Connection	23	
Installation for the PC	24	
Which SCSI Interface Card	24	
Choosing a SCSI ID Number	24	
Connecting the Scanner	25	
Testing the Scanner and the Connection	34	
Chanter 3 — Placing Originals	35	

Chapter 3 — Placing Originals	. 35
Placing Reflective Originals	.36
Placing Transparent Originals	.37
Using the Universal Transparency Plate	.37
Using the Single Slide Holders	.38
Using the Optional Batch Slide Holders	.39

Chapter 4 — Using the Optional Automatic Document Feeder	40
About your Automatic Document Feeder	4 1
Installing the Automatic Document Feeder	
Checkout	4 1
Before you Begin	4 1
Installation	4 1
Operating the Automatic Document Feeder	44
Paper Loading	44
Correcting Paper Jams	46
Maintaining the Automatic Document Feeder	47
Cleaning and Replacing the Guide Flap	47
Roller Cleaning	47
Appendix A — Troubleshooting Appendix B — Technical Information	
Appendix C — DuoScan T1200 Regulation Compliance	
Safety Regulations	
UL Safety Statement	
TÜV: Wichtige Sicherheitshinweise	
Electromagnetic Compatibility	54
Federal Communications Commission Radio Frequency Interference Statement	54
Canadian department of Communications	
• · · · · · · · · · · · · · · · · · · ·	

Preface

DuoScan T1200 can scan reflective and transparent originals, each on an independent scan bed. The scanner uses the Twinplate[™] scanning technology, allowing you to prepare transparent originals while scanning reflective originals and vice versa. This means a considerable increase in productivity. 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 T1200's image quality makes it perfectly suitable for pre-press graphical applications. It is based on flatbed CCD (Charge Coupled Device) scanning technology. DuoScan T1200 is characterized by a large input size range and a high scanning speed. Due to its 5,000 CCD pixels, an impressive output size range can be achieved. This high-precision instrument features exceptional sharpness and color fidelity.

The universal transparency plate and three single slide holders allow you to scan transparent originals. An optional batch slide holder frame and a set of four types of optional batch slide holders are available in order to increase the productivity of the scanner. 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 T1200 completely by lifting it.

The originals can be of any type. The FotoLook[™] scanning software will optimize the scan result. ColorTune[™] software ensures that colors are matched seamlessly throughout the entire prepress and printing process. 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[™].

The optional Automatic Document Feeder (ADF) is a companion sheet feeder for your DuoScan T1200 that allows automatic scanning of up to 15 sheets. The ADF is a must for high-volume document processing with your scanner. It increases operating convenience and efficiency in multi-page scanning and OCR (Optical Character Recognition) applications.

Chapter 1 — Preparing the Scanner

This chapter assists you in preparing your DuoScan T1200 for installation. You will find instructions for:

Unpacking the Scanner Unlocking the Scanner Locking the Scanner Taking a Closer Look

Unpacking the Scanner

- 1. Open the packing box and take out all the items carefully.
- 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 to protect the scanner when you have to move it over long distances.

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 bottom of your DuoScan T1200 holds the carriage in place during shipment. You have to loosen this screw before you can operate the scanner.



- 1. Pull the scanner carefully over the edge of the table until you can see the unlocking screw at the bottom of the scanner.
- 2. Take a coin and turn the screw a quarter counterclockwise. The screw comes loose: your scanner is unlocked.
- 3. Move the scanner back on your desktop. 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 of the scanner.

Locking the Scanner

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

1. Switch on your scanner.

The scanner's optical assembly moves to its home position.

- 2. When the busy indicators stop blinking, pull the scanner carefully over the edge of the table until you can see the unlocking screw at the bottom of the scanner.
- Take a coin and turn the screw a quarter clockwise.
 The screw is tightened: your scanner is locked.
- 4. Move the scanner back on your desktop.
- Switch off your scanner. Your scanner is now ready for transportation.

Taking a Closer Look

You can now take a closer look at the scanner, so that you become familiar with its parts. The figure illustrates the locations of the different parts of your DuoScan T1200.



- 1. reflective glass plate
- 2. adjustable document cover
- 3. transparency tray
- 4. busy indicator for transparency scanning
- 5. busy indicator for reflective scanning
- 6. power indicator (green light)
- 7. power switch
- 8. rulers

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



- 1. powerinput
- 2. 25-pin connector
- 3. 50-pin connector
- 4. SCSI ID switch
- 5. ADF (Automatic Document Feeder) connector



- 1. universal transparency plate
- 2. calibration slit

Chapter 2 — Installing the Scanner

This chapter shows you how to set up your DuoScan T1200 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

Connecting the Scanner

Testing the Scanner and the Connection

Installation for the PC

Which SCSI Interface Card

Choosing a SCSI ID Number

Connecting the Scanner

Testing the Scanner and the Connection

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: <u>Appendix A, 'Troubleshooting'.</u>
 - □ 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 your scanner. If not, contact your dealer or Agfa service representative.

Precautions

For your own safety and that of your equipment, respect conscientiously the <u>Environmental Requirements</u> 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 your scanner needs service, our dealer and service offices are available to help you.

- Handle your DuoScan T1200 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.
- 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 universal transparency plate for excessive periods of time. The warmth of the scanner may cause them to deteriorate.
- Make sure to attach transparent originals on the universal transparency plate with the single slide holders or with adhesive tape. Otherwise you might loose 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 transparency plate).
- 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 slits in the holders is important. Keep this area dust- and dirt-free.

Installation of the Software

Please refer to the Getting Started manual.

SCSI Devices

DuoScan T1200 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 several 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 T1200 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 scanner and the connection.

<u>Which SCSI Interface Card</u> <u>Choosing a SCSI ID Number</u> <u>Connecting the Scanner</u> <u>Testing the Scanner and the Connection</u>

Which SCSI Interface Card

DuoScan T1200 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.

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 T1200 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 can find this utility in the Agfa FotoLook folder after you have installed the software.

1. Double-click the SCSI ID Checker icon in the Agfa FotoLook folder.

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

		SCSI ID Table				
	ID	Туре	Yersion			
	0	Hard Disk	S31S			
	1	Free				
	2	Free				
	3	CD-ROM	2.0d			
	4	Free				
	5	Free				
	6	Free				
	7	Macintosh (Async SCSI+)	7.6			
Free SCSI IDs: 1, 2, 4, 5, 6						
			ОК			

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

- Check if SCSI ID number 2 is free.
 Your DuoScan T1200 is preset to ID 2.
- 3. If SCSI ID number 2 is free, go to <u>instruction 4</u>. -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 -or Push underneath the SCSI ID number to increase the number.



4. Click OK to close the SCSI ID Checker.

Connecting the Scanner

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 terminator and a SCSI cable are supplied with your scanner. Apple Computer, Inc. recommends using only its proprietary (Black) terminator for the Macintosh Ilfx.

Caution: For safety reasons, never use extension cables for power cords. Always make sure that there is no more than one terminator in your SCSI chain and that it is placed at the end of the chain. Some SCSI devices have built-in terminators and must therefore be placed 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 or not. Your DuoScan T1200 has no built-in terminator.

If your DuoScan T1200 is the only external SCSI device to be connected to your Apple Macintosh:



- 1. Place the terminator on the 50-pin connector of the scanner.
- 2. Snap the diamond shaped wire clips into the clip brackets to secure the connection.
- 3. Connect the 50-pin end of the SCSI cable to the free side of the terminator.
- 4. Snap the diamond shaped wire clips into the clip brackets to secure the connection.
- 5. Connect the smaller 25-pin end of the SCSI cable to the connector of your Apple Macintosh.
- 6. Tighten the connector screws to secure the connection.

If your DuoScan T1200 will be connected to your Apple Macintosh together with other external SCSI devices:

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



- 1. Remove or switch off 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. Snap the diamond shaped wire clips into the clip brackets to secure the connection.
- 4. Connect the 25-pin end of the SCSI cable to the 25-pin connector of the scanner.
- 5. Tighten the connector screws to secure the connection.
- 6. Place the terminator on the 50-pin connector of the scanner.

If your scanner is the first external device of your SCSI chain



- 1. Connect the 50-pin end of the SCSI cable to the connector of the next device in the SCSI chain.
- 2. Snap the diamond shaped wire clips into the clip brackets to secure the connection.
- 3. Connect the 25-pin end of the SCSI cable to the connector of the scanner.
- 4. Tighten the connector screws to secure the connection.
- 5. Make sure that the last device in the SCSI chain is terminated.

If you install the scanner between two other external 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. Connect the 50-pin end of the SCSI cable (the one supplied with your scanner) to the other adjacent SCSI device.
- 4. Snap the diamond shaped wire clips into the clip brackets to secure the connection.
- 5. Connect the 25-pin end of the SCSI cable (the one supplied with your scanner) to the scanner.
- 6. Tighten the connector screws to secure the connection.
- 7. Make sure that the last device in the chain is terminated.

Testing the Scanner and the Connection

You are now ready to check if the scanner is operating properly and if the devices are correctly connected to your Macintosh.

Caution: Check if the scanner is properly <u>unlocked</u>.

1. Connect the power cord to the scanner.

Make sure that you are using the correct power cord 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.

- 2. Check if the SCSI cable is properly connected.
- 3. Switch on the scanner.

The scanner performs a self-test in which first the power indicator (green) switches on and the busy indicators start blinking. After a few seconds, the busy indicator for transparency scanning switches on while the busy indicator for reflective scanning continues blinking for about 15 seconds. At the end of the self-test, the blinking busy indicator also switches on.

If a malfunction is detected during the self-test, that is, if the busy indicators remain blinking or go off, refer to <u>Appendix A — Troubleshooting</u>.

- 4. Switch on any other SCSI device you may have attached, and wait for it 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 <u>SCSI ID Checker</u>.
- Verify whether the Macintosh sees the scanner at its proper SCSI address. In case of problems, refer to <u>Appendix A — Troubleshooting</u>.
- 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 T1200 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 scanner and the connection.

Which SCSI Interface Card

Choosing a SCSI ID Number

Connecting the Scanner

Testing the Scanner and the Connection

Which SCSI Interface Card

DuoScan T1200 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.

Adaptec products are recommended to use together with your DuoScan T1200.

- Note: Please check the following documentation:
 - □ The Read Me file on the PC scanner driver software disk 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.

- Open the SCSI ID utility supplied with your SCSI ID card. Your PC SCSI card mostly occupies ID 7.
 - For more information refer to the SCSI ID card documentation.
- Check if SCSI ID 2 is free.
 Your DuoScan T1200 is preset to ID 2.
- 3. If SCSI ID 2 is free, go to instruction 4

-o r-

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.
- □ To decrease the number: push above the SCSI ID number.
- □ To increase the number: push underneath the SCSI ID number.



4. Close the SCSI ID utility.

Connecting the Scanner

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 terminator and a SCSI cable are supplied with your scanner.

Caution: For safety reasons, never use extension cables for power cords. 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. Your DuoScan T1200 has no 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 specific SCSI cable from your dealer.

If your PC has a 25-pin connector and your DuoScan T1200 is the only external SCSI device to be connected to your PC:

Note: If your configuration also consists of internal SCSI devices and if your SCSI controller does not disable termination automatically, do not forget to disable the termination of the host adapter. Refer to your computer documentation for more information.



- Set the scanner to an unused SCSI ID number between 0 and 6.
 For more information, refer to <u>'Choosing SCSI ID Number'.</u>
- 2. Connect the smaller 25-pin end of the SCSI cable to the connector of your PC.
- 3. Tighten the connector screws to secure the connection.
- 4. Place the terminator on the 50-pin connector of the scanner.
- 5. Snap the diamond shaped wire clips into the clip brackets to secure the connection.
- 6. Connect the larger 50-pin end of the SCSI cable to the free side of the terminator. Use the SCSI cable supplied with the scanner.
- 7. Snap the diamond shaped wire clips into the clip brackets to secure the connection.

If your PC has a 25-pin connector and your DuoScan T1200 will be connected to your PC together with other external SCSI devices:

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



- Set the scanner to an unused SCSI ID number between 0 and 6. For more information, refer to <u>'Choosing a SCSI ID Number'</u>.
- 2. Remove or switch off 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 this device.
- 4. Snap the diamond shaped wire clips into the clip brackets to secure the connection.
- 5. Place the terminator on the 50-pin connector of the scanner.
- 6. Snap the diamond shaped wire clips into the clip brackets to secure the connection.
- 7. Connect the 25-pin end of the SCSI cable to the connector of the scanner.
- 8. Tighten the connector screws to secure the connection.

If your scanner is the first external device of your SCSI chain



- Set the scanner to an unused SCSI ID number between 0 and 6. For more information, refer to <u>'Choosing a SCSI ID Number'</u>.
- 2. Connect the 50-pin end of the SCSI cable to the connector of the next device in the SCSI chain.
- 3. Snap the diamond shaped wire clips into the clip brackets to secure the connection.
- 4. Connect the 25-pin end of the SCSI cable to the connector of the scanner.
- 5. Tighten the connector screws to secure the connection.
- 6. Make sure that the last device in the chain is terminated.

If you install the scanner between two other external SCSI devices



- Set the scanner to an unused SCSI ID number between 0 and 6. For more information, refer to <u>'Choosing a SCSI ID Number'</u>.
- 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. Connect the 50-pin end of the SCSI cable (the one supplied with your scanner) to the other adjacent SCSI device.
- 5. Snap the diamond shaped wire clips into the clip brackets to secure the connection.
- 6. Connect the 25-pin end of the SCSI cable (the one supplied with your scanner) to the scanner.
- 7. Tighten the connector screws 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 T1200 is the only external SCSI device to be connected to your PC:

Note: If your configuration also consists of internal SCSI devices and if your SCSI controller does not disable termination automatically, do not forget to disable the termination of the host adapter. Refer to your computer documentation for more information.



- Set the scanner to an unused SCSI ID number between 0 and 6. For more information, see <u>'Choosing a SCSI ID Number'</u>.
- 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. Snap the diamond shaped wire clips into the clip brackets to secure the connection.
- 4. Place the terminator on the 50-pin connector of the scanner.
- 5. Snap the diamond shaped wire clips into the clip brackets to secure the connection.
- 6. Connect the smaller 25-pin end of the SCSI cable to the connector of the scanner.
- 7. Tighten the connector screws to secure the connection.

If your PC has a 50-pin connector and your DuoScan T1200 will be connected to your PC together with other external SCSI devices:

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



- Set the scanner to an unused SCSI ID number between 0 and 6. For more information, see '<u>Choosing a SCSI ID Number</u>'.
- 2. Remove or switch off 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 this device.
- 4. Snap the diamond shaped wire clips into the clip brackets to secure the connection.
- 5. Place the terminator on the 50-pin connector of the scanner.
- 6. Snap the diamond shaped wire clips into the clip brackets to secure the connection.
- 7. Connect the 25-pin end of the SCSI cable to the connector of the scanner.
- 8. Tighten the connector screws to secure the connection.

If your scanner is the first external device of your SCSI chain



- Set the scanner to an unused SCSI ID number between 0 and 6. For more information, refer to <u>'Choosing a SCSI ID Number'</u>.
- 2. Connect the 25-pin end of the SCSI cable to the connector of the next device in the SCSI chain.
 - Note: If you do not have the appropriate cable, contact your dealer for a specific cable.
- 3. Tighten the connector screws to secure the connection.
- 4. Connect the 50-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. Make sure that the last device in the chain is terminated.

If you install the scanner between two other external SCSI devices



- Set the scanner to an unused SCSI ID number between 0 and 6. For more information, see <u>'Choosing a SCSI ID Number'</u>.
- 2. Disconnect the SCSI cable from one of these two SCSI devices.
- 3. Connect the free end of this SCSI cable to 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. Snap the diamond shaped wire clips into the clip brackets to secure the connection.
- 6. Connect the 25-pin end of the SCSI cable (the one supplied with your scanner) to the scanner.
- 7. Tighten the connector screws to secure the connection.
- 8. Make sure that the last device in the chain is terminated.

Caution: In this configuration you are not allowed to put the terminator on the scanner.

In case of problems, refer to <u>Appendix A — Troubleshooting</u>.

Testing the Scanner and the Connection

You are now ready to check if the scanner is operating properly and if the devices are correctly connected to your PC.

Caution: Check if the scanner is properly <u>unlocked</u>.

1. Connect the power cord to the scanner.

Make sure that you are using the correct power cord 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.

- 2. Check if the SCSI cable is properly connected.
- 3. Switch on the scanner.

The scanner performs a self-test in which first the power indicator (green) switches on and the <u>busy indicators</u> start blinking. After a few seconds, the busy indicator for transparency scanning switches on while the busy indicator for reflective scanning continues blinking for about 15 seconds. At the end of the self-test, the blinking busy indicator also switches on.

If a malfunction is detected during the self-test, that is, if the busy indicator remains blinking or goes off, refer to <u>Appendix A — Troubleshooting</u>.

- 4. Switch on any other SCSI device you may have attached, and wait for it to start up.
- 5. Switch on your PC.
- 6. Check whether you have assigned the correct SCSI number.
- 7. Install the FotoLook software following the instructions in the Getting Started manual

Chapter 3 — Placing Originals

This chapter shows you how to scan with your DuoScan T1200. <u>Placing Reflective Originals</u> <u>Placing Transparent Originals</u> <u>Using the Universal Transparency Plate</u> <u>Using the Single Slide Holders</u> <u>Using the Optional Batch Slide Holders</u>

Placing Reflective Originals

You can place a reflective original directly on the scanner's reflective glass plate. The DuoScan T1200 has an adjustable document cover: when you scan a thick original (like a book or a magazine) 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.

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



- Note: 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 the universal transparency plate or the optional batch slide holder frame, which you put into the transparency tray of the scanner.



Using the Universal Transparency Plate

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

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

1. Center the original face down on the universal transparency plate 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. Insert the universal transparency plate into the transparency tray of the scanner with the Agfa logo at the top.
- Note: Make sure that the calibration slit of the universal transparency plate is at the front side (standing in front of the scanner) and that it is clean.

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. To scan a transparent original using a single slide holder, carry out the following instructions:

- 1. Put your original in the appropriate single slide holder.
- 2. Center the original on the universal transparency plate so that its top side is directed towards the calibration slit. This position guarantees the best quality.



- 1. 35 mm single slide holder
- 2. 6 x 6 cm single slide holder
- 3. 4 x 5 inch single slide holder
- 3. Fix the single slide holder on the universal transparency plate 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 universal transparency plate into the transparency tray of the scanner with the Agfa logo at the top.

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

Using the Optional Batch Slide Holders

You can buy a set of optional batch slide holders as a supplement to your DuoScan T1200. They are available in order to increase the productivity of the scanner. The concept of the batch slide holders is developed so that a variety of combinations are possible.

The base is the batch slide holder frame in which different kinds of batch slide holders can be mounted. The batch slide holders keep the originals perfectly flat between two plastic frames, thus guaranteeing optimum sharpness. Contact your dealer for more information.



four batch slide holders (4 x 5 inch, 6 x 9 cm, 35 mm framed and 35 mm strips) and a batch slide holder frame

Chapter 4 — Using the Optional Automatic Document Feeder

This chapter gives information on the optional Automatic Document Feeder (ADF) and describes how to install, operate and maintain it.

About your Automatic Document Feeder Installing the Automatic Document Feeder Checkout Before you Begin Installation Operating the Automatic Document Feeder Paper Loading Correcting Paper Jams Maintaining the Automatic Document Feeder Cleaning and Replacing the Guide Flap Roller Cleaning

About your Automatic Document Feeder

The optional Automatic Document Feeder (ADF) is a companion sheet feeder for your DuoScan T1200. It allows automatic scanning of up to 15 sheets. The dimension of the document can be as large as 8.5" x 14". Sheets to be scanned are fed from a stack in the ADF's input tray, guided past the scanner's image sensor, and placed in the feeder's output tray.

The ADF mounts onto the scanner in place of the document cover, using the original holes of the document cover hinges. You can lower the feeder into position for auto-feed or you can raise it to use the flatbed.

The ADF is a must for high-volume document processing with your DuoScan T1200. It increases operating convenience and efficiency in multipage scanning and OCR application.

Installing the Automatic Document Feeder

Checkout

The ADF is delivered in assembled form, ready to be mounted onto the scanner.

- 1. Open the packing box and take out the ADF.
- 2. Check the ADF to make sure that there is no visual defect. If you notice a defect, contact your dealer.
- 3. Remove the plastic wrapping and the packing materials from the ADF.
 - Note: Save the packing materials to protect the ADF when you have to move it over long distances.

Before you Begin

Follow these steps before installing the ADF:

- 1. Install the scanner as described in this Owner's guide.
- 2. Make sure that the scanner, its peripherals, and the computer are all powered off. Unplug the scanner's power cord.

Installation

You install the ADF as follows:

- 1. Check if your scanner is properly <u>unlocked</u>.
- 2. Switch off your scanner.

- 3. Switch off your computer.
- 4. Open the scanner's document cover and take it off its hinges.
- 5. Mount the ADF onto the scanner by putting its hinges into the original document cover guide holes. Then lower the ADF onto the scanbed.



6. Connect the DB 15-pin plug of the Automatic Document Feeder to the DB 15-pin connector at the rear of the scanner. Secure the connector by tightening the connector screws.



- 7. Switch on your scanner.
- Switch on your computer.
 Software like OmniPage Limited Edition makes it possible to convert the scanned sheets of text into most of the commercially used text file formats.

Operating the Automatic Document Feeder

When the ADF is installed and the computer is powered on, start up the scanner application software.

Paper Loading

To load documents:

1. Click the paper support in the holes on top of the input tray. This prevents the paper sheets to bend down.



2. Place the documents in the input tray with the side to be scanned facing down.



- 3. Make sure that the pages are aligned in the center with the two guide arms.
- 4. If the documents are less than 8.5" wide, use the sliding guide arms to hold the stack in place.

Correcting Paper Jams

To remove jammed pages:

1. Press the ADF locking button.



The ADF transportation module is disengaged.

2. Lift the transportation module, then grasp both free corners of the jammed sheet and pull it out slowly.



3. Lower the ADF transportation module down and snap to close it.

Maintaining the Automatic Document Feeder

Cleaning and Replacing the Guide Flap

The guide flap on the underside of the ADF keeps documents at the correct scanning position and guides them into the output tray after scanning. To prevent printing ink and other contaminants from accumulating on the flap and interfering with image quality, wipe it periodically with an ink-free cloth or a cotton swab moistened with industrial alcohol.

After prolonged use, the surface of the flap may become scratched. This causes lines to appear in scanned images that can create OCR errors. Should the scratches appear, detach the flap and replace it by a new one. For a new guide flap, please contact your dealer.

Roller Cleaning

Prolonged use of the ADF may result in accumulation of ink and other contaminants on the feeder's input roller, reducing the roller's efficiency. Check for dirt on the roller if the ADF starts to have trouble pulling paper through properly. The input roller should be cleaned periodically using a lint-free cloth or swab moistened with ethylene chloride.

 Note: Do not attempt to turn the roller while cleaning it; this may damage the ADF's drive mechanism.

Appendix A — Troubleshooting

This appendix explains some common problems you may come across when starting up or using your DuoScan T1200.

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 an loud knocking noise and nothing moves under the glass plate.

The scanner was not properly unlocked. Immediately switch off the scanner and <u>unlock</u> properly, or call your service representative.

One of the busy indicator lights (yellow) on the scanner's operating panel remains blinking or goes off after the power-up sequence (= about 15 seconds).

A malfunction has been detected by the scanner.

Check if you have <u>unlocked</u> the scanner. If this cannot 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.
- 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).

Check the presence of the <u>SCSI terminator</u>. If this cannot be 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 (Missing terminator? Bad cable? Internally terminated component in chain?).

Appendix B — Technical Information

This appendix provides some technical information about your DuoScan T1200. Technical specifications are subject to change without notice.

Scanner type:	Flatbed legal or A4 size color CCD scanner
CCD:	5,000 elements, color type
Optical resolution:	1,200 ppi vertical x 600 ppi horizontal
Output resolution:	20 - 2,400 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
Density range:	Reflection: 0.1 to 1.9 D
	Transmission: 0.15 to 3.0 D
Scanning speed:	Speed mode: Reflective: line-art/grayscale/color: 4.8 ms/line Transparent: line-art/grayscale/color: 6.5 ms/line Quality mode:
	Reflective: line-art/grayscale/color: 6.5 ms/line Transparent: line-art/grayscale/color: 8 ms/line
Preview speed A4 color	10 s
Original sizes:	A4 or Legal
Maximum scan area:	Maximum reflection:
	216 x 355 mm (8.5 x 14 inch)
	Maximum transmission:
	203 x 254 mm (8 x 10 inch)
Memory:	1 Mb RAM
Reflection scanner lamp:	Cold cathode
	5,000 hr lifetime

Transparency lamp:	Cold cathode
	5,000 hr lifetime
Warm up time:	approximately 15 seconds
	180 seconds to reach final image quality
Power supply:	100 V to 240 V, 47 - 63 Hz
Power consumption:	<39 W
Dimensions:	395 mm (15.5 inch) x 160 mm (6.3 inch) x 570 mm (22.4 inch) (W x H x L)
Weight:	11.5 kg
Acoustic noise:	max. 50 dB in worst condition
Interface:	SCSI-2 interface
	Maximum throughput 2 MB / sec
Environment:	Operating temperature:
	10°C to 40°C (50 °F to 104 °F)
	Relative humidity:
	20% to 85%

Appendix C — DuoScan T1200 Regulation Compliance

<u>Safety Regulations</u> <u>Electromagnetic Compatibility</u>

Safety Regulations

DuoScan T1200 has been designed to comply with:

- VDE 0805
- IEC 950, EN 60950 (GS approved)
- UL 1950
- CSA c22.2 No. 950-M89

DuoScan T1200 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.

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 schütz. 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 authorisiertem Servicepersonal geöffnet werden.
- Die Steckdose sollte nahe dem Gerät und leicht zugänglich sein.

Electromagnetic Compatibility

DuoScan T1200 is designed to comply with:

- Emission: EN55022, Class B
- Immunity: IEC 801-2; IEC801-3; IEC 801-4
- 47 CFR, part 15, subpart B, class B

Federal Communications Commission 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 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/television technician for help.

Canadian department of Communications

This Class B digital apparatus meets all the requirements of the Canadian Interference Causing Equipment Regulations.

Cet appareil numérique de la classe B respecte touts les exigences du Règlement sur le matériel brouilleur du Canada.