ArcusII

Owner's Guide

Trademarks

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Contents

ArcusII scanner and Transparency Module regulation compliance

Safety regulations

The ArcusII scanner and Transparency Module are designed to comply with:

VDE 0805, IEC 950

GS approved

UL 1950-D3

CSA c22.2 No. 950 - M89 D3

UL Safety Statement

Instructions for power supply cord selection:

For modules set at 115V:

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

❖ *Warning: For the reason of safety, besides the personal maintenance mentioned in this operation manual, don't try to remove any mechanical parts or any electronic devices. If you need service, our dealer and service offices are available to help you.*

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 eingeraumt.

TÜV: Wichtige Sicherheitshinweise

1. Bitte Lesen Sie sich diese Hinweise sorgfältig durch.

2. Um eine Beschädigung des Gerätes zu vermeiden sollten Sie nur Zuberhörteile verwenden, die vom Hersteller zugelassen sind.

3. Das Gerät ist vor Feuchtigkeit zu schützen.

4. Bei der Aufstellung des Gerätes ist auf sicheren Stand zu achten. Ein Kippen oder Fallen könnte Verletzungen hervorrufen. Verwenden Sie nur sichere Standorte und beachten Sie die Aufstellhinweise des Herstellers.

5. Die Belüftungsöffnungen dienen zur Luftzirkulation die das Gerät vor Überhitzung schütz. Sorgen Sie dafür, daß diese Öffnungen nicht abgedeckt werden.

6. Die Netzanschulßsteckdose muß aus Gründen der elektrischen Sicherheit einen Schutzleiterkontakt haben.

7. Durch die Lüftungsöffnungen dürfen niemals Gegenstände oder Flüssigkeiten in das Gerät gelangen. Dies könnte einen Brand bzw. elektrischen Schlag auslösen.

8. Öffnen Sie niemals das Gerät. Das Gerät darf aus Gründen der elektrischen Sicherheit nur von authorisiertem Servicepersonal geöffnet werden.

9. Die Steck dose sollte nahe dem Gerät und leicht zugänglich sein.

Electromagnetic Interference

The ArcusII scanner is designed to comply with:

VDE 0871, class B

VDE 0875, level N

FCC 20718, part 15, subpart B, class B

Federal Communications Commission Radio Frequency Interference Statement.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with the instruction manual may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.

- Increase the separation between the equipment and receiver.

- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

■ Consult the dealer or an experienced radio TV technician for help.

Notice:

(1) The changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

(2) Shielded interface cables with ferrite core installed on scanner connector end must be used with this equipment.

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 class B) prescrites dans le Règlement sur le brouillage radioélectriques édicté par le ministère des Communications du Canada.

Introduction

Introduction

Conventions

The following conventions are used in this guide:

❖ *Note: a note of this type gives you additional information.*

1. **Numbered steps describe the actions you must take to perform a task.**

Important safety instructions

For your own safety and that of your equipment, always take the following precautions.

■ Disconnect the power plug when you want to clean the scanner case or glass plate and when the scanner needs service or repair

■ Place the scanner on a level surface.

■ To ensure proper ventilation, allow a minimum of 15 cm free space around each side of the scanner.

■ Any curative maintenance, such as replacing the scanning lamp or fuse should be carried out by an authorized Agfa dealer. Do not open the scanner housing as it contains high voltage areas and sensitive components.

■ Do not leave photo's on the glass plate for excessive periods of time. The warmth of the scanner may cause them to deteriorate.

■ Do not operate the scanner when the environmental temperature falls below 10°C or goes above 40°C.

■ Do not operate the scanner when the environmental humidity falls below 20% or goes above 85%.

Chapter 1
Preparing the scanner

Preparing the scanner

This chapter assists you in preparing your ArcusII scanner for installation. You'll find instructions for:

■ Unpacking the scanner and the transparency module

■ Unlocking the scanner and the transparency module

■ Locking the scanner and the transparency module

■ Testing the scanner and the transparency module

Unpacking the scanner

The first thing to do is to make sure you have everything you're supposed to.

1. **Open the packing box and take out all the items.**

2. **Check each item against the packing list to make sure that you have everything.**

   If something is missing, contact your dealer or representative.

3. **Verify that you received the appropriate version of the scanner.**

   The scanner driver software that accompanies your scanner is destined for Macintosh or for PC.

4. **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.*

5. **Fill out the Warranty and Registration card. Follow the instructions on the registration card to send it back.**

Unlocking the scanner and the transparency module

The optical assemblies of the scanner and the transparency module are held in place during shipment by a locking screw which must be loosened before the scanner can be operated.

1. Turn the scanner on its side and open the transparency module.
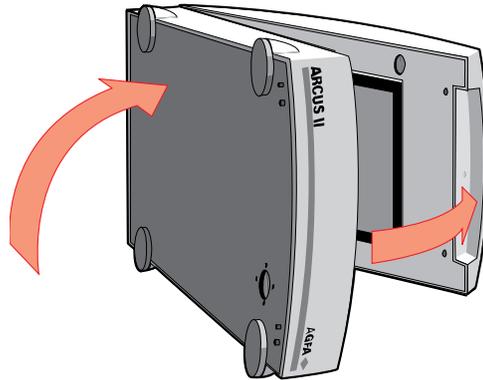
Figure 1
Turning the scanner on its side

2. Unlock the locking screws with a small coin.

The screw pushes out a small distance, nearly even to the bottom of the scanner or the transparency module.

❖ *Note: Leave the locking screws in place so that you can relock it if you have to move the scanner over long distances.*
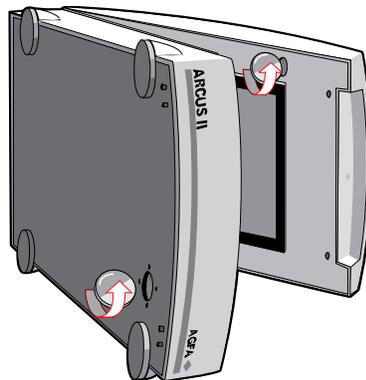
Figure 2
Unlocking the scanner and the transparency module
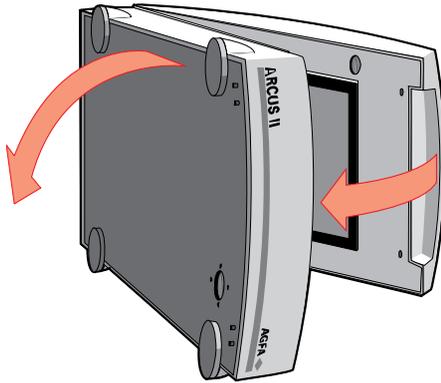
3. Move the transparency module towards the body and turn the scanner upright.

Place the scanner on a flat surface and do not move it suddenly. Sudden movements can cause the optical assembly to slide to the front or the back of the scanner with enough force to damage the scanner.

Always lower the transparency module slowly and release it only when it lies flat on the body of the scanner.

Locking the scanner and the transparency module

If you need to transport the scanner over long distances, you should first relock the locking screw. This will protect the optical assemblies of the scanner and the transparency module from possible damage.

1. **Turn on the scanner.**

    The Power indicator should light and the Ready indicator should blink. The scanner's optical assembly moves to its home position.

2. **Wait until the Scanner indicator and the Transparency Module indicator stop blinking.**

3. **Turn off the scanner and detach the power cord.**

4. **Turn the scanner on its side and open the transparency module.**

5. Lock the locking screws with a small coin.

You have to push the locking screw in an tighten it.
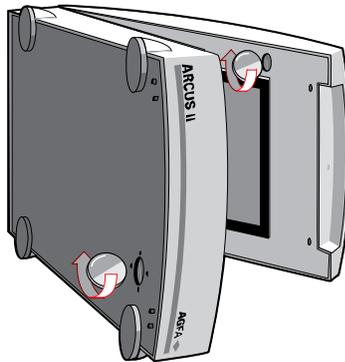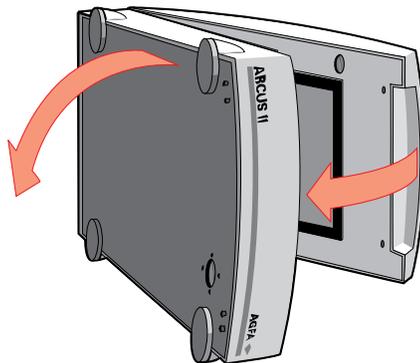
**6. Move the transparency module towards the body and turn the
scanner upright.**

**7. Repack the scanner with the original packing materials to
protect it.**

Taking a closer look

Now that you have the scanner out of the box, take a closer look so that you're familiar with it's parts. Figure 7 and Figure 8 illustrate the locations of the different parts of your ArcusII scanner.

Transparency Module

Glass plate

Figure 7
The top and right side of the scanner

Transparency Module indicator

Scanner indicator

Power indicator

SCSI ID switch

SCSI interface connector

Power input

Power switch

Figure 8
The rear of the scanner

When you scan a transparency, place the transparency frame on the scanner's glass plate with the calibration hole facing the front of the scanner. Place your transparency in a transparency holder. Using the transparency holders avoids overexposure at the edges of the image. Place the transparency holder in the transparency frame. Do not cover the calibration hole or a calibration error will occur.

❖ *Important : Do not leave transparencies on the glass plate for excessive periods of time. The warmth of the scanner and transparency module lamps may cause them to deteriorate.*

Testing the scanner

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

1. **Check that you have removed the shipping restraints from the scanner and from the transparency module.**
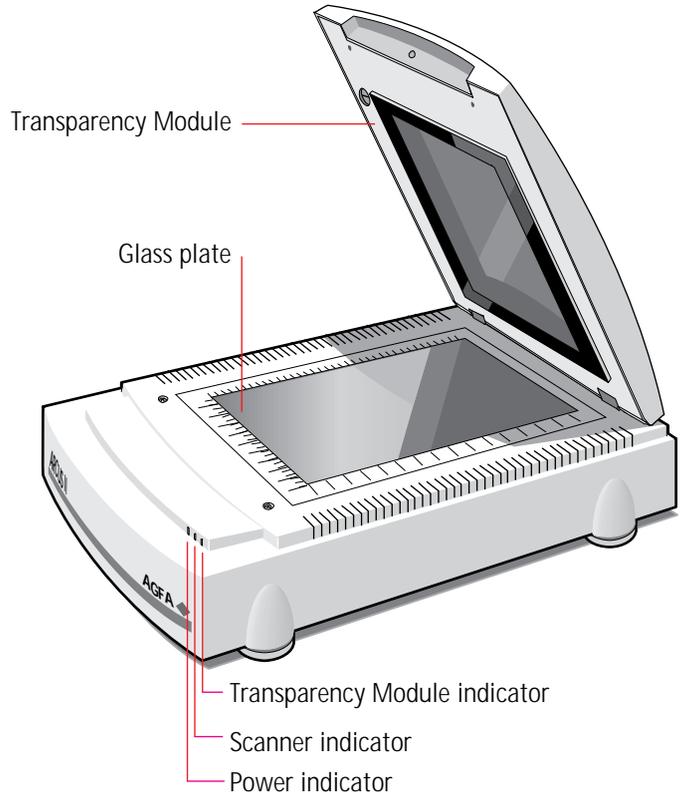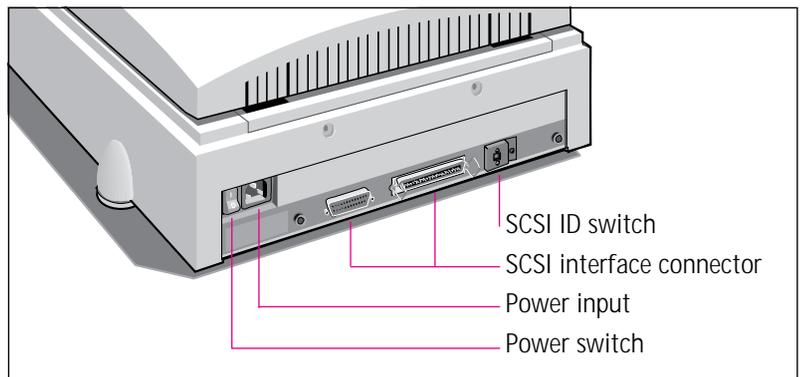
2. **Connect the power cord to the scanner.**

   Make sure that you are using the correct power cord for the voltage in your area. The ArcusII scanner automatically adjusts to any AC electrical outlet rated from 90V to 264V.

3. **Turn on the scanner.**

   The Power indicator lights up. The Scanner indicator and the Transparency Module indicator flash briefly. The scanning lamp turns on and should stay on while the scanner is powered up.

   The scanner performs a self-test after which the Scanner indicator, the Transparency Module indicator and the scanning lamp stay on.

   If a problem occurs during the self-test, refer to Appendix A, 'Troubleshooting'.

Chapter 2

Installation

Installation

This chapter shows you how to set up your ArcusII scanner with your Macintosh, PC, or PS/2 computer. You'll find instructions for:

- Changing and setting the SCSI ID number
- Using the correct SCSI adapter card
- Connecting the scanner to your computer
- Testing the connection

About SCSI devices

The ArcusII scanner 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 connect more than one peripheral device to the same port of your computer in chain fashion.

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.

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

A SCSI chain requires an electronic component called a 'terminator' which absorbs old signals travelling along the cables and keeps the path open for new signals. The chain should never have more than two terminators, one at each end. It is important to remember that using too many or too few terminators may damage your SCSI devices. Some SCSI devices have built-in terminators and must therefore be placed at the beginning or end of your SCSI chain.

❖ *Note: Your ArcusII scanner does not have a built-in terminator.*

Your ArcusII scanner is supplied with terminator power that is switched on. Normally there is no reason to turn the terminator power off. Please contact your dealer if you need to turn the terminator power off.

Changing the SCSI ID number

Before connecting the scanner to your computer, you must be aware of the SCSI ID numbers already assigned. Your ArcusII scanner is preset to ID2 and only needs to be changed if there is already another device in your chain set to the same number.

1. **Make sure your scanner is turned off and is disconnected from your computer.**

2. **Decide on an unassigned SCSI ID number.**

3. **Insert a pencil into one of the small holes above or underneath the SCSI ID number at the rear of the scanner.**
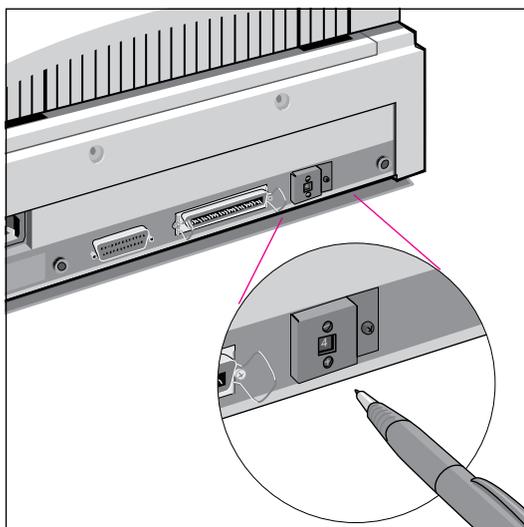
Figure 9
Setting the SCSI ID number

4. **Push with your pencil above or underneath the SCSI number until you see the number you want.**

   Push above the SCSI number to decrease the number, push underneath the SCSI number to increase the number.

Installation for the Macintosh

This section shows you how to set up your ArcusII scanner with your Macintosh computer. Make sure you purchased the Macintosh version so that you will be able to use the scanner driver software. You must first choose and set a SCSI ID number, then connect the scanner to your Macintosh, and lastly test the connection.

Choosing a SCSI ID number

To find out which SCSI ID numbers are already assigned and which numbers are free you can use the Macintosh utility 'SCSIIDChecker'. You will find this utility on the Macintosh scanner driver software diskette.

1. **Copy the SCSI ID Checker to your Macintosh computer.**

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.
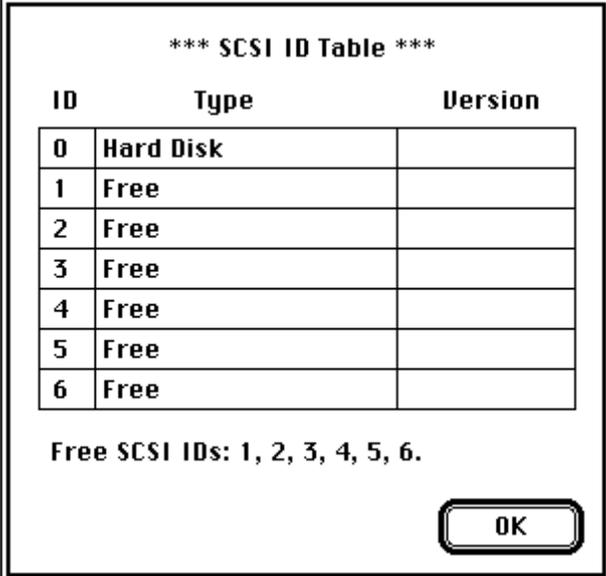
*** SCSI ID Table ***

ID	Type	Version
0	Hard Disk	
1	Free	
2	Free	
3	Free	
4	Free	
5	Free	
6	Free	

Free SCSI IDs: 1, 2, 3, 4, 5, 6.

OK

Figure 10
SCSI Table

Your Macintosh always occupies ID7 and its internal hard disk usually ID0 or ID1.

3. **Write down any SCSI ID number that is free.**

   Your ArcusII scanner is preset to ID2. If this number is free you do not need to reset the SCSI ID switch on rear of the scanner.

4. **Click OK to quit the SCSI ID Checker.**

5. **Set the scanner to the SCSI ID number that you have written down.**

   For more information, see 'Changing the SCSI ID number' earlier in this chapter.

Connecting the scanner

Before you connect the scanner to your Macintosh, make sure your Macintosh and everything connected to it is turned off.

If your ArcusII scanner is the only SCSI device to be connected to your Macintosh:

1. **Connect the smaller end of the SCSI cable to the SCSI port on your Macintosh.**

2. **Place the terminator on the 50-pin SCSI port of your scanner.**

3. **Connect the other side of the SCSI cable to the terminator that is placed on the 50-pin SCSI port of the scanner.**

Apple Computer, Inc. recommends using only its proprietary (Black) terminator for the Macintosh IIfx.
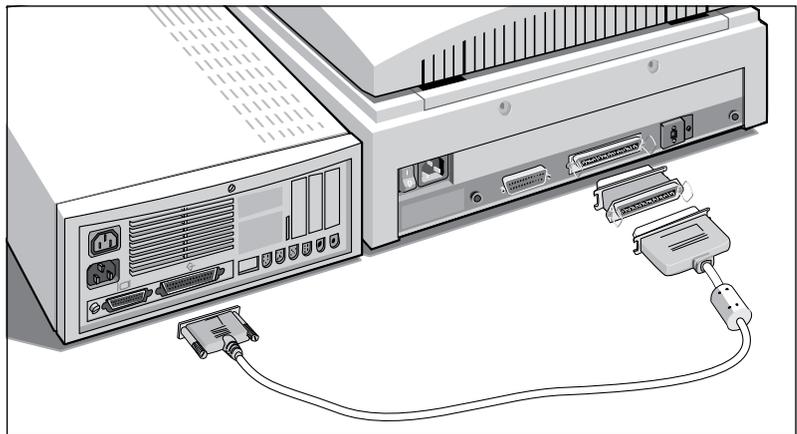
If your ArcusII scanner will be connected to your Macintosh with other SCSI devices:

1. **Disconnect the two devices between which you want to place your ArcusII scanner. Leave the SCSI cable connected to the device that will come before the scanner.**

2. **Connect the 50-pin end of the SCSI cable that is already connected to another device, to the 50-pin SCSI port of the scanner.**

3. **Connect the 25-pin end of the new SCSI cable to the 25-pin SCSI port of the scanner.**

4. **Connect the 50-pin end of this SCSI cable to the next device in the chain.**

❖ *Warning: Make sure there are no more than two terminators in your SCSI chain. Some SCSI devices have built-in terminators and must therefore be placed at the beginning or end of your SCSI chain. Please check the documentation of each of your SCSI devices if you're not sure whether the device has a built-in terminator. Your ArcusII has no built-in terminator.*

Apple Computer, Inc. recommends using only its proprietary (Black) terminator for the Macintosh IIfx.

If your ArcusII scanner will be installed 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 SCSI port that has become available on this device.**

3. **Place the terminator on the 50-pin SCSI port of your scanner.**

4. **Connect the other side of the SCSI cable to the terminator that is placed on the 50-pin SCSI port of the scanner.**

❖ *Warning: Make sure there are no more than two terminators in your SCSI chain. Some SCSI devices have built-in terminators and must therefore be placed at the beginning or end of your SCSI chain. Please check the documentation of each of your SCSI devices if you're not sure whether the device has a built-in terminator. Your ArcusII has no built-in terminator.*

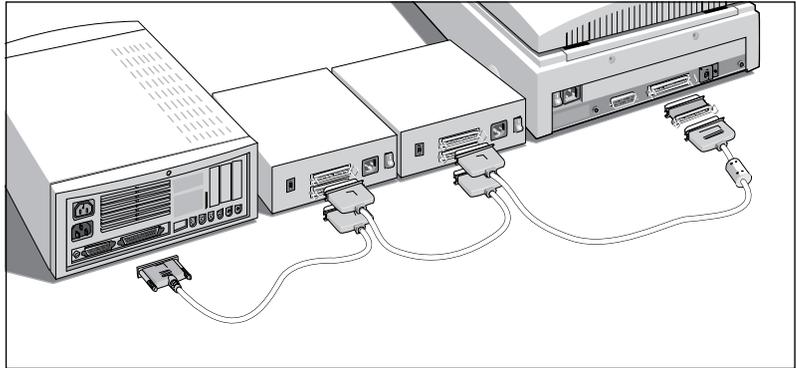Apple Computer, Inc. recommends using only its proprietary (Black) terminator for the Macintosh IIfx.

Testing the connection

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

1. **Connect the power cord to the scanner.**

   The ArcusII scanner automatically adjusts to any AC electrical outlet rated from 90V to 264V.

2. **Check that the SCSI cable(s) are properly connected.**

3. **Turn on the scanner.**

   After a self-test the scanner's the Scanner indicator and the Transparency Module indicator turn on.

4. **Turn on any other SCSI devices you may have attached.**

5. **Turn on your Macintosh.**

   As it boots up, your Macintosh performs a series of tests to verify the correct system configuration.

6. **Open the SCSI ID checker to verify that the scanner has a unique SCSI number.**

   In case of problems, refer to Appendix A, 'Troubleshooting'.

You are now ready to install and configure Agfa's scanning software. Please refer to the FotoLook documentation.

Installation for the PC

This section shows you how to set up your ArcusII scanner with your PC. Make sure you purchased the PC version so that you will be able to use the scanner driver software. You can find information on which SCSI adapter card to use and instructions for connecting the scanner to your PC.

Which SCSI adapter card

The ArcusII scanner requires a SCSI adapter card to work with your PC-AT, 386, 486, or compatible computer. If your PC does not have such a card, contact your dealer.

The scanner driver software supplied with the ArcusII scanner supports the following SCSI adapter cards:

■ Adaptec cards, e.g. AHA 1520 and AHA 1522.
   We recommend the AHA 1540 or 1542 for ISA PC's and the 1742 or 2742 for EISA PC's.

❖ *Important: 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 adapter card. This will tell you how to install the card.

   ☐ If you are using third party software, check the documentation supplied with that software for the SCSI adapter cards supported.

   If you have memory problems, refer to appendix C.

Choosing a SCSI ID number

First, find out which SCSI ID numbers are already assigned and which numbers are free.

■ **Set the scanner to a free SCSI ID number.**

   For more information, see 'Changing the SCSI ID number' earlier in this chapter.

Connecting the scanner

Before you connect the scanner to your PC, make sure your PC and everything connected to it is turned off.

If your ArcusII scanner is the only SCSI device to be connected to your PC:

1. **Connect one end of the SCSI cable to the SCSI port at the rear of your PC.**

    The side of the cable you use depends on whether you have a 50-pin connector or a 25-pin connector on your SCSI adapter card.

2. **Connect the other side of the SCSI cable to the corresponding SCSI port of the scanner.**

3. **Place the terminator on the remaining SCSI port of your scanner.**
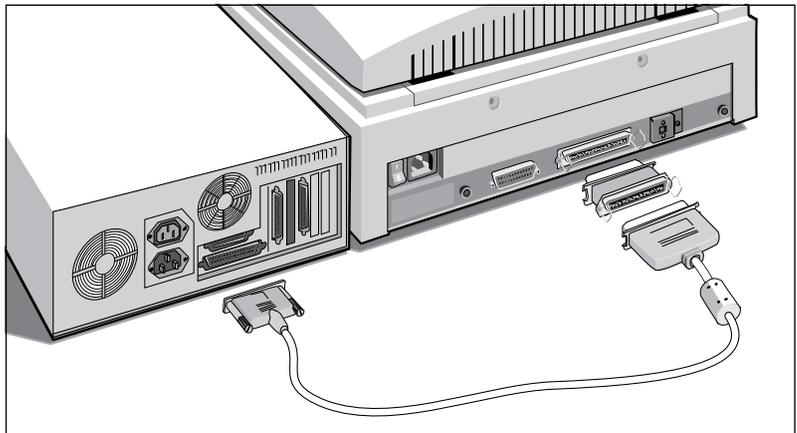
If your ArcusII scanner will be connected to your PC with other SCSI devices:

1. **Disconnect the two devices between which you want to place your ArcusII scanner. Leave the SCSI cable connected to the device that will come before the scanner.**

2. **Connect the 50-pin end of the SCSI cable that is already connected to another device, to the 50-pin SCSI port of the scanner.**

3. **Connect the 25-pin end of the new SCSI cable to the 25-pin SCSI port of the scanner.**

4. **Connect the 50-pin end of this SCSI cable to the next device in the chain.**

❖ *Warning: Make sure there are no more than two terminators in your SCSI chain. Some SCSI devices have built-in terminators and must therefore be placed at the beginning or end of your SCSI chain. Please check the documentation of each of your SCSI devices if you're not sure whether the device has a built-in terminator. Your ArcusII has no built-in terminator.*

If your ArcusII scanner will be installed 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 SCSI port that has become available on this device.**

3. **Place the terminator on the 50-pin SCSI port of your scanner.**

4. **Connect the other side of the SCSI cable to the terminator that is placed on the 50-pin SCSI port of the scanner.**

❖ *Warning: Make sure there are no more than two terminators in your SCSI chain. Some SCSI devices have built-in terminators and must therefore be placed at the beginning or end of your SCSI chain. Please check the documentation of each of your SCSI devices if you're not sure whether the device has a built-in terminator. Your ArcusII has no built-in terminator.*

1. **Set the scanner to an unused SCSI ID number between 1 and 6 by turning the switch at the rear of the scanner.**

   For more information, see 'Changing the SCSI ID number' earlier in this chapter.

2. **Connect one end of the SCSI cable to the SCSI port at the rear of your PC.**

   The side of the cable you use depends on whether you have a 50-pin connector or a 25-pin connector on your SCSI adapter card.
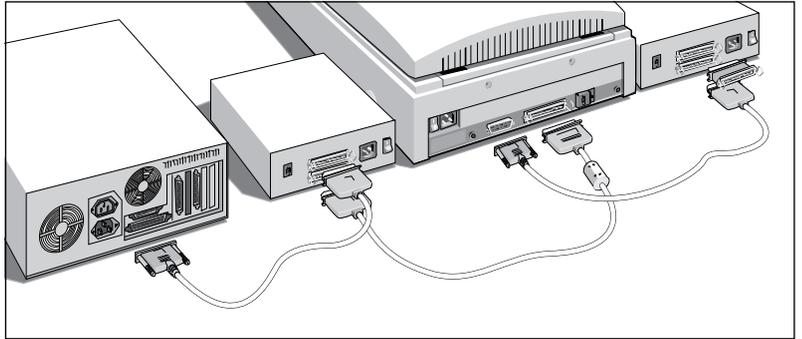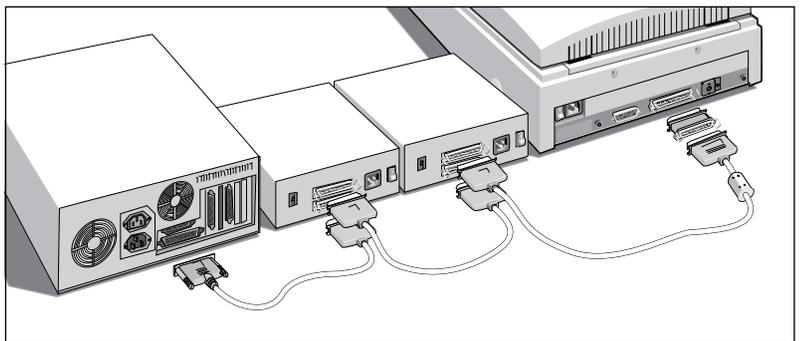
4. **If the scanner is at the end of your SCSI chain, place the terminator on the remaining 50-pin T connector.**

5. **Snap the diamond shaped wire clips into the clip brackets to secure the connection.**

Testing the connection

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

1. **Connect the power cord to the scanner.**

   The ArcusII scanner automatically adjusts to any AC electrical outlet rated from 90V to 264V.

2. **Check that the SCSI cable(s) are properly connected.**

3. **Turn on the scanner.**

   After a self-test the scanner's the Scanner indicator and the Transparency Module indicator turn on.

4. **Turn on any other SCSI devices you may have attached.**

5. **Turn on your PC.**

   As it boots up, your PC performs a series of tests to verify the correct system configuration.

   In case of problems, refer to Appendix A, 'Troubleshooting'.

You are now ready to install and configure Agfa's scanning software. Please refer to the FotoLook documentation.

Installation for the IBM PS/2

This section shows you how to set up your ArcusII scanner with your IBM PS/2. Make sure you purchased the PC version so that you will be able to use the scanner driver software. You can find information on which SCSI adapter card to use and instructions for connecting the scanner to your IBM PS/2.

If you have an IBM PS/2 model 30, please refer to 'Installation for the PC' earlier on in this chapter.

Which SCSI adapter card

The ArcusII scanner requires a SCSI interface card that is certified to work with your IBM PS/2. If your PS/2 does not have such a card, contact your dealer.

The scanner driver software supplied with the ArcusII scanner supports the following SCSI adapter cards:

- the Adaptec card AHA 1640

❖ *Important: 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 adapter card. This will tell you how to install the card.

    □ The documentation supplied with your PS/2 for information on installing a SCSI adapter card.

    □ If you are using third party software, check the documentation supplied with that software for the SCSI adapter cards supported.

Your PS/2 computer also needs a configuration file to make it aware of the interface card. This file enables your computer to automatically configure the interface card.

❖ *Make sure that the Adapter Description File that came with your SCSI interface card has been copied to your PS/2 reference diskette.*

Connecting the scanner

Before you connect the scanner to your PS/2, make sure your PS/2 and everything connected to it is turned off.

1. **Plug the SCSI cable into the SCSI interface connector at the rear of the scanner.**

   If you have an ASC-PS2 adapter card use the 50-pin to 50/50-pin SCSI cable supplied with the ArcusII scanner. Plug one side of the 50-pin T connector into the scanner.

   If you have an in-built IBM or Adaptec adapter card, use an IBM or compatible SCSI cable.

2. **If the scanner is at the end of your SCSI chain, connect the terminator to the remaining T piece on the cable.**

3. **Snap the diamond shaped wire clips into the clip brackets to secure the connection.**

4. **Connect the other end of the SCSI cable to the SCSI port at the rear of your PS/2.**

Testing the connection

1. **Connect the power cord to the scanner.**

   The ArcusII scanner automatically adjusts to any AC electrical outlet rated from 90V to 264V.

2. **Turn on the scanner.**

   After a self-test the scanner's the Scanner indicator and the Transparency Module indicator turn on.

3. **Turn on your PS/2.**

   Your PS/2 performs a series of checks to verify the correct system configuration each time you turn it on. For further information on configuring your PS/2 system see your PS/2 documentation, adapter card documentation, and the Read Me file on the PC scanner driver software disk.

   In case of problems, refer to Appendix A, 'Troubleshooting'.

You are now ready to install and configure Agfa's scanning software. Please refer to the FotoLook documentation.

Chapter 3

Using the scanner

Using the scanner

This chapter tells you how to place transparent and reflective originals on your scanner.

Placing a reflective original

The following steps explain how to position your original on your scanner.

1. **Raise the Transparency Module.**
2. **Place the original that you want to scan face-down on the glass plate.**
3. **Guide the top left corner of the original into the lower left (0,0) corner of the glass plate.**
4. **Lower the Transparency Module.**

For more information about scanning, refer to the FotoLook documentation.

Placing a transparent original

1. **Raise the Transparency Module.**
2. **Place the transparency frame on the glass plate with the calibration hole facing the front of your scanner.**
3. **Place the original that you want to scan in the transparency holder.**
4. **Place the transparency holder with the original face-down inside the transparency frame on the glass plate.**
5. **Guide the top left corner of the original into the lower left (0,0) corner of the transparency frame.**
6. **Lower the Transparency Module.**

For more information about scanning, refer to the FotoLook documentation.

Caring for your scanner

Caring for your scanner

This chapter covers general maintenance tips for your ArcusII scanner.

Cleaning the scanner and the transparency module

Cleaning the glass plate regularly will ensure that dirt or smudges do not reduce the quality of your scanned images.

Before cleaning, turn off the power to the scanner and unplug the cord.

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

❖ *Warning: Avoid using sprays directly onto the glass plate as this may cause the liquid to penetrate the seams around the glass and contaminate the mirrors and lenses inside the scanner.*

Replacing the fluorescent lamps

The ArcusII scanner and Transparency Module lamps each have a lifetime of 2000 hours. Lamp replacement must only be carried out by an authorized Agfa dealer. Return the scanner in its original packing to your dealer for service.

❖ *Warning: Do not open the scanner housing. There are extremely sensitive components inside the scanner.*

❖ *Warning: Do not forget to lock the scanner and the transparency module before transportation.*

Appendix A   Troubleshooting

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

Both the Scanner indicator and the Transparency Module indicator on the scanner operating panel fail to light up.

- ☐ Check that you have removed the locking screws.

- ☐ Check the scanning lamp in the scanner and in the transparency module. If the lamp flickers, dims, or goes off, please contact your dealer.

- ☐ If the weather is very cold, leave the scanner on for several minutes to let it warm up. Turn the power off, then immediately on again. If both lights still go off, contact your dealer.

The scanner or Transparency Module lamp flickers, is dim, or fails to come on.

- ☐ The scanning lamp is failing or has failed and needs to be changed. Contact your dealer.

The power indicator fails to light up.

- ☐ Verify the power connection to the scanner

- ☐ Check that the power switch is turned 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 Macintosh does not boot.

- ☐ Your computer cannot find its hard disk due to a conflict with the SCSI ID numbers of the devices you have attached. Turn off the power to the scanner and unplug the cord. Disconnect all SCSI devices (except the startup disk) and connect them one by one, beginning with the scanner, to identify the device that causes the problem.

The scanner driver software returns a "Scanner not ready" or similar message

☐ Verify the power connection to the scanner

☐ Check that the power switch is turned on.

☐ Check the Installation procedure, to see if you followed the instructions. Pay special attention to the setting of the SCSI ID number.

☐ Verify the terminators and the cables. If there is a problem with a cable or with the SCSI board of the scanner, contact your dealer.

☐ Disconnect all SCSI devices and connect them one by one, beginning with the scanner, to identify the device that causes the problem.

Appendix B   Technical Information

This appendix provides some technical information about your ArcusII scanner.

ArcusII scanner specifications

Scanner type:	Desktop, flat bed
Transparency module:	Moving light source, transparency stable
Maximum resolution:	600 Horizontal x 1200 Vertical dpi, optical 3600x3600 by interpolation
Sample depth:	12 bits for gray 36 bits for color 12 bit available for application
Scanning speed:	Short Calibration - 2 s for 3 colors Long Calibration - 4 s per color Line-art - 4 ms per line Halftone B/W - 4 ms per line Color - 5 ms per line per color
Scanning area:	Minimum line-art: 16 pixels gray-scale and color: 1 line, 2 pixels Maximum reflective: 210 mm x 355 mm transparent: 203 mm x 254 mm
Lamp:	8W daylight fluorescent light Lamp shut off after 2h time-out
Warm up time	35 seconds, 5 min. for stable operation
Power supply:	Line voltage: 90 to 254 volts Frequency: 47 to 63 Hz Power: 40 watts maximum
Interface:	SCSI-2 interface
Image memory:	1 Mbyte, expandable to 2 Mbyte
Transmission speed:	1 Mbyte/second

Environment: Operating temperature
10° C to 40° C (50° F to 104° F)

Storage temperature
-25° C to 55° C (-13° F to 131° F)

Relative humidity
20% to 95%

Surrounding space
15 cm on each side

Appendix C
Memory Configuration

You can experience a memory conflict because many adapter cards use the high memory area between 640K and 1024K. You can also experience problems because memory managers like DOS HIMEM.SYS, EMM386.EXE, QEMM, or 386MAX, will occupy the high memory area so that the installer does not find a free memory place.

To solve memory problems, you first have to find a free memory address. If necessary, you can free a memory addres. Then you are ready to resume the installation of the SCSI card.

Finding a Free Memory Address

If you experience problems with the attribution of the address and you are using Windows3.1, run the Microsoft Diagnostic program to find out what memory ranges are available in your computer.

❖ *Remark: Manifest, provided with QEMM memory manager, is another program you can use to perform the same task.*

1. **Go to the Windows directory.**
2. **Type MSD.**
3. **Press <Enter>.**
4. **Press M.**

    A sample printout of a report generated by MSD on a 486 computer looks like this:

```
+─────────────────── Memory ───────────────────
|
|    Legend:  Available " "  RAM "##"  ROM "RR"  Possibly Available ".."
|      EMS Page Frame "PP"  Used UMBs "UU"  Free UMBs "FF"
|    1024K FC00 RRRRRRRRRRRRRRRR FFFF  Conventional Memory
|          F800 RRRRRRRRRRRRRRRR FBFF                   Total: 640K
|          F400 RRRRRRRRRRRRRRRR F7FF               Available: 543K
|     960K F000 RRRRRRRRRRRRRRRR F3FF                          556080 bytes
|          EC00 PPPPPPPPPPPPPPPP EFFF
|          E800 PPPPPPPPPPPPPPPP EBFF  Extended Memory
|          E400 PPPPPPPPPPPPPPPP E7FF                   Total: 3072K
|     896K E000 PPPPPPPPPPPPPPPP E3FF
|          DC00 ........RRRRRR.. DFFF  Expanded Memory (EMS)
|          D800 ................ DBFF           LIM Version: 4.00
|          D400 ................ D7FF    Page Frame Address: E000H
|     832K D000     ........  .  D3FF                   Total: 1024K
|          CC00                  CFFF               Available: 1024K
|          C800                  CBFF
|          C400 RRRRRRRRRRRRRRRR C7FF  XMS Information
|     768K C000 RRRRRRRRRRRRRRRR C3FF               XMS Version: 2.00
|          BC00 ................ BFFF            Driver Version: 2.05
|          B800 ................ BBFF         A20 Address Line: Enabled
|          B400 ................ B7FF          High Memory Area: In use
|     704K B000 ................ B3FF                 Available: 1024K
|          AC00                  AFFF      Largest Free Block: 1024K
|          A800                  ABFF
|          A400                  A7FF  DPMI Information
|     640K A000                  A3FF           DPMI Detected: Yes
|                                                     Version: 0.90
```

In this example, one of the ranges available is D000 through D400.
E000-EFFF is used as PageFrame for expanded memory. You can
probably use E000 as well if you EXCLUDE it (see further).

❖ *Remark: Some SCSI cards, hard disk controllers and video cards may use
address ranges that do not show up in Microsoft Diagnostic or Manifest.
For example, Western Digital manufactures a series of controller cards
that use a range of memory addresses. Series 1000 cards are among the
ones currently shipping. 1003, an MFM controller card, uses address
C800. 1006 and 1007, ESDI controllers, usually use the default address
of CC00 but they can also be configured to use C800. 1007, the newest
SCSI controller card, can be configured to a number of different addresses.*

Freeing a Memory Address

If a memory manager is occupying all the memory addresses, you have to edit your config.sys file. You have to "exclude" the areas that you want to use for the SCSI card.

DOS HIMEM.SYS and EMM386.EXE

If you use DOS HIMEM.SYS and EMM386.EXE, you have to modify your config.sys file and your system.ini file.

Your config.sys file will contain these lines:

```
DEVICE=HIMEM.SYS
DEVICE=EMM386.EXE ...  (The ellipsis stands for all possible
options)
```

You have to modify the second line to exclude the address that you want to attribute to the card from being used by EMM386. You do this by adding at the end of the line the command `x=` followed by the addresses you want to free for the card. If you use the default address D400, it will look like this:

```
DEVICE=EMM386.EXE ... x=D400-D800
```

You find the system.ini file in the Windows directory. In the [386ENH] section of the file, you have to add the command `EMMExclude=` followed by the addresses you want to free for the card. If you use the default address D400, it will look like this:

```
EMMExclude=D400-D800
```

QEMM by Quarterdeck Office Systems

If you use QEMM by Quarterdeck Office Systems, you have to modify your config.sys file and your system.ini file.

Your config.sys file will contain this line:

```
DEVICE=QEMM.SYS ...  (The ellipsis stands for all possible
options)
```

You have to modify this line to exclude the address that you want to attribute to the card from being used by QEMM. You do this by adding at the end of the line the command `x=` followed by the addresses you want to free for the card. If you use the default address D400, it will look like this:

```
DEVICE=QEMM.SYS ... x=D400-D800
```

You find the system.ini file in the Windows directory. In the [386ENH] section of the file, you have to add the command `EMMExclude=` followed by the addresses you want to free for the card. If you use the default address D400, it will look like this:

```
EMMExclude=D400-D800
```

386MAX by Qualitas

If you use 386MAX by Qualitas, you have to modify your 386max.pro file and your system.ini file.

In your config.sys file you can see where to find the 386max.pro file. For example:

```
DEVICE=C:\386MAX\386MAX.SYS
PRO=C:\386MAX\386MAX.PRO
```

Open the 386max.pro file with a text editor to modify it. In this file you will find the following lines created by the installation program with the default settings:

```
USE=B000-B800   ;UPDATE ==> RECOVER RAM IN MDA
REGION
;THIS PROFILE CREATED AUTOMATICALLY BY INSTALL
```

You have to add two lines in between. You file will look like this:

```
USE=B000-B800       ;UPDATE ==> RECOVER RAM IN
MDA REGION
DMA=64              ;SET DMA HANDLES TO 64
EXCLUDE=D400-D800 ;EXCLUDE ADDRESS RANGE FOR
SCSI CARD
;THIS PROFILE CREATED AUTOMATICALLY BY INSTALL
```

You find the system.ini file in the Windows directory. In the [386ENH] section of the file, you have to add the command `EMMExclude=` followed by the addresses you want to free for the card. If you use the default address D400, it will look like this:

```
EMMExclude=D400-D800
```