

# Skyline 5000 fs

## User's Manual



### Federal Communications Commission (FCC) Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, 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/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.

*Note: Shielded interface cable with ferrite core installed on scanner connector end must be used with this equipment.*

#### CAUTION

Changes or modifications not expressly approved by the manufacturer responsible for compliance could void the user's authority to operate the equipment.

# Hardware Installation

for the Skyline 5000fs

This section provides information on installing the hardware for your Skyline 5000fs. An outline is provided on the next two pages to guide you through the various stages of hardware installation.



## Overview

The hardware installation section provides information on installing the hardware for your Skyline 5000fs. An outline is provided below to guide you through the various stages of hardware installation.

To do this...	See the section...
<b>1</b> Go through preliminaries <ul style="list-style-type: none"><li>• Unpack the scanner</li><li>• Check requirements</li><li>• Check voltage</li></ul>	Before You begin
<b>2</b> Install the scanner <ul style="list-style-type: none"><li>• Install the scanner card and cabling</li><li>• Check the SCSI ID</li></ul>	Installation
<b>3</b> Operate the scanner <ul style="list-style-type: none"><li>• Perform the power-on self-test</li><li>• Components of the Skyline 5000fs</li><li>• Use the glass film holder</li><li>• Use the standard film holder</li><li>• Scan without the film mount</li><li>• Scan with the film mount</li></ul>	Operating the scanner
<b>4</b> Perform other tasks <ul style="list-style-type: none"><li>• Return the scanner</li><li>• Replace the scanner lamp</li></ul>	Miscellaneous

## Checklist for hardware installation

This is a quick rundown of things you need to do and look out for to install your hardware properly.

- Unpack your scanner and read the Packing List first to determine if you have everything you need. If not, call Microtek Sales. See p. 2-50.
- Check system requirements and scanner voltage. See p. 2-51.
- As the first step to installation, install the scanner card and set up the cabling. Depending on your installation, you may or may not need terminators. See pp. 2-52 to 2-56.
- Check the scanner's SCSI ID. If it needs to be changed, set the ID according to procedures outlined on pp. 2-58
- To operate the scanner, turn on the power button at the back of the unit. The POWER and READY indicators on the front should blink and then stay on solidly. If they don't stop blinking, there may be a hardware problem with your scanner. At this time, the fluorescent lamp inside the scanner should be on as well. See p. 2-59 or the troubleshooting section in the *Appendix*.
- For information on how to position a slide for scanning and the use of scanner accessories, see pp. 2-60 to 2-62.
- If you need to ship the scanner for repair, follow scanner-return procedures for repair. See p. 2-71.
- For specifications on the Skyline 5000fs, see p. 2-73. If the scanner lamp needs to be replaced, see p.2-72.

## Before You Begin

- Unpack the scanner
- Check requirements
- Check the voltage

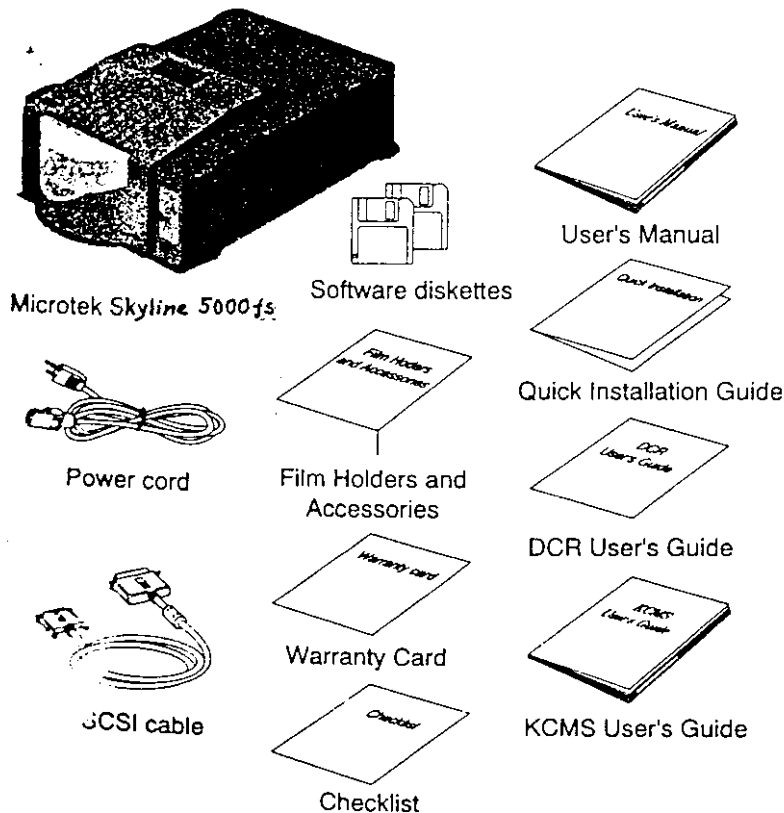
## Unpacking the scanner

Remove the scanner from the box, and save the box and packing materials in case you need to ship the scanner again.

Upon opening the scanner box, you will see a Packing List that lists both hardware and software components of your scanner package, as well as the part numbers for those components.

If any component is missing, call Microtek Sales and provide information on the missing component and part number. Please be ready to provide the scanner's serial number and your proof of purchase as well. Keep the Packing List for your reference in case you need to order a component in the future.

**Note:** If you need to ship back the scanner for any repairs, the scanner must be packed in the original box in which it came. Otherwise, Microtek will not be responsible for any damage that may be sustained during shipping to or from Microtek. You may be charged for a new box.



## Requirements

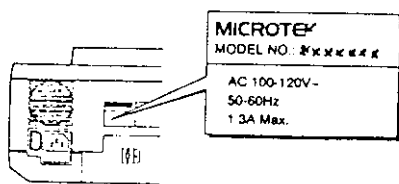
- IBM PC 386 or better, with 8MB RAM (16MB needed if you are using Photoshop 3.0)
- Windows 3.1 or higher
- 40MB hard disk (200MB recommended); at least 20MB free
- VGA color monitor; color display card; laser printer (recommended). Photoshop requires a monitor and display card capable of displaying at least 256 colors.
- Basic knowledge of DOS and Windows, and how to install an interface card inside the PC

## Voltage

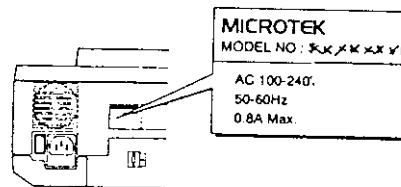
The voltage of the scanner is indicated at the back of the scanner, near the power switch.

Voltage is preset depending on your area, ranging from 100V to 120V (U.S. and Canada), or 100V to 240V (Europe and other parts).

In the unlikely event that you receive a scanner with a voltage setting different from the voltage level used in your area, call your dealer to return the scanner. Scanners marked with 100V to 120V will not operate with 220-volt power in Europe or South America.



U.S. voltage requirements



European voltage requirements

## Installation

- Preparing the scanner card for use
- Install the scanner card and cabling
- Check the SCSI ID

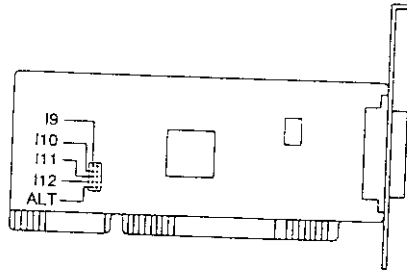
## Preparing the scanner card for use

The scanner card that comes with your Microtek scanner is the Adaptec AVA-1505AE. In the next section, you will learn how to insert the card into your computer and connect it to your scanner. Before doing that, however, you need to make sure that the card is ready for use.

### The Adaptec AVA-1505AE

The Adaptec AVA-1505AE is an ISA-to-SCSI host adapter (card). The AVA-1502E has a block of five jumpers (see illustration below). Four jumpers control the IRQ setting; the jumper marked ALT controls the I/O Port Address.

\* FCC Doc



### Default settings

The AVA-1505AE is designed for ease of use, so in many cases, the default settings of the card should be appropriate. This means that you will only need to plug the card into your computer, then run the EZ-SCSI software program that comes with the card to finish installation.

The default settings of the card for IRQ and I/O Port Address are IRQ 10, and I/O Port Address 140h-15Fh. These settings are controlled by the jumpers on the card.

Parameter	Default Setting
IRQ Channel	10
I/O Port Address	140h-15Fh



## Installation

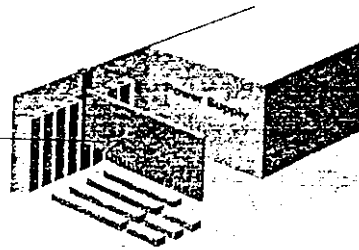
- Install the scanner card and cabling
- Check the SCSI ID

### Installing the scanner card and cabling

Note: This step shows you how to install the Adaptec AVA-1505AE scanner card that came with your scanner. If you wish to use the Microtek MS-PNR or MS-PCZ card, see the Appendix for other details.

- 1 Turn off the computer, and remove the cover of the PC.
- 2 Look for an available slot in the PC, remove the slot cover, and insert the Adaptec AVA-1505AE card into the slot. Push the card in to make sure it's seated all the way in the slot.

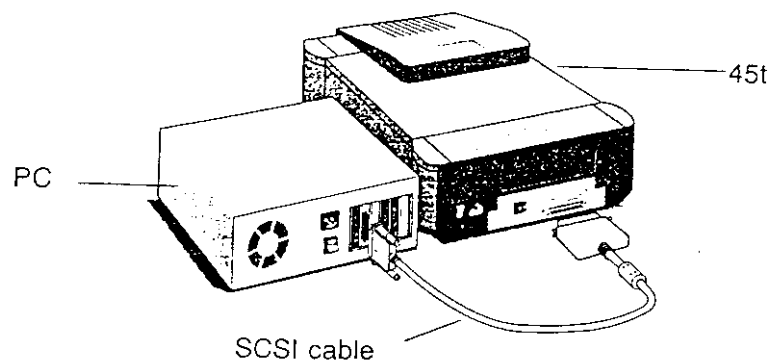
Insert the AVA-1505AE card into an available slot



#### Note

When you plug the card into your PC, the back of the card may pop out a little bit when you tighten the screw on the card. To ensure a proper connection, see to it that the front and back of the card are in all the way, securely held in place by the card slot.

- 3 Place the cover back on the computer. Connect the card and the 45t scanner, using the cable that came with your 45t scanner for this purpose. Make sure your 45t scanner and computer are turned off when you perform the connection.



#### Note

You may or may not need a terminator in your installation. See the next section for more details.

## Installation...

### Notes on SCSI ID numbers

- Each SCSI device must have a unique SCSI ID number.
- Valid SCSI ID numbers are 0 to 6. Do not use SCSI ID #7, which is used to carry a self-test for the scanner and make the carriage move back and forth. SCSI ID #8 and #9 are also not used.

**Note:** For instructions on how to install a third-party SCSI card such as Adaptec (instead of using the supplied Microtek MS-PNR card), see the Appendix.

## Operating the Scanner

- Performing the power-on self-test
- Components of the ScanMaker 45t
- Using the glass film holder
- Using the standard film holder
- Scanning without the film mount
- Scanning with the film mount

# Components of the Skyline 5000fs

The following items are included with your scanner package: a standard film holder, a glass film holder, several film mounts, and adhesive strips.

See illustrations below and check to see that you have all of the items.



Standard film holder



Glass film holder



Film mount #1 (60 mm x 60 mm)



Film mount #2 (60 mm x 70 mm)



Film mount #3 (for 35 mm slides)



35 mm metal slide spacer



35 mm slide mount



Magnetic strips (2)



Vinyl strips (4)

Item	Qty	Purpose
Glass film holder	1	To scan irregularly sized film up to 5" x 5"
Vinyl strips	4	To secure film to the glass film holder
Standard film holder	1	To scan standard sized film 60 mm x 60 mm
Film mount #1	1	To hold 60 mm x 60 mm film
Film mount #2	1	To hold 60 mm x 70 mm film
Film mount #3	1	To hold 35 mm x 35 mm film
35 mm slide mount	1	To enclose unmounted 35 mm slides
35 mm slide spacer	1	To raise the thickness of mounted 35 mm slides so that slides can fit on film mount #3.
Magnetic strips	2	To secure film to the standard film holder

The scanning frame of the film depends on the film holder and the mount to be used. Below is a table of scanning frames for the various film holders and mounts.

<b>Film holder and mount</b>	<b>Scanning frame</b>
Standard film holder	
4" x 5" (without film mount)	3.68" x 4.44"
Film mount #1 (60 mm x 60 mm)	55 mm x 55 mm
Film mount #2 (60 mm x 70 mm)	55 mm x 68 mm
Film mount #3 (35 mm x 35 mm)	34 mm x 34 mm
Glass film holder	
5" x 5"	5" x 5"

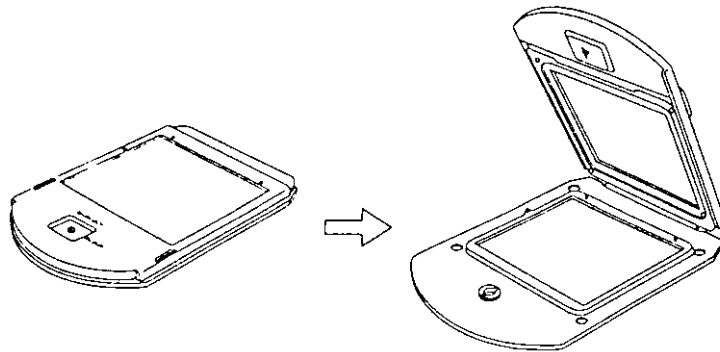
## Using the standard film holder

Use the standard film holder to scan film of the following sizes: 4" x 5"; 60 mm x 60 mm; 60 mm x 70 mm; and 35 mm x 35 mm films.

### A. Scanning without the film mount

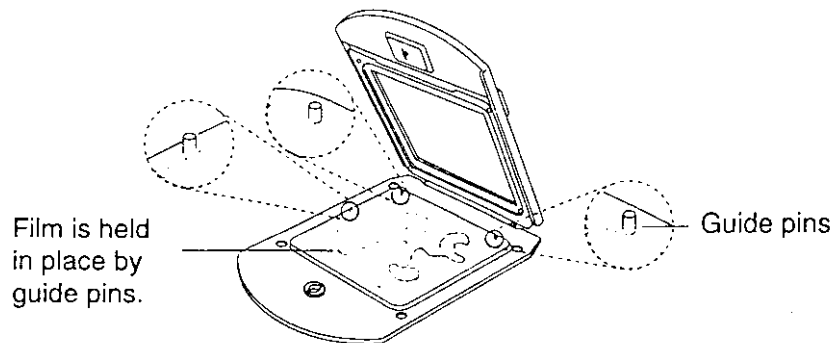
Follow this procedure to scan 4" x 5" film. For all others size, see the procedure *Scanning with the film mounts*.

- 1 Place the standard film holder on an even surface, then open the film holder.

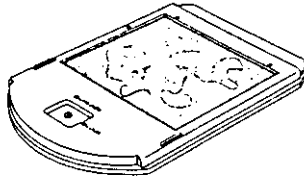


- 2 Place the film upright and facing up inside the standard film holder, and rest the upper and left edges against the three guide pins for positioning.

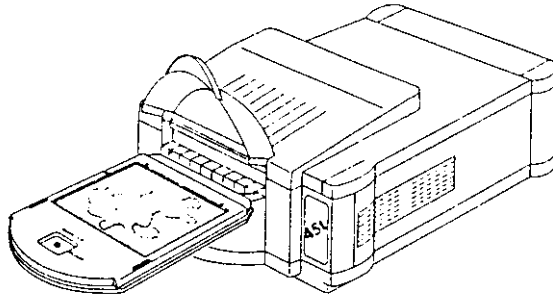
Be careful that the guide pins do not puncture the film when you place the film inside the film holder.



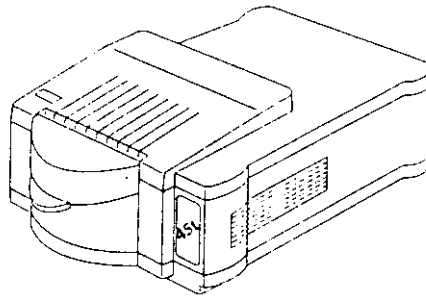
- 3 Close the standard film holder.



- 4 Insert the standard film holder into the Skyline 5000fs



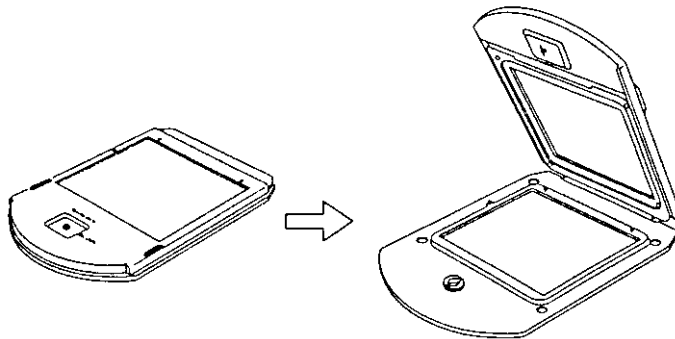
- 5 Close the front cover of the Skyline 5000fs. You are now ready to scan.



## B. Scanning with the film mount

Follow this procedure to scan film of these size: 60 mm x 60 mm; 60 mm x 70 mm.

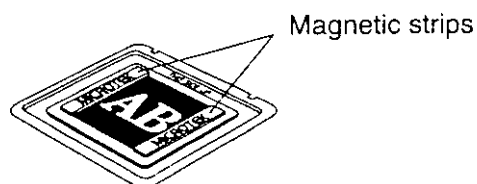
- 1 Place the standard film holder on an even surface, then open the film holder.



- 2 Place the film to be scanned inside the film mount, with the film facing up.



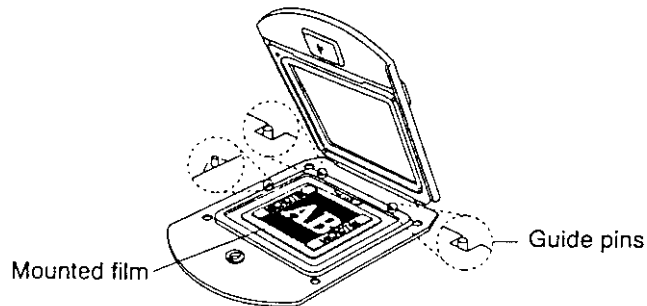
- If you are scanning a 60 mm x 60 mm film, use film mount #1 (see p.2-60).
  - If you are scanning a 60 mm x 70 mm film, use film mount #2 (see p. 2-60).
- 3 Use the magnetic strips to secure the film to the film mounts and position the strips along the edge, making sure that the area to be scanned is not covered by the strips.



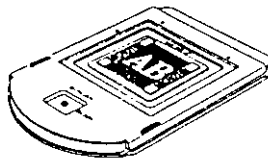


- 4 Place the mounted film in the standard film holder, and rest the upper and left edges against the three guide pins for positioning.

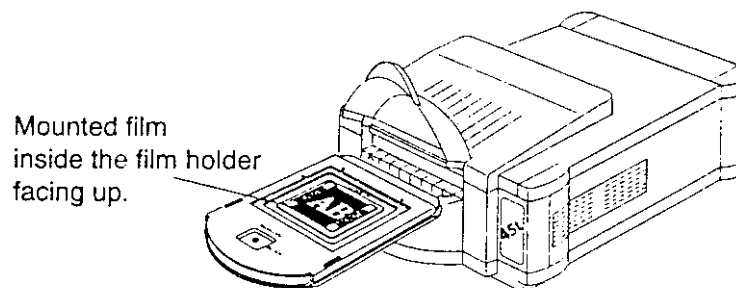
Be careful that the guide pins do not puncture the film when you place the film inside the film holder.



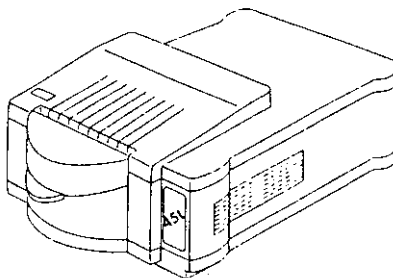
- 5 Close the standard film holder.



- 6 Insert the standard film holder into the Skyline 5000fs



- 7 Close the front cover of the Skyline 5000fs. You are now ready to scan.

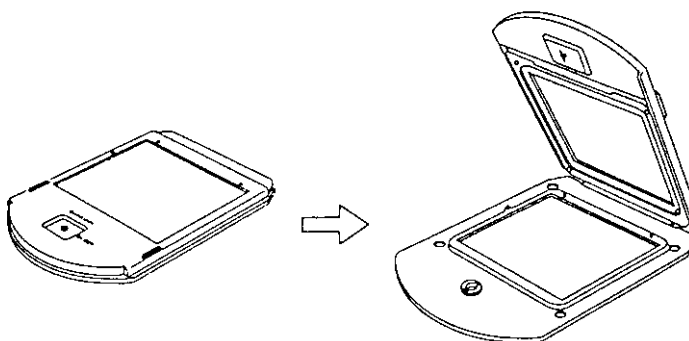


## Operating the scanner...

### C. Scanning with the film mounts for 35-mm film

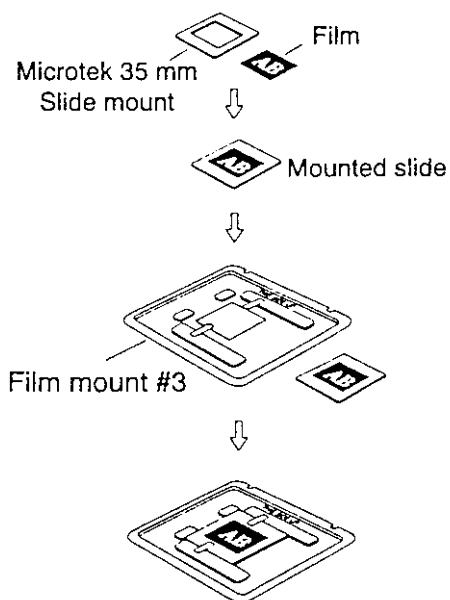
Follow this procedure to scan 35-mm film.

- 1 Place the standard film holder on an even surface, then open the film holder.



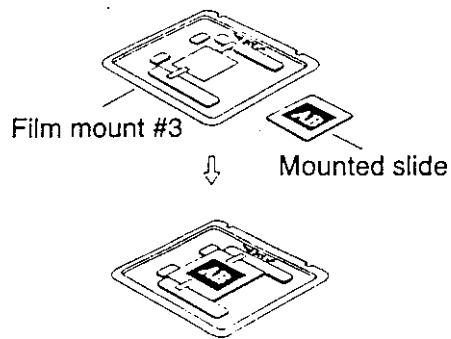
- 2 Do one of the following:
  - **To scan unmounted slides**

Place the slide in the Microtek 35-mm slide mount, then place the mounted slide in film mount #3 (see p. 2-60). Secure the film under the clips of the film mount to lock the slide in.



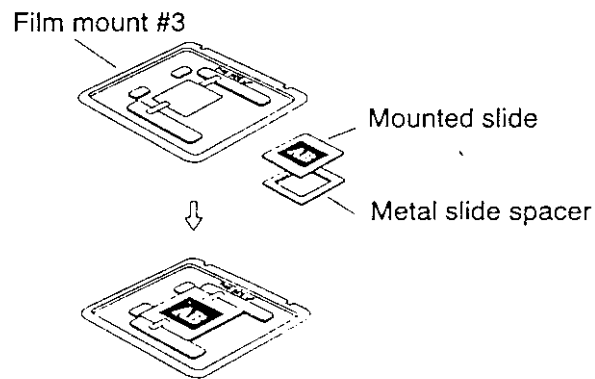
- **To scan mounted slides** (If the thickness of the slide is about the same as the thickness of the Microtek slide mount)

Place the mounted slide in film mount #3. Secure the film under the clips of the film mount to lock the slide in.



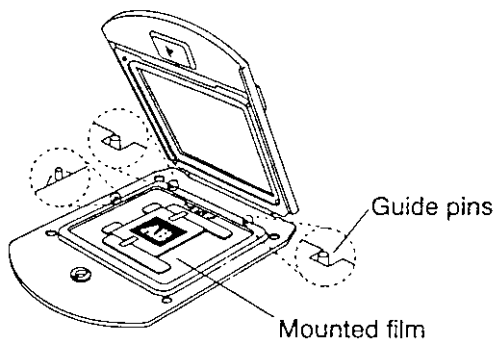
- **To scan mounted slides** (If the thickness of the slide is thinner than the Microtek slide mount)

Place the metal slide spacer beneath the clips of film mount #3, then push the mounted slide under the clips to lock the slide in.



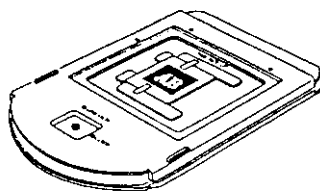
- 3** Place film mount #3 inside the standard film holder, and rest the upper and left edges of the film adapter against the three guide pins for positioning.

Be careful that the guide pins do not puncture the film when you place the film inside the film holder.

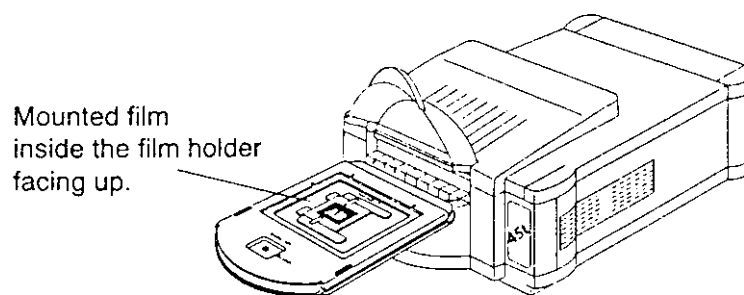


## Operating the scanner...

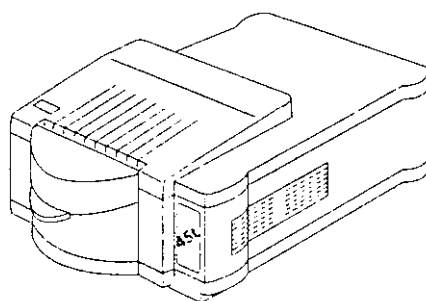
- 4 Close the standard film holder.



- 5 Insert the standard film holder into the Skyline 5000fs



- 6 Close the front cover of the Skyline 5000fs You are now ready to scan now.



## Miscellaneous

- Returning your scanner for repairs
- Replacing the scanning lamp

## Returning your scanner for repairs

Your Microtek scanner has been built to exacting standards. Just like any piece of electrical equipment, however, your scanner or the delicate parts in it are subject to wear and tear, and may malfunction for any number of reasons. If your scanner needs to be serviced or repaired, do the following:

### For U.S. users:

- Call Microtek Technical Support to get a Repair Merchandise Authorization (RMA) number. You can also call Microtek's fax-back system (at 310-297-5101) to get an RMA request form faxed to you; request Document No. 414. Fill out the form and fax it back to Microtek; you will then be issued an RMA number.
- Pack the scanner in the original box without any software, and send the interface card and cables only if you are asked to do so. If you have lost the original box, you will need to buy one from Microtek for a nominal fee.
- Send the scanner to Microtek Lab, Inc., 3715 Doolittle Drive, Redondo Beach, CA 90278. Make sure the RMA number is on the outside address label.

**Important** Make sure the RMA number is on the address label and is visible on the outside of the box. Packages without an RMA number or with the wrong RMA number on the outside of the box will be refused and returned to sender.

### For Canadian users:

Call Microtek Technical Support. You will be given an RMA number and address in Canada to where your scanner can be sent for repair.

### For users in parts other than the U.S. or Canada:

Call your authorized dealer for further instructions.

## Replacing the scanner lamp

If the lamp inside your scanner does not come on or if it begins to flicker or dim after some time, the lamp may need to be replaced.

If this is the case, call the Microtek AutoTech fax-back system at 310-297-5101, then listen to the recorded instructions to request a document on how to replace the scanner lamp.

# Skyline 5000fs Specifications

**Media:**

Transparency color or black-and-white originals.

**Image Sensor:**

Linear array CCD with cold cathode lamp.

**Scanning Modes:**

Single scanning pass; 36-bit color; 12-bit grayscale.

**Scan Frame:**

Standard film holder

- 4" x 5" (without film mount):  
3.68" x 4.44"
- 60 mm x 60 mm film mount #1:  
55 mm x 55 mm
- 60 mm x 70 mm film mount #2:  
55 mm x 68 mm
- 35 mm x 35 mm film mount #3:  
34 mm x 34 mm

Glass film holder: 5" x 5"

**Maximum Document Size:**

5" x 5" (128 mm x 128 mm)

**Optical Resolution:**

2500 X 2500

**Interpolated Resolution:**

5000 dpi horiz. x 5000 dpi vert.

**Scan Frame Selections:**

From 1/8" to 5" in 1/8"- or 1-pixel increments.

**Image Controls Brightness Settings:**

From -100% to +100% in 201 increments.

**Contrast Settings:**

From -42% to +252% in 42 increments.

**Resolution Settings:**

Form 1% to 100% in 1% steps in grayscale and color modes (software definable).

**Scanning Speed:**

25 milliseconds per line

**Interface:**

Microtek MS-PNR or Adaptec AVA-1505AE SCSI interface card

**Voltage:**

AC 100V to 120V (North America)

AC 100V to 240V (Europe)

**Power Consumption:**

AC 100 V to 120 V: 1.3 A Maximum

AC 100 V to 240 V: 0.8 A Maximum  
47 to 63 Hz

**Dimensions (L x W X H):**

20.5" x 14" x 6.6"

(520 mm x 355 mm x 168 mm)

**Weight:**

22 lb. (10 kg.)

**Acoustic Noise:**

55 dB(A) Maximum

**Environment:**

Operating temperature:

10° to 40°C (50°F to 104°F)

Storage temperature:

-10° to 60°C (14° to 140°F)

Relative humidity: 20% to 80%