

# FILM-TECH

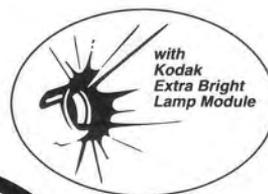
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*Bedienungsanleitung*  
*Operating Manual*  
*Mode d'emploi*  
*Manual de Instrucciones*  
*Istruzioni per l'uso*



# KODAK EKTALITE Slide Projectors



PRESENTATION TECHNOLOGIES

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## Important Safety Instructions

When operating your projector, always follow basic safety precautions:

1. Read and understand all instructions before operating your projector.
2. Before you switch on your projector, ensure that the mains voltage input is correct or is correctly adjusted for Models 2000, 1500, and 1000! Incorrect voltage can lead to malfunction in the projector.
3. Close supervision is necessary when any appliance is used by or near children, or others who may not understand the need for these precautions. Do not leave the projector unattended during use.
4. Be careful not to touch hot parts. For lamp replacement, allow the module to cool before touching the lamp. Do not place the lamp module on heat-sensitive surfaces.
5. Do not operate your projector if the cord is damaged or if the projector has been dropped or damaged (see "How to Obtain Service" on page 81).
6. Position the cord so that it is not tripped over, pulled, or placed in contact with hot surfaces.
7. If an extension cord is necessary, use a cord with a current rating at least equal to that of the projector. Cords rated for less amperage than the projector may overheat.
8. Always unplug the projector from the electrical outlet before cleaning and servicing and when it is not in use.
9. Allow the project to cool before storing.
10. Do not immerse this equipment in water or other liquids.
11. Do not disassemble this projector. Use a qualified service technician when service or repair is required. Incorrect reassembly can cause electric shock the next time the projector is used.
12. Use only safety electrical low-voltage (SELV) devices.
13. The use of an accessory attachment not recommended by the manufacturer may increase risk of damage.
14. Connect this projector to a grounded outlet.
15. Keep the air-flow vents unobstructed.

### Electrical Approvals and CE Mark

This projector complies with International Safety requirements of IEC 335-1-2-56 and bears the following safety marks:

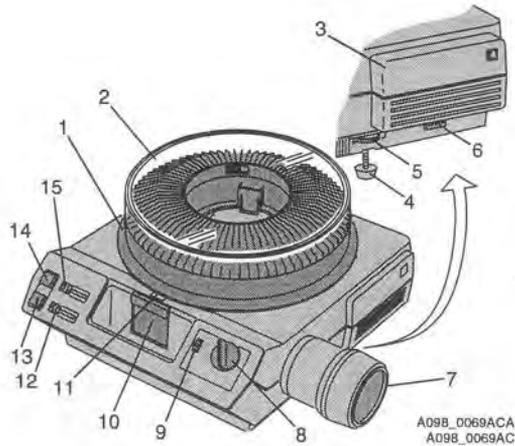
- CE
- TÜV
- SGS Australian Standard
- VDE (Pending)

# 1

## Overview

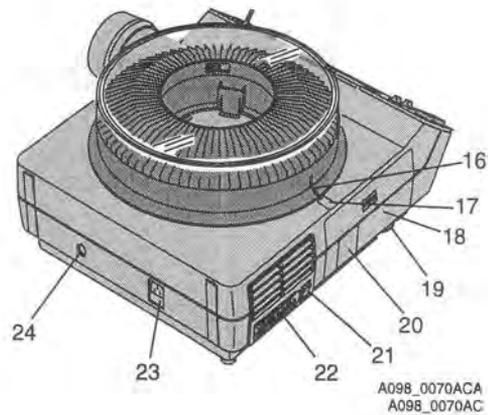
### FRONT RIGHT

1. Tray
2. Lock Ring/Cover
3. Transformer Module
4. Elevating Foot
5. Elevating Adjustment Wheel
6. Quick Release Button (Models 2000, 1500, 1000)
7. Projection Lens
8. Lens Focus and Release Knob
9. Autofocus (Models 2000, 1500)
10. Select Bar
11. Gate Index
12. Timer (Models 2000, 1500)
13. Reverse
14. Forward
15. Power (NO LIGHT/LO/HI—  
Models 2000, 1500, 1000)  
(NO LIGHT/ON—Model 500)



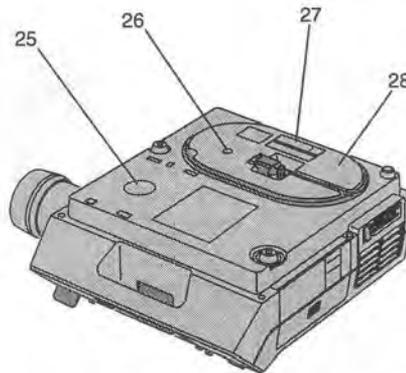
## BACK RIGHT

- 16. Alignment Mark
- 17. Index Mark
- 18. Lamp Module
- 19. Leveling Foot
- 20. Reading Light Cover  
(Models 2000, 1500, 1000)
- 21. Internal/External Switch  
(Model 2000)
- 22. Twelve-Pin (Dissolve)  
Receptacle (Model 2000)
- 23. AC Power Main Receptacle
- 24. Six-Pin Remote Control  
Receptacle (Models 2000, 1500,  
1000)



## BASE

- 25. Voltage Selector  
(Models 2000, 1500, 1000)
- 26. Fixing Holes (6 mm thread)  
(Models 2000, 1500, 1000)
- 27. Serial Number Label
- 28. Power Cord Retainer



# 2

## Operation

### Start-up

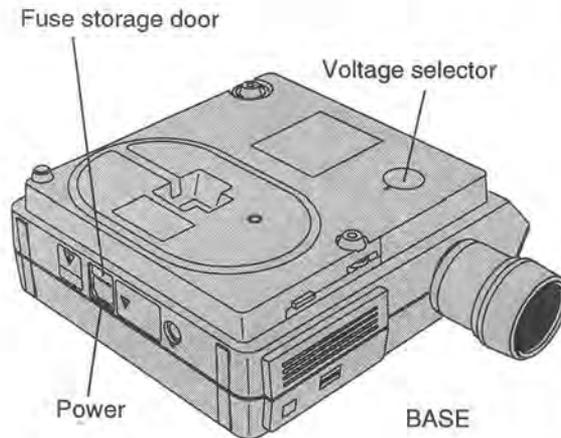
#### Models 2000, 1500, and 1000 only



#### Caution

Before you turn on your new KODAK EKTALITE Slide Projector, it is critical to set the voltage selector to the proper setting.

The voltage selector is located on the base of the projector. You can set the voltage selector for the proper voltage (100, 115, 130, 220, 230, and 240 V, 50/60 Hz) by turning the selector until the arrow of your main voltage lines up with the arrow on the projector housing.



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A098\_0046AC

A 220, 230, or 240 main requires a 2.5 A H/250 V fuse. The 100, 115 or 130 V main requires a 5 A slow blow/250 V fuse. To fit or check the fuse, pull out the fuse holder located beneath the power main.

At manufacture, the voltage selector is set at 240 V with a 2.5A slow blow/250 V fuse fitted in the fuse holder. A spare fuse for replacement is provided in the first compartment of the fuse holder.



### **Important**

Countries with 100, 115, or 130 V main will require removal of the two fuses in the fuse holder. Use the 5 A slow blow/250 V fuse, provided. Set the voltage selector for your main voltage.

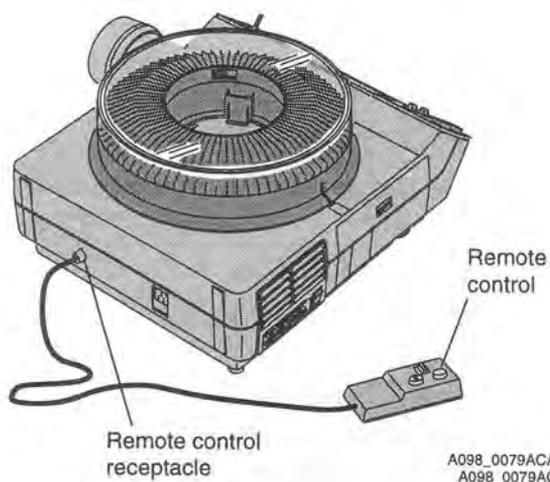
After you have set the correct voltage and fitted the required fuse, you can safely plug the projector into your power main and switch it on.

### **Model 500 only**

Operating Voltage Range: Minimum 207V  
Maximum 254 V  
50/60Hz

## All Models

Plug the 6-pin cable remote connector into the remote-control receptacle, aligning the raised arrow with the notched side of the socket.



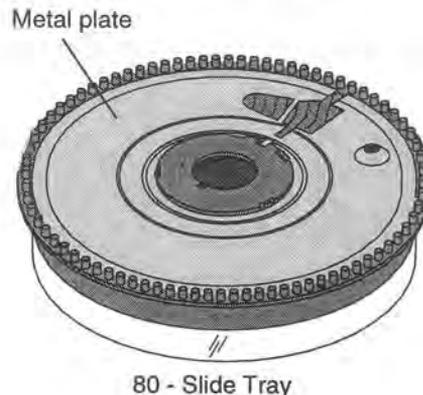
This receptacle also accepts plugs for accessories, such as a KODAK EKTALITE IR Remote Control.

## Loading the Slide Tray

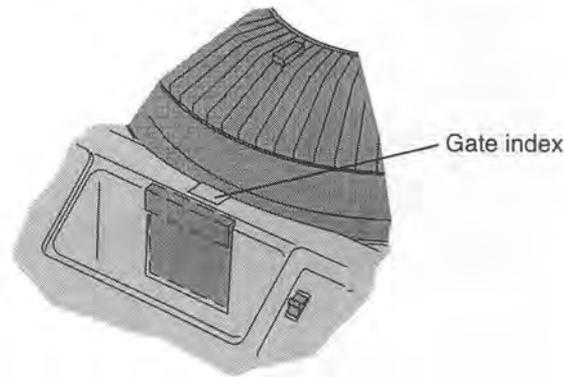
The KODAK EKTAPRO 80 Slide Tray (with transparent cover) and the KODAK EKTAGRAPHIC Universal Slide Tray are designed to hold up to 80 slides. Be sure that your slide mounts are in good condition; frayed or bent mounts or mounts with loose tape may fail to drop into the projector. A variety of slide trays are available with capacity up to 140 slides. See your dealer in Kodak products for a complete list of Kodak trays and accessories.

Place the tray over the center post of the projector. Align the "0" slot with the gate index; the tray will drop into position.

If your slide tray does not drop easily, rotate the metal plate on the bottom of the tray until it locks into position.

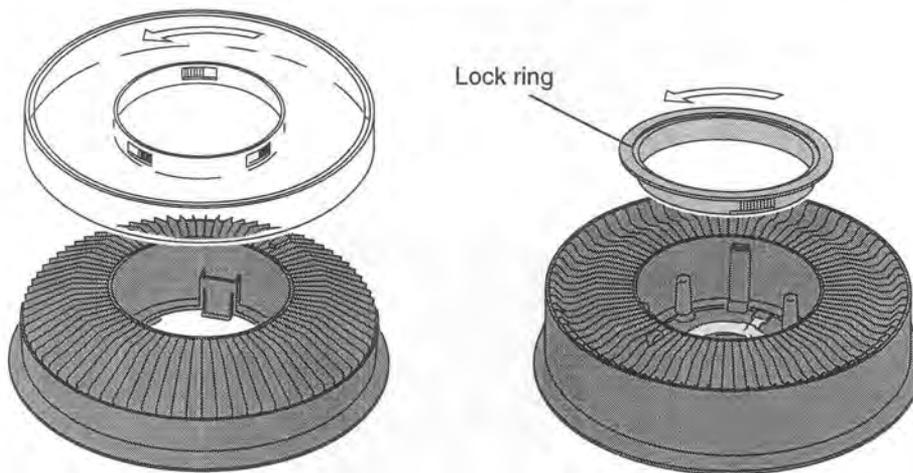


Place the loaded slide tray on the projector. Align the gate index at the zero slide position. The tray will drop.



### Front-Screen Projection

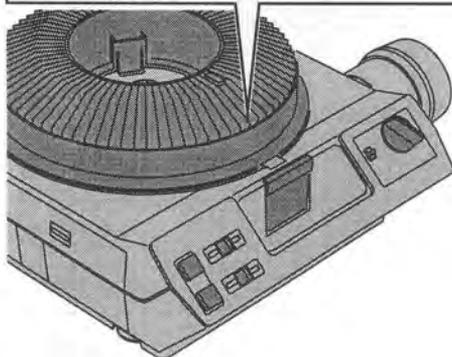
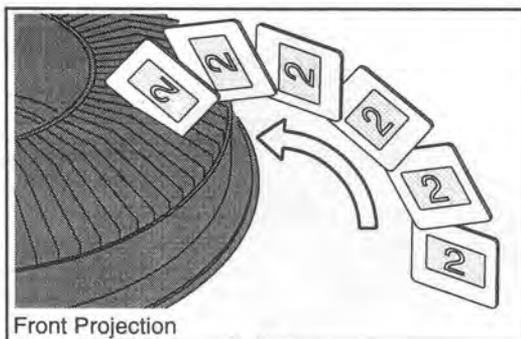
Remove the tray's transparent cover (or the lock ring) by turning it *counterclockwise* and lifting it off.



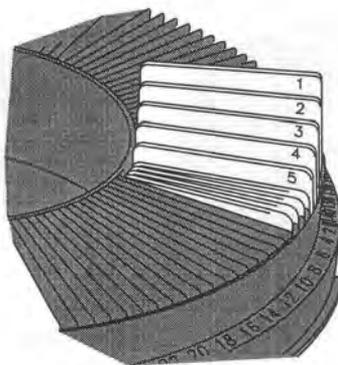
A098\_0073B

Check each slide's orientation (horizontal or vertical) and arrange them in the order you wish to show them. *Then turn the slides upside down.* Number each mount in the upper right-hand corner.

Insert your first slide into the first slot in the tray so that the number is visible on the outer circumference of the tray.

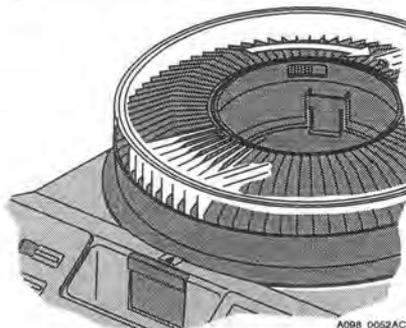


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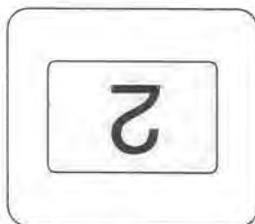
Replace the cover (or lock ring) by turning it *clockwise* until it is secure.



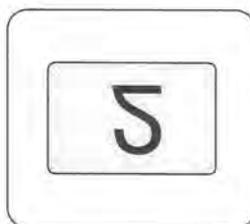
english

### Rear-Screen Projection

You can easily adapt a show from front- to rear-screen projection. Remove each slide from the tray and *turn it horizontally* (keeping the slide upside down). This will give the projected slide a mirror image on the screen. Insert your first slide back into the first slot in the tray. Replace the transparent cover (or lock ring).



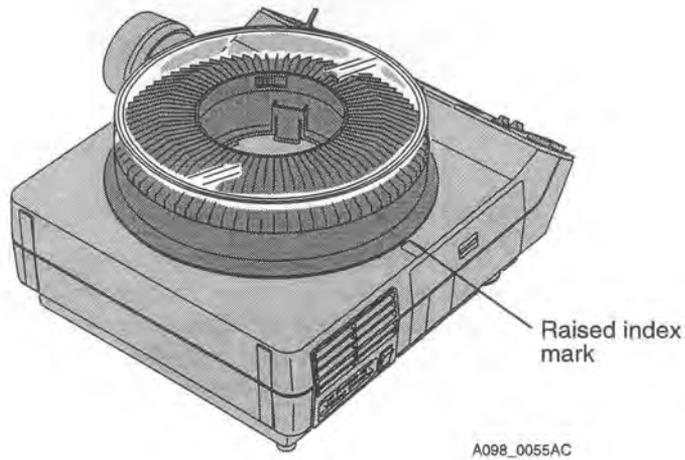
Front  
Projection



Rear  
Projection

## Raised Index Mark

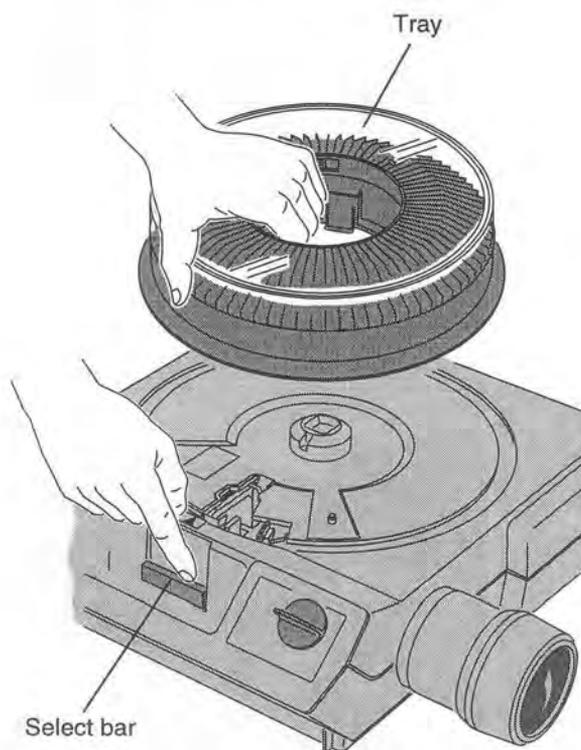
This feature allows you to coordinate tray starting positions for multiple projector presentations. For an 80-slide tray in the zero position, the raised index mark is at slot 20. If you start with slide 6, it will align at slot 26.



## Removing the Tray

To remove the slide tray:

- if the tray is at the zero position, simply lift it off
- if the tray is not at zero—
  - press the select bar all the way down
  - return the tray to zero
  - lift off the tray.

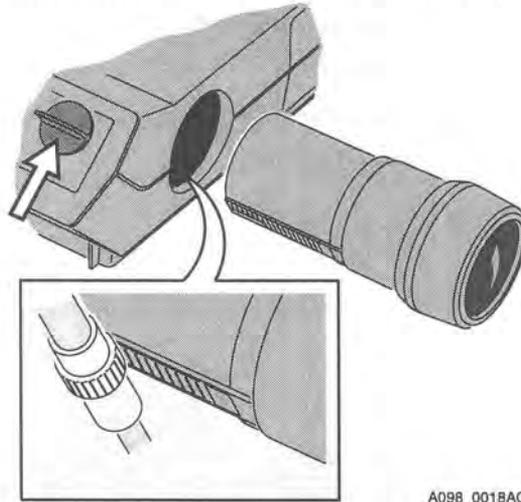


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## Operating the Projector

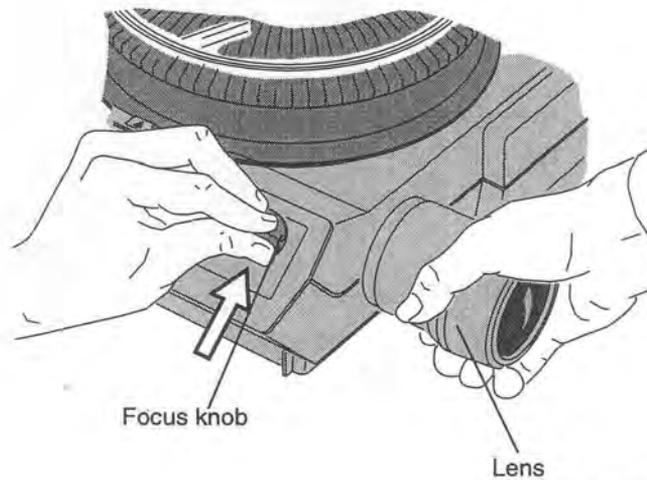
### Lens

To insert a lens, push the focus knob up and position the lens gear teeth on the lens barrel with the notch on the projector.



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To remove the lens, push the horizontal knob toward the top of the projector as you withdraw the lens.



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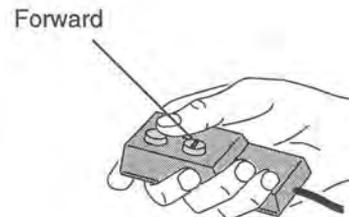
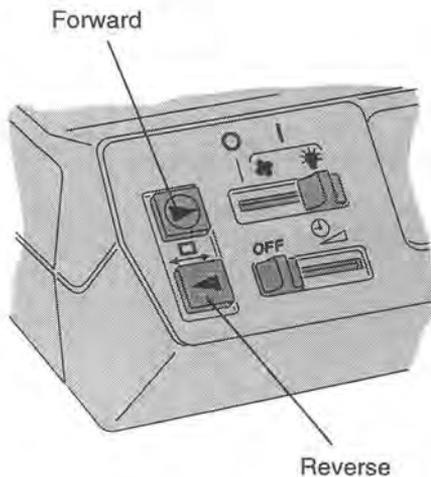
## Lamp

Slide the power switch to LO for longer lamp life (Models 2000, 1500, 1000) or to HI for maximum brightness. Model 500 has only one setting (maximum brightness).

You may want to keep a spare KODAK Extra Bright Lamp Module (CAT 816 7181) on hand in case the lamp burns out during a presentation. Replacing the entire module makes the change quick and easy. (See Maintenance on page 69 for instructions on changing the lamp module.) See your dealer in Kodak products to order this module.

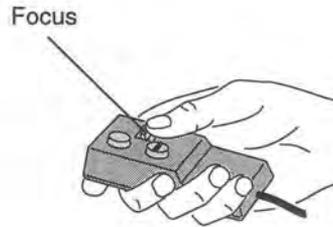
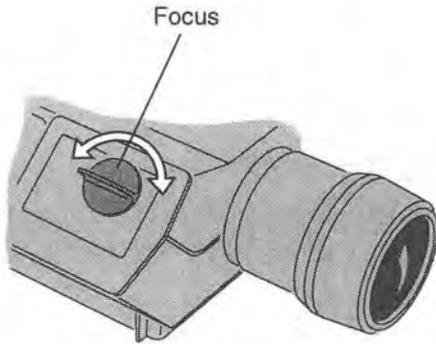
## Slide Forward and Reverse

Press the forward button on the projector or the remote control to project the first slide. To change slides, press the forward or reverse buttons.



## Focus

Focus your first slide using the focus knob on the projector or the focus button on the remote control. (Models 2000 and 1500 have the Autofocus On/Off Switch.)



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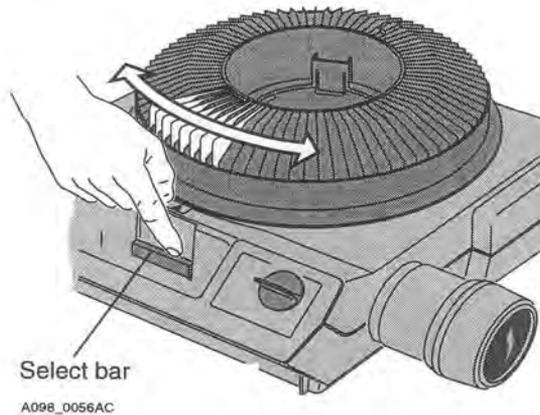
## Autofocus (Models 2000 and 1500 only)

With autofocus on, the projector automatically focuses each slide, after you focus your first slide manually.

## Random Projection

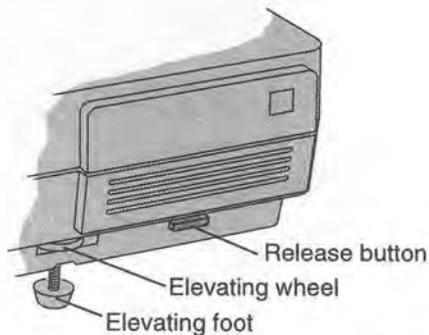
For random projection of any slide in the tray:

- press and hold down the select bar
- rotate the tray to the desired slide, and
- release the select bar



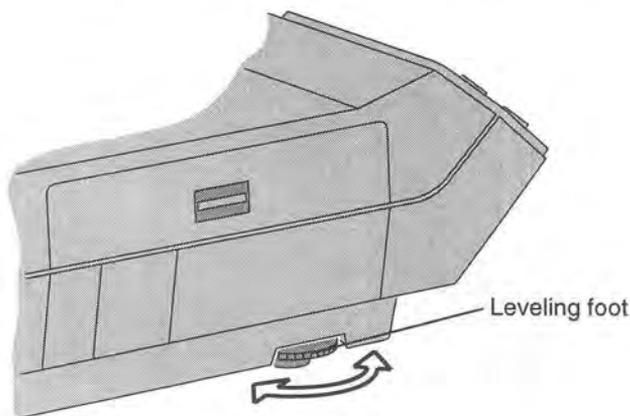
## Elevating and Leveling

Use the elevating foot for projected-image height adjustment. To release the foot on Models 2000, 1500, and 1000, press the quick release button, while lifting the front of the projector to the desired height. On the Model 500, use the elevating wheel. The elevating wheel can also be used to make fine-height adjustments on all projector models.



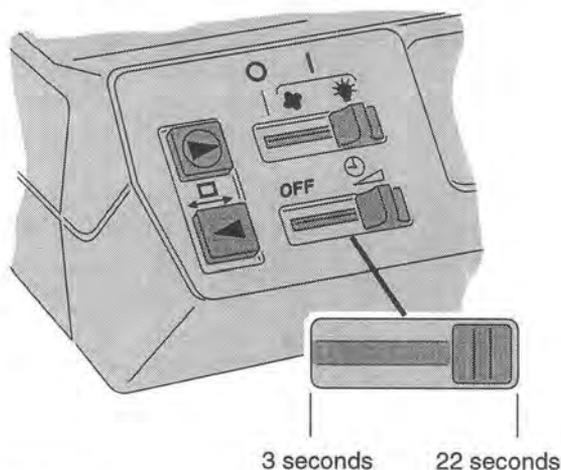
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If the image is not level, make an adjustment by turning the leveling foot at the rear of the projector.



### Timer (Models 2000 and 1500 only)

To time your slides, use the timer switch for slide changes from 3 to 22 seconds.

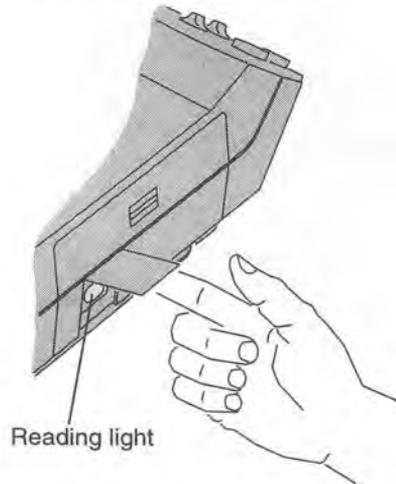


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To interrupt the timer, press either the forward or reverse button. For manual operation, slide the timer switch to OFF.

## Reading Light (Models 2000, 1500, and 1000)

To illuminate a small area for reading, lift the reading light cover while the projector lamp is on.

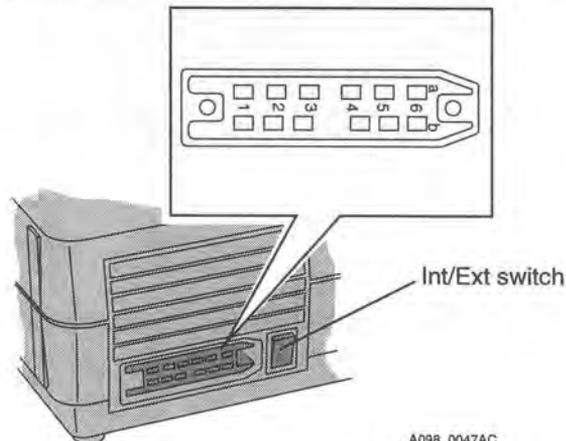


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## Dissolve Control Receptacle (Model 2000 only)

The special-application receptacle allows additional external control and programming capability for accessories such as a dissolve control. It provides 25.5 V low-voltage power isolated from the main power line.

Turn the Int/Ext Switch to Ext when using a dissolve control.



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Use this receptacle for:

- a low-voltage power supply
- automatic “return-to-zero” devices
- a dark shutter switch

The receptacle accepts 12-pin plug, DIN 41622. (See Chapter 7 for contact identification descriptions.)

### **Using a Dissolve Control**

Use a dissolve control to softly fade into slide projection with one or more projectors. This feature fades down the light beam in one projector while changing the image and fading up the light beam in the other projector. This eliminates a dark-screen interval.

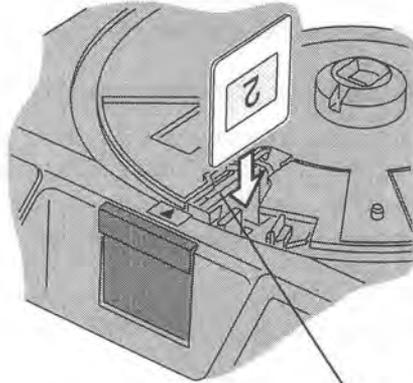
When using a two-projector dissolve control, you need to divide your slides into two trays (odd- and even-numbered slides).

The dissolve control has two connectors that plug into the remote-control receptacles in the rear of two projectors. Refer to your dissolve-control operating manual for additional instructions and features.

See your dealer in Kodak products or a Kodak representative in your country for more information on Kodak dissolve controls.

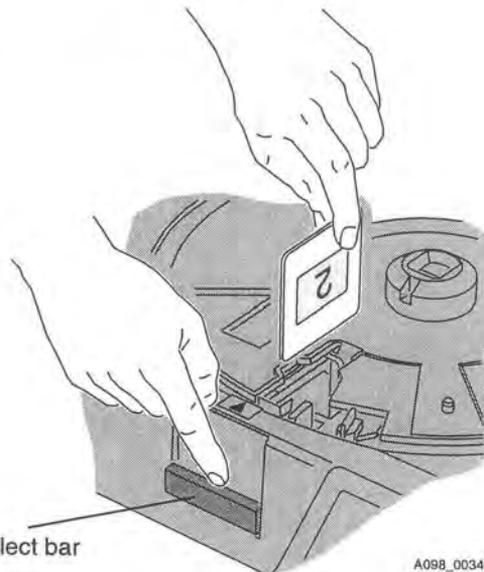
## Single Slides

To project single slides without a tray, slide the power switch to the LO setting on Models 2000, 1500, and 1000. Remove the tray and insert a slide upside down into the projector gate. Push the slide all the way down.



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Gate



Select bar

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After viewing the slide press forward, reverse, or the select bar to eject the slide.

## Selecting Slide Projection Lenses

When buying a lens, consider features such as focal length (measured in millimetres), aperture (designated as an *f*/stop), and the lens design (curved or flat).

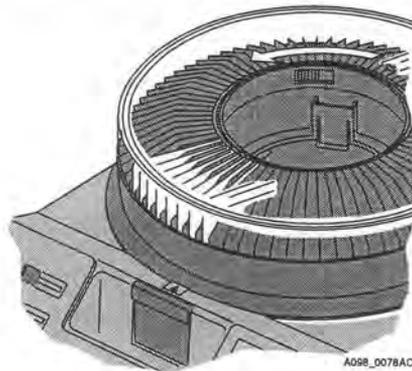
When selecting a lens, remember that the shorter the focal length, the brighter the projected image. Also, curved-field lenses, in combination with cardboard open-face mounts from an automated mounting process, provide superior projection quality. A flat-field lens is the best choice for glass-mounted slides.

## Lens Focal Length/Projector Distance

See the charts on page 215 to determine the lens focal length and projection distance.

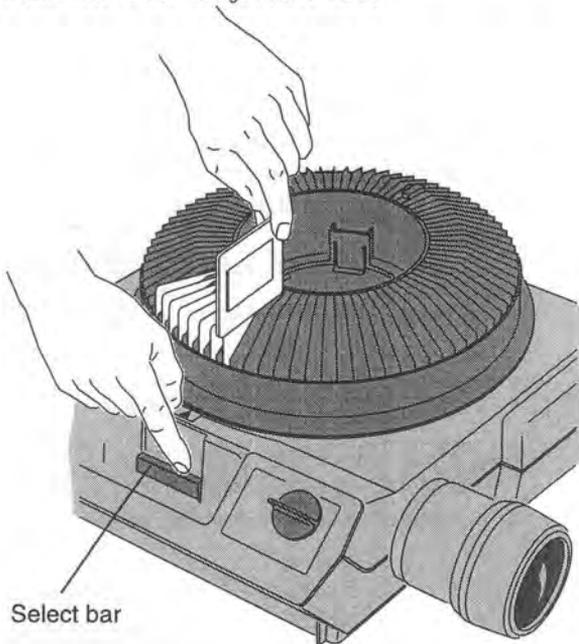
## Editing Your Slides

To add or remove the slides in the tray, you must first remove the transparent cover (or lock ring). Turn the cover (or lock ring) counterclockwise and lift off.



## Removing a Slide

Rotate the tray to the slide you wish to remove. Firmly press and hold down the select bar to eject the slide.



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## Adding a Slide

When the cover (or lock ring) is off, you can add a slide to any empty slot. (See page 51.)

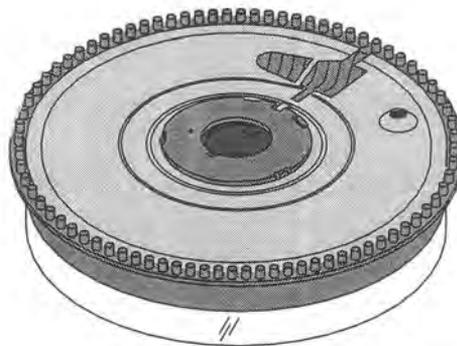
Replace and secure the lock ring.

## Clearing a Gate Jam

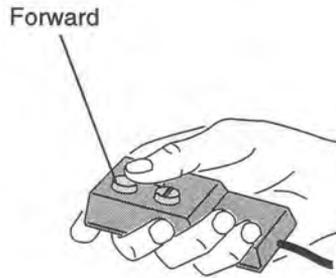
## Removing a Defective Slide or Foreign Object

To remove a defective slide stuck in the projector gate, you need to remove the tray. **DO NOT** remove the cover or lock ring.

- Slide the tray release latch in the direction of the arrow
- With your other hand, lift off the tray.
- Hold it upside down, base side up.
- Rotate the base plate until it locks into position.



Remove the slide or object from the projector gate by pressing the forward button or removing the slide manually.



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Remount damaged slides to protect your projector and slides from subsequent damage.

## Shutdown

To shut down,

- remove and store the tray
- slide the power switch to OFF

Your projector will remain warm for several minutes.

# 3

## Maintenance

### Care

#### Projector Care

Your projector should be serviced periodically to prolong life. Dirt and dust can have adverse effects on the lubricants used in the projector and may cause malfunctions. We recommend routine maintenance every 1500 hours of operation or three years.

To ensure a long life and trouble-free operation for your projector:

- Allow the air to flow freely around the projector
- Do not recirculate warm air.
- Keep the projector dust free.
- If your projector is chilled, bring it to room temperature before operating.

#### Lamp Tips

Follow these tips to increase lamp life:

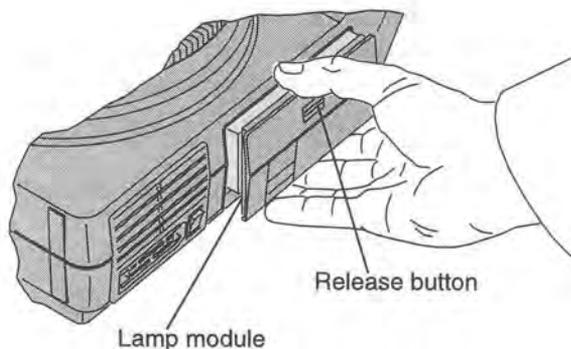
- Unplug the projector and allow it to cool before changing the lamp.
- The NO LIGHT position will cool a blown lamp much faster.
- Allow for unrestricted flow of air to the exhaust vent.
- Using voltages above the nominal switch setting greatly reduces lamp life.
- Gently wipe off any fingerprints with a soft cloth moistened with rubbing alcohol.
- Avoid jarring the projector when the lamp is warm and in use.

## Changing the Projection Lamp

Slide the power switch to OFF and unplug the projector.

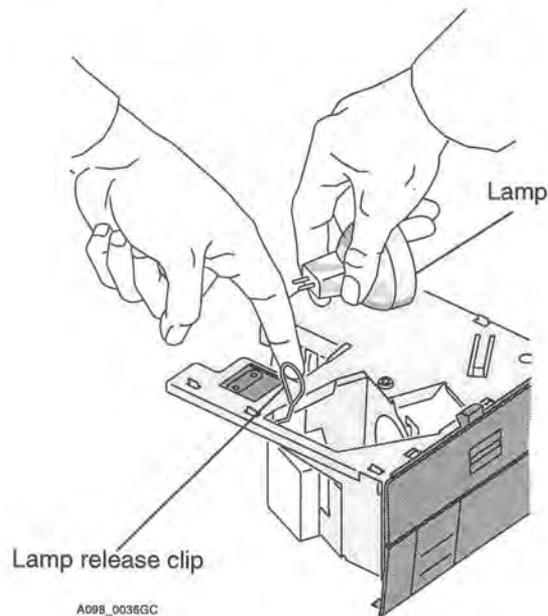
Allow the projector and lamp to cool for about 10 minutes. Push the lamp module release button and remove the lamp module. You can replace it with a new lamp module or replace only the lamp.

**Note:** There is an additional safety latch, which reduces the chance of an accident with a loosely inserted lamp module, that may cause some resistance. To release the latch, you may need to apply extra effort when you pull out the module.



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To replace only the lamp, lift up the lamp release clip. Carefully remove the worn lamp from the socket and place it on a heat-resistant surface.



Insert the new lamp into the socket. Push down to tightly seat the replacement lamp. Do not use the clip to seat the lamp.

Push the lamp module all the way back into the projector until it latches.

Three lamps can be used for replacement:

EXR 82 V/35H 300 W (maximum brightness, 35 hours at HI)

FHS 82 V/70H 300 W (medium brightness, 70 hours at HI)

EXY 82 V/200H 250 W (low brightness, 200 hours at HI)

## Cleaning the Condenser and Mirror

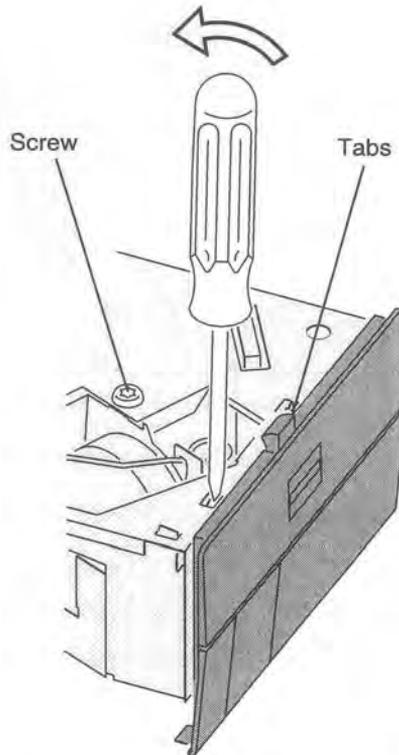
### Disassembling the Lamp Module

To clean the condenser or mirror, you must disassemble the lamp module.

Slide the power switch to OFF and unplug the projector. Allow the projector to cool about 10 minutes. Push the lamp-module release button and remove the lamp module.

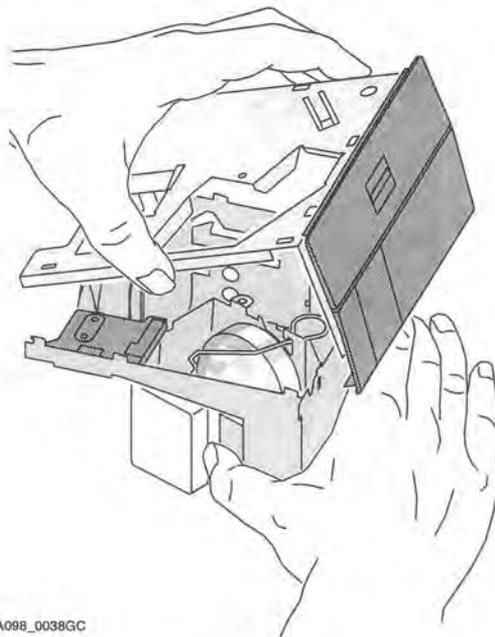
Use a torx-head screwdriver to remove the screw.

Using a flat-blade screwdriver, apply ample pressure to release each of the metal tabs.



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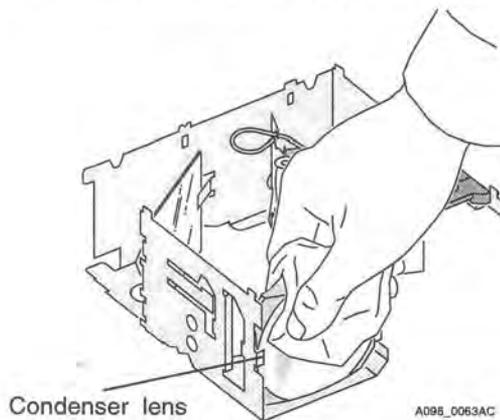
Lift off the top of the lamp module.



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## Condenser Lens

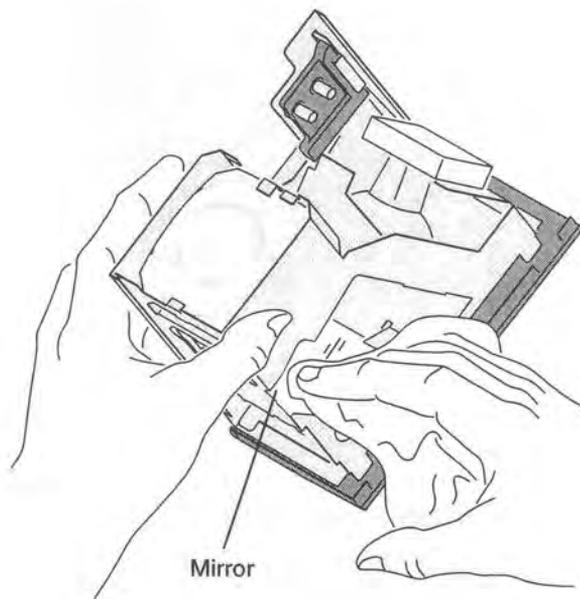
You can clean both sides of the condenser lens in place using a soft, lint-free cloth. Wear gloves to prevent fingerprints.



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## Mirror

To clean the mirror, invert the lamp module to reach the mirror. Gently clean the mirror with a soft, lint-free cloth moistened with lens cleaner.

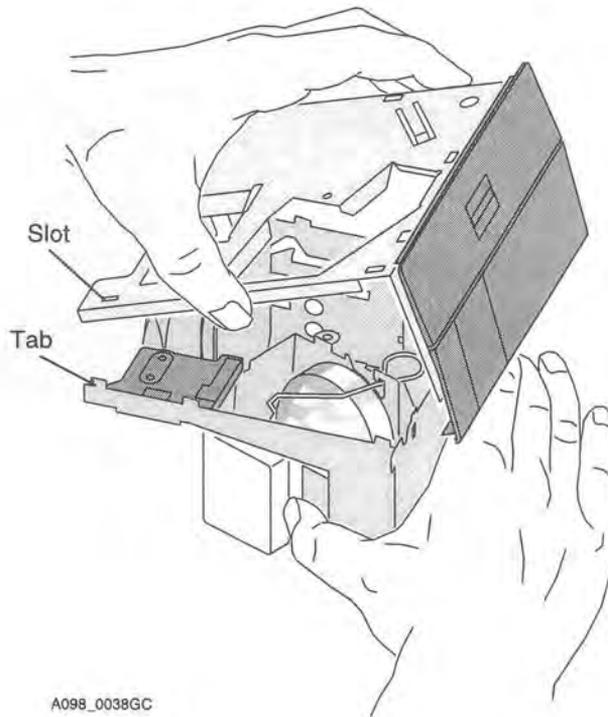


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## Reassembling the Lamp Module

To reassemble the lamp module, you will need to align and insert each tab into its appropriate slot.

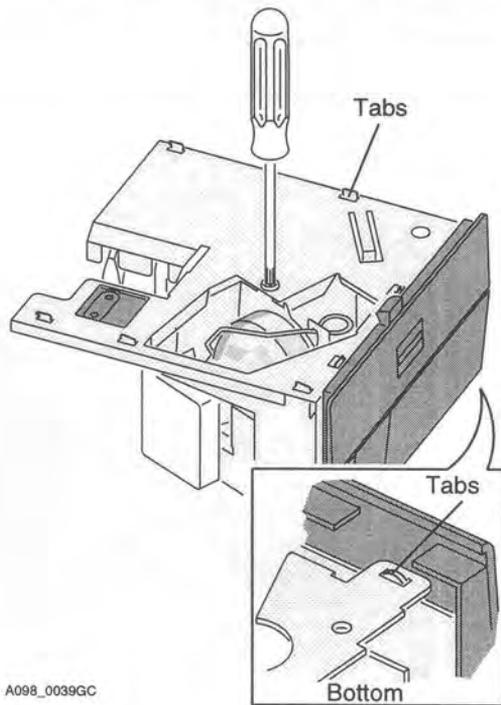
Start with the tabs in the rear of the lamp module.



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Insert the remainder of the tabs into slots until all seven tabs on the top and two on the bottom are secured.

Insert the screw and tighten. Then insert and seat the lamp.



A098\_0039GC

When your maintenance is complete, push the lamp module back into the projector.

## Thermal Fuse

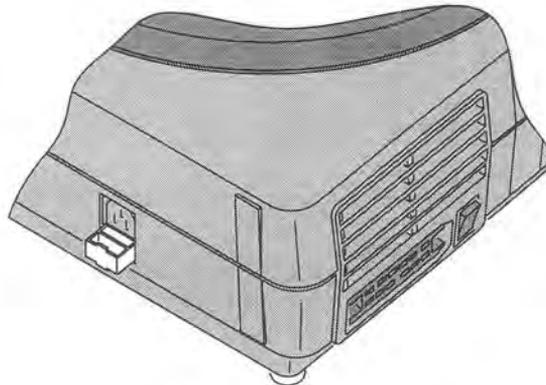
Your projector has three thermal fuses that cut off power if overheating occurs due to ventilation blockage or exhaust fan or motor failure.



### Warning

Always switch off the projector and unplug the main lead before replacing a fuse! Avoid the risk of fire, replace only with a fuse of same type and rating!

If you replace the fuse yourself, you do not need to open the casing. Simply pull out the fuse holder, remove the blown fuse and fit the required replacement.



A098\_0083AC

This projector accepts the following fuses:

- 1 x T2.5 A slow blow/250 V for 220, 230, and 240 V
- 1 x 5 A slow blow/250 V for 100, 115, and 130 V

# 4

## Troubleshooting

### Self-check

Consult this guide before calling for service.

PROBLEM	CAUSE	CORRECTION
Projector does not operate	<ul style="list-style-type: none"><li>• No power to projector</li></ul>	<ul style="list-style-type: none"><li>• Fuse is blown.</li><li>• Plug power cord into suitable electrical outlet. Set power switch to LO or HI brightness.</li></ul>
No illumination on screen with slide in projector gate	<ul style="list-style-type: none"><li>• Power switch on OFF or NO LIGHT</li><li>• Lamp burned out</li><li>• Lamp not seated in socket</li></ul>	<ul style="list-style-type: none"><li>• Set switch to LO or HI brightness.</li><li>• Install new lamp or lamp module.</li><li>• Check lamp.</li></ul>
Slide not in proper focus on screen	<ul style="list-style-type: none"><li>• Slide itself not sharp</li><li>• First slide in tray not properly focused</li><li>• Slide in different type of mount from others</li><li>• Projection lens installed improperly</li></ul>	<ul style="list-style-type: none"><li>• Examine slide for proper focus.</li><li>• Focus center of first slide manually.</li><li>• Focus manually.</li><li>• Read and follow the instructions for installing the lens.</li></ul>
Uneven edge-to-edge focus	<ul style="list-style-type: none"><li>• Slide itself is not sharp</li><li>• Curved field lens used with glass, plastic, or non-embossed mounts</li><li>• Curved field lens used for rear projection</li></ul>	<ul style="list-style-type: none"><li>• Examine slide.</li><li>• Try a flat-field lens.</li><li>• Use a flat-field lens.</li></ul>
Autofocus motor runs continuously	<ul style="list-style-type: none"><li>• Glass slides in tray</li></ul>	<ul style="list-style-type: none"><li>• Turn off autofocus or use slides with mounts other than glass.</li></ul>

PROBLEM	CAUSE	CORRECTION
Slide fails to drop into projection position	<ul style="list-style-type: none"> <li>• Tray base plate not properly indexed</li> <li>• Tray not properly positioned on projector</li> <li>• Slide mount warped or frayed at corners</li> <li>• Projector not level or tilted too high</li> </ul>	<ul style="list-style-type: none"> <li>• Rotate the tray base plate until it locks into position.</li> <li>• Reposition tray on projector.</li> <li>• Straighten mount or remount slide.</li> <li>• Set projector on a stand equal with center of screen.</li> </ul>
Uneven illumination on screen	<ul style="list-style-type: none"> <li>• Projection lamp not fully seated</li> <li>• Condenser lens not installed or not positioned properly in mount</li> <li>• Slide mount not seated properly in projector gate</li> </ul>	<ul style="list-style-type: none"> <li>• Check lamp.</li> <li>• Check condenser lens.</li> <li>• Check slide position and slide-mount condition.</li> </ul>
Projector won't cycle to next slide	<ul style="list-style-type: none"> <li>• Tray not properly positioned</li> <li>• Slide or foreign object stuck in gate</li> </ul>	<ul style="list-style-type: none"> <li>• Reposition tray.</li> <li>• See "Clearing a Gate Jam" on page 67.</li> </ul>
Program does not start with the correct slide	<ul style="list-style-type: none"> <li>• Tray number is not aligned with the raised index mark</li> </ul>	<ul style="list-style-type: none"> <li>• Reposition tray (see page 54).</li> </ul>

# 5

## Warranty

Kodak warrants this KODAK EKTALITE Slide Projector to function properly for one year from the date of purchase.

If this KODAK EKTALITE Slide Projector does not function properly within the warranty period, upon submission of dated proof of purchase, Kodak will repair it without charge, except for worn-out projector lamps. If Kodak is unable to repair the projector, the option of replacement or refund of the purchase price will be available.

See an audiovisual products dealer in your country for the KODAK EKTALITE Slide Projector's warranty coverage.

## Limitations

This warranty does not cover circumstances beyond Kodak's control, projector lamps, or problems caused by failure to follow the care and operating instructions in the manual.

Any modification to the original design of this projector nullifies this warranty.

**Kodak makes no other express warranty for this product.**

Repair or replacement is Kodak's only obligation. **Kodak will not be responsible for any consequential or incidental damages resulting from the sale or use of this projector, regardless of the cause of such damages.**

# 6

## How to Obtain Service

### Assistance

To obtain service or for assistance in using your KODAK EKTALITE Slide Projector, contact the Kodak Information Center in the United States at 1-800-242-2424 (Monday through Friday, 9 a.m. to 7 p.m., Eastern time). In Canada, call Kodak at 1-800-465-6325 (Monday through Friday 8:30 a.m. to 5 p.m., Eastern time). Or call Kodak in your country.

### Shipping Instructions

To help us get your KODAK EKTALITE Slide Projector back to you promptly, please enclose a note giving details of the problem, dated proof of purchase, and your complete name and shipping address. Pack the unit in a sturdy carton with ample packing material to protect the unit during shipping and handling.

# 7

## Special Application Receptacle

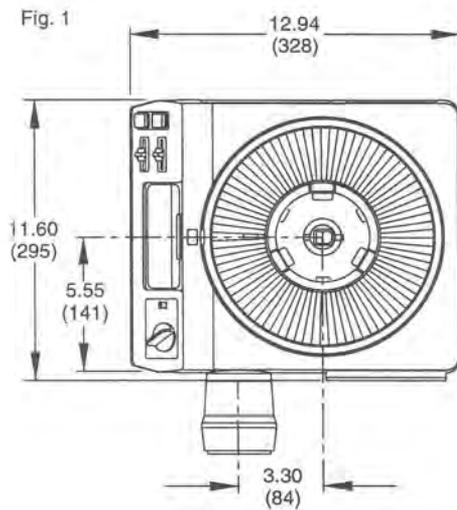
### Twelve-Pin Receptacle Specifications (Model 2000)

Contacts	Function	Description
b5 & b6	Zero-Position Switch	Connects to an internal single-pole single-throw normally open switch. Contacts are closed when the slide tray is at any position other than zero. These leads connect only to the switch terminals. Do not exceed a switching load of a A at 30 V ac.
a6 & b4	Shutter Switch	Connects to an internal single-pole single-throw normally closed switch. Contacts are open when a slide is in the projector gate and the shutter is open. These leads connect only to the switch terminals. Do not exceed a switching load of 1A at 30 V ac.
a1 & b4	Supply Voltage for External Units	Provision of max. 25.5 V/max. 0.5 A direct voltage on the 12-pin socket is given as soon as the projector is switched on.
b3 & b4	Forward Tray Cycle	Connects to the forward tray-advance circuitry in the projector. These contacts are connected internally to the remote-control socket and an electrical connection made at either socket will result in a forward cycle.
b2 & b4	Reverse Tray Cycle	Connects to the reverse tray-advance circuitry in the projector. These contacts are connected internally to the remote-control socket and an electrical connection made at either socket will result in a reverse cycle.
a3 & a4	External Lamp Control "Dissolve"	Connects to a1 to turn lamp on; a4 is live only when the EXT/INT lamp switch is in the EXT/ position.

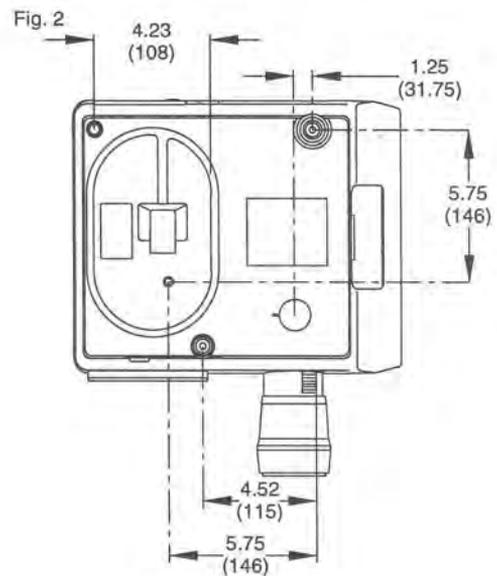
# 8

## Projector Specifications

Allow about 51 mm (2 inches) behind the projector for plug connections. About 76 mm (3 inches) clearance is required above the slide tray for removal.



TOP VIEW

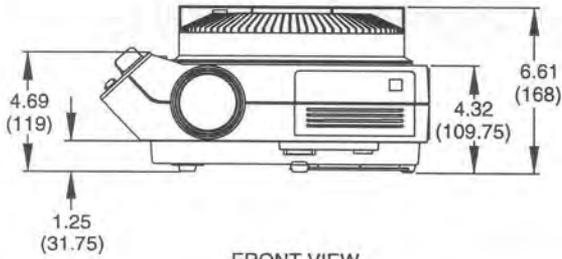


BOTTOM VIEW

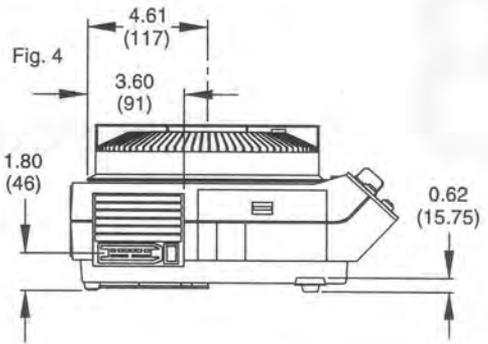
A09B\_0076HC

# Projector Specifications

Fig. 3

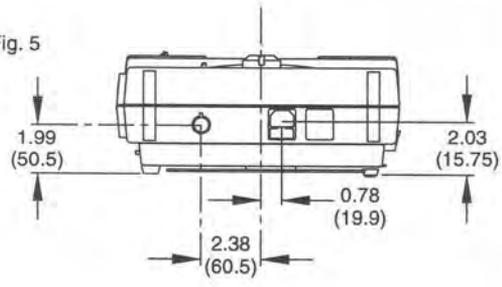


FRONT VIEW



REAR VIEW

Fig. 5



A098\_0077HC

# 9

## Lamp and Lens Selection

Lamp	Mask (mm)	Select Lenses			Select Zoom 75-120 mm		Select Zoom 87-200 mm	
		36 mm f/2	93 mm f/2.5	150 mm f/2.8	75mm f/2.8	120 mm f/2.8	87 mm f/3.5	200 mm f/3.5
EXR	22.9 x 34.2 (135)	1000	1150	1075	925	825	805	625
FHS		800	920	860	740	660	644	500

Lamp	Mask (mm)	Standard Lenses			Standard Zoom 75-120 mm		Standard Zoom 100-200 mm		Standard Zoom 100-150 mm	
		85 mm f/2.8	100 mm f/2.8	180 mm f/3.5	75 mm f/3.5	120 mm f/3.5	100 mm f/3.5/ f/3.5	200 mm f/3.5	100 mm f/3.5	150 mm f/3.5
EXR	22.9 x 34.2 (135)	975	1025	850	750	610	750	625	750	625
FHS		780	820	680	600	488	600	500	600	500

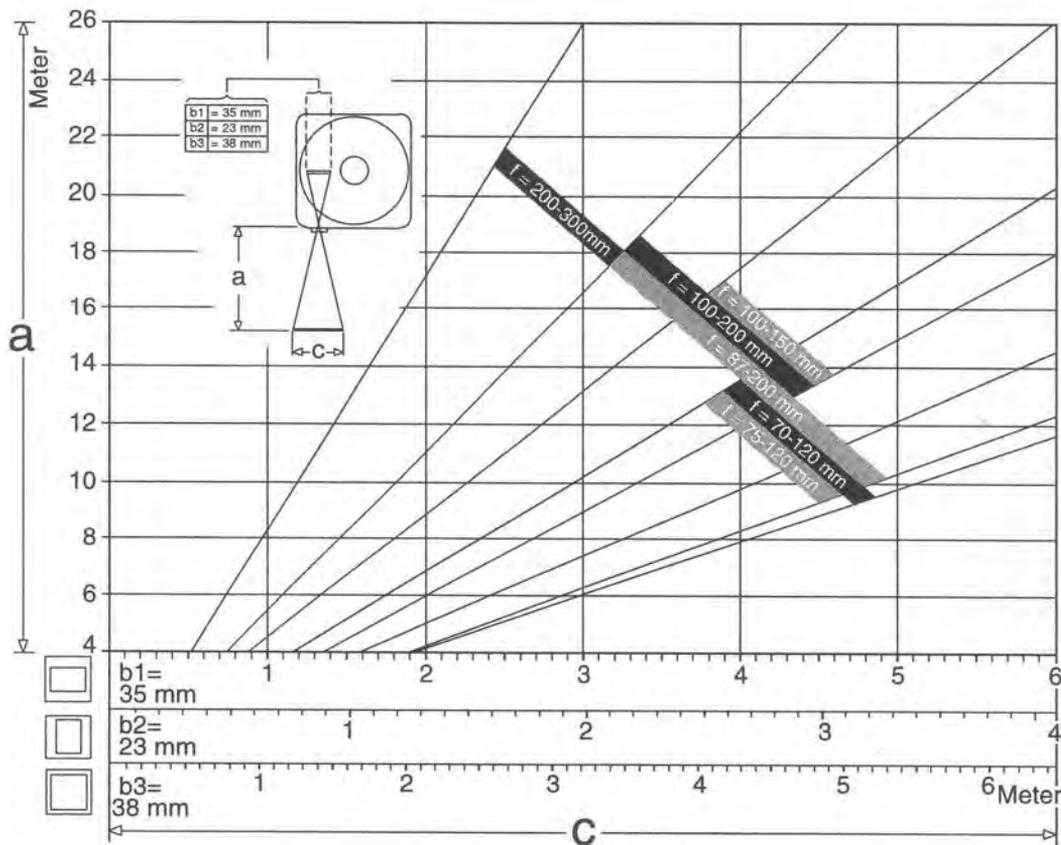
**Note:** Lumen output may vary slightly from lamp to lamp and projector to projector.

KODAK EKTAPRO FF Projection Lenses	Zoom 75-120 mm	Zoom 100-150 mm	Zoom 100-200 mm	85 mm	100 mm	180 mm
Coating	C	C	C	C	C	C
Length	117 mm	153 mm	185 mm	125 mm	125 mm	190 mm
Front Tube-Ø	69 mm	65 mm	73 mm	73 mm	73 mm	63 mm
Weight	210 g	310 g	450 g	108 g	108 g	205 g
Aperture	f/3.5	f/3.5	f/3.5	f/2.8	f/2.8	f/3.5
Elements	7	7	9	3	3	3
Field Angle	32°-20°	24°-16°	24°-12°	27°	23°	13°

<b>KODAK EKTAPRO SELECT FF Projection Lenses</b>	<b>Zoom 75-120 mm</b>	<b>Zoom 81-200 mm</b>	<b>Zoom 200-300 mm</b>	<b>93 mm</b>
Coating	MC	MC	MC	MC
Length	150 mm	177 mm	226 mm	125 mm
Front Tube-Ø	61 mm	70 mm	87.5 mm	78 mm
Weight	580 g	700 g	910 g	320 g
Aperture	f/2.8	f/3.5	f/3.0	f/2.5
Elements	8	9	9	5
Field Angle	32°-20°	28°-12°	12°-8°	25°

# 10

## Projected Picture Sizes



# Projected Picture Sizes

