![Kodak logo]

HOW TO USE THE

Kodak
Carousel® projector

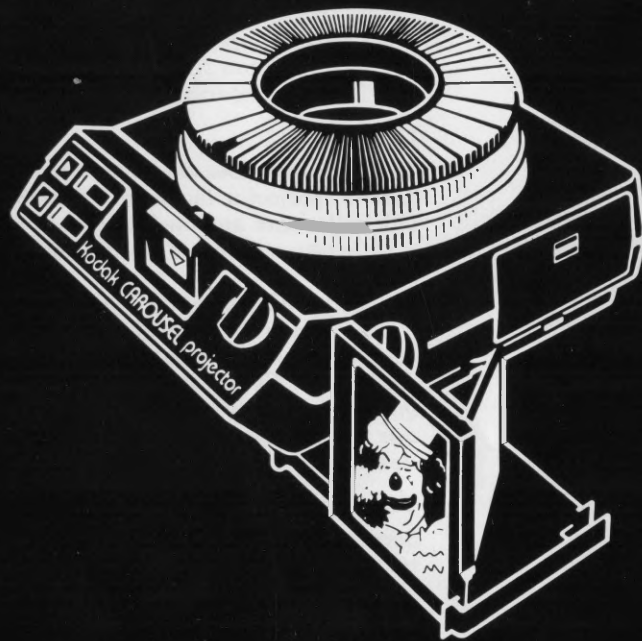| 5600	
5200	5200-K
4600	4600-K
4400	
4200	4200-K

IMPORTANT SAFETY INSTRUCTIONS

en using your photographic equipment, basic
ety precautions should always be followed,
luding the following:

Read and understand all instructions before
using.

Close supervision is necessary when any ap-
pliance is used by or near children, or others
who may not understand the need for the fol-
lowing precautions. Do not leave the projector
unattended while in use.

Care must be taken as burns can occur from
touching hot parts. Allow the projector to cool
before replacing the projection lamp, or clean-
ing the lens.

Do not operate projector with a damaged cord
or if the projector has been dropped or dam-
aged—until it has been examined by a quali-
fied service technician.

Position the cord so that it will not be tripped
over, pulled, or contact hot surfaces.

If an extension cord is necessary, a cord with a
current rating at least equal to that of the
projector should be used. Cords rated for less
amperage than the projector may overheat.

Always unplug the projector from electrical out-
let before cleaning and servicing and when not
in use. Never yank cord to pull plug from outlet.
Grasp plug and pull to disconnect.

Let the projector cool completely before putting
away. Loop cord loosely around projector
when storing or around the power cord retain-
er if one is provided.

To reduce the risk of electric shock, do not
immerse this projector in water or other liq-
uids.

To reduce the risk of electric shock, do not
disassemble this projector, but take it to a
qualified service technician when service or
repair work is required. Incorrect reassembly
can cause electric shock when the projector is
used subsequently.

The use of an accessory attachment not recom-
mended by the manufacturer may cause a risk
of fire, electric shock, or injury to persons.

Connect this projector to a grounded outlet.

Disconnect this unit from its source of supply
before replacing the projection lamp.

SAVE THESE INSTRUCTIONS

FULL ONE-YEAR WARRANTY

Warranty Time Period

This *KODAK CAROUSEL* Projector is warranted by Kodak
to function properly for one year from the date of purchase.
This warranty covers the purchaser of this projector and any-
one else who owns it during the warranty period.

Warranty Coverage

If this projector does not function properly within the warran-
ty 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.

How To Obtain Service

For assistance in using this projector, contact a dealer in
Kodak products. For service on this projector, return it
through a dealer in Kodak products, send direct to Kodak at
the address listed below or call (800) 237-5398 for the location of
an authorized warranty service facility nearest you. Enclosing
a note with the projector giving details of the problem and
your complete name and address will help Kodak return the
projector promptly.

> Eastman Kodak Company
> Central Equipment Service Center
> 800 Lee Road
> Rochester, New York 14650

For service assistance in Canada, send to:

> Kodak Equipment Service Center
> 3500 Eglinton Avenue West
> Toronto, Ontario M6M 1V3

Limitations

This warranty does not cover circumstances beyond Kodak's
control, projector lamps, nor problems caused by failure to
follow the care and operating instructions in the manual.

*Warranty service will not be provided without dated proof of
purchase.*

Kodak makes no other express warranty for this product.

Repair and the option of replacement or refund, in the event
that Kodak is unable to repair the projector, are Kodak's only
obligations. ***Kodak will not be responsible for any conse-
quential or incidental damages resulting from the sale or
use of this projector, regardless of the cause of such
damages.***

Your Rights Under State Law

Some states do not allow the exclusion or limitation of inciden-
tal or consequential damages, so the above limitation or exclu-
sion may not apply to you. This warranty gives you specific
legal rights, and you may also have other rights which vary
from state to state.

Congratulations on the purchase of your new KODAK CAROUSEL Projector. We know that you'll enjoy using it for many years. If you ever feel that you need advice on using your projector, write to our staff of photographic experts at Eastman Kodak Company, Photo Information, Department 841, Rochester, New York 14650. Also, see the service information on page 11, and the warranty and Service Centers on page 2.

Before you start to use your new projector, learn the **Important Safety Instructions** *on page 2. Keep them in mind whenever you handle or operate the projector.*

CONTENTS

Serial Number and Power Requirements—The serial number and UL/CSA power requirements of your projector are located on the cord retainer on the underside of the projector.

Equipment subject to minor appearance changes.

KODAK CAROUSEL® 4200-K, 4600-K, and 5200-K Projectors

Operating instructions for these projectors are the same as those for the KODAK CAROUSEL 4200, 4600, and 5200 Projectors, respectively, with the following exceptions:

Models 4200-K, 4600-K, and 5200-K— Adjusting the frequency selector, located on the left-hand side of the projector control panel, allows you to operate the projector on 110 to 130 volts, 50 to 60 Hz. The information under "Power and Remote-Control Cords" on page 6 should include the following instructions:

Your projector operates on 110 to 130 volts, and either 50 to 60 Hz (cycles per second) alternating current. You must adjust the FREQUENCY-SELECTOR SWITCH for either 50 or 60 Hz, depending on the frequency of your electrical current. Insert a pointed tool, such as a pencil, into the GROOVE to slide the switch back and forth. **For 50 Hz operation,** slide the switch to the left; **for 60 Hz operation,** slide the switch to the right.

Referring to page 6, unwind the power cord from the cord retainer on the underside of the projector. Plug the power cord into a 110- to 130-volt power outlet only.* If you plug your projector into a different electrical source, you can damage the projector.

GROOVE

FREQUENCY
SELECTOR
SWITCH

*For operation on other voltages, use a transformer to adjust the voltage to within this range.

Maximum Slide Thickness	Slide Tray
1.6 mm (¹/₁₆-inch)	KODAK CAROUSEL TRANSVUE 140
2.5 mm (¹/₁₀-inch)	KODAK CAROUSEL TRANSVUE 80
3.2 mm (¹/₈-inch)	KODAK EKTAGRAPHIC Universal, Model 2
3.2 mm (¹/₈-inch)	KODAK EKTAGRAPHIC Deluxe Covered

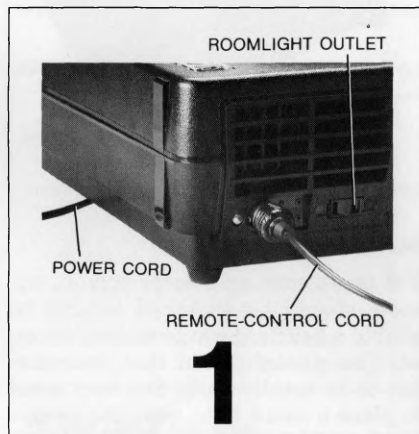| Features	Model					Page
	4200 4200-K	4400	4600 4600-K	5200 5200-K	5600	
Slide-Scan™ screen/built-in viewer				•	•	6
Rear lamp removal	•	•	•	•	•	9
Slide-tray removal without power	•	•	•	•	•	9
Power-cord wrap in base	•	•	•	•	•	9
Dark-screen shutter latch	•	•	•	•	•	8
Integral handle (control panel)	•	•	•	•	•	front cover
Built-in reading light	•	•	•	•	•	8
Illuminated control panel	•	•	•	•	•	8
Remote accessory outlet	•	•	•	•	•	5
Remote forward and reverse	•	•	•	•		8
Remote focus		•				8
Leveling foot	•	•	•	•		8
Auto-focus			•	•		8
Variable automatic timer					•	8
Roomlight outlet					•	5
Spare-lamp storage					•	6
Dust cover					•	6
Frequency-selector switch, 50/60 Hz	• †		• †	• †		4

Some models may be supplied without the tray.

†K models only

Locate your projector model in the chart above, and note the features for that model. This will help you to use your manual more effectively because the special features of all models are described, as well as those of your particular projector.

4

QUICK START-UP

Only brief operating instructions are given on this page. Read on for important details.
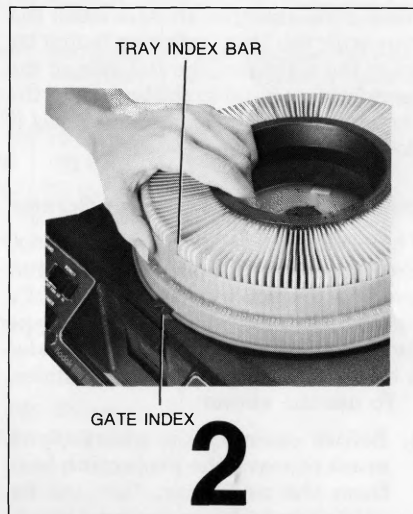
1

Unwind the power cord from the cord retainer on the underside of the projector. (The cord will not be wrapped around the retainer when shipped.) Remove the REMOTE-CONTROL CORD from the cord compartment at the front of the projector, next to the lens. Plug the remote-control cord into the rear of the projector. **See pages 4 and 6 for which power outlet to use with your model projector. If you plug your projector into the wrong electrical source, the projector can be damaged.**

4

Briefly push the FORWARD BUTTON on the projector or the FOR (forward) button on the remote control to project the first slide onto the screen. See page 8.
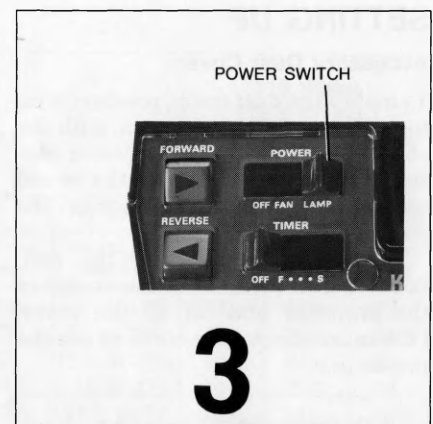
2

Place a loaded slide tray on the projector with the TRAY INDEX BAR opposite the GATE INDEX. See page 7.
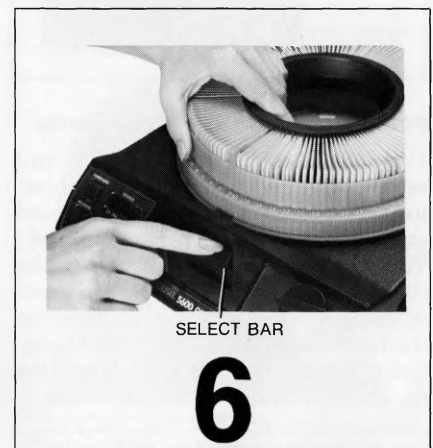
5

Rotate the FOCUS KNOB until the projected image is critically sharp. With auto-focus projectors, only this first slide requires focusing if all slides are in the same type of mount.

For auto-focus operation with intermixed types of slide mounts, see page 8 under "Focus."

3

Slide the POWER SWITCH to LAMP.

6

Briefly push the forward button on the projector or on the remote control to change slides. *For immediate random projection of any slide in the tray*, press and hold down the SELECT BAR, rotate the tray to the desired slide number, and then release the select bar. The select bar also can be used when the projector is turned off or unplugged. See page 8.

To show your slides on the built-in viewer/Slide-Scan screen, see page 6.
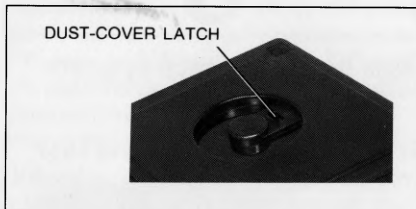
Projection-Lamp Tips

- Rough treatment of the projector may damage the projection lamp.

- Projector operation on line voltages above 125 volts greatly reduces the lamp life.

- Turn projector off when finished. Turning to FAN can shorten lamp life.

- Unplug the power cord before changing the lamp.

- Allow for unrestricted flow of air to the exhaust vent at the rear of the projector.
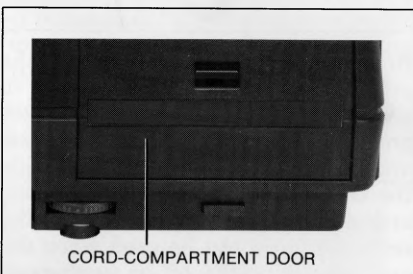
SETTING UP

Accessory Dust Cover

To install the dust cover, position it on top of the projector as shown, with the shallow side next to the projector control panel. Press down on the round section in the center of the cover; the cover will snap into place.

To remove the cover, push the DUST-COVER LATCH away from the center of the projector and lift off the cover. (You must remove the cover to use the projector.)

DUST-COVER LATCH

Power and Remote-Control Cords

Unwind the power cord from the cord retainer on the underside of the projector. (The cord will not be wrapped around the retainer when shipped.) Turn the projector upright. Open the CORD-COMPARTMENT DOOR on the front of the projector by pressing down on the latch, and remove the remote-control cord. Then close and latch the door.

CORD-COMPARTMENT DOOR

Plug the remote-control cord into the remote-control socket at the rear of the projector. The raised dot on the plug should be toward the bright rivet head to the left of the socket when the plug is in the socket.

Plug the power cord into a suitable electrical outlet. *Your CAROUSEL Projector for use in the United States—model 4200, 4400, 4600, 5200, or 5600 (see projector nameplate)—operates on 110- to 125-volt, 60 Hz current only. See information on page 4 about KODAK CAROUSEL® 4200-K, 4600-K, and 5200-K Projectors.* If you plug your projector into the wrong electrical source, the projector can be damaged.

Spare-Lamp Storage

It's a good idea to keep a spare projection lamp on hand in case the lamp should burn out during use. The CAROUSEL 5600 Projector has a provision for spare-lamp storage inside the cord compartment.
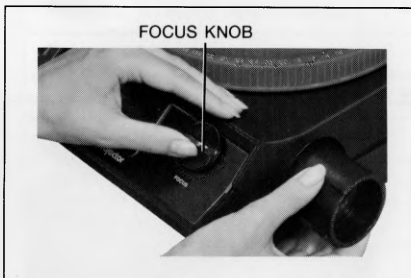
After removing the remote-control cord, push up on the front of the lamp-storage clip at the right-hand side of the cord compartment, and raise the clip. Place a spare lamp (page 9 for lamp-code designations) under the clip, with the lamp reflector facing toward the right and the flat side of the lamp base parallel to the bottom of the projector. Lower the clip and press it down until it snaps.

Built-in Viewer/*Slide-Scan*™ Screen

The CAROUSEL 5200, 5200-K and 5600 Projectors have a built-in viewer that lets you project your slides in a fully lighted room for your own viewing or for a small group of people. It provides a handy means of editing your slides.

To use the viewer:

1. **Before opening the viewer, you must remove the projection lens from the projector.** Turn the FOCUS KNOB clockwise until the lens is out as far as it will go, then push the FOCUS KNOB toward the top of the projector as you withdraw the lens. Store the lens in a safe place.

FOCUS KNOB

2. Grasp the VIEWER HANDLE and pull it all the way out from the base of the projector to open the viewer.
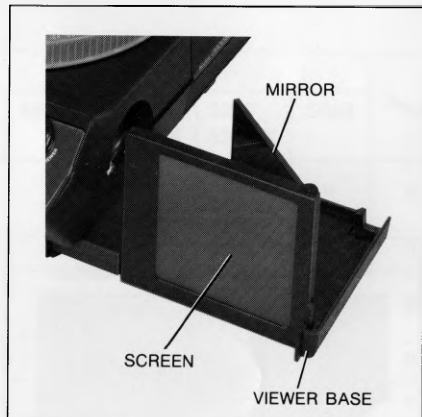

VIEWER HANDLE

You can then move the power switch to LAMP and project your slides. Adjust the focus by turning the focus knob (see page 8).

To close the viewer:

1. Press the hinged MIRROR carefully against the SCREEN.

2. Lower the screen and the mirror together into the VIEWER BASE.

3. Push the viewer all the way back into the projector.

To reinsert the lens, push the FOCUS KNOB up, and be sure to position the gear teeth on the lens barrel toward the lower left to engage the gear on the focus-knob shaft.

MIRROR

SCREEN

VIEWER BASE

Screen and Seats

For projection on a *large* screen, the room should be darkened enough to enable a brilliant image to be projected. This doesn't mean that the room has to be totally dark. You may want to place a small light near the projector but not in a direct line with the projection screen or shining into the eyes of your audience. The CAROUSEL 5600 Projector is equipped with a ROOMLIGHT OUTLET at the rear, which automatically lights a lamp plugged into the outlet when the projector power switch is at OFF.

Because slides may be square, horizontal, or vertical in format, a square screen is usually the most convenient. It should be large enough for easy viewing by everyone present. Your projector should be at the same level as the center of the screen.

For easy viewing, your audience should not be farther from the screen than six times the longer dimension of the projected image. See the charts listing projector-to-screen distances on page 7. Place the seats as close as possible to both sides of the beam thrown by the projector. The picture appears most brilliant and lifelike when you are seated near the projected beam.

KODAK Projection EKTANAR C Zoom Lens, 102 to 152 mm *f*/3.5

KODAK Projection EKTAGRAPHIC FF Zoom Lens, 100 to 150 mm *f*/3.5

If your projector is supplied with either of these optional zoom lenses, you can vary the size of the projected image to fill a screen without changing the projector-to-screen distance—as long as the distance is within the ranges in the tables.

Approximate Distance in Feet from Projector to Screen (Kodak Projection Lenses)

Long Dimension of Projected Picture	126 Slides (28 x 28 mm)					135 Slides (24 x 36 mm)					110 Slides (13 x 17 mm) in 2 x 2-inch Mounts or Adapters		
Curved-field		102 mm	127 mm		102-152 mm		102 mm	127 mm		102-152 mm			102 mm
Flat-field	76 mm* Lens	102 mm* Lens	124 mm* Lens	178 mm* Lens	100-150 mm* Zoom Lens	76 mm* Lens	102 mm* Lens	124 mm* Lens	178 mm* Lens	100-150 mm* Zoom Lens	65 mm* Lens	76 mm* Lens	102 mm* Lens
40″	10	13½	17	23½	13½ to 20	8	10½	13	18½	10½ to 16	14	16½	22
50″	12½	16½	21	29	16½ to 25	10	13	16½	23	13 to 19½	17	20½	27½
60″	15	20	25	34½	20 to 30	11½	15½	19½	27	15½ to 23½	20½	24½	33
70″	17½	23	29	40½	23 to 34½	13½	18	22½	31½	18 to 27	24	28½	38
84″	20½	27½	34½	48	27½ to 41½	16	21½	27	37½	21½ to 32	28½	34½	45½

*These *flat-field* lenses are recommended for slides mounted in glass. See back cover for list of lenses.

Approximate Distance in Metres from Projector to Screen

Long Dimension of Projected Picture	126 Slides (26.5 x 26.5 mm)	135 Slides (22.9 x 34.2 mm)
100 cm	4.0 to 6.0	3.1 to 4.7
125 cm	4.9 to 7.4	3.9 to 5.8
150 cm	5.9 to 8.8	4.6 to 6.9
175 cm	6.8 to 10.2	5.3 to 8.0
200 cm	7.7 to 11.6	6.0 to 9.1

To use the zoom lens:

1. Install the zoom lens by moving the focus knob toward the top of the projector and guiding the lens into the projector. Insert the lens far enough into its recess so that the gear teeth on the lens barrel will be engaged by the gear on the focus-knob shaft.

2. Rotate the focus knob until the projected image is sharp.

3. Rotate the front part of the lens barrel until the image fills the screen.

4. To obtain maximum image sharpness and the desired image size, you may need to repeat steps 2 and 3 alternately.

SLIDE TRAY

Furnished with some projectors is the KODAK CAROUSEL® TRANSVUE 140 Slide Tray. This tray is made of a translucent material which allows you to see the slide-identification numbers on the tray without turning on the roomlights. It holds 140 slides in 2 x 2-inch cardboard or thin plastic mounts (*not* glass or metal mounts) up to 1/16-inch thick. Since this tray was designed to hold as many slides as possible, the slide compartments in the tray are quite narrow. For this reason, your slide mounts should be in good condition. Mounts which are warped or bent may fail to drop from the tray into the projector. If this happens, straighten the mount with your fingers or place

the slide in a new mount, such as a KODAK READY-MOUNT. Slides may not drop if the front of the projector is raised too high. See "Elevation," page 8.
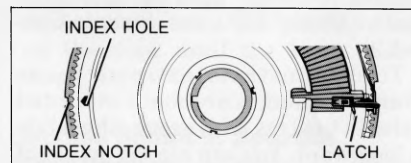
Clip off all mount corners that are frayed. Do not attempt to project slides mounted with loose or sticky tape.

As the slide tray revolves, the number of the slide being projected will be opposite the gate index on the projector.

You can obtain additional slide trays from your dealer; see back cover.
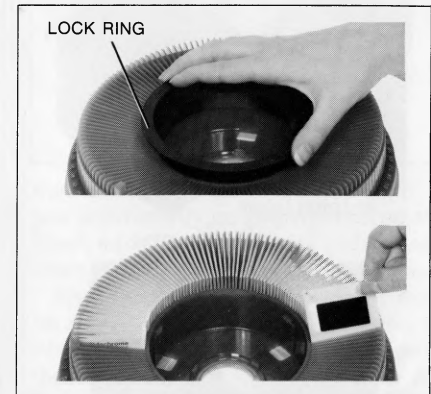
Loading the Slide Tray

Check the bottom of the tray to make sure the INDEX HOLE is opposite the INDEX NOTCH. If it isn't, slide the LATCH in the direction shown by the arrow, and turn the bottom plate until the index hole points to the index notch. Then release the latch.
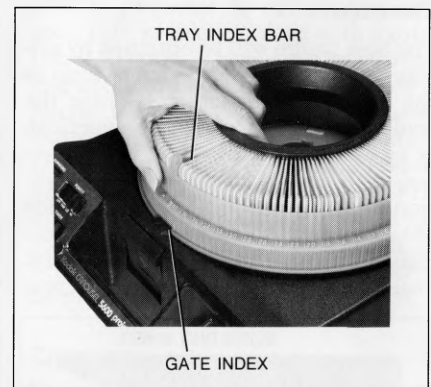

Remove the LOCK RING from the tray by turning the ring in the direction of the arrow marked UNLOCK; then lift off the ring. Insert a slide in each slot in the tray, with the top of the picture down. The printed border or emulsion (dull) surface of a slide should face the next lower number. For example, the

emulsion side of slide No. 2 should face toward slide No. 1, No. 3 toward No. 2, etc.

Replace the lock ring, turning it in the direction of the arrow marked LOCK until the ring is secure on the tray.

Placing Slide Tray on Projector

Place the loaded slide tray on the projector so that the hole in the center of the tray fits over the center post on the top of the projector. Then turn the tray slowly until the TRAY INDEX BAR is opposite the GATE INDEX on the projector. The tray will drop down into operating position on the projector. If the tray doesn't drop easily into place, check the alignment of the index hole and the index notch as described under "Loading the Slide Tray."

NOTE: The tray will drop farther down on the projector during the first slide-change cycle.
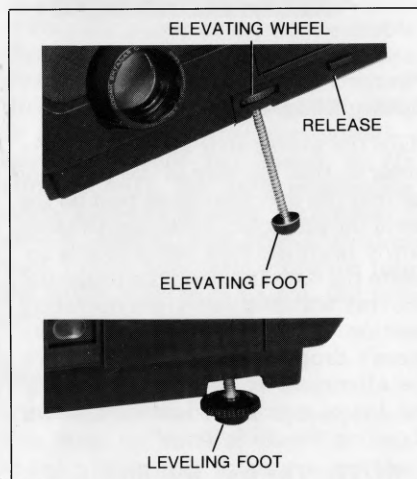
PROJECTING SLIDES

Your projector has a built-in dark-screen shutter latch that interrupts the projection beam when there is no slide in the projector gate. This eliminates the harsh glare of an illuminated white screen before the first slide in a tray, after the last slide in a tray, and during slide-tray changes. The illuminated control panel and built-in READING LIGHT are convenient when room-lights are out. To use the reading light, simply lift the cover.

Turn on the projection lamp by sliding the POWER SWITCH to LAMP. Briefly press the FORWARD BUTTON on the projector or the FOR (forward) button on the remote control to put the first slide in viewing position.

READING LIGHT
POWER SWITCH

Elevation

The best image will be obtained by setting the projector on a stand as high as the center of the screen. Center the projected image on the screen vertically by elevating the front of the projector with the ELEVATING FOOT. Additional tilting can interfere with slide changing and seem to cause a malfunction. To release the foot, press the RELEASE while lifting the front of the pro-

ELEVATING WHEEL
RELEASE
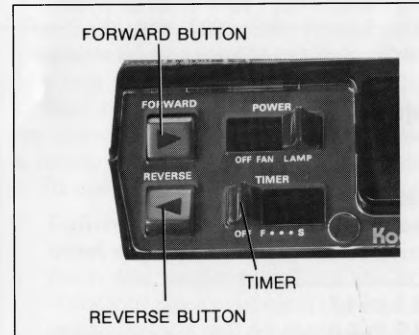ELEVATING FOOT
LEVELING FOOT

jector to the desired height. Use the ELEVATING WHEEL for fine adjustments in elevation.

If the image is not level, make an adjustment with the LEVELING FOOT at the rear of the projector.
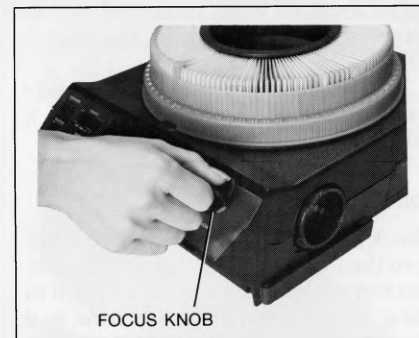
Forward and Reverse Buttons

FORWARD and REVERSE BUTTONS, located at the left side of the projector control panel, control the direction in which the tray rotates. Briefly press the forward or reverse button to change slides in the desired direction.

FORWARD BUTTON
REVERSE BUTTON
TIMER

Focus

Let the projector warm up for about 30 seconds. Focus for maximum sharpness at the center of the screen image by rotating the FOCUS KNOB. *On auto-focus models, you will need to focus only the first slide if all slides are in the same type of mount.*

Under special conditions, you must refocus even with auto-focus models. For example, when you are projecting slides in intermixed types of slide

FOCUS KNOB

mounts, you may need to readjust the focus manually by means of the focus knob or the FOCUS lever on the remote control (model 5600; see "Remote Control").

To demonstrate extreme focus changes, place cardboard-mounted slides in the tray with every other slide in backward. You can see the action of the automatic focus system by watching the movement of the focus knob or by watching the screen image.

NOTE: A matte-surface (write-on) slide or a mount without film can cause the focus motor to run continuously.

Automatic Timer

You can use the TIMER (model 5600) to make the projector change slides automatically. Set the timer at F (fast) for slide changes at approximately 3-second intervals, at S (slow) for changes at approximately 22-second intervals, or at any point between.

You can interrupt the automatic operation at any time by pressing the forward or reverse button on the projector or on the remote control. For manual operation, be sure the timer slide is pushed fully to the left.

Remote Control

The remote control has both FOR (forward) and REV (reverse) buttons for controlling the direction in which the slide tray rotates. Press either the forward or the reverse button to change slides in the desired direction.
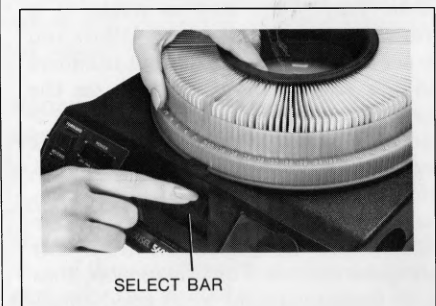
The remote control of the CAROUSEL 4400 and 5600 Projectors also has a FOCUS lever for power-focusing the lens. Moving the lever forward and backward causes the projection lens to move forward and backward respectively. (Using a remote control with a focus lever will *not* add remote focus to projectors without the feature.)

Random Selection of Slides in Trays

To project a particular slide in a tray:

1. Press the SELECT BAR and hold it down.

2. Rotate the tray in either direction until the number of the slide you want to project is opposite the gate index on the projector.

3. Release the select bar to project the desired slide immediately.
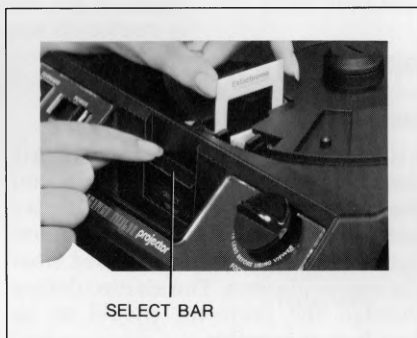

SELECT BAR

Removing Slide Tray

You can remove the tray from the projector at any time—with the power switch turned off or on:

1. Press the select bar and hold it down. With the power switch in the OFF position, you will need to push the select bar *all the way down*.

2. Rotate the tray until the tray index bar is opposite the gate index.

3. Release the select bar and lift off the tray.

   NOTE: When the projector power cord is not plugged in, the select bar will function manually only when the power switch is in the OFF position.
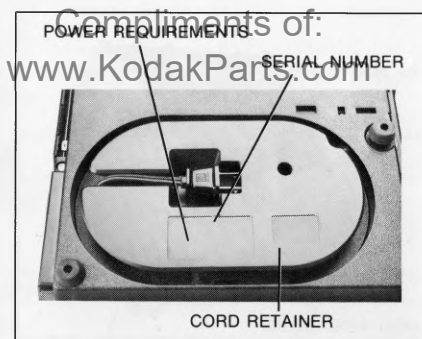

SELECT BAR

Showing Single Slides

1. With the projector turned on, insert a slide (correctly oriented) into the projector gate. Push the slide down into the gate as far as it will go.

2. After viewing the slide, press the select bar to eject the slide from the gate. You can then insert another slide into the gate. You can project slides up to 1/8-inch thick by this method.

After the Show

Remove the slide tray and slide the power switch to **OFF**. Rapidly cooling your projector after use (by leaving the fan on and the lamp off) is not necessary nor recommended. The lamp and the projector's internal optics may cool too quickly, increasing the chance for breakage. Simply turn the projector off after each use. Although the rear right corner of the projector may be warm for several minutes after you switch off the power, the maximum temperature reached will be well below the danger point for the projector, lamp, slide tray, slides or your fingers.

If you've been using the built-in viewer/Slide-Scan screen (models 5200, 5200-K, and 5600):

1. Push the viewer back into the projector as described on page 6.

2. Replace the projection lens in the projector as described on page 10.

POWER REQUIREMENTS

SERIAL NUMBER

CORD RETAINER

Or if you've been projecting slides on a large screen:

1. Retract the front elevating foot and rear leveling foot.

2. Retract the lens by turning the focus knob counterclockwise.

   Then unplug the power and remote-control cords. Wind the power cord around the CORD RETAINER on the underside of the projector. Fold the remote-control cord by placing the ends together and folding it in about 4-inch lengths. Then place it in the cord compartment.

PROJECTOR CARE

Your CAROUSEL Projector requires *no* lubrication; all bearings are self-lubricating.

Projection-Lamp Replacement

CAUTION: The lamp may still be hot! Be certain that the projector and the projection lamp have cooled before you remove the lamp.

If your lamp should burn out during use, you can set the power switch at FAN to speed cooling. *However, it is better to just turn off the projector and let it cool **without** the fan (about 10 minutes).* When the projector and lamp have cooled sufficiently, turn the projector off and unplug the power cord.
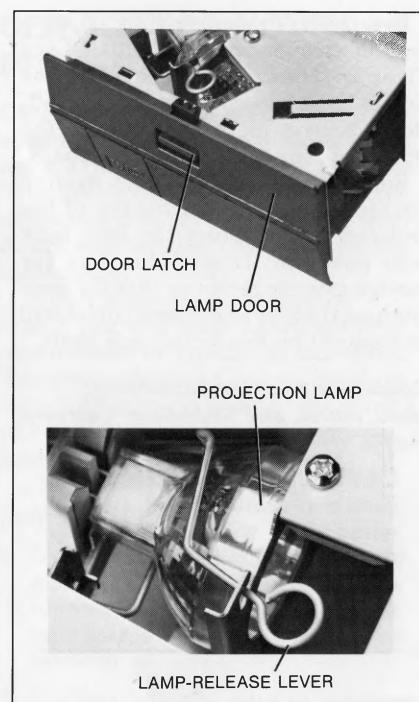
If you cannot wait 10 minutes for the projector to cool without the fan, you may want to use a complete, spare lamp module with an extra (cool) lamp already in place. See back cover.

Release the lamp module by pressing down on the latch and pulling slowly on the door until the lamp module stops.

Module Shown in Detented Stop Position

To remove the lamp, push the lamp-ejector lever down and away so that it clears the retaining clip. Then raise the lever, latch it in the rear position, and remove the lamp.

Insert a new lamp loosely into the two slots of the socket. *Do not touch*

DOOR LATCH

LAMP DOOR

PROJECTION LAMP

LAMP-RELEASE LEVER

the small bulb portion of the new lamp. If you accidentally get fingerprints on the lamp, wipe it carefully with a clean, soft cloth moistened with rubbing alcohol.

Unlatch the lamp-ejector lever from its rear position. While moving the lever forward, press down on the base of the lamp with your finger until the lamp is tightly seated. Relatch the lever in its forward position in the retaining clip.

Push the lamp module all the way back into the projector until latched.

Your projector is equipped with a code FHS projection lamp with a rated life of 70 hours. There are also two special-application lamps available. For longer lamp life (but less brightness), use a code EXY lamp with a rated life of 200 hours. For 25-percent greater brightness than offered by the FHS lamp, use a code EXR lamp with a rated life of 35 hours. Use of other high-brightness lamps may cause buckling or premature fading of your slides.

Cleaning

To get the brightest, sharpest screen images, keep the optical system of your projector clean. Dust or fingerprints on the projection or condenser lens will reduce the brightness of the screen image and will cause it to appear unsharp or low in contrast.
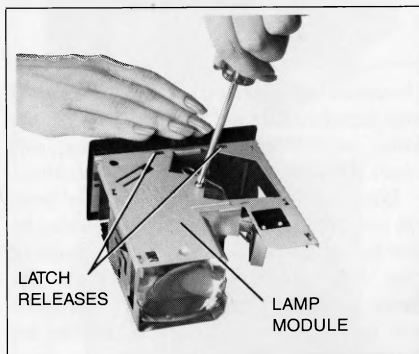
Projection lens

Turn the focus knob clockwise until the lens is out as far as it will go. Carefully move the focus knob toward the top of the projector as you withdraw the projection lens. Blow any dust or dirt from the lens.

Breathe on the lens surface or use a drop of cleaner such as KODAK Lens Cleaner. Then with paper such as KODAK Lens Cleaning Paper or a soft, clean, lintless cloth, gently wipe the front and rear surfaces of the lens.

Replace the lens by again moving the focus knob toward the top of the projector and guiding the lens back into position. Insert the lens far enough into its recess so that the gear teeth on the side of the lens barrel will be engaged by the focus-knob shaft.

Condenser lens, heat-absorbing glass, mirror, and Slide-Scan™ screen/built-in viewer

CAUTION: The heat-absorbing glass may shatter. Handle it only **when cool** with gloves. Keep the glass covered with a cloth or other material while it is out of the projector.

LATCH RELEASES   LAMP MODULE

Remove the entire assembly by pulling it straight back out of the projector. Remove the lamp. Remove the small retaining screw on top of the lamp module and push the latch releases forward. Then holding the module in the palm of your hand, lift the back edge of the lamp module upward and remove the top. Then *carefully* lift out the CONDENSER LENS and the HEAT-ABSORBING GLASS, and *gently* place them on a soft cloth.

Clean both sides of the condenser lens and the heat-absorbing glass with paper such as KODAK Lens Cleaning Paper or a soft, clean, lintless cloth. Be careful not to leave fingerprints on any of the surfaces. Replace the lens and the heat-absorbing glass in their original locations. While holding the lamp module in the palm of your hand, replace the top by hooking the front edge on the two hooks on the lamp module and pivoting the back of the top downward. Secure the latch and check the bottom of the module to en-

HEAT-ABSORBING GLASS   CONDENSER LENS

sure that the tabs at the back edge are seated in the holes. Insert and secure the retaining screw. Then insert the lamp.

The mirror may be cleaned with the top of the lamp module removed or with the lamp module assembled by inverting the lamp module to reach the mirror through the opening. Gently clean the surface of the mirror with KODAK Lens Cleaning Paper or a soft, clean, lintless cloth moistened with KODAK Lens Cleaner. Then replace the lamp module in the projector.
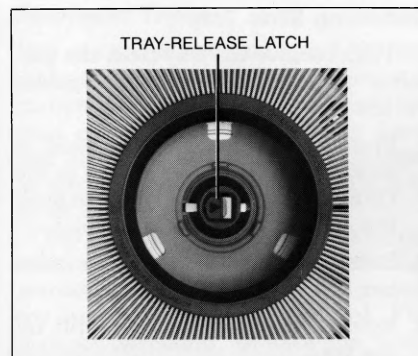
If your projector is equipped with a Slide-Scan screen/built-in viewer (model 5200, 5200-K, or 5600), this screen has a front surface mirror which seldom needs cleaning. Usually any dust simply can be blown away. However, these mirrors on Kodak slide projectors have an overcoating which will allow cleaning with a soft cloth dampened with water or lens cleaner.

Thermal Fuses

Your projector is equipped with thermal fuses to prevent overheating and possible damage to the projector in case of exhaust-fan or motor failure. If overheating causes the fuses to open, the projector will not operate. The projector will require factory or repair-facility attention to make it run again. See **How to Obtain Service** on page 2.

Emergency Slide-Tray Removal

If the slide-changing mechanism becomes inoperative because of a defective slide (page 7), a foreign object, etc, retract the TRAY-RELEASE LATCH and hold it in place while you lift off the tray. **Be sure that the tray lock ring is in place.** Then turn the tray upside down and realign the index notch as described on page 7; set the tray to one side. Remove the defective slide from

TRAY-RELEASE LATCH

the projector by actuating the forward button, or if necessary, pull the slide or foreign object from the gate by hand. Remount the damaged slide. Replace the tray on the projector.
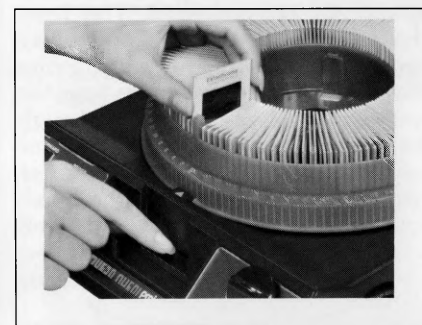
PROJECTION TIPS

Long-Run Applications

Allow for unrestricted flow of air through the projector openings. If you use the projector in a window display or in a cabinet, provide an adequate outlet for the warm air expelled from the rear grille vent. The air circulating through the projector should be as dust-free as possible.

Editing Slides

If you want to edit your slides, you can project them singly, as described on page 9. Or you can place a tray of slides on the projector. Remove the lock ring from the tray. To edit a slide after viewing, firmly press and hold down the select bar, and remove the slide from the tray. You can then reorient the slide or replace it with another.

The optional KODAK EC Stack Loader, described on the back cover, provides a convenient means of editing your slides. Using the built-in viewer (models 5200, 5200-K, and 5600) is a quick and easy way to set up for editing.

10

TROUBLESHOOTING GUIDE

Important: So that you won't be without your projector unnecessarily, please consult this guide **before** requesting service.

WHAT HAPPENED	PROBABLE CAUSE	CORRECTION
Projector doesn't operate.	No power to projector	Plug power cord into suitable electrical outlet. Set power switch on LAMP.
No illumination on screen with slide in projector gate	Power switch on OFF or FAN	Set switch on LAMP.
	Lamp burned out.	Install new lamp; see page 9.
	Lamp not seated in socket	Check lamp; see page 9.
	Lamp door not closed	Close lamp door.
Slide not in proper focus on screen	Slide itself not sharp	Examine slide for proper focus.
	First slide in tray not properly focused manually (auto-focus models)	Focus center of first slide manually; see page 8.
	Slide in different type of mount from others (auto-focus models)	Focus manually; see page 8.
	Projection lens installed improperly	Follow instructions for replacing lens on page (9) 10.
Slide fails to drop into projection position.	Tray baseplate not properly indexed	Align index hole and index notch; see page 7.
	Tray not properly positioned on projector	Position tray on projector as described on page 7.
	Slide mount warped or frayed at corners	Straighten mount or remount slide; see page 7.
	Projector not level or tilted too high	Set projector on a stand as high as screen center. See page 8.
Uneven illumination on screen	Projection lamp not fully seated	Check lamp; see page 9.
	Condenser lens not installed or not positioned properly in mount	Check condenser lens; see page 10.
	Slide mount not seated properly in projector gate	Check slide position and slide-mount condition; see page 8.
Projector won't cycle to next slide.	Tray not properly positioned	Position tray as described on page 7.
	Slide or foreign object stuck in tray or gate	If necessary, see "Emergency Slide-Tray Removal" on page 10.

SERVICE FOR YOUR PROJECTOR

Carefully reread the sections of this manual that pertain to questions you have. *Especially* be sure to consult the "Troubleshooting Guide." Since some projectors that are returned for repair do not need service, please review this information carefully.

If your projector does require repair, you may send it through your photo dealer or directly to one of our Equipment Service Centers, listed on page 2. **Be sure to specify the model of your projector and the serial number.**

Packing Instructions

1. Include a note with your projector giving all details: model, serial number, date and place of purchase, and a description of the problem.

2. Enclose your projector or other photographic equipment in a plastic bag to keep it clean from dust and packing material.

3. Use a sturdy carton that is large enough for you to surround the projector completely with packaging material such as crumpled newspaper.

4. Securely fasten the carton with tape. Clearly write the address of the Equipment Service Center and your name and address on the top and bottom of the carton.

5. Mail the carton to the Kodak *Central Equipment Service Center.* Remember to insure the projector.

   Eastman Kodak Company
   Central Equipment Service Center
   800 Lee Road
   Rochester, New York 14650

MORE INFORMATION

If you need help with your projector or with other photographic questions, see your photo dealer.
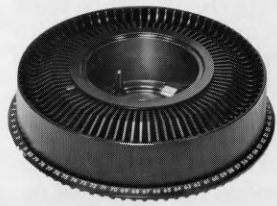<div align="center">OR</div>
Specify the model of your projector and write to:
   Eastman Kodak Company
   Photo Information
   Department 841
   343 State Street
   Rochester, New York 14650

Do **NOT** send your equipment to the above address.

AUXILIARY EQUIPMENT

KODAK CAROUSEL® TRANSVUE Slide Trays

Additional slide trays to accommodate 80 or 140 slides, supplied in attractive bookshelf-type storage boxes, are available from your dealer.

KODAK EC Stack Loader

Lets you project and edit up to forty 2 x 2-inch slides in cardboard or very thin plastic mounts (or up to thirty 110 slides in 2 x 2 adapters) without loading them into a tray.

KODAK Projection Lenses (3)

Curved-field lenses for slides mounted in cardboard or other non-glass mounts

KODAK Projection EKTANAR C Lens, 102 mm $f/2.8$

KODAK Projection EKTANAR C Lens, 127 mm $f/2.8$

KODAK Projection EKTANAR C Zoom Lens, 102 to 152 mm $f/3.5$

KODAK Projection Lenses (6)

Flat-field lenses for slides mounted in glass

KODAK Projection EKTAGRAPHIC FF Lens, 65 mm $f/3.5$ (recommended only for 110 slides in 2 x 2 mounts or adapters)

KODAK Projection EKTAGRAPHIC FF Lens, 76 mm $f/3.5$

KODAK Projection EKTAGRAPHIC FF Lens, 102 mm $f/2.8$

KODAK Projection EKTAGRAPHIC FF Lens, 124 mm $f/2.8$

KODAK Projection EKTAGRAPHIC FF Lens, 178 mm $f/3.5$

KODAK Projection EKTAGRAPHIC FF Zoom Lens, 100 to 150 mm $f/2.8$

KODAK CAROUSEL® Projector Case, Model E

This lined compartment case accommodates your projector, a slide tray in its carton, and such Kodak accessories as a stack loader, slide clip set, zoom lens, spare lamp, or extension cords. It is constructed of nylon-stitched brown simulated leather with panels that are reinforced with ebony board. All hardware is brass-finished.

KODAK CAROUSEL® Slide Tray Case

This handsome case will accommodate three slide trays or a lesser number with room for your miscellaneous equipment. It is a matching case to the KODAK CAROUSEL Projector Case, Model E.

KODAK EC Remote Extension Cord, 25-foot

Extends the range of the 12-foot remote-control cord so that you can operate the projector from a location near the screen. Up to four extension cords can be added to accommodate most projection distances.

KODAK 2 x 2 Adapter for 110 Slides

If you have slides that are in 30 x 30 mm mounts, snap each slide into an adapter for projection with your CAROUSEL Projector. Project your slides singly, in trays, or with the KODAK EC Stack Loader. Adapters are supplied in boxes of 20.
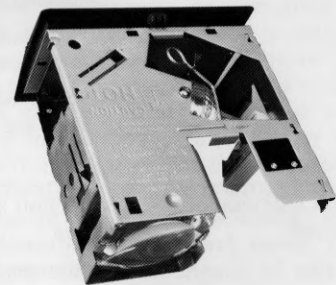
KODAK Slide Clip Set (for KODAK EC Stack Loader)

Makes handling stacks of slides easier than ever—no loose slides to slip out of your hands. Each clip holds up to 36 slides in cardboard or plastic mounts up to $1/20$-inch (1.27 mm) thick, or up to 25 slides in 2 x 2 adapters for 110 slides. The label on each clip provides space for slide identification.

A set of 12 clips provides compact, low-cost storage for up to 432 slides in an attractive bookshelf-type storage box.

KODAK EC Sound-Slide Synchronizer

This unit permits you to use a stereo record/playback tape recorder that is equipped with an external speaker jack as a programmer with your projector.

KODAK EC Lamp Module, Model 2

Replacement lamp module for KODAK CAROUSEL 4000 and 5000 Projectors. Includes lamp bracket assembly, condenser lens, and heat-absorbing glass. Lamp not included.

Other special-purpose accessories are available for use with your CAROUSEL Projector. See your photo dealer.