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# Basic Operating Instructions KODAK EKTAGRAPHIC Slide Projector,

### Model AF-2



ELEVATING WHEEL. To raise or lower the image on the screen, turn the elevating wheel on the front of the projector.

LEVELING-FOOT WHEEL. To raise or lower the left side of the image on the screen, turn the leveling-foot wheel.

REMOTE CONTROL (Timer set at M). To project the slide with the next higher identification number, momentarily depress the *forward* button; to rotate the tray one slide space in the reverse (clockwise) direction, depress and release the reverse button. (Press the reverse button firmly; if this button is pressed too lightly, the tray may rotate in a forward direction.) To focus the image on the screen, use the focus lever.

These functions can also be accomplished by operating the forward button, the reverse button, and the focus knob on the projector body.

RANDOM PROJECTION (Timer set at M). To project a slide out of sequence:

- 1. Firmly depress the select button and hold it down.
- 2. Rotate the slide tray until the slide you want to project is opposite the gate index on the projector.
- 3. Release the select button. The selected slide will be immediately projected.

AUTOMATIC TIMER. For automatic advance of slides at intervals of 5, 8, or 15 seconds, set the timer at "5", "8", or "15" respectively.

SLIDE-TRAY REMOVAL. If the zero position on the tray is opposite the gate index, simply lift off the tray. Otherwise:

- 1. With the projector turned on, depress the select button firmly and hold it down.
- 2. Rotate the slide tray—in either direction—until the zero position is opposite the gate index.
- 3. Release the select button and then lift off the tray.

EMERGENCY SLIDE-TRAY REMOVAL. If for any reason it becomes necessary to remove the tray without returning it to the zero position, use this procedure:

- 1. Turn the coin-slotted tray removal screw in either direction as far as it will go.
- 2. Hold the screw in this position and lift off the tray.
- 3. Turn the tray upside down and rotate the bottom plate until it locks.

PROJECTION LAMP REPLACEMENT. If the lamp burns out during a showing:

- 1. Allow the fan to run to cool the lamp and lamp compartment.
- 2. Remove the slide tray.
- 3. Move the switch to OFF.
- 4. Disconnect the power cord.
- 5. Turn the projector upside down.
- 6. Open the lamp door by turning the coin-slotted screw counterclockwise.
- 7. Release the lamp ejector lever from the notch in which it is secured. Lift the lever to eject the lamp. Withdraw the lamp.
- 8. Place a new lamp (ANSI Code ELH) in the socket with the two pins on its base fitting the two slots in the socket. (Code ENH lamp can be used for extended lamp life with less output; ENG lamp for more brightness, but shorter life.)
- 9. Return the ejector lever to its original position and make sure it is latched. The lever will locate the lamp correctly for operation.
- 10. Close and fasten the lamp door.

For more detailed information, refer to the instruction manual.

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### Motion Picture and Education Markets Division

EASTMAN KODAK COMPANY · ROCHESTER, N.Y. 14650

### the KODAK EKTAGRAPHIC slide projector model AF-2

**FEATURES**—The KODAK EKTAGRAPHIC Slide Projector, Model AF-2 (Automatic Focus), has been designed for professional slide presentations. One of the valuable features of this projector is the automatic focusing device which keeps each slide in focus throughout its projection. You will find the projector to be an exceptionally durable, dependable audiovisual device—versatile, easy to operate, efficient in its functions. The features that distinguish your projector are these:

Automatic focusing is accomplished by a built-in electronic control.
A choice of three Kodak trays is available for use with the Model AF-2

Projector. Each tray has convenient slide identification numbers.

• The Kodak Carousel\* Universal Slide Tray, furnished with the projector, has an 80-slide capacity and accepts glass and cardboard slides up to  $\frac{1}{8}$  inch thick. (The projector will also accommodate the Kodak Carousel Slide Tray and the Kodak Carousel 140 Slide Tray.)

• Any transparency format in a 2 x 2-inch mount can be projected, including 126-size (26.5 x 26.5mm), 135-size (22.9 x 34.2mm), 828-size (26.2 x 38mm), and 127-size (38 x 38mm) super-slides.

• A timer in the projector provides automatic changing of slides for 5-, 8-, or 15-second periods. Split-second intervals between slides eliminate long dark-screen periods.

• Slides can be projected in forward or reverse sequence or as individually selected.

• A remote control with a 12-foot cord gives forward, reverse, and focusing control away from the projector. Extension cords (see page 10) can be added if needed.

• Focus shift of the projected image is minimized because all slides are conditioned by warm air before projection.

• Precise horizontal and vertical positioning of each slide is provided. As a result, screen images from two of these projectors can be exactly superimposed. Accurate image registration depends upon carefully mounted transparencies.

• The illuminated control panel includes a 4-position Selector Switch for OFF, FAN, and LOW and HIGH light output.

Noise is minimized by low blower speed.

· Elevation and leveling controls are provided.

• The 300-watt ELH lamp produces less heat than a 500-watt CBA lamp, but offers equivalent light output.

• A lamp ejector lever simplifies lamp replacement.

• The heat-absorbing glass and condenser lens are held in place independently of any other mechanism. This means that a new lamp can be installed without danger of accidentally displacing these optics.

• The projector is wired to accommodate the KODAK CAROUSEL Dissolve Control (see page 11).

\*All CAROUSEL equipment mentioned in this manual can be used with the KODAK EKTAGRAPHIC Slide Projector, Model AF-2.

	SPECIFICATIONS				
HEIGHT	4 inches (102mm) with tray—6½ inches (154mm)				
WIDTH	10 <sup>3</sup> / <sub>4</sub> inches (273mm)				
LENGTH	11 <sup>3</sup> / <sub>8</sub> inches (289mm)				
WEIGHT	10½ pounds (4.76kg)				
POWER REQUIREMENTS	110 to 125 volts, 60 Hz, 400 watts				
PROJECTION LAMP FURNISHED	ANSI Code ELH lamp (300-watt, 120-volt, quartz-halogen, elliptical reflector)				
AVAILABLE LENSES	Kodak Ektanar, 2½-in. 1/3.5† Kodak Ektanar, 3-in. 1/3.5 Kodak Ektanar, 4-in. 1/2.8 Kodak Ektanar, 4-in. 1/3.5				
	KODAK EKTANAR, 5-in. f/2.8				
	KODAK EKTANAR, 5-in. f/3.5				
	KODAK EKTANON, 7-in. f/3.5				
	KODAK EKTANAR ZOOM Lens, 4- to 6-in. f/3.5				

†The Kodak Ektanar Lens,  $2\frac{1}{2}$ -in. f/3.5, is designed to provide sharp images up to twelve inches wide at very short projection distances, as in study carrels.



### Remote Control Receptacle (Figure 1)

This 5-pin receptacle is for the connector on the remotecontrol cable. The connector must be oriented correctly (colored dot on the connector facing up, see Figure 3) before you insert it into the receptacle.

### **Dissolve Control Receptacle**

Each KODAK Dissolve Control projector cord has a 7-prong connector which fits the remote control receptacle.

### Selector Switch

When this switch is at FAN, the cooling fan and mechanism will operate but the projection lamp will not be lighted. At HIGH, the ELH projection lamp provides full illumination (rated lamp life—35 hours). At LOW, 65% of full illumination is provided (average lamp life—200 hours).

### **Automatic Timer**

The triangle on the serrated bar for the timer can be moved to any of four settings: "M" for manual control; "5," "8," or "15" for an automatic interval of 5, 8, or 15 seconds.

### Focus Knob (Figure 2)

Only the first image requires focusing; the remaining images will be automatically focused. Turning the focus knob will focus the image on the screen. When intermixed glass- and cardboard-mounted slides are projected, focus sharply on a cardboard-mounted slide to maintain best focus. Moving the knob toward the side of the projector releases the focusing mechanism and permits quick insertion and removal of the lens. The focus knob and the focus lever on the remote control function independently.

### Forward and Reverse Buttons

These buttons are at-the-projector controls for forward or reverse movement of the slide tray, one slide space at a time.

### Select Button

When the select button is depressed and held down, the slide tray can be rotated to select any slide for projection. Another use of this control is for the showing of single slides without a slide tray, or retrieving a slide from the gate.

### **Elevating Wheel**

When this device is turned, it raises or lowers the front of the projector for vertical adjustment of the screen image. The range of elevation is from 0 to  $6\frac{1}{2}$  degrees.

### Leveling Foot (Figure 1)

Turning the leveling-foot wheel raises or lowers the left side of the image on the screen.

### Remote Control Forward Button (Figure 3)

Depressing the button rotates the slide tray one slide space at a time in the forward (counterclockwise) direction.

### **Remote Control Reverse Button**

Firmly depressing the button rotates the slide tray one slide space in the reverse (clockwise) direction.

### **Remote Control Focus Lever**

Forward and backward movement of this lever focuses the screen image. The remote focusing control will override the automatic focusing device until the lever is released, then automatic focus is reinstated.

### setting up –the room and the projector





### FIGURE 4

### SCREEN AND SEATS

Because slides may be horizontal, vertical, or square, a square screen is most desirable. It should be large enough for easy viewing by everyone present and (for most installations) should be at the same level as, or higher than, the projector.

For best results, the rear row of seats should not be farther from the screen than eight times the shorter dimension of the projected image. Seats should be placed as close as possible to both sides of the beam thrown by the projector. The screen image will appear most realistic to the persons seated near the projector beam.

### USING THE ZOOM LENS

The KODAK EKTANAR Zoom Lens, 4- to 6-inch f/3.5, lets you vary the size of the projected image without moving either the projector or the screen. By this means, you can fill the screen at any normal projector-to-screen distance within the range of the lens.

To use the zoom lens—

a. Focus the image on the screen by turning the focus knob.

- b. Rotate the lens barrel until the image fills the screen.
- c. Readjust the focus.

### LOADING THE SLIDE TRAY

**CAUTION:** Do not use damaged slides (bent or torn mounts; exposed sharp glass corners or edges; loose or sticky tape). Such slides should be repaired or remounted before they are loaded into a tray. Also, the focus motor will be adversely affected if a matte-surface write-on slide or a slide mount without film is used.

Before you start to load the CAROUSEL Universal or CAROUSEL Tray, check to be sure that the metal SLIDE RETAINER PLATE (Figure 4) is locked in the correct position by the LATCH. The formed end of the latch should be engaged in the two small LATCH NOTCHES. In case this is not so, turn the plate until it is locked.

Before you start to load the 140 tray, check to be sure that the INDEX HOLE (Figure 5) is opposite the INDEX NOTCH, as shown. If it is not, press the LATCH in the direction indicated by the arrow. Holding the latch in this position, turn the

PROJECTION DISTANCE TABLE FOR KODAK EKTAGRAPHIC SLIDE PROJECTORS

(Projection distances are approximate and are measured from projector gate to screen.)

LENS FOCAL LENGTH (IN INCHES)							IES)		SCREEN-IMAGE DIMENSIONS (IN INCHES)			
1.4	2	3	4 PROJEC	5 TION DI	7 STANCES	9 S (IN FI	11 EET)	4 to 6 (Zoom)	135—35mm	126	SUPER-SLIDE	SINGLE-FRAME FILMSTRIP
$\begin{array}{c} 2\\ 3\\ 3^{1}/_{2}\\ 4^{1}/_{2}\\ 5^{1}/_{2}\\ 6^{1}/_{2}\\ 8^{1}/_{2}\\ 10^{1}/_{2}\\ 12^{1}/_{2} \end{array}$	3 4 5 <sup>1</sup> / <sub>2</sub> 8 9 12 15 18	4 6 8 10 11 <sup>1</sup> / <sub>2</sub> 14 <sup>1</sup> / <sub>2</sub> 18 <sup>1</sup> / <sub>2</sub> 23 27	$5\frac{1}{2}$ 8 10 <sup>1</sup> /2 13 15 <sup>1</sup> /2 18 24 <sup>1</sup> /2 30 <sup>1</sup> /2 36 <sup>1</sup> /2	7 10 13 16 <sup>1</sup> / <sub>2</sub> 23 30 <sup>1</sup> / <sub>2</sub> 38 45 <sup>1</sup> / <sub>2</sub>	$     \begin{array}{r}       10 \\       14 \\       18^{1/2} \\       23 \\       27 \\       32^{1/2} \\       42^{1/2} \\       53 \\       64 \\     \end{array} $	12 <sup>1</sup> / <sub>2</sub> 18 24 29 <sup>1</sup> / <sub>2</sub> 35 41 <sup>1</sup> / <sub>2</sub> 55 69 82	15 <sup>1</sup> / <sub>2</sub> 22 <sup>1</sup> / <sub>2</sub> 29 36 42 <sup>1</sup> / <sub>2</sub> 51 67 84 100	$\begin{array}{c} 5\frac{1}{2} \ to \ 8\frac{1}{2} \\ 8 \ to \ 12 \\ 10\frac{1}{2} \ to \ 16 \\ 13 \ to \ 19\frac{1}{2} \\ 15\frac{1}{2} \ to \ 23\frac{1}{2} \\ 18\frac{1}{2} \ to \ 27\frac{1}{2} \\ 24\frac{1}{2} \ to \ 36\frac{1}{2} \\ 30\frac{1}{2} \ to \ 45\frac{1}{2} \\ 36\frac{1}{2} \ to \ 55 \end{array}$	13½ x 20 20 x 30 27 x 40 33½ x 50 40 x 60 48 x 72 64 x 96 80 x 120 96 x 144	15½ sq 23 sq 31 sq 39 sq 45 sq 56 sq 75 sq 93 sq 112 sq	22 sq 33½ sq 44½ sq 55½ sq 60 sq 80 sq 87 sq 132 sq 160 sq	10 x 13 <sup>1</sup> / <sub>2</sub> 15 x 20 20 x 27 26 x 33 <sup>1</sup> / <sub>2</sub> 30 x 40 36 x 48 48 x 64 60 x 81 72 x 96



bottom plate until the index hole points to the index notch. Then release the latch.

The molded numbers on the trays are SLIDE IDENTIFICATION NUMBERS (Figure 6). (Only even numbers are marked on the 140 tray.) The slide being shown will be opposite the gate index on the projector.

Remove the slide LOCK RING (Figure 6) by turning it counterclockwise (UNLOCK) and lifting it off the tray. Insert a slide in each slot in the tray, orienting the slide so that the image projected on the screen is right side up and reads correctly from left to right.

After all slides are in the tray, replace the lock ring, turning it toward LOCK until you feel the detent action once or twice. This will lock the ring to the tray.

### INSTALLING THE SLIDE TRAY

### The CAROUSEL Universal and CAROUSEL Trays

Hold the tray over the projector, center it over the center post on the top of the projector, and turn it to place the slide-identification number "O"—or "zero position"—at the GATE INDEX, as shown in Figure 7. Next, lower the tray and seat it firmly within the SLIDE TRAY GUIDE RING. If the tray and projector components do not mesh properly, recheck the metal slide retainer plate as described under "Loading the Slide Tray."

#### The CAROUSEL 140 Tray

Put 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 revolve the tray slowly *in a clockwise direction* until the identification bar—or "zero position"— (between numbers 2 and 140) on the tray is adjacent to the gate index. The tray will drop into operating position on the top of the projector. If the slide tray does not easily drop into place, check the alignment of the index hole and index notch as described under "Loading the Slide Tray."

**NOTE:** The 140 tray drops down farther during the first change cycle or when the select button is pressed.

#### Using an Extra Slide or Cardboard

If you wish to use an extra slide, for a total of 81 (or 141 with the 140 tray), or a title slide that will be projected as soon as the projection lamp goes on, insert this slide in the projector gate (see Figure 10) before you set the tray in place. Or, if you want the screen to be dark after you have shown slide No. 80 (or No. 140 in the 140 tray), insert a  $2 \times 2$ -inch piece of thin cardboard in the gate before you position the tray on the projector. This additional slide or piece of cardboard will enter the blocked-off space in the tray at No. 0 when the first regular slide is projected; it will return to the gate when the slide tray is positioned at zero.

Another use for the 2 x 2-inch cardboard is to separate or terminate small groups of slides in a tray. Insert a cardboard in the tray whenever you want a dark-screen interval.

### PREPARING THE PROJECTOR

1. Open the door of the CORD COMPARTMENT (Figure 8) on the bottom of the projector. Remove the remote control cord and withdraw the POWER CORD.

**IMPORTANT:** Always make sure you have pulled out the cord to its full length before you turn on the projector. The compartment must not be used for storage during projection. This is necessary to provide proper air circulation through the projector case.

### operating the projector

At this point the projector should have been prepared for operation as described in the previous section. Now move the selector switch to LOW or HIGH, depending on which level of illumination is best suited to your projection situation.

(If your slide show has been designed for automatic projection, set the timer at 5, 8, or 15. The slide-changing mechanism will then be actuated automatically and each slide will be shown for the number of seconds you have selected.)

### FORWARD AND REVERSE BUTTONS

To project the slide with the next higher identification number, momentarily depress the *forward* button; the slide tray will rotate one slide space in the forward (counterclockwise) direction. Depress the *reverse* button to rotate the tray one slide space in the reverse (clockwise) direction. (Either button can be used to override automatic-timer operation, if desired.)

**IMPORTANT:** When you use the reverse button, press it *firmly*. If this button is not firmly depressed, the slide tray may rotate in a forward direction.

### **REMOTE CONTROL**

The forward and reverse buttons on the remote control function the same as those on the projector.

The focusing lever on the remote control performs the same function as the focus knob on the projector.

#### RANDOM PROJECTION

To project a slide out of sequence:

1. With one hand, firmly depress the select button and hold it down.

2. Rotate the slide tray with the other hand until the number of the slide you want to project is opposite the gate index on the projector.

3. Release the select button. The selected slide will be immediately projected.

### NORMAL SLIDE-TRAY REMOVAL

If the zero position is at the gate index, simply lift off the tray. Otherwise:

1. With the projector turned on, depress the select button firmly and hold it down.

2. Rotate the slide tray—in either direction—until the zero position is opposite the gate index.

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

### EMERGENCY SLIDE-TRAY REMOVAL

In the event that the slide-changing mechanism becomes inoperative as the result of a defective slide becoming lodged in the projector gate, the tray usually will need to be removed in order to eliminate the trouble. If the tray does not advance, depress either the forward or reverse button. If this does not free the stuck slide, follow the tray-removal procedure given on the next page.

The power cord, permanently attached to the projector, has a 3-prong polarized plug for connection to a 110- to 125-volt, 60 Hz outlet of the grounding type. The cord can also be connected to a conventional 2-prong wall receptacle. To do this, however, a 2-prong adapter must be used and the wire attached to the adapter must be connected to a suitable ground. The faceplate screw on the receptacle box can be used if the box is grounded; otherwise a cold-water pipe or other solid ground will be needed.

2. Connect the remote control cord to the projector with the small ORIENTATION DOT (Figure 3) on the cord-plug facing up.

**NOTE:** The *white* dot on the plug of the remote control assembly for your projector denotes a 5-conductor cord. This assembly, or an exact duplicate, must be used with the Model AF-2 Projector for all applications, including installations where one or more KODAK Remote Extension Cords are employed.

3. If a loaded slide tray is not on the projector, install one at this time. Use the procedure described above.

4. Set the automatic timer at M. Move the selector switch to either LOW or HIGH.

5. If you have placed an additional slide in the projector gate, as described on page 6, this slide will now be projected on the screen. If you have placed a square of cardboard in the gate, the screen will be dark. Otherwise, the screen will be bright. If there is no image, momentarily depress the forward button on the projector or the remote control to project the first slide.

6. Focus the image on the screen, using the focus knob or the remote-control focus lever. Only the first image requires focusing; the remaining images will be automatically focused. (See page 5 for focusing instructions for the zoom lens.)

7. Center the image vertically on the screen (elevating wheel).

8. Level the screen image (leveling foot).

9. Move the selector to OFF until you are ready to start projecting.



Proceed as follows:

1. Turn the coin-slotted TRAY REMOVAL SCREW (Figure 9) in either direction as far as it will go.

2. While holding the screw in this position, lift the tray off the projector.

3. Remove the obstruction from the projector gate by depressing the select button, or correct any other cause of the malfunction.

4. With the locking ring in place, turn the tray upside down. Rotate the bottom plate, or slide retainer, until the latch engages the notches in the plate (or until the index hole is adjacent to the index notch on the 140 tray). See page 5. Place the tray on the projector. Repair the damaged slide (if this was the cause) and return it to the tray.

### ALTERNATIVE PROJECTION METHODS

1. Slides in tray without tray ring: By leaving the tray ring off, slides can be inserted or removed easily. This simplifies editing.

2. With the KODAK CAROUSEL Stack Loader: Lets you project and edit up to 40 2 x 2-inch slides in cardboard or thin plastic mounts (.040- to .060-inch thick) without using a slide tray.

3. Without a slide tray: A single slide can be shown simply by inserting it, correctly oriented, into the projector gate as shown in Figure 10. To remove the slide, depress the select button.

### FOR LONG-RUN APPLICATIONS

If the projector is to be run for an unusually long period of time, these precautions should be observed:

• Provide for unrestricted flow of air to and from the openings in the projector housing. If the projector is to be used in a window display or in a cabinet, provide a duct for warm air expelled from the rear grill vent. In some cases, additional forced air ventilation may be needed.

• Keep air circulating through the projector. Air at normal room temperature is satisfactory.

Detailed information on long-run applications is contained in Kodak Pamphlets No. S-53, Heavy-Duty Operation of KODAK EKTAGRAPHIC and CAROUSEL Slide Projectors, and No. S-56, The Care and Maintenance of KODAK CAROUSEL Slide Trays. Prices and ordering information for these and other related Kodak publications are given in Kodak Publications List No. MPE-1, available free from Eastman Kodak Company, Dept. 412L, Rochester, N. Y. 14650.

### after the showing –a shutdown procedure

We recommend that you use a standard shutdown procedure after your slide presentation has been completed. This will help provide proper care of the projector and will make certain it is ready for the next user.

1. Rotate the slide tray to the zero position, using the select button (page 7, **RANDOM PROJECTION).** 

#### 2. Move the power switch to OFF.

(The right rear corner of your projector may be uncomfortably warm for several minutes after you switch off the power —the maximum temperature reached, however, will be well below the danger point for the lamp, projector, tray, or slides. If the projector must be handled immediately after a slide presentation or the lamp must be changed quickly, the fan can be run to accelerate cooling of the projector.)

- 3. Remove the slide tray from the projector.
- 4. Retract the elevating and leveling feet.
- 5. Retract the lens (focus knob).

6. Disconnect the remote-control and power-cord plugs. Store the cords in the cord compartment.

If there is no need to move the equipment before your next slide presentation, you can omit steps 4 through 6.

# servicing the projector

Before you attempt any maintenance or cleaning operation on the projector, make certain the unit is cool. *Disconnect the power cord from its outlet*. Also, it is a good idea to remove the slide tray and the remote control cord.

### **PROJECTION LAMP REPLACEMENT**

Turn the projector upside down. Open the LAMP DOOR (Figure 8) by turning the coin-slotted screw counterclockwise.

Release the LAMP EJECTOR LEVER (Figure 11) from the notch in which it is secured, and lift the lever to eject the lamp from its socket. Withdraw the lamp, noting how the two pins on its base fit into the socket.

To install a lamp, place it on the socket with the two pins on its base fitting in the two slots in the socket. Return the ejector lever to its original position and make sure it is latched; the lever will locate the lamp correctly for operation. Close and fasten the lamp door.

The standard replacement lamp for this projector is a 35hour (HIGH setting) ANSI Code ELH lamp; however, lamps with differing specifications may be desirable for some applications. Information on this subject is available in Kodak Pamphlet No. S-49, Projection Distance Tables and Lamp Data for KODAK Slide and Motion Picture Projectors. (See bottom of left column, page 8.)

#### THERMAL FUSE

Your projector is equipped with a thermal fuse to prevent overheating. Should the fuse open, the projector will not operate. Replacement of this fuse demands partial disassembly of the projector, a job requiring factory or repair station attention. (See listing of Kodak service facilities on page 12.) Also, you should determine and correct, if possible, any situation outside the projector that may have contributed to fuse failure—inadequate ventilation, dusty environment, etc —before using the projector.

#### CLEANING

The optical system of your projector must be kept clean for best results. Fingerprints or smudges on the lenses will reduce the brightness and clarity of the screen image. A small amount of dust will have a negligible effect on the projected images.

### Projection Lens

Remove the lens from the projector. With a soft, clean, lintless cloth or KODAK Lens Cleaning Paper, wipe the front and back surfaces of the lens.

Replace the lens, making sure that the teeth on the lens barrel are engaged by the gear on the focus-knob shaft.

### **Condenser Optics**

WARNING: Heat-absorbing glass is subjected to special



### FIGURE 11

processes that tend to put stresses and strains into it. Consequently, the glass may shatter for no apparent reason and without warning. Therefore, handle heat-absorbing glass with care and follow these recommendations:

1. For personal safety, use a piece of cloth or a glove while handling the glass.

2. Place the glass on an insulating material such as wood, rubber, or cardboard.

3. Keep the glass covered while it is removed so that if shattering occurs, it will be confined.

Turn the projector upside down. Open the lamp door as described above. Release the LENS RETAINER from the notch in which it is secured and raise it to an upright position. Carefully lift out the HEAT-ABSORBING GLASS and the CONDENSER LENS, noting their positions in the chamber. Do not attempt to remove the MIRROR; it has been precisely aligned during manufacture to provide optimum screen illumination. Avoid touching the mirror surface with the fingers. Clean the mirror and both sides of the heat-absorbing glass and condenser lens with a clean, soft, lintless cloth or with KODAK Lens Cleaning Paper.

Replace the elements as follows, holding each one by its edges to prevent finger marks: condenser kens in the guides nearest the front of the projector with the flat side of the condenser toward the front; heat-absorbing glass in the guides nearer the mirror. Return the lens retainer to its original position and make sure it is latched.

**NOTE:** Failure to position the condenser lens correctly will cause the focus motor to run continuously.

Close and fasten the lamp door.

Each of the items described below is a useful accessory for the KODAK EKTAGRAPHIC Slide Projector, Model AF-2.



KODAK CAROUSEL Universal Slide Tray

KODAK CAROUSEL Slide Tray





KODAK CAROUSEL 140 Slide Tray

Additional slide trays, supplied in attractive bookshelf-type storage boxes. Each box contains an identification card and tray sticker. Use the CAROUSEL Universal Slide Tray for all slides, including glass-mounted slides up to  $\frac{1}{8}$  inch thick; use the CAROUSEL Slide Tray for slides mounted in cardboard or thin glass (up to 1/10 inch thick). For 140-slide capacity of slides in cardboard or thin plastic mounts up to 1/16 inch thick, use the CAROUSEL 140 Slide Tray.



KODAK CAROUSEL Projector Case, Model B

Accommodates projector, one slide tray, extra lenses, cords, and spare lamp. Made of gray, heavy-duty simulated leather. Provides complete protection plus convenience and attractive appearance during transportation and storage. (Will hold the KODAK EKTAGRAPHIC Slide Projector, Model AF-2, with 7-inch or zoom lens in place if the projector is inserted on its side.)



KODAK Carrying Case for KODAK CAROUSEL Slide Trays

Has two compartments so that three slide trays can be carried or one or two trays plus extension cords, lenses, and other equipment.



KODAK AV Compartment Case

A convenient, rugged case of vulcanized fiber. Will accommodate the Kodak Ektagraphic Slide Projector, Model AF-2, with 7-inch or zoom lens in place. Also will hold one slide tray, extra lenses, cords, and spare projection lamp.



KODAK Projection Lenses

Give superb edge-to-edge sharpness and color clarity. Eight Kodak Projection Lenses are available for your projector.



KODAK Remote Extension Cord, 25-Foot

auxiliary

equipment

Extends the range of the 12-foot remote control cord so that you can operate the projector from a location near the screen. Several extension cords can be added to accommodate any reasonable projection distance.



KODAK CAROUSEL Programmer, Model 1

The programmer lets you connect the projector to a stereo or monaural tape recorder . . . record voice commentary, sound effects, music, and a "trip signal" for each slide advance. In playback, the sound synchronizes with the screen images and the "trip signals" change slides automatically. Can also control two projectors through a KODAK CAROUSEL Dissolve Control.



### KODAK CAROUSEL Sound Synchronizer, Model 2

This unit permits a stereo record/playback tape recorder, that is equipped with an external speaker jack, to be used as a programmer with your projector. In operation, one of the tape tracks is used for slide-change signals while all other sound is recorded on the other channel. Can also control two projectors through a KODAK CAROUSEL Dissolve Control.



### KODAK CAROUSEL Dissolve Control, Model 2

Controls two Model AF-2 projectors for slide shows in which one image "dissolves" into the next while screen illumination remains virtually constant. The unit contains a timer for continuous automatic operation, or it can be controlled by the remote control cord of one of the projectors. Can also be controlled by the KODAK CAROUSEL Programmer or KODAK CAROUSEL Sound Synchronizer, Model 2. Ideal for sales presentations or more sophisticated slide showings.



KODAK Motion Adapter

This device, when used in conjunction with specially prepared slides, allows you to produce realistic effects of motion on the projection screen.



Lets you project and/or edit up to forty 2 x 2-inch slides in cardboard or thin plastic mounts without placing them in a slide tray. Uses the gravity-feed system that makes your projector so reliable.



### KODAK EKTALITE Projection Screen, Model 3 (40x40)

Provides an image of superior brightness and almost totally rejects stray light that falls on the screen surface from anywhere outside normal viewing positions. The result—excellent contrast and color saturation, even in brightly lighted areas.

### SERIAL NUMBER

Each KODAK EKTAGRAPHIC Slide Projector, Model AF-2, has a serial number stamped on the bottom of the projector near the cord compartment. Make a note of this number for your records in case your projector is lost or stolen.

### WARRANTY

Upon return within one year from date of purchase, a KODAK EKTAGRAPHIC Slide Projector, Model AF-2, determined by Kodak to be defective in manufacture will be repaired or replaced at no charge. No other warranty, express or implied, shall be applicable to this equipment. Nor are we responsible for loss of film, for other expenses or inconveniences, or for any consequential damages occasioned by the equipment.

### service facilities

If your KODAK EKTAGRAPHIC Slide Projector, Model AF-2, should require service, it may be returned to your dealer in Kodak audiovisual products or sent directly to Eastman

Eastman Kodak Company Central Equipment Service Center 800 Lee Road Rochester, N. Y. 14650

Eastman Kodak Company Regional Equipment Service Center 5315 Peachtree Industrial Blvd. Chamblee, Ga. 30341

Eastman Kodak Company Regional Equipment Service Center 2800 Forest Lane Dallas, Tex. 75234

Eastman Kodak Company Regional Equipment Service Center 12100 Rivera Road Whittier, Calif. 90606

Service is also available from many dealers who sell Kodak audiovisual products. Refer to the yellow pages of your telephone directory under Audiovisual Equipment and Supplies. When you return equipment for repair, it should be acKodak Company. Complete equipment service facilities for your projector are provided at the Kodak Service Centers listed below:

Eastman Kodak Company Regional Equipment Service Center 1334 York Avenue New York, N. Y. 10021

Eastman Kodak Company Regional Equipment Service Center 1901 West 22nd Street Oak Brook, III. 60521

Eastman Kodak Company Regional Equipment Service Center 9100 Alcosta Blvd. San Ramon, Calif. 94583

Eastman Kodak Company Regional Equipment Service Center 1065 Kapiolani Blvd. Honolulu, Hawaii 96814

companied by a description of the trouble encountered, the serial number, and other available information regarding the projector, including the date and place of purchase.

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