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GUARANTEE

Within a year after purchase, any repairs necessary to this Kodak Retina Reflex IV Camera—*bearing a serial number with "EK" prefix*—due to a defect in materials or workmanship will be made or, at our option, the camera will be replaced without charge, provided the camera has not been altered, modified, or disassembled in any manner. No other warranty or guarantee, express or implied, shall be applicable to this equipment. Nor are we responsible for loss of film, for other expenses or inconvenience, or for any consequential damages occasioned by the equipment.

In case of unsatisfactory operation, the camera should be sent directly or through a Kodak dealer to Eastman Kodak Company or a repair firm authorized by us to make such repairs. It should be accompanied by a description of the trouble encountered and other available information regarding the camera, including the date and place of purchase.

EASTMAN KODAK COMPANY, Rochester, N. Y. 14650



KODAK RETINA REFLEX IV CAMERA

KODAK RETINA REFLEX IV CAMERA

A notable step forward in design and precision workmanship is incorporated in this new single-lens reflex camera which provides brilliant focusing and viewing at the widest lens opening and an automatic "stop-down" to a previously selected lens opening.

Its many unique features add greatly to picture-taking ease and scope:

- Focusing (down to 2 feet) and viewing directly through taking lens — you see what will be recorded on the film. Lens-opening and shutter-speed setting visible in viewfinder.
- Interchangeable lenses available from 28mm (wide-angle) to 200mm (telephoto).
- Automatic dual exposure control—centering exposure control needle, either on the top of the camera or in the finder, automatically sets exposure.
- Flash contacts in accessory shoe for cordless flasholders; alternate flash outlet for cord-type flasholders.
- Automatic depth-of-field indicator — adjusts automatically for all distances and lens openings.

Before an important picture assignment, a trip, or any special event, expose a magazine of film and make a few flash pictures. This will give you practice and provide a check on your equipment.

PICTURETAKING

with your Retina Reflex IV Camera

... it's as easy as this!

After setting the film speed, of the film loaded in the camera, on the exposure control dial, you . . .

1. Turn the shutter speed ring by its black handles to select a shutter speed (1/125 recommended for general picturetaking).
2. Rotate the setting wheel, located below the shutter housing, to center the needle between the pointers on the top of the camera or in the viewfinder.
3. Look through the eyepiece; adjust the focus; compose the picture; check the exposure.
4. Press the exposure release to take the picture.

CONTENTS

	Page
Films	4
Loading	6
Setting Film Speed	9
Unloading	10
Shutter Controls	10
Exposure Control	11
Viewing and Focusing	15
Taking the Picture	17
Flash	18
Hints on Exposure Control	22
Photo Aids	23
Service Facilities	26

FILMS— color films

use Kodak
135 Film

Kodachrome II Film — For color slides for projection or from which color prints or enlargements can be made. Expose by daylight or *blue* flashbulbs. 20 or 36 exposures.

Kodachrome-X Film — A higher-speed film than Kodachrome II, this film also yields color slides for projection or from which color prints and enlargements can be made. Expose by daylight or *blue* flashbulbs. 20 or 36 exposures.

Kodak Ektachrome-X Film — For color slides for projection or from which color prints and enlargements can be made. You can process this film yourself or have it processed by a laboratory. Expose by daylight or *blue* flashbulbs. 20 or 36 exposures.

Kodacolor-X Film — A negative color film for color prints, enlarge-

ments, or slides. Expose by daylight or flash, as recommended in the instructions packed with the film. 20 exposures.

Kodak High Speed Ektachrome Film — This extremely fast film permits excellent color pictures in low illumination. Yields color slides for projection or from which color prints and enlargements can be made. Available in Daylight Type (for exposure in daylight or by *blue* flashbulbs) or Type B (for existing tungsten light). 20 or 36 exposures.

Kodachrome II Professional Film, Type A — This film is color-balanced for use with photoflood lamps, although, with corrective filters, it can be exposed by daylight or flash. Provides color slides for projection or from which color prints and enlargements can be made. 36 exposures.

black-and-white films

Kodak Panatomic-X Film — The film to use for big enlargements when high film speed is not a factor. It combines exceptionally fine grain and the ability to record extremely fine detail. 20 or 36 exposures.

Kodak Plus-X Pan Film — An excellent high-speed panchromatic film for general outdoor and interior use. The low graininess and high resolving power permit high-quality enlargements. 20 or 36 exposures.

Kodak Tri-X Pan Film — An extremely fast panchromatic film of moderate contrast, wide exposure and development latitude, and color sensitivity suitable for all types of illumination. 20 or 36 exposures.

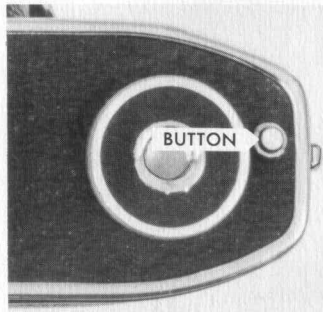
NOTE: For special-purpose films, see your Kodak dealer.

KODAK FILMS	FILM SPEEDS	
	Daylight	Photoflood
Kodachrome-X	64	25*
Kodachrome II	25	12*
Ektachrome-X	64	25*
High Speed Ektachrome (Daylight)	160	—
High Speed Ektachrome (Type B)	80†	100***
Kodacolor-X	80	25*
Kodachrome II Professional, Type A	25**	40
Panatomic-X	40††	
Plus-X Pan	125††	
Tri-X Pan	400††	

*With a photoflood filter, such as the No. 80B (for Daylight Type Color Films).
 **With a filter, such as the No. 85.
 ***With a filter, such as the No. 81A. Film speed 125 in existing tungsten light.
 †With a daylight filter for Type B Color Films, such as the No. 85B.
 ††For daylight or photoflood. When using filters, see page 24.

How to get your film processed—by Kodak or other laboratory offering such service—is described in the instructions packed with the film.

LOADING—
always
in subdued
light

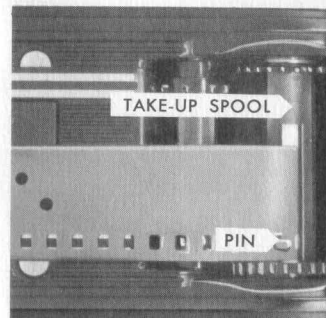


1. To open the back of the camera, press the opening **BUTTON**, within its curved guard. The back will spring open.

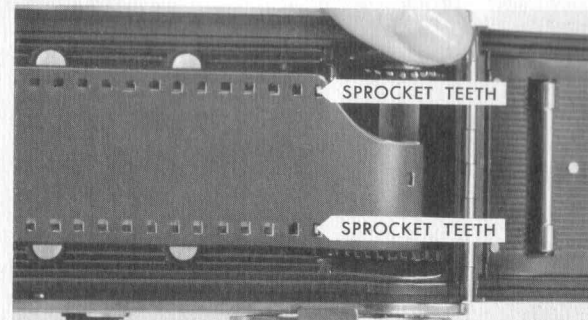


2. Fold out the black rewind crank, located on top of the **REWIND KNOB**, to the position shown; then pull out the rewind knob.

Place the film magazine in the recess next to the rewind knob. Push the rewind knob all the way in, turning it slightly if necessary; then fold down the crank.



3. Turn the built-in **TAKE-UP SPOOL** by one of its toothed flanges until the opening in the spool points upward. With the lower edge of the film against the lower take-up spool flange, push the film end protruding from the magazine far enough into this opening (over the white inner core and under the black outer casing of the spool) to anchor a perforation over the small pin, as illustrated.



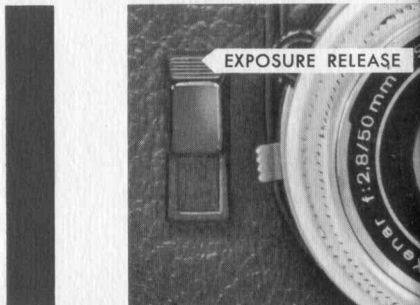
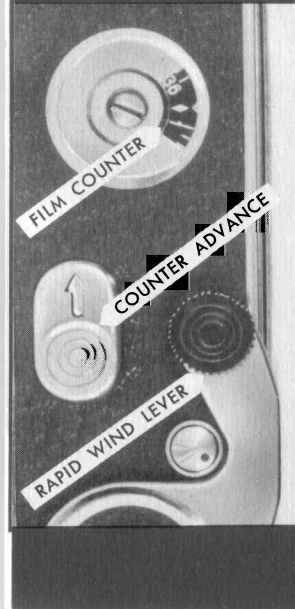
4. Turn the take-up spool by one of its flanges until the **SPROCKET TEETH** engage the perforations on *both sides* of the film, as shown in the illustration.

Close the back of the camera, by pressing the back against the body until it locks.

SETTING THE FILM COUNTER

The film counter is located on the bottom of the camera. Opening the back of the camera automatically sets the FILM COUNTER at the diamond-shaped mark near 36, for use with a 36-exposure magazine. If you are using a 20-exposure magazine, slide the film COUNTER ADVANCE in the direction of the arrow as many times as necessary to bring the diamond-shaped mark near 25 on the film counter opposite the triangular pointer. Press and release the EXPOSURE RELEASE; then swing out fully and release the RAPID WIND LEVER. Do this 2 more times to bring the film counter to 36 or 20, depending on the number of exposures in your magazine. The film counter indicates the number of exposures still available.

NOTE: When the rapid wind lever is swung out, the rewind knob should turn counterclockwise (after slack has been taken up in the magazine). This will provide a check on whether or not film is advancing properly.

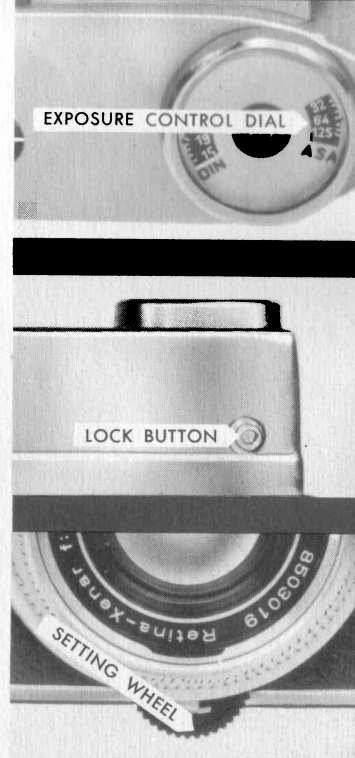


SETTING THE FILM SPEED

The film speed of the film loaded in the camera (found on page 5 or in instructions packed with film) must be set on the EXPOSURE CONTROL DIAL of your camera.

To do this, slide up the LOCK BUTTON on the back of the camera and, at the same time, rotate the SETTING WHEEL, underneath the shutter housing, until the notch in the window, marked ASA, is opposite the film speed number of the film loaded in the camera. The illustration shows a film speed of 64, which should be set if Kodachrome-X Film is loaded in the camera. The window marked DIN applies to film speeds that are rated by a different method.

NOTE: Resistance may be encountered in setting the film speed. Continue to turn the setting wheel, if possible; this changes the shutter speed setting automatically. However, if the shutter speed and lens opening scale have both reached the limit of their travel, it will be necessary to release the lock button, rotate the setting wheel until the lens opening scale is at its opposite extreme; then, again slide up the lock button and rotate the setting wheel to reach the desired film speed.



UNLOADING

Always Unload in Subdued Light

To rewind the exposed film, first depress the **CLUTCH BUTTON** in the base of the camera; then fold out the rewind crank (located on top of rewind knob), and turn the crank in the direction of the arrow until the clutch button ceases to rotate. This is easily observed by the small black dot near the rim of the button. Give a few more turns to draw the film into the magazine; open the camera back, pull out the rewind knob, and remove the magazine.



SHUTTER OPERATING CONTROLS

The **SETTING WHEEL** is used to set the film speed and to set the correct exposure as described on the next page. Do not set between marked shutter speeds.

The **SPEED RING** is used to select Shutter Speed — Lens Opening combinations from those available. Turn the speed ring gently, by its black handles, and do not set between marked speeds or rotate past a point where resistance is encountered, indicating the limits of either the shutter-speed or lens-opening scale have been reached. The shutter-speed and lens-opening setting is also visible in the viewfinder.

The black figures on the shutter speed ring indicate fractions of a second: 1 = 1 second, 2 = 1/2 second, etc. Use of the letter "B" and the green figures are described on page 20.



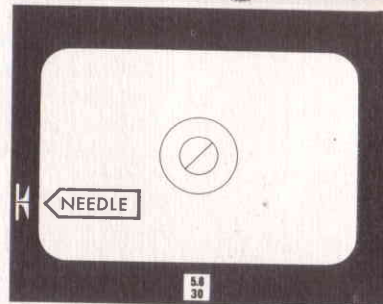
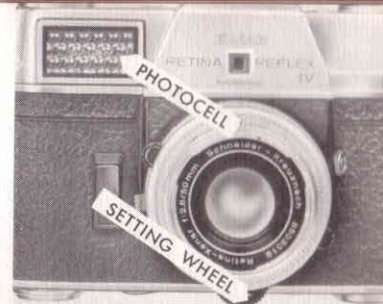
AUTOMATIC EXPOSURE CONTROL

When the camera is pointed toward the subject, the exposure control measures light reflected by the subject.

NOTE: Make sure that the white Incident Light Mask, packed with the camera, is not over the **PHOTOCELL**. Also that the honeycomb surface of the photocell is not obstructed by fingers, strap, etc.

Use the automatic exposure control as follows: After selecting an appropriate shutter speed (for general purposes 1/60 or 1/125), point the camera at the subject. Rotate the **SETTING WHEEL** to center the **NEEDLE** exactly between the two pointers — either

- in the viewfinder, as shown in the illustration, opposite, or
- in the semi-round window, as shown in the lower illustration. Look *straight* down into the window.



For correct exposure the needle must be centered *precisely* within the pointer gap.

If a red signal bar enters the exposure-control pointer field, this indicates that the shutter speed selected is outside of the exposure-control limits as your camera is presently set. If the speed of the film loaded in the camera (set in ASA window) is suitable for the prevailing light conditions, you can still set the exposure. To do this, change shutter speeds (in full click-stops) by rotating the setting wheel past a slight resistance point which occurs at the limits of the lens opening range.* This will allow precise centering of the needle.

In centering the needle, the LENS OPENING SCALE is automatically set so that the correct lens opening is indicated opposite the INDEX mark and shutter speed.

*The camera is designed to accept lenses with a maximum lens opening of $f/1.9$, and the lens opening scale is marked accordingly. When lenses with other maximum lens openings such as $f/2.8$ or $f/4.8$ are used, the lens opening scale comes to a stop at the maximum opening of the lens used.



Picturetaking—When you set the lens opening, shutter speed (in fractions of a second) and lens opening (in f /numbers) are automatically coupled and can be read opposite the black triangular index and in the viewfinder. Lens openings and shutter speeds, then, can be changed, without changing the basic exposure, by rotating the shutter speed ring by its black notched handles, *up to the extremes of the lens-opening or shutter-speed scale*. A change in one means that a simultaneous compensating change is made in the other. For example: the camera may be set for a combination of lens opening $f/8$ and $1/60$ second. Suppose this combination is not suitable for your subject because you need a faster shutter speed such as $1/500$ second for a sports shot. In that case, turn the shutter speed ring from $1/60$ to $1/500$ second. This automatically adjusts the lens opening to $f/2.8$ and thus compensates for the faster shutter speed time.

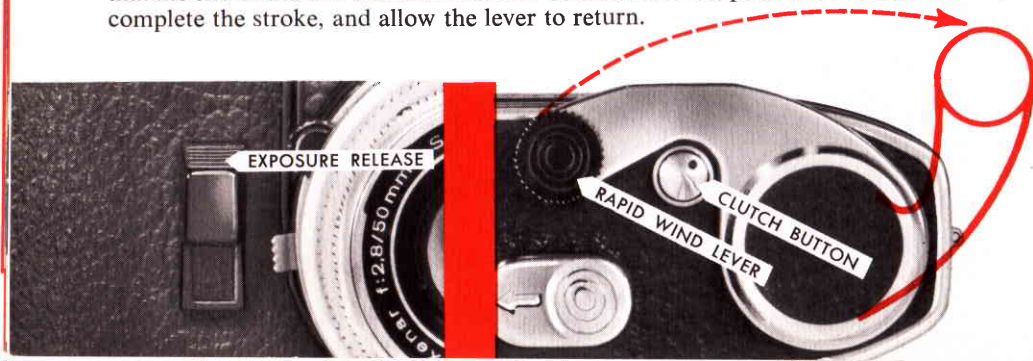
On the other hand, if you intend to take a picture which calls for good depth of field,* for example, needing a lens opening such as $f/16$, you must rotate the shutter speed ring in the same manner until the figure 16 on the lens opening scale is opposite the index mark. This changes the shutter speed to $1/15$ second.

*Depth of field is described on page 17.

SETTING AND RELEASING SHUTTER

If the shutter is not set, pressing the EXPOSURE RELEASE will not trip the shutter. To set the shutter, with the right thumb on the black knurled button at the end of the RAPID WIND LEVER, swing out the lever in one positive movement *to the very limit of its travel*; then let it return to its original position. If it does not return, you did not swing it out far enough. Swinging out this lever, at the same time sets the shutter and advances the film. If you have film in the camera it is advanced by one frame. Operate the exposure release, by pressing it down all the way with a slow, squeezing action.

If the rapid wind lever becomes locked, this means that the exposure release has not been pressed. If the rapid wind lever cannot be *swung out fully*, this indicates that the end of the film has been reached. To free the lever, press the CLUTCH BUTTON, complete the stroke, and allow the lever to return.



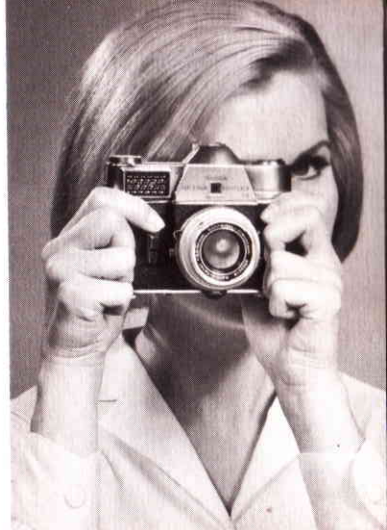
VIEWING AND FOCUSING

Grip the camera with both hands and look through the eyepiece. *The finder image is visible only after operating the RAPID WIND LEVER.* With the right thumb, swing out the lever *as far as it will go*; then let it return to its original position. Hold the camera at that distance from the eye which allows you to see all of the ground glass.

In the center of the ground glass screen, you will see a circle divided by a diagonal line; this is the split-image rangefinder.

There are two methods of focusing the picture correctly – with the aid of the rangefinder or by means of the ground glass. The nature of the subject indicates largely which method is more suitable.

Subjects without prominent horizontal or vertical lines are more easily focused on the ground glass screen. But if the subject has such lines, the rangefinder is probably more suitable for focusing.



The illustration shows a recommended position for horizontal pictures; other positions, of course, are possible.

Using Ground Glass Screen—Turn the knurled distance-scale ring, at the front of the lens mount, until the subject you are picturing appears at its sharpest on the ground glass.

Using Rangefinder—Direct the camera so that circular area in the center of the screen covers a vertical or horizontal line of the subject. Turn the distance scale ring—the image in the upper half of the circle will move relative to that in the lower half. When the two halves line up exactly, the camera is correctly focused.

Using Focusing Scale—Rotate the distance-scale ring until the film*-to-subject distance, in feet (*red figures*), is opposite the triangular, black index, located between the two red pointers (shown page 17). The black figures are film-to-subject distances in meters.

Exposure Setting—Also visible at the lower left side of the viewfinder, is the exposure control needle. This serves for exposure-setting as described on pages 11 and 12. The lens-opening and shutter-speed setting in use are shown in the lower part of the viewfinder.

*The film plane coincides approximately with the rear edge of the shoe bracket on the top of the camera.



Out of focus

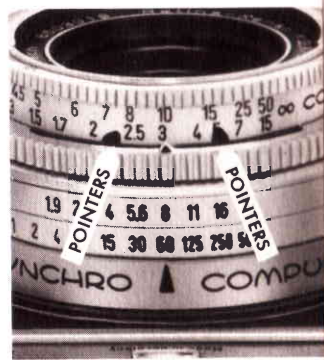


In focus

DEPTH OF FIELD

After you have properly focused on your subject, the subject will be sharp in the picture. However, other objects in the picture area, both in front of and behind the subject, will also be in focus. This range of sharpness is known as "depth of field." The larger the *f*/number (smaller lens opening), the greater the depth of field at the same distance setting.

The two red POINTERS of the automatic depth-of-field indicator show, at a glance, the correct depth of field for any distance or lens opening set on the camera. For example, as in the illustration, if the distance setting is 10 feet and the lens opening setting is *f*/8, the red pointers indicate a depth of field from about 7½ feet to 15 feet.



TAKING THE PICTURE

1. Set the shutter speed opposite the black triangular index.
2. Set the lens opening automatically by turning the setting wheel to center the needle between the exposure control pointers.
3. Focus the camera by the rangefinder, ground glass, or by setting the camera-to-subject distance opposite the focusing index.
4. Compose the picture in the reflex finder.
5. Hold the camera steady and press the exposure release all the way down with a slow, squeezing action to take the picture.

IMPORTANT: For good pictures, keep the lens and viewfinder eyepiece clean. Blow off any dust or grit; then wipe the surface gently with Kodak Lens Cleaning Paper or Kodak Lens Cleaner and a soft, lintless cloth.

FLASH PICTURES

Your camera has built-in synchronization for flashbulbs and electronic flash.

The camera is designed to accept 2 types of flashholders: the cordless-type, such as the Kodak Flashcube Holder, Model 1* or the Kodablitz Flashholder, with contacts in the base, which slip into the shoe bracket on the top of the camera; or the cord-type which attaches to the shoe bracket on the top of the camera, but is equipped with power cord and connector tip to fit the flash SOCKET of the camera. *Do not use the cord- and cordless-type flashholders simultaneously, because bulbs will fire on insertion.*

Shutter Speed: Flashbulbs are synchronized at speeds of 1/30 second and slower; electronic flash, at any speed from 1 sec. to 1/500 sec. Set the shutter speed *first* by turning the speed ring; then set the lens opening by rotating the knurled wheel. Otherwise, the lens opening will be changed because of the lens-opening, shutter-speed coupling.

Exposure: A flash exposure table is printed on the Kodablitz Flashholder and the Flashcube Holder, Model 1.

For other flashholders, a table of flash exposure guide numbers for calculating flash exposures, is printed on page 19. This exposure information is based on flash exposures in average-sized rooms with medium light-colored walls.

*Accepts the new 4-bulb flashcube for rapid flash picturetaking.

Flash Exposure Guide Numbers for Kodak Retina Reflex IV Camera

To calculate the lens opening, divide the proper exposure guide number, for the film you are using, by the bulb-to-subject distance in feet. Use the nearest lens opening (f/number).

Blue Bulbs†	Shutter Speeds	FILMS			
		Pan. X	Plus-X	Tri-X	Kodacolor-X
AG-1B (Ektamite)	1/30	35	70	120	50
AG-1B (2" Reflector)* M-2B (3" Reflector)*	1/30	70	140	250	100
M-3B (3" Reflector)* M-5B (3" Reflector)* No. 5B or No. 25B (4" Reflector)*	1/30	100	180	320	140
		Kodachrome-X	Kodachrome II	Ektachrome-X	High Speed Ektachrome (Daylight)
AG-1B (2" Reflector)*	1/30	100	60	100	150
AG-1B (Ektamite)	1/30	50	30	50	70
No. 5B or No. 25B (4" Reflector)* M-5B (3" Reflector)*	1/30	140	80	140	200

*For use with bowl-shaped, polished reflectors. If shallow, cylindrical or fan-shaped reflectors are used, divide these guide numbers by 2.

†Use these guide numbers, also, for clear AG-1, No. 5, No. 25 or M-5 bulbs with a filter such as the No. 80C.



SETTING EXPOSURES

without automatic exposure control

Shutter speeds and lens openings can also be set without using the exposure control. However, the *shutter speed must be set first* and the lens opening afterward, by rotating the knurled setting wheel. Otherwise, the lens opening will be changed because of the speed ring coupling.

You can set intermediate lens openings but not intermediate shutter speeds.

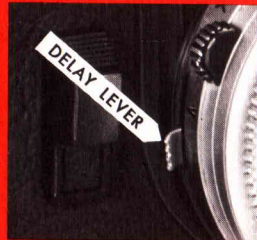
TIME EXPOSURES

If a subject needs a longer exposure time than 1 second, place the camera on a firm support and take a time exposure. The green scale of numbers, on the shutter speed ring, indicates *required* exposure time in *whole* seconds. This scale is intended to tell you only how long the exposure release must be depressed. The green letter B stands for "Brief Time." When you set "B," or any of the green numbers to the index mark, the shutter opens when the exposure release is pressed, and closes when it is released.*

*The Kodak Metal Cable Release No. 5 screws into the under side of the exposure release.

The Self-Timer

If you wish to include yourself in a picture, first operate the *rapid wind lever*; then, move the *DELAY lever* to "V." Start the self-timer mechanism by pressing the exposure release. The shutter will be released after about 10 seconds — time to take your place in the picture. After moving the delay lever to V, *it can only be returned by making an exposure.*



Here is an example (see illustrations): Suppose $f/4$ at a shutter speed of 1 second was a correct exposure. If, however, you want to use $f/11$ to obtain adequate depth of field, turn the shutter speed ring until $f/11$ is opposite the index. The green number "8" opposite the same index indicates that the exposure release be held down for 8 seconds.

There is no number 2 in the series of green numbers because its place is taken by the letter B. If, in the above example, you wish to use $f/5.6$, the exposure would be 2 seconds.

MULTIPLE EXPOSURES

To take an intentional multiple exposure, first make the original exposure; then *press and hold* the *CLUTCH BUTTON* while operating the rapid wind lever. Pressing this button disengages the film advance mechanism but permits the operation of the rapid wind lever to set the shutter. More frames of film (as many as number of multiple exposures made) will be available than is shown on the counter.



HINTS ON USING THE EXPOSURE CONTROL

REFLECTED LIGHT READINGS

The exposure control, reading light reflected by the subject, measures the over-all brightness of the scene it covers. For scenes in which neither highlight nor shadow areas predominate, and when you are interested equally in both, use the exposure as determined by the exposure control.

• **Under certain conditions**, however, better pictures are obtained by modifying the use of the control. For example, a reading of a person in light colored clothing occupying approximately half of the field against a very dark background would result in some overexposure of the person.

To obtain a better picture of the subject, step close to the subject and take a reading of the light reflected by the subject only. Use this reading.

• **Under certain other conditions** you may wish to modify the recommended film speed to achieve a result which is more suitable for you. Using a slightly higher speed results in slightly denser transparencies, which some people prefer when using high-wattage projectors and a small screen. A slightly lower film speed results in slightly lighter transparencies, preferred by some

people using a low-wattage projector or a large screen.

• **The field covered** by the exposure control corresponds approximately to the field covered by the 50mm lens. When using the control to determine exposure for wide-angle or telephoto shots, make appropriate compensation for excessive differences in brightness between the field covered by the control and the field covered by these lenses.

INCIDENT LIGHT READINGS

In some instances it is advisable to measure the light falling on the subject. Press the white plastic incident light mask, packed with the camera, over the photocell, with the pins of the mask in the locating holes of the photocell; then point the camera from the subject to the position from which the picture will be made. Set exposure as usual.

This method is useful for floodlighted pictures, snow scenes, and pictures against the light.

When the subject is inaccessible, readings can be taken from a substitute position, illuminated similarly to the subject.

PHOTO AIDS

Certain auxiliary equipment has been referred to and described previously in the manual. This equipment and the items that follow are offered to extend the picturetaking scope of your Retina Camera. See your Kodak dealer for these and additional photo aids which make up the Retina System.

Interchangeable Lenses

These superb telephoto and wide-angle lenses extend the picturetaking scope of your camera immensely. In addition to the choice of two standard lenses — the 50mm, $f/2.8$ Kodak Retina Xenar or the "faster" 50mm $f/1.9$ Kodak Retina Xenon, there is also a choice of three telephoto and two wide-angle lenses.

Telephoto Lenses—The Kodak Retina Tele-Arton Lens, 85mm $f/4$ gives almost twice the image size, the Kodak Retina Tele-Xenar 135mm $f/4$ gives almost three times the image size, and the Kodak Retina Tele-Xenar 200mm $f/4.8$ (supplied in Kit) gives 4 times the image size of the standard lens at the same distance. These long-focus lenses are important for sports

events to bring action closer, for distant scenery and for "close-ups" from a distance.

Wide-Angle Lenses—The Kodak Retina Curtagon Lens, 35mm $f/2.8$ and the Kodak Retina Curtagon Lens, 28mm $f/4$ are available to cover a wider area and give greater depth of field than the standard lens. These short-focus lenses allow you to "get the subject in" when there is little room to move back.

Note: The above interchangeable lenses are complete units and are easily interchanged. To remove a lens, just hold down the safety lock in front of the setting wheel; then turn the lens counterclockwise and lift it off.

To attach a lens, first set the lens opening between $f/5.6$ and $f/22$; then line up the red

dot on the lens mount with the red dot on the rim of the shutter; insert the lens and turn it clockwise until the safety release engages. Change lenses in subdued light.

Kodak Retina Field Case, Model G (for $f/1.9$ lens cameras) or **Model F** (for $f/2.8$ lens cameras) — Leather with chrome-finished reinforcement. Storage provision for incident light mask for photocell. To remove front of case, slide attaching button upward.

Kodak Retina Filters—Filters for both black-and-white and color films are available in screw-in mounts. The 32mm diam. size fits the 50mm $f/2.8$, 35mm $f/2.8$, and 85mm $f/4$ lenses. The 60mm diam. size fits the 50mm $f/1.9$, 28mm $f/4$, and 135mm $f/4$ lenses. The 200mm lens uses special gelatin filters which attach to the rear of the lens.

When using filters with black-and-white films,

modify the film speed setting (ASA) by dividing the film speed by the filter factor. Use nearest film speed number.

Lens Hoods—The Kodak Retina 35-50 Lens Hood, Bayonet Type (for Kodak Reflex IV Cameras with 35mm or 50mm $f/2.8$ Lenses) fits the bayonet connector surrounding the lens. The Kodak Retina 35-50 Lens Hood Extension (for 85mm $f/4$ Lens) attaches to the front of the 35-50 Lens Hood. Also available for the above lenses, is the flexible Kodak Retina 32 Lens Hood.

The Kodak Retina Lens Hood fits the 50mm, $f/1.9$ lens.

Kodak Retina Right Angle Finder—Makes copying, low-angle views and similar phases of photography easier. Fits, with adapter, over finder eyepiece of camera. Supplied in leather case.

Kodak Retina Camera Platform, Model C—This platform fits the bottom of the camera and provides a tripod socket in the center of the camera base. Especially recommended when using telephoto lenses.

Kodak Retina Close-Up Lens Sets:

Type N/32—For 50mm $f/2.8$ lens*.

Type N/60—For 50mm $f/1.9$ lens.

These lens sets consist of an N1 and an N2 lens; they can be used either singly or in combination to extend the focusing range of the camera (from $38\frac{1}{4}$ inches down to 11 inches).

Kodak Retina Close-Up Lens Set, Type R—

For use with 50mm $f/2.8$ lens directly, and 50mm $f/1.9$ lens with Retina Step-Down Ring. This set of three lenses is useful for extreme close-ups of small objects and for copying. Used

*With the Kodak Retina Step-Down Ring, single Type N/32 lenses can be used with the 50mm $f/1.9$ lens. Focusing range: $38\frac{1}{4}$ to $12\frac{1}{2}$ inches.

individually or in combination, they allow focusing from $11\frac{3}{8}$ inches down to $5\frac{1}{8}$ inches with the $f/2.8$ lens; down to $7\frac{1}{4}$ inches (used singly), with the $f/1.9$ lens.

Kodak Retina Step-Down Ring—For using single Retina Close-Up Lenses, Type N/32 and Type R, as well as the Kodak Retina 1:1 Copying Kit with the $f/1.9$, 50mm lens.

Kodak Retina 1:1 Copying Kit—For making natural size pictures and duplicates from 2x2-inch slides. An $f/1.9$ lens requires use of the Kodak Retina Step-Down Ring.

Kodak Retina Microscope Adapter Kit, Model D—For use with 50mm $f/2.8$ lens only. Photomicrographs can be made easily with this outfit. Fits practically all microscopes — eyepiece diameter 1 inch.

SERVICE FACILITIES

If your Kodak camera should require attention, complete service facilities are provided at Rochester and in Kodak Regional Sales Divisions at the addresses below. Also, service, covered under the guarantee, is available through independent service shops in many cities. For such local, guarantee-covered service, please see your Kodak dealer or refer to the yellow pages of your telephone directory under Photographic Equipment and Supplies — Factory Approved Warranty Service.

Eastman Kodak Company
Apparatus Service
800 Lee Road
Rochester, New York 14650

Eastman Kodak Company
Apparatus Service
5315 Peachtree
Industrial Blvd.
Chamblee, Georgia 30005

Eastman Kodak Company
Apparatus Service
1901 West 22nd Street
Oak Brook, Illinois 60523

Eastman Kodak Company
Apparatus Service
3250 Van Ness Avenue
San Francisco, California 94119

Eastman Kodak Company
Apparatus Service
808 Rivera Road
Whittier, California 90606

Eastman Kodak Company
Apparatus Service
1065 Kapiolani Blvd.
Honolulu, Hawaii 96807

Eastman Kodak Company
Apparatus Service
6300 Cedar Springs Road
Dallas, Texas 75235

Eastman Kodak Company
Apparatus Service
1334 York Avenue
New York, New York 10021

DETAILS

FILM

FILM LOAD—Kodak 135, 20- or 36-exposure magazines

NEGATIVE SIZE—24mm x 36mm

LENS—50mm, *f*/1.9 Retina Xenon or *f*/2.8 Retina Xenon, coated. Removable to substitute wide-angle or telephoto lenses

LENS OPENINGS—(*f*/1.9), *f*/2.8, *f*/4, *f*/5.6, *f*/8, *f*/11, *f*/16, *f*/22

SHUTTER

SYNCHRO-COMPUR-X—Automatically cocked when film is advanced

SPEEDS—1, 1/2, 1/4, 1/8, 1/15, 1/30, 1/60, 1/125, 1/250, 1/500 and "B"

RELEASE—On front of camera, or Kodak Metal Cable Release No. 5

SELF-TIMER—Built-in, selector at "V," about 10 seconds delay

FLASH SYNCHRONIZATION—flashbulbs, up to 1/30; electronic flash, all speeds

EXPOSURE CONTROL—Integral part of camera. Reads reflected and incident light (with mask). Centering needle, either on top of camera or in finder, automatically sets exposure. ASA 10 to 1250

VIEWING AND FOCUSING

VIEWFINDER—Pentaprism-type, parallax-free with all lenses

FOCUSING RANGE—2 feet to Infinity

COUPLED RANGEFINDER—Split-image type, combined with viewfinder—all lenses

GROUND-GLASS FOCUSING—With full area extra-fine ground glass—all lenses

DOUBLE EXPOSURE PREVENTION—Automatic; multiple exposure possible

RAPID WIND LEVER—Advances film and sets shutter with one stroke

CONSTRUCTION

BODY—Die-cast aluminum alloy, black covering

TRIPOD SOCKET—In camera base

PHOTO AIDS

A complete line of specialized photo aids, making up the Retina system, extends the picture-taking scope of your camera. See partial listing on pages 23 to 25