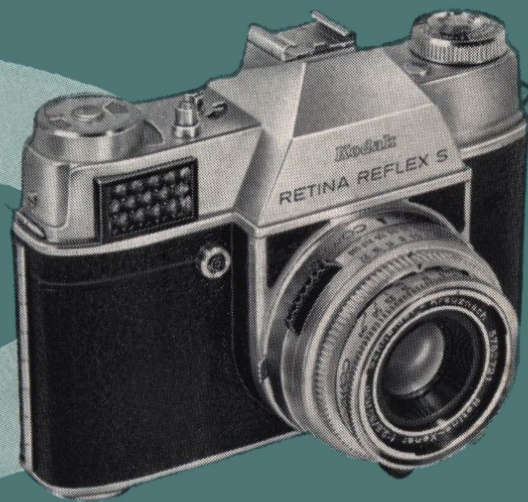


# KODAK RETINA REFLEX S

CAMERA



## **KODAK RETINA REFLEX S CAMERA**

World-famous Retina quality is carried to new heights 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 and viewing directly through taking lens – you see exactly what will be recorded on the film.
- Interchangeable lenses available from 28mm (wide-angle) to 135mm (telephoto).
- Automatic exposure control – adjusting exposure meter pointer, automatically sets exposure on Synchro-Compur shutter.
- 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 S Camera  
... it's as easy as this!*

After setting the film index, of the film loaded in the camera, on the exposure meter, you . . .

1. Rotate the setting wheel, below the shutter housing, to superimpose the yellow pointer on the white needle in the exposure meter window.
2. Turn the shutter speed ring by its black handles\* to select possible Shutter Speed — Lens Opening combination for picturetaking.  
  
\*Do not turn past shutter speed at which the triangular index indicates  $f/22$  or the maximum lens opening of the lens in use.
3. Look through the eyepiece; adjust the focus; compose the picture.
4. Press the exposure release to take the picture.

**NOTE:** If, prior to step 1, you prefer to preselect a shutter speed, rotate the setting wheel until the desired shutter speed lines up with the triangular index. For example, set the black "60" at the index for 1/60 second shutter speed.

## CONTENTS

	Page
Films	4
Loading	6
Unloading	10
Setting Film Index	10
Shutter Controls	11
Exposure Control	12
Viewing and Focusing	16
Taking the Picture	18
Flash	19
Hints on Exposure Meter	26
Photo Aids	28

## FILMS—use Kodak 135 Film

### color films

**Kodachrome Film**—For full-color transparencies which can be projected on a screen or from which prints or enlargements can be made. Use Kodachrome Film for Daylight for daylight pictures, and Kodachrome Type F for flash or floodlighted pictures. 20 or 36 exposures.

**Kodak Ektachrome Film**—Like Kodachrome, Ektachrome Film produces lifelike color transparencies for projection or from which color prints and enlargements can be made. The speed of this film, however, is faster than that of Kodachrome Film. Use Kodak Ektachrome Film for Daylight for exposure in daylight, and Kodak Ektachrome Film Type F for pictures with clear flash lamps. 20 exposures.

**Kodak High Speed Ektachrome Film**—With this new, extremely fast color film you can stop action in low illumination and, at the same time, get faithful color rendition with excellent definition. Use Daylight Type for exposure in daylight, and Type B for indoor pictures by existing artificial light. 20 exposures.

**Kodacolor Film**—The new color film for color prints and transparencies. Expose the same roll of film by sunlight or clear flash—it gives beautiful color pictures with either. Your photo dealer will arrange to have negatives and color prints or transparencies made for you. 20 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.

KODAK FILMS	FILM INDEX	
	Daylight	Photoflood
Kodachrome (Daylight)	10	5*
Kodachrome (Type F)	10**	12†
Ektachrome (Daylight)	32	12*
Ektachrome (Type F)	16**	16†
High Speed Ektachrome (Daylight)	160	—
High Speed Ektachrome (Type B)	80††	***
Kodacolor	32	20†
Panatomic-X		40†††
Plus-X Pan		160†††
Tri-X Pan		400†††

\*With Kodak Photoflood Filter No. 80B (for Kodak Daylight Type Color Films). Set at film index 10; then give one stop more exposure

\*\*With Kodak Daylight Filter for Type F Color Films (85C)

\*\*\*125 in existing artificial tungsten light

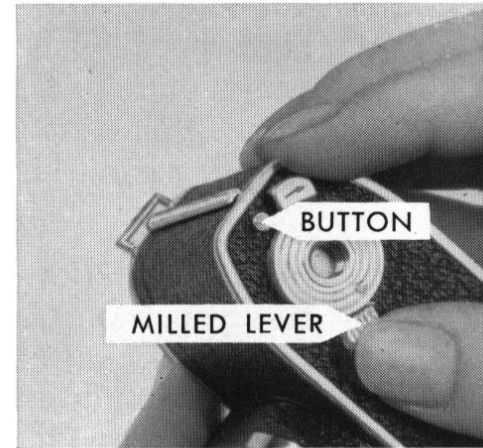
†With photographic flood lamps and Kodak Wratten Filter No. 82A

††Kodak Daylight Filter for Kodak Type B Color Films, No. 85B

†††For daylight or photoflood.

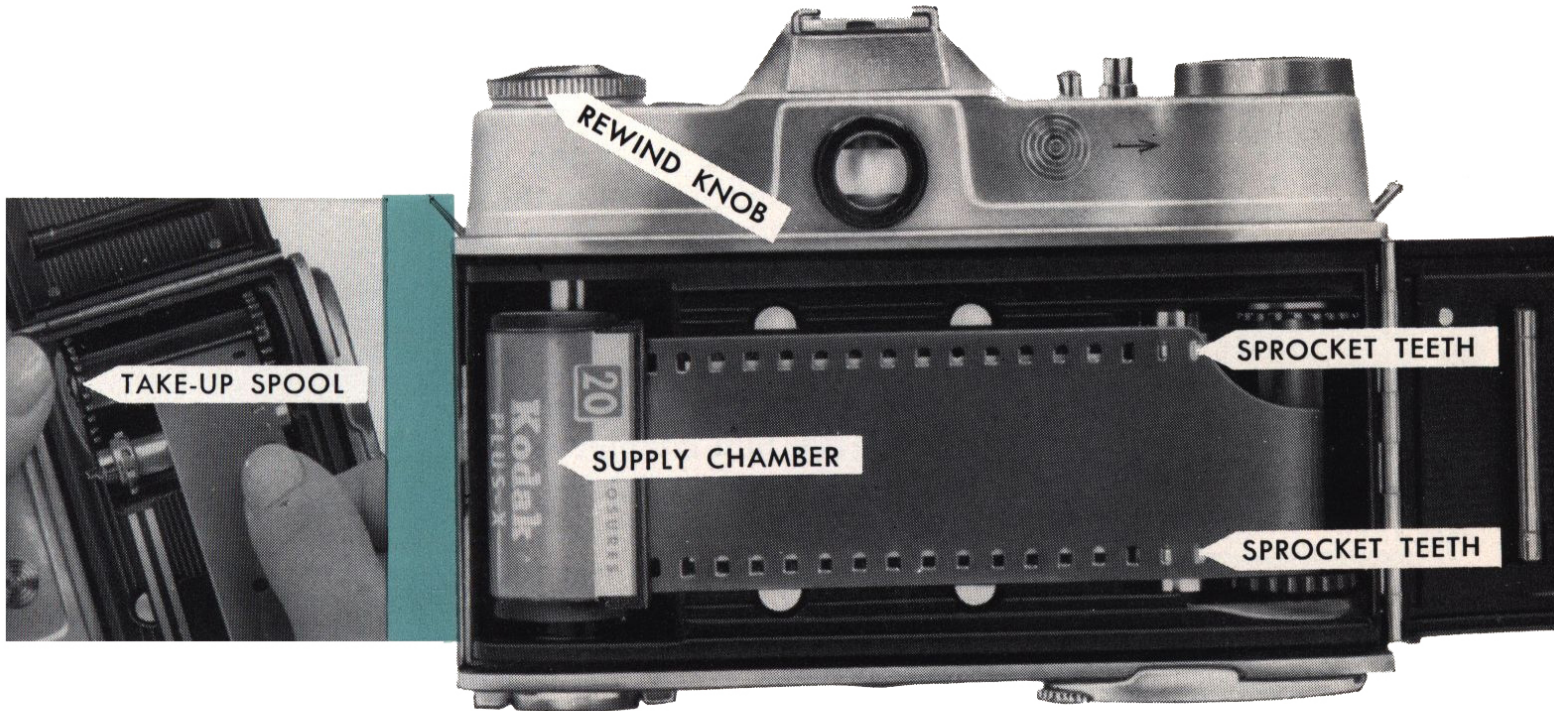
## **LOADING**—in subdued light

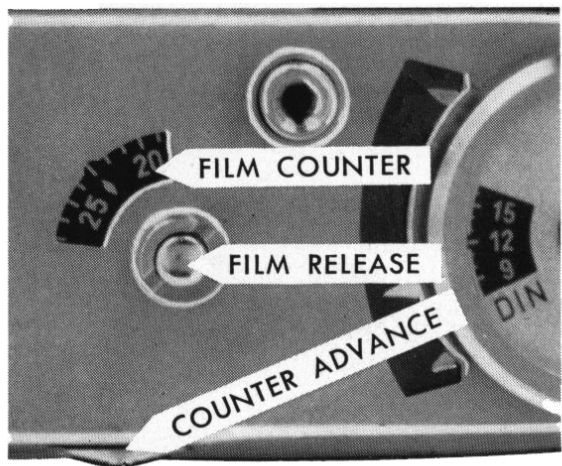
- 1.** To open the back of the camera, press the MILLED LEVER clockwise; the opposite end of the lever then uncovers the opening BUTTON. Press this button and the back springs open.
- 2.** Pull out the REWIND KNOB.
- 3.** Turn the built-in TAKE-UP SPOOL by its flange until a slot points upward.
- 4.** With the lower edge of the film against the lower take-up spool flange, push the trimmed end of the film protruding from the magazine far enough into this slot to anchor a perforation over the small pin of the slot.
- 5.** Pull the film over the film track and insert the magazine in the SUPPLY CHAMBER. Push in the rewind knob (turn slightly if necessary). Then turn the take-up spool by its flange until the SPROCKET TEETH engage the perforations *on both sides* (see illustration).



6. After making sure that the sprocket teeth engage the film perforations on both sides, close the back of the camera, by pressing the back against the body until it locks.

7





## SETTING THE FILM COUNTER

Depress fully and hold down the **FILM RELEASE** button (within the curved guard); then, at the same time, slide the **FILM COUNTER ADVANCE** in the direction of the arrow as many times as necessary to bring the diamond-shaped mark near 36 on the **FILM COUNTER** opposite the notch, when using a 36-exposure magazine. If you are using a 20-exposure magazine, set to the diamond-shaped mark between 20 and 25. Press and release the film release button; 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.

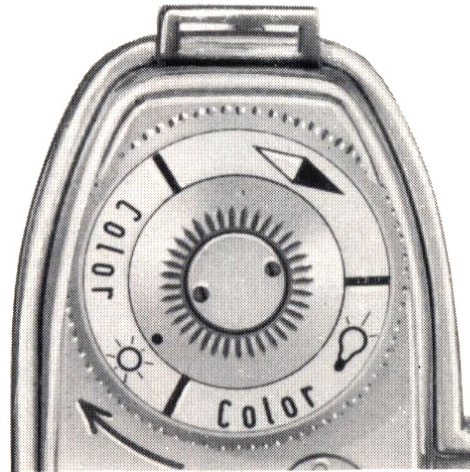
The film counter indicates the number of exposures still available. After making exposure 1, a transport lock comes into operation; neither the rapid wind lever nor the exposure release will then operate. This prevents the film end from being pulled from the magazine.



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

## THE FILM INDICATOR


Set the type of film (black-and-white; color, daylight; color, artificial light) loaded in the camera on the film indicator located on top of the rewind knob. Grip the rewind knob with two fingers and turn the inner ring with the thumb of the other hand until the dot index points to the type of film loaded in the camera. The film indicator is not an operating part; it is used as a reminder only.



## UNLOADING

### *Always Unload in Subdued Light*

To rewind the exposed film, first depress the **CLUTCH BUTTON** in the base of the camera; then turn the rewind knob 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.



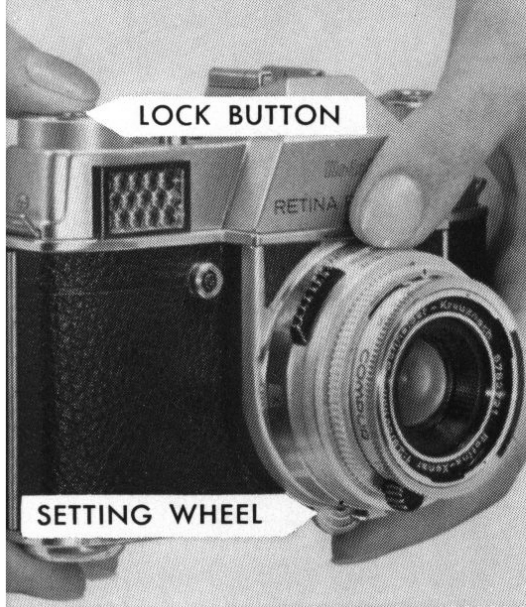
CLUTCH BUTTON

## SETTING THE FILM INDEX

The film index of the film loaded in the camera (found on page 5 or in instructions packed with film) must be keyed-into the exposure meter of your camera.

To do this, press down, firmly, the **LOCK BUTTON** in the center of the **INNER DISC** 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 index number of the film loaded in the camera. The illustration shows a film index of 10, which might be set if Kodachrome Film for Daylight were loaded in the camera. The window marked **DIN** applies to films rated by a different method.

**NOTE:** Resistance may be encountered in setting the film index. 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 press down the lock button and rotate the setting wheel to reach the desired film speed.



## SHUTTER OPERATING CONTROLS

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

The SPEED RING is used to select Shutter Speed — Lens Opening combinations from those available, for picture-taking situations. Turn the speed ring gently, by its black handles, and do not set between marked speeds or rotate past shutter speed at which the triangular INDEX indicates  $f/22$  or maximum aperture of lens in use ( $f/4$ ,  $f/2.8$  or  $f/1.9$ ). Do not force.

The black figures on the shutter speed ring indicate fractions of a second —  $1 = 1$  second,  $2 = \frac{1}{2}$  second, etc. Use of the letter “B” (Brief Time Exposure) and the green figures will be found on page 22.



INDEX

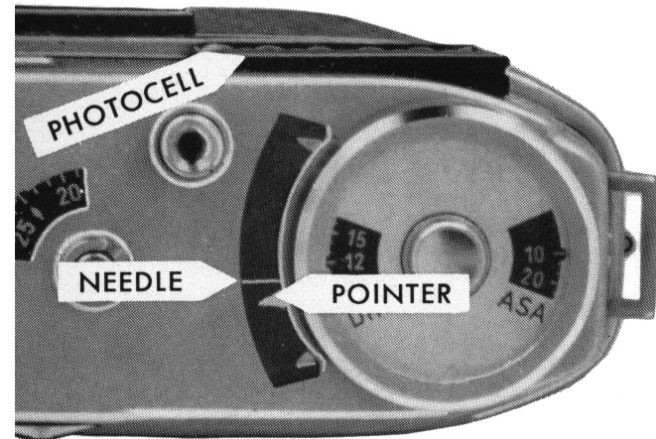
## AUTOMATIC EXPOSURE CONTROL

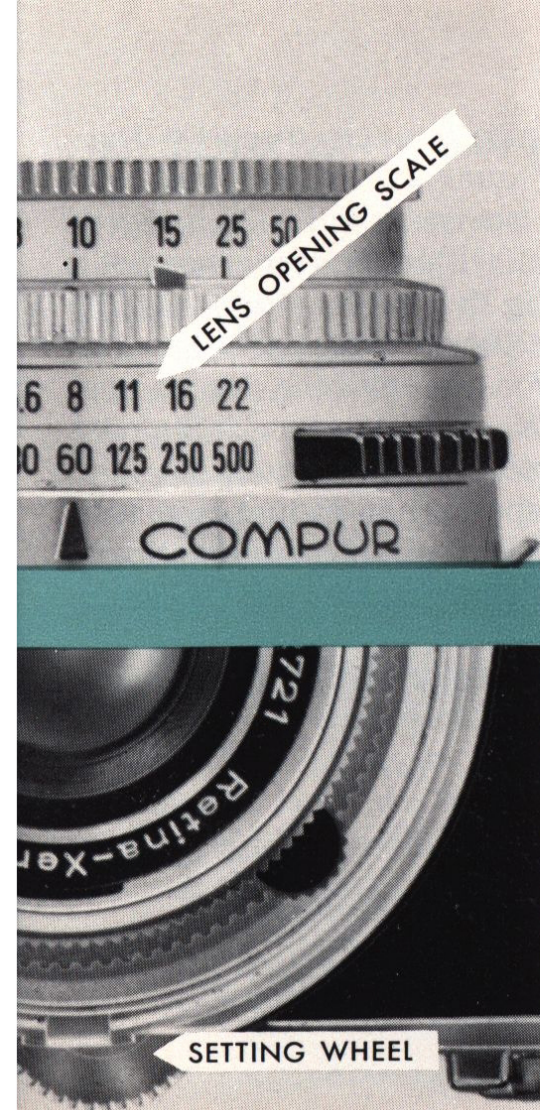
Your camera has a built-in photoelectric exposure meter which, when the camera is pointed toward the subject, measures light reflected from the subject. The mechanism of the exposure meter is cross-coupled with the lens opening and shutter speed.

Set the lens opening by the automatic exposure control as follows:

1. For readings taken from the camera position (reflected light readings), make sure that the white plastic Incident Light Mask is removed from the front of the PHOTOCELL (by sliding the mask upward and lifting it off). For incident light readings, see page 27.

2. Point the camera at the subject, directing it slightly downward; the white NEEDLE will move in the curved window on the top of the camera. The





marks in the corners of the curved window indicate the measuring limits of the meter. If the white needle is outside of these limits, the light is too strong or too weak for the meter range.

**3.** Rotate the **SETTING WHEEL** to move the **YELLOW POINTER** directly over the white needle. In superimposing the pointer and the needle, the **LENS OPENING SCALE** is automatically set so that the correct lens opening number is opposite the index mark and the previously set shutter speed. A resistance, while rotating the setting wheel, indicates that you have reached the limits of the lens opening range.\* This means that the previously set shutter speed is not adequate. By turning the setting wheel further you can, however, still superimpose the pointer and needle. The new shutter speed then sets itself automatically.

\*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  $f/4$  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. Lens openings and shutter speeds, then, can be changed, within the framework of a particular exposure requirement, by rotating the shutter speed ring by its black notched handles. 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.

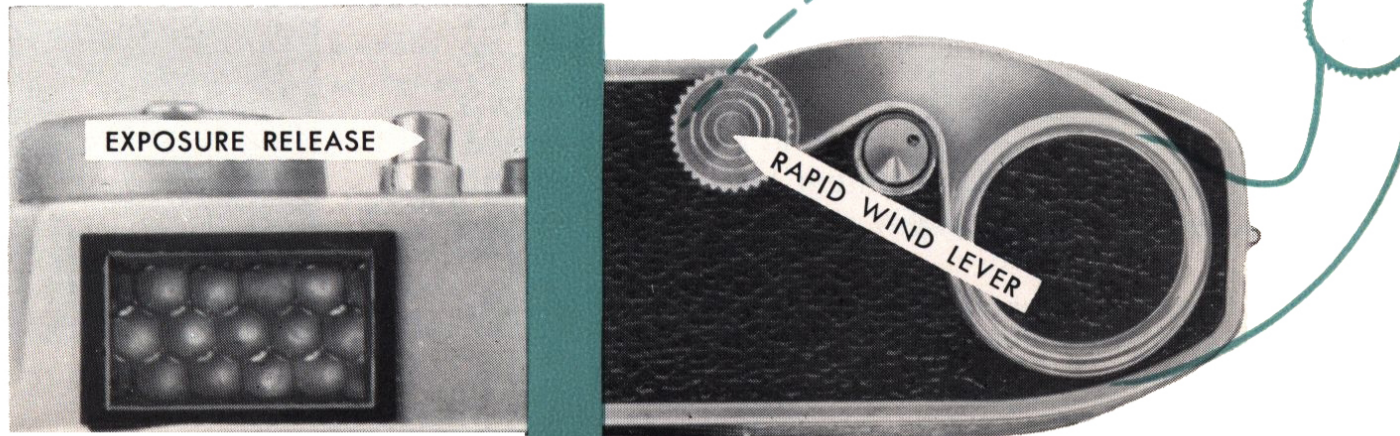
On the other hand, if you intend to take a picture which calls for good depth of field,\* for example, needing a lens opening such as  $f/16$ , you must rotate the shutter speed ring in the same manner until the figure 16 on the lens opening scale is opposite the index mark. This changes the shutter speed to  $1/15$  second. Such an exposure should, however, only be made from a firm support, for there is risk of camera movement at exposure times longer than  $1/30$  second.

\*Depth of field is described on page 17.

## SETTING AND RELEASING SHUTTER

If the shutter is not set, you cannot press the EXPOSURE RELEASE. To set the shutter, with the right thumb swing out the RAPID WIND LEVER in one movement *as far as it will go*; 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. Press the exposure release down all the way with a slow, squeezing action.

If the rapid wind lever becomes locked, this means either that the exposure release has not been pressed, or that the film counter is at "1."



## VIEWING AND FOCUSING

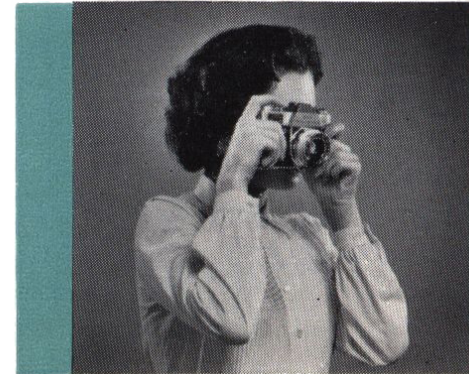
Grip the camera with both hands and look through the eyepiece. *The finder image is visible only after operating the RAPID WIND LEVER.* With the right thumb, swing out the lever *as far as it will go*; then let it return to its original position. Hold the camera at that distance from the eye which allows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

In the center of the ground glass screen, you will see in a bright circular area a smaller circle divided by a horizontal 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

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



glass screen. But if the subject has such lines, the rangefinder is probably more suitable for focusing.

**1. Using Ground Glass Screen**—Turn the distance scale ring until the subject you are picturing appears at its sharpest on the ground glass. The camera is then correctly focused.

**2. Using Rangefinder**—Direct the camera so the circular area in the center of the screen covers a vertical line (pole, face, shoulder, etc.) of the subject. Turn the distance scale ring—the image in the upper half of the inner circle will move relative to that in the lower half. When the two halves line up exactly, the camera is correctly focused.

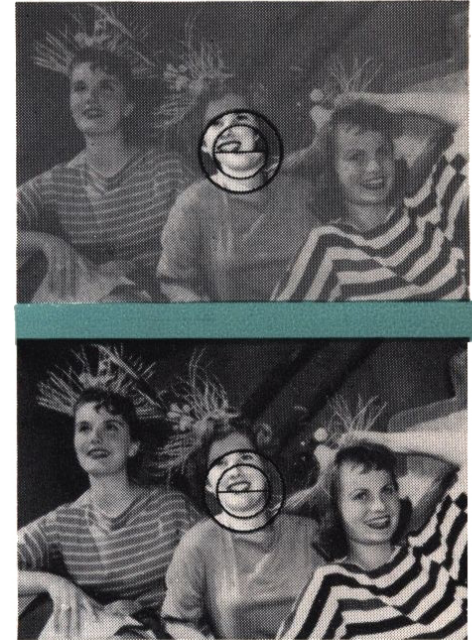
**NOTE:** Hold the camera horizontally for checking vertical lines, and vertically for checking horizontal lines.

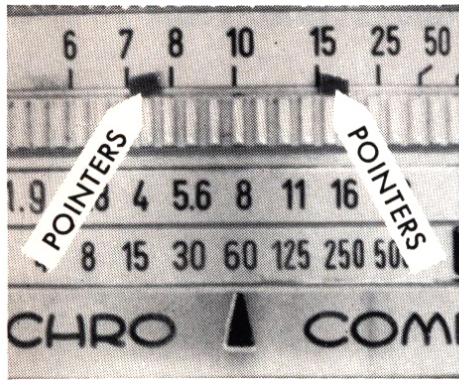
## DEPTH OF FIELD

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

*Upper: Out of focus*

*Lower: In focus*





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  $7\frac{1}{2}$  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 superimpose the yellow pointer and white needle.
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.
6. Swing out the rapid wind lever to advance the film.

**IMPORTANT:** For good pictures, keep the taking lens and rangefinder and viewfinder windows 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

Kodak flashholders, such as the Kodalite Super-M 40 Flashholder, Kodak Supermite Flashholder or the Kodak Rotary Flashholder, Type 1, with Kodak Retina Flashholder Bracket are recommended for use with your camera.

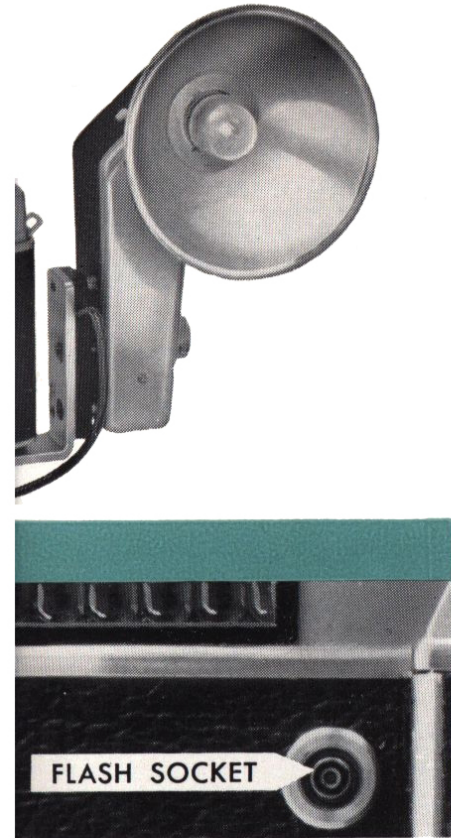
The compact Kodalite Super-M 40 Flashholder, shown, is supplied with interchangeable 3-inch and 4-inch reflectors for greatest efficiency with M-2, M-5, or M-25 lamps, and No. 5 or No. 25 lamps.

The “mini-sized” Kodak Supermite Flashholder gives full flash power with the extra-small AG-1 flash lamps.

The Kodak Rotary Flashholder, Type 1 features rapid sequence lamp firing. Six M-2, M-5 or M-25 lamps are preloaded in the magazine and advanced to firing position by rotating the turret.

Especially recommended for use with wide-angle lenses is the Kodak Generator Flashholder, Type 1 (self-powered) or Kodak Pocket Flashholder B-1\*.

\*With these flashholders, give 1½ stops more exposure than indicated by the table on page 21.



Connect the flashholder to the camera by inserting the bracket cord tip in the FLASH SOCKET of the camera.

## SYNCHRONIZATION • Speed Settings

There are three letters engraved on the side of the shutter housing; M and X are synchronizer settings for flash, V is the self-timer setting. These settings are adjusted by moving the SELECTOR lever (illustrated) *after first depressing the VXM LOCK*.

**M-2, M-25 or AG-1 Lamps**—Set the synchronizer selector at X. Set the shutter at from 1 to 1/30 second. Consult the exposure calculator on the flash-older or the table on page 21 for exposure information.

**Lamps such as M-5, No. 5 or No. 25**—With the synchronizer selector set at M, exposures can be made from 1 second to 1/500 second. See the table on page 21 for exposure information.

**Electronic Flash**—Set the synchronized selector at X. With electronic flash equipment having no lag in the trip circuit, set the shutter at any speed from 1 second to 1/500 second.

**NOTE:** Do not use units flashed by means of heavy-duty relays or solenoids. Such units may destroy the shutter contacts.



## Flash Exposure Guide Numbers for Kodak Retina Camera

To calculate the lens opening, divide the exposure guide number by the lamp-to-subject distance in feet.

Lamps	Selector	Shutter Speeds	FILMS					
			Pan. X	Plus-X	Tri-X	Kodachrome F	Ektachrome F	Kodacolor
M-2 (Rotary or 3" Reflector)	"X"	1/30	70	130	200	65	80	80
AG-1 (Supermite or 2" Reflector)								
M-25 (Rotary or 3" Reflector)	"X"	1/30	110	200	300	95	120	120
No. 5 or No. 25 (3" Reflector)			1/30	60	100	160	50	60
	"M"	1/60	55	90	140	45	55	55
		1/125	50	80	120	40	50	50
		1/250	40	65	95	30	40	40
			1/30	110	200	300	95	120
No. 5 or No. 25 (4" Reflector)	"M"	1/60	100	170	280	85	110	110
		1/125	85	150	240	75	95	95
		1/250	65	120	180	60	70	70
		1/500	45	80	130	40	50	50
No. 5B or No. 25B (4" Reflector)*	"M"		Kodachrome (Daylight)		Ektachrome (Daylight)		High Speed Ektachrome (Daylight)	
		1/30	50		90		200	
		1/60	45		80		180	
		1/125	40		70		150	
M-5B (Rotary or 3" Reflector)*	"M"	1/30	50		90		200	
		1/60	45		80		180	
		1/125	40		40		150	

\*Use these blue lamps, or clear No. 5, No. 25 or M-5 lamps with a filter such as the No. 80C.

**THE SELF-TIMER**—If you wish to include yourself in a picture, *first operate the rapid wind lever*; press the VXM lock, then set the selector at 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 selector lever to V, *it can only be moved by making an exposure.*

If you use the self-timer for flash shots, the shutter always operates on X-synchronization. As the self-timer runs down, the synchronizing lever automatically moves to X. Be sure to use the correct shutter speed setting for X-synchronization. Any lamp mentioned herein can be used at X selector setting for speeds from 1 to 1/30 second.

## **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.\*

Here is an example (see illustration): 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.

\*The Kodak Metal Cable Release No. 5 screws into the top of the exposure release. This makes it easier to open and close the shutter without moving the camera.

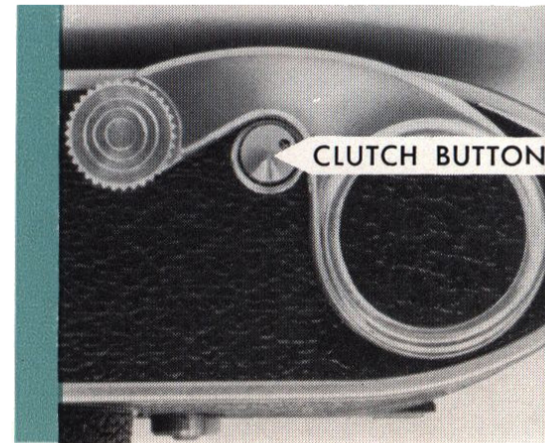


## MULTIPLE EXPOSURES

In normal use of the camera, the interlock system guards against multiple exposures by locking the exposure release after an exposure until the rapid wind lever is actuated; operating this lever also sets the shutter, advances a frame of film, and moves the film counter.

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.

Inasmuch as the film counter is also advanced, more frames (as many as number of multiple exposures made) of film will be available than is shown on the counter. To be able to use these frames of film after the counter reaches 1, thus locking the rapid wind lever, press and hold down the film release button; then press the film counter advance



in the direction of the arrow as many times as is necessary to bring the number of exposures remaining opposite the notch. The rapid wind lever can then be operated.

### **THE FILM RELEASE**

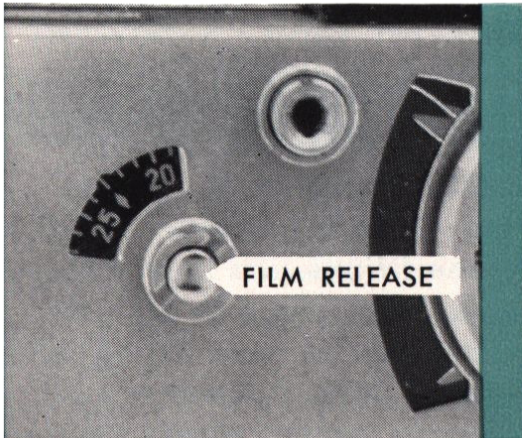
The FILM RELEASE button can also be used to return the rapid wind lever to its original position. Just depress the film release button fully; if the lever is locked between the start and end of its swing, it will spring back into place.

### **SETTING EXPOSURES**

#### **without automatic exposure control**

Shutter speeds and lens openings can also be set without reference to the exposure meter. However, the *shutter speed must be set first* and the lens opening after. Otherwise, the lens opening will be changed because of the speed ring coupling.

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



## HINTS ON USING THE EXPOSURE METER

### REFLECTED LIGHT READINGS

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

• **Under certain conditions**, however, better pictures are obtained by modifying the use of the meter. 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 index to achieve a result which is more suitable for *you*. Using a slightly higher index results in slightly denser transparencies, which some people prefer when using high-wattage projectors and a small screen. A

slightly lower film index results in slightly lighter transparencies, preferred by some people using a low-wattage projector or a large screen.

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

## INCIDENT LIGHT READINGS

In some instances it is advisable to measure the light *falling on the subject*. To do this, first slide the white plastic incident light mask, packed with the camera, over the photocell; then point the camera from the subject to the position from which the picture will be made. Now, make an exposure setting in the usual manner.

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 two telephoto and two wide-angle lenses.

**Telephoto Lenses**—The Kodak Retina Tele-Arton Lens, 85mm  $f/4$  gives almost twice the image size, and the Kodak Retina Tele-Xenar 135mm  $f/4$  gives almost three 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” of people 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.

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 at the red 4; 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 C (for 1.9 or 2.8 lens cameras) or Model D (for  $f/2.8$  lens cameras) — Leather with chrome-finished reinforcement. Storage provision for incident light mask for exposure meter. 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.

**Lens Hoods**—The Kodak Retina 35-50 Lens Hood, Bayonet Type (for Kodak Reflex S 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) slips over the front of the 35-50 Lens Hood.

**The Kodak Retina 50-80 Sports Finder** is a folding, open-frame finder which shows the field of view covered by the 50 and 80 and

85mm lenses. Manual parallax adjustment. Supplied in leather case.

**Kodak Retina Right Angle Finder**—Makes copying, low-angle views and similar phases of photography easier. Fits 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. It is required for using certain auxiliary items of equipment.

**Kodak Retina Close-Up Lens Set, Type N32**—For 50mm  $f/2.8$  lens only. The lens set consists 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  $11\frac{5}{8}$  inches).

**Kodak Retina Close-Up Lens Set, Type R**—For use with 50mm  $f/2.8$  lens only. This set of three lenses is useful for extreme close-ups of small objects and for copying. Used individually or in combination, they allow focusing from  $11\frac{1}{8}$  inches down to  $5\frac{7}{8}$  inches.

**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.

## 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 Xenar, 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—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—Plunger type on top of camera, or Kodak Metal Cable Release No. 5

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

FLASH—Built-in synchronization for class F, M, and electronic flash

**EXPOSURE METER**—Integral part of camera. Reads reflected and incident light (with mask). Adjusting meter pointer automatically sets exposure

### VIEWING AND FOCUSING

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

COUPLED RANGEFINDER—Split-image type, combined with viewfinder

GROUND-GLASS FOCUSING—with full area extra-fine grained ground glass screen, 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 28 to 30

## GUARANTEE

Within a year after purchase, any repairs necessary to this Kodak Retina Camera due to a defect in materials or workmanship will be made or, at our option, the camera will be replaced without charge. 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 inconveniences, 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 4, N. Y.**