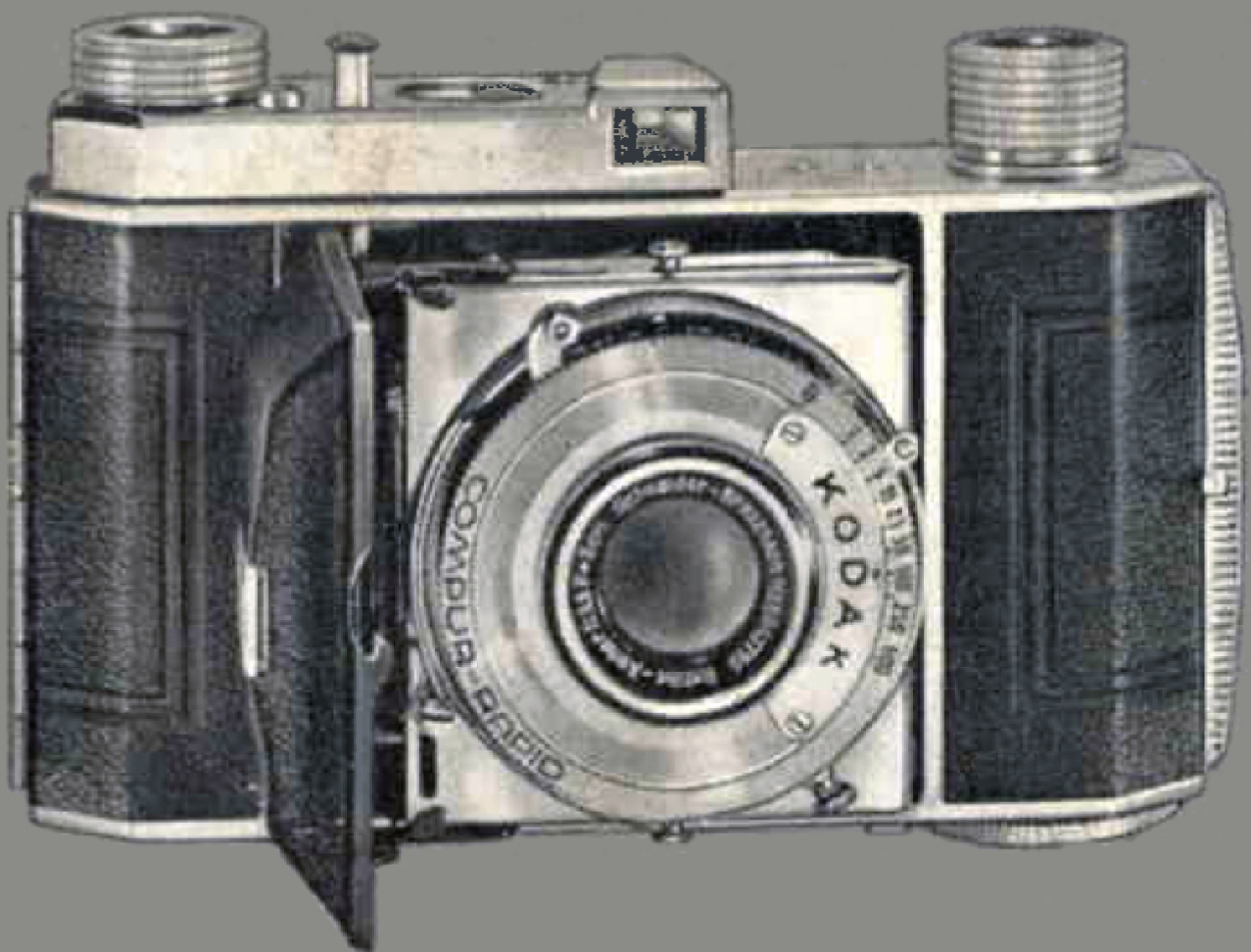


HOW TO USE THE
KODAK

Retina I
CAMERA



XENAR COATED LENS f/3.5 · COMPUR RAPID SHUTTER

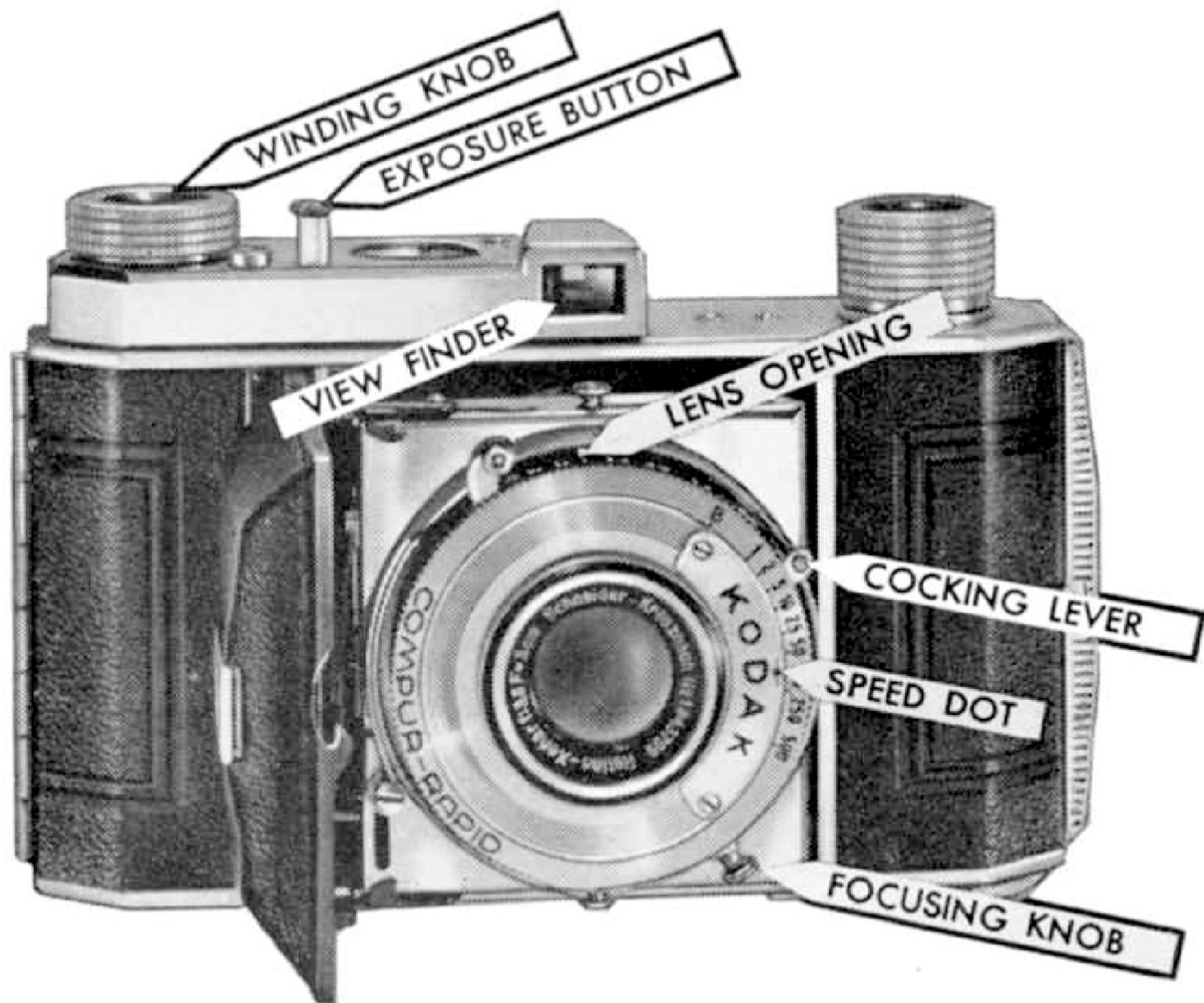
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YOUR Picture Chronicle

. . . those pictures you will make of your friends and memorable occasions: parties, picnics, Baby's first toddling steps, those "salon" attempts . . . all these can be good pictures even from the beginning if, before loading your Kodak Retina I Camera with film, you acquaint yourself with the fundamentals of camera operation and read the helpful suggestions contained in this manual for making good pictures.



The exposure button, shutter, and film winding mechanism are coupled together to prevent double exposures and blanks. The exposure button is automatically locked until the film is advanced and the shutter cocked. The exposure button is inoperative if the camera is not loaded with film. Double exposures for special effects can be made with the release on the shutter.

The Key to GOOD PICTURES

these 3 Settings



Shutter Speed

The shutter speed controls the length of time that the shutter stays open to admit light to the film.



Lens Opening

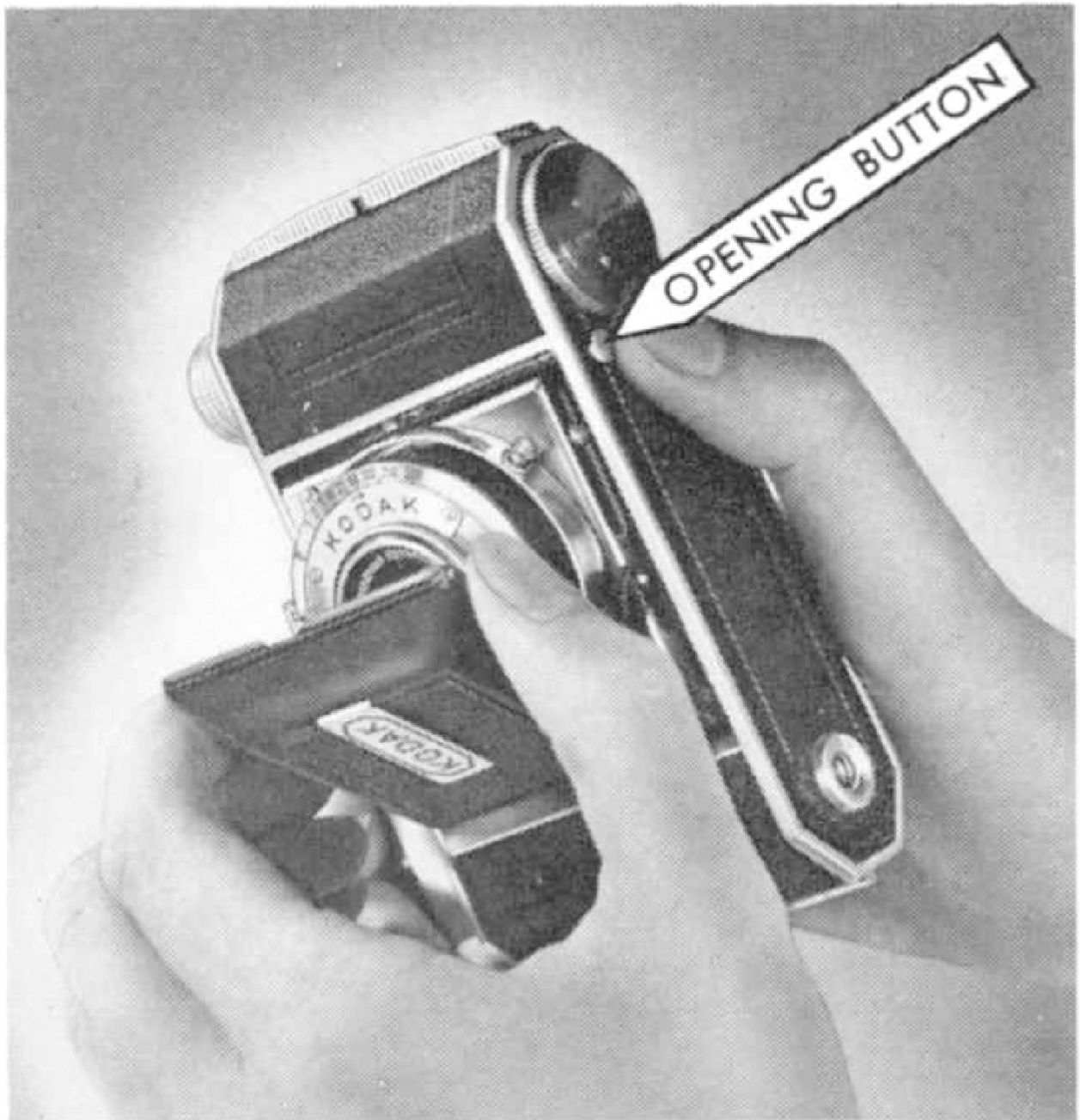
The lens opening controls the amount of light that passes through the lens while the shutter is open.



Focus

When the lens is properly focused for the distance between the camera and the subject, the light that reaches the film forms a sharp image of the subject.

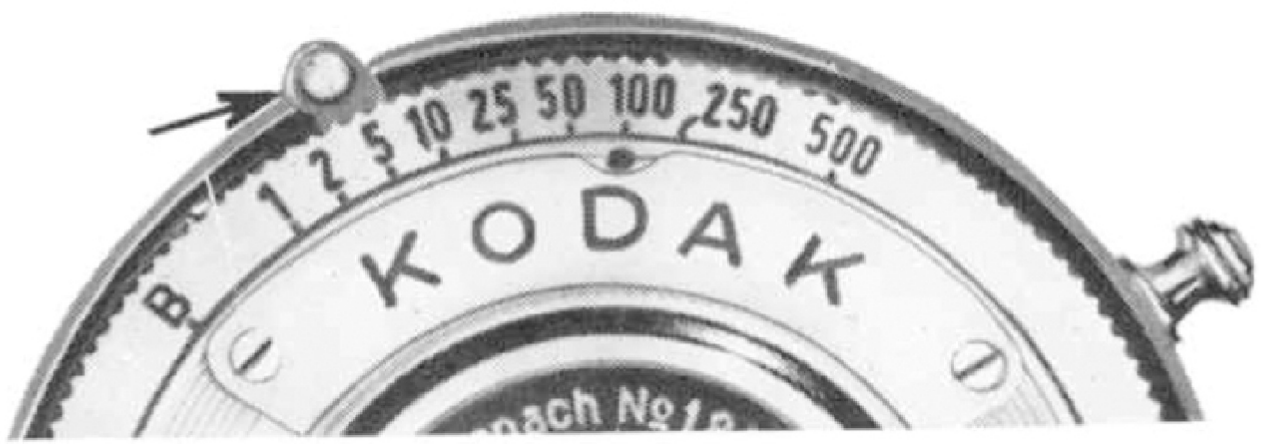
The tinted appearance of the lens is due to a special coating which increases light transmission and decreases internal reflections, thus improving the brilliance of black-and-white pictures and the color purity of full-color pictures.



TO OPEN THE CAMERA

Press the **OPENING BUTTON** to open the front of the camera; then draw down the bed carefully until it locks. This will bring the lens and shutter into position.

Note: *Before closing the camera, be sure to read the instructions on page 10.*



A SHUTTER SPEED

The Compur-Rapid Shutter on your camera is designed for making exposures of 1, 1/2, 1/5, 1/10, 1/25, 1/50, 1/100, 1/250 and 1/500 second. For average subjects, revolve the knurled collar of the shutter until 1/100 second is at the black dot. In the illustration the shutter is set for 1/100 second. For time exposures the letter "B" must be brought to the black dot.

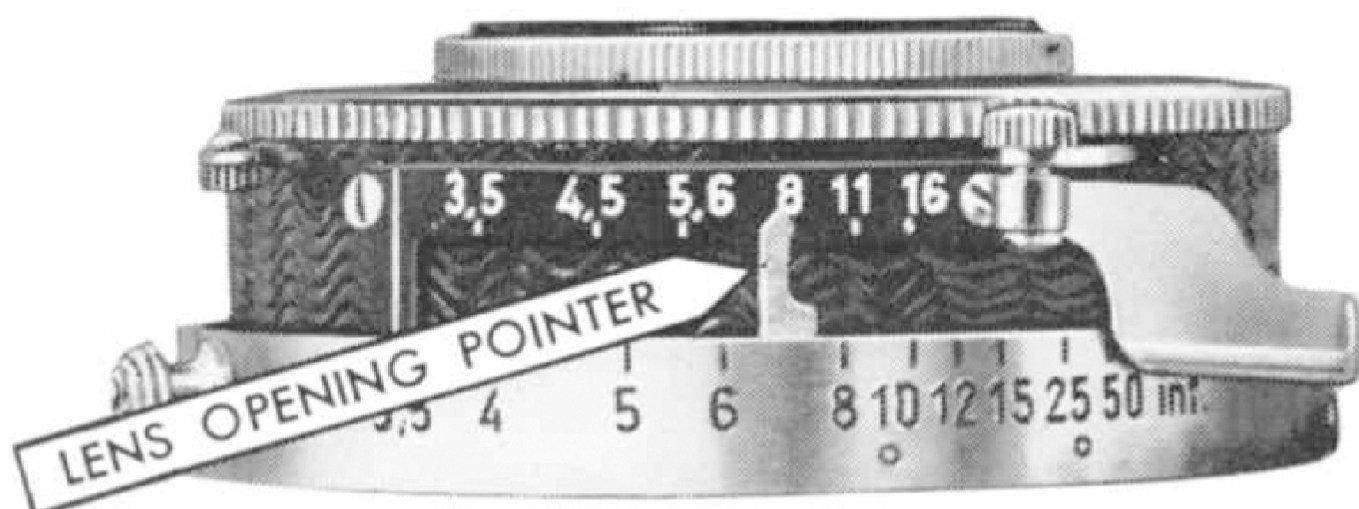
After the proper speed is selected, it is necessary to cock the shutter by pushing the lever (arrow above) to the opposite end of the slot. It is not advisable to change the speed of the shutter from 1/250 to 1/500 or vice versa *when the shutter is cocked*.

Automatic exposures of 1 second, 1/2, 1/5, or 1/10 second should not be made with the camera held in the hands; a tripod or other firm support should be used for exposures slower than 1/25 second.

Important: *Never oil the shutter.*



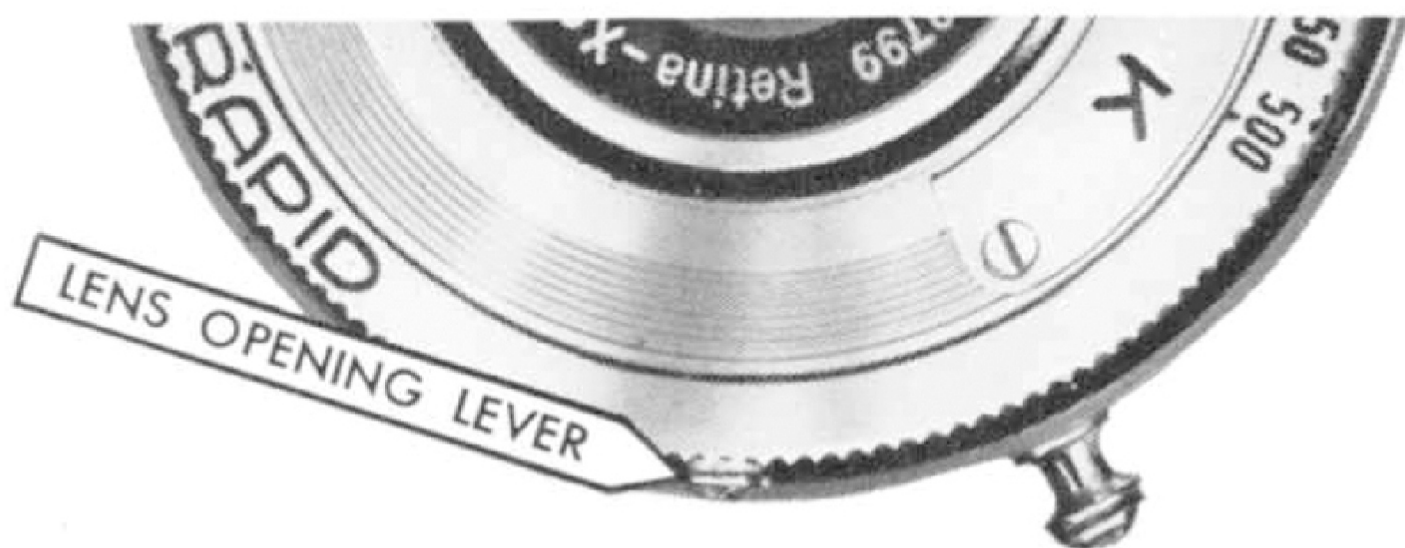
LENS OPENING



The lens openings regulate the amount of light passing through the lens. The openings are enlarged or reduced by moving the LENS OPENING LEVER which is on the side of the shutter opposite to the LENS OPENING POINTER. The lens opening lever moves the lens opening pointer.

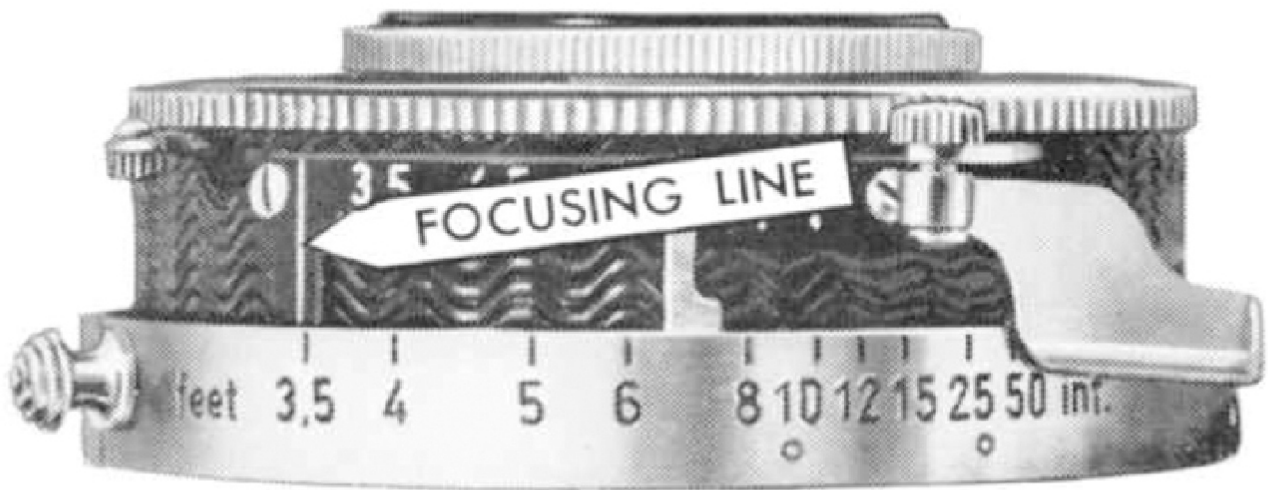
For average subjects outdoors when the sun is shining, move the pointer to between $f/5.6$ and $f/8$, and make an exposure of $1/50$ second with Kodachrome Film.

8 See the tables on pages 18 and 21.





FOCUS



To focus the camera, move the **FOCUSING KNOB** until the figure representing the camera-to-subject distance is opposite the **FOCUSING LINE**. Besides the regular footage settings from 3.5 feet to inf. (100 feet or beyond), there are two small red circles on the focusing scale. If you set the focus on the circle near 10 with an opening of $f/8$, subjects from 7 to 15 feet will be sharp; focused on the circle near 25 and again with $f/8$, everything from 15 feet to infinity will be covered.

9





THE VIEW FINDER

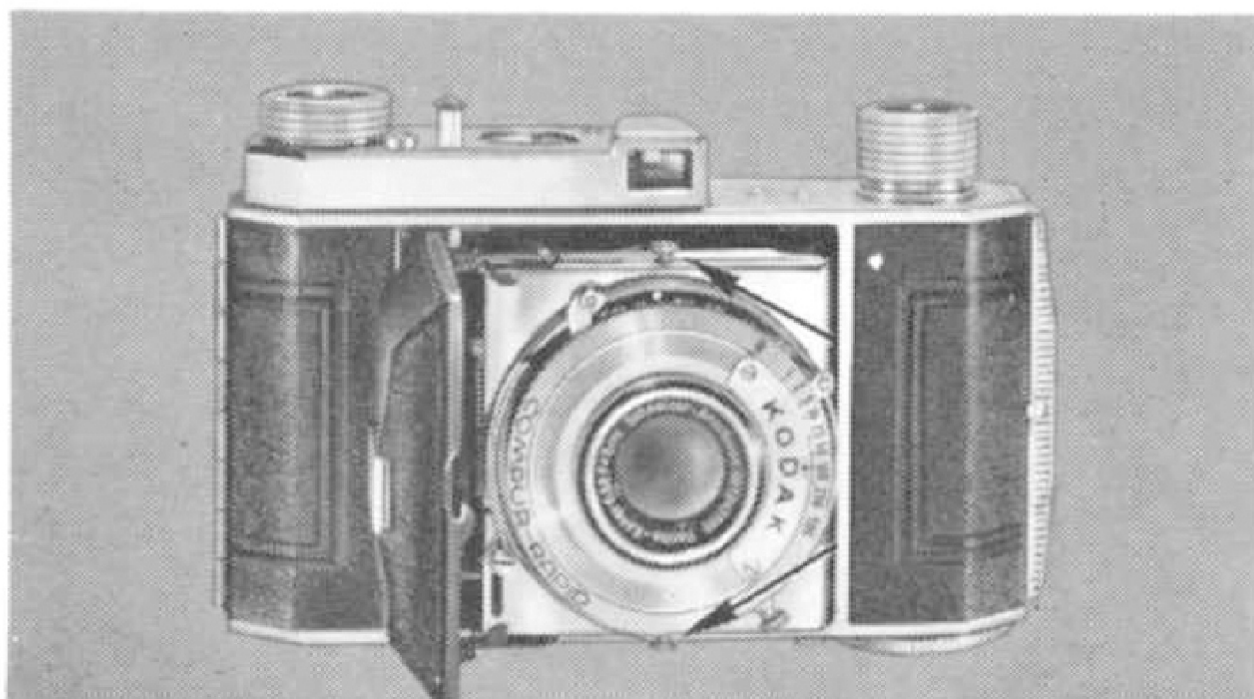
Hold the camera firmly against the face with the rear of the finder close enough to the eye so the edges of the rear frame appear superimposed on the edges of the front finder frame.

If the subject is 10 feet or less from the camera, compose the picture in the finder; then tilt the camera a trifle to the right when making vertical pictures or a trifle upward when making horizontal pictures.

TO CLOSE THE CAMERA

Before closing the camera, *first make sure it is focused for infinity*; then press the two closing buttons (pointed out by arrows in illustration below) and close the bed.

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COLOR PICTURES from Kodachrome Transparencies

With your Kodak Retina I Camera, you can get superb quality color pictures by using Kodachrome Film.

Kodachrome full-color transparencies can be projected for viewing on a screen, or Kodachrome Prints can be made from them. Kodachrome Prints are full-color enlargements available in 4 sizes from your Kodak dealer.

For color film transparencies, use Kodachrome Film K135 for daylight and K135A for photoflood light. Kodachrome Film must be processed (cost included in price of film) at an Eastman Kodak Laboratory. K135 or K135A; 20 or 36 exposures.

BLACK-AND-WHITE PICTURES

Films differ mostly in the amount of light they require to record a picture well and in their ability to produce a particular effect. The descriptions of the Kodak panchromatic films on the next page will help you to select the appropriate film to satisfy your particular requirements. All have a wide exposure latitude.

KODAK FILMS

PLUS-X PANCHROMATIC FILM

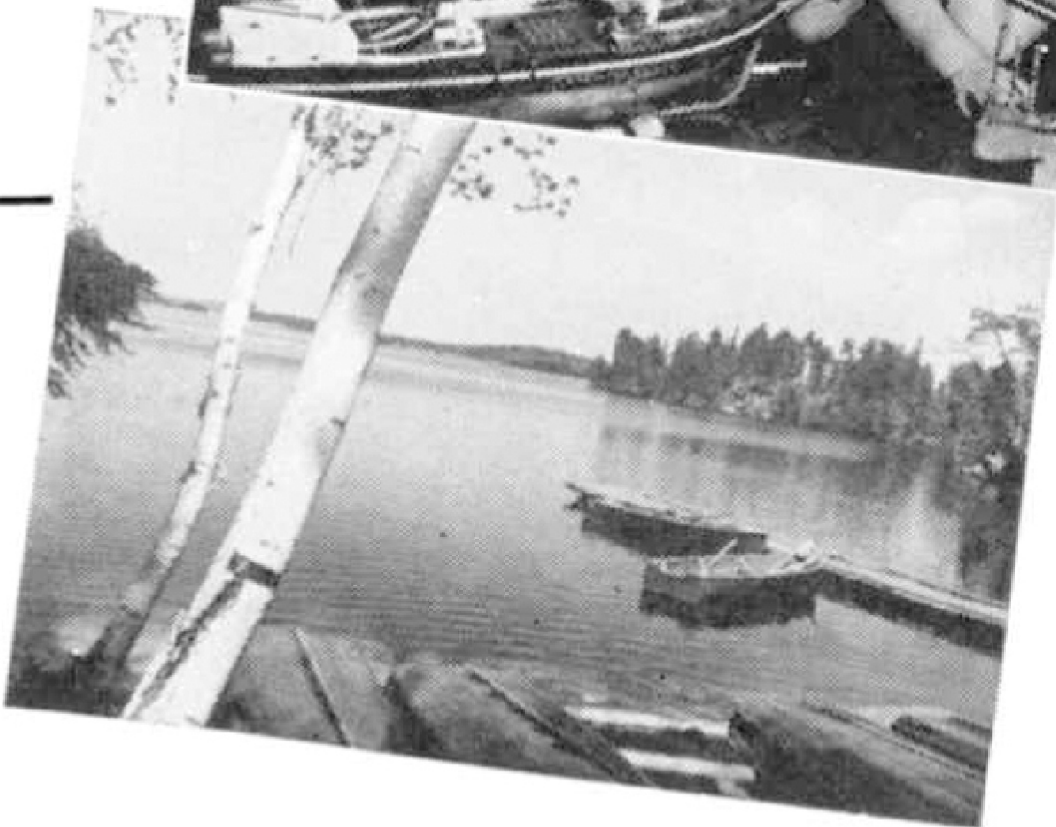
The combined high speed and fine grain of Kodak Plus-X Panchromatic Film make it the ideal film for general outdoor work. PX135; 20 and 36 exposures.

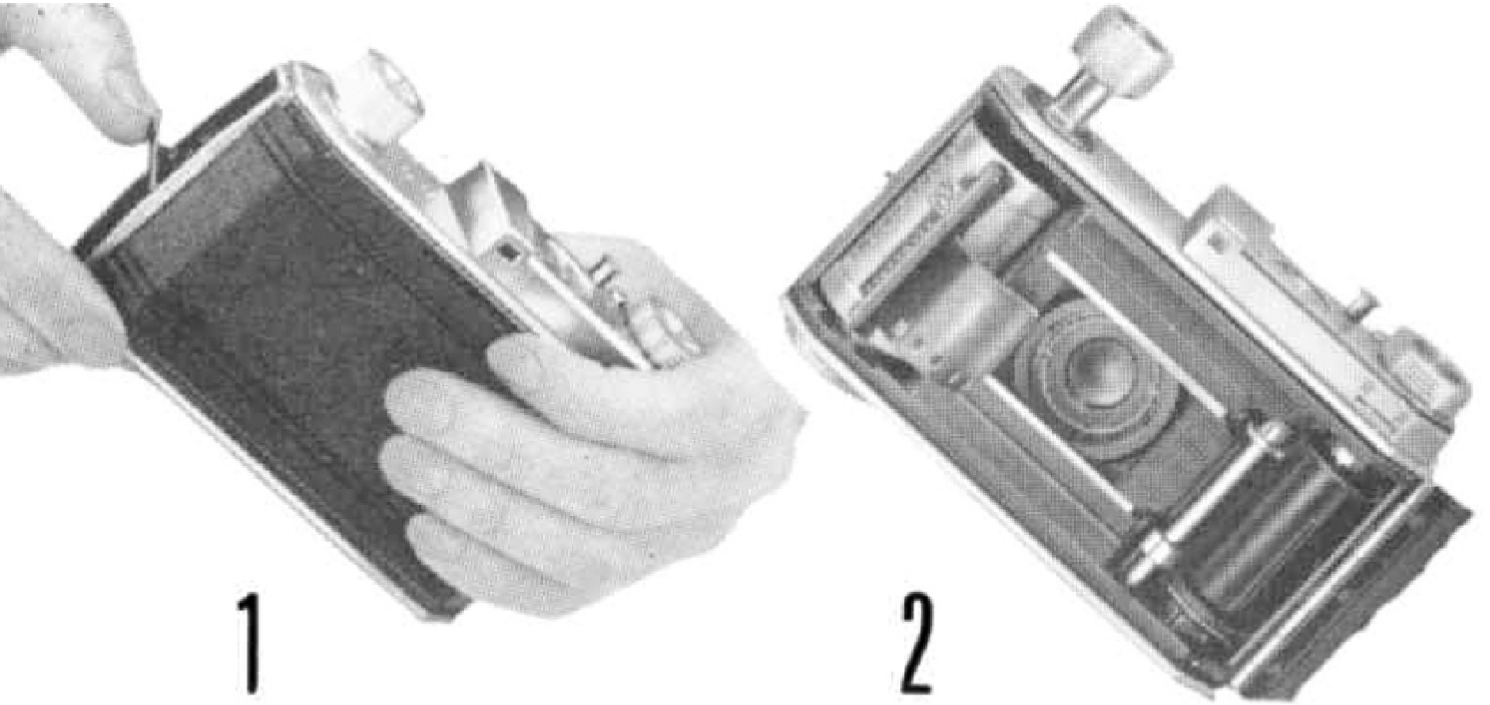
SUPER-XX PANCHROMATIC FILM

Because of its very high speed, this film is the logical choice for making snapshots indoors with photoflood lamps. Indoors or out, it is the film to use when the light is poor. XX135; 20 and 36 exposures.

PANATOMIC-X FILM

Because of its ultra-fine grain, this film is recommended when big enlargements are to be made or extreme detail is desired. Its speed is half that of Kodak Plus-X Film. FX135; 20 and 36 exposures.

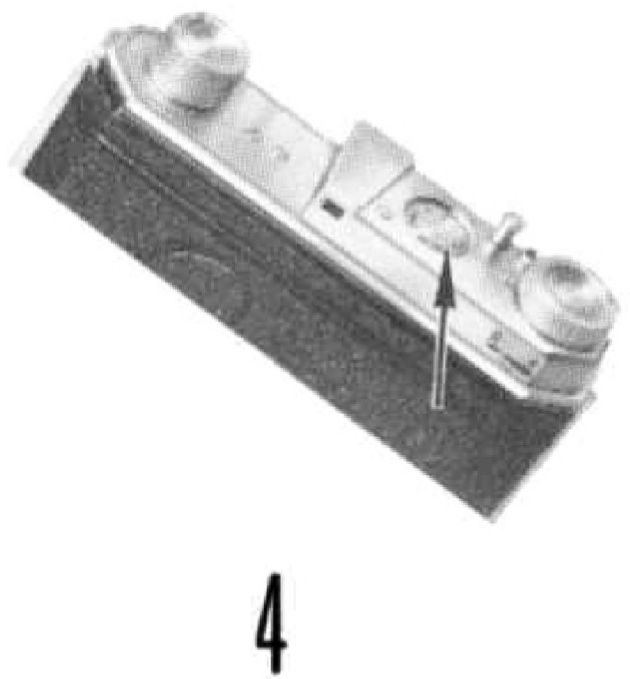




LOADING

- 1 Lift the lock with the fingernail and open the back of the camera.
- 2 Draw out the film rewind knob as far as it will go and insert the film magazine in the recess opposite the take-up reel, with the end containing the crosspiece toward the rewind knob. Push in the rewind knob all the way.
- 3 Insert the end of the film in a slot of the take-up reel (do not attempt to remove this reel from the camera); then turn the film winding knob to bind the film on the reel until the full width of the film just emerges from the magazine. Note that the Rewind Lever (arrow) moves to the letter A as soon as the winding knob is turned in the direction of the arrow.

Load only in subdued light—



After making sure that the film will ride properly in the path provided for it, close and lock the back of the camera and turn the winding knob in the direction of the arrow until it locks. Now, cock the shutter, press the exposure button, and then turn the winding knob until it locks.

Cock the shutter a second time, press the exposure button, and again turn the film winding knob until it locks. Enough film will now be wound on the take-up reel to avoid having the first exposure ruined by fog. Turn the exposure counter (arrow), by means of the two small studs, until the figure 1 is at the indicator.

After each exposure, turn the film winding knob until it locks; this automatically turns the exposure counter to the next number.

never in strong direct light

TAKING THE PICTURE



- 1 Compose the picture in the finder.
- 2 Set the focus, the lens* opening, and the shutter speed.
- 3 Cock the shutter by pushing the COCKING LEVER as far as it will go in the direction of the arrow.
- 4 Hold the camera steady—it's a good idea to hold your breath while you press the exposure button.
- 5 After each picture has been taken, turn the winding knob until it locks automatically. A new section of film is now in place for the next exposure.

**Note: Like any fine lens, this lens should be cleaned with care. If either the front or back surface requires cleaning, first brush away any grit or dust. Then wipe the surface gently with Kodak Lens Cleaning Paper or a clean, soft, lintless cloth. If moisture is necessary, breathe on the lens or use Kodak Lens Cleaner.*

REMOVING THE FILM

After the thirty-sixth exposure has been made (twentieth exposure with a 20-exposure magazine), push the rewind lever to R. The film should now be rewound into the magazine by turning the film rewind knob in the direction of the arrow. Rewinding the film after the thirty-sixth exposure (twentieth exposure with a 20-exposure magazine) will prevent any possibility of the film winding too far and tearing loose from the supply spool.

When the film winding knob stops turning, give a few more turns to the rewind knob. The film is now rewound into the magazine. The magazine should be replaced in the original packing immediately to avoid light leaking into the slot.

Important: Film should be developed as soon as possible after exposure. The quality of the image on all sensitized products is retained by prompt development after exposure.

It is a good plan to reload the camera as soon as an exposed film has been removed, in order to be ready for the next pictures.

DAYLIGHT

WHAT EXPOSURE?

Most subjects can be classified in three standard groups, to which definite exposures can be assigned. The table is for Kodachrome Film Daylight Type under typical lighting conditions. For further exposure information, consult page 21 of this manual, the Snapshot Kodaguide, or the instruction sheet packed with the film.

DARK SUBJECTS



Masses of dark green shrubs or people standing near shrubbery which does not reflect light into the shadows can be classed as "Dark Subjects."

AVERAGE SUBJECTS

Basic
Exposure



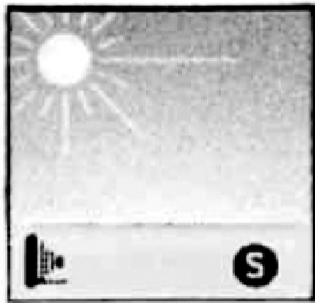
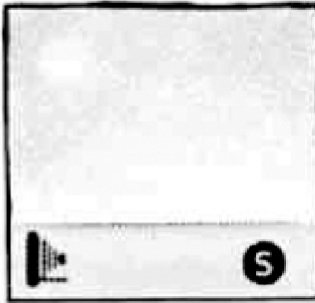
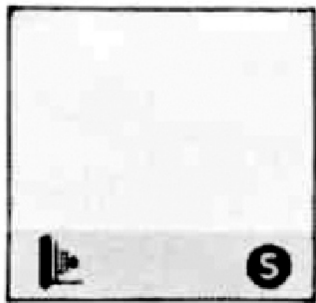
Most pictures fall into this group — near-by people, brightly colored gardens, houses, pets, etc. In general, use this classification if in doubt.

LIGHT SUBJECTS

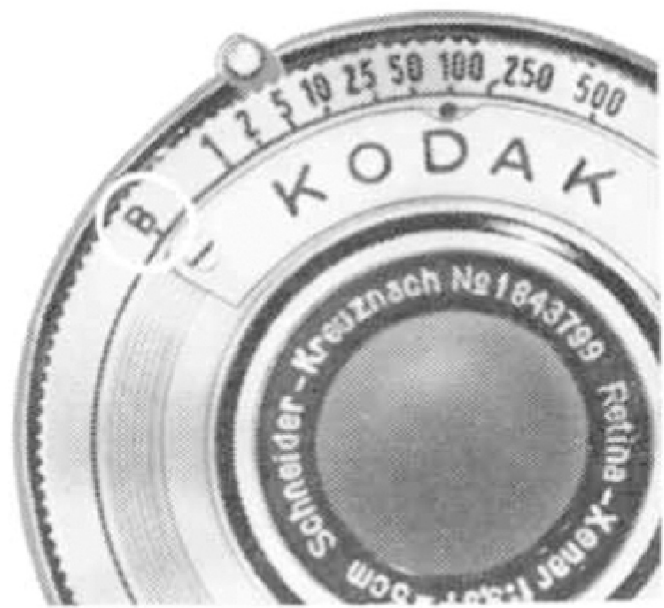


Beach, marine, and snow scenes, where everything is light-colored and the surroundings reflect light onto the subject to give a brilliant, flat lighting.

KODACHROME EXPOSURE TABLE

	LIGHTING CONDITIONS		
	Clear Sun Subject in direct sunlight 	Hazy Sun Soft shadows cast 	Cloudy but bright 
Lens Opening	$f/5.6$	$f/5.6$	$f/4.5$
Shutter Speed	$1/50$	$1/25$	$1/25$
Lens Opening	Between $f/5.6$ and $f/8$	$f/4.5$	$f/3.5$
Shutter Speed	$1/50$	$1/50$	$1/50$
Lens Opening	$f/8$	$f/5.6$	$f/4.5$
Shutter Speed	$1/50$	$1/50$	$1/50$

TIME EXPOSURES



Deep shade in the daytime, interiors, street scenes at night, and many other subjects offer opportunities for excellent pictures through use of a time exposure.

To make a time exposure, place the camera on a tripod* or other firm support. For short time exposures set the shutter at "B"; cock the shutter; then press the exposure button. The shutter remains open as long as the exposure button is depressed. For longer exposures obtain the accessory Kodak T.B.I. Cable Release No. 2 and follow the instructions packed with it.

**The use of the accessory Kodak Tilt-a-Pod is recommended if vertical pictures are desired with the tripod. The tripod socket is located in the side of the camera case.*

REFERENCE TABLES

Daylight Exposure Table For Plus-X Film

With Panatomic-X Film, give twice the recommended exposure
 With Super-XX Film, give one-half the recommended exposure

Type of Subject	Bright Sun	Hazy Sun	Cloudy-Bright	Cloudy-Dull
Brilliant Subjects	$f/16 - 1/100$	$f/11 - 1/100$	$f/8 - 1/100$	$f/5.6 - 1/100$
Bright Subjects	$f/11 - 1/100$	$f/8 - 1/100$	$f/5.6 - 1/100$	$f/4.5 - 1/100$
Average Subjects	$f/8 - 1/100$	$f/5.6 - 1/100$	$f/4.5 - 1/100$	$f/3.5 - 1/100$
Shaded Subjects	$f/5.6 - 1/100$	$f/4.5 - 1/100$	$f/3.5 - 1/100$	$f/3.5 - 1/50$

Photoflood Exposure Table For Super-XX Film

Two No. 2 Photoflood Lamps in Kodak Vari-Beam Lights set at "STILL"

Exposure Time in Seconds	Lamp-to-Subject Distance			
	$f/4.5$	$f/5.6$	$f/8$	$f/11$
1/100	10 ft	8 ft	5 ft	3½ ft
1/50	15 ft	14 ft	7 ft	5 ft
1/25	22 ft	20 ft	10 ft	7 ft

This table applies to light-colored rooms. In public halls or in dark-colored rooms, give twice the recommended exposure.

DEPTH OF FIELD

Depth of field is the distance from the nearest to the farthest objects that will appear sharp in the negative or print. It depends upon the distance between subject and lens, the focal length of the lens, and the size of the lens opening used. The smaller the lens opening the greater the range of sharpness; the larger the lens opening the less the range of sharpness.

DEPTH-OF-FIELD INDICATOR

The Depth-of-Field Indicator, engraved on the disk next to the opening button, is a help in obtaining correctly focused pictures. It shows the depth of field obtained with the various lens openings.

After adjusting the focus of the lens for a certain number of feet, turn the outer ring of the indicator until the number for which the lens is focused is at the pointer.

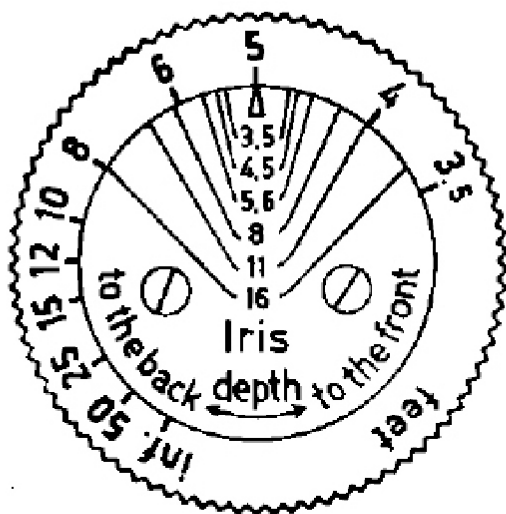


Figure 1

Example 1: To find the depth when the lens is focused for five feet, turn

the outer ring of the indicator until 5 is at the pointer; we now can read the range of sharpness which will be obtained with the various lens openings. With $f/11$ everything from about 4 feet to almost 7 feet will be sharp.

Example 2: When the lens is focused for ten feet, turn the outer ring of the indicator until 10 is at the pointer; we then find that with $f/5.6$, objects as near as 8 feet and as distant as about 13 feet will be sharp; with

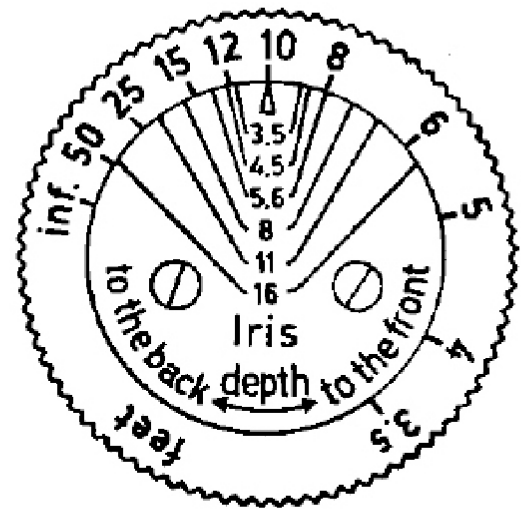


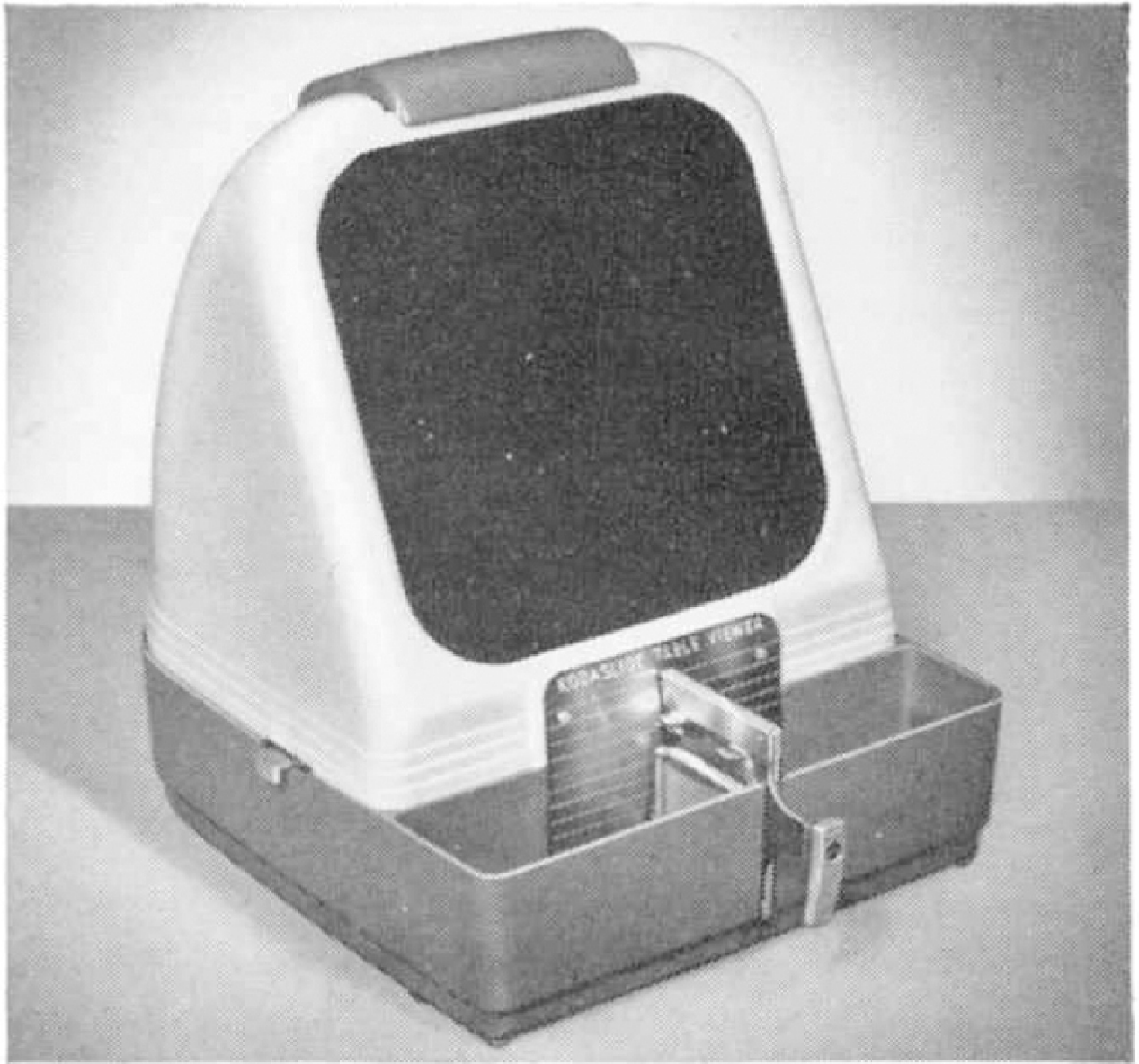
Figure 2

$f/16$ everything from a little less than 6 feet to about 50 feet will be sharp.

When the subject is $3\frac{1}{2}$ feet from the camera, the depth-of-field indicator shows the range of sharpness beyond $3\frac{1}{2}$ feet only, with the various lens openings.

With the camera focused at $3\frac{1}{2}$ feet, the range of sharpness when using $f/3.5$ is 3 feet 4 inches to 3 feet 9 inches; with $f/5.6$, the depth is 3 feet 2 inches to 3 feet 10 inches; and at $f/11$, the range is 3 feet to 4 feet 4 inches.

ACCESSORIES



KODASLIDE TABLE VIEWER MODEL A

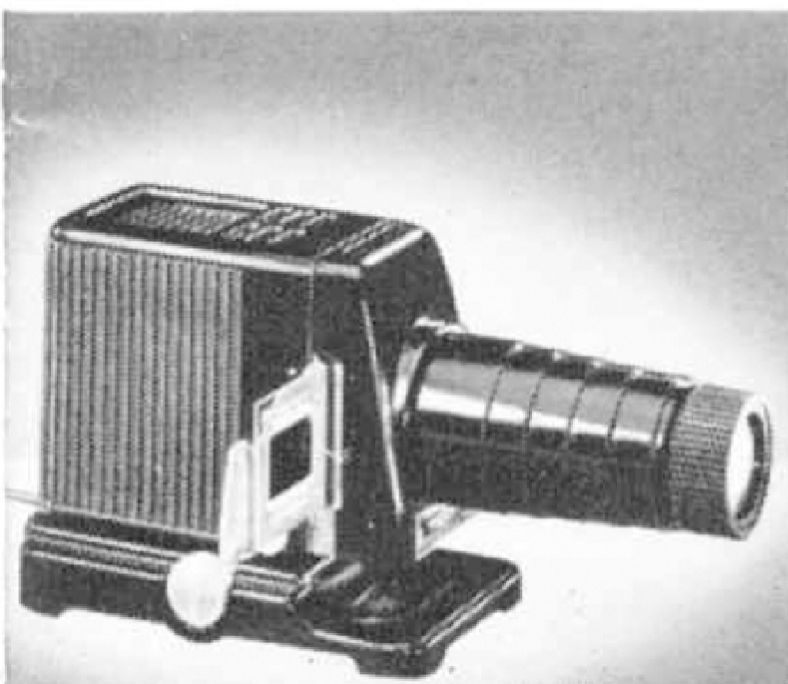
This new viewer provides complete one-package projection for your 35mm or Bantam transparencies. Your slides are enlarged nearly 5 times and brilliantly illuminated by the Lumenized optics without fuss or bother in a normally lighted room. The Kodak Projection Ektanon 50mm $f/3.5$ Lens projects the image through the

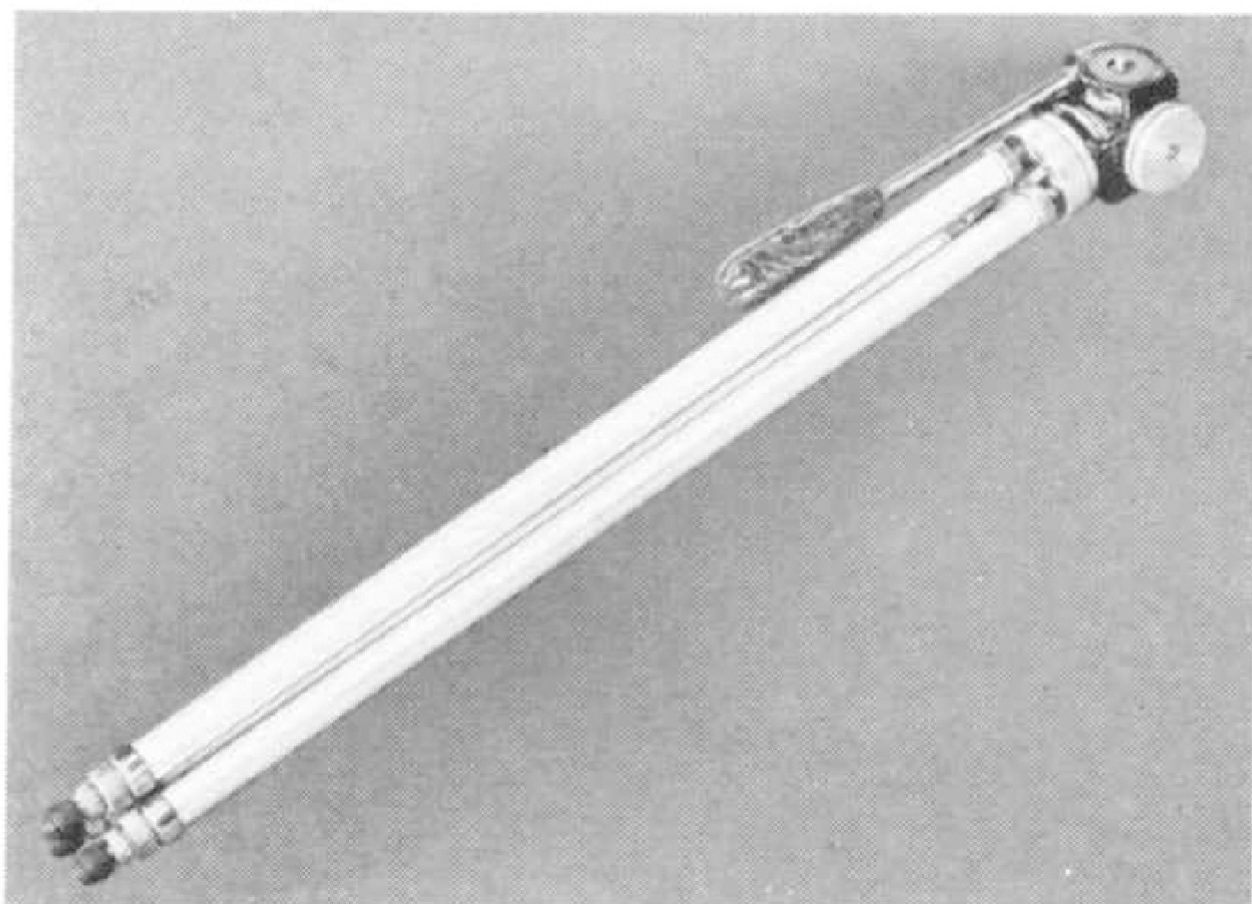
Kodak Ektalight Field Lens to the Kodak Day-View Screen. A new, unique changer handles about 75 Ready-Mounts or 30 double-glass slides. Ready-Mounts and glass slides may be intermixed. It is easily transported and only needs plugging into a 100- to 125-volt a-c or d-c line to be instantly ready for use.

KODASLIDE PROJECTORS

Both the Kodaslide Projector Models 1A and 2A are ideal for projecting Kodachrome transparencies and black-and-white positives. The Kodaslide Projector Model 1A is an inexpensive projector fitted with a 4-inch $f/3.5$ Lumenized Kodak Projection Ektanon Lens. The Kodaslide Projector Model 2A features a turret head and a choice of two outstanding Lumenized lenses: A Kodak Projection Ektanon 5 inch $f/3.5$ or a Kodak Projection Ektanon $7\frac{1}{2}$ inch $f/4$.

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KODAK EYE-LEVEL TRIPOD

This sturdy aluminum tripod provides rigid, dependable support for your camera. It measures $22\frac{1}{2}$ inches folded and 60 inches extended. The use of the Kodak Turn-Tilt Tripod Head (illustrated) is recommended if both vertical and horizontal pictures are desired. The tripod screw fits directly into the tripod socket in the side of your camera.

LEATHER FIELD CASE

A smart leather carrying case, with hand and neck strap, protects the camera and permits it to be ready at a moment's notice.

DETAILS OF

Kodak Retina I Camera with Double-Exposure Prevention

FILM

NEGATIVE SIZE—24 x 36mm

FILM SIZE—Kodak No. 135; 20 or 36 exposures

LENS

XENAR—Coated 50mm *f*/3.5 lens

LENS OPENINGS—*f*/3.5, *f*/4.5, *f*/5.6, *f*/8, *f*/11, *f*/16

SHUTTER

COMPUR-RAPID—Cocking type

SPEEDS—1, 1/2, 1/5, 1/10, 1/25, 1/50, 1/100, 1/250, 1/500 second and “B”

RELEASE—Body and shutter

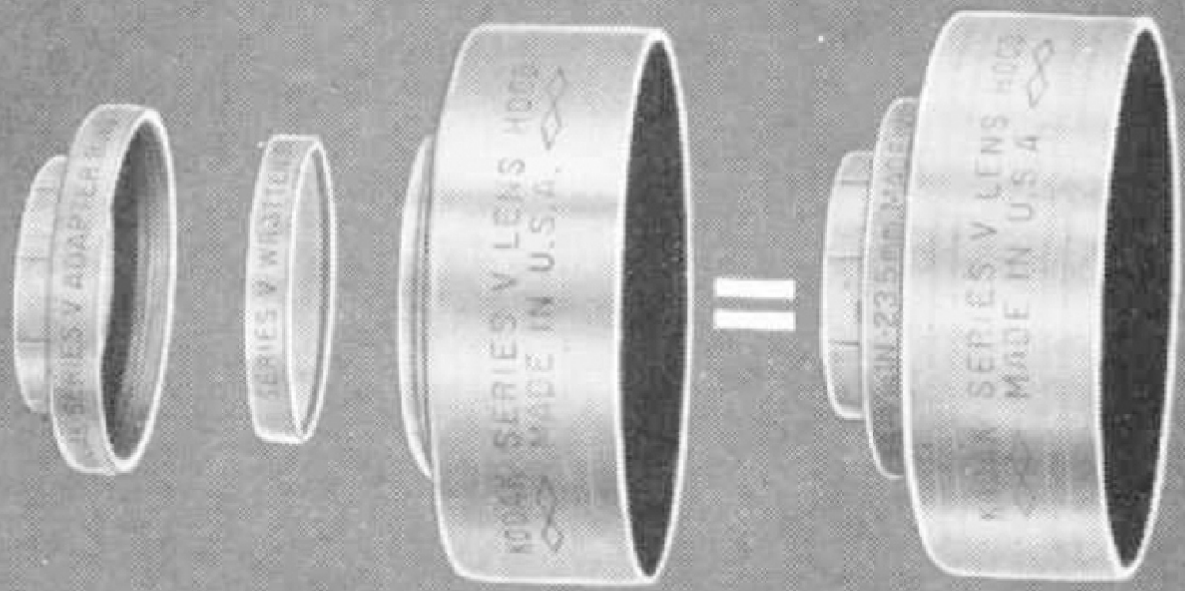
FOCUSING AND VIEWING

FOCUSING SCALE—on focusing ring around shutter

FOCUSING RANGE—3½ feet to infinity

VIEW FINDER—eye-level type

Make a note of the serial number of your camera. The serial number will be found inside the back of the camera, just above the pressure pad. The prefix “EK” is used to designate those Retina Cameras imported and sold by Eastman Kodak Company.



KODAK COMBINATION LENS ATTACHMENTS

The Series V Lens Attachments are used with the Kodak Retina I Camera. The basis of the combination is the No. 21 Kodak Adapter Ring which screws into the front of the lens mount. All Kodak Wratten Filters, supplementary lenses, Pola-Screen, and Lens Hood are available in this series.

A color filter adds greatly to the pictorial effects of black-and-white pictures by darkening the sky and recording the clouds. Three Kodak Wratten Filters can be used for this purpose, the K2, G, or A, resulting in medium, strong, and extra strong effects respectively.

EASTMAN KODAK COMPANY

Rochester 4, N. Y.