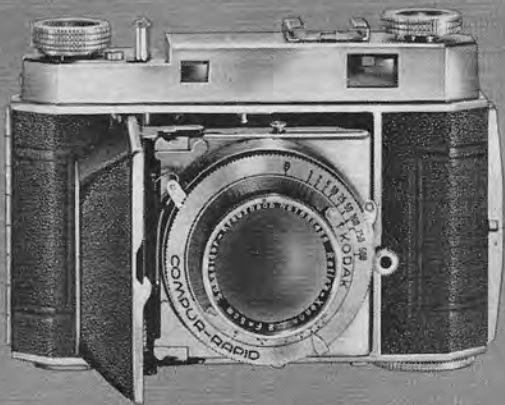


KODAK

Retina II

CAMERA



XENON COATED LENS f/2.0 • COMPUR RAPID SHUTTER

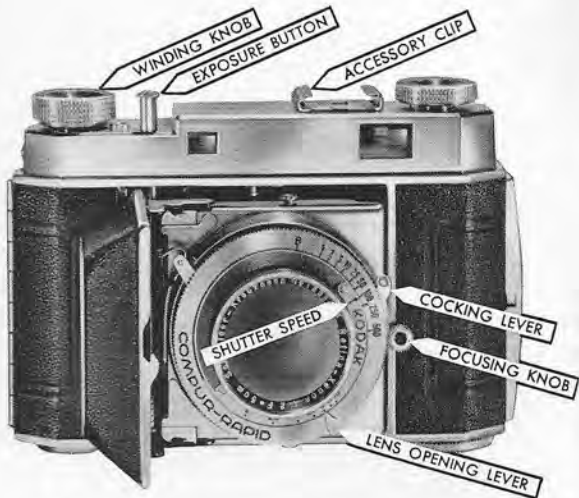
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YOUR Picture Chronicle

. . . those pictures you will make of memorable occasions: parties, picnics, Baby's first toddling steps, those "salon" attempts . . . all can be good pictures even from the beginning if, before loading your Kodak Retina II Camera with film, you acquaint yourself with the fundamentals of camera operation and 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

A SHUTTER SPEED

This setting controls the length of time the shutter stays open to admit light to the film.

B LENS OPENING

This setting controls the amount of light passing through the lens while the shutter is open.

C 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 8.



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 arrow. For "bulb" exposures the letter "B" must be brought to the arrow.

After the proper speed is brought to the SHUTTER SPEED ARROW, it is necessary to cock the shutter by pushing the lever to the opposite end of the slot (arrow above). 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.

Important: *Never oil the shutter.*

B 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 across the *f*-number scale shown below. The lens opening is smallest when the lever is at *f*/16. Each preceding setting lets through twice as much light as the one before—*f*/11 twice that of *f*/16, *f*/8 twice that of *f*/11, and so on down to *f*/2, which is the largest lens opening.

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

See the table on pages 16 and 21 for complete exposure data for daylight.





FOCUSING AND VIEWING

The Kodak Retina II Camera has a range finder which is coupled with the lens of the camera. Focusing is done by moving the focusing knob. This knob controls the focus of the lens and the range finder.



Look through the eyepiece of the combination view finder and range finder, holding the camera pressed firmly against the face as shown above. The eye must be as close to the eyepiece as possible.

Two images of the subject will appear (one in a clear disk, the other—tinted); move the focusing knob until these two images coincide, and only one image is visible. The camera is now in focus.

The range finder can be used only on subjects that are motionless.

Before making the exposure, check the composition of the picture. Hold the camera firmly against the face with the rear sight of the finder close enough to the eye to super-



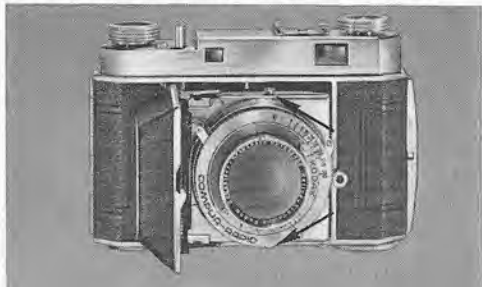
impose its edges on the edges of the front finder frame.

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; if you focus on the circle near 25 and again use an opening of $f/8$, everything from 15 feet to infinity will be sharp.

TO CLOSE THE CAMERA

This camera cannot be closed unless it is first focused for infinity. Press the closing buttons (in illustration below) and close the bed.

8



COLOR PICTURES from Kodachrome Transparencies

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

Kodachrome full-color transparencies can be projected for viewing and Kodachrome Prints can be made from them. Kodachrome Prints are full-color enlargements obtainable in four sizes from your 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. High quality enlargements many times the size of the original negatives can be made from this film. PX135; 20 or 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 or 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 or 36 exposures.

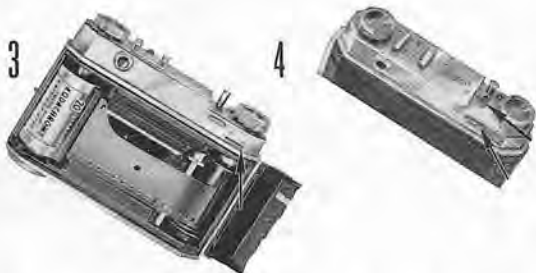




LOADING

- 1 Lift the lock and open the camera back.
 - 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 the take-up reel from the camera. 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 moves to the letter A as soon as the winding knob is turned in the direction of the arrow.
- 12

Load only in Subdued Light—



After making sure that the film will ride properly in the path 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. Repeat these operations once. Enough film will now be wound on the take-up reel to avoid having the first exposure ruined by fog. To bring the figure in the EXPOSURE COUNTER to the index mark, push down and in on the knurled WHEEL while turning it.

After each exposure, wind the film by turning 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 Select the lens* opening, and the shutter speed.
- 2 Focus and compose the picture in the finder.
- 3 Cock the shutter by pushing the COCKING LEVER as far as it will go.
- 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. A new section of film will now be in place.

***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 the film winding too far and tearing loose from the supply spool.

The film winding knob will turn while the film is being rewound. 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 metal container, in which it was originally packed, immediately after removal from the camera, 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.

It is a good plan to reload the camera as soon as an exposed film has been removed, 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	$f/5.6$	$f/4$	Between $f/2.8$ and $f/4$
Shutter Speed	$1/50$	$1/50$	$1/50$
Lens Opening	Between $f/5.6$ and $f/8$	Between $f/4$ and $f/5.6$	Between $f/2.8$ and $f/4$
Shutter Speed	$1/50$	$1/50$	$1/50$
Lens Opening	$f/8$	$f/5.6$	Between $f/4$ and $f/5.6$
Shutter Speed	$1/50$	$1/50$	$1/50$

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 depth of field or 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.

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.

Example 1: To find the depth of field 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 depth of field which will be obtained with the various lens openings.



Figure 1

With $f/11$, for example, everything from about 4 feet to about $6\frac{1}{2}$ 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 approximately as near as 8 feet and as distant as 13 feet will be sharp; with $f/16$ everything from a little less than 6 feet to about 35 feet will be sharp.

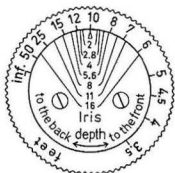


Figure 2

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

With the camera focused at $3\frac{1}{2}$ feet, the depth of field when using $f/2.0$ is 3 feet $4\frac{1}{4}$ inches to 3 feet $7\frac{3}{4}$ inches; with $f/2.8$ the depth is 3 feet $3\frac{3}{4}$ inches to 3 feet $8\frac{1}{2}$ inches.

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. Both the camera and anything in the camera field of view must be stationary during the 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.

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 — 1/100
Average Subjects	f/8 — 1/100	f/5.6 — 1/100	f/4 — 1/100	f/4 — 1/50
Shaded Subjects	f/5.6 — 1/100	f/4.5 — 1/100	f/4 — 1/50	f/4 — 1/25

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	f/5.6	f/8	f/11
1/100	11 ft	8 ft	5 ft	3½ ft
1/50	16 ft	14 ft	7 ft	5 ft
1/25	23 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.

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 Ekta-

light 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 Model 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 $7\frac{1}{2}$ inch $f/4$. The condensing systems of these two fine projectors have also been Lumenized, effecting an increase in screen illumination.



EKTRA HIGH-LOW ANGLE FINDER

The High-Low Angle Finder slips into the accessory clip on the top of the camera and permits photographing over the heads of a crowd. It can also be used with the camera on a tripod or table for making pictures below eye level.

EKTRA RIGHT-ANGLE FINDER

The Right-Angle Finder slips into the accessory clip and is used for picture taking with the camera held at a right angle to the line of sight.

KODAK EYE-LEVEL TRIPOD

This sturdy aluminum tripod provides rigid, dependable support for your camera. It measures 22½ inches folded and 60 inches extended. The use of the Kodak Turn-Tilt Tripod Head is recommended if both vertical and horizontal pictures are desired.

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.



KODAK COMBINATION LENS ATTACHMENTS

The Series VI Lens Attachments and the Series VIA Lens Hood are used with the Kodak Retina II Camera. The Series VIA Lens Hood rather than the Series VI must be used with this camera to clear the camera bed. The use of a color filter or other lens attachment can materially improve your pictures and extend your pictorial range.

To use a lens attachment, obtain the 1¼-inch Kodak Adapter Ring. Unscrew the insert and place the Series VI attachment in the adapter ring. Replace the insert (or lens hood) to hold the attachment in place.

In addition to the Kodak Pola-Screen, Pictorial Diffusion Disk, Portrait Diffusion Disk and Portra Lenses, a wide range of Kodak Wratten Filters is available in this series.

EASTMAN KODAK COMPANY
Rochester 4, N. Y.

DETAILS OF

Kodak Retina II Camera with Double-Exposure Prevention

FILM

NEGATIVE SIZE—24 x 36mm.

FILM—Kodak 135; 20 or 36 exposures.

LENS

SCHNEIDER XENON—Coated 50mm *f*/2 lens.

LENS OPENINGS—*f*/2, *f*/2.8, *f*/4, *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

COUPLED RANGE FINDER

VIEW FINDER—Single eyepiece for view and range finder.

FOCUSING SCALE—on focusing ring around shutter.

FOCUSING RANGE—3½ feet to infinity.

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 the Eastman Kodak Company.