



HOW TO USE THE

Kodak Duex

WITH KODAK DOUBLET LENS



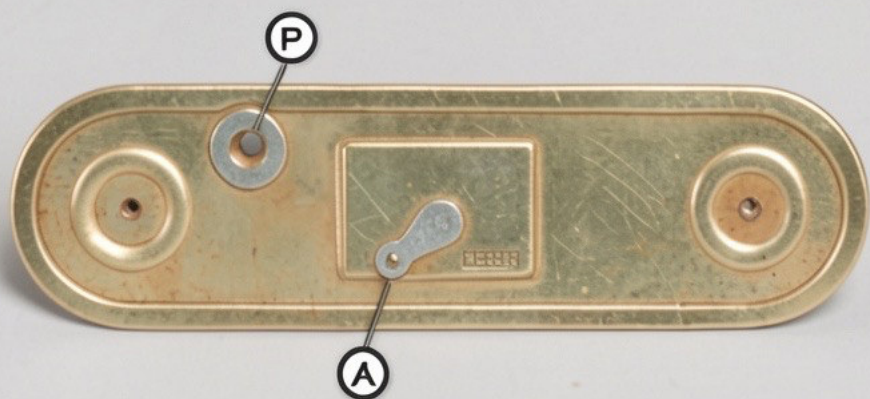
Prints from your Kodak Duex negatives of approximately this size are obtainable from your photofinisher at reasonable prices.



THE actual size of the picture made with the Kodak Duex is illustrated above.

The exceptionally fine grain of Kodak Panatomic-X Film insures satisfactory enlargements of almost any size.

Prints of approximately the size shown on the opposite page are being offered at reasonable prices, and it is recommended that prints of this size or larger be ordered from your negatives.



PICTURE TAKING IS *EASY* WITH THE KODAK DUEX

On the opposite page a Close-Up of the camera shows its simple working parts.

A Lock for Back. To remove the back, turn the catch to "OPEN," and slide off the back.

B Time Lever. It should be at the letter "I" for snapshots. For time exposures, push it down to "B."

C Exposure Lever. With time lever B at "I," push down the exposure lever C as far as it will go, for a snapshot. For a time exposure, time lever B must be pushed down as far as it will go, to "B"; then push down the exposure lever C, the shutter will remain open as long as lever C is pressed, see page 17.

D Direct View Finder for composing the picture to be photographed.

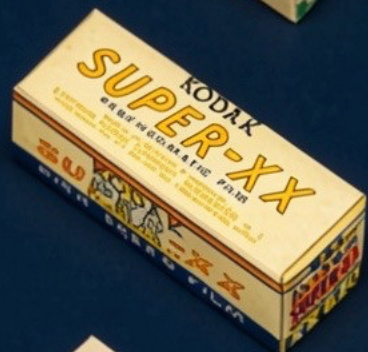
E Winding Knob for turning a new section of film into position after each picture.

F Tripod Socket. Holds the camera on a tripod for a vertical picture.

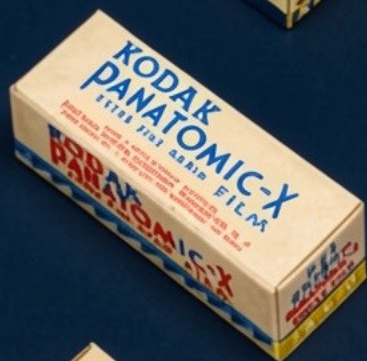
THE *FILMS* TO USE AND WHY



Kodak Verichrome Film—The finest all-purpose film. Has great speed and is well balanced for recording tone values of various colors in a black-and-white print. Its double coating guards against over- and underexposure. 16 exposures. V620.



Kodak Super - XX Panchromatic Film—Snapshots at night can be made with this film, using Photo-flood Lamps, see page 23. It is not recommended for snapshots in sunlight with this camera. 16 exposures. XX620.



Kodak Panatomic-X Film—It records color *values* correctly in a black-and-white print. It has an especially fine grain enabling the making of enlargements of great size. 16 exposures. FX620.



Kodak Film (Regular)—The stand-by of millions of amateurs for more than thirty years. A film that has sufficient speed for average use. 16 exposures. 620.

LOADING

LOAD your Kodak Ducx with one of the Kodak Films described on page 6.

The camera may be loaded in daylight, but not in direct sunlight.

To open the camera turn the catch A

on the bottom of the camera to OPEN, see Fig. 1; then exerting a slight pressure with the thumb, slide the back off the Kodak, see Fig. 2.

There is an empty spool in the recess on the winding side of the camera; this is to be used as the reel. The winding side is the side on which the winding knob E is located, Fig. 3, page 8.



Fig. 1

Insert the spool of film in the recess opposite the winding side, pushing out the spring flange, to permit the pin of this flange to enter the slot of the spool. The

Fig. 2






Fig. 3

spool must be inserted so that when the protective paper is drawn off, the colored side will be up and the black side will be towards the opening in the camera. If the spool of film is inserted the wrong way, no pictures can be made.

Remove the band that holds the end of the protective paper; then draw the paper across the opening and thread the paper through the *longer* opening of the slit

in the reel *as far as it will go*, see Fig. 3. Turn the winding knob E two or three times to bind the paper on the reel, and *be sure that the paper is started straight*. Do not unroll too much protective paper or the film will be fogged.

Replace the camera back and turn catch A, Fig. 1, to LOCK, as shown on page 4.

Turn the winding knob until a hand  appears in the window on the back of the camera; then turn slowly until the figure 1 is in the center of the window.

After each picture turn the knob until a new number appears in the window. Sixteen exposures can be made on a roll of Kodak 620 Film with the Kodak Duex.

SNAPSHOTS

To bring the lens of the Kodak Duex into picture-taking position, grasp the large knurled collar of the shutter and unscrew it in the direction of the arrow *as far as it will go*, until it locks.

When the lens is screwed all the way in, a safety lock prevents the shutter from opening, when the exposure lever C is pushed down.

The Kodak Duex is a fixed-focus camera and everything about five feet and beyond will be photographed sharply.

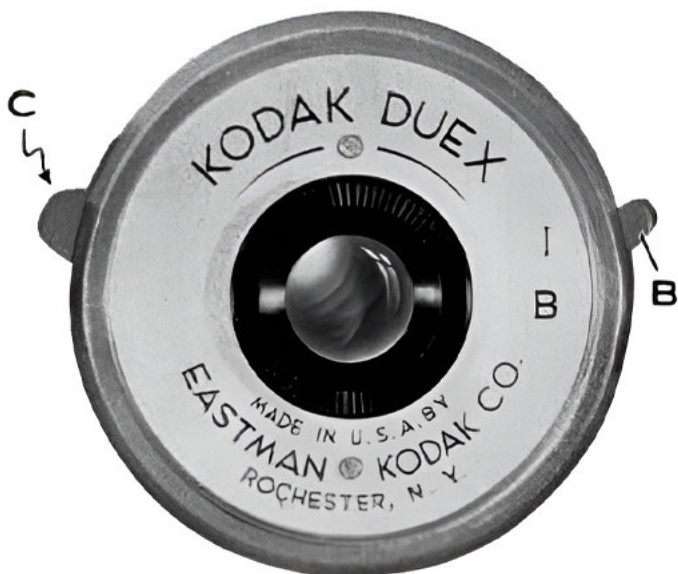


Fig. 4

The time lever B should be at the letter "I," when making instantaneous exposures or snap-

shots; for time exposures the lever must be moved to the letter "B."

The shutter is opened by pushing down the exposure lever C (see illustration on page 9). Push the lever *slowly*, and *as far as it will go*. If no "click" is heard, no exposure is made.

Do not jerk the lever as any movement of the camera, at the instant of exposure, will blur the picture.

For the best results, snapshots should be made with the subject in the bright sunlight. The sun should be behind your back or over the shoulder. If it shines directly into the lens, it will blur and fog the picture. However, beautiful effects can be obtained by back- or side-lighting. When pointing the camera toward the sun, the lens must be shaded so that the direct sunlight will not strike the lens; the best way to shade the lens is to use a Kodak Adjustable Lens Hood No. 1.

Satisfactory snapshots can often be made when the subjects are in the *open shade with clear sky overhead*, and even on *slightly cloudy days* when the light is *bright*.

Special instructions for making portraits are given on pages 15, 16, 19 and 20. When using Photoflood or Photoflash bulbs, see pages 23 to 27.

When photographing a moving object such as a runner, train, or automobile, the subject should be traveling towards or away from the camera at an angle of about 45 degrees.

Snapshots outdoors should be made from one hour after sunrise until one hour before sunset, when using Kodak Verichrome or Panatomic-X Film. If Kodak Film (Regular) is



Unposed snapshots have a natural charm that makes them highly prized.

Choose a pleasing background for your snapshots of people.

Interesting effects can be obtained with back-lighting.





THREE SIMPLE RULES FOR SNAPSHOTS

1. Snapshots should be made with the subject in bright sunshine, or on *slightly* cloudy or hazy days. The subjects can be in *open shade* with clear sky overhead.
2. The time lever B must be at the letter "I."
3. Compose the picture in the finder; then push the exposure lever C until you hear the "click." *Keep fingers away from lens; hold camera steady.*

used, snapshots can be made from 2½ hours after sunrise until 2½ hours before sunset. If earlier or later the exposures must be longer. For a subject under the roof of a porch or under a tree, a time exposure should be made, and the camera must be placed on a tripod or some other steady, firm support—not held in the *hands*.

When making instantaneous exposures or snapshots, compose the picture in the finder; then hold the camera firmly against your face and push the exposure lever *C* *once* as far as it will go, as shown in the illustration on page 12. When pushing the exposure lever, hold the breath for the instant. If the camera is moved during the exposure, the picture will be blurred. Do not let a finger or the carrying strap come in front of the lens.

THE FINDER

THE Kodak Duex has a direct view finder. Hold the camera against the face and look into the sight or rear frame, so that as much of the front frame as possible is seen; then frame the picture within the front frame of the finder. All vertical lines of the subject should be kept parallel with the vertical sides of the front frame, when holding the camera either in the vertical or horizontal position.

The camera should be held level, although unusual effects can be obtained by tilting the camera.

If the subject is below normal height, like a child or a dog, the camera should be held down level with the center of the subject.

The picture showing the larger image was taken with subject 3½ feet from camera, using a Kodak Portrait Attachment.



This picture was made at 5 feet—the shortest distance at which sharp pictures can be made without the Attachment. Both these pictures are snapshots.



*For large,
clear portraits
at close range*



KODAK PORTRAIT ATTACHMENT

The Kodak Portrait Attachment makes head and shoulder portraits. It can also be used for photographing flowers and similar subjects.

Place the Attachment in front of the lens and compose the picture in the finder. When you are holding the camera horizontally to make a vertical picture, tilt the camera *up* a trifle; and for horizontal pictures, if you are holding the camera with the finder to the right, turn the camera just a *little* to the right, as the short distance at which the subject must be from the lens makes it necessary to center the subject by eye. *The subject must be about 3½ feet from the lens.*

Measure the distance from the lens to the face. The same exposure is required as without the Attachment.

Use *Kodak Portrait Attachment No. 13* with the Kodak Duex.

Keep the lens of the camera clean and occasionally wipe out the inside of the camera.

PORTRAITS OUTDOORS

WHEN making snapshots of portraits outdoors while the sun is shining, the best results are obtained by placing the subject in the shadow of a building or a large tree, with clear sky overhead. This avoids unpleasant shadows on the face.

Do not make pictures of subjects closer than five feet. If large head and shoulder portraits are desired, use a Kodak Portrait Attachment. See pages 14 and 15.

If the subject is under a tree, or the roof of a porch, a short time exposure should be made with the camera on a tripod or other firm support.

TIME EXPOSURES

WHEN the light is not sufficiently bright for making instantaneous exposures or snapshots, as when the subject is under a tree or the roof of a porch, or on dark cloudy days, it will be necessary to make a time exposure. For outdoor subjects the exposure should be from one second to about four seconds, depending upon the quality of light.

The camera must always be placed on some solid, firm support—*never hold it in the hands*, or the picture will be blurred. It has a tripod socket (F, page 4) for use with a tripod for



making vertical pictures. An Optipod or a Tilt-a-pod will be necessary for using the camera on a tripod, with the camera in a vertical position for a horizontal picture. With the camera on a table, do not place it more than two or three inches from the table edge, or the table will show in the picture.

A support is provided under the shutter which serves to keep the camera level when placed on a table or a similar support, with camera in the horizontal position for making a vertical picture.

The time lever B must be at the letter "B" and the exposure lever C pushed and held down for the time of the exposure.



A typical set-up for making an exposure, using Photoflood Lamps and Kodak Handy Reflectors. If camera is loaded with Kodak Super-XX Pan Film a snapshot can be made, see page 23.

SIMPLE RULES FOR TIME EXPOSURES

- 1.** Place the camera on a tripod or other solid, firm support, not more than two or three inches from the edge of the support.
- 2.** The time lever B must be down, at the letter "B," see illustration on page 17.
- 3.** Push the exposure lever C *as far as it will go*; the shutter will remain open as long as lever C is held down.

DAYTIME PORTRAITS INDOORS

To make an indoor portrait by ordinary daylight, similar to that shown here, have the subject stand or be seated in front of an unshaded window, with the body preferably at a diagonal to the camera.

Place a reflector (a sheet or table-cloth thrown over a screen or chair will do) a few feet from the subject and at the angle shown in the diagram. This is to reflect light to the shaded side of the face.

Move the time lever B (page 17) to the letter "B."

Place the camera on a tripod or some other solid support, a little higher than an ordinary



*For Artistic
Portraits*

KODAK DIFFUSION

PORTRAIT ATTACHMENT



This Attachment is a supplementary lens used in the same manner as the regular Kodak Portrait Attachment, see page 15. By its use, portraits are made more artistic, due to the softening effect of diffusion. For the Kodak Duex, use the *Kodak Diffusion Portrait Attachment No. 13*.

table and not more than two or three inches from the edge.

Locate the subject in the finder. For a full-length figure, the camera should be about 8 feet from the subject. If large portraits are desired (as on page 14), use a Kodak Portrait Attachment, see page 15.

Push the exposure lever C as far as it will go and hold it there. After one or two seconds—depending upon the quality of the light—release the exposure lever to close the shutter.

ROOM INTERIORS BY DAYLIGHT

To photograph an interior by daylight, move the time lever B to the letter "B."

Place the camera on a level support or a tripod and compose your subject in the finder. If using a tripod and a horizontal picture is desired it will be necessary to use an Optipod or a Tilt-a-pod with the tripod.

Leave the furniture in the room in its usual place, as far as possible, but be sure there are no pieces close to the camera lens.

Push the exposure lever C as far as it will go and hold it there. After the proper time (see page 22), release the lever to close the shutter.

After the last time exposure has been made, move back the time lever B to the letter "I," to be ready for snapshots.



Exposures for Interiors by Daylight

FOR an interior with medium-colored walls and furnishings and two windows, with the sun shining—make an exposure of about *8 seconds*. With one window, double the exposure, and if there are more than two windows, halve the exposure.

If the day is cloudy, make an exposure of 16 seconds to 32 seconds.

No definite rule can be given for all interiors because of the great variety of light conditions. It is suggested that a series of exposures be made from about 2 seconds to 32 seconds, making each exposure double the previous one.

Interiors by daylight should be made from three hours after sunrise until three hours before sunset; if earlier or later, the exposure must be longer.

The exposures recommended above are for Kodak Film (Regular), Kodak Verichrome, and Panatomic-X Films; with Kodak Super-XX Panchromatic Film, give one-fourth the exposure.

PICTURES AT NIGHT

To take snapshots or other indoor pictures at night with the Kodak Duex, you need only a roll of Kodak Film, a few Kodak Handy Reflectors, and a few Photoflood or Photoflash bulbs. The bulbs can be screwed into all regular lamp sockets.



PhotoFLOOD gives a steady light of great brilliance. Comes in two sizes for the amateur: No. 1 and No. 2. The No. 2 bulb gives twice the light and lasts three times as long.



PhotoFLASH gives an instantaneous flash; it is good for one picture. No smoke, no noise. Comes in two sizes for the amateur: No. 11A and No. 21. The No. 11A size is suitable for most indoor shots with a reflector.

SNAPSHOTS WITH PHOTOFLOODS

To take snapshots at night with the Kodak Duex in rooms with light-colored walls, load camera with Kodak Super-XX Pan Film. Arrange two bridge lamps, one on each side of the subject, about $5\frac{1}{2}$ feet from subject, if using two No. 2 Photoflood bulbs; and 4 feet from subject with one No. 1 Photoflood and one No. 2 Photoflood.



Snapshots with Photofloods

Subject must be close to a light - colored background. Use two Photofloods in Kodak Handy Reflectors and Kodak Super-XX Pan Film, see table on opposite page.



Time Exposures with Photofloods

When the subject is not likely to move, time exposures can be made. Follow the exposure table on opposite page.



Photoflash Shots

For active subjects taken at night, use a Photoflash bulb in a Kodak Handy Reflector. See exposure table on page 27.

Replace the regular shades on the lamps with inexpensive Kodak Handy Reflectors, and place a Photoflood bulb in each of the lamps.

Compose your picture in the finder and push the exposure lever just as you would to take a snapshot outdoors. *The subject must be close to a light-colored background.*

CAUTION: Photoflood Lamps, especially the No. 2 size, become quite hot and should not be kept burning any longer than necessary. Do not permit the bulbs to come in contact with the Kodak Handy Reflectors or the fabric of shades on home lamps.

TIME EXPOSURES INDOORS WITH PHOTOFLOODS

To make time exposures with Photofloods, place the lamps at the distance given in the

Exposure Table for Photoflood Lamps		
	Kodak Handy Reflectors	
	Distance Lamps to Subject	Exposure
One No. 1 Lamp and One No. 2 Lamp; or Three No. 1 Lamps Super-XX Film Panatomic-X or Verichrome Film	4 ft. 7½ ft.	Snapshot ½ sec.
Two No. 2 Lamps Super-XX Film Panatomic-X or Verichrome Film	5½ ft. 9 ft.	Snapshot ½ sec.

table on page 25 and load the camera with Kodak Panatomic-X or Verichrome Film. Move the time lever B to the letter "B." Place camera on a solid support. Compose picture in the finder. Push the exposure lever C as far as it will go; then immediately release it to close the shutter.

PhotoFLASH PICTURES

FOR a *Photoflash* picture, the time lever B should be at "B."

Use a *Photoflash* bulb in any home lamp or a portable reflector unit having flashlight batteries. To make the exposure, turn out all lights (except a small light behind camera), direct the *Photoflash* at subject, open shutter, flash the bulb, and close shutter. See exposure table on page 27.

REMOVING THE FILM

AFTER the sixteenth exposure has been made, turn the winding knob until the end of the protective paper passes the window. The film is now ready for removal from the camera.

In a subdued light, remove the back of the camera as described and shown on page 7. Hold the end of the protective paper against the roll of film to prevent paper from loosening, press down on the spring flange and remove the roll of exposed film.

IMPORTANT: After removing the film from the camera, do not wind it tightly with a twisting motion, or it may become scratched.

Fold under the end of the protective paper, and fasten it with the sticker.

**Exposure Table for No. 11A or No. 21
Photoflash Lamp**

	In Kodak Handy Reflector		In Ordinary Reflector	
	Veri- chrome or Pana- tomic-X	Super- XX Pan Film	Veri- chrome or Pana- tomic-X	Super- XX Pan Film
	Distance—Lamp to Subject			
No. 11A Lamp	7 ft.	17 ft.	6 ft.	12 ft.
No. 21 Lamp	11 ft.	25 ft.	7 ft.	17 ft.

The film is now ready for development, which should be done as soon as possible. You may have the work done by a photo-finisher, or you may do it yourself. Our Service Department will be glad to send you, upon request, complete instructions for developing and printing.

Remove the empty spool and place it in the winding side of the camera. First press outward the spring flange and engage the pin of this flange with the slot in the end of the spool; then push the spool down and turn the winding knob until it engages the slot in the other end of the spool.

Replace the back of the camera and push the catch A (page 4) to the word LOCK.

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. For the best results, your camera should be loaded with one of the Kodak Films which are described on page 6.

EASTMAN KODAK COMPANY,
ROCHESTER, N. Y.

AT YOUR SERVICE

THE SERVICE DEPARTMENT

THOUGH the essential directions for obtaining good pictures with the Kodak Duex are given in this manual, further information on any subject discussed, or any other subject in photography, may be obtained by writing our Service Department. Send your negatives and prints to the department for helpful, constructive criticism of your work. There is no charge—no obligation.

You are also invited to send for a free copy of "At Home with Your Kodak," and "Picture Taking at Night," two booklets containing suggestions and diagrams for taking interesting pictures both indoors and outdoors.

Address all Communications

SERVICE DEPARTMENT
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