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Outdoor Exposure Guide

Subject	Stop Opening	Shutter Speed
Average Subjects: Near-by People, Gardens, Houses, Scenes <i>not in shade.</i>	<i>f/11</i>	1/50
Bright Subjects: Near - by People in Marine, Beach, and Snow Scenes. Scenics with foreground objects.	<i>f/16</i>	1/50
Brilliant Subjects: Beach, Marine, and Snow Scenes, Distant Landscapes and Mountains without prominent dark objects in the foreground.	<i>f/22</i>	1/50
Shaded Subjects: People, Gardens, and other subjects in Open Shade (lighted by open sky, not under trees, porch roof, etc.).	<i>f/4.5</i>	1/100
	<i>f/5.6</i>	1/50
Moving Objects: When photographing a moving object such as a runner, train or an automobile, the subject should be moving towards or away from the camera at an angle of about 45 degrees.	<i>f/5.6</i>	1/200

Exposures are for the hours from one hour after sunrise until one hour before sunset on days when the sun is shining. If pictures are made earlier or later, or if it is a *slightly* cloudy or hazy day, use a larger stop opening. This table is for Kodak Verichrome and Plus-X Films.

With Kodak Super-XX Panchromatic Film use the next smaller stop opening, or use a shutter speed twice as fast as that given in the table. With Kodak Panatomic-X Film give twice the exposure.

The largest stop opening is *f/4.5*. The *higher* the number the *smaller* the opening.



HOW TO USE THE

KODAK MONITORS

SIX-20
AND
SIX-16

KODAK ANASTIGMAT LENS *f/4.5*
AND KODAMATIC SHUTTER



THERE ARE

7 *Easy Steps*

**TO GOOD
PICTURES WITH
YOUR KODAK MONITOR**

With the Kodak Monitor, clear, sharp pictures can be made right from the start, outdoors or indoors, in the daytime or at night.

The seven easy steps to make good pictures with your Kodak are given on the following pages. They are simple, and very easily memorized.

You will find many illustrations which will give you suggestions for making similar pictures.

Left—Actual size of pictures made with Kodak Monitor Six-20. The Six-16 makes pictures $2\frac{1}{2} \times 4\frac{1}{4}$ inches in size.

1 LOADING



Fig. 1

THE Kodak may be loaded in daylight, but not in direct sunlight.

To open the back of the Kodak, push the button under the carrying handle in the direction of the arrow (Fig. 1).



Fig. 2



Fig. 3

Open the back (Fig. 2).

Place the roll of film in the recess adjoining the hinge of the back and push it down until it catches (Fig. 3).

2

Load your Kodak with Kodak Film. See pages 18 and 19 for the descriptions of the different kinds of Kodak Film. They meet every picture-taking need.

The spool should be inserted so that when the paper is drawn off, the colored side of the paper will be up and the black side will be towards the lens.



Fig. 4

Remove the paper band and pass the protective paper *over* the two rollers. Thread the paper through the *longer* slit in the empty reel, *as far as it will go* (Fig. 4).

Turn the winding knob once or twice to bind the paper on the reel (Fig. 5).

Be sure the paper is started straight.

Close the back, pressing it so that the spring lock snaps into place.


The winding clutch lever should



Fig. 5

3

be at WIND (Fig. 6).

Push the metal plate that covers the red window on the back of the Kodak in the direction of the arrow. Turn the winding knob until a small hand  appears in the window and continue turning the knob slowly until the figure one (1) just appears; then push the plate over the red window.

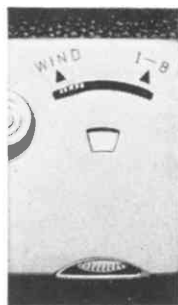


Fig. 6

Move the winding clutch lever to "1-8" (Fig. 7) and turn the winding knob a trifle until it locks; the figure (1) should now appear in the exposure counter opening. If it does not show, turn the knurled wheel of the counter until figure (1) is centered in the opening.



Fig. 7

After making an exposure, turn the winding knob until it locks. When winding film the exposure counter dial makes a complete turn and all the numbers appear in the opening before the winding knob locks with the

succeeding exposure number in place. The red window should only be uncovered for bringing No. 1 into position, as the exposure counter registers each section of film. The winding knob cannot be turned unless the exposure button E, page 12, is pressed.

2 OPENING FRONT

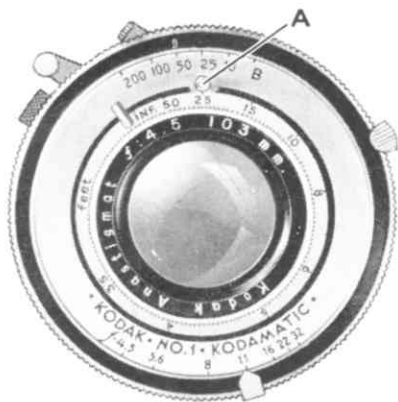


Fig. 8

PRESS the button near the winding knob to open the front of the Kodak; then draw down the bed carefully until it locks (Fig. 8). This will bring lens and shutter into position.

3 FOCUSING

TURN the lens mount to the right or left until the figure representing the dis-

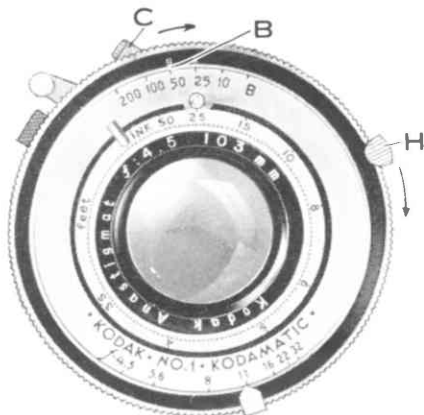


tance from the subject to lens is under the pointer A. For ordinary street pictures, turn lens mount to 25 ft.; if the principal object is nearer or farther,

change the focus accordingly.

When making pictures of subjects that are closer than ten feet, be sure to measure the distances, or use a Kodak Service Range Finder, see page 50.

4 SHUTTER SPEEDS



THE Kodamatic Shutter on your Kodak is designed for making automatic exposures of 1/10, 1/25, 1/50, 1/100, and 1/200 second.

6

For average subjects revolve the knurled collar of the shutter until the indicator B is at 1/50 second. For moving objects or subjects in very bright light, use either 1/100 or 1/200 second.

For "bulb" exposures the indicator B must be at the letter "B," for time exposures a T.B.I. Cable Release No. 2 is required, see page 26.

After the indicator B is brought to the proper speed, or to "B," it is necessary to set the shutter by pushing the setting lever C to the opposite end of the slot.

Lever H is the self-timer, see page 14.

HOW TO USE YOUR KODAK AS A FIXED FOCUS CAMERA

WHEN the subject is not close to the Kodak, such as when making ordinary street scenes, or when the subject is about 12 feet or beyond, the camera

When it is difficult to estimate the distance between the subject and lens, like the moving subject shown at the right; then adjust your Kodak as a fixed focus camera.



7

can be easily converted to a fixed focus type by making the following adjustments:

Set the Focus at 25 feet.

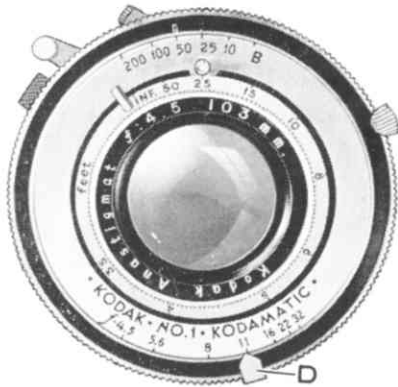
Use Stop Opening $f/16$.

Make an exposure of $1/25$ second.

The range of sharpness when your Kodak is adjusted as a fixed focus camera will be found on page 32 or 33.

5 STOP OPENINGS

THE stop openings regulate the amount of light passing through the lens. The openings are enlarged or reduced by moving the lever D at the bottom of the shutter.



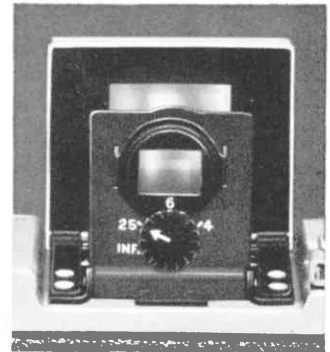
For average subjects outdoors when the sun is shining, move lever D to $f/11$, and make an exposure of $1/50$ second. See directions on pages 29 and 30 for the use of the different stop openings.

6 THE FINDERS

THE Kodak Monitors have two finders: The Kodak Parallax Correction Finder which is a direct view finder for action photography and the reflecting finder, ideal for child pictures.

THE KODAK PARALLAX CORRECTION FINDER (page 17) is brought into position by lifting the front frame. It shows what will appear in the picture, but on a much reduced scale.

To correct the finder for parallax, a small adjustment dial is located next to the rear sight. When this dial is revolved it changes the position of the sight, thus coordinating the field seen in the finder with the field included by the lens of the camera.



After the camera is focused for any distance, check the dial to see that the arrow is pointing to the distance for which the lens is adjusted. For example: To photograph

a distant landscape the arrow on this dial should point to INF. (infinity), or if the camera is focused for ten or fifteen feet, turn the dial until the arrow is between 25 and 6.

To aim the camera correctly, look through the finder and superimpose the edges of the rear sight on the edges of the front frame.

When making the exposure, hold the Kodak steady by pressing the hand supporting it against the face. All vertical

HOLD THE KODAK STEADY

Holding the Kodak for a vertical picture, using the direct view finder.



Holding the Kodak for a horizontal picture, using the direct view finder.

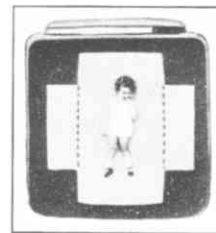


10

lines in the subject should appear parallel with the vertical sides of the front frame of the finder, when the Kodak is held either in the vertical or horizontal position. Unusual effects can be obtained by tilting the Kodak.

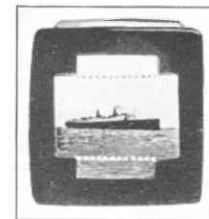
THE REFLECTING FINDER (page 17) shows what will appear in the picture, but on a much reduced scale.

With this finder hold the Kodak firmly against the body at waist level.



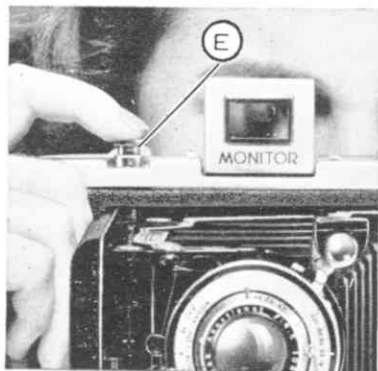
Look into the finder from directly over the center of it and include what is wanted. Only what is seen in that part of the finder within the dotted lines in the illustration at the left will appear in a vertical picture.

To make a horizontal picture, turn the finder and hold the Kodak in the horizontal position. Only what is seen in that part of the finder within the dotted lines in the above illustration, will appear in a horizontal picture.



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7 SNAP THE PICTURE



Important: *First set the shutter by pushing lever "C" to the opposite end of the slot, see page 6, and then press the exposure button E slowly. While*

you are making the exposure, grip the Kodak firmly and hold the breath, to avoid a blurred picture due to camera movement.

DOUBLE-EXPOSURE PREVENTION DEVICE

THIS feature prevents releasing the shutter with button E after making an exposure, unless a new section of film is brought into position.

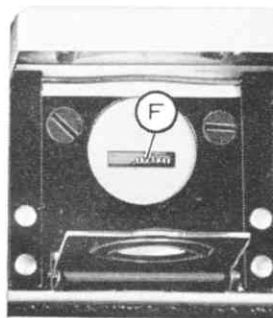
Unintentional double exposures are avoided if the shutter is released only by means of the button E.

If the release on the shutter, located

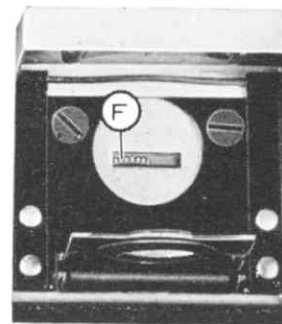
near the reflecting finder, is used for intentional double exposures—sometimes useful in trick photography, or if a flash synchronizer is used with a cable release—it will be necessary to press the exposure button E before winding the film to the next exposure.

If the button "E" is pressed by mistake, before the shutter is set, no exposure is made. In such a case the double-exposure prevention mechanism can be disengaged by moving lever F, located in the baseplate of the Parallax Correction Finder, to the opposite end of the slot. After doing this the release E can be depressed to make the exposure.

In trick photography when a double



Position of lever F before exposure button E is pressed.



Position of lever F after exposure button E is pressed.

exposure may be wanted, make the first exposure; then push lever F to the opposite end of the slot, set the shutter with lever C, page 6, and again press the exposure button E.

A T.B.I. Cable Release No. 2 can be used with the Kodak Monitor. To attach the cable release, screw it into the socket in the center of the exposure button E. For directions regarding the use of the T.B.I. Cable Release see page 26.

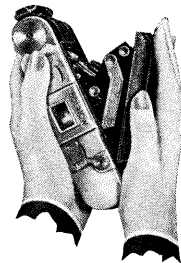
THE SELF TIMER

THERE is a self-acting release built into the shutter; by using this self timer you can include yourself in the picture.

To use the self timer, place the Kodak on a tripod or other firm support. Use proper speed and stop opening. Push the setting lever C, page 6, to the opposite end of the slot; then push the lever H as far as it will go in the direction of the arrow, see page 6. Press the exposure button E. Get into the picture. After about ten seconds the exposure will be made. Do not use the self timer for either time or "bulb" exposures.

CLOSING THE KODAK

BEFORE closing the Kodak, adjust the focus for infinity. The reflecting finder must be in the upright position; then press the same button that is used to open the Kodak, raise the bed and snap it shut.



REMOVING THE FILM

TO UNLOAD the Kodak after the last picture has been made, move the winding clutch to WIND; then move the metal plate on the back of the Kodak in the direction of the arrow and turn the winding knob until the end of the paper passes the red window. In a subdued light, open the back of the Kodak. Hold the end of the paper taut and turn the knob until all of the paper is on the roll.



If the sticker folds under the roll, turn

the knob to bring it up. Take hold of the end of the paper and sticker, draw out the winding knob and remove the film. Fold under the end of the paper, and fasten it with the sticker.

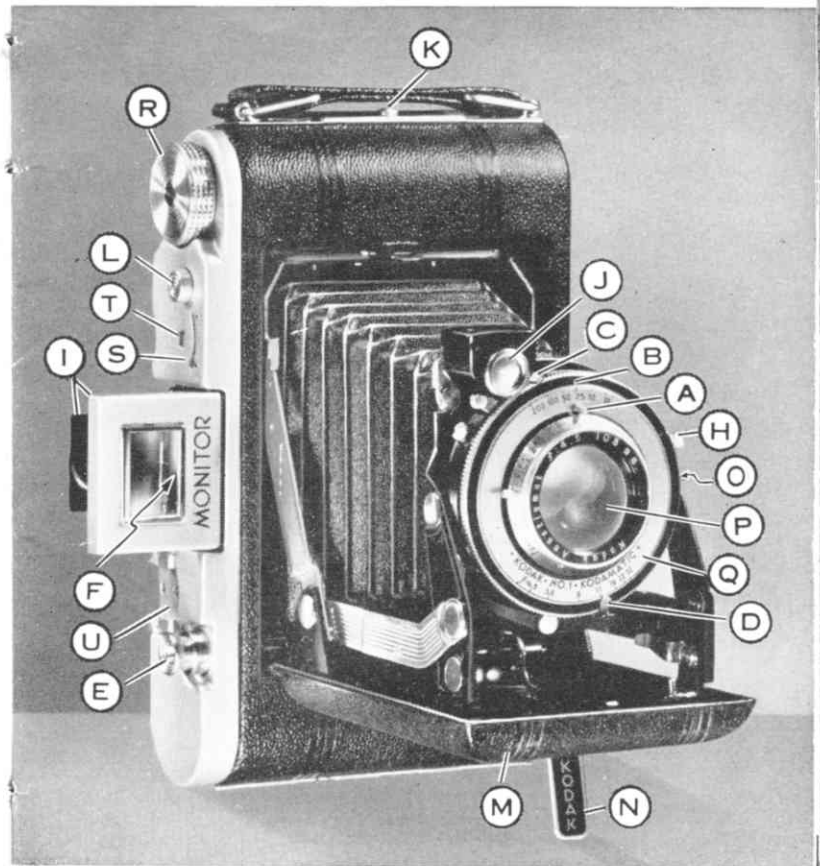


Important: After removing the film, do not wind it tightly with a twisting motion, or it may be scratched.

The film is now ready for development, which should be done as soon as possible. We will be glad to send you complete instructions for developing and printing.

Remove the empty spool and place it in the winding end of the Kodak. Push in the winding knob, fitting the flange on the knob into the slot in end of spool. The Kodak should now be reloaded with Kodak Film, see pages 18 and 19.

Working Parts on the Kodak



- | | |
|---|---|
| A. Focus Pointer | L. Button for Opening and Closing Front |
| B. Speed Indicator | M. Bed |
| C. Setting Lever | N. Vertical Support |
| D. Stop Opening Lever | O. Horizontal Support |
| E. Exposure Button | P. Lens |
| F. Emergency Lever | Q. Shutter |
| G. Self-Timer Lever | R. Winding Knob |
| H. Parallax Correction Finder | S. Winding Clutch Lever |
| I. Reflecting Finder | T. Exposure Counter |
| J. Button for Opening and Closing Front | U. Clip for Range Finder |
| K. Bed | |
| L. Vertical Support | |
| M. Horizontal Support | |
| N. Lens | |
| O. Shutter | |
| P. Winding Knob | |
| Q. Winding Clutch Lever | |
| R. Exposure Counter | |
| S. Clip for Range Finder | |
| T. Focus Pointer | |
| U. Speed Indicator | |

The All-Purpose Film

Kodak's Latest Roll Film

For Pictures at Night

For Finest Enlargements

KODAK VERICHROME FILM

KODAK PLUS-X PANCHROMATIC FILM

KODAK SUPER-XX PAN FILM

KODAK PANATOMIC-X FILM



Has great speed and is well balanced for recording tone values in a black-and-white print. Its double coating guards against over- and underexposure. 8 exposures. V620 for the Six-20 Kodak; V616 for the Six-16 Kodak.

The high speed and fine grain of Kodak Plus-X Panchromatic Film make it the ideal film for general outdoor work when panchromatic results are desired. 8 exposures. PX620 for the Six-20 Kodak; PX616 for the Six-16 Kodak.

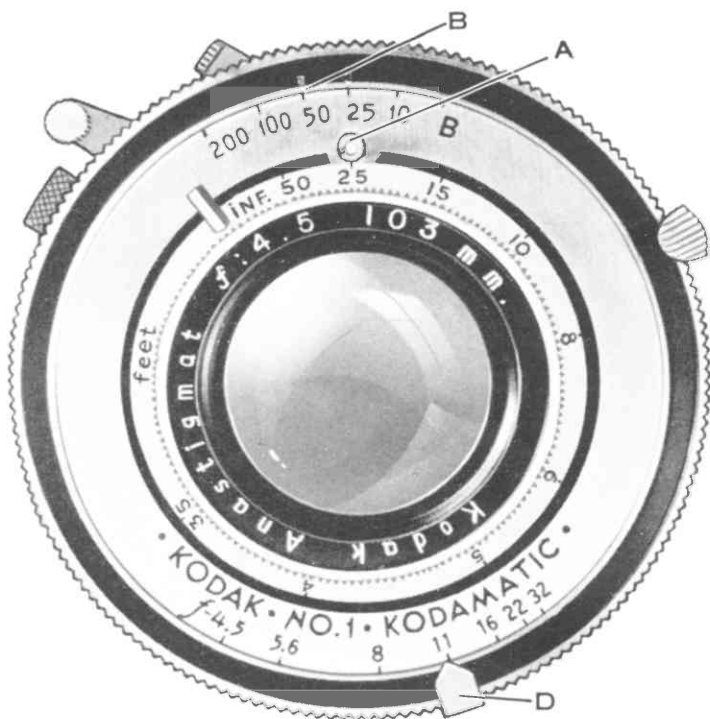
Gives correct color values in a black-and-white print. Its speed makes it ideal for taking pictures at night by artificial light, and outdoor snapshots in the shade. 8 exposures. XX620 for the Six-20 Kodak; XX616 for the Six-16 Kodak.

It records color values correctly in a black-and-white print. It has an exceptionally fine grain enabling the making of enlargements of great size. 8 exposures. FX620 for the Six-20 Kodak; FX616 for the Six-16 Kodak.



THE EYE OF YOUR KODAK

Like the human eye, the lens and shutter is the mechanism that records the image. But the adjustments your eye makes naturally, you must make manually.



Good Pictures Depend on:

A. CORRECT FOCUSING

The lens must be focused properly so that the image of the subject will be sharp and distinct on the film.

B. PROPER SPEED

The shutter must open and close quickly enough to prevent a blurred image of a moving object.

D. RIGHT AMOUNT OF LIGHT

Just as the iris of the eye contracts and expands when there is more or less light—the diaphragm of the shutter must be closed or opened to permit the right amount of light to enter the camera.

GOOD PICTURES REQUIRE ACCURATE FOCUSING

THE various distances at which the Kodak may be focused are engraved on the edge of the lens mount. The scale on the Six-20 Kodak is marked for $3\frac{1}{2}$, 4, 5, 6, 8, 10, 15, 25, and 50 feet, and INF. (infinity); it is the same on the Six-16 Kodak, except that it does not include the $3\frac{1}{2}$ -foot distance.

To focus the Kodak, revolve the lens mount until the figure representing the distance *from the subject to lens* is under the pointer at the top of the lens.

The distance between the subject and Kodak can be estimated without measuring, when the subject is *beyond fifteen feet*; for instance, if the focus is set at 25 feet (the usual distance for ordinary street scenes) the sharpest part of the picture will be the objects at that distance from the camera, but everything from about 19 to about 35 feet will be in good focus with the Six-16, when using stop $f/4.5$, with smaller stop openings the range will be greater, see tables on pages 32 and 33.

For *distant* views turn the lens mount until INF. (infinity) is under the pointer.

For portraits, the subject should be fairly close to the lens, and the focus should be adjusted accordingly.

For groups set the focus at 15 or 25 feet.



For distant subjects the focus should be set at INF. (infinity).



SUGGESTIONS ON EXPOSURE

SNAPSHOTS

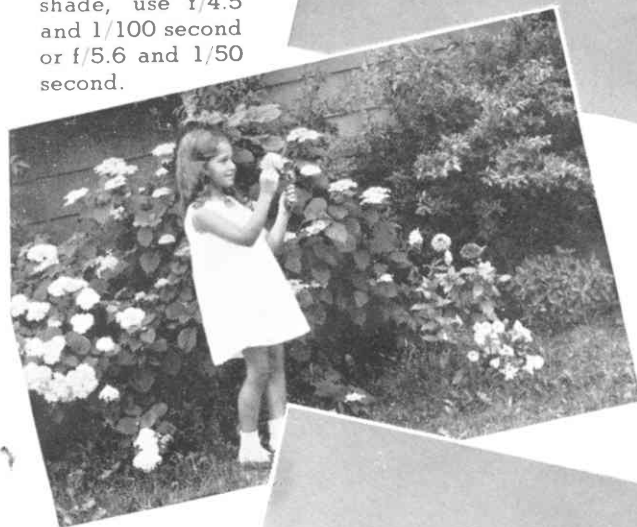
SUNSHINE is not needed to make snapshots with your Kodak Monitor. With one of the larger stop openings, snapshots can be made with the subject in open shade, on *slightly* cloudy days, and even during the rain in the middle of the day. See directions for using stop openings given on pages 29 and 30.

When the sun is shining, it 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 Kodak towards the sun, the lens must be shaded so that the direct sunlight will not strike the lens; for the best results use the Lens Hood of the Kodak Combination Lens Attachments, see pages 47 to 49, or a Kodak Adjustable Lens Hood No. 2.

Snapshots should be made during the

For a moving object in the sunshine, use $f/5.6$ and $1/200$ second.

When the subject is in the open shade, use $f/4.5$ and $1/100$ second or $f/5.6$ and $1/50$ second.



For near-by subjects on the beach in sunshine, use $f/16$ and $1/50$ second.



hours from one hour after sunrise until one hour before sunset.

“BULB” AND TIME EXPOSURES

For a subject in the deep shade, under the roof of a porch or under a tree on dark, cloudy days, a “bulb” or time exposure should be made. For all “bulb” or time exposures the Kodak must be placed on a tripod or some other steady, firm support—*do not hold it in the hands* or the picture will be blurred.

To make a “bulb” exposure, revolve the knurled collar of the shutter until the indicator B is at the letter “B,” see page 6, push the setting lever C to the opposite end of the slot, and press the exposure button E (page 12); the shutter will remain open as long as button E is held down.



Time exposures can be made with the Kodak Monitor when a T.B.I. Cable Release No. 2 is screwed into the socket of the exposure button E.

To make a time exposure, the circular piece should be

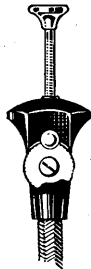


Made on a dark day with No. 5 Photoflash Lamp in Kodak Senior Synchronizer, Speedgun Model E. Kodak Plus-X Film, Exposure $f/16$ and 1/50 second.

turned so that the notch on the edge is directly under the small button, see the illustration on page 26. Set the shutter for a "bulb" exposure. Press the pushpin of the cable release; time the exposure by a watch; and then press the small button to release the pushpin to complete the exposure.

For making "bulb" and instantaneous exposures with the cable release, turn the circular piece so that it slides under the small button. Press the pushpin of the cable release which will spring back to its original position when the finger is removed.

For Photoflash photography, see page 44, we recommend either the Kodak Junior Synchronizer or the Kodak Senior Synchronizer, Speedgun Model E. These synchronizers must be connected directly to the shutter instead of the exposure button E. Remove the screw in the cable release opening directly under the reflecting finder J and make the connection. After the exposure is made with a synchronizer the exposure button E must be pressed to free the winding mechanism.



CHOOSING THE CORRECT STOP OPENING

THE stop openings regulate the amount of light passing through the lens. The openings are enlarged or reduced by moving the lever D, see page 20.

f/4.5—For moving objects on gray days, use 1/100 second; if the light is hazy, with soft shadows, use 1/200 second. For ordinary subjects outdoors on cloudy days and during rain in the middle of the day, use 1/100 second. For exposures early or late on clear days, use 1/100 second, if on a cloudy day, use 1/50 second. For portraits in the open shade with clear sky overhead, use 1/100 second.

Important: When using stop *f/4.5* or *f/5.6*, and the distance between the subject and Kodak is ten feet or less, the distance must be accurately measured, see range of sharpness tables on pages 32 and 33.

f/5.6—For rapidly moving objects in bright sunlight, use 1/200 second. For exposures on cloudy days and during rain in the middle of the day, use 1/50 second. For portraits in the open shade with clear sky overhead, use 1/50 second.

f/8—For snapshots on *slightly* cloudy or hazy days, use 1/50 second. For scenes on narrow and slightly shaded streets, use 1/50 second. For moving objects in bright sunlight, use 1/100 second.

f/11—For all ordinary outdoor pictures, such as near-by landscapes showing little or no sky, groups and street scenes, when the subject is in bright sunlight, use $1/50$ second.

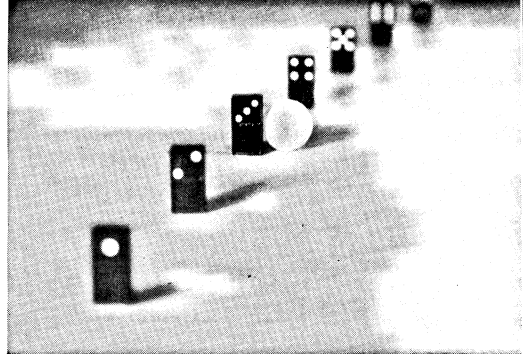
f/16—For open views, when the sunlight on the subject is *unusually strong*, and there are no heavy shadows, such as views at the seashore and on the water, use $1/100$ second. For ordinary *landscapes*, in bright sunlight, with clear sky overhead, use $1/50$ second. For Interior Time Exposures, see page 36.

f/22—For snapshots of extremely distant landscapes, marines, snow scenes without prominent dark objects in the foreground, and for clouds only, in bright sunlight, use $1/50$ second. Also for “bulb” or time exposures, see page 37.

f/32—For “bulb” or time exposures outdoors on cloudy days, using one to four seconds, depending upon quality of light. For interior time exposures, see page 37. Not suitable for snapshots, unless using Kodak Super-XX Pan Film.

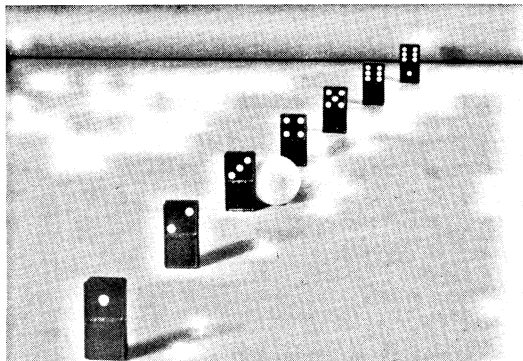
All the exposures given in this table are for Kodak Verichrome or Plus-X Film. For Kodak Panatomic-X Film give twice the time given in the table or use the next larger stop opening. With Kodak Super-XX Panchromatic Film give one-half the exposure recommended, that is, use a shutter speed twice as fast as the one given in the table, or use the next smaller stop opening with the same speed.

The smaller the stop opening the greater the range of sharpness, see pages 32 and 33.



The picture above was made with the lens focused on the third domino, using a large stop opening.

In the illustration below the focus is on the third domino, but a much smaller stop opening was used. Note the increase in the range of sharpness by using a smaller stop opening.



The Depth of Field for Different Stop Openings

By "depth of field" is meant the range of sharpness in front of and behind the subject focused on, within which details in the picture will be sharp and distinct.

TABLE FOR USE WITH THE KODAK MONITOR **SIX-20**

Distance Focused Upon	f/4.5	f/5.6	f/11.	f/16	f/22
INF.	57 ft. to inf.	46 ft. to inf.	24 ft. to inf.	17 ft. to inf.	12 ft. to inf.
50 ft.	28 ft. to inf.	25 ft. to inf.	16 $\frac{1}{2}$ ft. to inf.	13 ft. to inf.	10 $\frac{1}{2}$ ft. to inf.
25 ft.	17 $\frac{1}{2}$ ft. to 42 $\frac{1}{2}$ ft.	16 $\frac{1}{2}$ ft. to 51 ft.	13 ft. to inf.	10 $\frac{1}{2}$ ft. to inf.	8 $\frac{1}{2}$ ft. to inf.
15 ft.	10 ft. to 20 ft.	11 $\frac{1}{2}$ ft. to 23 $\frac{1}{2}$ ft.	9 $\frac{1}{2}$ ft. to 35 ft.	8 ft. to 85 ft.	7 ft. to inf.
10 ft.	9 $\frac{1}{2}$ ft. to 18 ft.	8 $\frac{1}{2}$ ft. to 19 $\frac{1}{2}$ ft.	7 $\frac{1}{2}$ ft. to 18 ft.	6 $\frac{1}{2}$ ft. to 22 ft.	5 $\frac{1}{2}$ ft. to 41 ft.
8 ft.	7 $\frac{1}{2}$ ft. to 13 $\frac{1}{2}$ ft.	7 ft. to 12 $\frac{1}{2}$ ft.	6 $\frac{1}{2}$ ft. to 12 ft.	5 $\frac{1}{2}$ ft. to 15 ft.	5 ft. to 22 ft.
6 ft.	5 $\frac{1}{2}$ ft. to 9 $\frac{1}{2}$ ft.	5 $\frac{1}{2}$ ft. to 7 ft.	5 ft. to 8 ft.	4 $\frac{1}{2}$ ft. to 9 ft.	4 $\frac{1}{2}$ ft. to 12 ft.
5 ft.	4 $\frac{1}{2}$ ft. to 9 $\frac{1}{2}$ ft.	4 $\frac{1}{2}$ ft. to 7 ft.	4 $\frac{1}{2}$ ft. to 9 $\frac{1}{2}$ ft.	4 ft. to 7 $\frac{1}{2}$ ft.	3 $\frac{1}{2}$ ft. to 8 $\frac{1}{2}$ ft.
4 ft.	3 ft. 9 $\frac{1}{2}$ in. to 4 ft. 3 $\frac{1}{2}$ in.	3 ft. 8 $\frac{1}{2}$ in. to 4 ft. 4 $\frac{1}{2}$ in.	3 ft. 5 in. to 4 ft. 9 $\frac{1}{2}$ in.	3 ft. 3 $\frac{1}{2}$ in. to 5 ft. 4 in.	3 ft. 1 $\frac{1}{2}$ in. to 5 ft.
3 $\frac{1}{2}$ ft.	3 ft. 4 in. to 3 ft. 8 $\frac{1}{2}$ in.	3 ft. 3 $\frac{1}{2}$ in. to 3 ft. 9 $\frac{1}{2}$ in.	3 ft. 1 $\frac{1}{2}$ in. to 4 ft. 1 $\frac{1}{2}$ in.	2 ft. 11 $\frac{1}{2}$ in. to 4 ft. 5 $\frac{1}{2}$ in.	2 ft. 9 $\frac{1}{2}$ in. to 3 ft.

The depth or range of sharpness is not given for f/8 or f/32. The range for these two openings can be estimated by comparison. "Inf." is the abbreviation for Infinity—meaning an unlimited distance from the lens.

The Depth of Field for Different Stop Openings

By "depth of field" is meant the range of sharpness in front of and behind the subject focused on, within which details in the picture will be sharp and distinct.

TABLE FOR USE WITH THE KODAK MONITOR **SIX-16**

Distance Focused Upon	f/4.5	f/5.6	f/11	f/16	f/22
INF.	91 ft. to inf.	73 ft. to inf.	37 ft. to inf.	25 ft. to inf.	19 ft. to inf.
50 ft.	32 ft. to 110 ft.	30 ft. to inf.	21 ft. to inf.	17 ft. to inf.	13 $\frac{1}{2}$ ft. to inf.
25 ft.	19 ft. to 34 ft.	18 ft. to 38 ft.	15 ft. to 75 ft.	12 $\frac{1}{2}$ ft. to inf.	10 $\frac{1}{2}$ ft. to inf.
15 ft.	13 ft. to 18 ft.	12 $\frac{1}{2}$ ft. to 19 ft.	10 $\frac{1}{2}$ ft. to 25 ft.	9 $\frac{1}{2}$ ft. to 36 ft.	8 $\frac{1}{2}$ ft. to 76 ft.
10 ft.	9 ft. to 11 $\frac{1}{2}$ ft.	8 $\frac{1}{2}$ ft. to 13 ft.	7 $\frac{1}{2}$ ft. to 13 $\frac{1}{2}$ ft.	7 $\frac{1}{2}$ ft. to 16 $\frac{1}{2}$ ft.	6 $\frac{1}{2}$ ft. to 21 ft.
8 ft.	7 $\frac{1}{2}$ ft. to 8 $\frac{1}{2}$ ft.	7 $\frac{1}{2}$ ft. to 9 ft.	6 $\frac{1}{2}$ ft. to 10 $\frac{1}{2}$ ft.	6 ft. to 13 $\frac{1}{2}$ ft.	5 $\frac{1}{2}$ ft. to 14 ft.
6 ft.	5 $\frac{1}{2}$ ft. to 8 $\frac{1}{2}$ ft.	5 $\frac{1}{2}$ ft. to 6 $\frac{1}{2}$ ft.	5 $\frac{1}{2}$ ft. to 7 $\frac{1}{2}$ ft.	5 ft. to 8 ft.	4 $\frac{1}{2}$ ft. to 9 $\frac{1}{2}$ ft.
5 ft.	4 ft. 9 in. to 5 ft. 3 $\frac{1}{2}$ in.	4 ft. 8 $\frac{1}{2}$ in. to 5 ft. 4 $\frac{1}{2}$ in.	4 ft. 5 $\frac{1}{2}$ in. to 5 ft. 10 $\frac{1}{2}$ in.	4 ft. 3 in. to 6 ft. 4 in.	4 ft. to 7 ft.
4 ft.	3 ft. 10 in. to 4 ft. 2 $\frac{1}{2}$ in.	3 ft. 9 $\frac{1}{2}$ in. to 4 ft. 3 in.	3 ft. 7 $\frac{1}{2}$ in. to 4 ft. 6 $\frac{1}{2}$ in.	3 ft. 6 in. to 4 ft. 10 in.	3 ft. 4 $\frac{1}{2}$ in. to 5 $\frac{1}{2}$ ft.

The depth or range of sharpness is not given for f/8 or f/32. The range for these two openings can be estimated by comparison. "Inf." is the abbreviation for Infinity—meaning an unlimited distance from the lens.

ROOM INTERIORS BY DAYLIGHT

TO MAKE a picture of a room interior by daylight, adjust the shutter for a "bulb" exposure by revolving the knurled collar of the shutter until the indicator B is at the letter "B." Push the setting lever C to the opposite end of the slot, and move the stop opening lever D to $f/16$ (this opening gives the best average results).

Place the camera on a tripod (it has two sockets for this purpose, for vertical or horizontal pictures), or place it on some other solid support. The illustrations below show the Kodak in the vertical and horizontal positions. With the Kodak on a table, use support N or O. Do not place the Kodak more than two or three inches from the table edge, or the table will show in the picture.

Compose your subject in the finder to



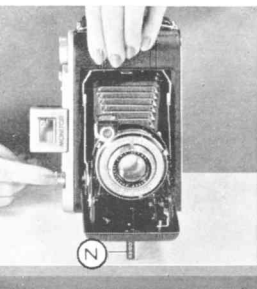
include more of the floor of the room than of the ceiling.

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.

Focus the Kodak by revolving the lens until the figure corresponding with the average distance between the objects in the room and the lens is at the focus pointer A, at the top of the lens.

When ready to take the picture, steady the Kodak and press the exposure button to open the shutter. When the proper time has elapsed (see Exposure Guide), release the pressure on the button to close the shutter.

After the last "bulb" exposure has



been made, revolve the knurled collar of the shutter until the indicator B is at $1/25$ second, to be ready for snapshots.

Exposure Guide 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 4 seconds, with stop $f/16$. 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 8 seconds to 16 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 16 seconds, using stop $f/16$, doubling each successive exposure.

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

The exposures recommended above are for Kodak Verichrome or Kodak Plus-X Films; with Kodak Super-XX Panchromatic Film give one-half the

exposure given above and with Kodak Panatomic-X Film give twice the time.

Stop $f/16$ gives the best average results. *Double* the exposures with each *smaller* stop, and halve the exposures with each *larger* stop opening.

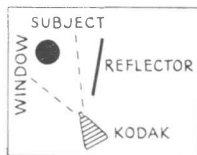
To make a time exposure, use a T.B.I. Cable Release No. 2, see page 26.

DAYTIME PORTRAITS INDOORS

TO MAKE an indoor portrait by daylight, similar to that shown below, 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 tablecloth thrown over a screen or chair will do) a few feet

For large portraits set the focus at $3\frac{1}{2}$ or 4 feet.



from the subject and at the angle shown in the diagram. This reflects light to the shaded side of the face.

Revolve the knurled collar of the shutter until the indicator B is at the letter "B." Push the setting lever C to the opposite end of slot, and move lever D at the bottom of the shutter to $f/11$.

Place the Kodak in either a vertical or horizontal position on a solid support (or on a tripod) a little higher than an ordinary table. The Kodak must not be more than two or three inches from the edge of the support.

Locate the subject in the finder. If the reflecting finder is used and the subject is ten feet or nearer to the lens, move the Kodak a little to the right for a vertical picture or tilt it up a trifle for a horizontal picture.

Turn the lens so that the figure corresponding to the distance between subject and Kodak is at the pointer A at top of the lens.

When ready to take the picture, steady the Kodak to keep it from moving, and press the exposure button E to open the shutter. Keep the pressure on

the button for one or two seconds—depending upon the quality of the light—then release the pressure and the shutter will close.

In light-colored rooms where the window faces the open sky, on bright sunny days, satisfactory portraits can sometimes be obtained by making a snapshot, using the largest stop opening ($f/4.5$) and $1/25$ second.

KODAK PORTRAIT ATTACHMENT

WHILE the Six-20 Kodak can be focused for subjects as close as $3\frac{1}{2}$ feet, and the Six-16 Kodak, 4 feet (close enough for head and shoulder portraits), they can be focused for even closer distances with a Kodak Portrait Attachment.

By using the Kodak Portrait Attachment, large images of flowers and similar "still life" subjects can be obtained.

Place the Attachment over the lens and compose the picture in the finder. When making vertical pictures turn the Kodak just a *little* to the right, and for horizontal pictures tilt it up a trifle, as the short distances at which the subject must be from the lens make it necessary to center the subject by eye.

The subject must be at one of the distances from the lens, given in the table below. Measure the distance carefully from the lens to the subject, and revolve the lens mount until the correct figure is at the focus pointer, see table.

DISTANCE BETWEEN SUBJECT AND LENS MUST BE	THE LENS MOUNT MUST BE TURNED TO
1 foot 11 inches.....	3½ feet
2 feet 1 inch.....	4 "
2 " 4 inches.....	5 "
2 " 6 ".....	6 "
2 " 10 ".....	8 "
3 ".....	10 "
3 " 5 ".....	15 "

The same exposure is required as without the Attachment.

Use KODAK PORTRAIT ATTACHMENT No. 5A with the Kodak Monitor Six-20, with the 103 or 105 mm. Kodak Anastigmat Lens *f*/4.5 and Kodamatic Shutter. Use No. 23 with the Kodak Monitor Six-16 with the Kodak Anastigmat Lens *f*/4.5 and Kodamatic Shutter.

To produce a true, soft focus effect, use the KODAK PORTRAIT DIFFUSION DISK SERIES VI with the Kodak Combination Lens Attachments, see pages 47 to 49.

INDOOR PICTURES AT NIGHT

TO TAKE snapshots or other indoor pictures at night, 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.

For making exposures with ordinary home lighting the "Kodak Home Lighting Guide for Pictures with Kodak Super-XX Film," available at your dealer's, will be found very helpful.



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 about twice as long.

SNAPSHOTS with PHOTOFLOODS

TO TAKE snapshots at night with the Kodak Monitor, load the camera with Kodak Super-XX Panchromatic, Plus-X, Verichrome or Panatomic-X Film. Place two bridge lamps fitted with the Kodak Handy Reflectors, and two No. 2 Mazda Photoflood Lamps, one four feet from the subject and the other eight feet, as shown in the illustration on page 42.



SNAPSHOTS

It is easy to make snapshots at night with your Kodak, using No. 1 or No. 2 Photofloods and Kodak Handy Reflectors, page 41.



LONGER EXPOSURES

Longer exposures should be made when the distance between subjects and lamps requires it, see table on page 43.



PHOTOFLASH

When the subject is likely to move, make the exposure with a Photo-flash Lamp, see page 44.

Exposure Table for Photoflood Lamps

For pictures of people, using Kodak Super-XX Panchromatic Film and two Photoflood Lamps in Kodak Handy Reflectors. For interiors without people, double the exposures.

Distance Lamps to Subject	Stop Opening	*Exposure in Seconds	
		Two No. 1 Photofloods	Two No. 2 Photofloods
6 feet	<i>f</i> /4.5	1/100	1/200
6 "	<i>f</i> /5.6	1/50	1/100
6 "	<i>f</i> /8	1/25	1/50
6 "	<i>f</i> /11	1/10	1/25
6 "	<i>f</i> /16	1/5	1/10
8 feet	<i>f</i> /4.5	1/50	1/100
8 "	<i>f</i> /5.6	1/25	1/50
8 "	<i>f</i> /8	1/10	1/25
8 "	<i>f</i> /11	1/5	1/10
8 "	<i>f</i> /16	1/2	1/5

*For Kodak Verichrome or Panatomic-X Film use two stop openings larger, or give four times the exposure.

Rooms should have light-colored walls; with dark walls, more Photoflood Lamps in reflectors will usually be required. Do not use more than three No. 2 lamps or six No. 1 lamps on a single fused circuit.

Measure the distance between the camera and the subject; then adjust the focus accordingly.

Move the stop opening lever D (page 20) to $f/4.5$. With Kodak Super-XX Panchromatic Film make an exposure of $1/200$ second; with Panatomic-X or Verichrome Film use $1/50$ second.

Other combinations for making snapshots and longer exposures are given in the table on page 43.

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

PHOTOFLASH PICTURES



PhotoFLASH gives an instantaneous flash; it is good for one picture. No smoke, no noise. The No. 11 lamp is suitable for most indoor shots.

The best way to use Photoflash Lamps is to synchronize the flash with the shutter speed. Either the Kodak Senior Synchronizer, Speedgun Model E or the Kodak Junior Synchronizer will be

Exposure Table for No. 11 Photoflash Lamp and for Kodak Verichrome or Kodak Plus-X Film

For Kodak Super-XX Panchromatic Film, use the next smaller opening; for Kodak Panatomic-X Film use the next larger opening.

<i>Distance Lamp to Subject</i>	<i>Stop Opening</i>		
	One Photo-flash in Kodak Handy Reflector	One Photo-flash in Ordinary Reflector	One Photo-flash without Reflector
25 feet	$f/8$	$f/5.6$	—
20 "	$f/11$	$f/5.6-8$	$f/4.5$
14 "	$f/11-16$	$f/8-11$	$f/5.6$
10 "	$f/16-22$	$f/11-16$	$f/8-11$
7 "	$f/22$	$f/16-22$	$f/11-16$
6 "	$f/32$	$f/22$	$f/16$

A white card held directly behind a bare Photoflash Lamp will enable you to use the stop opening recommended for ordinary reflector.

found excellent for this purpose, see page 28.

When making a Photoflash picture, if a synchronizer is not used, adjust the shutter for a "bulb" exposure, with speed indicator B at "B," see page 6,

and push the setting lever C to the opposite end of the slot.

Measure the distance between subject and lens, then focus the lens accordingly.

Use the proper stop opening, depending upon distance between lamp and subject, size of lamp, kind of film, and reflector, see exposure table, page 45.

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 the camera), direct the *Photoflash* at the subject, open the shutter, flash the bulb, and close the shutter.

KODAK COMBINATION LENS ATTACHMENTS

THE Kodak Combination Lens Attachments permit using in combination unmounted Wratten Filters, one of the Kodak Supplementary Lenses such as the Kodak Portrait Diffusion Disk for close-ups, the Kodak Pola-Screen and the Kodak Lens Hood.

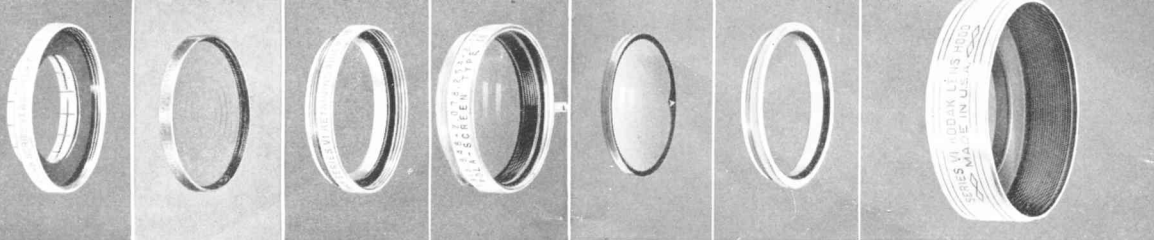
The basis of the combination is the Kodak Adapter Ring and its Adapter Ring Insert. The Adapter Ring must be

of the proper Series and size to fit your lens.

The Series VI Lens Attachments are used with the Kodak Monitors Six-20 and Six-16 with the Kodak Anastigmat Special Lens $f/4.5$. The Kodak Adapter Ring must be $1\frac{1}{4}$ inches in diameter for the Six-20 with 103 mm. lens, and $1\frac{1}{2}$ inches for the Six-16. All Wratten Filters, supplementary lenses, Pola-Screen and Lens Hood must be Series VI.

The Adapter Ring Insert, which is a retaining collar, is first unscrewed from the Adapter Ring. The Adapter Ring is then slipped over the lens mount, and an unmounted Wratten Filter Series VI or supplementary lens Series VI inserted in the Adapter Ring and held in place by screwing in the Adapter Ring Insert.

If it is desired to use a Kodak Pola-Screen with a supplementary lens *or* a filter, the Pola-Screen is first screwed into the Adapter Ring and the filter *or* supplementary lens is placed in front of the Pola-Screen, which then is held in place by the Adapter Ring Insert. If you wish to use a Kodak Lens Hood in this combination, the Adapter Ring Insert



Adapter Ring

Portrait
Diffusion Disk

Retaining Ring

Kodak
Pola-Screen

Wratten Filter

Adapter Ring
Insert

Kodak Lens Hood

KODAK COMBINATION LENS ATTACHMENTS

is omitted and the Lens Hood is used to hold the filter or supplementary lens in position in front of the Pola-Screen.

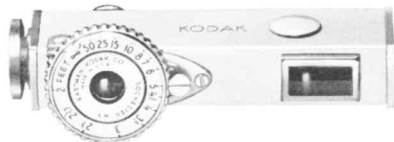
To use a Portrait Diffusion Disk with a filter it will be necessary to obtain a double threaded Kodak Retaining Ring, Series VI. The Portrait Diffusion Disk is placed in the Adapter Ring and then the double threaded Retaining Ring is screwed into the Adapter Ring. The filter is inserted into the Retaining Ring and held in place either with the Adapter Ring Insert or Kodak Lens Hood. If a Kodak Pola-Screen is used in this combination, the Portrait Diffusion Disk is put into the Adapter

Ring. Then the double threaded Retaining Ring is screwed into the Adapter Ring, which in turn takes the Pola-Screen. The Wratten Filter is placed in front of the Pola-Screen and held in place either with the Adapter Ring Insert or Kodak Lens Hood.

For details and prices see your Kodak dealer.

EASTMAN KODAK COMPANY
ROCHESTER, N. Y.

KODAK SERVICE RANGE FINDER



To be sure of obtaining sharply focused pictures, a Kodak Service Range Finder is recommended, which can be attached to the Kodak Monitor by sliding the round end of the Range Finder into the range finder clip U, page 17, with the distance scale towards the front of the Kodak.

The Range Finder can be used only on subjects that are motionless.

After determining the distance between the subject and finder be sure to focus the Kodak for this distance.

Full directions accompany the Kodak Service Range Finder.

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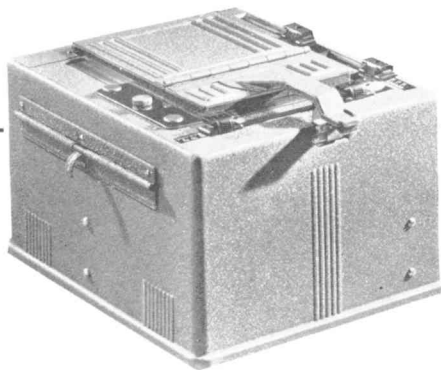
The Kodak Adjustable Roll Film Tank takes the most popular roll film sizes by merely moving the upper flange of the reel along the core. It is adjustable for four standard widths, including these sizes: Nos. 828, 135, 235, 127, 116 and 616, 120 and 620.

See the Kodak Adjustable Roll Film Tank at your dealer's.

EASTMAN KODAK CO., ROCHESTER, N. Y.

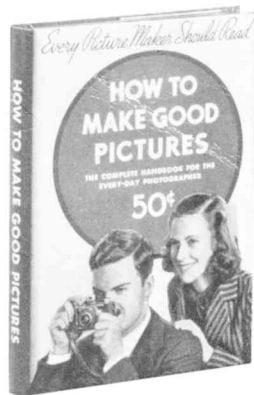
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