

*Picture taking with the*  
**Kodaks Special**  
**Six-20 and Six 16**

Kodak Anastigmat Lens *f*.4.5  
Kodak Anastigmat Special Lens *f*.4.5  
Kodamatic Shutter



EASTMAN KODAK COMPANY  
Rochester, New York, U. S. A.

## SERVICE DEPARTMENT

ADDITIONAL ASSISTANCE FOR  
MAKING BETTER PICTURES

**A**LTHOUGH we give in this manual the essential directions for using the camera it accompanies, there are amateurs who wish for further knowledge of photography.

The Service Department is at their service, *your* service.

Do not hesitate to call on us for information on any photographic subject.

*We are at your service, write to us—  
there is no charge, no obligation.*

Address all Communications

SERVICE DEPARTMENT  
EASTMAN KODAK COMPANY  
ROCHESTER, N. Y.

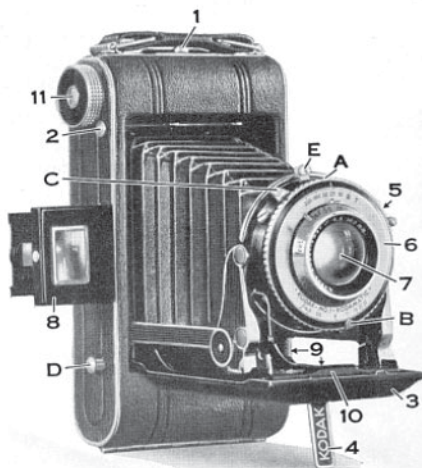
*Picture taking with the*

## Kodaks Special Six-20 and Six-16

Kodak Anastigmat Lens *f.4.5*  
Kodak Anastigmat Special Lens *f.4.5*  
Kodamatic Shutter

*Published by*  
EASTMAN KODAK COMPANY  
ROCHESTER, N. Y., U. S. A.

## THE CAMERA



- |                                |                                  |
|--------------------------------|----------------------------------|
| 1. Lock for Back               | 7. Lens                          |
| 2. Button for<br>Opening Front | 8. Optical Direct View<br>Finder |
| 3. Bed                         | 9. Tripod Socket                 |
| 4. Vertical Support            | Screws                           |
| 5. Horizontal<br>Support       | 10. Release for<br>Closing Front |
| 6. Shutter                     | 11. Winding Knob                 |

A—Collar for Regulating Speed  
 B—Stop Opening Pointer  
 C—Exposure Lever  
 D—Exposure Button  
 E—Setting Lever

## IMPORTANT

**B**EFORE loading your Kodak with film, and before taking any pictures with it, read these instructions carefully. Take especial care to learn how to operate the shutter, see page 9.

While loading and unloading, be very careful to keep the protective paper wound tightly around the film to prevent light striking it. The Kodak can be loaded or unloaded in daylight. This should be done in a subdued light, *not* in direct sunlight.

### TO LOAD

Use film number:

**V 620, SS 620, F 620** or **620** for the Kodak Special Six-20.

**V 616, SS 616, F 616** or **616** for the Kodak Special Six-16.



Push the button of the lock towards the arrow.

Picture taking with the



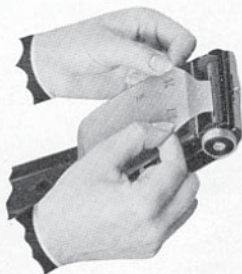
Open the back.



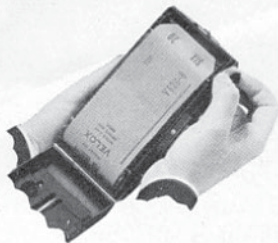
Lift up the spool holder in the recess adjoining the hinge of the back and place the roll of film

in it, springing out the flanges until the pins engage the holes in the spool. Make sure that the word "TOP" on the paper is on the side opposite the winding knob.

Kodaks Special Six-20 and Six-16



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



Turn the winding knob once or twice to bind the paper on the reel, and be sure that the paper is started straight.

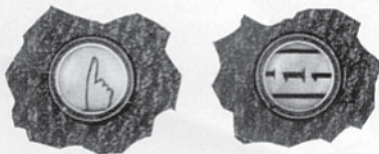


Close the back, pressing it so that the spring lock snaps into place, securely fastening the back.



Push back the slide that covers the red window on the back of the Kodak. This slide prevents fogging the film.

Turn the winding knob, watching the red window. After a few turns, a warning hand will appear; then turn slowly until the figure 1 is in the center of the window.



Push the slide over the red window. The window should be uncovered only when winding the film.

The film is now in position for the first exposure. After each exposure be sure to wind the film, bringing the next number into position. This prevents making two pictures on the same section of film.

### OPENING THE FRONT



Press the button 2, page 2, to open the front; then draw down the bed until it locks. This brings the lens and shutter into position.

### TO FOCUS THE KODAK

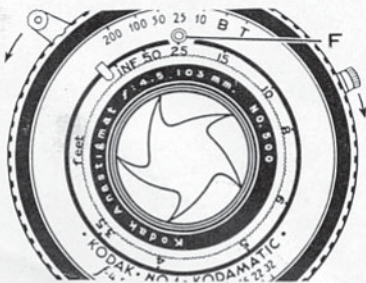
The various distances at which the Kodak may be focused are engraved on the beveled edge of the lens mount.

The scale of the Kodak Special Six-20 is marked for 3.5, 4, 5, 6, 8, 10, 15, 25 and 50 feet, and INF. (infinity). The scale on the Kodak Special Six-16 is marked 4, 5, 6, 8, 10, 15, 25 and 50 feet, and INF. (infinity).

To bring the Kodak to the correct focus revolve the lens mount by turning it to the right or left until the figure representing the distance *from the subject to lens* is at the focus pointer F, see diagram on page 8.

## Picture taking with the

When facing the Kodak, turn the lens mount to the right for distant graduations on the scale, and turn to the left when focusing on nearby or close subjects.



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 13 feet to infinity will be in good focus with the Kodak Special Six-20; and with the

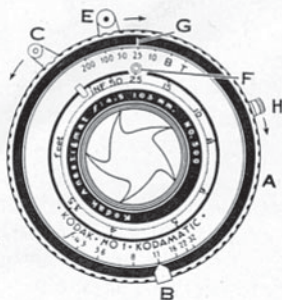
## Kodaks Special Six-20 and Six-16

Kodak Special Six-16 everything from about 15 feet to 75 feet will be sharp, if stop *f.11* is used.

For ordinary street pictures the focus may be kept at 25 feet, but where the *principal object* is nearer or farther away, the focus should be changed accordingly.

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

## THE SHUTTER



The Kodamatic Shutter is marked for making exposures of 1/10, 1/25, 1/50, 1/100 and 1/200 second, as well as Time and "Bulb" Exposures.



Revolve the knurled collar A on the front of the shutter until the white line G is at the figure representing the time of exposure desired.

The shutter *must be set* for all exposures by pressing the lever E towards the top of the shutter. The exposure is made by pressing the button D on the side of the Kodak. The exposure can also be made by pressing the lever C. The use of button D is recommended for snapshots, as it assures a steadier holding of the camera.

### THE SELF-TIMER

There is a self-acting release built into the shutter, for the convenience of those who wish to be included in the picture.

To use the "Self-Timer," place the camera on a tripod or some other firm support, and compose the picture with the finder. Push the setting lever E as far as it will go; then push the lever H to the limit of motion, in the direction of the arrows in the diagram on page 9. Push the exposure lever C or the exposure button D. Get into the

picture. After about twelve seconds the exposure will be made.

Do not use the self-acting release for either Time or "Bulb" Exposures.

### TIME AND "BULB" EXPOSURES

To make a Time Exposure the white line G must be at the letter "T" engraved on the shutter, and the setting lever E pushed as far as it will go. The exposure lever C or exposure button D must be pressed twice, once to open the shutter, and again to close it.

For "Bulb" Exposures the white line G must be at the letter "B" engraved on the shutter, and the setting lever E pushed as far as it will go. The exposure lever C or exposure button D must be pressed down; the shutter remains open as long as the lever C or button D is held down.

Automatic exposures of 1/10 second must not be made with the camera held in the hands. The Kodak has two tripod sockets for use with a tripod, an Optipod or a Kodapod.

**Important:** *Never oil the shutter.*  
In case of accident, return the camera to your dealer or to us for repairs.

### STOP OPENINGS

The stop openings regulate the amount of light passing through the lens. The openings are enlarged or reduced by moving the pointer B, see illustration, page 9.

**f.4.5**—For exposures of moving objects on gray days, use  $1/100$  second; for portraits indoors, see page 32, use  $1/10$  second, when the light is very bright. For outdoor subjects on cloudy days and during rain in the middle of the day, use  $1/50$  second. For exposures early or late on clear days (one hour after sunrise or one hour before sunset) use  $1/50$  second, if on a cloudy day, use  $1/25$  second.

✓ **Important:** When using f.4.5 or f.5.6, and the distance between subject and camera is ten feet or less, the distance must be accurately measured as the depth of focus is limited, see table on page 16 or 17.

**f.5.6**—For portraiture, see pages 32 and 33. For exposures of rapidly moving objects in sunlight use  $1/200$  second. For cloudy days and during rain in the middle of the day, use  $1/25$

second. For exposures early or late on a clear day (one hour after sunrise or one hour before sunset) use  $1/25$  second, if on a cloudy day, use  $1/10$  second. For portraits and groups in the open shade, use  $1/25$  second, see page 33.

**f.8**—For instantaneous exposures on *slightly* cloudy or hazy days, use  $1/25$  second. For scenes on narrow and slightly shaded streets, use  $1/25$  second. For moving objects in very bright sunlight, use  $1/100$  second.

**f.11**—For *all ordinary outdoor pictures*, such as nearby landscapes showing little or no sky, groups and street scenes, when the subject is in bright sunlight, use  $1/25$  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  $1/50$  second; for ordinary *landscapes*, in bright sunlight, with clear sky overhead, use  $1/25$  second; also for Interior Time Exposures, the time for which is given in table on page 30.



**f.22**—For instantaneous exposures of extremely distant landscapes, marines, snow scenes without prominent dark objects in the foreground, and clouds only, in bright sunlight, use 1/25 second; also for Time Exposures.

**f.32**—For Time Exposures Outdoors on cloudy days, see table on page 36. For Interior Time Exposures, see page 31. *Never for instantaneous exposures.*

*Failure* will result, if stop **f.32** is used for *instantaneous exposures*.

The smaller the stop opening the greater the depth of focus, see pages 15, 16 and 17.

All exposures given for outdoor subjects are for the hours from one hour after sunrise until one hour before sunset, when using Kodak Verichrome, Super Sensitive Panchromatic or Panatomic Film. If Kodak N. C. Film is used, exposures 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 in the shade, under the roof of a porch or under a tree, when the light is poor, a time exposure

must be made, see page 36. To make pictures under these conditions the camera must be placed on some steady, firm support.

### DEPTH OF FOCUS

Depth of focus 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 the subject and lens, the focal length of the lens, and the size of the stop opening used. The smaller the opening the greater the depth of focus. See the tables on pages 16 and 17 for the range of sharpness or depth of focus of the Kodaks Special Six-20 and Six-16.

### THE "f." SYSTEM

A lens is said to work at a certain "speed;" this means that the lens will give a sharp image from corner to corner of the film with an opening a certain proportion of its focal length. The focal length of a lens is the distance between the lens and the film when the Kodak is focused for INF. (infinity). It should be borne clearly in mind that this "speed" depends *not*

### The Depth of Focus for Different Stop Openings

By "depth of focus" is meant the distance, 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 Special 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.	10 $\frac{1}{2}$ ft. to 34 $\frac{1}{2}$ ft.	18 $\frac{1}{2}$ ft. to 38 ft.	13 ft. to inf.	10 $\frac{1}{2}$ ft. to inf.	8 $\frac{1}{2}$ ft. to inf.
15 ft.	9 ft. to 18 ft.	12 $\frac{1}{2}$ ft. to 19 ft.	9 $\frac{1}{2}$ ft. to 35 ft.	8 ft. to 85 ft.	7 ft. to 41 ft.
10 ft.	9 ft. to 11 $\frac{1}{2}$ ft.	8 $\frac{1}{2}$ ft. to 11 $\frac{1}{2}$ ft.	7 $\frac{1}{2}$ ft. to 16 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 8 $\frac{1}{2}$ ft.	7 $\frac{1}{2}$ ft. to 9 ft.	6 $\frac{1}{2}$ ft. to 12 ft.	5 $\frac{1}{2}$ ft. to 15 ft.	5 ft. to 22 ft.
5 ft.	5 $\frac{1}{2}$ ft. to 6 $\frac{1}{2}$ ft.	5 $\frac{1}{2}$ ft. to 6 $\frac{1}{2}$ ft.	5 ft. to 8 ft.	4 $\frac{1}{2}$ ft. to 9 ft.	4 $\frac{1}{2}$ ft. to 12 ft.
4 ft.	4 $\frac{1}{2}$ ft. to 5 $\frac{1}{2}$ ft.	4 $\frac{1}{2}$ ft. to 5 $\frac{1}{2}$ ft.	4 $\frac{1}{2}$ ft. to 6 $\frac{1}{2}$ ft.	4 ft. to 7 $\frac{1}{2}$ ft.	4 $\frac{1}{2}$ ft. to 8 $\frac{1}{2}$ ft.
3 ft.	3 ft. 4 in. to 4 ft. 3 $\frac{1}{2}$ in.	3 ft. 3 in. to 4 ft. 4 $\frac{1}{2}$ in.	3 ft. 5 in. to 4 ft. 9 $\frac{1}{2}$ in.	3 ft. 2 in. to 5 ft. 4 in.	3 $\frac{1}{2}$ ft. to 5 ft.
3 $\frac{1}{2}$ ft.	3 ft. 4 in. to 3 ft. 8 $\frac{1}{2}$ in.	3 ft. 3 in. to 3 ft. 9 $\frac{1}{2}$ in.	3 ft. 4 in. to 4 ft. 1 $\frac{1}{2}$ in.	3 ft. 2 in. to 4 ft. 5 $\frac{1}{2}$ in.	3 ft. 1 in. to 5 ft.

The depth of focus is not given for  $f/8$  or  $f/32$ . The depth 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 Focus for Different Stop Openings

By "depth of focus" is meant the distance, 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 Special 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 110 ft.	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 70 ft.
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 35 ft.	8 $\frac{1}{2}$ ft. to 70 ft.
10 ft.	9 ft. to 11 $\frac{1}{2}$ ft.	8 $\frac{1}{2}$ ft. to 11 $\frac{1}{2}$ 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 6 $\frac{1}{2}$ 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 $\frac{1}{2}$ 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.

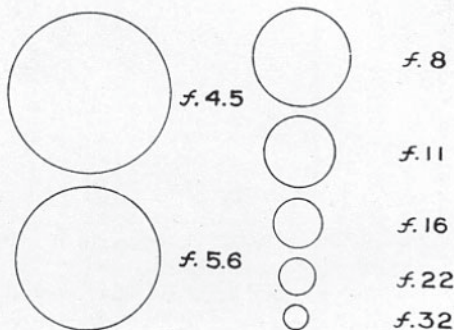
The depth of focus is not given for  $f/8$  or  $f/32$ . The depth for these two openings can be estimated by comparison.

"Inf." is the abbreviation for Infinity—meaning an unlimited distance from the lens.

upon the size of the opening, but upon the size of the opening *in proportion to the focal length of the lens*. The lens that will give sharp images with the largest opening is said to have the greatest "speed."

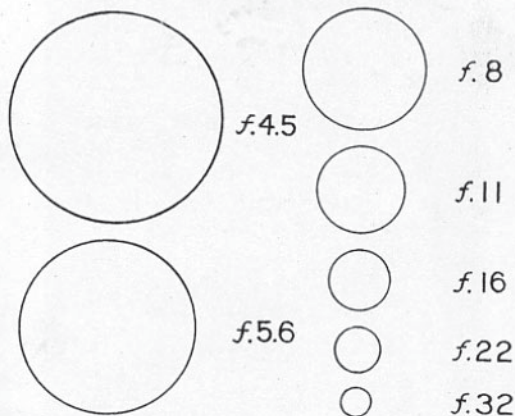
The proportional size or "value" of the stop opening is designated by the "f." number and is the quotient obtained by dividing the focal length of the lens by the diameter of the stop opening.

**Kodak Special Six-20**



COPYRIGHT 1922  
BY EASTMAN KODAK CO.

**Kodak Special Six-16**



COPYRIGHT 1922  
BY EASTMAN KODAK CO.

The circles on these two pages are the same size as the stop openings of the shutter on the Kodaks Special Six-20 and Six-16. They clearly show the relative sizes of the stop openings and how their areas differ.



### Making a Horizontal Picture



*Hold camera firmly against the face.*

When making instantaneous exposures or snapshots with the Kodak Special, hold it firmly against your face and press the exposure button as shown in these two illustrations. When pressing the exposure button, hold the breath for the instant. If the Kodak is moved during the exposure, the picture will be blurred.

### Making a Vertical Picture



*Hold camera firmly against the face.*

### THE OPTICAL DIRECT VIEW FINDER

The camera is equipped with an optical direct view finder 8, page 2, attached to the side of the Kodak. To use this finder, raise the front frame by the button and both parts of the finder will spring into position. Hold the camera with the sight or rear frame

as close to the eye as possible with the camera held firmly against the face, and frame the picture within the front frame of the finder. All vertical lines in the subject should be kept parallel with the vertical sides of this frame, when holding the camera either in the vertical or horizontal position.

### How to Use Your Kodak as a Fixed Focus Camera

SET THE FOCUS AT 25 FEET.  
USE STOP OPENING *f*.16,  
AND 1/25 SECOND.

When using the Kodak as a fixed focus type, nearby subjects must be in bright sunlight, to obtain fully exposed negatives.

The range of sharpness when your Kodak is adjusted as a fixed focus camera will be found on page 16 or 17.

### MAKING INSTANTANEOUS EXPOSURES OR SNAPSHOTS

When ordinary instantaneous exposures or snapshots are made, the subject should be in the broad, open sunlight, but the camera must not. 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. For obtaining back- or side-lighted pictures, use a Kodak Adjustable Lens Hood No. 2.

Special instructions for making portraits are given on pages 31 to 35.

### HOLD THE KODAK LEVEL

The Kodak must be held level. If all the subject cannot be included in



*Effect produced by tilting the Kodak.*

the finder without tilting the lens upwards, move backwards until it is all included *with the camera held level.*

## Picture taking with the

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

After an exposure has been made, turn the winding knob slowly, a few times, until No. 2 (or the next number) is in the center of the red window.



## CLOSING THE KODAK

Before closing the Kodak, *it should be focused for INF. (infinity)*; then press the plate release 10, page 2, as



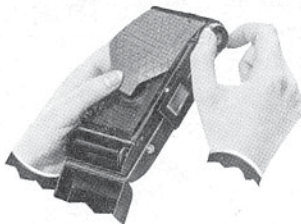
shown in the illustration above, raise the bed and snap it shut. The front and bellows fold automatically.

## Kodaks Special Six-20 and Six-16

## REMOVING THE FILM

After the last section of film has been exposed, turn the winding knob until the end of the paper passes the red window.

In a subdued light, open the back of the Kodak, see pages 3 and 4.



Hold the end of the paper taut and turn the knob until all the paper is on the roll, see illustration above. If the

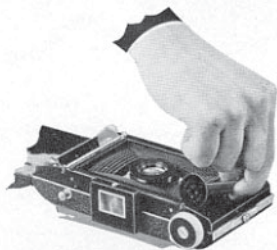




sticker folds under the roll, turn the knob to bring it up.

Take hold of the ends of the paper and sticker to prevent the paper from loosening, page 25. Draw out the knob and remove the film. Fold under about half-an-inch of the protective paper, and fasten it with the sticker.

**“Cinch” Marks:** After removing the film from the Kodak, do not wind it tightly with a twisting motion, or the film might be scratched.



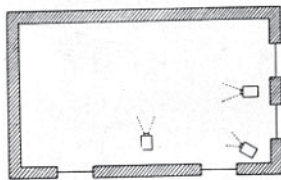
Wrap up the exposed film. It is now ready for development. This may be done by a photo finisher, or by yourself. Our Service Department will be glad to send you, upon request, complete instructions for developing and printing.

**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.

Remove the empty spool and place it in the winding end of the camera. The Kodak is now ready for reloading.

It is a good plan to reload the Kodak as soon as an exposed film has been removed, to be ready for the next pictures. For the best results, load with Kodak Film.

#### TIME EXPOSURES—INDOORS

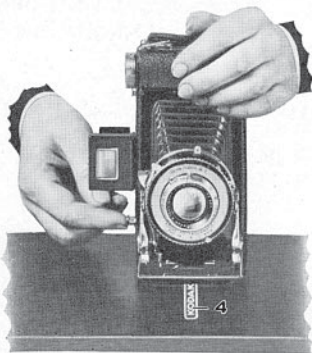


For time exposures the camera must always be placed on a firm support like a tripod, Optipod, table or chair, *never* hold it in the hands. The Kodak has two tripod sockets for use with a tripod, an Optipod or a Kodapod, with

## Picture taking with the

the Kodak either in the vertical or horizontal position. The screws in the tripod sockets can be removed and replaced with a thin coin.

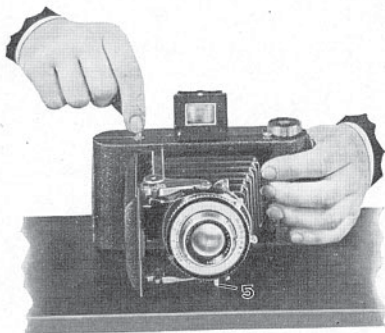
Place the Kodak in such a position that the finder will include the view desired. The diagram on page 27 shows three positions for the camera. It should not be pointed at a window as the glare of light may blur the picture.



If the Kodak is placed on a table, for making a vertical picture, use the vertical support 4. The camera must not be more than two or three inches from the edge of the table.

## Kodaks Special Six-20 and Six-16

To make a horizontal picture without a tripod, swing out the support 5, behind the shutter, and place the camera in the position shown below.



Adjust the shutter for a time exposure as described on page 11.

All being ready, press the exposure button or lever carefully, once to open, time the exposure by a watch, and again press the exposure button or lever to close the shutter.

After making an exposure, turn the winding knob until the next number appears in the red window.

EXPOSURE TABLE FOR INTERIORS USING STOP *f.16*

	Bright sun	Hazy sun	Cloudy bright	Cloudy dull
White walls and more than one window.	4 secs.	10 secs.	20 secs.	40 secs.
White walls and only one window.	6 secs.	15 secs.	30 secs.	1 min.
Medium colored walls and furnishings and more than one window.	8 secs.	20 secs.	40 secs.	1 min. 20 secs.
Medium colored walls and furnishings and only one window.	12 secs.	30 secs.	1 min.	2 mins.
Dark colored walls and furnishings and more than one window.	20 secs.	40 secs.	1 min. 20 secs.	2 mins. 40 secs.
Dark colored walls and furnishings and only one window.	40 secs.	1 min. 20 secs.	2 mins. 40 secs.	5 mins. 20 secs.

These exposures are for rooms where windows get the direct light from the sky and for hours from three hours after sunrise until three hours before sunset. If earlier or later the exposures must be longer.

If no more time exposures are to be made, adjust the shutter for an instantaneous exposure, see pages 9 and 10.

### Exposure Table for Interiors

The table on page 30 gives suitable exposures for varying conditions of light, when using stop *f.16*.

With stop *f.4.5* give one-twelfth;  
 " " *f.5.6* " one-eighth;  
 " " *f.8* " one-quarter;  
 " " *f.11* " one-half;  
 " " *f.22* " twice;  
 " " *f.32* " four times  
 the exposures given in the table.

The smaller the stop opening the greater the depth of focus or range of sharpness, see table on page 16 or 17. Stop *f.16* gives the best average results for Interiors.

### TO MAKE A PORTRAIT

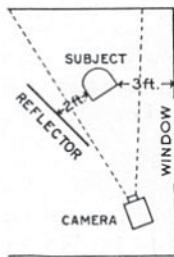
The subject should be seated in a chair partly facing the light with the body turned slightly away from, and the face turned towards the Kodak which should be a little higher than an ordinary table. The subject should look at an object level with the lens or directly at the lens. Compose the pic-



ture in the finder. For a three-quarter figure the Kodak should be about eight feet from the subject; for a full-length figure, about ten feet; and for a head and shoulder portrait, about four feet. The background should form a contrast with the subject; a light background usually gives a better effect than a dark one.

When making portraits, more pleasing results are obtained if the background and surrounding objects are not quite so sharp and clear as the face. This effect is obtained by using a large stop opening, *f*.4.5 or *f*.5.6. With these stops make an exposure of 1/10 second when the light is bright.

When using *f*.4.5 or *f*.5.6 the distance between subject and lens must be carefully measured, see table on page 16 or 17 for range of sharpness.



To get a good light on the face, follow the arrangement shown in the diagram at the left. A reflector helps to get detail in the

shaded part of the face. A white towel or tablecloth held by an assistant or thrown over a screen or other high piece of furniture will make a suitable reflector; it should be at an angle and in the position indicated in the diagram on page 32.

### Making Portraits Outdoors

When making portraits outdoors, with the sun shining brightly, the subject should be in the shadow of a building or a large tree, but with clear and unobstructed sky overhead—use stop *f*.5.6 and 1/25 second, or stop *f*.4.5 and 1/50 second. By following this rule unpleasant and distorting shadows on the face will be avoided. The best results are obtained with the subject fairly close to the camera and the lens adjusted accordingly. When the distance between the subject and Kodak is ten feet or less, measure the distance carefully, see table on page 16 or 17.

### Kodak Portrait Attachment

The Kodak Special Six-20 can be focused at 3½ feet and the Kodak Special Six-16 at 4 feet, this makes it

possible to obtain excellent head and shoulder portraits without the use of the Kodak Portrait Attachment.

By using the Kodak Portrait Attachment, large images of flowers and similar "still life" subjects can be obtained. For the best results when making pictures of subjects at short distances, it is advisable to use the *f.8* or a smaller stop opening.

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, as the short distances at which the subject must be from the lens make it necessary to center the subject by eye instead of by the finder.

DISTANCE BETWEEN SUBJECT AND LENS MUST BE	THE FOCUSING COLLAR MUST BE TURNED TO
1 foot 11 inches.....	3½ feet
2 feet 1 inch.....	4 "
2 feet 4 inches.....	5 "
2 " 6 ".....	6 "
2 " 9 ".....	8 "
3 ".....	10 "
3 " 4 ".....	15 "
3 " 8 ".....	25 "
4 ".....	50 "
4 " 2 ".....	INF. (infinity)

The subject must be at one of the distances from the Kodak, given in the table on page 34. Measure the distance carefully from the lens to the subject, and revolve the lens mount until the correct figure is at pointer F (page 8) according to the table.

The same exposure is required as without the Attachment.

Use *Kodak Portrait Attachment No. 5*, with the Kodak Special Six-20, and *No. 7A* with the Kodak Special Six-16, with the *f.4.5* lens.

To produce a true, soft-focus effect, use the *Kodak Diffusion Portrait Attachment No. 5* with the Kodak Special Six-20, and *No. 7A* with the Kodak Special Six-16.

"AT HOME WITH YOUR KODAK" is a booklet containing many diagrams and illustrations showing various lighting effects. It gives suggestions for making pictures in and around the home.

"PICTURE TAKING AT NIGHT" is a booklet that describes in detail the methods of making pictures by electric light, flash-light exposures, campfire

scenes, fireworks, lightning, moonlight effects, silhouettes and other novel and unusual pictures.

These two booklets are free, and copies of them will be sent upon request to our Service Department.

### TIME EXPOSURES—OUTDOORS

When the smallest stop opening ( $f.32$ ) is used, the light passing through the lens is so much reduced that very short time exposures may be made outdoors.

For short time exposures described below, use the "Bulb" Exposure, see page 11.

**With Light Clouds**—From one to three seconds will be sufficient.

**With Heavy Clouds**—Four seconds to eight seconds will be required.

**With Sunshine**—Time Exposures should not be made.

When making time exposures the Kodak must be placed on some steady, firm support, do not hold it in the hands or the picture will be blurred.

### CLEAN LENSES



*Made with Dirty Lens. Made with Clean Lens.*

Lenses should be cleaned as follows:

Open the back of the Kodak, see pages 3 and 4; then open the front as described on page 7. Wipe the front and back of the lens with Lens Cleaning Paper, or use a clean handkerchief. Never unscrew the lens.

### Keep Dust Out of the Camera

Wipe the inside of the camera and bellows, occasionally, with a slightly damp cloth, especially if the camera has not been used for some time.

EASTMAN KODAK COMPANY,  
ROCHESTER, N. Y.



Picture taking with the

PRICE LIST

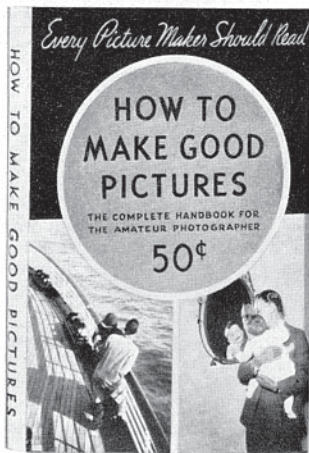
KODAK VERICHROME FILM, V 620, for the Kodak Special Six-20, $2\frac{1}{4}$ x $3\frac{1}{4}$ , eight exposures.....	\$ .30
KODAK SUPER SENSITIVE PANCHROMATIC FILM, SS 620, $2\frac{1}{4}$ x $3\frac{1}{4}$ , eight exposures.....	.35
KODAK PANATOMIC FILM, F 620, $2\frac{1}{4}$ x $3\frac{1}{4}$ , eight exposures.....	.35
KODAK N. C. FILM, 620, $2\frac{1}{4}$ x $3\frac{1}{4}$ , eight exposures.....	.25
KODAK VERICHROME FILM, V 616, for the Kodak Special Six-16, $2\frac{1}{2}$ x $4\frac{1}{4}$ , eight exposures.....	.35
KODAK SUPER SENSITIVE PANCHROMATIC FILM, SS 616, $2\frac{1}{2}$ x $4\frac{1}{4}$ , eight exposures.....	.40
KODAK PANATOMIC FILM, F 616, $2\frac{1}{2}$ x $4\frac{1}{4}$ , eight exposures.....	.40
KODAK N. C. FILM, 616, $2\frac{1}{2}$ x $4\frac{1}{4}$ , eight exposures.....	.30
KODAK PORTRAIT ATTACHMENT, No. 5, For the Kodak Special Six-20.....	.75
No. 7A for the Kodak Special Six-16.....	.75
KODAK DIFFUSION PORTRAIT ATTACHMENT, No. 5.....	1.50
No. 7A.....	1.50
KODAK SKY FILTER, No. 5.....	1.50
No. 7A.....	1.50
KODAK COLOR FILTER, No. 5.....	1.50
No. 7A.....	1.50
KODAK PICTORIAL DIFFUSION DISK, No. 5.....	2.50
No. 7A.....	2.50
KODAK ADJUSTABLE LENS HOOD, No. 2.....	1.00

Kodaks Special Six-20 and Six-16

KODAK METAL TRIPOD, No. 0.....	\$2.75
No. 1.....	4.50
No. 2.....	5.00
OPTIPOD, for attaching camera to the edge of a table, chair, fence, etc.....	1.25
KODAPOD, for attaching camera to a tree, fence, or similar rough surface..	1.75
KODAK NEGATIVE ALBUM, to hold 100 $2\frac{1}{2}$ x $4\frac{1}{4}$ , $2\frac{1}{4}$ x $3\frac{1}{4}$ , or smaller negatives.....	1.25
"HOW TO MAKE GOOD PICTURES," an illustrated book of helpful suggestions. It describes various methods of making exposures, developing, printing, enlarging, coloring, and other interesting subjects.....	.50

*All prices subject to change without notice.*

EASTMAN KODAK COMPANY,  
ROCHESTER, N. Y.



**A** PRACTICAL book for amateurs. It describes in a simple, understandable way every phase of photography that they are likely to be interested in, such as various methods of making exposures, developing, printing, enlarging, coloring, and many other interesting subjects. Profusely illustrated.

EASTMAN KODAK COMPANY  
Sold at your dealer's ROCHESTER, N. Y.

## IMPORTANT

This manual should be read thoroughly, before you make any pictures.

While loading and unloading the camera, be very careful to keep the protective paper wound tightly around the film to prevent light striking it.

Before making an exposure be sure that the shutter is adjusted properly, for an instantaneous or time exposure, whichever is required. Use the correct stop opening and speed. The camera must be focused and an unexposed section of film in position.

The sun must be behind your back or over the shoulder. If the sun shines directly into the lens it will blur and fog the picture.

Hold the camera *level*.

Hold the camera *steady* when making instantaneous exposures or snapshots. The camera should be held firmly against the face, and when pressing the exposure button or lever, hold the breath for the instant. If the camera is moved during the exposure, the picture will be blurred.

Turn a new section of film into position immediately after making an exposure. This prevents making two pictures on the same section of film.

Keep the lens and inside of camera clean.  
Never oil the shutter.

Instructions for making time exposures, indoors and outdoors, are included in this manual.

EASTMAN KODAK COMPANY,  
ROCHESTER, N. Y.

## Outdoor Exposure Guide

SUBJECT	STOP OPENING	SHUTTER SPEED
Nearby landscapes showing little or no sky. Nearby subjects in open field, park or garden. Street scenes.	<i>f.11</i>	1/25
Ordinary landscapes showing sky, with a principal object in the foreground.	<i>f.16</i>	1/25
Marine and beach scenes. Distant landscapes. Mountains. Snow scenes without prominent dark objects in the foreground.	<i>f.22</i>	1/25
Portraits in the open shade, not under trees or the roof of a porch. Shaded nearby scenes.	<i>f.5.6</i>	1/25
	<i>f.4.5</i>	1/50
Narrow and slightly shaded streets.	<i>f.8</i>	1/25
Moving objects. When photographing a moving object such as a runner, train or an automobile, the subject should be traveling towards or away from the camera at an angle of about 45 degrees.	<i>f.4.5</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, Super Sensitive Panchromatic and Panatomic Films; if using Kodak N. C. Film, exposures can be made from 2½ hours after sunrise until 2½ hours before sunset.

Kodak Super Sensitive Panchromatic Film is about fifty per cent faster with morning or afternoon light than Kodak Verichrome Film.

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