SELECTED KODAK PUBLICATIONS

Kodak Reference Handbook
Nearly 400 pages of authoritative technical information on photographic materials, processes, and techniques, uniquely planned for convenience as a reference source. This book can be kept up-to-date by replacing sections with new printings of Kodak Data Books. Illustrated in color.

Kodak Data Books
Kodak Lenses, Range Finders and Shutters—Their characteristics and use, with specifications, depth of field and field-size tables, and useful optical formulas.
Filters and Pola-Screens—Discusses theory and use, with Data Sheets for the more popular Watten Filters. Illustrated in color.
Kodak Films—Treating the physical and photographic properties of black-and-white films, and including Data Sheets for Kodak roll films, film packs, and sheet films.
Kodak Papers—Giving the characteristics of contact and enlarging papers, and methods of selection and use of papers for high quality prints. Data Sheets and formulas included.
Formulas and Processing—Presents a comprehensive list of Kodak formulas. Discusses principles and procedures for processing films, plates, and papers.
Kodachrome and Kodacolor Film—Discusses lighting, exposure, and many special subjects for still photography and home movies in color. Illustrated in color.
See your Kodak dealer for these as well as other Kodak Data Books and Kodak publications.

EASTMAN KODAK COMPANY, ROCHESTER 4, N. Y.
This precision-built, sturdy, and dependable camera has features which give you unequalled performance:

... the fast, highly corrected f/3.5 Ektar Lens
... the new Flash Supermatic Shutter
... an automatic parallax-correcting view finder
... a brilliant, lens-coupled range finder
... finger-tip controls entirely visible from above.

Your Kodak Medalist has the speed and ease of use of a fine miniature—with a new freedom in the choice of all negative materials in the 2½” x 3¾” size. To realize its full picture-making possibilities, read this manual and keep it for reference.

Since the Kodak Medalist's film-advance mechanism operates only with film in the camera, a dummy roll is included for practice loading and operation.

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LOADING

1. Look to see if “0” appears in the EXPOSURE COUNTER window. If any figure but zero is visible, depress and turn the COUNTER KNOB in either direction until “0” appears.

2. Open the back. The back of the camera is hinged at both ends and it can be opened at either end or removed entirely. To open the back, press the two pins toward one another, and swing the back outward.

USE KODAK 620 FILM

3. Insert the dummy roll or the roll of film in the recess which has a spring bracket. Insert the spool so that when the paper is drawn off, the side with printing on it will be up.

4. Break the seal and pass the protective paper over the rollers and thread the end of the paper into the longer slit in the empty spool as far as it will go. Handle the roll carefully; the film will be fogged if allowed to unwind.
LOAD CAMERA IN SUBDUE LIGHT—

5 Turn the winding knob once or twice to bind the paper on the spool. Be sure the paper is started straight on the spool and across the back.

6 Close the back with a firm pressure until the latches snap into place.

NEVER IN STRONG, DIRECT LIGHT

figure “1” just begins to appear at the edge of the red window. *

Depress and turn the counter knob in either direction until the figure “1” appears in the exposure counter window. Then turn the winding knob slightly until it locks.

8 Set the dial on the top of the camera to show the kind of film with which the Medalist is loaded.

Now that your Medalist is loaded with the dummy roll, practice focusing and operation as described on the following pages— for better pictures from the start, get acquainted with your camera before you load it with film to take pictures.

If the Medalist is loaded with the exposure counter at some figure other than “0,” the winding mechanism will lock before the figure “1” appears in the red window. To unlock, depress and turn the counter knob until “0” appears in the exposure counter window. Bring the lens to picture taking position, as described on the next page, and press the shutter release all the way down.

7 Hold back the slide which covers the red window. Turn the winding knob clockwise until a small hand "x" appears in the window. Continue turning the winding knob slowly until the
PICTURE-TAKING POSITION

Turn the large focusing collar on the lens barrel to bring the lens to a picture-taking position. As the lens is brought forward, the focusing scale on the top of the camera automatically revolves to indicate the distance for which the camera is focused.

Note: To prevent accidental exposures, the shutter release is locked until the lens is brought forward almost to the \( \infty \) (infinity) position (as indicated by the focusing scale). Do not force the shutter release; the camera can be damaged by depressing it before the lens is extended.

THE RANGE FINDER

Adjusting the split-field range finder automatically focuses the camera. The range finder shows an enlarged image of the center portion of the view finder image. A distinct horizontal line cuts the range finder field of view into two equal parts.

To focus, look through the eyepiece at a vertical line in that portion of the subject that you wish to have the sharpest in your picture. The selected line will appear broken. The part seen in the upper area will be either to the right or left of the vertical line seen in the lower area. Revolve the focusing collar until the vertical line is unbroken. The range finder can also be used with the camera held vertically. In this position, focus on some horizontal line in the subject.

Uses of the focusing scale will be found on page 11.

FOCUSING

<table>
<thead>
<tr>
<th>OUT OF FOCUS</th>
<th>IN FOCUS</th>
</tr>
</thead>
<tbody>
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<td></td>
</tr>
</tbody>
</table>
SHUTTER SPEEDS

The Flash Supermatic Shutter on the Kodak Medalist II is designed to make exposures from 1 to 1/400 second as well as bulb exposures. The black index on the knurled shutter speed ring is used for exposures from 1/25 to 1/400 second. For slower shutter speeds, turn the speed ring until the red index is at the speed desired.

The shutter should be set only at the speeds indicated on the camera—in-between settings will not give intermediate speeds. The shutter speed may be set with the shutter either cocked or released. The camera may be left with the shutter either cocked or uncocked.

SEE EXPOSURE TABLES ON PAGE 32

Time and "Bulb" exposures
Place the camera on a tripod (such as the Kodak Eye-Level Tripod) or other firm support—do not hold it in the hands or the picture will be blurred.

"Bulb" exposures are recommended for short time exposures of ten seconds or less. Bring the red index to the letter "B." The shutter will remain open as long as the shutter release is held down.

Time exposures can be made with the Kodak T. B. I. Cable Release No. 2 which is packed with the camera. Screw the cable release into the cable release socket on the camera. Turn the circular piece on the T. B. I. Cable Release so that the notch on the edge is directly under the small button; see illustration. Set the shutter for a bulb exposure. Press the plunger of the cable release to open the shutter. Close the shutter by pressing the small button directly above the circular piece.*

The Kodak T. B. I. Cable Release No. 2 may also be used to make bulb or instantaneous exposures. Turn the circular piece of the cable release so that it slides under the small button as shown in the illustration. Operate the T. B. I. Cable Release as an ordinary cable release.

*With roll film, after each exposure, push the shutter release down as far as it will go and then release it to unlock the film winding mechanism.
LENS OPENINGS

The lens openings regulate the amount of light passing through the lens. These openings are enlarged or reduced by moving the lever A of the diaphragm control ring; \( f \)-numbers can be read on the front or top of the shutter.

The lens opening is smallest when the lever is at \( f/32 \). In a given exposure time, each succeeding number admits twice as much light as the one before—\( f/22 \) lets through twice the light of \( f/32 \), \( f/16 \) twice that of \( f/22 \), and so on down to \( f/3.5 \), the largest opening. This opening admits a third more light than \( f/4 \). Thus, if the correct exposure is 1/50 second at \( f/11 \), then the lens opening for 1/100 second is \( f/8 \); for 1/200 second, \( f/5.6 \); for 1/400 second, \( f/4 \); and for 1/25 second, \( f/16 \).

Remember the exposure 1/50 second at \( f/11 \). This is the exposure that should be used for average outdoor subjects in bright sun with Kodak Verichrome or Kodak Plus-X Panchromatic Film.

FOCUSING SCALE

The focusing scale will be found convenient for photographing subjects ten feet or farther from the lens. Instead of using the range finder, estimate the distance to the subject and set the focusing scale at the black index.

With Kodak Infrared Film, focus the Medalist on the subject with the range finder or focusing scale. Then, revolve the focusing collar until the distance indicated appears at the red dot on the focusing scale.

A depth of field scale has been combined with the focusing scale. This tells at a glance the nearest and farthest objects that will appear sharp at any selected lens opening for the particular distance focused on.

To find the depth of field for a given distance and lens opening, set the distance at the center index. Read the nearest and farthest distances that will be in focus at the two index marks opposite the chosen \( f \)-number.

If the camera is focused at 15 feet, with \( f/5.6 \) everything from about 11 to 20 feet will be sharp, and with \( f/11 \) everything from about 9 1/2 to 35 feet will be in focus.
TAKING THE PICTURE

Normally the shutter is cocked when the film is wound; however, after the first section of film is brought into position, it is advisable to push the SHUTTER COCKING LEVER back and toward the center of the camera as far as it will go; then release it.

1. Bring the lens to the picture-taking position.
2. Set the lens opening and the shutter for the correct exposure.
3. Focus the Medalist. For rapid focusing, center the object on which you wish to focus in the view finder. Then, without changing the position of your head or of the camera, shift your eye to the range finder window; focus the camera as described on page 7.
4. Shift your eye back to the view finder to compose the picture. Hold the camera so that you can just see the edges of the front opening in the finder.
5. Make the exposure. To minimize camera motion, hold the Medalist as shown, with the thumb on the bottom of the camera and the middle finger on the shutter release. To make the exposure, depress the shutter release by squeezing the hand together.

The shutter release is automatically locked and the winding knob unlocked when the exposure is made. Turn the winding knob until it locks; this advances the film, cocks the shutter, unlocks the shutter release and changes the exposure number in the exposure counter. Be sure that the shutter release is not depressed while the film is being advanced.

When the shutter release is used, the red signal, located directly behind the focusing scale, is a warning that a new section of film must be brought into position. The red signal disappears as the winding knob is turned. It reappears after the exposure has been made. *Intentional double exposures* may be desired for special effects. Make the first exposure; push the shutter cocking lever back and to the center of the camera as far as it will go; then release the lever. Make the second exposure by pressing the shutter release.
REMOVING THE FILM

Important: Do not wind the film with a twisting motion, as this may scratch the film.

Place the empty spool in the winding end of the camera; insert the spool flange next to the winding knob first. Turn the winding knob until the key slips into the slot in the spool flange. Reload with Kodak Film No. 620.

All glass-air surfaces of your Medalists' Kodak Ekta

f/3.5 100-mm Lens are Lumenized. This reduces internal
reflections and increases light transmission to assure
greater clarity and brilliance in black-and-white nega-
tives as well as color purity in full-color pictures. The
tinted appearance of the lens is due to this surface-coating. Clean
the lens with care; dust off any grit or dust with Kodak
Lens Cleaning Paper or a clean, soft, lintless cloth. If
moisture is necessary, breathe on the lens or use a drop of
Kodak Lens Cleaner.

Give your Kodak Medalist II the care it deserves. Keep it clean; dust will ruin the best negative. The lens,
shutter, and range finder should only be disassembled
by a competent factory-trained camera repairman. Don't
disassemble your Medalist or its lens.

No type of lubricant should be applied to the helical
gear focusing tube or to other parts of your Medalist.

To unload the camera after the last picture has been
made, turn the winding knob until the end of the paper
on the roll passes the red window.*

In subdued light, open the back of the camera. Take
hold of the end of the protective paper with the right
hand and pull out and up to remove the lower end of the
roll from the camera. Grasp the roll in the left hand as it
is removed to prevent the film from unrolling.

*If film is to be removed before all the exposures have been made or if the camera
has been loaded with a six-exposure roll of Kodacolor Film, after shutter release
has been depressed to make the last exposure, depress and turn the counter knob
until "0" appears in the exposure counter window. The winding knob can then be
turned until the end of the paper on the roll passes the red window.
VERICHROME
Everyday Favorite
Kodak Verichrome Film has high speed and is well balanced for recording tone values. Its great exposure latitude assures clear, satisfying results.

PLUS-X
Fine Grain—High Speed
Kodak Plus-X Panchromatic Film combines high speed, fine grain and color sensitivity to make it the ideal film for outdoor work when filters are used.

SUPER-XX
Pictures at Night
Kodak Super-XX Panchromatic Film is an extremely high speed film giving correct color values. Ideal for pictures at night by artificial light and for outdoor action shots.

KODACOLOR PRINTS
Kodacolor Film provides an economical and simple means of obtaining pictures in full color. Take the pictures, using the exposure information packed with the film or from the Snapshot Kodaguide packed with your camera. Your Kodak dealer sends the exposed film to the Eastman Kodak Company for processing without charge—you pay only for the pictures that are printed.
KODACHROME AND KODAK EKTACHROME FILMS

Kodak supplies two films for transparencies in full color—Kodachrome Professional Film, which is returned to the Eastman Kodak Company for processing without additional charge, and Kodak Ektachrome Film, which is processed by the photographer with the special chemicals supplied in convenient processing kits. Both Kodachrome and Kodak Ektachrome are available in two types—Daylight Type for outdoor use and Type B for use indoors with correct color temperature tungsten lamps. The resulting full-color transparencies can be viewed by transmitted light, projected, used to make Kodak Dye Transfer Prints, or returned to your dealer for Kodachrome Professional Prints.

The Accessory Back described on page 26 and proper size film holders are required. Exposure instructions are packed with the film. Full-Color Prints from either Kodachrome Professional or Kodak Ektachrome transparencies can be made.

With the Kodak Dye Transfer Process, prints are made from film matrices on Kodak Dye Transfer Paper. Complete instructions and chemicals are obtainable from your Kodak dealer.
With its Accessory Back and the proper holder or adapter, the Medalist may be used with any of the Kodak film packs, sheet films, and plates.

*Kodak Film Packs No. 520*—Four film packs are available—Verichrome, Plus-X, and Super-XX, as well as Super Ortho Press, the high speed ortho film for press photography.

*Kodak Sheet Films* 2½ x 3½-inch and 6.5 x 9-cm are made in a variety of emulsions—make your selection for the emulsion best suited for your work. Super Panchro-Press Type B for high speed and rapid developing; Super Panchro-Press Sports Type for about double the speed of Type B; Tri-X for high speed and moderate contrast—these are but a few of the Kodak sheet films available; the Kodak Reference Handbook and the Data Book, “Kodak Films,” give many details concerning the characteristics and uses of various Kodak Films.

*Kodak Plates* are made for uses ranging from general photography to special fields.

**A Film for Every Picture Taking Need**

**INFRARED**

Kodak Infrared Film cuts haze in landscapes and can be used to obtain moonlight effects. It is useful in scientific, medical, evidential, and criminal photography. Use with Wratten A Filter (No. 25). Set the camera-to-subject distance opposite the red dot on the focusing scale. Infrared is supplied in roll film, sheet film, and plates.

These pictures were made on Infrared Film with Wratten A Filter (No. 25). The “night” shot was made in late afternoon—the wintery looking landscape at the right was made in the summer. Note the clear recording of distant detail.

**KODAK EKTACHROME FILM (NO. 620 ROLLS)**

For full-color transparencies on roll film, Kodak Ektachrome Film Daylight Type is supplied in six-exposure No. 620 rolls for your Kodak Medalist II Camera.
The Kodak Combination Lens Attachments permit the use of a supplementary lens, a Wratten Filter, a Kodak Pola-Screen, or a Kodak Lens Hood—either singly or in any combination. The Lens Attachments are made in different sizes—be sure those obtained for the Kodak Medalist II Camera are Series VI.

A Kodak Adapter Ring Insert is supplied with your Kodak Medalist II. A Wratten Filter or Portra Lens may be used with the camera with no further attachments. Unscrew the Insert, place the filter in front of the lens, and hold in place by replacing the Insert. A Kodak Lens Hood may be used in place of the Insert if desired. Your Kodak dealer will give you full information.

**Kodak Portra Lenses 1+, 2+ and 3+**

Any of the Kodak Portra Lenses may be used to focus the Kodak Medalist II at distances closer than 3½ feet.

Unscrew the Insert on the front of the camera lens mount and place the Portra Lens, convex side forward, in front of the camera lens. Replace the Insert to hold the Portra Lens in place. When a filter is used, place the supplementary lens next to the camera lens.

The view finder automatically corrects for parallax for distances between 3½ feet and infinity. When a Portra Lens is used at shorter distances, tilt the camera up slightly to correct for parallax in the finder.

**Filters**

While filters have many uses in photography, their most general use in pictorial photography is to darken the sky to record clouds. The three filters most useful for this work are the Wratten Filters K2, G, and A.

- The **K2 filter** records clouds and is useful for a better tone rendition of colored objects.
- The **G filter** gives greater cloud-sky contrast and penetrates haze better than the K2.
- The **A filter** is especially useful when dark, dramatic skies are desired.
PHOTOFLASH AND PHOTOFLOOD

PHOTOFLASH PICTURES
The Kodak Medalist II may be used to make Photoflash pictures—without a synchronizer. Its Kodak Flash Supermatic Shutter assures that, for any exposure time, the shutter will be open when the flash of the lamp is brightest. A Kodak Flashholder—the accessory battery case and reflector—and the flashlamp are all that are needed.

To adjust for the type of lamp, pull up on the SYNCHRONIZER SCALE KNOB and move it to the end of the slot marked “F” (for Class F bulbs such as the SM Photoflash Lamp) or to the end marked “M” (for Class M bulbs such as the No. 5 Photoflash Lamp). Be sure the synchronizer scale knob is firmly seated at the end of the slot.

With roll film, advance the film—with the Accessory Back, cock the shutter—then push down the SYNCHRONIZER LEVER on the shutter as far as it will go. Make the exposure by depressing the shutter release as far as it will go and then releasing it.

Do not force the synchronizer lever; it cannot be depressed before the shutter is cocked.

PHOTOFLOOD PICTURES
Indoor pictures are easily made with the Kodak Medalist II and Photoflood Lamps. Dependable, even illumination is obtained if the lamps are used in a Kodaflector Senior.

Under certain conditions, the flashlamps may crack or shatter when flashed. It is recommended that a protecting transparent screen be used in front of the reflector. Do not flash the lamps in an explosive atmosphere.

Speedlamp Photography. The Kodak Medalist II can be used with Kodatron Speedlamps (or similar equipment with no lag in the trip circuit). Do not use electronic flash equipment fired by a relay as it will not synchronize properly and can cause damage to the shutter contacts. With a suitable connector, attach the lamp to the bayonet receptacle on the camera. With roll film, advance the film—with the Accessory Back, cock the shutter—then make the exposure by pressing the shutter release. The normal blade action of the shutter actuates and synchronizes the flash discharge of the speedlamp. The synchronizer scale knob does not have to be adjusted; do not use the synchronizer lever with the Kodatron Speedlamp.
THE ACCESSORY BACK

The Accessory Back increases the versatility of the Kodak Medalist II by adapting it for use with film packs, sheet films, or plates. Both the range finder and view finder of the camera are fully operative when the Accessory Back is used.

The folding hood and magnifying glass aid in composition and critical focusing.

Focusing on the ground glass greatly simplifies close-up photography with Kodak Portra Lenses as the distance from camera to subject need not be measured and the field of view can be seen on the ground glass.

To attach the Accessory Back, remove the regular camera back, and, with the lens fully retracted, attach the Accessory Back as shown below. The small lug engages in the hole directly below the shutter cocking lever to make the range finder function properly. Complete instructions for adjusting the back to your Medalist and for using it are included with each Accessory Back.

FOR FILM PACKS, SHEET FILMS, AND PLATES

Remove the ground glass panel by lifting the latch, drawing down on the small hinge catch, and lifting off the ground glass panel. To replace, position the panel on the bottom hinge pin before depressing the small hinge catch to position the upper hinge pin.

Slide a $2\frac{1}{4} \times 3\frac{1}{4}$ Kodak Film Pack Adapter or either a 6.5 x 9-cm. or $2\frac{1}{4} \times 3\frac{1}{4}$-inch Kodak Combination Film and Plate Holder into position. To remove, swing the lock to the side and withdraw the adapter or holder.

Cock the shutter with the shutter cocking lever. Make the exposure either with the camera shutter release or with the Kodak T.B.I. Cable Release No. 2.

A Kodak Portra Lens 1+ and the Accessory Back may be used for wide angle effects. Set the camera on a tripod or other firm support; open the shutter with the cable release and focus on the ground glass. Whenever the lens is retracted from a normal picture-taking position, make the exposure with the cable release.
The Extension Units used in conjunction with the Accessory Back permit copying and close-up photography of small objects without the use of a supplementary lens.

Remove the ground glass focusing panel from the Accessory Back and slide the Extension Unit into the grooves of the Accessory Back, in the same manner as a film pack adapter. The focusing panel is then attached to the Extension Unit.

Focus and compose the picture on the ground glass panel. As the lens is not extended to its normal picture-taking position when extension units are used, operate the shutter with the Kodak T.B.I. Cable Release No. 2 which is supplied with the camera. Be sure to place the Medalist on a tripod or other firm, solid support.

Small objects may be copied up to full size when four extension units are used. Copying data for the Medalist with the Accessory Back and Extension Units is tabulated on page 36.

With Extension Units and the Accessory Back, telephoto effects can be obtained with a Kodak Telek Lens. Place the camera on a tripod or other firm support.

For precision copying use the Kodak Medalist II with its Accessory Back and Extension Units on the Kodak Precision Enlarger Stand Assembly and Copying Lights.
KODAK PHOTOGRAPHIC PAPERS

Kodak Photographic Papers have long been known for their high quality and consistent uniformity. Their wide variety of color and surface combinations and degrees of contrast enable the amateur photographer to select the paper most suitable for each subject. Described below are two Kodak Contact Papers and two Enlarging Papers especially recommended for printing from Kodak Medalist negatives.

AZO Papers have a slightly warm, black tone and are furnished in six degrees of contrast to suit negatives of widely different contrast ranges.

VELOX has a blue-black tone and wide latitude. It is somewhat faster than Azo and is available in six degrees of contrast.

KODABROMIDE is a fast enlarging paper with a full scale emulsion that yields rich, brilliant, black-tone prints. It is available in five degrees of contrast and a wide variety of color and surface combinations.

PLATINO is a new warm-tone, fast enlarging paper of superb quality. It is supplied in two degrees of contrast and four surfaces. Platino tones beautifully in Kodak Brown Toner.

FIELD CASE

The Kodak Field Case for the Kodak Medalist provides the maximum protection for your camera. This case is of the instant-opening type and may be used with or without its cover. An occasional light application of saddle soap will help preserve the fine leather of the case.

This manual was prepared to help you make good pictures right from the start, and consequently get more enjoyment from photography. There are many Kodak publications on various phases of photography available at your Kodak dealer—some free and some at a nominal price. Ask for them.

Sales Service Division

EASTMAN KODAK COMPANY • ROCHESTER 4, N. Y.
### REFERENCE TABLES

#### DAYLIGHT EXPOSURE FOR PLUS-X OR VERICHROME FILM

<table>
<thead>
<tr>
<th>Type of Subject</th>
<th>Bright Sun</th>
<th>Hazy Sun</th>
<th>Cloudy Day</th>
<th>Cloudy Bright</th>
<th>Overcast</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brilliant Subjects</td>
<td>f/16 and 1/50</td>
<td>f/11 and 1/50</td>
<td>f/8 and 1/50</td>
<td>f/5.6 and 1/50</td>
<td>f/4 and 1/50</td>
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<tr>
<td>Bright Subjects</td>
<td>f/11 and 1/50</td>
<td>f/8 and 1/30</td>
<td>f/8 and 1/30</td>
<td>f/5.6 and 1/30</td>
<td>f/4 and 1/30</td>
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<tr>
<td>Average Subjects</td>
<td>f/11 and 1/50</td>
<td>f/8 and 1/50</td>
<td>f/4 and 1/50</td>
<td>f/4 and 1/50</td>
<td>f/4 and 1/50</td>
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<tr>
<td>Shaded Subjects</td>
<td>f/8 and 1/50</td>
<td>f/5.6 and 1/50</td>
<td>f/4 and 1/50</td>
<td>f/4 and 1/50</td>
<td>f/4 and 1/50</td>
</tr>
</tbody>
</table>

**Notes:**
- Illustrations: Scenes with foreground objects.
- Beach or snow scenes: Scenes with foreground objects.
- Average outdoor scenes: Subjects in open shade (not under trees, porch roof, etc.).

#### PHOTOFLASH EXPOSURE GUIDE NUMBERS

<table>
<thead>
<tr>
<th>Type of Subject</th>
<th>Plus-X Film</th>
<th>Verichrome Film</th>
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<tbody>
<tr>
<td>Shelter Speed</td>
<td>Photoflash Lamps</td>
<td>Photoflash Lamps</td>
</tr>
<tr>
<td>Open*</td>
<td>Sup. No. 5</td>
<td>Sup. No. 5</td>
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<tr>
<td>255</td>
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<td>140</td>
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<tr>
<td>400</td>
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</tr>
</tbody>
</table>

**Notes:**
- Use one full lens opening of photoflash lamp at camera.
- Exposure is based on surface distance in feet from lamp to subject.
- Use the above chart as a guide for overcast.
- SUP. NO. 5: 1.14 foot or 1 foot.

#### PHOTOFLASH EXPOSURE SUPER-XX FILM

<table>
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<tr>
<th>Distance in feet</th>
<th>f/4</th>
<th>f/4.5</th>
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<th>f/8</th>
<th>f/11</th>
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<td>1/640</td>
<td>1/480</td>
<td>1/320</td>
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<td>1/165</td>
<td>1/115</td>
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</tbody>
</table>

**Notes:**
- Exposure is based on distance in feet from lamps to subject.
- Sup. No. 5: 1.14 foot or 1 foot.
FILTER FACTORS FOR DAYLIGHT

Multiply the normal exposure by the filter factor to obtain the correct exposure when a filter is used.

<table>
<thead>
<tr>
<th>Filter</th>
<th>Kodak Verichrome Roll or Film Pack</th>
<th>Kodak Super-XX Panchromatic Roll or Film Pack</th>
<th>Kodak Plus-X Panchromatic Roll or Film Pack</th>
</tr>
</thead>
<tbody>
<tr>
<td>K-2</td>
<td>2½</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>G</td>
<td>5</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>A</td>
<td>—</td>
<td>8</td>
<td>8</td>
</tr>
</tbody>
</table>

Most Sheet Films have filter factors included with the instructions packed with the films.

APPROXIMATE COMBINED FOCAL LENGTH OF CAMERA LENS AND SUPPLEMENTARY LENS*

<table>
<thead>
<tr>
<th>Portra Lens</th>
<th>Effective Focal Length</th>
<th>Telek Lens</th>
<th>Effective Focal Length</th>
<th>Number of Extension Units Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>1+</td>
<td>91-mm</td>
<td>1</td>
<td>111-mm</td>
<td>1</td>
</tr>
<tr>
<td>2+</td>
<td>83-mm</td>
<td>2</td>
<td>125-mm</td>
<td>2</td>
</tr>
<tr>
<td>3+</td>
<td>77-mm</td>
<td>3</td>
<td>143-mm</td>
<td>2</td>
</tr>
</tbody>
</table>

*The Accessory Back and Extension Units must be used with Telek Lenses. The Accessory Back will greatly aid composition and focusing with the Portra Lenses.

FIELD SIZES AND SUBJECT DISTANCES WITH PORTRA LENSES

<table>
<thead>
<tr>
<th>Distance Subject to Lens</th>
<th>Kodak Portra Lens 1+</th>
<th>Kodak Portra Lens 2+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject Distance</td>
<td>Size of Subject</td>
<td>Size of Subject</td>
</tr>
<tr>
<td></td>
<td>should not exceed</td>
<td>should not exceed</td>
</tr>
<tr>
<td></td>
<td>3½</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>5½ x 7½</td>
</tr>
<tr>
<td></td>
<td>10</td>
<td>10 x 7½</td>
</tr>
<tr>
<td>15</td>
<td>15 x 10½</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>20 x 13</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>25 x 18</td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>30 x 21</td>
<td></td>
</tr>
<tr>
<td>35</td>
<td>35 x 24</td>
<td></td>
</tr>
</tbody>
</table>

*Measurements are in inches. Subject-to-lens distance is measured to front of the Portra Lens.
<table>
<thead>
<tr>
<th>Distance Between Object and Approximate Field Size (in feet)</th>
<th>Approximate Field Size (in feet)</th>
<th>Field Size (in feet)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/2 in</td>
<td>1 in</td>
<td>1/2 in</td>
</tr>
<tr>
<td>3/4 in</td>
<td>1 1/2 in</td>
<td>3/4 in</td>
</tr>
<tr>
<td>1 in</td>
<td>2 in</td>
<td>1 in</td>
</tr>
<tr>
<td>1 1/2 in</td>
<td>3 in</td>
<td>1 1/2 in</td>
</tr>
</tbody>
</table>

**Note:** The depth of field is measured from subject to front of subject.