# Outdoor Exposure Guide

<table>
<thead>
<tr>
<th>Subject</th>
<th>Stop Opening</th>
<th>Shutter Speed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ordinary landscapes with or without sky</td>
<td>Largest</td>
<td>Snapshot</td>
</tr>
<tr>
<td>showing. Nearby subjects in open field, park or garden. Street scenes.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Snow, marine and beach scenes. Distant landscapes. Mountains.</td>
<td>Middle</td>
<td>Snapshot</td>
</tr>
<tr>
<td>Portraits in the open shade, not under trees or the roof of a porch. Shaded nearby scenes. Narrow and slightly shaded streets.</td>
<td>Smallest</td>
<td>Time Exposure of one or two seconds</td>
</tr>
</tbody>
</table>

This exposure table is for the hours from 2½ hours after sunrise until 2½ hours before sunset on days when the sun is shining.
"KODAKERY"

THIS most interesting and profusely illustrated monthly magazine shows how to make better pictures, and describes many novel and unusual methods of making photographs. Anyone who purchases an Eastman camera is entitled to "Kodakery," free of charge.

Return the post card included with this manual, properly filled out, and your name will be put on the mailing list, to receive "Kodakery."

"Kodakery" will be sent for six months on this offer. A post card will be enclosed with the fifth copy; if this post card is filled out and returned to us, it will entitle you to an additional six months, free of charge. After that the subscription price will be sixty cents for one year, or one dollar for two years, but you are under no obligation to renew.

Send us the card promptly, and start enjoying "Kodakery" at once. There is no charge; no obligation.

EASTMAN KODAK COMPANY,
ROCHESTER, NEW YORK.
THE CAMERA

A—Exposure Slide  B—Slide controlling  C—Exposure Lever  
D—Winding Key    E—Lens Opening  
F—Finders

IMPORTANT

BEFORE taking any pictures with your camera, and before loading it with film, read and follow these instructions carefully. Take especial care to learn how to operate the shutter.

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

TO LOAD

Use film number:
120 for No. 2 Brownie.
116 for No. 2A Brownie.

Draw out the winding key as far as it will come, turning it slightly.
Insert the spool of film in the recess opposite the winding side of the roll holder.

**Important:** The word “TOP” which is printed on the protective paper near the top of the spool must be next to the word “TOP” which is stamped on the roll holder. If the cartridge is inserted the wrong way the protective paper will come between the lens and the film and no pictures could be made.

Remove the band that holds the end of the protective paper, and pass the paper over the rollers and across the opening in the back of the roll holder.

Thread the paper through the longer opening of the slit in the reel as far as it will go. Give the spool two or three forward
turns to make the paper hold securely on the spool.

Be sure that the paper is started straight. Do not unroll too much protective paper or the film will be fogged and ruined.

Insert the roll holder in the outside box, so that the slotted end of the spool comes next to the winding key in the outside box.

Close the back and fasten it by snapping the catch over the stud on the top of the camera.

Press in and at the same time turn the winding key until the web at the lower end of the key fits into the slot in the spool end, see illustration, page 6. Turn the key and watch 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.

Press in the winding key slightly, when turning it.

The film is now in position for the first picture. 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.
MAKING THE EXPOSURES

INSTANTANEOUS EXPOSURES

"Snapshots"

THE shutter of the No. 2 or the No. 2A Brownie Camera is released by pushing the lever from one end of slot to the other with the thumb. Push the lever slowly, in one direction only, and as far as it will go. If no “click” is heard no exposure is made.

When making instantaneous exposures or snapshots, 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.

Special instructions for making portraits are given on pages 19, 21 and 22.

Slide A (diagram, page 9) controls the shutter for time and instantaneous or snapshot exposures. For instantaneous exposures or snapshots this slide must be pushed down, or all the way in; it must be drawn out for time exposures.

Slide B (diagram, page 9) controls the three stop openings.

STOP OPENINGS

The stop openings regulate the amount of light passing through the lens. When slide B is all the way down the largest stop opening is in position. This is the one to use for snapshots of all ordinary subjects. To bring the middle stop in front of the lens, draw out slide B until it catches. When slide B is drawn out as far as it will go, the smallest stop opening is in front of the lens, see diagram. For ordinary snapshots both the slides A and B shown in the diagram, should be pushed all the way down.

The stop openings (diaphragms) should be used as follows:

1. **The Largest**—For snapshots of all ordinary outdoor subjects such as nearby landscapes showing little or no
sky, groups and street scenes, when
the subject is in the bright sunlight.

2. The Middle—For instantaneous
exposures or snapshots when the sun-
light on the subject is unusually strong
and there are no heavy shadows—
such as views at the seashore, on the
water, distant views, snow scenes,
and clouds only; also for Interior
Time Exposures, the time for which
is given in the table on page 20.

3. The Smallest—For Time Ex-
posures Outdoors on cloudy days, see
pages 24 and 25. Must never be used for
instantaneous exposures.

The smaller the stop opening the
shallower the nearby objects will be.

When setting the stop openings
always make sure that the one to be
used is brought to the center of the lens,
where it catches.

If the smallest stop is used for in-
stantaneous exposures failure will
result.

All the exposures given for outdoor
subjects are for hours from two and a
half hours after sunrise until two and
a half hours before sunset. If earlier
or later the exposures must be longer.
For subjects in the shade, under
porches or under trees, no accurate
directions can be given; experience
only can teach the correct exposure
to give.

THE FINDERS

There are two finders, one for
horizontal and the other for vertical
pictures. Only what is seen in the
finder will show in the picture.

For a horizontal picture hold the
camera as shown above.
When making instantaneous exposures or snapshots, hold the camera firmly against the body. When pushing the exposure lever, hold the breath for the instant. If the camera is moved during the exposure, the picture will be blurred.

For a vertical picture the camera should be held as in the illustration below.

Point the camera at the subject to be photographed and looking into the finder from directly over the center of it, include what you want and compose the picture by turning to the right or left, see page 12.

**Making the Exposure**

Hold the camera steady and level as shown in the illustrations and push the exposure lever once, as far as it will go. *This makes the exposure.*

**Important:** The exposure lever must be pushed *slowly* to avoid jarring the camera. If the camera is not held steadily the picture will be blurred.
HOLD CAMERA LEVEL

Effect produced by tilting the camera.

The camera must be held level. If all of the subject cannot be included in the finder without tilting the camera upwards, move backwards until it is all included with the camera held level.

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

TURN A NEW SECTION OF FILM INTO POSITION

Press in the winding key slightly and turn it slowly until No. 2 is in the center of the red window.

The warning hand appears only before section No. 1.

Turn the next section of film into position immediately after making each exposure; this prevents making two pictures on the same section of film.

REMOVING THE FILM

After all the exposures have been made, turn the winding key until the end of the protective paper passes the window. The film is now ready for removal from the camera.

In a subdued light, open the camera and remove the roll holder as shown on pages 3 and 4. Hold the ends of the protective paper and the sticker to-
gether to prevent paper from loosening. If the sticker has been wound under the roll, revolve the spool to bring it up. Lift out the roll of exposed film as shown in the illustration.

Fold under about half-an-inch of the protective paper, and fasten it with the sticker.

Wrap up the exposed film. It is now ready for development. This may be done by a photo finisher, or by yourself. The materials needed for doing it yourself, can be obtained from your Kodak dealer. If desired, write to our Service Department, mentioning the size of the pictures made with your camera, and we will send you a list of the necessary materials which can be purchased from a Kodak dealer.

**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 recess on the winding side of the roll holder. The slotted end of the spool must show through the longer opening in the roll holder, opposite to the word “TOP.”

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

**TIME EXPOSURES — INDOORS**

For time exposures the camera must always be placed on a table, chair, tripod, Optipod or other firm support. *Never* hold the camera in the hands.

The Nos. 2 and 2A Brownie Cameras have two tripod sockets for use with a tripod or an Optipod.

Place the camera in such a position that the finder will include the view
desired. The diagram below, shows three positions for the camera. It should not be pointed directly at a window, as the glare of light will blur the picture. If all the windows cannot be avoided, draw the shades of those within range of the lens.

Draw out the exposure slide A on the top of the camera front, as shown in the diagram. When this slide is drawn all the way out, and the exposure lever C is pushed to the opposite end of slot, the shutter opens and remains open until the lever C is pushed again to its original position.

To make the exposure, push the lever C \textit{slowly} to open the shutter; give the proper time (using a watch if more than two seconds), and push the exposure lever C in the opposite direction or push in the slide A, to close the shutter.

Press in and turn the winding key until the next number appears in the center of the red window.

\textbf{Exposure Table for Interiors}

The table on page 20 gives suitable exposures required for varying conditions of light with the middle or second stop opening in front of the lens.

When the largest stop opening is used, give one-half the time; when the smallest stop opening is used, give twice the time of the table. The middle or second stop opening gives the best average results for interiors.

\textbf{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 camera,
Exposure Table for Interiors

<table>
<thead>
<tr>
<th></th>
<th>Bright sun</th>
<th>Hazy sun</th>
<th>Cloudy bright</th>
<th>Cloudy dull</th>
</tr>
</thead>
<tbody>
<tr>
<td>White walls and more than one</td>
<td>4 secs.</td>
<td>10 secs.</td>
<td>20 secs.</td>
<td>40 secs.</td>
</tr>
<tr>
<td>window</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White walls and only one</td>
<td>6 secs.</td>
<td>15 secs.</td>
<td>30 secs.</td>
<td>1 min.</td>
</tr>
<tr>
<td>window</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medium colored walls and</td>
<td>8 secs.</td>
<td>20 secs.</td>
<td>40 secs.</td>
<td>1 min.</td>
</tr>
<tr>
<td>hangings and more than one</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>window</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medium colored walls and</td>
<td>12 secs.</td>
<td>30 secs.</td>
<td>1 min.</td>
<td>2 mins.</td>
</tr>
<tr>
<td>hangings and only one window.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dark colored walls and</td>
<td>20 secs.</td>
<td>40 secs.</td>
<td>1 min.</td>
<td>2 mins.</td>
</tr>
<tr>
<td>hangings and more than one</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>window</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dark colored walls and</td>
<td>40 secs.</td>
<td>1 min.</td>
<td>2 mins.</td>
<td>5 mins.</td>
</tr>
<tr>
<td>hangings and only one window.</td>
<td></td>
<td>20 secs.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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.

To get a good light on the face, it should be at an angle and indicated in the position shown in the diagram. A reflector helps to get detail in the shaded part of the face. A white towel or cloth will make a suitable reflector. A high piece of furniture will make a screen or other object throw a shadow over the face. A look at an object level with the subject; a light background usually gives a better effect than a dark one.

The subject 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. For a three-quarter figure, the camera should be about eight feet from the subject; and for a full-length figure, about ten feet from the subject; and the background should form a contrast with the subject; a light background usually gives a better effect than a dark one.
To make portraits when the subject is about eight feet from the camera, use the smallest stop opening. If the subject is about ten feet from the camera use the middle stop opening; and when the subject is farther from the camera than ten feet, use the largest stop opening. For the time of exposure necessary with the different stop openings for interiors, refer to pages 19 and 20.

**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. Place the camera on a tripod, Kodapod or some other steady, firm support, use the third or smallest stop opening, and make a time exposure of one or two seconds. By following this rule unpleasant and distorting shadows on the face will be avoided.

**Kodak Portrait Attachment**

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

Place the Attachment in the lens opening and compose the picture in the finder. The subject must be exactly $3\frac{1}{2}$ feet from the lens; measure the distance carefully from the lens to the face. The same exposure is required as without the Attachment. For the best results, use the second or middle stop opening, and expose accordingly (see table on page 20).

Use *Kodak Portrait Attachment No. 1* with the No. 2 Brownie Camera; and the No. 0 with the No. 2A Brownie Camera.

**Kodak Diffusion Portrait Attachment**

The Kodak Diffusion Portrait Attachment is a supplementary lens used in the same manner as the regular Kodak Portrait Attachment. By using this Attachment, portraits are made more artistic, due to the softening effect of diffusion.

Use *Kodak Diffusion Portrait Attachment No. 1* with the No. 2 Brownie Camera.
Camera; and the No. 0 with the No. 2A Brownie Camera.

"At Home with the 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 flash-light exposures, camp fire 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 is used, the light passing through the lens is so much reduced that very short time exposures outdoors may be made.

With Sunshine—Time Exposures should not be made.

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

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

"Cinch Marks"

After removing the film from the camera, do not wind it tightly with a twisting motion, or the film might be scratched.

Clean Lenses

These illustrations show results of using a dirty and clean lens.

Made with Dirty Lens. Made with Clean Lens.

Lenses should be cleaned as follows: Open the camera (when there is no film in it) and remove the roll holder, then open the shutter. The shutter should be adjusted for making a Time Exposure, and the largest stop open-
ing must be in position. Hold the camera with the front towards the light, then look through the lens from the back, and if the lens is dirty, it should be wiped, both front and back, with a clean handkerchief.

**Keep Dust Out of the Camera**

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

---

**PRICE LIST**

<table>
<thead>
<tr>
<th>Item</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>KODAK N. C. FILM CARTRIDGE, No. 120,</strong> for the No. 2 Brownie Camera, 2¼ x 3½, six exposures</td>
<td>$0.25</td>
</tr>
<tr>
<td><strong>KODAK N. C. FILM CARTRIDGE, No. 116,</strong> for the No. 2A Brownie Camera, 2½ x 4¼, twelve exposures</td>
<td>$0.60</td>
</tr>
<tr>
<td>Six exposures</td>
<td>$0.30</td>
</tr>
<tr>
<td><strong>CARRYING CASE for the No. 2 Brownie Camera</strong></td>
<td>$1.25</td>
</tr>
<tr>
<td>For the No. 2A Brownie Camera</td>
<td>$1.50</td>
</tr>
<tr>
<td><strong>KODAK PORTRAIT ATTACHMENT No. 1,</strong> for use with the No. 2 Brownie Camera</td>
<td>$0.50</td>
</tr>
<tr>
<td>No. 0, for the No. 2A Brownie Camera</td>
<td>$0.50</td>
</tr>
<tr>
<td><strong>KODAK DIFFUSION PORTRAIT ATTACHMENT No. 1,</strong> for use with the No. 2 Brownie Camera</td>
<td>$1.25</td>
</tr>
<tr>
<td>No. 0, for the No. 2A Brownie Camera</td>
<td>$1.25</td>
</tr>
<tr>
<td><strong>KODAK SKY FILTER, No. 1,</strong> for the No. 2 Brownie Camera</td>
<td>$0.75</td>
</tr>
<tr>
<td>No. 0, for the No. 2A Brownie Camera</td>
<td>$0.75</td>
</tr>
<tr>
<td><strong>KODAK COLOR FILTER, No. 1,</strong> for the No. 2 Brownie Camera</td>
<td>$0.75</td>
</tr>
<tr>
<td>No. 0, for the No. 2A Brownie Camera</td>
<td>$0.75</td>
</tr>
<tr>
<td><strong>KODAK METAL TRIPOD NO. 0</strong></td>
<td>$2.75</td>
</tr>
</tbody>
</table>
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 2½ x 3½ or smaller negatives…. 1.25
KODAK NEGATIVE ALBUM, to hold 100 2½ x 4½ or smaller negatives…. 1.25
KODAK TRIMMING BOARD, No. 1, 5-inch. 0.75
KODAK DRY MOUNTING TISSUE, 2½ x 3½ or 2½ x 4½, three dozen sheets .10
RHODES ALBUM, loose-leaf, cloth cover, 50 black leaves, size 5 x 8…. .90
Size 7 x 11. 1.25
VELOX TRANSPARENT WATER COLOR STAMPS, booklet of twelve colors…. .50
VELOX WATER COLOR OUTFIT, consisting of Artist’s Mixing Palette, three Camel’s Hair Brushes and one book of Velox Transparent Water Color Stamps (twelve colors)…. 1.00

"HOW TO MAKE GOOD PICTURES," an illustrated book of helpful suggestions. It describes various methods of making exposures, developing, printing, enlarging, coloring, making lantern slides, etc. 0.50

All prices subject to change without notice.

EASTMAN KODAK COMPANY
Rochester, New York
Velox now identifiable

To protect Kodak amateurs, and to protect Developing and Printing houses that endeavor to give their customers the best possible results, we have made Velox paper identifiable. The trade name "Velox" is printed, faintly, on the back of every sheet. Look for it.

Insist on Velox—the paper that exactly meets the requirements of amateur negatives—and know you’re getting the best possible results from your films.

The Velox Book tells the working of a simple paper in simple terms—a valuable photographic help. Free from us or your dealer.

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, making lantern slides, etc. Profusely illustrated.

EASTMAN KODAK COMPANY
Sold at your dealer’s Rochester, N. Y.
SERVICE DEPARTMENT

ADDITIONAL ASSISTANCE FOR MAKING BETTER PICTURES

ALTHOUGH 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.

IMPORTANT

Read this manual 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 a time exposure whichever is required; that the correct stop opening is in front of the lens, and that an unexposed section of the film is 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 body and when pushing the exposure 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 will prevent making two pictures on the same section of film.

Keep the lens and inside of the camera clean.

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

EASTMAN KODAK COMPANY,
Rochester, N. Y.