Self-timer

Cock shutter ⑥. — set Synchro lever to "V" ⑧. — release ⑦. Shutter opening is delayed by approximately 10 sec. All speeds from 1/500 to 1 sec. may be used.

Double Exposure Prevention Lock

To Engage Lock: set lever to upper position ⑩. For use with roll film only.

To Disengage Lock: move lever downwards. Watch red mark as a warning signal: "Beware of unwanted double exposure!" ⑪. For use with Rolleikin, plate adapter or for intentional double exposures.

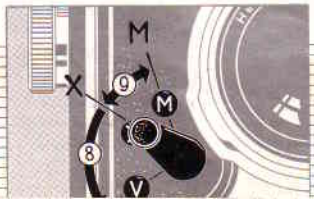
Re-engage the Lock after completing double or multiple exposure, **before** re-tensioning shutter.

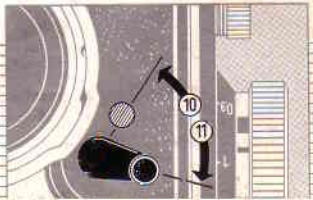
Flashlight Pictures

To Connect Cord: plug into flash contact socket, plug locks by itself.
Choice of Contact: According to flash-source (→ page 22) set Synchro lever to X or M (X contact can also be used with the self-timer) ⑨.
To Release the Flash Cord Plug: unlock by swinging locking lever and pull cord out.

Changing Magnifier (if eye-sight requires)

For critical focusing without glasses, interchangeable magnifiers within the range from + 3 to — 3 diopters are obtainable (get doctor's prescription).
To Remove: take hold of magnifier by both surfaces, push it against the retaining spring (in direction of the hinge of the magnifier holder) and then lift it up and out.
To Insert: as above, reversing procedure.





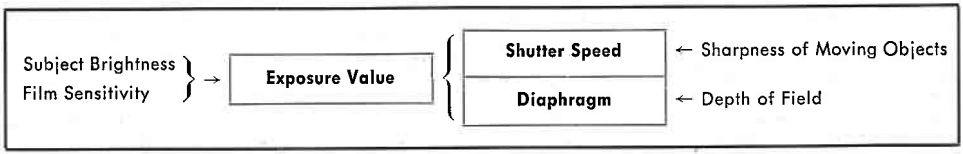
Exposure and Exposure Value

Exposure is adjusted in accordance with the prevailing illumination (more exactly: according to the brilliance of the light reflected by the subject) and the sensitivity of the film. The exposure value — formerly called the light value — serves as the measure of the correct exposure.

The exposure value regulates the correct combination of diaphragm and shutter speed within the permissible working range. The automatic coupling insures these settings and makes possible joint or simultaneous settings of both diaphragm and shutter. The practical advantage obtained is that one is immediately able to change from one speed or diaphragm stop to another, whether for motion stopping purposes or for depth-of-field differences, without bothering to recalculate and without danger of changing the basic exposure.

The exposure value for the given light condition and the sensitivity of the film in use is read off from the exposure table (→ page 18) or from the exposure meter (Rolleilux) and then set on the scale of the camera (→ page 12). The table covers general light conditions and eliminates gross errors in exposure. Exact results however, especially in critical cases, can only be achieved with an electric exposure meter.

When using filters, exposure is extended according to the type and density of the filter. Accordingly minus values are supplied with the filters to be used for correcting the exposure values. The originally chosen exposure value is decreased by this correction value.



Special Case: Time Exposure. The exposure value is generally used only with the automatically timed shutter speeds 1/500 to 1 sec. Exposure values 8—4 permit the adjustment of the shutter speeds within a very limited range only, making it necessary to take time exposures of 2 and more seconds at "B" setting (→ table).

Exp. value	Diaphragm					
	22	16	11	8	5.6	4
8	2	1	1/2	1/4	1/8	1/15
7	4	2	1	1/2	1/4	1/8
6	8	4	2	1	1/2	1/4
5	15	8	4	2	1	1/2
4	30	15	8	4	2	1
	sec.					

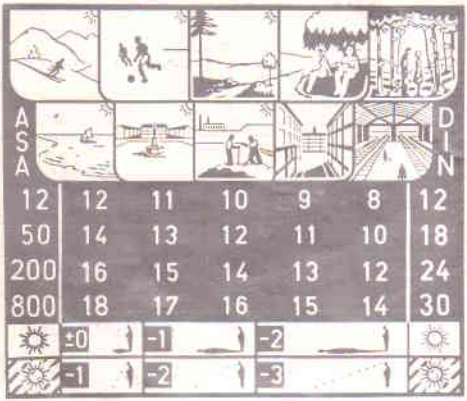
In practical use, these time exposures can easily be calculated by doubling the exposure time for each smaller diaphragm opening. After reading "B", the exposure value indication will change when stopping down further, but is no longer used in this range.

Comparison Values Between DIN and ASA Speeds

°DIN	ASA	°DIN	ASA
10	8	22	125
11	10	23	160
12	12	24	200
13	16	25	250
14	20	26	320
15	25	27	400
16	32	28	500
17	40	29	650
18	50	30	800
19	64	31	1000
20	80	32	1300
21	100	33	1600

In special cases (flash, high filter compensating numbers over — 3) the filter is compensated for by decreasing the film speed by 3° DIN for each full value (for example, when working with Neutral Density filter No. 4: — 4 = 4 · 3° = requires setting the meter to 12° DIN less than the actual film speed).

A B C D E



Explanations of the Picture Examples:

A: High mountains (snow) without foreground. Open beach. — B: Sport scenes. Bright streets and squares, open landscapes. — C: Landscapes with foreground. Groups in open air. — D: Groups in shade. Street scenes with shade. — E: Groups under trees, lightly shaded. Groups in glassroofed halls.

The Exposure Table

Subject brightness is easily judged and classified by means of the five standard lighting conditions represented by two illustrations.

Film speed is indicated at the left by ASA figures and at the right by DIN values (→ table page 17).

Exposure value is found where brightness and film speed columns cross.

Exposure value adjustment, due to overcast sky or when sun is lower in the sky, is made by use of lower scale. Upper scale: full sunshine — lower scale: overcast sky. The length and intensity of your own body's shadow will give some idea of light conditions. The ability to estimate and choose the correct exposure values for various lighting conditions and time of day will soon come when you begin working on sunny and cloudy days.

Example: Color film 100 ASA (21° DIN), landscape with foreground, sunny noontime (shadows short, no light value adjustment): light value 13. Available diaphragm-speed combinations: 1/500-f:4, 1/250-f:5.6, etc. Same subject in the afternoon, longer shadows, would require adjusted value, perhaps 13 — 1 = 12.

Speed of Moving Subjects and Shutter Speeds

	Miles per hour approximately																	
	3 mph			6 mph			12 mph			30 mph			60 mph			120 mph		
Example:	Pedestrians			Runners Moving air			Bicycles Windy			Light Athletics Stormy Surf			Automobiles Railway Trains Racing			Motor Racing		
Distance (yards) 40		1/30	1/60	1/30	1/60	1/125	1/60	1/125	1/250	1/125	1/250	1/500	1/250	1/500		1/500	50	Distance (yards)
15	1/30	1/60	1/125	1/60	1/125	1/250	1/125	1/250	1/500	1/250	1/500		1/500				25	
8	1/60	1/125	1/250	1/125	1/250	1/500	1/250	1/500		1/500							12	
4	1/125	1/250	1/500	1/250	1/500		1/500										6	

Moving Objects require short shutter speeds in order to be reproduced sharply. For this purpose the table contains computed minimum values, depending on the factors: speed, distance and direction.

Taking distance: the yard column on the left stands for sufficient sharpness (f/1400), the yard column on the right for increased sharpness (f/2000). In spite of these normally correct figures, it is often possible in actual photography to use longer shutter speeds. This is because the eye interprets slight unsharpness as giving an added impression of speed.

Long arrow = direction of movement.

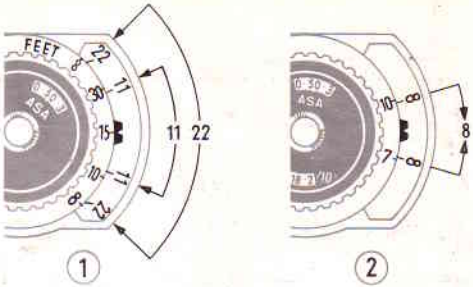
A short arrow = taking direction (➤ up to 10°, ➘ up to 30° and ⮜ up to 90° to the direction of movement).

Depth of Field Indicator

Both before and behind the plane of sharp focus there is always a relatively sharp zone. The width or depth of this zone can be artfully increased. It increases in depth when either closing down the lens or moving back from the object on which you have focused. Therefore it is evident that if the subject requires an extended depth of field, it is necessary to change the diaphragm-shutter speed combination to one with a smaller stop or to move back with the camera.

The Depth of Field Indicator consists of the special diaphragm scale located next to the distance scale and the distance scale itself. Two stroke marks outline the zone covered by each diaphragm opening. The marks are located on either side of the distance indicator ▼, showing "before" and "behind" focus. Stop f:3.5 is represented by the white center area and f:5.6 by dots.

To Use: To find the limits of the depth of field, both before and behind the principal plane of focus, after focusing and after choosing the diaphragm opening. The beginning and end of the depth of field is read off on the distance scale. The sharp area lies between the distances bracketed by the marks extending from the diaphragm opening figure.



1. Example: focusing to 15 ft with diaphragm opening 11 gives a depth of field from 10 ft to 30 ft approx., focusing to 15 ft with diaphragm opening f:22 gives on the other hand a depth of field from 8 ft to ∞ approx. (Stopping down improves the depth of field.) Considerable stopping down necessitates greatly increased exposure time. To obtain depth of field with the largest possible diaphragm opening, a different method of focusing must be employed:

2. Example: the subject requires sharpness from 7 ft to 10 ft. (Other distances, if unknown, can be read directly off the scale after focusing separately to the limits required). Procedure: the focusing knob is turned until both footage value are located opposite identical diaphragm openings, and in this way the most favourable diaphragm opening is obtained, in this case f:8 (→ page 22).

Depth of Field Table

(distances in feet)

Taking distance in feet	Diaphragm	4	5.6	8	11	16	22
∞	141′–∞	86′–∞	61′–∞	43′–∞	31′4″–∞	21′6″–∞	15′7″–∞
60′	42′–105′	35′–198′	30′3″–∞	25′–∞	20′7″–∞	15′10″–∞	12′4″–∞
30′	24′9″–38′	22′3″–46′	20′2″–59′	17′8″–99′	15′4″–∞	12′6″–∞	10′3″–∞
20′	17′6″–23′4″	16′3″–26′	15′1″–29′8″	13′8″–37′	12′2″–55′	10′4″–290′	8′9″–∞
15′	13′7″–16′10″	12′9″–18′2″	12′1″–19′10″	11′2″–23′	10′–29′8″	8′10″–50′	7′8″–350′
12′	11′1″–13′2″	10′6″–13′11″	10′–14′8″	9′5″–16′8″	8′8″–19′6″	7′8″–27′1″	6′10″–52′
10′	9′4″–10′10″	9′–11′5″	8′7″–12′1″	8′2″–13′2″	7′7″–14′10″	6′10″–19′	6′1″–27′5″
8′	7′7″–8′6″	7′5″–8′10″	7′2″–9′2″	6′10″–9′9″	6′6″–10′7″	6′–12′5″	5′5″–15′8″
7′	6′8″–7′4″	6′6″–7′7″	6′5″–7′10″	6′1″–8′3″	5′9″–8′10″	5′5″–10′1″	5′–12′1″
6′	5′9″–6′3″	5′8″–6′5″	5′6″–6′7″	5′4″–6′11″	5′2″–7′4″	4′9½″–8′1″	4′5½″–9′4″
5′	4′10⅛″–5′2″	4′9″–5′3″	4′7⅞″–5′5″	4′6⅜″–5′7″	4′4½″–5′10″	4′1⅝″–6′4″	3′10¾″–7′1″
4′	3′10¾″–4′1¼″	3′10⅛″–4′2″	3′9⅜″–4′2⅞″	3′8⅞″–4′4¼″	3′7¼″–4′6″	3′5⅜″–4′9⅜″	3′3⅜″–5′2″
3,5′	3′5⅛″–3′6⅞″	3′4⅝″–3′7½″	3′4″–3′8⅛″	3′3¼″–3′9⅛″	3′2⅜″–3′10½″	3′1″–4′7⅛″	2′11⅜″–4′4⅛″
3′	2′11⅜″–3′5⅛″	2′11″–3′1″	2′10½″–3′1½″	2′10″–3′2¼″	2′9⅜″–3′3⅛″	2′8¼″–3′4¾″	2′7⅛″–3′6⅞″
Diaphragm *	3.5	5.6	8	11	16	22	

* If more critical definition is required – in order to insure perfect sharpness in giant enlargements – use the lower diaphragm figures to indicate the depth-of-field available.

Focusing for distant views

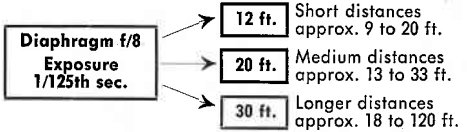
To obtain greatest depth-of-field on landscapes with foreground: turn focusing knob until ∞ mark is opposite diaphragm stop figure on depth-of-field scale. The second diaphragm stop figure on depth-of-field scale then indicates closest point still in focus. Example: ∞ at f:11 will give depth-of-field from ∞ to approx. 12 ft.

Tripod pictures with the Rollei

Length of the tripod's screw must not exceed 3/16" (4.5 mm). If necessary, shorten screw or use washer of proper thickness to avoid damaging bottom of camera. A reducing bushing is available for use with smaller tripod screws. A practical accessory: Rolleifix permits instant mounting or demounting of camera to tripod.

For Quick snapshots

Setting camera to certain distances providing required depth-of-field has been found very effective when shooting in a hurry. Use as follows:



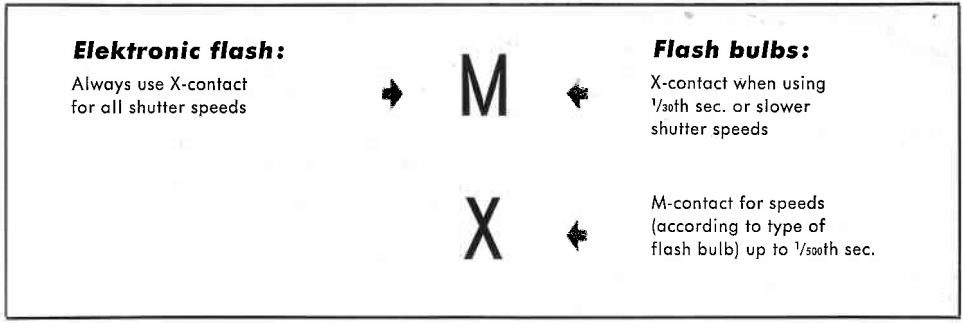
Flash Shots

Modern flash technique permits taking snapshots even under lighting conditions which do not allow instantaneous exposures with a hand-held camera.

The Synchro-Compur shutter is fully synchronized. It fires the fast electronic flash and the slower flash bulbs at exactly the right moment, permitting the use of short and shortest shutter speed in both instances. All there is to do is connecting the flash gun with the camera and setting the synchro lever to the proper position.

The X-synchronization, which also works with the self-timer, is the contact most widely used under normal conditions. When employing the recommended shutter speed it always utilizes the entire light output of the flash.

The correct exposure depends on the light output of the flash and the distance between flash and subject. Therefore, it cannot be determined with an exposure meter. Exact data regarding choice of proper contact, exposure time and diaphragm may be gathered from the material furnished by the lamp manufacturers. In accordance with the information obtained, shutter speed and diaphragm opening are set independently.



Use fresh batteries. Condenser or capacitor flashguns are more consistent since lamp ignition is somewhat less dependent on battery power (Rolleiflash). Be sure that the contacts of the battery and lamp sockets are clean. Handle flash cable with care, avoid kinking, otherwise there will be danger of short-circuit and premature flash ignition. (Note: the contact must not be connected to house current!) — Blue flash lamps, like electronic flash, simulate daylight and are intended for use with daylight color film. Flash as main light source: do not take weak room illumination into account, expose strictly according to flash output. To light up long rooms or to achieve special illumination effects, one or two Rolleiflash comb. extension units may be connected to the Rolleiflash. — Flash as fill-in light: useful in brightening shadows whether due to insufficient illumination or to the fact that the picture is being taken "against-the-light", in full sunlight. The fill-in light must be kept at a lower intensity level than the main source of illumination, otherwise the strong flash will give an unnatural effect, not at all like daylight. Too strong a flash might even cause an apparent underexposure of the sky or the area not reached by the light. Use smaller lamps or keep them at greater distance.

Protecting the Camera

Code	
BEORD	Eveready Case
FORIM	Neck Strap
FOGUZ	Shoulder Pad for neck strap
BACAP	Lens Cap, chromium-plated
BEMET	Metal Eveready Case with desiccant cartridge
FODRY	Desiccant Cartridge

The Optical Accessories

Bayonet size required: I

BALUX	Rolleilux, Combination Exposure Meter + Lens Hood	
BAOBE	Lens Hood	
	Supplementary Lens Sets with Parallax Correction	
BAUNE	Rolleinars 1 for close-ups from 39½ to 17¾"	
BADOS	Rolleinars 2 for close-ups from 19¾ to 12⅛"	
BATRE	Rolleinars 3 for close-ups from 12½ to 9½"	
	Rollei Filters with Filter Compensating Number	
	For black-and-white films (pan emulsions)	
	Rollei-Filters:	
BAIHE	Light yellow	— 1
BAIMI	Medium yellow	— 1.5
BALIN	Light green	— 1
BAEEN	Green	— 1.5
BAORA	Orange	— 1.5 to — 3
BAUBI	Light red	— 2 to — 3.5
BABLA	Light blue	— 0.5
BASKY	Ultra violet	— 0.5

Code	For Color Films	
BAHAZ	H 1-Filter (UV Filter for daylight color photography)	— 0
	Rollei Color Conversion Filters: To correct for excessive blue	
BARIM	R 1	0
BARWO	R 2	— 0.5
BARFU	R 5	— 0.5
BAREL	R 11	— 1
	To correct for excessive red	
BAIMB	B 1	0
BAWOB	B 2	— 0.5
BAFUB	B 5	— 1
BAELB	B 11	— 1.5
	For General Use:	
	Rollei-Filters:	
BANEU	Neutral Density 2	— 2
BAITY	Neutral Density 4	— 4
BATAR	Rolleipol, Polarizing Screen	— 1.5
	For infrared emulsions	
BAFIR	Infrared Filter	
	Diffusion Discs	
BATNU	Rolleisoft 0	
BATON	Rolleisoft 1	

Accessories

Code	**Containers for Lens Accessories**
ETSET	Leather Case containing: 1 lens hood 2 filters
ETSOF	as above, without contents
ETCOM	Leather Case containing: 1 lens hood 2 sets of Rolleinar lenses (1 and 2) 5 black and white filters (your choice)
ETLEE	as above, without contents
ETSIX	Leather Case containing 6 color conversion filters
ETVER	as above, without contents
	Flash Attachment
FLABA	Rolleiflash 2, Universal flash unit with 1 feet cord
FLOMB	Rolleiflash comb 2, supplementary flash unit, with 10 feet cord
BOFLA	Carrying Case for Rolleiflash or Rolleiflash comb
KATRI	10 Feet Cord for Rolleiflash
KACHT	32″ Cord for Rolleiflash
COICO	Coiled Cord 1′/3′ for Rolleiflash
KAKUP	Connector for 2 cords

Rollei Adapter Outfits

For Rollfilm:

COSUP	16 Exposure Kit $1^5/_8$ x $1^5/_8$″; $1^5/_8$ x $2^1/_8$″ (4 x 4; 4 x 5.5 cm)
COBAN	24 Exposure Kit 1 x $1^1/_2$″; $1^1/_8$ x $1^5/_8$″ (24 x 36; 28 x 40 mm)

Code	**For Cut-film and Plates $2^1/_2$ x $3^1/_2$″:**
FOSET	Plate adapter outfit $2^1/_4$ x $2^1/_4$″: 1 adapter back 3 slides 3 cut-film sheaths
FOAPT	Adapter Back
FOSLI	Slide
FOPLA	Cut-film Sheath
FOCAS	Leather Case for 2 Slides
FOFOC	Focusing Screen Slide
	For 35 mm Film:
ROLKI	Rolleikin attachment for up to 36 exposures 1 x $1^1/_2$″

For Mounting the Camera

FOFIX	Rolleifix Tripod Head for quick fastening
FOBUM	Rollei Pistol Grip with Rolleifix tripod head
FOHAN	Wrist Loop for Pistol Grip
	Panorama Head for use with a tripod:
FOEAD	with Continental tripod socket ($^3/_8$″)
FOENG	with English tripod socket ($^1/_4$″)

To Facilitate Focusing

FOBIN	Binocular Extension Hood for undistracted close-up observation of the enlarged focusing image, using both eyes

Finally, One Special Wish:

Your camera deserves careful handling — dependable performance will be your reward.

Sparkling cleanliness, especially of all the optical parts, is a pre-requisite for maximum sharpness. The lenses have abrasion resistant antireflection coatings. For cleaning, use a camel's hair brush, wipe off fingerprints with a soft cloth or doeskin. When the camera is brought into a warm room, some condensation may form on the lenses. Do not wipe off, let moisture evaporate.

Do not forget that moisture, dust, sand, strong sunlight, a hard blow or fall can be harmful to a precision camera. If possible, always use the eveready case, for heavy duty operations the stronger and tightly closing metal eveready case. Carry camera around neck and when riding in your car, keep your camera in a safe spot, well protected against the hot sun and bumpy roads. In a nutshell: be kind to your Rolleicord!

And please remember: Franke & Heidecke always maintain their interest in the welfare of your camera. The Service Departments at the factory and the factory representatives in foreign countries will always gladly take care of any special technical problems that might come up during your photographic practice.