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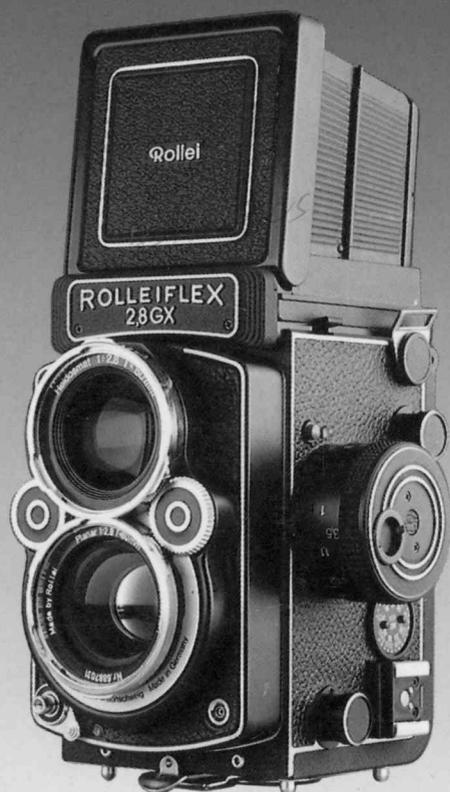
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Rollei
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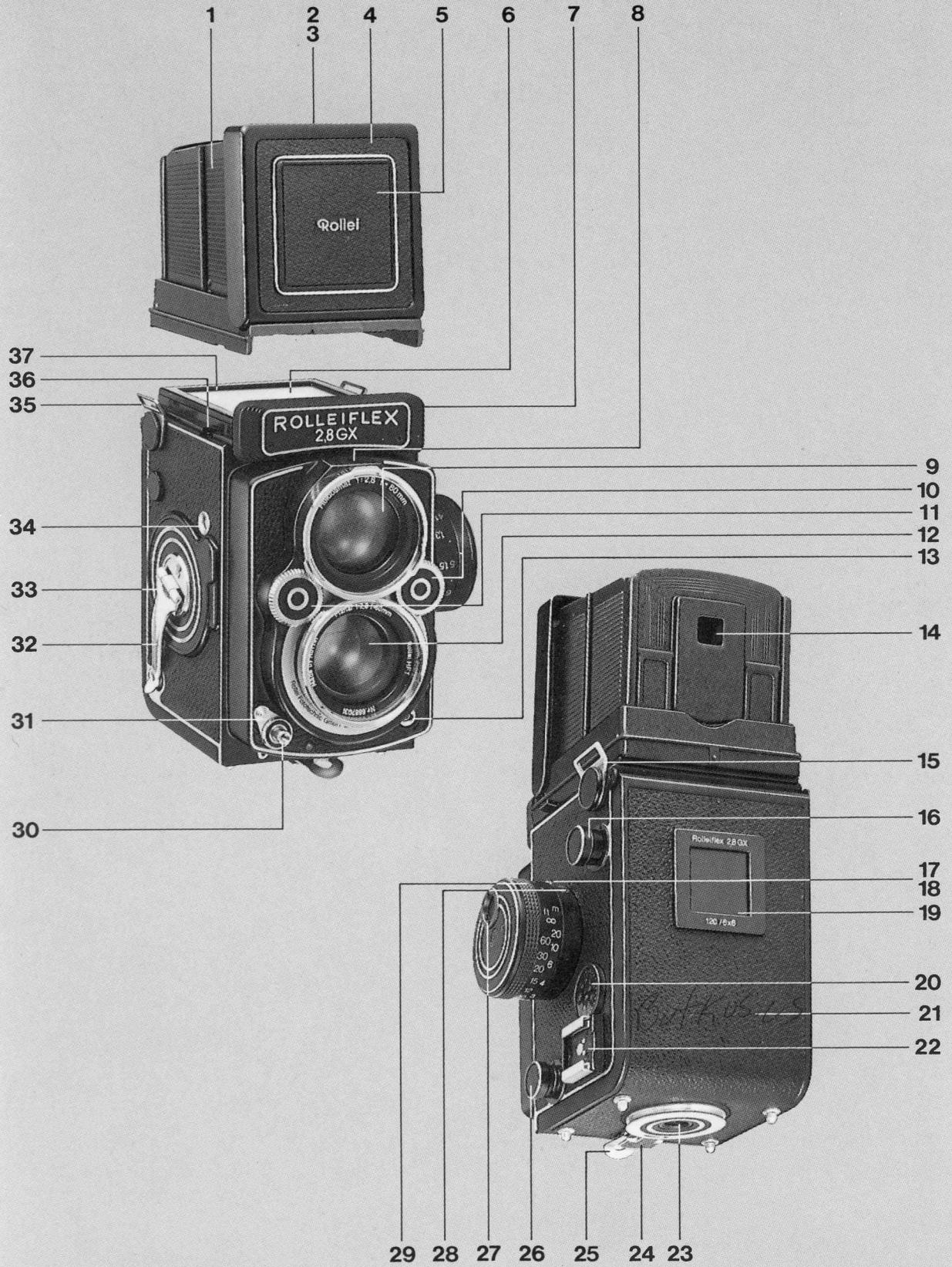
Rolleiflex 2,8 GX

User's manual



Contents

Components and functions	4	Most important accessories	15
Introduction	5	Interchangeable viewfinders	15
Handling and use	6	Soft leather carrying bag	15
Removing the lens cap	6	Pistol handgrip	15
Attaching the carrying strap	6	Flash adapter SCA 356	15
Inserting and changing the battery	6	Tripod head "Rolleifix"	15
Battery check	6	Bright focusing screen with	15
Opening the viewfinder hood	6	central microprism ring and split-image wedge	15
Measuring the exposure	6	Ground glass screen	16
Matching speed and aperture	7	Bright focusing screen	16
Inserting the film	7	Bright focusing screen with split-image wedge	16
Setting the film speed	8	Bright focusing screen with microprism ring	16
Film memo-holder	8		
Focusing	10	Remedy for handling faults	16
Selecting the frame	10	Care of the camera	18
Releasing and exposing	10	Technical data	18
Film transport and shutter tensioning	11	Depth-of-field table	20
Multiple exposures on request	11		
Removing the film	12		
Closing the viewfinder hood	12		
Detaching the viewfinder hood	13		
Changing the magnifier for spectacle-wearers	13		
Changing the focusing screen	13		
Flash operation	14		



Components and functions

- 1** Standard viewfinder hood
- 2** Magnifier, interchangeable
- 3** Holder for magnifier
- 4** Viewfinder hood cover, folding
- 5** Flap for frame finder
- 6** Focusing screen
- 7** LED indicator for exposure balance
- 8** Indicator window for aperture and shutter speed
- 9** Viewfinder lens Heidosmat 2.8/80 mm with double bayonet size III
- 10** Aperture wheel
- 11** Speed selector wheel
- 12** Lens Planar 2.8/80 mm HFT with double bayonet size III
- 13** X-synchronizing flash socket for standard plug
- 14** Diopter for frame finder
- 15** Holder for carrying strap, left
- 16** Spool knob for empty spool
- 17** Push button for battery check
- 18** LED indicator for adequate battery voltage
- 19** Film memo-holder
- 20** Control disk for film speed
- 21** Camera back cover
- 22** Hot shoe with X-synchronizing contact (a) and contacts for system flash unit (b)
- 23** Tripod bush 1/4"
- 24** Safety clip for back cover
- 25** Back cover lock lever
- 26** Spool knob for film spool chamber
- 27** Lid for battery compartment
- 28** Scale for depth-of-field with distance index
- 29** Focusing knob with distance scale in "m" and "feet"
- 30** Release with thread for cable release
- 31** Safety lever for release
- 32** Crank for film transport and shutter tension
- 33** Release ring avoiding film transport for multiple exposures
- 34** Film frame counter
- 35** Holder for carrying strap, right
- 36** Unlocking buttons for viewfinder hood or prism viewfinder
- 37** Hinged frame for focusing screen

Introduction

To utilize entirely all possibilities of the camera and to avoid any handling faults, you are recommended to read through this manual carefully. It is subdivided as follows: Next, all components and functions are presented. All the important information about the camera is following described and illustrated in detail and in the useful sequence of necessary manipulations – from setting the camera ready for use up to the removal of the exposed film.

In case of any handling faults – which even may happen to the experienced photographer when taking pictures in a hurry or after a long period of not using the camera – a trouble-shooting guide will help to find out quickly the possible cause and its remedy.

Component numbers mentioned in text and illustration always refer to the same component and are first given in the picture gatefold which is best left unfolded when reading the instructions.

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Handling and use

Removing the lens cap

Lift the lower cap by the tab and fold it against the upper cap. Remove the cap from the bayonet by turning it counter-clockwise.

For attachment fit the folded cap into the viewfinder lens bayonet, turn it clockwise to lock and fold down the lower cap.

Attaching the carrying strap

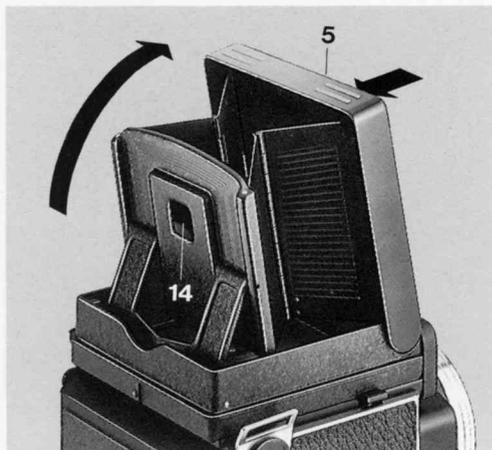
Clip the self-locking carrying hooks in holder 15 and 35. To release the strap, press the locking buttons of the carrying hooks. The strap holders at the camera can turn through 90° and allow the camera to be carried in various positions.

Inserting and changing the battery

The power for TTL-exposure and flash metering is supplied by a battery. A 6-V silver oxide or lithium battery is required, e.g. Duracell PX 28 or equivalent products. Turn focusing knob 29 to the "1 m" stop. Unscrew the battery compartment lid 27 in the focusing knob counter-clockwise by means of a coin till the battery compartment is released. Insert battery with the plus sign down and rescrew the lid.

Battery check

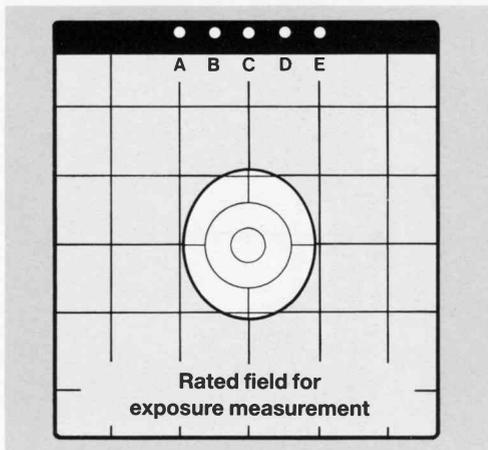
Press push button 17 briefly; if the LED indicator 18 lights up the battery voltage is adequate. To avoid unnecessary loss of the power supply do not test the battery too often or for too long.



Opening the viewfinder hood

Lift rear edge of the hood cover and swing upwards. To raise up the magnifier, press the frame finder flap 5 slightly inwards until the magnifier holder springs up.

Frame finder for eye-level viewing: Press down flap 5 until it snaps into position. Viewing takes place through diopter 14 (in this position focusing via the distance scale).



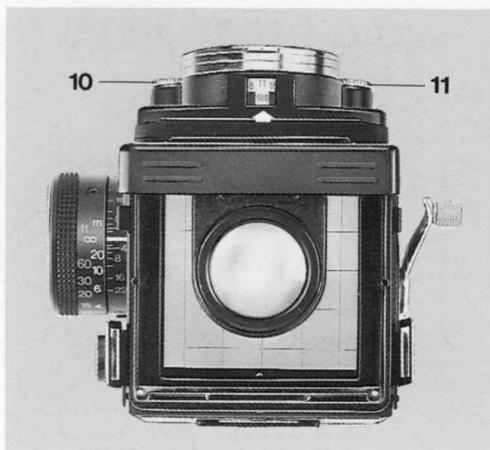
Measuring the exposure

By touching lightly the freed release 30 the exposure meter is switched on for about 30 seconds.

Activating the exposure meter can be repeated whenever needed. One of the 5 LED's in the viewfinder will light up. They have the following significance:

(A) red left: at least 1 exposure value under-exposed	(E) red right: at least 1 exposure value over-exposed
(C) green centre: correct exposure	
(B) yellow left: about 1/2 exposure value under-exposed	(D) yellow right: about 1/2 exposure value over-exposed

Note: The measurement characteristics of the Rolleiflex 2.8 GX make this camera ideal for even the most demanding photographic situation, such as exposures involving particularly high-contrast subjects. For exposure compensation, always keep the most important subject detail within the measurement field (see illustration) and then determine the required frame area.



Matching speed and aperture

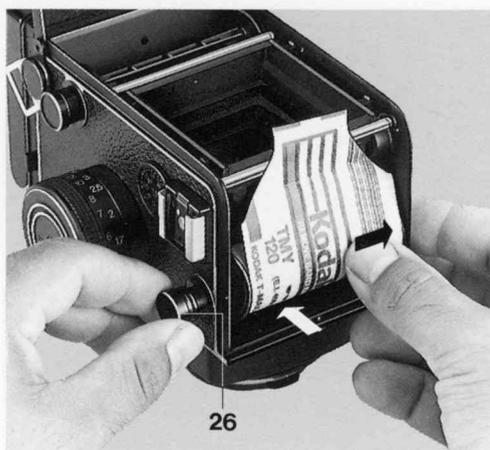
Preselection of exposure time: Turn the selector wheel 11 to set the shutter speed. Intermediate settings are not applicable. $\frac{1}{500}$ to 1 s, B = time exposure of any desired duration, the exposure meter can be matched to an exposure time up to 2 s. For choice of exposure time using flash: see page 14.

Matching with aperture: Turn aperture wheel 10 until green LED lights up. It clicks into position on full and half aperture stops. Specified matching on "yellow" allows over- and under- exposing by about $\frac{1}{2}$ exposure value.

If correct matching cannot be obtained: select another shutter speed and match aperture again.

Note: Speed and aperture should always be matched with the magnifier folded out, so as to avoid stray light and hence false readings.

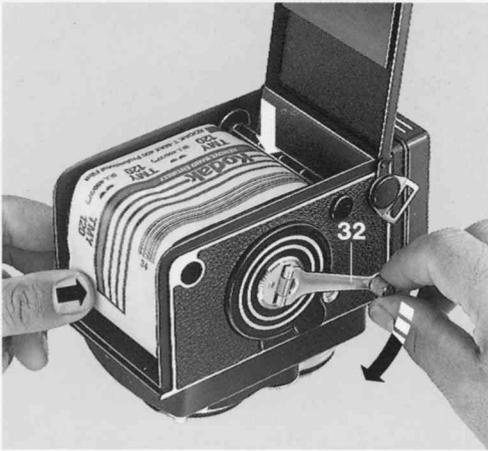
Filter factors of any fitted filters must be taken into consideration by reducing the film speed. If the filter should be included for matching it has to be fitted to the viewfinder lens bayonet during measurement.



Inserting the film

Opening the back cover: Turn the safety clip 24 at the camera bottom, unlock and open the back cover.

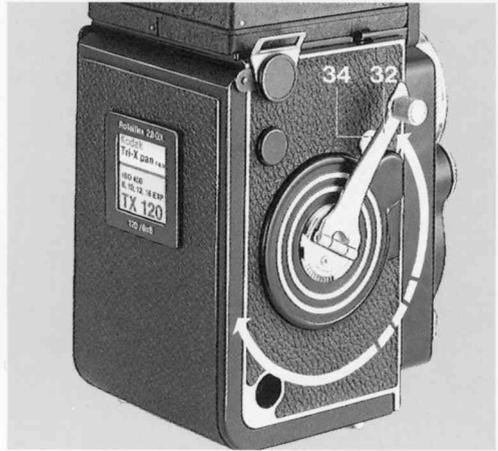
Insert the film: Pull out film spool knob 26 of the lower spool chamber to stop and hold tight. Insert rollfilm after removing the glued strip – right side first – so, that the backing paper is on the outside. Allow spool knob 26 to spring back fully in its position.



Push the paper leader deeply into the long slot of the empty spool (use the crank 32 for correct positioning). Tighten the film by turning the crank (lower spool must be braked with the thumb) until the arrow sign on the backing paper is in coincidence with the red index on the camera body.

Closing the back cover: Fold lock lever 25 to the holding bolt and secure with safety clip 24.

Note: Film must ever be inserted by utilizing the shadow of the own body, never in full sunlight.



Advancing the film to No. 1: Turn crank 32 continuously to its stop and in opposite direction until it stops again. The crank is now locked in its starting position. The film frame counter 34 indicates No. 1, the shutter is cocked, the film is ready for the first exposure.



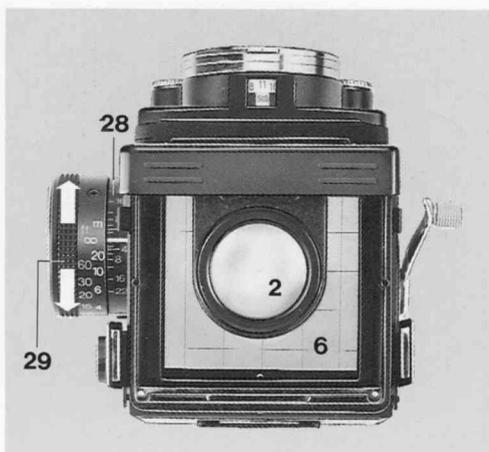
Setting the film speed

Click control disk 20 into place on DIN/ISO-value of the inserted film. The range of film speed setting is from ISO 25/15° to ISO 6400/39° which covers practically all film emulsions available on the world market.

If under- or over-exposing is desired, the film speed must be varied accordingly.

Film memo-holder

To identify the type of film being used: Tear off the tab of the film pack and insert into the memo-holder 19 from above. Colour and lettering of this "original" prevent any error.



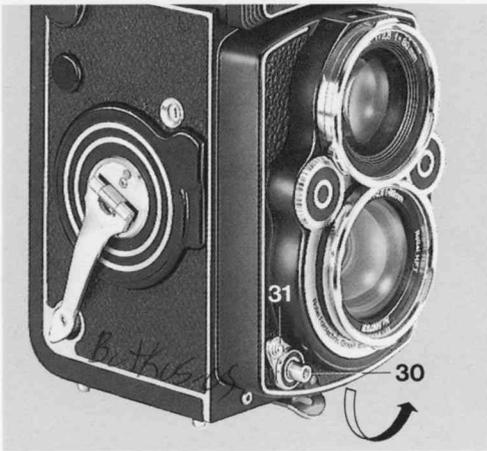
Focusing

Open the viewfinder hood, fold up the magnifier 2 if needed. For focusing turn the focusing knob 29. Measured distance is readable at the "m" index. The range of depth-of-field can be determined via the stop numbers on both sides of the distance index 28.

The standard focusing screen 6 offers three different focusing features: the central split-image wedge, the microprism ring and the Fresnel ground glass screen itself. For many applications the standard focusing screen represents the optimum whereas special photography areas need additional interchangeable focusing screens available in the accessories' range.

Selecting the frame

The square grid on the standard focusing screen assists the vertical and horizontal alignment of the camera. The lines of the grid are 10 mm apart. Smaller images in 4.5×6 cm vertical or horizontal format as well as in 4×4 cm format can be framed by using the intersections of the grid lines. For eye-level viewing, press the frame finder flap 5 totally inwards until it clicks into place – view through the diopter 14. Alternatively to the standard viewfinder hood two prism viewfinder with 45° or 90° eyepiece are available as accessories.

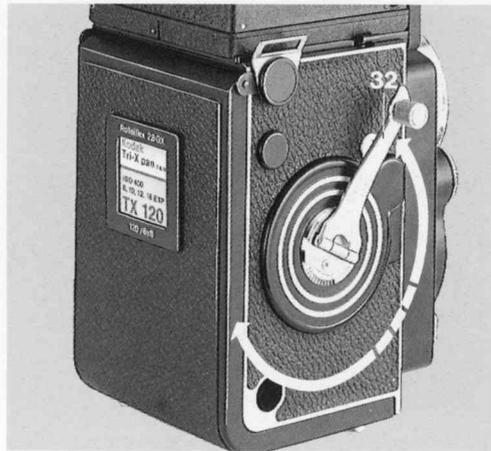


Releasing and exposing

Unlock release: Throw safety lever 31 at release 30 from "locked" to "unlocked" (green dot). To ensure shakeless exposure, the release is provided with a cable release socket.

Long time exposures ("B", over 1 sec): Press release and hold for time of exposure. The shutter will not close till you let go.

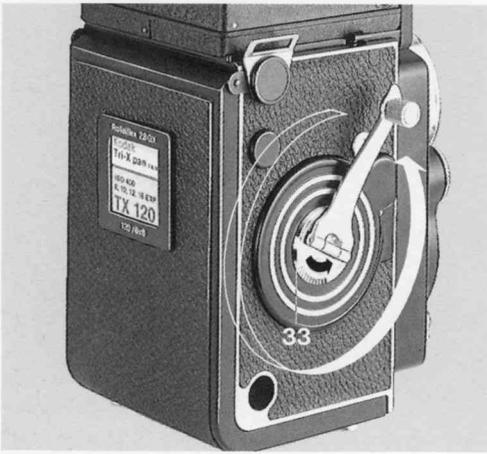
For extreme long time exposures press release and "lock" with safety lever. Terminate exposure by "unlocking". (Caution: Do not shake the camera! Without touching the camera, shield the lens with your hand when opening and closing the shutter.)



Film transport and shutter tensioning

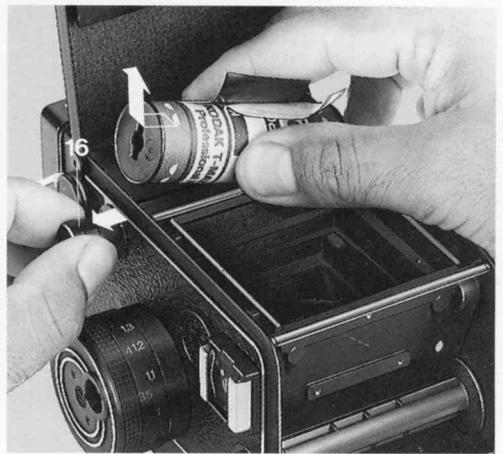
After shooting: Unfold the crank 32, turn it clockwise until lock and back again to its starting position

The shutter is now cocked again and the camera is ready for operation. Only after release the crank can be operated again. Double exposures and blank frames are excluded. (Exception: Double exposures, see page 12.)



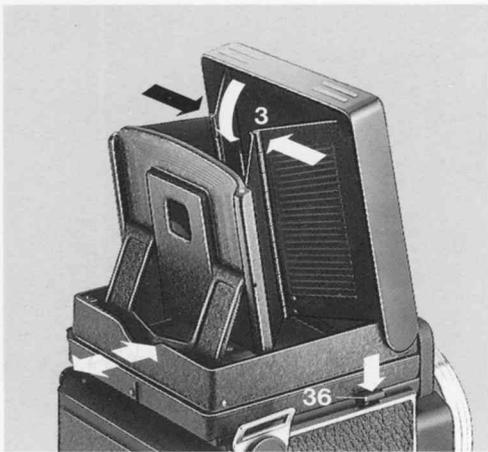
Multiple exposures on request

For trick- or combined exposures the double exposures prevention mechanism can be switched off (possible only with inserted film): After exposure turn notched release ring 33 next to the crank's hinge in direction of arrow and then turn crank through one complete revolution counter-clockwise until stop. This operation cocks the shutter for another exposure without film transport. After each exposure the described procedure can be repeated and the same frame can be exposed as many as requested.



Removing the film

After the 12th exposure the crank can be turned freely. Wind up the remaining backing paper by three full revolutions. Open back cover in shadow conditions if ever possible. Pull spool knob 16 and remove film from the left. Fold backing paper widely (for more convenient tearing when developing) and stick fast. Keep the exposed film light-protected.



Closing the viewfinder hood

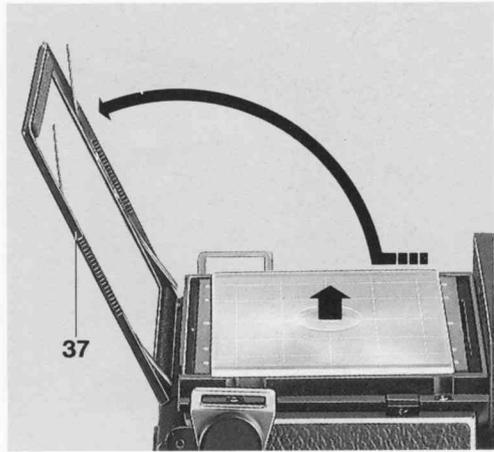
Fold down magnifier holder 3 between magnifier and viewfinder hood cover. Press both side sections inwards and release again so that the hood shuts automatically. If the frame finder had been used: Press in springy side sections and allow flap to spring up. Now close the viewfinder hood fully as described above.

Detaching the viewfinder hood

The standard viewfinder hood is easily detached for cleaning the camera or changing the viewfinder system: Unlock the hood by pressing both buttons 36 and remove it backwards. For setting on press the hood down and slide it towards the lens till both buttons 36 lock into place.

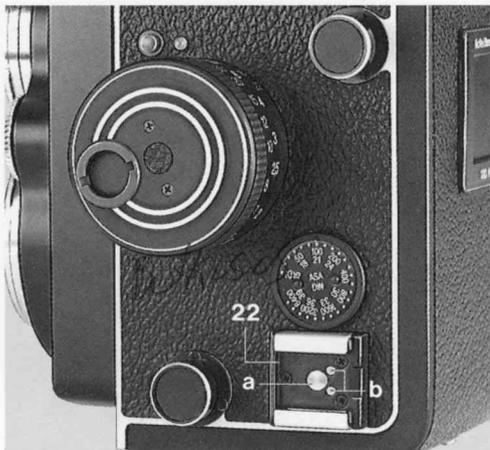
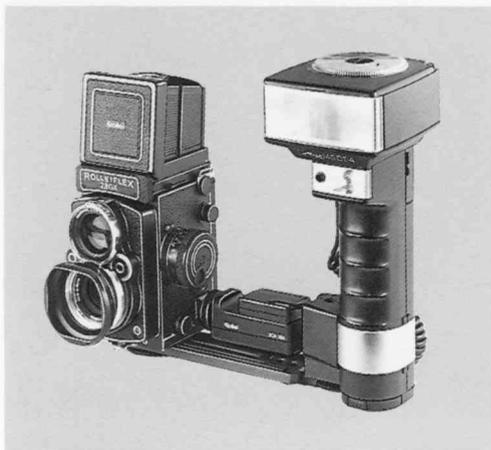
Changing the magnifier for spectacle-wearers

For focusing without spectacles the magnifier of the viewfinder hood can be interchanged by magnifiers with ± 3 diopters correction. For changing press the magnifier with open frame finder forwards at its back rim and lift up. Push the replacement magnifier forwards into holder accordingly and press home.



Changing the focusing screen

Remove the viewfinder hood. Take hinged frame for focusing screen 37 on both the sides, pull backwards slightly and lift up. Take out the focusing screen. When inserting pay attention to the exact position of the screen between upper and lower strip and lateral guides. Take also care that the matt side of the screen faces towards the camera. Screens with lens have to be inserted with the lens on the upper side. For closing fold down the hinged frame and push forward.



Flash operation

The Rolleiflex 2.8 GX is X-synchronized for all shutter speeds up to $\frac{1}{500}$ sec. The camera offers two possibilities of flash connection:

1. To utilize the advantages of the TTL flash metering, the use of Rolleiflex 2.8 GX-compatible flash systems is recommended. In conjunction with the Rolleiflex 2.8 GX torch flash devices are particularly recommendable. The Rolleiflex flash adapter SCA 356 offers the system conformity to all flash systems of well-known manufacturers supplying the SCA 300 system. With the Metz C 70-adapter, the Metz 45 CT 5 and 60 CT 2 flash units can be used. With fully automatic TTL flash metering the light measurement is realized by a sensor installed in the camera which registers the light reflected from the film surface during the exposure. The special flash control electronics (housed in the external flash adapter Rolleiflex SCA 356 or in the Metz C 70 adapter) then regulates the quantity of light required for the specific subject. Filter factors of any attached filters will be taken into consideration automatically.

Both the system adapter Rolleiflex SCA 356 and the Metz C 70 are connected directly with the camera via the X-synchronizing contact (a) and the control contacts (b) of the hot shoe 22. Film speed setting is done on the adapter. The "flash ready" and computer control indication can be watched on the flash unit.

Trial-flashing serves for utilizing the optimum aperture as follows: keep trying stop down as long as the computer control indicator is illuminated. It is recommended to carry out the trial flashes using the multiple exposure function (only 1 frame is lost!).

2. Ordinary manual or computer flash units can be connected via the camera's hot shoe or the X-synchronizing socket 13.

Most important accessories

Interchangeable viewfinders

Two interchangeable viewfinders, as well as five different bright focusing screens, ensure the ideal subject image is obtained for any task. The standard viewfinder hood serves for the vertical viewing and is fitted with an interchangeable magnifier (± 3 diopters, $3.1\times$ magnification). The prism viewfinder with 45° or 90° eyepiece gives a right-reading and upright finder image.

Ever-ready case

Black cowhide, takes camera with standard folding hood, one filter and lens hood. The front of the case swings down and is removable.

Soft leather carrying bag

for the camera with standard viewing hood, attached filter and lens hood. Two zippers applied to each side of the bag serve for rapid ready for operation. During the exposure the bag remains at the camera.

Pistol handgrip

makes work easier and faster particular in connection with the 45° or 90° prism viewfinder. The right hand holds the camera at the grip and releases the shutter. The left hand operates the focusing knob. A leather loop secures grip and camera.

Flash adapter SCA 356

The Rolleiflex flash adapter SCA 356 offers the system conformity to all flash systems of well-known manufacturers supplying the SCA 300 system. System connection is established by simply mounting the flash unit with the SCA adapter in the camera's hot shoe. This guarantees correct data input for system-conform flashing and perfect flash exposures.

Tripod head "Rolleiflex"

offers fast and convenient assembly of the Rolleiflex 2.8 GX on the tripod. The camera only has to be slipped-in between two holding guides and to be secured by a rocking lever. The Rolleiflex can permanently remain at the tripod.

Bright focusing screen with central microprism ring and split-image wedge

Universal focusing screen with split-image wedge, microprism ring, Fresnel ground glass screen, split-image wedge for most exact focusing on vertical lines, the microprism with adjusting criterion "flicker-free image". Ground glass screen with microstructure for sharp focusing over the whole image area.

Remedy for handling faults

Ground glass screen

Fine matt ground glass focusing screen for most exact focusing. Particularly useful for creative photography where focusing aids may obstruct.

Bright focusing screen

Focusing screen with microfine structure for full-image area focusing and unobstructed composition.

Bright focusing screen with split-image wedge

Universal focusing screen for most exact sharpness assessment with split-image wedge and ground glass screen. Split-image wedge for most exact focusing on vertical lines, e.g. in architectural photography.

Bright focusing screen with microprism ring

Universal focusing screen for rapid shooting with microprism ring and ground glass screen allows exact focusing even under poor light conditions. Adjusting criterion "flicker-free image".

Problem

Release cannot be pressed

Exposure meter does not indicate

Green LED does not light up when battery test button is pressed

Exposure balance is not possible

Picture is poorly exposed

When using flash with system adapter

Cause

Release is locked

Shutter is not locked

Crank is in an intermediate

position, not in the cocked end position

30 sec "switched on" period has elapsed

Battery discharged

Battery polarity wrong

Unsuitable choice of film: high speed film in bright
light slow film in weak light

Fault measurement due to strong stray light via the
viewfinder hood

Important parts of the picture lay outside the
measuring field

Wrong set of film speed

Flash unit not ready

Flash energy too low respectively aperture too small

Wrong set of film speed

Remedy

Unlock the release (turn)

Swing the crank pendulous

Touch release button again

Change battery

Insert battery correctly

Use a more suitable film

Cover viewfinder hood against stray light

Refer to the measuring field of the exposure meter

Set the correct film speed

Pay attention to the "flash ready" indicator

Pay attention to electronic indicator at the flash after
exposure and if necessary repeat exposure with larger
aperture

Set the correct film speed on the adapter

Care of the camera

The Rolleiflex 2.8 GX requires the same care as any valuable piece of equipment that is expected to be reliable over a long period.

To clean, please use following well-proven methods:

Remove dust with a soft camel-hairbrush or air blower. If requested clean the outer surface, breathe upon and then polish them with lens cleaning paper. For protection against static, breathe upon them and allow the moisture to evaporate. Take special care in cleaning the focusing screen: Upper and lower side are rough, they must only be treated with a soft brush or air blower. Protect from dirt and finger marks!

Protect the camera from long-term harmful effects of steam or dampness. High humidity in tropical or subtropical regions threatens metal parts by corrosion and glass surfaces by fungus attack. Whenever possible, dry the camera frequently in fresh air and sunshine. Keep the film guide surfaces clean (particles of gelatine rubbed off the film are a breeding ground for fungus). When the camera is not be used over long periods, keep it in an airtight container with silica gel cartridges. Protect the camera with particular care from any kind of dirt.

Camera type

Double lens reflex camera with TTL exposure meter and TTL flash automatic.

Picture format

6×6 cm

Film types

120-roll film for 12 pictures 6×6 cm

Film speed

Adjustable on the camera: ISO 25/15° to ISO 6400/39°

Exposure metering

Centre-weighted integral metering by means of 2 Si-photo elements. Indication in the viewfinder by 5 LED's.

Measuring range

Light values 3–18/3.2–100,000 asb/1–33,000 cd/m² using ISO 100/21° film with lens f 2.8/80 mm.

Lens

Planar 2.8/80 mm HFT; field of view 53°, bayonet size III, focusing range ∞ –1 m.

Shutter

Synchro-Compur (1–1/500 sec and B), X-synchronized.
Stops and speeds coupled with exposure meter.

Viewfinder system

Viewfinder lens Heidosmat 2.8/80 mm. Viewfinder hood standard. Compensation of parallax corresponding to set distance. Interchangeable for 45° or 90° prism viewfinder. Five exchangeable focusing screens.

Flash synchronization

1/500 – 1 sec and B. Accessory shoe with centre synchronizing contact and contacts for TTL flash automatic in combination with system flash units and special adapter. X-synchronizing socket for plugs according to DIN 19003.

Boflex v3

Flash automatic

TTL flash measurement on the film surface via additional Si-photo element.

Film transport

Transport crank coupled with shutter tension. Automatic stop at picture 1. Disconnectable double exposures stop. Frame counter from 1–12. Returns back to 0-position automatically when changing the film.

Connections

Cable release connection. Tripod bush 1/4". Junction for tripod head „Rolleiflex“.

Dimensions

H/W/L: 147×109×108 mm

Weight

app. 1275 g

z = 60 μ	2.8	4	5.6	8	11	16	22
∞	∞ ↓ 38.0	∞ ↓ 26.6	∞ ↓ 19.0	∞ ↓ 13.3	∞ ↓ 9.7	∞ ↓ 6.6	∞ ↓ 4.8
20 m	41.9 ↓ 13.2	79.4 ↓ 11.5	∞ ↓ 9.8	∞ ↓ 8.1	∞ ↓ 6.6	∞ ↓ 5.1	∞ ↓ 4.0
10 m	13.5 ↓ 8.0	15.9 ↓ 7.3	20.8 ↓ 6.6	39.1 ↓ 5.8	∞ ↓ 5.0	∞ ↓ 4.1	∞ ↓ 3.4
6 m	7.1 ↓ 5.2	7.7 ↓ 4.9	8.7 ↓ 4.6	10.7 ↓ 4.2	15.3 ↓ 3.8	54.9 ↓ 3.24	∞ ↓ 2.78
3 m	3.2 ↓ 2.8	3.35 ↓ 2.72	3.52 ↓ 2.62	3.81 ↓ 2.48	4.24 ↓ 2.34	5.25 ↓ 2.13	7.41 ↓ 1.92
2 m	2.1 ↓ 1.91	2.14 ↓ 1.87	2.21 ↓ 1.83	2.31 ↓ 1.77	2.46 ↓ 1.69	2.76 ↓ 1.58	3.23 ↓ 1.47
1.5 m	1.55 ↓ 1.45	1.58 ↓ 1.43	1.61 ↓ 1.41	1.66 ↓ 1.37	1.73 ↓ 1.33	1.87 ↓ 1.26	2.07 ↓ 1.19
1.2 m	1.23 ↓ 1.17	1.25 ↓ 1.16	1.27 ↓ 1.14	1.3 ↓ 1.12	1.34 ↓ 1.09	1.41 ↓ 1.05	1.52 ↓ 1.0
1 m	1.02 ↓ 0.98	1.03 ↓ 0.97	1.04 ↓ 0.96	1.06 ↓ 0.94	1.09 ↓ 0.93	1.14 ↓ 0.9	1.2 ↓ 0.86

Depth-of-field table

Planar
1 : 2.8 / 80 mm

z = 60 μ	2.8	4	5.6	8	11	16	22
∞	∞ ↓ 124' 8	∞ ↓ 87' 3	∞ ↓ 62' 4	∞ ↓ 43' 8	∞ ↓ 31' 9	∞ ↓ 21' 10	∞ ↓ 15' 10
60'	114' 8 ↓ 40' 8	188' 4 ↓ 35' 9	∞ ↓ 30' 10	∞ ↓ 25' 6	∞ ↓ 21' 0	∞ ↓ 16' 3	∞ ↓ 12' 10
20'	23' 8 ↓ 17' 4	25' 8 ↓ 16' 5	29' 0 ↓ 15' 3	36' 0. ↓ 13' 11	51' 8. ↓ 12' 6	189' 6. ↓ 10' 8	∞ ↓ 9' 1
10'	10' 10 ↓ 9' 3.7	11' 2 ↓ 9' 0.5	11' 9 ↓ 8' 8.5	12' 9 ↓ 8' 3.0	14' 2 ↓ 7' 8.9	17' 7 ↓ 7' 0.4	24' 8 ↓ 6' 4.0
7'	7' 4.5 ↓ 6' 7.9	7' 6.6 ↓ 6' 6.4	7' 9.5 ↓ 6' 4.3	8' 2.3 ↓ 6' 1.4	8' 9. ↓ 5' 10.2	9' 10.6 ↓ 5' 5.3	11' 8.7 ↓ 5' 0.4
5'	5' 2.1 ↓ 4' 10.	5' 3.1 ↓ 4' 9.2	5' 4.5 ↓ 4' 8.1	5' 6.6 ↓ 4' 6.6	5' 9.5 ↓ 4' 4.9	6' 2.9 ↓ 4' 2.2	6' 10.8 ↓ 3' 11.3
4'	4' 1.3 ↓ 3' 10.8	4' 1.9 ↓ 3' 10.3	4' 2.7 ↓ 3' 9.6	4' 3.9 ↓ 3' 8.6	4' 5.6 ↓ 3' 7.5	4' 8.7 ↓ 3' 5.8	5' 0.8 ↓ 3' 3.8
3.5'	3' 7.0 ↓ 3' 5.1	3' 7.4 ↓ 3' 4.7	3' 8.0 ↓ 3' 4.2	3' 8.9 ↓ 3' 3.5	3' 10. ↓ 3' 2.6	4' 0.2 ↓ 3' 1.3	4' 3.1 ↓ 2' 11.8